

Key lessons learnt on promoting water cooperation

Climate change, poverty, economic progress and population growth implies an increasing competition for water resources that can become a source of local, regional and international conflicts. However, water has proven to be a productive pathway to cooperation and conflict prevention. Experience shows that, sooner or later, the advantages of cooperation and of sharing its benefits become evident for all the parties involved. Confrontation, although possible, is not a viable alternative to negotiation: parties will need to or communicate for the purpose of arriving to a mutually agreeable solution.

Future generations will rely on water cooperation. Dialogue and consensus building are called upon to be the institutional framework for conflict resolution and water governance. As many successful examples show, cooperation might evolve towards becoming an effective instrument able to guarantee the preservation of natural capital while allowing covering water needs for life and the equitable functioning of the economic system.

Cooperation for water management is a long-term social endeavour. There are different approaches for Alternative Dispute Resolution (ADR) concerning water. That is to say all alternatives on how to improve processes of cooperation in the preservation of the critical water resources of which all the parties and their welfare depend upon, and to share the mutual benefits thus obtained.

There are examples of processes of cooperation between countries on managing rivers or among different water users in cities and rural areas. These show the tools, institutions and specific ADR practices that proved successful in enhancing cooperation.

While the benefits of cooperation rather than pursuing conflicting paths may need to be further understood and promoted, implementing good processes from the initial dialogue to being able to progress all the way to a constructive and enforceable agreement and its joint implementation, is still a challenging social goal. Examples show the importance of mediation, water diplomacy, information, shared views and goals, and of enabling institutional, financing and legal conditions to support cooperation and sustainable outcomes.

This document contains the main lessons learnt from some key experiences. These lessons are organized around two key issues: tools for enabling and sustaining cooperation and tools for improving implementation of cooperation processes.

1. Lessons on to the role of tools for enabling cooperation

1.1 Legal frameworks and institutional arrangements

- **The role of international conventions**

International multilateral framework instruments such as the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) and the 1997 Convention on the Law of the Non-navigational Uses of International Watercourses serve as important legal frameworks for fostering cooperation on transboundary waters.

While the experience accumulated under Finnish-Russian cooperation since 1960s has influenced the negotiations over the UNECE Water Convention, the Water Convention proved to be instrumental in contributing to the development of cooperation and agreements shared by the Russian Federation with other countries. (Russia-Finland)

The International Sava River Basin Commission benefited from the UNECE Water Convention by using the Convention as a model for the integrated approach to transboundary water management and also cooperating in the framework of the Convention's institutional structure. Furthermore, two assessments on transboundary waters, carried out under the Water Convention, provided valuable information on the state of waters and supported the activities on the preparation of the first Sava River Basin Management Plan.

During the negotiations between Spain and Portugal over their shared waters, both countries were at the same time engaged in the negotiations on the EU Water Framework Directive in Brussels. This accelerated the conclusion of the Albufeira treaty between the two states. Also the fact that both states were already parties to UNECE environmental conventions, including the Water Convention, was considered important for the negotiation process. (Albufeira)

- **Political will**

Political willingness of the Spanish and Portuguese governments to arrive to a conclusion in due time was a key factor to success in the Albufeira negotiations. There were frequent meetings at the highest political level where the issue was on the top of the agenda. Also in the transboundary water cooperation process on the Rio Coco basin in Central-America, permanent political will at the national and local level was considered crucial to its success.

- **The Permanent River Basin legal/administrative framework provides sustainability**

The establishment of a permanent comprehensive legal/administrative framework and a Secretariat enables co-riparian states and stakeholder in river basins to address water-related issues in an organized manner, thereby avoiding problems associated with ad hoc approaches. This has been the case in the Sava River and in the Ebro River.

- **Make use of previous experiences and technical support**

Making use of the experiences of previous cooperative efforts allowed the framework of cooperation established by the Mekong Committee to be more specific and realistic. Detailed technical preparation and institutional support by UNESCAP formed important elements for the constitution of the Mekong Committee's legal and institutional framework for cooperation.

- **Flexibility**

In the Columbia River Treaty negotiations, it was considered important that the agreement had some flexibility, containing provisions for periodic review and assessment so that emergent societal values, changing market conditions, and other unforeseen circumstances could be addressed. The Albufeira Convention between Spain and Portugal allowed countries to respond to the challenges posed by the impacts of climate change through the adoption of 2008 Protocol.

- **Role of Water Users Associations**

Water Users Associations (WUA) are proven means to channel stakeholder involvement in the whole cooperation process. In the Mt. Kenya case Water Users Associations (WUAs) and River Users Associations (RUAs) effectively channelled and facilitate community participation. Through these associations communities participate for example in monitoring the flow of the river.

In the Tiraque-Punata river basin in Bolivia, it was not until the WUAs were formed and engaged that a breakthrough in the cooperation process could be achieved. They didn't only play an important role in the negotiation process towards developing a new irrigation scheme, but they continue playing an essential role in its implementation by, for example, contributing to the perception of the transparency and fairness of the scheme, by monitoring the distribution of water to its members, and by playing an undisputable role in solving conflicts related to the management of the irrigation system.

- **Local authorities**

Apart from stakeholders representing the parties involved in the cooperation process, the role of local and regional authorities is essential to provide the required political, financial and practical support. This is particularly relevant in the case of community

based cooperation initiatives where local communities are able to perceive the advantages of cooperation but lack the financial resources, the technical skills, the expertise and the access to the relevant information to reach an agreement and put it into practice (such as in the micro irrigation projects in Guatemala).

However, at a higher level, agreements such as interregional or international ones local authorities act as legitimate representatives of local interests and not just as a government institution representing the common interest. In such situations (e.g. the Albufeira agreement), the involvement of regional authorities was considered challenging since they do not perceive trade-offs that the national authorities may consider.

- **Multi-stakeholder platforms**

Allowing stakeholder involvement should be more than setting a place to go to listen to other people. Cooperation processes at local levels can be facilitated by multi-stakeholder platforms or collective 'learning alliances', bringing together representatives from government, civil society, universities and other research institutions and the private sector. Feeding back the results of research and involving them in planning relevant demonstration projects and implementation are attractive incentives.

- **Institutional arrangements to provide access to decision-making processes**

A recommendation from the Lake Victoria negotiations in Australia is to create permanent institutional arrangements which can provide reassurance to politically marginal communities – in this case the aboriginal community – that they will have relatively access to policy decision making and management processes if they feel that problems are developing. The Lake Victoria case showed that a group that feels disenfranchised and has the capacity to mobilize political and societal support can bring operations to a halt for a very long time.

1.2. Financing

- **Financing from multiple sources**

Apart from the government sources of financing, other stakeholders in the water catchment can support financing of cooperation activities. In the Mt. Kenya case the community water users contributed to the operation and maintenance of water supply systems, irrigation schemes and catchment environmental conservation activities. Development partners also supported the local initiatives in financing cooperation strategies which include formation and capacity building of local level institutions. Also in the cooperation process around the Rio Coco in Central-America, the combination of national and international funding sources enhanced the possibility of strengthening institutional and human capacities to make the cooperative water management sustainable.

- **Process financing and low-level cooperation**

In the negotiation process between Jordan and Israel, it was identified that support geared at low-level cooperation can be instrumental when politics are not allowing for more. Process financing can enable securing and improving water-related collaboration in transboundary basins where the parties have a low degree of other forms of cooperation. The long term support prior to the agreement of the UNTSO in facilitating low level cooperation was a key in this case. In Water User Associations and Local cooperation external donor funding has provided an important incentive for cooperation. Maintaining the cooperation requires multiple sources of financing, including agreed member's quotas that provide the necessary financing for maintaining cooperative management of water resources, including dealing with conflicts on water use and water allocation.

- **International recognition of cooperation efforts**

The recognition of the common cooperation efforts of the riparian countries in the Lower Mekong Basin by a wide variety of donor countries and international organizations contributed to its success. The recognition of the Mekong spirit of cooperation resulted in an important flow of assistance and investment to the sub-region.

2. Lessons on the use of tools for improving sustained cooperation processes

2.1 Participatory approaches and involving stakeholders.

- **Wide stakeholder consultation**

Stakeholders are any party who may affect or be affected by the outcomes of projects or programs, ranging from governments, regulatory agencies, businesses, communities, civil society and NGOs. Water conflicts tend to put the emphasis on the conflicts of interest between a limited number of persons or on the groups directly involved (such as upstream and downstream users, farmers and herders, urban and rural areas), but an effective agreement cannot be obtained without all other parties to which water issues are important. The perception that agreement is more likely when negotiators are few and powerful is against the construction of social and sustainable agreements to govern water. In the Australian Lake Victoria case, a very wide consultation precluded deals in backrooms by key leaders. Although such deals can be tempting, it was felt that they have a low chance of surviving without strong understanding and support of the various groups in contention.

- **Inclusive approach**

Engaging all stakeholders in the cooperation process implies reaching out to groups who normally do not get involved in water issues, but who could be affected by the outcomes of negotiation. The outcome of cooperation depends on each party having the incentives to act in a particular way. Incentives to change traditional courses of action require a clear understanding of the benefits involved. For instance, in the Murray-Darling Basin (MDB), a new management plan involved a reduction in water security for the many communities dependent on the River Murray. The communities were involved in the negotiation process because they needed to understand the benefits to be gained by taking on that risk so that the new arrangements would be robust and sustainable in the long-term.

The effective and active participation of specific traditionally marginalized stakeholders, such as women or indigenous people must be actively pursued. It does not only consist in opening a communication channel or sending formal invitations to join the discussion. An inclusive approach is only possible if an enabling environment is created for their meaningful participation and sufficient means are provided for them to overcome their limitations.

Experiences in transboundary water cooperation shows that incomplete agreements, those not involving all riparian countries, are easier to sign but difficult if not impossible to implement and enforce. The effective involvement of the smaller and politically or technically weaker riparian countries could be even in the best interest of those countries with that are better placed to impose their conditions in the negotiation table. The active international support to Lao in order to make the country an active and convinced partner in the Mekong agreement is perceived as one of the critical challenges in promoting the sustainable economic development in the Mekong river basins.

- **Representativeness**

Building up of a cooperation agreement requires the acceptance and active compromise of the individuals and stakeholders to whom water and how it is used and preserved is important. Those persons need to be included in the process but not all of them could possibly have a single voice on the bargaining table. Cooperation requires the pre-existence of channels for anyone to be represented in the process and for stakeholders to become real alliances of interest. Success in reaching sustainable agreements requires also the existence of participation channels able to convert the agreement among the few seated at the negotiation table into a social pact to manage water in the interest of all the citizens, the parties, the regions involved.

For instance, in the Green Water Credits project in Kenya, successful implementation relied on “contracts” between downstream water users and upstream water providers. These contracts could not be established between individuals, but by stakeholders’

organizations (like Water Users Associations). To reach effectiveness and self-monitoring it was necessary to group the major stakeholders of major operators and to involve WUAs.

In the negotiation process on the Australian Lake Victoria, the regional Aboriginal community was initially difficult to negotiate with because they lacked processes for the selection of representatives that could negotiate compromises that would then be accepted by the wider society. Some members of the community argued that the institutional practice of selecting and empowering representatives was culturally alien to their traditions.

Lack of representativeness can lead to failures such as that in the irrigation project in Bolivia which consisted in designing the water distribution system, the channels and the plots relying only on a technical model and ignoring the existing land distribution and the social rules used by the community to distribute water traditionally in a non-conflicting way.

- **Gender**

One of the lessons learnt from projects in Kenya and Guatemala was that actively encouraging gender mainstreaming practices helps to ensure that all individuals, male and female, have the opportunity to participate and benefit equally in the cooperation process. Implementation improved and was more cost-effective.

2.2 Building a shared vision and mutual understanding

- **Shared vision**

Creating a shared vision between the involved parties is highlighted as a key element for effective cooperation processes. It implies building a common understanding of the importance of preserving the water resources as a means to maintain its capacity to provide the water services required for anyone, the flows of services appreciated by each party and the functioning of the environment on which the maintenance of all water related activities depend.

Water scarcity, pollution, floods and droughts, poverty and deprivation and other consequences of unsustainable water decisions provide vivid examples of the need to reverse degrading trends and in many cases are the main driver to start looking for an agreement. Accurate information (possibly through investigations by a third party) is necessary to underpin this process. The importance of independent and reliable information was an evident ingredient in the Mekong, the Incomati, the ETI and the IW-Learn examples.

- **Transparency and information sharing**

Transparency is emphasized as one of the key principles underpinning effective GEF Transboundary Diagnostic Analysis/Strategic Action Program Processes. It implies that all stakeholders agree to freely share the necessary information and information products. Producing adequate information on water issues, water quality, water uses and sharing this information contributes to strengthening mutual understanding. It often forms a first step in the cooperation process. In the Incomati basin process, it was considered imperative to conduct the negotiations in a structured way; starting with information exchange, via shared understanding of facts, towards ultimately reaching agreement about a shared vision.

- **Exchanging experiences**

Exchanging local experiences and knowledge can also contribute to mutual understanding and accelerate the cooperation process. In a rural cooperative irrigation project in Guatemala, the exchange of local experiences enabled community members to acquire new techniques and practices that they could apply in their communities.

- **Stepwise consensus building**

Cooperation is not a sprint but an endurance course. It must advance step by step depending on the agreements that are possible at each moment. Continue bargaining is often better than pushing up a majority agreement that could be challenging to enforce and might need to be revised shortly. Even the agreement to disagree in a particular moment can be an important step for building confidence and make a better agreement in the future.

Some successful cooperation schemes are based on a collective learning by doing process in which agreements become gradually more ambitious and precise as the group advance in building a shared vision of the problem. For example, building consensus at every step of the process was identified as a key requirement for successful GEF Transboundary Diagnostic Analysis/Strategic Action Program Processes. By including clear stakeholder representation at all stages, consensus-building is more likely, increasing the probability that the outcome will be “owned” by the stakeholders and sustainable in the long-term.

- **Scenario building**

Once a common vision of the water challenges is in place, decisions can be improved by building a shared vision of where society is leading to and how this prospect can be changed depending on the decisions of anyone involved and the agreements reached by all.

Almost all city learning alliances from the SWITCH project developed a shared vision. Scenario-based planning proved a valuable method in SWITCH cities for promoting

cooperation between stakeholders and achieving this shared vision. The participatory development of visions, scenarios and strategies was one of the more effective integrating activities that helped to give the learning alliances more coherence and purpose.

2.3 Dealing with perceptions

- **Perceptions and cultural values**

Independent and sufficient information is but one external condition required for building a common vision of the importance of water cooperation. In addition a change in the peoples' perception of water may be essential. It implies overcoming, for instance, with the perception that water is abundant and only public works are needed to match water demand and supply. In other situations cooperation might require looking beyond the traditional vision that see water management issues as mostly technical problems not requiring social participation to identify, compare and choose among the options at hand. For example, in the Australian Murray-Darling Basin, cooperation arose by the need to adapt this project to the real society to which it was intended to serve. Engineers and managers running the system changed their original perceptions, namely, that the cultural and political values that underpinned the position of the regional Aboriginal community may not need to interfere with the operation of the system.

Water cooperation may require that the previous or simultaneous change in the cultural perception of water from traditional views to a modern one that recognizes the need and the importance of cooperation.

- **The transition from risk to opportunities and from costs to benefits.**

Building a cooperative relationship is by itself an institutional process which most important outcome consists in changing the social arrangements used to cope with water challenges from a conflict and competition to common goals and cooperation.

The transition from risk to opportunity and from costs to benefits in the way people perceive water challenges might be an important precondition to create an institutional setting that favour cooperation.

Bargaining and agreeing on water requires a previous shift from a situation where water problems are mostly perceived as risks (water scarcity, conflicts of use, exposure to natural disasters, pollution threats from neighbour countries, communities or competitors) to another when water challenges are associated to opportunities for improving individuals and community welfare through joint efforts to manage shared water assets.

In the same sense, when conflict and competition is present compromises to use and preserve water are perceived as a burden while as reactive reactions are understandable.

Once this perception is changed and the benefits of collective action are perceived cooperation and agreement becomes possible.

- **Intercultural dialogue**

Cultural dialogue is an integral part of the cooperation process. For example, in the water cooperation project in Kenya, communities perceived water as a gift from God and did not consider the need for conservation. As in many other situations it was until the rise of water conflicts –especially during the dry seasons- that people/users understood what they can do to avoid these problems and how cooperation was urgently required.

In the Tiraque-Punata river basin in Cochabamba, Bolivia, an intercultural dialogue was set up to build mutual understanding between different communities and overcome their different (cultural) visions on water management and agriculture. This was essential for engaging in joint irrigation projects.

2.4 Recognizing the parties individual and mutual benefits

- **Cooperation built on mutual benefits**

Cooperation in the Mekong Delta has been built on the foundation of the perception of mutual benefits among the riparian countries. This created opportunities for development, mobilizing international assistance, and promoting stability of peace in the sub-region.

Cooperation implies understanding how the individual decisions and opportunities of all the parties are interdependent with each other and thus why managing water must be a matter of long term social agreement to preserve these opportunities rather than short term competition to capture their benefits.

- **Satisfying instead of optimizing approach**

A lesson learned from the Columbia River Treaty (CRT) between Canada and the United States was that reaching an agreement is more attainable if a satisfying approach is adopted instead of aiming to optimize cooperative water-related outputs (in the narrow economic sense). Negotiators started with optimization as the goal but were overwhelmed by complexities stemming from the timing, siting, and sizing of the many alternative projects. They eventually agreed that it would be sufficient if cooperative development of the Columbia resulted in benefits to each country greater than those that would accrue to each if independent development were pursued.

- **Strive for win-win agreement**

In the negotiation process between Spain and Portugal on the Albufeira agreement, a key lesson was that negotiators should aim to accommodate all relevant issues raised by the

other party. If the agreement is not a win-win agreement, there is a risk that one party will not make efforts to fully implement the agreement and that the expectations will not be accomplished.

- **Voluntary basis**

Real and sustainable cooperation could only be achieved if the parties entered the process on a voluntary basis. This can be achieved when all parties perceive the benefits of the cooperation process. In the case of Mexico and the US, both countries contributed to the transboundary sanitation problem and both would benefit from improving the water quality of the river.

2.5. Communicating, Raising Awareness, and documenting the process

- **Communication**

Knowledge sharing in a network has specific challenges because members may not have the same values, interests, language and world views; their interests might even be conflicting. Experiences in SWITCH projects revealed that differences in culture, working methods and disciplines of city alliance members were key challenges in the learning alliance process. Communication efforts that help alliance members develop a common understanding of the issue at hand and a shared vocabulary can support the process of moving beyond a platform for exchange to harnessing collaboration around a particular issue.

- **Process documentation**

Process documentation is a valuable tool in action research and learning alliances because it can trigger reflection and debate on what worked, and on what did not work, on blockages along the way and how were they overcome. It can also provide insights into how factors such as historical context, politics and stakeholder relations, or people's beliefs and attitudes impact on the course and outcomes of an intervention.

- **Awareness raising**

Informing national and international stakeholders about the key challenges, upstream-downstream, the interrelationships and cooperation benefits, contributes to raising awareness on the importance of the cooperation process. This contributes to the sustainability of the process. (Examples include Kenya GWC, Sava)

- **Information channels**

To disseminate the information effectively, information channels are needed. New channels can be created and/or existing ones may be mobilized. Local media can play a key role in facilitating this. E-mail and internet provide channels that can be managed easily e.g. by project staff.

2.6. Generation of trust

- **Recognizing the legitimacy of the interest of the different parties**

Any cooperation process implies the recognition of the different interest of the parties involved. At the end all parties must be interested in the same goal but for very different reasons and these differences need to be accepted and publicly recognized. The early recognition of these differences in the river basin shared between Portugal and Spain has been one of the keys to explain the success of the Albufeira agreements. In the water cooperation process between Jordan and Israel, it was felt that the institutionalization of cooperation was instrumental in building trust and providing solutions for the challenges in the shared waters. The institutionalization of the Joint Water Committee to regularly meet and coordinate from both sides was an essential ingredient of making the cooperative agreement function. The advantage in the case of the Israeli-Jordanian agreement was that there existed a code of practice and the issues were understood by the two sides which provided for easier negotiations.

- **Allowing time for developing relationships based on trust**

Turning a potential conflict into a workable cooperation agreement is a real institutional change that requires the transformation of many cultural values, emotions and perceiving as trustful partners the same persons that were previously seen as rivals or enemies. The importance of allowing time for relationships of trust to develop between the representatives of the different groups was identified as a key lesson learnt in the Australian Lake Victoria case. This was particularly true for the Aboriginal groups involved who had experienced nearly two centuries of dispossession as a result of European settlement of the MDB. Institutions able to represent Aboriginal interests are still poorly developed and highly prone to internal splits.

- **Long-term commitment**

To realize a successful water cooperation process, various stakeholders need to accept the agreements and commit to work on the discussed issues for a long time. Successful international water management is more likely when co-riparian states have a history of harmonious relations. A history of amiable relations enhanced efforts by Canada and the United States to effectively address numerous issues over the use of international and transboundary waters. The cooperation between Spain and Portugal on issues related to transboundary watercourses dating from the 19th century contributed to the successful negotiations on the Albufeira agreement.

- **Participative capacity building for trust generation.**

Capacity building in participatory groups allows the stakeholders to share their queries and ideas and contributes to generating trust between the participants and the facilitator. It allows the participants to share what they have learned, discuss problems

and inform and sensitize the other participants. This also helps to solve any problems in the process before they turn into conflicts. (Examples include Guatemala and Peru)

- **Joint projects and arrangements**

Joint projects can speed up the generation of trust. This may develop in the process of change of a collective vision where water decisions are viewed as a zero sum game towards a new one that focuses on the joint creation of opportunities through the joint use and preservation of water resources.

In the Mekong Delta, the achievement of the construction of the Lao Nam Ngum dam provided the Mekong Committee with a showpiece for further mobilization of financial support and investment. Other undertakings of the Mekong Committee have also been instrumental in strengthening mutual trust among the riparian countries, such as the Friendship Bridge, and Mekong Ferry Crossing. In the cooperation process between Jordan and Israel, the storing arrangements of “Jordanian” water in Lake Tiberias in Israel functioned well, which generated trust among the two countries.

2.7. Adopting an Honest, Flexible, and Open Attitude

- **Honest and assertive**

Honestly and clearly expressing the perceptions on the issue on the negotiation table smoothens the negotiation process. The involved parties may benefit from adopting an assertive attitude. This means that they have to critically assess the arguments and standpoints of the other party and verify if these are coherent.

- **Open and flexible attitude in order to build good relationships**

In the Albufeira case, confidence building and good relationships between the two administrations and the people in charge proved to be important. Maintaining these good relationships in spite of the differences of opinion required the open exchange of points of view on all issues at stake and flexibility to accommodate legitimate points of view of the other party.

- **A Window of Opportunity Approach**

A recommendation coming out of the Albufeira negotiations is to adopt an opportunistic approach. The opportunity to negotiate may well not present itself again for many years. Negotiating parties should take advantage of the moment as sudden political changes may take away the moment. Evading difficult issues by postponing them to the future may not be advisable, as reopening negotiations is always difficult.

- **Pragmatic and practical**

Adopting a pragmatic and practical approach enables the development of concrete “products” such as joint plans, development programs, protocols, etc. These products can form examples of good practices for cooperation processes in other regions.

2.8. The critical role of third parties

- **Recognizing the diverse and critical role of third parties**

Scientists, technicians, mediators, facilitators and all other agents are called to play a critical role in the cooperation process. The many roles they can play include: providing transparency, helping recognizing the benefits of joint actions, finding the balance between the aspirations and the options of each of the parties involved, helping to root discussions on technical and scientific evidence rather than on emotions or ideology, facilitating the access to finance and other resources, etc.

- **Role of scientists**

Epistemic communities (i.e. scholars/scientists) can play a role in negotiation processes; they can for example address issues that are not explicitly on governmental agendas and provide accurate scientific information. Additionally, they might provide fresh approaches to problems that seem to be at an impasse in deliberations among officials. (Examples include the Euphrates-Tigris case)

- **Knowledge brokers**

Knowledge brokers can facilitate the implementation of water cooperation processes. Although time-consuming, the continuous interaction of knowledge brokers with all stakeholders was identified as key success factor in the implementation of the Green Water Credits projects in Kenya and Morocco.

- **Skilled multidisciplinary team of experts**

In the Albufeira negotiations a skilled team of hydraulic engineers, jurists and diplomats was engaged in the preparation of technical documents, drafts of the terms of agreement and the negotiations. Engineers provided the required technical basis of the agreement. Diplomats as experts in negotiations brought realism and an understanding of the wider implications of the negotiations. Experts on international public law were engaged for their indispensable knowledge and expertise on legally binding documents between governments.

- **Technical negotiations**

Even when the political conditions do not favour or act against the cooperation process, maintaining the discussions at the technical level in the shade will help increasing the possibilities of success once the policy condition are again in place. The Incomati basin

case study show how thanks to this continuous contact among experts, once started, negotiations advanced rapidly, Mozambique was able to secure a share of its waters thanks to the technical meetings that continued during the period 1974–91, when the official political relations were almost entirely hostile.

- **Key facilitator role**

The facilitator plays a key role in creating a conducive environment for cooperation. Without a credible and well trained facilitator, stakeholder platforms can easily be dominated by the strongest participants. In the SWITCH learning alliance project the role of the learning alliance facilitator was central to the cooperation process. This role went beyond facilitating meetings and events and involved ongoing efforts to push and pull information, and to engage alliance members and stakeholders outside the alliance.

- **Skilled mediator**

Generating trust among the stakeholders in the cooperation process can form a huge challenge. In the Murray-Darling Basin, the mediator played a key role in winning the trust of all the contending stakeholders, which was crucial for a successful cooperation process.

- **Role of third independent party**

Before coming to an agreement, Israel and Jordan had basic coordination of some of their actions in the Jordan Basin via the so called ‘Picnic Table Talks’. This ‘umbrella’ for discussions on water coordination in spite of the absence of a peace agreement was facilitated by the UN Truce Supervision Organization (UNTSO).

In the Incomati river basin, the role of a third riparian country as broker between the other two riparian countries was acknowledged as a key success factor. In negotiations between Spain and Portugal, the European Commission played an important role at the start before things were handled by both parties on the basis of a good neighbourhood and friendship. The Commission and the Stability Pact for South Eastern Europe positively influenced the negotiations of the Framework Agreement on the Sava River Basin.

2.9. Dealing with asymmetries

- **(E)quality of cooperation**

Analyzing cooperative activities can reveal (power) asymmetries between the parties involved. On whose terms is the cooperation happening? Research seems to suggest that if parties can engage on more equal terms the prospects for equitable and lasting cooperative processes increase. (Jordan)

- **Equality instead of equity**

The riparian countries have equality of rights, but the benefits shall be distributed equitably. This does not mean that water, when insufficient to cover all the “reasonable and beneficial uses” must be distributed equally but that the agreed distribution must be perceived as coherent with the principle that each State is entitled to use and benefit from the transboundary waters in an equitable manner. Although this equity principle depends on the context, its application provides more certainty and less opportunity for subjectivity. This can result in many different allocation of the benefits that are perceived as equitable, including, for example, the Columbia River Treaty (CRT) in which downstream hydropower and flood-control benefits from upstream storage are equally shared and the but other downstream benefits are not shared across the international border by either Canada or the United States.

- **Compensation for communities**

Agreements over international water management can provide means to compensate communities that will suffer dislocation and other losses from water development schemes. Funds for compensation may be drawn from principal project beneficiaries.

- **Powerful interests versus changing values**

In the negotiation process on the Australian Lake Victoria, it was difficult for powerful interests to continue with business as usual at the time of changing values in the wider society. This gave increasing weight to the claims of groups that were previously politically marginal, in this case the Aboriginal communities. It took the Murray Darling Basin Ministerial Council many years to adopt a new approach.

- **Upstream and downstream**

During the negotiations on the Albufeira treaty between Spain and Portugal, the positions of the two parties were very much influenced by their relative position; Spain upstream and Portugal downstream. It was only when some kind of symmetry was introduced in the draft agreement that the negotiations started moving (e.g. environmental impact assessments on projects with criteria that disregard relative position; minimum flows in predetermined sections both in Spain and in Portugal).

- **Training of personnel as an inclusive mechanism**

Capacity building can contribute to overcoming differences between the riparian countries in terms of relevant expertise, to level the playing field and to make the cooperation and water management sustainable. In the Mekong River Basin, emphasis was placed on the training of riparian personnel in various fields of cooperation, contributing to sustainable cooperation and sustainable development of the Mekong River Basin.

ANNEX 1: List of cases

The lessons learnt are based on papers on the following water cooperation cases, submitted by session conveners and case presenters of the Zaragoza Conference on Water Cooperation. Unless indicated otherwise, all cases and overview papers can be found on the Conference website.

- **Albufeira Convention**

This convention between Spain and Portugal was signed in 1998 and seeks to balance environmental protection with sustainable use of the water resources within the framework of International and EU Law, whilst at the same time respects the provisions of previous water treaties.

- **Bolivia – Cuenca Tiraque-Punata, Cochabamba**

The irrigation project of Tiraque-Punata in Cochabamba, Bolivia, is a project designed to be self-managed by the water users. It showcases the importance of traditional uses and habits of the common use of water sources mediated by reciprocal relations among local communities and irrigation committees, dispute and negotiation practices in water management, the joint search of solutions for the improvement of infrastructures and the permanent search of agreement among organizations for its management.

- **Columbia River Treaty**

The Columbia River Treaty (CRT) between the US and Canada was signed in 1961 and ratified in 1964. The CRT features equal sharing of downstream benefits for hydropower and flood control in the US that result from development and use of 19 km³ of usable storage in Canada. The US prepaid Canada's share of the value of benefits from 60 years of flood control and 30 years of hydropower, a sum sufficient to pay for the construction of the CRT dams. The CRT also allowed the US to build Libby Dam and disallowed the McNaughton Plan by limiting diversions out of the Columbia to consumptive uses.

Keith W. Muckleston (2003). 'International Management in the Columbia River System'. UNESCO-IHP <http://unesdoc.unesco.org/images/0013/001332/133292e.pdf>

- **Ebro River cooperative water management**

The first river basin authorities in Spain were the ones of the Ebro founded in 1926 and the Segura in 1931. They were created as private-public partnerships for water development. Although these entities were progressively transformed into government institutions (as they are at least since 1958) due to its origin users have always had a voice in any important decision and formal mechanisms do exist to channel water users' views and preferences. Public functions are supported by the water user associations, an example of cooperation performing functions of policing, distribution and administration of water and deal with all conflicts that may arise among members.

- **Euphrates-Tigris River Basin (ETI)**

The Euphrates-Tigris River basin comprises Iraq, Syria and Turkey as the major riparians. In 2005 a group of scholars and professionals from the three main riparian countries established the Euphrates-Tigris Initiative for Cooperation (ETIC) with the aim to promote cooperation among the three riparians with a view to achieving technical, social and economic development in the Euphrates-Tigris region.

- **Guatemala - Cuenca Alta del Río Naranjo (MANCUERNA) and the “Scaling-up Micro-Irrigation Systems” project**

The goal of the “Scaling-up Micro-Irrigation Systems” project in Guatemala (SCAMPIS) is to assist families in producing their own food (and selling surpluses) by making efficient use of water and other resources that are available in the communities. The project is being implemented by Funcafé and IFAD. Through the SCAMPIS project, micro food producers gained access to low-cost irrigation tools and technologies. 70% of the producers that are using these technologies provided by the project are women. This enhanced the empowerment of women, increased their participation in the community and provided them with an opportunity to do business.

- **Incomati basin**

The Incomati basin is shared by three countries: Mozambique, South Africa and Swaziland. Tensions between these countries over Incomati waters existed but never escalated. The tensions translated into agreements and deepened the level of cooperation between the riparian countries. In 2002 a water sharing agreement was signed by the three water ministers during the World Summit on Sustainable Development in Johannesburg.

Álvaro Carmo Vas and Pieter van der Zaag (2003). ‘Sharing the Incomati Waters: Cooperation and Competition in the Balance’, UNESCO-IHP.
<http://unesdoc.unesco.org/images/0013/001332/133297e.pdf>

- **IW-Learn. GEF Transboundary Diagnostic Analysis/Strategic Action Program Processes.** http://iwlearn.net/abt_iwlearn

- **Jordanian-Israeli water cooperation**

The Israeli-Jordanian Peace Agreement was signed in 1994, in which water is dealt with rather extensively. The agreement outlines the water allocations that both countries are entitled to from the Jordan River and the shared groundwater in Wadi Araba/Arava. The agreement provides for the storing of Jordanian “winter water” in the Lake Tiberias inside of Israel when they do have a relative surplus of water flow. Israel subsequently releases the water in the dry summer period when Jordan needs it in its urban centres. The agreement stipulates that a Joint Water Committee (JWC) should be established, which is responsible for the implementation of the water clauses of the Peace Treaty.

- **Lake Victoria in Murray-Darling Basin (MDB), Australia**

This case study examines the successful resolution of an eight year conflict between water management agencies (and the various stakeholders that benefit from water extractions) and Aboriginal or Indigenous people in the region of Lake Victoria, one of the major storages in the southern section of the Murray Darling Basin in Australia.
- **Kenya Green Water Credits (GWC)**

Green Water Credits (GWC) is a financial mechanism that supports upstream farmers to invest in improved green water management practices. To achieve this, a GWC fund needs to be created by downstream private and public water-use beneficiaries. Under the completed Phase II of the GWC project in Kenya, coordinated by ISRIC - World Soil Information in Wageningen, the Netherlands, stakeholders are now organized and funds are available, in order for work to start with assisting 400,000 smallholder farmers with soil and water management in the Upper Tana River Basin.
- **Madagascar- Micro-irrigation System, an alternative for water management and agricultural development**

In 2009-2012, the NGO “Agronomes et Vétérinaires Sans Frontières” (AVSF), supported by IFAD and the Foundation COOPERNIC, implemented the Scaling Up Micro-Irrigation System (MIS) in Madagascar or SCAMPIS Project. The implementation of SCAMPIS helped to establish a basis for the sustainable promotion of drip irrigation in Madagascar: interest and ability of producers on its adoption, interest and involvement of stakeholders in its promotion.
- **Mekong case study**

The Mekong is the longest river in Southeast Asia and one of the largest rivers in the world. The Mekong River Commission (MRC) was established in 1995 by the Mekong Agreement and succeeds the Mekong Committee, founded by the UN in 1957. The MRC is an inter-governmental agency formed by Thailand, Cambodia, Vietnam, and Laos to coordinate water resources development in relation to the related natural resources and environmental protection in the Lower Mekong River Basin (LMRB). The two upper states of the Mekong River Basin, China and Myanmar are dialogue partners
Ti Le-Huu and Lien Nguyen-Duc (2003). ‘Mekong case study’. UNESCO-IHP.
<http://unesdoc.unesco.org/images/0013/001332/133290e.pdf>
- **Mexico-United States cooperation**

In 2000 the Mexican and US government decided to jointly address the transboundary drinking water and sanitation problems and a “Memorandum of Understanding Concerning the Joint Grant Contributions for Drinking Water Supply and Wastewater Infrastructure Projects for Communities in the United States – Mexico Border Area”,

was signed by the US Environmental Policy Agency (EPA) and the Mexican National Water Commission (CONAGUA).

- **Mt Kenya East pilot project for natural resource management, Kenya**
This project, supported by IFAD and GEF, has the overall goal to reduce poverty through improved food security and improving levels of income of farmers - particularly rural women. MKEPP-NRM focuses on the effective use of natural resources, improving access to water and introducing better farming and water management practices for sustainable use of water and land resources. Water Users Associations play a key role in cooperatively sharing, managing and conserving the common water resources.
- **Peru - 'Conservando vida para el futuro'**
This case relates to the Users Committee of Chorro-Solis, located in the Caserio-La Florida in the farming community of Juan Velasco Alvarado in Yamobamba, Department of Libertad in Peru. This committee belongs to the irrigation Commission of Cushurio and the Board of Irrigation Users of Huamachuco. Water abstraction of the el Chorro El Solis Channel is done from two sources, the River Urischaca and a spring. There are 32 members irrigating by gravity or by flooding for the different campaigns to cultivate potatoes and pastures from June to September.
- **Rio Coco, Central America**
The bi-national cooperation of the Rio Coco has developed on the basis of the twining between MANORPA and AMUNSE. The transboundary basin between Honduras and Nicaragua achieved the commitment between parties thanks to decentralized approach, the support on scientific and technical information and the flexibility and financing of third parties to adapt to the main actors needs.
- **Sava River Basin cooperation, South-Eastern Europe**
The Sava river basin is a major drainage basin in South-Eastern Europe, and the richest-in-water Danube tributary. It runs through four countries: Slovenia, Croatia, Bosnia and Herzegovina, and Serbia. The International Sava River Basin Commission (ISRBC) has been established to implement the Framework Agreement on the Sava River Basin (FASRB), which entered into force in 2004. The Commissions goal is to promote transboundary cooperation for sustainable development of the region.
- **Sustainable Water Management Improves Tomorrows Cities Health (SWITCH)**
The SWITCH project was a five year experiment (2006-11) focused on some of the key sustainability challenges in urban water management. In 12 cities across four continents – Lima, Cali, Bogota, Belo Horizonte, Accra, Alexandria, Birmingham, Zaragoza, Hamburg, Lodz, Tel Aviv, and Beijing – the SWITCH project set out to test what was

needed for a transition to more sustainable urban water management through a combination of demand-led research, demonstration activities, multi-stakeholder learning and training, and capacity building.

- **Tisza River Basin cooperation**, Central Europe

The Tisza River Basin is the largest sub-basin in the Danube River Basin and is shared by 5 countries: Hungary, Romania, Serbia and Montenegro, Slovakia and Ukraine. In 2004 the International Commission for the Danube River Basin (ICPDR) established the Tisza Group for coordination and implementation of basin-wide cooperation based on the Tisza Memorandum of Understanding.