

# Twin2Go – Publications in the Global Water System Project (GWSP) Newsletter

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The following article was published  
in the 2010 GWSP Newsletter



### **Twin2Go: Coordinating twinning partnerships towards more adaptive water governance in river basins**

The failure of governance systems has been identified as being one of the most important reasons for increased vulnerability to water related threats. Successful governance in river basin management depends on adaptive institutions able to cope with complexity and uncertainty. Despite the overall importance of water governance - the global “water crisis” is often described as more a governance crisis than one of resource availability - our understanding of multi-level water governance systems is quite limited. Twin2Go’s mission is therefore to gain insights into adaptive water governance in the context of climate change. Twin2Go follows a diagnostic approach supporting context-sensitive analysis without being case specific and thus not transferable and avoiding simplistic panaceas, which have proven to be weak in their explanatory power and not very useful or even detrimental for policy advice.

## *2010 GWSP Newsletter (continued)*



Twin2Go is a Coordination Action within the scope of the Seventh EU Framework Programme and runs from May 2009 to June 2011. It reviews, consolidates, and synthesises research on adaptive and integrated water resources management in basins around the world. The aim is to draw insights relevant to policy and research on issues around adaptive water governance in the context of climate change, and to make them transferable to other basins. Twin2Go further promotes sharing of research results with practitioners and high level decision-makers through effective dialogue.

Twin2Go's objectives are:

- to review, compare, synthesize and consolidate the outcomes of several EU-funded projects that undertook research on specific Integrated Water Resources Management (IWRM) issues in basins around the world
- to draw context-sensitive but transferable approaches for improving adaptive water resources management with regard to adaptive water governance
- to formulate policy-relevant best practices and tools for implementing adaptive water governance and for improving the uptake of research results
- to disseminate outcomes effectively to relevant stakeholders at the policy level.

## 2010 GWSP Newsletter (continued)



As a first step, Twin2Go reviewed the methodological approaches from several EU research projects dealing with IWRM. Based on these approaches, Twin2Go developed a questionnaire to collect case study data from basins around the world. The questionnaire comprises 86 indicators, which address properties of water governance regimes, their contexts as well as the actual performance of water governance. Twin2Go hosted six Case Study Review Workshops to collect data about water governance. Experts provided data for numerous case studies in Europe, Latin America, Africa and Asia.



Participants at the NeWater Case Study Review Workshop, Berlin

## *2010 GWSP Newsletter (continued)*



In a next step, Twin2Go is going to prepare and perform analyses of the data collected. Comparative analyses will serve to identify, which water governance properties work well and how the context influences performance. Up to now, hardly any comparative analyses of a similar scope exist. Together with experts from different target regions, Twin2Go is going to formulate best-practices and recommendations for adaptive water governance in the context of climate change. In the first half of 2011, Twin2Go is going to host four Policy Workshops as side events of water conferences and meetings in order to disseminate the consolidated results to decision-makers at multiple levels. For this Twin2Go will closely collaborate with GWSP to ensure a sound transfer of its results to the policy-maker community.

*The full Newsletter is available at*

[http://www.gwsp.org/fileadmin/downloads/GWSP\\_Newsletter\\_no9\\_web.pdf](http://www.gwsp.org/fileadmin/downloads/GWSP_Newsletter_no9_web.pdf)

## The following article was published in the 2011 GWSP Newsletter

### **Towards Adaptive Water Governance Insights from the Twin2Go project**

Which characteristics of a water governance system bring about high performance and facilitate adaptation to climate change? How can water governance practices be transferred from one river basin to another? In which way does the natural and socio-economic context affect the performance of water governance? Several hypotheses about water governance are currently debated in science. But hardly any comparative analysis exists based on a data set that is large enough to test the robustness of these hypotheses and to allow developing sound recommendations to policy-makers.

Twin2Go's mission has been to review, compare, synthesise and consolidate outcomes from international research projects that addressed water governance in the light of climate change (see Global Water News no. 9). Twin2Go aims to identify context-sensitive but transferable approaches for adaptive water governance. To this end, Twin2Go involved numerous experts from science and practice, who provided their knowledge on water governance systems and practices in river basins around the world.

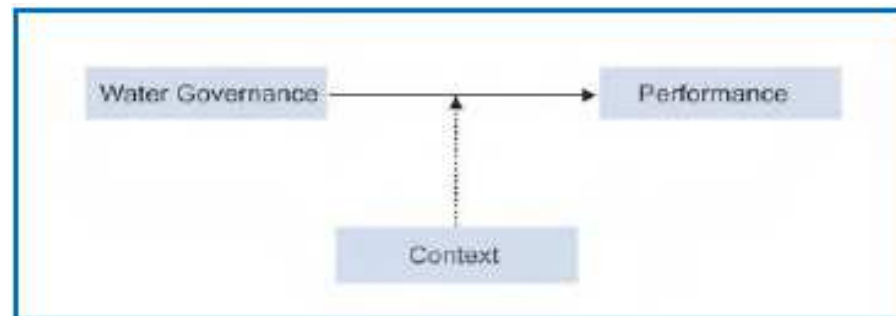
## 2011 GWSP Newsletter (continued)



The resulting case study data were the basis for two comparative studies:

- an analysis to detect relationships between basic properties of water governance systems and their performance, taking into account impacts of the natural and socio-economic context,
- an investigation of tangible best practice examples in water governance, opportunities and barriers for their application, as well as possible ways to transfer best practices to other basin contexts.

Both comparative studies brought about valuable findings that help to design and implement more adaptive water governance.



Twin2Go has investigated the interplay of water governance, context and performance

The analysis of water governance systems shows that polycentric governance structures, characterised by distribution of power and effective coordination mechanisms, are conducive to climate change adaptation. Moreover, polycentric structures support the implementation of water management processes that actually follow the good governance principles and are thus transparent, participatory, inclusive and equitable, as well as effective and efficient. The capacity to adapt to climate change increases if uncertainties are dealt with in a comprehensive way (e.g. use of scenarios, consideration of different kinds of uncertainties). Innovative ways of addressing uncertainties are also associated with the realisation of the good governance principles in water management processes. Open access to information and the integration of scientific and local/traditional knowledge improve environmental management practice (e.g. sound response to pollution incidents, comprehensive monitoring).



On the contrary, the achievement of the water-related Millennium Development Goals (access to improved drinking water and basic sanitation) seems not to be determined by water governance, but rather depends on the general economic and institutional development of a society. Similarly, no clear influence of water governance properties on the ecologic state within a river basin could be identified. A possible reason is that improved governance structures are usually only established after certain ecological degradation has occurred, and favourable governance structures cannot entirely compensate the damage done. This highlights the necessity to pro-actively establish effective governance systems in river basins where human impact is still low. The natural and socio-economic context explains much of the variation in associations between governance properties and performance, but contextual conditions seldom confound such relations. A favourable economic and institutional development apparently supports the adoption of good governance principles and improves environmental management practice. Large per-capita water availability on the country-level seems to have a positive effect on the ecological state.

## *2011 GWSP Newsletter (continued)*



For the investigation of best-practice examples, practices and tools were identified with regard to the following foci: application of national water frameworks in river basins, engagement and coordination among actors, forms of interaction/partnerships and enabling learning and building adaptive capacity.

The analysis of the diverse set of practices and tools revealed that these face common barriers to implementation. The core reason for failure in introducing new practices and tools is often not rooted in the design of the practice or tool but in the execution stage, for example if there are inadequate human and technical resources, or when the introduction of new practices leads to competition, overlap of mandates or loopholes between different institutions or actors. In several examples, the barriers to implementation were actually vested interests of single powerful actors or authorities who were able to hinder implementation. Another barrier that was often encountered was the fact that the tools did not fit with existing institutional frameworks or cultural context. Opportunities for the introduction of new practices and tools exist in building on existing scientific and technical networks that can act as drivers of change. Moreover, reforms of institutions and management strategies can be used as windows of opportunities.

## *2011 GWSP Newsletter (continued)*



In the next steps, Twin2Go has started to discuss results of the comparative studies with policy and decision-makers in Policy Workshops carried out as side events to major water conferences. The detailed outcomes of the analyses will feed into Best Practice Guidelines for the use of practitioners and will be summarised in Policy Briefing Papers that target national and local policy-makers. The publications will be made available on the Twin2Go website ([www.twin2go.eu](http://www.twin2go.eu)).

Furthermore, Twin2Go is currently developing a web database on adaptive water governance that will allow to include data on additional case studies. The aim is to provide an extended data base for continuing and further improving the comparative analysis of water governance systems that Twin2Go has started.

*The full Newsletter is available at*

[http://www.gwsp.org/fileadmin/downloads/Global\\_Water\\_News\\_No.\\_10\\_WEB.pdf](http://www.gwsp.org/fileadmin/downloads/Global_Water_News_No._10_WEB.pdf)

## The following GWSP Policy Brief included insights from the Twin2Go Governance Analysis

### **Water Security: Challenges for Science and Policy** **Interconnected problems of a changing world call for sustainable solutions**

#### **[...] Governing water better**

The expected competition among different water use sectors at local, upstream/downstream users at basin, and different states at international scale was echoed expressing concern over the conflict potential of water. Irrespective of its undeniable potential for conflicts, sharing water of transboundary rivers and lakes has so far been more successful than anticipated and predicted in the last decades. Yet we should not be complacent. While water wars between sovereign states are most unlikely to characterize the 21st century, the readiness to resort to violence in water disputes increases with the dependence of the livelihoods on a limited (shared) resource. “Water wars” might be fought in irrigation ditches or over a well rather than in battlefields. Efficient and effective water use and water-saving technologies and the adoption of common governance principles, the sharing of benefits at all levels rather than the resource itself are likely to be the keys to realize the cooperation potential of water.

## *GWSP Policy Brief (continued)*



Due to its multiple facets, research of water governance is a relatively new interdisciplinary field. Integrated Water Resources Management (IWRM) is internationally acknowledged as the proper paradigm to deal operationally with issues associated with water security. However IWRM is not a simple plan to follow a certain template, but should be adapted to changing conditions and needs. IWRM will not deliver the expected results unless embedded in an adequate governance framework and guided by stakeholder consensus.

## *GWSP Policy Brief (continued)*



All too often policy solutions have been presented and treated as panaceas which were often automatically applied to water issues without long-term monitoring of their performance, revision and critical reflection on practice that would have responded to failure earlier. Research has started to fill the gap regarding global comparative analyses of water governance systems that put accepted wisdom under scrutiny and take into account the complexity characterizing water governance. There exist no simple relationships between single characteristics of a governance system and its performance. “Good water governance” (effective and efficient, transparent, equitable and inclusive, following the rule of law, accountable) for example is not only achievable in the most developed countries. Getting wealthier is no guarantee of improvement, and investment or financial aid (e.g. climate change adaptation funds) will require global coordination. The comparison of the governance frameworks and practice of several catchments from around the globe highlight the most essential features determining “good governance”: polycentric governance structures, effective legal frameworks, reduction of inequality, open access to information and meaningful stakeholder participation. Simple panaceas for governance reform and pathways towards improvement do not hold and should no longer be promoted. The biggest challenge faced by water governance is its transformation towards effective and adaptive systems.

## **Implementing institutional and mentality change**

Institutional reform and coordination is required to render water the guiding principle in national and international social, economic development, energy or climate related debates rather than leaving the “water sector” to cope with decisions made in other policy domains. Neither markets, nor governmental intervention nor civil society movements will solve problems of water security on their own. Climate change should not be seen as a driver but rather as a catalyser for often long-overdue water governance reforms. Global environmental change and environmental deterioration are associated with rapid changes in social aspirations and values, population growth, urbanization, political and technological change. We are facing the possibility of pushing the planet beyond its carrying capacity unless development and resource use paradigms are revised fundamentally to encompass the principles of precaution, equity and sustainability. We need good interdisciplinary science, but also water governance and management practice based on “water ethics” and compassion to secure water for humans and ecosystems.

## **Joint response to the water challenge**

The future of the “water world” is full of uncertainties, whereby humans are the intrinsic source of most of them. No single global panacea can be offered, except the advice to consider the complexities, the role and intricate feedbacks of the global water system at all levels of the interlinked socio-ecological system. Without understanding social and political dynamics, aspirations, beliefs, values and their impact on our own behavior we may describe physical, biological and chemical phenomena of the hydrological cycle, observe and document their changes at different scales, apply technology to secure access to and proper quality of water for some, but would ultimately fail to ensure sustainability. Solutions for a sustainable “water world” are to be founded on interdisciplinary science but need the involvement of all stakeholders. It is the challenge to be met. But there is no other viable way ahead.

*The sections which can be found here are those including insights from the Twin2Go Governance Analysis. The full article is available at*

*[http://www.gwsp.org/fileadmin/documents\\_news/Think\\_piece\\_final.pdf](http://www.gwsp.org/fileadmin/documents_news/Think_piece_final.pdf)*