

## Capacity Building Programmes for Effective Transboundary Water Management

### Abstract

Transboundary waters have the potential to stimulate cooperation rather than conflict. Ultimately, shared watercourses have a chance of influencing regional politics in the direction of increased co-operation to lay a foundation for social and political stability, sustainable economic prosperity and poverty alleviation. A dialogue on water and its role in social and economic development provides a means for building trust among the parties in a region, with the aim of managing shared waters in an efficient, equitable and sustainable manner. In 2006 a Transboundary Water Management programme, supported by the Swedish International Development Cooperation Agency (Sida), was initiated by Ramboll Natura and the Stockholm International Water Institute (SIWI). This programme aims at strengthening the capacities of the individuals and organisations involved in transboundary water management in developing countries globally. Over a six month period modules on topics such as negotiation tactics, stakeholder participation, hydro-politics, environmental water requirements and benefit sharing are presented by international experts. A wide range of transboundary water management practitioners, mainly government officials, who have first-hand experience of managing shared waters and negotiating agreements around them, interact with participants through panel discussions and site visits. In addition to these inputs, the participants engage in intensive peer-to-peer knowledge exchange, sharing their wealth of experience with each other. The programme has also been implemented in specific locations and basins – the Middle East and Northern Africa (MENA) region and Lake Victoria basin, respectively. The programme has now embarked on its third intake of participants, each group comprising about 30 mid-career professionals from a variety of sectors – government, NGOs, private sector, academia and the media. In essence, organisational capacity building is aimed for through strengthening the skills of the individual and linking those skills to their job situation. One of the mechanisms used is an Individual Project, an analysis of a real-world issue currently being dealt with by the participants' organisation. Over time a type of "alumni network" is developing – demand driven by the participants themselves. This has allowed them to interact with course participants from previous years and from other regions – thus further institutionalising the learning experience. This paper provides an overview of the innovative approaches used by the programme to encourage that individual capacity development leads to institutional strengthening and greater effectiveness on the ground. It further makes a qualitative assessment of some of the impacts of the programme in its third year – at both individual as well as institutional level.

Key words: *Capacity building, transboundary water management, institutional development, knowledge transfer*

# Capacity Building Programmes for Effective Transboundary Water Management

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## 1 Introduction

The 263 water basins shared between two or more states account for roughly 60 percent of global freshwater flows and cover almost half the earth's land surface area (Wolf et al, 2005 & Carius et al, 2004). The availability, distribution and control of freshwater resources have been at the centre of the human story since the start of the Neolithic revolution roughly 12,000 years ago. With the advent of the modern nation state and its attendant emphasis on sovereignty, self-sufficiency and rivalry, it comes as no surprise that interactions between states over shared watercourses have at times been tense and conflictual. Water, as a fugitive resource, respects neither political boundaries nor commonly accepted notions of fairness or equity. Variable in both time and space; water has defied the efforts of politicians, economists and engineers to tame its capricious nature. No wonder that much literature has focussed on the possibility of disputes over water; spilling over into outright conflict between states (Wolf et al, 2005). Water is an indispensable input to almost all human activity – manufacturing of products, delivery of services, production of food, transportation of goods and the sustenance of life itself. The fact that water cannot readily be substituted by other resources leads, in part, to the long-term cooperation between states over its management and development.

Work carried out over the past decade by scientists such as Aaron Wolf (1998; Wolf et al., 2003b), Anthony Allan (1998a, 1998b, 1999, 2000, 2002), and Anthony Turton (Turton, 2003; Turton & Earle, 2005), amongst many others, has demonstrated that issues of national identity, cultural values and world view are more likely to lead to conflict between states, than what disputes over water are (Kalpakian, 2004).

Disputes over water do occur, but they very rarely develop into greater conflicts as this would jeopardise the use of the resource itself (Wolf, 1998). Instead, states either reach a stalemate or deadlock over their shared waters (negative peace), or manage to cooperate to some degree. In cases of water scarcity, where the likelihood of disputes between states over shared waters may be greater, the corollary is that there is also more evidence of cooperation (Wolf et al, 2003a). This cooperation is promoted and enhanced by the institutions, such as laws or agreements, organisations and customary practices; developed either on a bilateral or a multilateral level between states. These institutions

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offer a forum where disputes can be discussed and amicably settled and may lead to the sustainable development of shared water resources, making a contribution to national and regional socio-economic development. In the context of global change these institutions are bulwarks against the pressures introduced through natural climatic variability, resource degradation from socio-economic development and climate change. Indeed, assuming sufficient institutional development, transboundary waters can become avenues of cooperation between countries, contributing to socio-economic development and regional integration.

In the Basins at Risk (BAR) study carried out by Wolf and colleagues it is proposed that: “the likelihood and intensity of conflict rises as the rate of change within a basin exceeds the institutional capacity to absorb that change”. (Wolf et al, 2003a). Rapid changes in the institutional framework (such as key staff members leaving) or in physical factors (climate, water demand, demographics etc) which outpace the institutional capacity to absorb such change are at the heart of most water conflicts (UNEP, 2005). Thus, where a well-capacitated institution (encompassing human resources, legislative framework, financial sustainability, political will, amongst other factors) is in place, the chances of being able to withstand the pressures of global change improve. This can then improve the potential for cooperation between basin states and even lead to the co-management and co-development of shared water resources, shifting the balance towards cooperative management and away from the lack of development associated with the stalemate situation of a “negative peace”. This is an important aspect considering that various parts of the developing world are in the process of developing water infrastructure (dams, inter-basin transfers etc) which will have transboundary impacts.

This paper describes the Transboundary Water Management (TWM) capacity building programme which has been implemented over the past three years – on a global scale as well as in two regions. This programme is funded by the Swedish International Development Agency (Sida) and implemented by Ramboll Natura and the Stockholm International Water Institute (SIWI) along with local and regional partners (collectively referred to as the Consortium). The programme has sought to implement several innovations to promote the development of the capacity of organisations involved in TWM at various levels. It has focussed on the individual as an agent of capacity development and change within the organisation to better implement the mandate of that organisation. An overview of the TWM programme is provided, followed by a discussion of some of the impacts observed thus far. The conclusion makes recommendations for capitalising on the momentum which has been generated in various settings through this programme. The TWM programme forms part of the Sida International Training Programmes (ITP), under which the Consortium also implements several a comprehensive IWRM programme with a similar approach. This (IWRM) programme was first implemented in 1998 and has been modified and developed over the years.

## **2 Developing Organisational Capacity**

Organisations implement actions on the ground and; in the case of international water organisations, of whatever sort, promote and facilitate the cooperation needed for the co-

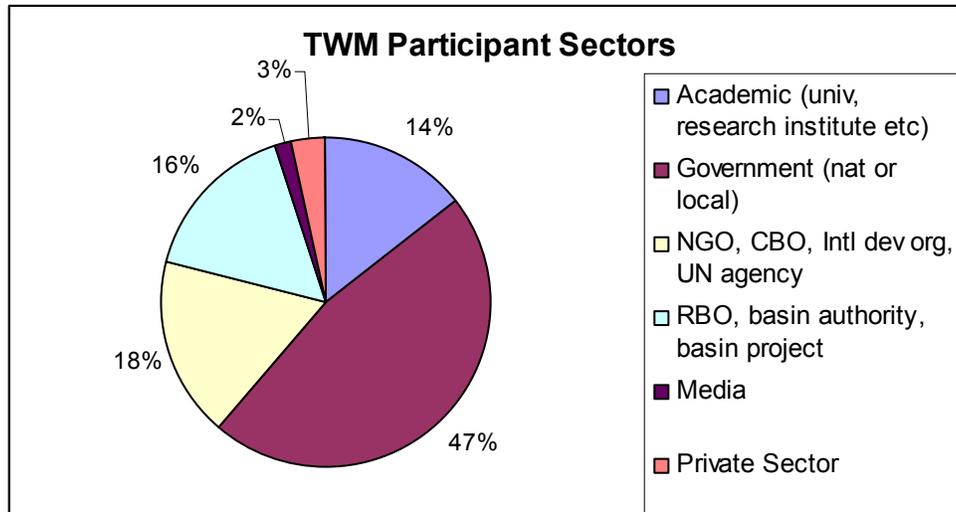
management and development of shared watercourses. The working hypothesis of the Consortium was as follows:

- As TWM often falls outside of the core duties of the staff in “water related” government departments, as well as other groups such as NGOs and the media, the individuals concerned frequently do not have the necessary skills and knowledge to implement TWM.
- Organisations are thus unable to deliver on their TWM mandate – so reducing their effectiveness.
- Senior staff members have acquired this knowledge through trial and error – having to hone their skills through being involved in the field over several years. The challenge is that many of these older staff members are nearing retirement age, so the organisation may lose the knowledge and experience they have built up, unless active steps are taken to transfer this to others in the organisation.
- It is inefficient to let younger staff members pass through the same process of learning through trial and error – what is needed is a way for them to progress more rapidly in a structured way to acquire these skills and knowledge.
- A capacity-building programme focussed on mid-career professionals engaged in TWM is thus in great demand and can serve as a way of maintaining and enhancing the human capacity of organisations.
- The staff member can serve as an effective tool for organisational development and change

In 2006 Ramboll Natura & SIWI, with input from local partners the African Centre for Water Research (ACWR) in South Africa, the African Centre for Technology Studies (ACTS) in Kenya and the Water and Environment Research and Study Center, University of Jordan (WERSC), started implementing capacity building programmes on TWM. From the outset the programme took the approach of developing organisational capacity through the individual – as an agent of change within their organisation.

### **Target audience**

These individuals (programme participants) are typically at some type of a mid-career management or professional position with a degree of decision-making responsibility. This level was targeted as it is here where the current and next generations of TWM practitioners and decision makers lie (see Figure 1 for overview of participants’ sectors). They are either working under a more senior staff member on TWM issues or will be assuming a position of responsibility in this field shortly (eg by being made part of the technical committee of a basin commission).



**Figure 1:** TWM Participant Sectors

These organisations include (but are not limited to) national government organisations, regional or international organisations (e.g. international water commissions), local governments, NGOs and other local organisations, private sector, the media and academia. Some of the organisations are directly working with water issues whilst others might have a focus on other issues such as environmental protection, health, defence; that relate to TWM.

### **Organisational capacity building**

It is recognised that to fully develop organisational capacity; well capacitated staff is a necessary, though not sufficient, condition for success. Effective financial, administrative and technical frameworks also need to be put in place. The TWM approach endeavours to take into account these other institutional limitations by involving the home organisation of the programme participant as much as possible. There is a focus placed on contributing to improved TWM in the organisation by addressing a current set of challenges it faces through the Individual Project (described below) which the participant develops during the programme.

An organisation which is well capacitated (in all spheres) has a positive impact on the overall institutional capacity in a given TWM situation – at basin or regional scale. Many of these organisations play an active role in the development of other institutional elements such as laws, policies, agreements and standards, which in turn increase the institutional capacity to be able to accommodate the pressures brought about by global change. These organisations also generate and maintain trust between countries by fulfilling roles in data collection and exchange – important components in most international agreements on water (McIntyre, 2007). Wolf and colleagues propose that the avoidance or the amelioration of water-related disputes is more effective and less costly than conflict resolution (Wolf et al, 2003b). They ascribe this to three characteristics of shared waters – “the fact that conflict is invariably sub-acute, that tensions can be averted when institutions are established early, and that these institutions

are tremendously resilient over time (Wolf et al, 2003b). This would indicate that the development of organisational capacity for improved TWM is a cost effective way of promoting long-term cooperation over the management and development of shared waters.

### 3 Design of the Programme

The overall objective of the programme is that the *participants identify the advantages of collaborative transboundary water management strategies and improve their ability to apply these strategies in their respective organisations*. Achieving this objective is especially relevant in light of the challenges presented in managing global change – where yesterday's solutions are not sufficient to successfully overcome tomorrow's challenges.

The International Training Programme on TWM was awarded by Sida after competitive bidding to the Consortium in 2005. The first programme to be developed was the global one – accepting applications from mid-career professionals based in developing countries across the globe. This programme was first implemented in 2006, with a regional module in South Africa and Swaziland followed by a module in Sweden. Currently this programme is in its third year and will run for another two. In 2007 two regional programmes were developed – one aimed at the five Lake Victoria basin states (Burundi, Kenya, Rwanda, Tanzania and Uganda) and the other focussed on the Middle East/North Africa (MENA) region. The three programmes follow the same approach and have a lot of overlap in terms of content, format and facilitators involved. Each of the programmes runs over a six month period – including two contact weeks in the respective regions followed by one contact week in Sweden. In the intervening periods the participants carry on e-mail exchanges and work on their individual projects.

The programmes rely on five learning components:

1. **Theory of TWM:** Presentations of modules covering various aspects of TWM by regional and international experts. These theoretical modules cover international water law, hydro-politics, stakeholder participation, environmental water requirements (including a practical “in-stream” exercise), benefit sharing, financing infrastructure and conflict and cooperation studies. In addition, a negotiation simulation role-play based on a hypothetical river basin shared between two countries is run, providing a simulated experience of some of the challenges encountered in negotiating the formation of an international River Basin Organisation (RBO)
2. **Discussions with TWM Practitioners:** This allows the participants to interact in a variety of fora with the government officials, members of international water commissions, community leaders and water user representatives involved in TWM. Included is a field trip to the Incomati basin, hosted by the Komati Basin Water Authority – KOBWA. There is also a panel discussion with the government representatives of the three states which negotiated the IncoMaputo

Agreement of 2002, members of the International Commission for the Protection of the Danube River (ICPDR), Lake Victoria Commission, SADC, EAC and HELCOM.

3. ***Peer-to-Peer Learning:*** Experience of the Consortium has indicated that this is one of the most powerful modes of knowledge development and awareness-raising. Thus considerable effort is made to facilitate these interactions between the participants – creating a “safe” environment where knowledge and ideas can be exchanged and discussed. The format for peer to peer learning ranges from poster sessions, working groups, exercises and social activities. The network of contacts made during the course is a resource which can be accessed long after the end of the programme.
4. ***Management /Organisational tools:*** Participants are introduced to some of the planning and organisational management tools which can assist in implementing transboundary processes and projects. During the programme some of these tools are modelled by resource persons and facilitators as well as participants being able to use them in their IPs. These tools include SWOT analysis, Strategic Communications and Stakeholder mapping
5. ***Organisational relevance/ change through the participants IP:*** Each of the participants work on an Individual Project (IP) which is a real-world current TWM issue which the organisation is facing (further described below).

As mentioned, the programme is aimed at participants who are of sufficient seniority for them to be able to implement their knowledge effectively on successful completion of the programme. They must also possess enough knowledge and experience of TWM to be able to engage meaningfully with other participants – contributing to the peer-to-peer learning of the programme. Each of the participants has first-hand knowledge and experience in some aspect of transboundary water management. This ranges from water allocation and quality issues to border delimitation, stakeholder participation and data-sharing. A wide range of geographic areas (four continents) is represented – allowing participants to discuss and critically examine water management challenges and solutions from many parts of the world.

From the outset the programme was designed to accommodate the busy schedules and heavy workloads that mid-career professionals in management positions encounter. It is recognised that their organisations cannot afford to have them out of the office for too long. Therefore the time out of the office has been balanced by the need to expose participants to as wide a range of TWM theory and practise as possible. In total three weeks is spent out of the office – two in the regions and one in Sweden, separated by about two months.

One of the mechanisms used to promote the development of organisational capacity is the Individual Project (IP). The IP is the “golden thread” running through the programme and

represents a link between the participant, their organisation and the mandate of that organisation and its activities on the ground. The IP is developed by the participant, with input from colleagues and the programme facilitators and seeks to address a current TWM issue or challenge which the organisation faces. It will, typically, deal with the process, drivers, challenges and opportunities related to TWM through the use of tools such as a situation analysis using the SWOT approach, stakeholder analysis and mapping and communication strategy. The format of the IP is decided on by the participant, with past examples including an academic journal paper, workshop planning document and final report, funding proposal, position paper for a technical task team of an RBO, situation assessment and a design for a local-level transboundary network. The initial idea for the IP is discussed at a start-up workshop in the participant's home organisation attended by a facilitator from the Consortium and various colleagues of the participant – forming an informal working group to which they report over the duration of the programme. During the programme the participant further develops the IP, incorporating inputs from the theoretical and the practical modules as well as from other participants.

The important point is that the IP should be relevant to the organisation, so that when the participant returns to the office they have made progress on that issue. At the conclusion of the programme the participant presents the IP to their working group in a feedback workshop. In this way the knowledge and experiences which the individual gains are passed on to colleagues within the organisation.

#### **4 Discussion on the Impacts of the Programme so far**

With the global programme mid way through its third year and the two regional programmes about to start their third years there have been around 170 participants from over 35 countries who have participated. The Consortium encourages applications from participants from organisations which have alumni from previous programmes – meaning that there is a greater degree of institutionalisation of the learning, as participants don't apply their new knowledge in isolation. The result of this is starting to become evident. For instance, at a start-up workshop for the Lake Victoria programme at the Water Resources Management Agency based in Kisumu in Kenya there were four former programme participants within the organisation – three from previous Lake Victoria programmes and one from a global programme. This created a high degree of unity in the workshop; with the alumni able to provide valuable input to the contemporary participant and assist with shaping and focussing their IP. There have been several instances of participants choosing to further develop or work on an issue for their IP which was first worked on by a colleague who attended in a previous year.

Alumni from the programme have maintained active on-line discussion groups – continuing the exchange of information and ideas on TWM topics. The impact of this networking is not to be underestimated. The building of trust and confidence between participants from different countries sharing a common water resource is a vital ingredient to overall institutional strengthening and de-securitization (Phillips et al, 2006). In fact, according to Phillips and colleagues in their study on transboundary water cooperation “activities such as encouraging de-securitization, addressing sovereignty, and

building trust amongst co-riparians require significant time, with long-term external support” (Phillips et al, 2006). Thus a programme such as this which brings together a range of participants from various countries, repeated over successive years, is an effective form of external support. In addition to building trust between participants from different countries there has also been an increase in trust between participants representing different sectors – such as government, NGOs, the scientific community and the media. Alumni have also been active in circulating the annual call for applications amongst colleagues, with many contemporary participants having been referred to the programme in this way. Additionally, several alumni have taken up senior positions related to TWM issues in their countries, being involved in negotiations over shared waters, after completing the programme. A number of alumni have recommended their counterparts from neighbouring countries to attend the programme; facilitating planning and decision-making on a shared resources e.g. the Tanzanian participant who recommended that a Kenyan counterpart in the Mara River basin attend the Lake Victoria programme. The Consortium is planning to develop a more structured alumni platform in order to encourage and maintain the momentum of experience sharing.

In several start-up workshops the director of the participant expressed the desire to also attend such a capacity-building programme – in condensed form. They mentioned that topics such as International Water Law, Negotiation Strategies and environmental water requirements would be useful to them in their work. This is especially relevant in equipping them to manage the impacts of global environmental change through collaborative management of shared waters. In addition to developing their awareness and knowledge on TWM topics there is also an important networking and confidence-building element – important in parts of the world where tensions over scarce or variable water resources is endemic. They are also made more aware of some of the challenges their staff face in implementing TWM plans and decisions as well as of the importance of attending such a capacity-building programme.

Most participants have, after participating the in the training programme, greater confidence in discussing TWM issues and approaches as they can address a wide range of issues in substance. They can also make reference to relevant conventions and their contents, and make reference to concrete TWM case examples around the world. Some examples of impacts of the programme include:

- A participant on TWM 2006 from China who mentioned at the start-up workshop of a participant for TWM 2008 the great benefits he gained obtaining a thorough understanding of TWM issues globally, and improved negotiation skills. He used these experiences in raising awareness and building capacity of his colleagues in his government department in TWM, and also applying his improved knowledge in connection with negotiations with neighbouring countries.
- Several of the participants who work for media organisations have written newspaper articles on the programme as well as on long-term TWM processes such as the Nile Basin Initiative being covered in the East African Business Week.

- At present, half of the members in the Technical Task Force for the Umbeluzi River Basin (shared by Swaziland and Mozambique) consist of TWM participants and TWM Alumni from the two countries.
- A workshop was organised by a participant from TWM 2007 bringing together local level stakeholders from Brazil and Paraguay to discuss soil erosion and contamination issues around the Itaipu Reservoir.
- Generally, most of the participants who have attended the programme are now more fully engaged in TWM issues in their organisations – being part of or heading up – teams negotiating agreements on shared waters, being part of technical task teams of RBOs or running stakeholder participation processes on a transboundary scale.

## **5 Conclusion**

The key elements which contribute to the success of the programmes are the degree they are tailored to the needs of the participant and their organisation (through the IP and start-up workshop), the peer-to-peer learning which is facilitated and the fact that there are repeats of the programme. The Consortium considers the participants as agents of change within their organisation; not just as individual persons. Through the programmes there has been a heightened (increased) awareness of TWM in the regions of the participants – with most of them now more aware of the complexity they face in taking TWM decisions. This is developing into a community of practice – both at the global level but also at the regional (supra-national). This latter is important as it is where shared waters have to be managed and developed together. The Consortium thus recommends that such capacity building programmes are continued – as they provide a cost effective way of promoting the continued cooperation over shared waters. For the full effect of this to be realised there should be an active alumni network developed and implemented – leveraging the gains made on the organisational level to impact on the larger institutional framework of specific regions. Finally, there should be modified, shortened, versions of the programme developed and offered to the higher-level (Directors, Commissioners, Permanent Secretary etc) staff engaged in TWM issues.

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