Water: catalyst for cooperation
About GWP

The Global Water Partnership vision is for a water secure world.

Our mission is to support the sustainable development and management of water resources at all levels.

The Global Water Partnership (GWP) is an international network that was created in 1996 to foster the implementation of integrated water resources management (IWRM): the coordinated development and management of water, land and related resources in order to maximise economic and social welfare without compromising the sustainability of ecosystems and the environment.

GWP was founded by the World Bank, the United Nations Development Programme (UNDP) and the Swedish International Development Cooperation Agency (Sida).

The Network is open to all organisations which recognise the principles of integrated water resources management endorsed by the Network. It includes states, government institutions (national, regional and local), intergovernmental organisations, international and national non-governmental organisations, academic and research institutions, companies, and service providers in the public sector.

The Global Water Partnership is an intergovernmental organisation of 13 Regional Water Partnerships, 83 Country Water Partnerships and more than 2,800 Partner organisations in 167 countries.

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“The water problems facing our world need not be only a cause of tension; they can also be a catalyst for cooperation. ...If we work together, a secure and sustainable water future can be ours.”

Kofi Annan, former UN Secretary-General, World Water Day, 22 March 2002
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Cooperating on water

One of the most pressing issues of our time and for the future is how we manage the world’s water resources.

Water does not flow according to the boundaries created by nations, regions and communities. Moreover, water is a finite resource; what we have now is all we’ll ever have. And for the first time in history, global demand is beginning to outstrip supply.

This means that water is a resource that has to be shared. To do that requires cooperation. Cooperation can both prevent and solve problems.

The Global Water Partnership (GWP) is founded on the belief that our mission – to support the sustainable development and management of water resources at all levels – can only be achieved if civil society, government and the private sector partner together to solve water challenges. Creating partnerships around water is the foundation of the GWP network.

Starting at the local level
Cooperation on water often starts out with people getting together around a specific issue, such as pollution of a river or how to share water among towns. This, in time, can lead to wider cooperation on other issues related to water, such as navigation, flood control, fisheries, agriculture, hydropower and environmental protection. As cooperation expands and more people get involved, community groups and agreements transform into more formal organisations.

Transforming informal cooperation into formal cooperation means influencing politicians, securing funds to finance water management, and educating water users and water managers. Advocating, financing, training – all of this requires a sharing of skills, knowledge and experience.

Addressing challenges through cooperation
Getting collective action on a common resource requires trust and cooperation from everyone involved. That isn’t easy. There is a need for ‘horizontal’ cooperation, for example between state and non-state actors or across sectors such as agriculture or energy, and for ‘vertical’ cooperation, between various levels,
from local, community and watershed to district, provincial, state, national and regional levels.

GWP’s role as a neutral platform is important in helping negotiate partisan interests and move cooperation forward at critical junctures. GWP urges all water users to engage in a process that results in water being managed in a way that maximises economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. This integrated approach to water resources management (IWRM) is key to achieving a water-secure world. It cannot succeed without cooperation.

Implementing change
Collectively, GWP partners and allies are promoters of change: changing the way we manage water. To do that means turning non-cooperation on water into cooperation on water. GWP and its partners lay the groundwork for water users to cooperate through advocacy, facilitating dialogues, sharing technical expertise, and building the capacity of people and institutions.

The stories in this book, presented from East to West, show that working cooperatively brings down transaction costs, resolves differences and exploits synergies within and outside the water community. All this of course is only possible with a lot of groundwork including intensive advocacy, confidence building, and knowledge sharing for the common good.

Dr Ursula Schaefer-Preuss, GWP Chair

Getting collective action on a common resource requires trust and cooperation from everyone involved.
In May 2008, an earthquake measuring 8.0 on the Richter scale jolted Sichuan and Shaanxi provinces in southwest China. The earthquake left 69,227 dead, 374,176 injured, 18,222 missing, 4.8 million people homeless, and cut off electricity, communications, transport and water. One of the many relief and rebuilding efforts brought together people who could help reconstruct and future-proof rural water supplies against subsequent disasters. This triggered a desire among those involved in reconstruction to learn more about how to manage water better.

GWP China, through connections nurtured over a decade, catalysed a cooperative effort to rebuild rural water supply systems in four of the worst-hit areas. The partnership brought together funds from the UK Department for International Development, the engineering expertise of Mott MacDonald, on-the-ground project management officers in Sichuan and Shaanxi, and non-governmental organisations (NGOs).

**Learning by doing**
The lack of skills to rebuild and manage rural water supply systems so that they would withstand future earthquakes was a huge problem. Addressing this needed a two-pronged approach. First, local officers responsible for managing and operating water supply systems worked side-by-side with Mott MacDonald water engineers. The water managers interviewed local government officers, farmers and other water users, and sought their views on problems and solutions. The local managers surveyed and collected data and information on the damage to rural drinking water services and, with the help and advice of the water engineers, drew up plans to rehabilitate and reconstruct facilities.

**Building knowledge and skills**
The second and critical part of the reconstruction effort was arranging training for local government officials, and those responsible for water supply centres and village water stations. Introducing the basic principles, methods and technical requirements for
operating, managing and maintaining water supply centres and stations to staff involved in reconstruction was a turning point. Training courses were backed up with a practical handbook covering engineering in rural water supplies, common management issues, and operating and managing rural water services.

**Linking efforts**
The cooperative effort was not only valuable in bringing together the parties who could help with reconstruction but also made those affected by the earthquake – water authorities and communities – realise that cooperation on water management pays off. All the departments responsible for providing drinking water to rural areas recognised the need to cooperate more fully with NGOs and international development agencies, and to link grassroots efforts in rehabilitation with action at higher levels.

The work on water supplies was a small part of widespread relief operations after the earthquake. But people in the four counties will be better prepared for future disasters. Cooperation is a powerful tool for capacity development, for adapting and spreading ways to earthquake-proof water supply facilities, and for building skills to manage water in crises. Organisations such as GWP China are able to mobilise partners almost immediately, to act as skill brokers and to create the conditions for various parties to cooperate on water management. In the aftermath of disaster, such collaboration created ‘a thirst for management’, a desire for new ideas to tackle water issues and an appreciation of the value of cooperation.

**The May 2008 earthquake in southwest China destroyed many rural water supply services and triggered a desire to start managing water differently.**

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**Resources**

- **GWP China: A Decade of Impact.** (2010) GWP Briefing Note. GWP.
- The GWP ToolBox case studies listed below can be found at [www.gwptoolbox.org](http://www.gwptoolbox.org)
- **China: Eco-compensation for watershed.** Case Study #422.
- **China: From flood control to integrated flood management.** Case Study #420.
- **China Guizhou: Management of drought.** Case Study #419.
- **China Fujian: Innovative water resource management mechanism in rural communities.** Case Study #401.
- **China: Innovative water resource conservation measures in the North China Plain.** Case Study #348.

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GWP China | [www.gwpchina.org](http://www.gwpchina.org)
Myanmar, emerging from long isolation to embrace political change and economic development, is rich in natural resources such as oil, gas, precious metals, timber and gems. In tackling economic development, Myanmar has many challenges to overcome – earthquakes, cyclones, floods, landslides, drought, water pollution, and water-borne disease from inadequate sanitation and water treatment.

Sustainable development in Myanmar means all sectors need to cooperate on water. Population growth and shortages of staple foods require agriculture to expand. Developing industries require reliable power and water supplies. The links between water, energy and food are complex, and are made more complicated by trade, investment and climate change. Bringing parties together is a first step in understanding the issues and encouraging cooperation.

Managing the huge potential of water resources
Myanmar is endowed with abundant water resources. The climate is tropical monsoon with hot humid summers and mild winters. The catchments of the ten main river basins cover around 737,800 square kilometres. Surface water amounts to about 1,082 cubic kilometres a year and groundwater to 495 cubic kilometres a year. Only about 5 percent of this plentiful water is used, mostly for agriculture. The potential for developing water resources in Myanmar is huge. Wise management of water resources is, therefore, critical for sustainable development.

Forging links
To forge links across sectors and interests, GWP Myanmar, the Myanmar

“Water is a life system, a finite resource and a building block for a green economy. ...The Government of Myanmar wishes to make Green Economy and Green Growth a national policy.”

Professor Dr Khin Ni Ni Thein, President, Water Research and Training Centre, Myanmar, and Green Economy and Green Growth Convening Group Member
Irrigation Department and the Ministry of Agriculture and Irrigation, brokered a meeting in August 2012 where government agencies, non-governmental organisations (NGOs) and journalists got together to discuss water, energy and food security. The dialogue, sponsored by GWP Southeast Asia, was intended to sow the seeds of cooperation on water.

Discussions at the meeting raised awareness among the various parties of the need to encourage integrated water resources management. Participants explored ways to improve understanding of water issues, reform water institutions and put mechanisms in place to coordinate water management. Discussions ranged widely over ways to respond to climate change, how to cope with disasters related to water, potential water supply and water quality management systems, and how to finance the development and management of water resources. Importantly, the discussions helped government agencies, NGOs, community organisations and stakeholders at grassroots recognise the need for active cooperation in tackling these issues.

**Aligning with national perspectives**

Not least, the informal meeting paved the way for aligning efforts to develop, conserve, use and manage water, food production and energy with national perspectives. Holistic and cooperative rather than sectoral approaches to water, guided by the principles of integrated water resources management, can foster sustainable development in Myanmar.

**Sustainable development in Myanmar means all sectors need to cooperate on water. Population growth and shortages of staple foods require agriculture to expand. Developing industries require reliable power and water supplies.**

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**Resources**


Website of the Ministry of Irrigation and Agriculture, Myanmar

www.moai.gov.mm

Website of Green Economy and Green Growth

www.geggmyanmar.com

Website of the Water, Research and Training Centre, Myanmar

www.wrtcmyan.org
In Sri Lanka, arguments about whether or not a barrier should be built to prevent seawater entering the Nilwala River went back and forth for over six years. A turning point came when Nilwala Area Water Partnership stepped in.

Rice farmers in the lower reaches of the Nilwala River in Sri Lanka adamantly opposed the construction of a barrier to prevent seawater penetrating up river. Afraid that their fields would become waterlogged, they baulked at proposals to build a barrier near the river mouth or further upstream. Farmers were highly suspicious of the motives of irrigation and water authorities. Water authorities on their part feared salty water would gradually replace fresh groundwater, threaten supplies of potable water and damage pumping stations. Arguments about whether or not the barrier should be built and where went back and forth for over six years. A turning point came when GWP Sri Lanka’s Area Water Partnership in Nilwala provided a platform for stakeholders to discuss water issues.
Shared understanding
Recognising that when people have a shared understanding of a problem and its consequences they will probably agree about what to do, the Area Water Partnership arranged a meeting in February 2012 between farmers and water authorities so that each side could voice their concerns and what they wanted to do about them.

Officials from the Irrigation Department and the National Water Supply and Drainage Board explained that freshwater was already scarce. The sea level was rising and river beds were being deepened by sand mining. This meant that, especially in the dry season when the river was low, sea water could work its way upriver and affect sources of freshwater. A further problem was that during dry periods, if salt water travelled up river it could damage freshwater intakes and pumping stations. Officials from the University of Ruhuna showed farmers how saline river water can seep into groundwater and eventually make fields infertile. The result would be that farmers would lose valuable cropland.

Seeing is believing
Farmers voiced their concern that a barrier would deprive them of some of their farmland, as had happened with previous development projects. They made it clear that they did not trust the authorities. The farmers said they wanted to see for themselves how a barrier would work and how it would affect them.

A trip was arranged for farmers to inspect a barrier on the nearby Gin Ganga River that was similar to the one proposed for the Nilwala River. Reassured that a barrier would not deprive them of their land and would protect their land from salt water, the farmers agreed in principle that it should be built. After another trip in September 2012 to see exactly where the barrier would be located they were persuaded that construction was in their interests, and that the best place to build it was near the mouth of the river.

It is possible to get people with different interests to cooperate on water if they understand why it is necessary and that they will benefit. Achieving this common understanding can be through a simple method such as sharing information. A trusted party, such as the Nilwala Area Water Partnership in this case, can create neutral spaces for parties at odds to explain their differences and find win-win solutions.

Resources


Promoting Livelihoods and Influencing Policies through Area Water Partnerships in South Asia. Briefing Note. GWP South Asia.

Meeting Water Challenges through Partnerships. Briefing Note. GWP South Asia.

Local action through Area Water Partnerships. (2006) GWP.

Website of GWP Sri Lanka www.lankajalani.org

GWP South Asia | www.gwpsouthasia.org
Three countries that were once part of the Soviet Union – Armenia, Azerbaijan, and Georgia – share part of the Kura-Araks Basin. Although it is in the interests of these countries to cooperate on water, they have not signed any water treaties, nor have they agreed how to share water, maintain water quality or care for the basin ecosystem. At grassroots, however, water managers are cooperating to explore how to change existing water management arrangements in ways that boost overall welfare in each country.

**Raising awareness**
Back in 2002, representatives of environmental agencies and parliamentary committees in the three countries, non-governmental organisations (NGOs), the European Union, international organisations, donor agencies and scientific institutions met and agreed to cooperate on setting up a legal treaty and basin management council for the Kura-Araks Basin. NGOs, including GWP Central Asia and Caucasus, launched a two-pronged campaign, firstly to engage the public in cleaning up pollution and, secondly to raise awareness of the need for countries to work together to manage the river.

GWP Central Asia and Caucasus concentrates on sharing information and experiences of transboundary water management drawn from the global GWP bank of knowledge. Every June, on Kura-Araks Protection Day, GWP Central Asia and Caucasus tells the ‘story’ of the basin to the public – how the river is heavily polluted, contaminated with household, chemical, industrial, biological, agricultural and radioactive waste – and explains why cooperation is vital for preventing pollution and why clean water is vital for regional development.

**Providing information and tools**
GWP Armenia follows up the messages of Kura-Araks Protection Day by arranging roundtables where people in local government, NGOs and emergency services can explore solutions. Workshops arranged for land and water managers give them practical tools, such as step-by-step guidelines on how to cooperate in setting up independent river...
basin councils. One of these workshops, in Dilijan in June 2011, began the task of setting up an independent council for the Aghstev River, a tributary of the Kura-Araks that flows through Azerbaijan and Armenia. This task built on the basin management plan for the Aghstev River previously developed in cooperation with the European Union. The Aghstev River Council will establish a legal framework for joint water management, and tackle deforestation and water quality.

**Influencing upwards**
The work to raise awareness and share knowledge is paying off. At grassroots, at least, there is a willingness to cooperate more closely on shared water resources. Political tensions between countries do not necessarily prevent people from getting round the table to talk. When the Aghstev River Council gets under way and shows it can bring a wide range of stakeholders together to manage water and share benefits, the readiness to collaborate on water may diffuse upwards to higher levels of government. Impartial third parties such as GWP Central Asia and Caucasus that offer knowledge, technical assistance and neutral spaces for dialogue can help stakeholders cooperate to weigh up opportunities and risks, and structure agreements to share benefits. Sustained support of this kind – often over many years or even decades – plays a huge part in enabling fruitful negotiations on cooperating to manage shared water.

An independent council for the Aghstev River, a tributary of the Kura-Araks that flows through Azerbaijan and Armenia, will be a legal framework for cooperating to manage water.

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**Resources**


Website of GWP Armenia [Armenian, Russian, English] www.cwp.am
Flash floods have taken lives and wreaked havoc in many communities in Central and Eastern Europe (CEE). The risk of flash floods is growing as countries urbanise and develop, and as storms and heavy rain become more frequent as a result of climate change.

Preventing and reducing flood damage involves being prepared, knowing what to do and how to do it, and being warned in advance, knowing what is coming and when. Recognising the value of combining strengths in different areas of expertise and at different levels, the World Meteorological Organization and GWP took the opportunity offered by the Associated Programme on Flood Management (APFM) to cooperate on improving how communities in CEE prepare for flash floods.

Learning from experience
Gorzanow, a Polish village of 1,000 people that suffered a flash flood in 1997, was one of the communities in seven countries – Bulgaria, the Czech Republic, Lithuania, Poland, Romania, the Slovak Republic and Slovenia – that piloted ways to prepare for and deal with flash floods. As a first step, Gorzanow inhabitants helped map the extent of the 1997 flood. Fire service experts then marked areas where floodwaters were too deep or flowed too fast to allow rescue operations. People in these areas were the first who needed to be warned and shown routes they could safely use to escape.

Involving and encouraging people in communities to put forward ideas for preventing and preparing for floods were important. The plan eventually agreed on in Gorzanow took into account suggestions from the community and included

“...a multi-disciplinary and integrated approach to flood management holds [the potential] to confront the issues of flash-flood affected communities.”

Avinash C. Tyagi, former Director of the Climate and Water Department, World Meteorological Organization
improving drains and road culverts, installing a flood gauge, drawing up an evacuation plan, setting up an early warning system and running a campaign to make sure everyone knew what to do in the event of a flood warning. GWP Country Water Partnerships took the same approach to pilot projects in the other CEE countries and exchanged information on their experiences.

**Combining strengths**

The pilot projects gave communities opportunities to test ways of dealing with flash floods suited to their particular circumstances. Complementing on-the-spot strategies devised by communities, national meteorological and hydrological services have adapted their forecasting technologies to allow them to both see the big picture and zoom in to identify areas at particular risk. This may help map risks and develop appropriate measures to mitigate risks.

Meteorologists, hydrologists, mayors, civil defence personnel, and GWP Central and Eastern Europe through its Country Water Partnerships cooperated to examine, collate and extract lessons from the pilot projects and come up with recommendations for warning and preparing communities for flash floods.

**Translating lessons learned into guidelines**

Poland took the lead in translating what had been learned from the pilot projects into easy-to-use guidelines. The guidelines cover different kinds of early warning systems and explain measures to limit flood damage that can be taken at household, local, national and regional level. When floods threaten, mayors, civil defence and water services personnel, and individuals can do much to limit damage if there are rescue plans in place and everyone knows what to do and when to do it. GWP Country Water Partnerships have organised training sessions and seminars for local flood managers and the general public. Findings and experience from pilot projects were used in implementing the European Union Floods Management Directive into national legislation in the seven countries.

**Preventing and reducing flood damage involves being prepared, knowing what to do and how to do it, and being warned in advance, knowing what is coming and when.**

**Resources**


Website of the WMO-GWP Associated Programme on Flood Management. www.apfm.info

GWP Central and Eastern Europe | www.gwpceeforum.org
Sharing benefits: transboundary cooperation in the Mediterranean

Albania, the former Yugoslav Republic of Macedonia, Greece, Kosovo and Montenegro share the Drin River Basin in the western Balkans. Around 1.5 million people rely on the water resources of the basin for drinking water, agriculture, fisheries, industry and hydropower. Each riparian state, however, has its own priorities, interests and systems for managing water.

Throughout the Drin River Basin water quality and biodiversity are threatened by pollution from agriculture, untreated urban wastewater and solid waste. However, awareness is growing of the value of cooperation on water. This cooperation is now being formalised to explore synergies and share benefits.

Taking cooperation to a high level
Under the Water Convention, the legal framework for transboundary water management in the United Nations Economic Commission for Europe (UNECE) region, and the European Union Water Framework Directive there was an opportunity to bring countries together to talk about how they could cooperate.

UNECE and GWP Mediterranean took the opportunity and, after wide consultation with countries, stakeholders and international agencies, formally launched the Drin Dialogue in 2009.

The dialogue built on legally binding agreements already in place signed by countries sharing the transboundary Prespa, Ohrid and Skadar lakes. The consultations have been important in bringing together ministries, sub-basin commissions and committees, and stakeholders and have led to a shared vision for sustainable management of the whole basin. Water users in the region have a growing understanding of cooperation on transboundary water resources as a way to open up opportunities.

Moving towards formal agreement
The dialogue garnered political support. A memorandum of understanding for the management of the Drin Basin founded on the shared vision and signed in 2011 by ministers was a turning point. The memorandum set out the main transboundary issues and steps to integrate
management of the basin in the short, medium and long term, paving the way for a legally binding agreement. A basin authority, for which GWP Mediterranean provides a secretariat, is the mechanism for riparian states to cooperate and coordinate action to follow through on the memorandum. Under the memorandum the first step is to assess how water resources are managed in each country. This will set the stage for preparing a river basin management plan for the part of the Drin River in each of the five riparian states and making sure they harmonise.

Translating intent into action
Agreement on a formal memorandum was a significant step forward. Previously, there was no coordination in managing shared water in the Drin Basin. Political commitment and consultations across sectors have built solid foundations for cooperative solutions. Some countries, having emerged from political instability and conflict several decades ago, are establishing market economies. In many cases, the drive for economic growth influences decisions on water and managing other natural resources. Environmental considerations are also important to countries seeking membership of the European Union. Creating a transboundary institution for the Drin River Basin will encourage cooperation on putting in place joint frameworks for the sustainable and integrated management of the shared water resources.

Cooperating to encourage cooperation
International institutions can be instrumental in catalysing cooperation by offering their respective strengths when windows of opportunity open. Several conventions, directives and processes provided a framework for UNECE, as a regional policy institution, and GWP Mediterranean, as a knowledge sharing, technical and networking organisation, to cooperate in helping Drin Basin states work together to manage shared water resources. In a next step, UNDP, UNECE, GWP Mediterranean and riparian states, financed by the Global Environmental Facility will, over the four years 2013-2016, combine forces to establish joint management.

The Drin Dialogue consultations are opportunities to exchange views about cooperating on shared water.
A turnaround: from conflict to cooperation in the Berki River Basin, Ethiopia

Competition for scarce water between farmers for irrigation, the church for holy water, water authorities for urban water services, and upstream and downstream users in the Berki River Basin, Tigray Region in northern Ethiopia, was sparking quarrels. In a significant turnaround, water users have stopped quarrelling and begun cooperating. Open discussions on how to allocate water equitably have led to a better understanding of how the way each user manages water affects other users, and to less conflict.

Through interlinked neighbourhood, district, catchment and regional water forums, water users have already resolved disputes without any need for legal or administrative action. Downstream water users in the Berki River catchment who had previously destroyed a weir upstream that diverted water for irrigation, now contribute to conservation measures upstream. An upstream district has revisited a plan to install 100 water pumps that would have cut the amount of water available downstream. Water efficient drip systems are being encouraged and there are plans to recharge groundwater.

**Triggering change**
Ethiopia has written integrated water resources management (IWRM) principles into its water resources management policy, has passed water laws, and has a strategy and workplan to turn policy into practice. However, scarce funds and skills, and poor coordination and involvement of stakeholders, hamper progress.

The trigger for change in the Berki River Basin was a two-year pilot project 2006-2008 run by GWP Eastern Africa and GWP Ethiopia. The project set up a framework for IWRM.

**Cooperating to bring about change**
Changes in the way water is managed in the Berki River Basin would not have happened without the cooperation of many different parties on many fronts.

GWP Ethiopia, district authorities and non-governmental organisations (NGOs) raised awareness of the need for action...
on water in their constituencies – identifying, contacting, involving and educating stakeholders, and winning political support. GWP Ethiopia provided backup on policy issues. District agricultural development agents channelled feedback from communities.

Stakeholders themselves set up regional, watershed, district and neighbourhood forums where they could interact. Neighbourhoods built on traditional yewuha abat (father of water) practices to quickly create their own water forums. Forums evolved from existing systems such as this address the practicalities of water management at grassroots.

A team of experts from state government, NGOs, Mekelle University and the Agricultural Research Institute generated information on water resources and socioeconomic issues to help stakeholders understand problems, identify solutions and prioritise actions.

Involving water users in planning
Over the two years of the pilot project, water users worked together, first to get consensus on the problems, then to develop a plan setting out how demand for water would be managed and the roles of the various partnerships. The cooperative effort on the plan gave water users a better understanding of how their use of water affects other users. They began to open up, discuss how to allocate water equitably and work towards ‘joined up’ water management. Cooperating is now seen as a way to resolve water issues, and manage water and land resources of the whole catchment sustainably.

In water scarce environments, competition for water is likely to intensify. This means water users, like those in the Berki River Basin, need to cooperate and find ‘win-win’ solutions that make all parties better off.

Harnessing water resources for sustainable development in Ethiopia means cooperating. Only half the population has access to clean, safe water and only 6 percent of suitable land is irrigated.
Untreated sewage and other liquid waste threaten the Okavango Delta, an internationally important wetland and the heart of Botswana’s tourist industry. Protecting the delta from pollution safeguards the tourist industry, reduces the risk of water-borne diseases, and ensures clean water for wildlife, communities and farming.

Wastewater treatment facilities in sensitive environments such as the Okavango must not only be efficient and cost effective but also need to consider both the environment and public perceptions. After wide consultation across sectors on guidelines for managing liquid waste in the Okavango, pilot waste treatment projects are underway. The intention is to push for the guidelines to be written into laws regulating tourism, land use, building and the environment.

Grasping opportunity
Many of the problems affecting wetlands stem from the failure of users to cooperate. In the Okavango Delta, what was needed to prevent pollution from liquid waste was to bring water users together to reach a common understanding of the problems, and discuss possible solutions and ways forward.

GWP Botswana grasped the window of opportunity offered by the Integrated Water Resource Management Water Efficiency Project sponsored by the Global Environment Fund and the United Nations Development Programme to foster the cooperation needed to solve the liquid waste problem. The first step was to identify the various stakeholders and their interests. With an understanding of who was involved and their concerns, the next step was to bring the stakeholders together.

Forging consensus
Open and inclusive discussions arranged by GWP Botswana involved government departments, the private sector, non-governmental organisations, quasi-government organisations, and regional environment and Okavango projects. Companies transporting hazardous
waste, tourist camps, conservation trusts and the Botswana Meat Commission, for example, were invited.

Consensus emerged on the need for a set of guidelines on managing liquid waste. An approach to the Department of Waste Management and Pollution Control led to further consultations. Other parties who could contribute began to cooperate, bringing in a wide range of complementary expertise.

The end result was a set of guidelines for environmentally acceptable liquid waste management for different habitats, land uses and amounts of wastewater. GWP Botswana made sure that all technical aspects of the guidelines were in order. Because those with a stake in the well being of the Okavango worked together to complete the guidelines they have an incentive to abide by them and encourage others to do so. GWP Botswana, through its networks, will help share experiences of how the guidelines work in practice.

Linking local to national and transboundary cooperation

Managing liquid waste is not only important in the Okavango Delta but throughout Botswana and for the entire Okavango River. The Department of Waste Management and Pollution Control is already using the guidelines throughout the country and pushing for them to be written into laws such as the Environmental Impact Assessment Act, Tourism Licensing Act, Land Board Act and Buildings Control Act. The guidelines will also feed into work by the Southern Africa Regional Environmental Programme to improve transboundary cooperation.

Cooperating to protect the Okavango Delta from pollution will safeguard the tourist industry, reduce the risk of water-borne diseases, and ensure clean water for wildlife, communities and farming.

Resources

Changing Africa’s Water Landscape. (2010) Briefing Note. GWP.


ToolBox case studies listed below can be found at www.gwptoolbox.org


Transboundary: IWRM implementation at Pungwe River Basin in Zimbabwe and Mozambique. Case Study #333.
Member states of the Economic Community of Central African States (ECCAS) work together to lessen poverty, boost food security, and develop socially and economically. One of three priorities ECCAS has set for 2015 is to cooperate to manage water resources across the region.

Water resources in Central Africa are unevenly distributed. In the Sahel water is scarce, whereas countries to the south have water in abundance. The region has not yet harnessed the potential of water for hydroelectricity or agriculture, and many citizens lack safe drinking water and sanitation. Agreement on a regional water policy by the ten ECCAS member states in 2009 was a milestone in cooperation on water.

Launching a regional vision
The agreement on a regional water policy is the culmination of a process that began at the turn of the millennium. Following the 2000 World Water Conference, Central African countries realised that, for their common good, it was important to harmonise water management across the region.

ECCAS member states started by drawing up a common vision for water. Once this was launched, countries began to translate the regional vision into national integrated water resources management (IWRM) policies. Countries worked with programmes promoting IWRM, such as the United Nations Environment Programme (UNEP) IWRM 2005 Target programme, and programmes of the European Union, the United Nations Economic Commission for Africa and GWP Central Africa.

Setting up a formal mechanism
Open discussions at regional level were important in resolving political issues, maintaining a flow of information on policy proposals and exploring technical issues. GWP Central Africa played a part here, arranging regional dialogues and, through the GWP network, for experts to advise on technicalities. GWP Central Africa also made sure regional and national politicians, technical experts
and administrators were kept in the loop.

An important meeting took place in Brazzaville in 2006. Ministers decided that they needed to set up a formal mechanism for coordinating policies on water resources management across countries. Ministers agreed that the first step was for ECCAS to lead on developing a regional water policy.

**Bringing politicians, technical experts and administrators together**

To get agreement on a regional policy a wide range of parties – political, technical and administrative – needed to work together at various levels and on various issues. In the first instance, ECCAS brought together three groups to put forward proposals for a water policy.

A group from ECCAS took the political lead. A second group included ministers in charge of water, members of the African Ministers’ Council on Water Technical Committee for Central Africa and national water managers. The people in the second group were those who would be responsible, politically and administratively, for translating regional policy into action in each country. Development partners, mainly represented by the UNEP Collaborating Centre on Water and Environment and GWP Central Africa, made up a third group that found funding and offered technical backstopping.

**Realising potential**

The regional water policy is a great opportunity for countries in Central Africa to cooperate in putting IWRM into practice to boost realisation of the region’s potential. The policy adopts IWRM as the path to sustainable development of water, from community to national and subregional levels.

A regional water policy is a great opportunity for countries in Central Africa to cooperate in putting integrated water resources management into practice to realise the region’s potential.
Shared basins can be spaces for cooperation or for confrontation. The Mono River, for example, shared between Benin and Togo, faces huge environmental and socioeconomic problems.

The Economic Community of West African States (ECOWAS), GWP, the World Wildlife Fund and the non-governmental organisation Green Cross waged a concerted campaign to involve the media in explaining the problems of shared water and what could be done about them. Politicians took notice of what the media covered. Benin and Togo are now on the brink of agreeing to set up a formal basin organisation for the shared stretch of the Mono River under the auspices of ECOWAS Water Resources Coordination Centre (WRCC).

**Transforming challenges to opportunities**
GWP West Africa and ECOWAS WRCC saw an opening under the West African Regional Water Policy for cooperating to set
up a management authority for the Mono River. ECOWAS offered its unique policy skills in assessing issues in a transnational context. GWP West Africa offered complementary technical and convening skills. GWP agreed to review and comment on technical issues. In parallel, GWP is encouraging Country Water Partnerships in West Africa to prepare to engage with a technical committee which will advise the proposed Mono River authority.

**Encouraging the media to cooperate**

The partners secured funding to go ahead with a feasibility study for a Mono River management authority from the European Commission under the African Caribbean and Pacific European Union Water Facility. But partners realised that the media would be influential in getting political support. GWP Regional and Country Water Partnerships organised workshops for journalists to explain the issues and arrange for them to meet those affected by problems with shared water. The workshops spawned a stream of articles putting a human face to the issues – describing villagers who could no longer fish, farmers whose lands were inundated by releases from upstream dams and mayors beset with water supply problems. Journalists also explained steps needed to address the problems, such as setting up a joint management organisation for the shared water.

**Influencing movers and shakers**

Building alliances with journalists encourages in-depth coverage of water issues, rather than coverage only when there are floods, droughts or disasters. Movers and shakers at all levels – from mayors to presidents – take note of what the media says. Cooperating with the media plays an important role in raising awareness of the stakes and influencing the decisions that have to be made.

**West Africans in Benin and Togo will benefit from a legal framework for cooperation on a shared stretch of the Mono River.**
Governments in Africa recognise the value of cooperating to foster regional and Pan-African development, build peace, prevent conflict and tackle changes in climate. Water links all these issues and needs to move to the top of the development agenda. The African Ministers’ Council on Water (AMCOW), set up in 2002, encourages member states of the African Union to cooperate in managing the continent’s water resources.

In July 2008, heads of African Union states and governments adopted the Sharm El Sheikh Declaration. This declaration committed states to work together to make the continent more resilient to drought, floods and climate change. In November 2010, AMCOW recommended that GWP and partners should cooperate to operationalise part of AMCOW’s work programme, the Water, Climate and Development Programme (WACDEP). WACDEP supports the implementation of climate change commitments in the Sharm El Sheikh Declaration by integrating water security and climate resilience in development planning processes, and building climate resilience and security.

**Bringing together complementary strengths**

By 2011, GWP Regional and Country Water Partnerships, development agencies and banks, donors and knowledge networks were cooperating in WACDEP. AMCOW advises on policy and integrates efforts across Africa. Countries, regional economic communities and river basin organisations carry out the programme. GWP oversees day-to-day programme management.

**Seeking efficiencies through cooperation**

The continent-wide programme links national, local and transboundary efforts in managing water for sustainable national and regional development and adapting to climate change. By cooperating in WACDEP, partners link their efforts, and coordinate and use support for development efficiently.

The cooperative effort will strengthen the knowledge base on the impacts of climate change, vulnerabilities and water...
security in basins. The knowledge generated will help in designing climate-resilient investments. Cooperation will also enhance collaboration between regional climate change centres and river basin organisations, and establish mechanisms for the use and uptake of climate information. Not least, this cooperation will promote peace and regional integration by supporting Pan-African and subregional institutions responsible for regional development, managing shared water, reducing disaster risks, and providing climate and hydrological services.

One important aspect of the cooperation in WACDEP is helping countries develop investment and financing strategies for water – viable infrastructure projects that will not be affected by the uncertainty around how the climate will change and that will be attractive to public and private investors. Another is putting in place policies that will allow new ways of managing land, water and green growth to be tested.

**Building on the principles of integrated water resources management**

WACDEP builds on the work done by GWP in Africa, started in 2005, helping 13 countries develop national integrated water resources management (IWRM) plans. The neutral platform provided by GWP allows concerns to be voiced, challenges to be articulated and solutions to be explored. Working side-by-side with governments, helping with technical issues, providing information and arranging consultations between national governments, regional economic communities and basin organisations, GWP has built trust and fostered confidence in IWRM as the foundation for climate-resilient development.

WACDEP is already underway in eight countries – Burkina Faso, Burundi, Cameroon, Ghana, Mozambique, Rwanda, Tunisia and Zimbabwe – four transboundary river basins – Limpopo, Kagera, Lake Chad and Volta – and the northwest Sahara aquifer system. Participating countries take the lessons they learn to regional and global discussions and take away state of the art global analyses of water issues and processes to manage water. As water is central to Africa’s development, all parties involved in the programme cooperate locally, regionally and globally to make water a top policy priority.

**Resources**


*Strategic Framework: Water Security and Climate Resilient Development.* GWP.

*Technical Background Document: Water Security and Climate Resilient Development.* GWP.

Website of the Water, Climate and Development Programme with more material. [http://www.gwp.org/en/wacdep/resources](http://www.gwp.org/en/wacdep/resources)
Encouraging sustainable change: building cooperation in the Peruvian Andes

Water rights in the Ocoña River Basin in the southern Peruvian Andes are passed down from generation to generation. As a result, there are a few large users and many small users. The Local Water Administration of the National Authority is in charge of water distribution, but the basin faces major challenges – glaciers that feed the basin have shrunk by 37 percent in the last 35 years, high Andean wetlands where the rivers have their headwaters are dwindling and mining operations that jeopardise water quality are spreading. Threats to water resources place Peru third on a global index of climate-related hazards.

The impetus for changing the way water was managed sprang from two non-governmental organisations (NGOs), the Asociación Especializada para el Desarrollo (AEDES) and Centro de Estudios y Promoción de Desarrollo (DESCO). These NGOs helped communities organise themselves around water issues and introduced the idea of integrated water resources management (IWRM). AEDES, a GWP partner, sought advice from GWP Peru and the Pontifical Catholic University of Peru, also a partner of GWP, on a strategy to encourage IWRM.

Providing information and a space to talk
The strategy adopted was, firstly, to provide impartial information on the state of basin resources and, secondly, to set up neutral spaces where all stakeholders could discuss roles and responsibilities in water management. At first, only boards of water users were involved in discussions. Later on, care was taken to bring in associations of agrarian producers, peasant communities, shrimp fishermen, artisanal miners, municipalities and mining companies.

Grassroots groups began to take action. Llama farmers, for example, cooperated to manage a queñuales forest and wetlands ecosystem in the Nevado Coropuna foothills. These private conservation areas managed by the local communities are now recognised by the Peruvian Government.
Nurturing participation
In 2003, building on the momentum at grassroots, AEDES and DESCO arranged meetings with boards of water users in the Ocoña River Basin. In 2004, water users agreed to meet regularly to discuss how to manage water more effectively. Between 2005 and 2006 these discussions led to the creation of a water user platform and an agreement on its statutes and workplan. In 2007, an Interregional Coordination Board was formed, which officially established the need for IWRM in provinces in the Arequipa and Ayacucho regions.

In 2010 work began on developing an IWRM plan for the Ocoña River Basin and, at this stage, state agencies, the National Water Authority and regional governments became actively involved. The Ocoña River Basin Council is expected to come into being in 2014 under the 2009 Water Resources Law, and to start translating the IWRM plan into action in 2015.

Aligning cooperation
The breadth of cooperation in the Ocoña River Basin is wide, involving the National Water Authority of the Ministry of Agriculture through the Local Water Administration of Ocoña-Pausa, the Ministry of the Environment, the Regional Environmental Authority and the Regional Institute of Water Management and Technology of the Government of Arequipa, regional counsellors of the Ayacucho Regional Government, the Geological Mining Metallurgical Institute, San Agustín de Arequipa National University, the Research Center of Applied Geography, the Institute for the Development and Management of Water, and Bartolomée de las Casas Study Center.

Sustaining the momentum in cooperation between the two regions on basin management entails aligning local, regional and national action. The new basin council, and the IWRM plan for the Ocoña River Basin soon to be put into action, are clear examples of how cooperation between water users, academics, NGOs and authorities can produce sustainable change.

Cooperation between water users, academics, NGOs and authorities can find ways to cope with threats to water resources.

Resources


ToolBox case studies listed below can be found at www.gwptoolbox.org

Peru: Treated waters: communal participatory management and its impact on human development and ecosystems. Case Study #436.

Venezuela: Participatory management of water resources in Tovar municipality. Case Study #410.

Transboundary: Groundwater management issues for Guarani aquifer. Case Study # 368.

GWP South America |
In Guatemala each local government must manage water for itself because there is no national water law. Most Guatemalan municipalities though just do not have the administrative, technical and human resources to tackle this task. This explains in part why only 60 percent of the rural population has access to safe drinking water and 58 percent to basic sanitation.

In the volcanic mountains of western Guatemala, deforestation, soil erosion and the proliferation of mini-irrigation pollute springs, wells and rivers, particularly affecting the health of women and children under five. Competition for water is escalating. Communities and municipalities in the upper Naranjo River Basin are realising that they can and must work together to deal with these issues.
Building alliances
Eight municipal governments in the upper Naranjo River Basin started the ball rolling in 2003 by setting up the Association of Municipalities of the Naranjo River Basin, known by its Spanish acronym MANCUERNA. This association brought together basin groups set up by non-governmental organisations (NGOs) – Comunidades Asociadas por el Agua, Medio Ambiente, Desarrollo Integral e Infraestructura – and municipalities. The alliance of political and grassroots organisations encouraged communication and forged consensus on water issues. Citizens and authorities actively cooperated to design policies and plans, and find resources to carry out the plans.

Talking round the table
At roundtables, representatives of public authorities and citizen groups discussed ways forward in water resources management. Guided by GWP Central America they drew up integrated water resources management (IWRM) strategies and plans for the basin. Practical action was underpinned by cooperating with journalists to raise awareness of environmental issues affecting water more widely.

Coordinating action
Through MANCUERNA, authorities and citizen groups cooperated to set up information systems to collect data, map social and environmental indicators, and connect new municipal water management units. Aligning municipal water policies with national land and water policies, and training in finance were instrumental in leveraging funds for water projects. Four wastewater treatment plants were built, a service to collect solid waste was set up, agricultural extension workers were trained to address water use issues and degraded water catchments were reforested. Coordinating activities and involving water users throughout has improved water management. Already this cooperative effort has made a visible impact on living conditions in the eight municipalities.

Models for cooperating to manage water resources can be adapted, and adopted in a variety of circumstances.

Resources
The ToolBox case studies listed below can be found at www.gwptoolbox.org

Transboundary: Tacana watersheds Guatemala and Mexico. Case Study #424.

Transboundary: Opportunities and challenges for the shared management of watersheds; the Trifinio Plan for the Upper Lempa. Case Study #394.

El Salvador: Development of community participation in the microbasin La Poza. Case Study #343.

Guatemala: Partnership for IWRM in the Naranjo River Basin. Case Study #327.


MANCUERNA digital library
www.mancuerna.org | publicaciones@mancuerna.org
When ministers in the Caribbean came together to cooperate on water they showed they were serious about tackling water issues. Alone, the small states struggled to grapple with water issues. By getting together they tapped into a wider pool of experiences, expertise and support.

Several Caribbean states are ‘water scarce’, depending on often limited surface water, rainwater harvesting, groundwater and, in some cases, desalination for freshwater. Upland watersheds are degraded, and waste and agricultural chemicals pollute water sources. Tourism, a major industry in the Caribbean, puts increasing demands on water resources on most islands. Many of the problems stem from inadequate management and insufficient resources, both human and financial.

**Encouraging high-level interaction**

In 2005, GWP Caribbean and the
Caribbean Water and Wastewater Association set up the first high-level meeting on water to encourage cooperation at the highest levels of government. Every year since then the meeting has brought together heavy-weight regional and international stakeholders – the Inter-American Development Bank, the United Nations Environment Programme, the European Union Water Facility, the Global Environment Facility, the Caribbean Community Secretariat, the Caribbean Development Bank, the Economic Commission for Latin America and the Caribbean, the Alliance of Small Island States and the Organisation of Eastern Caribbean States – and Caribbean ministers responsible for water. These annual meetings give ministers the opportunity to engage directly with water technocrats, water service providers, and development and donor agencies. Ministers are able to share their perspectives as decision-makers, explore policy options and seek advice on tech-nical issues.

**Moving forward**

In 2012, the forum approved the development of a major new programme on water, climate and development. This will address issues of water security and resilience to climate change in regional and national development.

**Sharing knowledge**

Ministers are keen to craft solutions that support social and economic development but protect the health of citizens, water resources and water supply services. They see sharing knowledge with peers, adopting integrated approaches, combining resources, undertaking joint studies and examining common challenges as the way forward. Such cooperation avoids duplication, pools national, regional and international expertise, and encourages equitable sharing of benefits across borders.

Lip service to integrated water resources management is common. Political buy-in is rare but, as the Caribbean shows, is achievable. Respectful and reliable conveners such as GWP Caribbean can, over the years, foster cooperation among those influential in water issues.

*When ministers in the Caribbean came together to cooperate on water they showed they were serious about tackling water issues.*

**Resources**

High Level Session Ministerial Forum on Water


The ToolBox case study below can be found at www.gwptoolbox.org.

*The Bahamas: The experience of IWRM planning process in Bahamas. Case Study #414.*
Linking science with policy and practice: cooperation across the globe

One of the cornerstones of the existence of GWP is to be a knowledge sharing network. This was pioneered by the GWP Technical Committee, a group of internationally recognised professionals and scientists who are at the forefront of proposing actions that will promote sustainable water resources management. Partners in the GWP network have, collectively, a vast array of information and knowledge on water management. They put this information and knowledge to work by sharing it, with each other and with policy-makers, private sector investors, financial institutions, regional bodies and international organisations. This cooperative effort to share, apply and generate knowledge by a broad range of stakeholders across the globe both draws on and strengthens individual efforts and, at the same time, fortifies the collective effort to change the way we manage water for the better.

Cooperating to share knowledge
GWP shares knowledge widely, through publications, websites, workshops, training courses, meetings and informal exchanges. Publications discuss up-to-date information for a global audience. The GWP IWRM ToolBox – a free, online database of local, national, regional and global case studies and references – is particularly important in capturing, organising and sharing knowledge from partners big and small around the world. All visitors to the website can learn how water issues have been tackled in their communities, countries and regions, read about lessons learned. Some programmes, such as the joint GWP-World Meteorological Organization Associated Programme on Flood Management and soon to be launched Integrated Drought Management Programme, take GWP technical knowledge and use it to provide practical solutions. Cooperating to share knowledge advances a common cause – integrated water resources management.

Cooperating to apply knowledge
Knowledge is only useful if it is exploited. Through GWP, partners cooperate to transfer knowledge so that it can be applied. This cooperation avoids duplication, allows others to learn from experiences elsewhere and
paves the way for cross-fertilisation between groups that address similar issues or complement each other.

Workshops are just one way of transferring information and knowledge. Workshops organised by GWP at many levels cover topics ranging from participatory approaches and gender awareness to financing and flood management. Between 2007 and 2011, for example, the European Union Water Initiative Finance Working Group and GWP organised workshops across the world on ways to finance water and sanitation services. A practical guide *Financing for Water and Sanitation – a Primer for Practitioners and Students in Developing Countries* captures what was covered in the workshops so that the information can be used by anyone, anywhere. In addition, GWP has developed a *Strategic Framework on Water Security and Climate Resilient Development* to help governments develop ‘no/low’ regrets investments and financing strategies.

Co-generating new knowledge

Water experts from organisations around the world brought together through GWP, analyse complex water problems and explore solutions. Cross-sectoral analyses and solutions, in water governance or water efficiency for example, draw on current thinking in science, technology, policy and practice. By bringing experts together to work cooperatively, GWP generates a range of knowledge products for different audiences.

Managing, leveraging and using knowledge

Progress stems from managing and leveraging experience, know-how and knowledge. This is why cooperating to acquire, share and use knowledge is so important. Cooperating adds value to partners’ collective intellectual and knowledge investment. Collecting, organising and transmitting knowledge cooperatively benefit everyone. Information, knowledge and communication are at the core of human progress. Cooperating to generate new knowledge and make it useful, accessible and meaningful is essential for changing the way water is managed.

Advancing integrated water resources management means cooperating to share knowledge.

Resources


Website of the GWP IWRM ToolBox www.gwptoolbox.org
Becoming a GWP Partner is an opportunity to find guidance and support on integrated water resources management (IWRM) from expert sources, and to interact with local stakeholders as well as with the international agenda.

Applications are open to all institutions and organisations that have an interest in improving the way water resources are managed, and support the Dublin-Rio Principles. There is no fee. Just bring your vision, dedication, passion and commitment.

To find out more about being a GWP Partner, go to: http://www.gwp.org/en/Get-involved/Become-a-Partner
The United Nations International Year of Water Cooperation highlights successful cooperation on water. The stories in this book are a few examples showing that water is a catalyst for cooperation.