

# Water Security for All?

## Participatory IWRM in Africa



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**A joint effort of:**

**AFIEGO (Uganda)**



**BEES (Benin)**



**Both ENDS (the Netherlands)**



**Development Institute (Ghana)**



**ELCI (Kenya)**



**Forum Civile (Senegal)**



**JVE (TOGO and BENIN)**



**NAPE (Uganda)**



**Nature Kenya (Kenya)**



**Nile Basin Discourse (Nile Basin countries)**



**Wetlands International Africa (Senegal)**



## **Water Security for All? Participatory IWRM in Africa**

### **Water stress in Africa**

Water stress increases in Africa, driven by population growth, unsustainable economic development, pollution, and climate change. Access to water is also unevenly distributed as a result of great spatial and temporal variations in climate and rainfall. Current and planned interventions in many river basins in Africa threaten to aggravate these inequities, generate conflict and pose a serious threat to the integrity of ecosystems. As water is a shared resource, collaboration between its different users is urgently needed. Institutional frameworks and capacities are however often weak.

### **Integrated Water Resources Management**

Integrated Water Resources Management (IWRM) is an approach designed to achieve sustainable development. It offers a way to manage competing demands for water and the linkages across sectors. The IWRM core principle can be described as the recognition that water is a public good with both social and economic values. A major challenge in IWRM is managing different interests of different sectors and users that might conflict. The ecosystem requires a basic amount of water to remain its integrity and to replenish. Communities require accessible and safe water for their basic needs and livelihoods, and agriculture and industries a reliable supply that is of sufficient quality. Key question is therefore: how do we achieve *Water Security for All?*

### **The Negotiated Approach**

Since the early '90s, Both ENDS has worked with a wide range of local civil society organizations on developing participatory and sustainable land and water management approaches. Our cooperation allows for joint knowledge development, community empowerment, and for the creation of an enabling policy environment for the inclusion of local actors in the development and implementation of resource management plans. Through the years, our accumulated knowledge and experiences has been brought together in the "Negotiated Approach to Integrated Water Resource Management". The Negotiated Approach shows the potential of inclusive resources management with a strong role for local actors in achieving sustainable resources management and sustainable economic development in the long term.

The Negotiated Approach seeks to improve the sustainability and legitimacy of IWRM planning by altering the top-down process through which it currently takes place. It empowers local actors, and works to create rules and regulations that assure equitable participation of all stakeholders in decision-making processes in which water users can propose their own proposals. The Negotiated Approach goes beyond merely creating a multi stakeholder dialogue, but creates opportunities for local actors – including local communities - to actively develop, propose and negotiate policy and investment measures, based on local knowledge, needs and environmental realities. This is fundamentally different to most conventional participatory processes, in which local groups merely have the opportunity to react to strategic plans developed by experts or policy makers<sup>1</sup>.

### **Community of practice in Africa**

In November 2011, Both ENDS introduced the Negotiated Approach to partner organisations in Africa, from Uganda, Kenya, Ghana, Togo, Benin and the Nile Basin. At that time all of the organisations present felt the Negotiated Approach could be an added value to their on-going work on sustainable water resources or river basin management, and expressed interest to take up the approach.

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<sup>1</sup> Publication 'Involving Communities: A Guide to the Negotiated Approach, 2011':, [http://www.bothends.org/index.php?documentId=49&category=Water&page=6\\_5](http://www.bothends.org/index.php?documentId=49&category=Water&page=6_5)  
Video about the Negotiated Approach: <http://www.youtube.com/watch?v=Z0JRRfyU4j4>

At an informal meeting at the 6th World Water Forum held in Marseille in March 2012, the group decided to all engage in a similar process to initiate and implement the Negotiated Approach in the river basins they work in: the Tana Delta in Kenya, Lake Albert in Uganda, the Dayi Basin in Ghana, the Mono basin in Togo and Benin and the Nile River Basin. These rivers are included in an official commitment presented in Marseille by a broader alliance of 21 NGO's, to implement participatory IWRM in 15 River Basins in the world<sup>2</sup>. Their progress and experiences were subsequently discussed later that year in a capacity building workshop in Benin amongst a broader group of African and international organisations.



*Participants at the Benin capacity building workshop, 2012*

In the first week of February 2014, this “community of practice” meets again in Amsterdam to take stock of where we are, share relevant tools, and have strategic discussions on how to strengthen and upscale the initial steps taken through advocacy, fundraising and implementation on the ground. Part of this group are: ELCI (Kenya), Nature Kenya (Kenya), NAPE (Uganda), AFIEGO (Uganda), Development Institute (Ghana), JVE (Togo/Benin), Nile Basin Discourse, Forum Civile (Senegal), Wetlands International Africa (Senegal) and BEES (Benin). ECOTON, a partner organisation from Indonesia working on participatory IWRM as well, will join to exchange views, tools and experiences. The enclosed short case descriptions illustrate the challenges they face and their efforts so far.

### **Way forward**

The main goal of the African community of practice is to promote truly participatory and sustainable water governance as key part of the solution to the looming water crisis in Africa. This cannot be solved by technologies and a systems approach alone. To achieve water security for all it is essential to manage different interests of different sectors and users that conflict. Only through extensive local consultations and negotiations with actors in civil society is it possible to achieve such a social accord on water management that balances the competing water needs with each other in the public interest.

The Netherlands can play an important role by sharing their expertise world-wide, not just on the technological side of water management but on their vast experience on the ‘software’. This involves long-term planning, participation and negotiation and effectively addressing conflicts and power relations by creating a better level playing field.

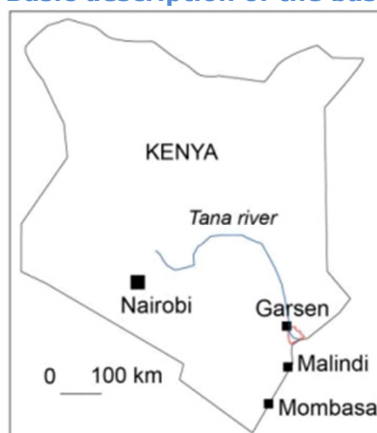
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<sup>2</sup> See <http://www.bothends.org/en/Publications/document/77/Declaration-of-Commitment>

## Towards a Negotiated Approach in the River Tana Delta, Kenya

The Tana River Delta is a vast wetland complex in Kenya, situated roughly between the port of Mombasa and the border with Somalia. This delta has been identified by the Kenyan government in its Vision 2030 policy document as a hotspot for large scale developments, such as biofuel plantations. Since 2007 Nature Kenya, later within the broader Ecosystem Alliance Kenya, is campaigning against these threats, which resulted in the establishment of an Inter-Ministerial Committee tasked to develop a governance framework for all delta areas in Kenya, starting with the Tana delta. Nature Kenya has coordinated the secretariat of the Committee and played a crucial role in executing a Strategic Environmental Impact Assessment for Tana Delta, and organising local input for the land use plan. This plan is currently in the final stage of development.

### Basic description of the basin



The Tana is Kenya's largest river and discharges, on average, 4,000 million m<sup>3</sup> of freshwater annually. The total catchment measures an area of 126,000 km<sup>2</sup> (equivalent to 21.7% of the land area in Kenya), while the delta measures an area of 130,000 hectares. It is inhabited by around 100,000 people that live together in 115 villages. The population consists of Luo fishermen, Pokomo farmers, Orma pastoralist, hunters and gatherers. But the basin is also an important international trekking area for pastoralists. During the dry season it receives several 100,000 of animals from other parts of Kenya and Somalia. The delta is a seasonal wetland as half of its territory is regularly inundated during the rainy season. Also the seasons vary dramatically from year to year. A series of dry years, with ponds drying up and grasslands eaten bare, may be followed by a year with extensive floods.

BirdLife International has designated the delta as an important bird area and the delta has been designated as a Ramsar site in 2012.

### Key current challenges and power dynamics

The Kenya government has identified the Tana basin as a hotspot for large scale developments in its Kenya Vision 2030. More than seven large scale agricultural schemes have been proposed in the delta alone in order to make the delta escape from its so-called stagnation. An additional threat is the proposed extension of the Owen Falls dam located in upper Tana River, which would gain the capacity to store a years flow of the river. Across the border with Somalia the Lamu Port is being designated and its demand for water will be comparable to Nairobi's current water demands. To defend all these interventions the flood plains have been described as 'unused lands' and its adjacent terraces as 'empty dryland'. The challenge for CSOs is to demonstrate the potential of small scale development options. Nature Kenya, Wetlands International Africa and ELCI have formed an alliance (Ecosystem Alliance Kenya) together with other stakeholders to take up this challenge.

Over the last decades conflicts have escalated to deadly levels as demand for competing land use, nature conservation and community interests have intensified. The conflicts- human versus wildlife, pastoralists versus farmers, local pastoralists versus pastoralists from outside, large scale developers versus community and conservationists- are likely to increase if the proposed projects are implemented. The impacts of climate change and absence of land use framework compound the escalating conflicts.

### Activities so far

The long-term solution lies in the formulation of an agreed land use plan in which the rights of the local communities to their ancestral land and biodiversity is recognized.



Since 2007 Nature Kenya is leading an advocacy campaign against destructive developments proposed in the Tana Delta. In July 2011 lobby towards the Office of the Prime Minister of Kenya (OPM) to oversee the formulation of a land use plan for the Tana River Delta was successful. Subsequently OPM established an Inter-Ministerial Technical Committee composed of seventeen ministries to coordinate the sustainable management of Deltas in Kenya starting with the Tana Delta as a pilot. A secretariat with representatives from key Ministries and civil society became responsible for the daily management. In September 2011 the preparation of a Land Use Plan (LUP) for the Tana River Delta started, including a Strategic Environmental Assessment, in which alternative development paths for the delta were defended. The LUP process is based on extensive stakeholder consultations at the national level, county councils and community level (106 village land use plans), in which Nature Kenya and the Ecosystem Alliance played an important role. The Dutch MER Commission played an advisory role.

### Lessons and results

Nature Kenya started several court cases. In July 2008, a High Court injunction stopped Mumias Sugar Company from implementing its \$370 million sugarcane scheme (nearly 50,000 acres) together with sugar and ethanol plants. In February 2013 the High Court ruled that the local communities in Tana Delta have a say in the development plans for the delta and must be consulted before the developments take place. In October 2012 the Tana River Delta was designated as Kenya's newest Ramsar site. The draft land use plan is nearly complete and widely praised for its innovative SEA strategy as a new way which will change how land will be managed in all Kenyan Deltas. Stakeholders view the land use plan as the most comprehensive attempt so far towards finding a lasting solution to the problems facing people and biodiversity in the Tana River Delta.

### Challenges and next steps

Further capacity building of the local stakeholders is essential to effectively engage decision makers. It took a long time to build trust among the different parties involved, and this is a continuing investment that will need to be done. Serious resource constraints to carry out a comprehensive consultative process at several levels in the final stages of the land use plan and SEA are a major constraint. Nevertheless the Ecosystem Alliance Kenya will continue its role in producing the land use plan and SEA for Tana delta, to lobby for its adoption and to share it with decision makers at all levels. Eventually it will support land use planning in another Kenyan deltas learning from the lessons in Tana Delta.

### Links

<http://www.naturekenya.org/>, <http://www.africa.wetlands.org/> , <http://elci.org/>

## Towards a Negotiated Approach in Lake Albert catchment, Uganda

In 2006 oil was discovered in Uganda in the Lake Albert region and it is currently estimated at 3.5 billion barrels of crude oil. Together with the oil booming industry came infrastructural developments, to facilitate the oil drilling exploration and future exploitation, such as hydraulic energy generators like dams, the building of roads for different sorts of transport and electricity poles. Once the oil industry will hit production stage the demand for water is expected to rise exponentially. Currently there is not much knowledge on the availability of ground water resources in the region. Due to unsustainable land use, overfishing, incoming migration and commercial agriculture the aquatic ecosystems are rapidly depleting. Three important NGO's that are active in various parts of the catchment (NAPE, UWS and AFIEGO) have formed the Ecosystem Alliance. The program the Ecosystem Alliance is setting up is aiming at involving all relevant stakeholders in developing water management plans along the Ugandan institutional guidelines, with special focus on the current threats and opportunities in Lake Albert region.

### Basic description of the basin

The Lake Albert catchment comprises the part of the Great Rift Valley around Lake Albert on the Ugandan side and is dominated by this great lake. Most streams and rivers in the catchment originate from the highlands of the Rwenzori Mountains and the Rift Valley and drain into Lake Albert. Subsequently, Lake Albert drains into the Nile.



The main sources of livelihood generation are fishing, crop farming, mining and cattle keeping. Fishery is still the main source of income in the area but due to overfishing this position is fragile. Although tourism doesn't play a significant part in the livelihoods of local people, a couple of the most famous touristic national parks of Uganda are present in the lake Albert catchment.

The geology of the region is the main reason why the soil in the area does not contain large amounts of ground water - it is caused by the lack of aquifers, which are layers of water bearing permeable rock or unconsolidated materials. Access to safe and reliable drinking water is low, about 30% of the people have access to boreholes. Boreholes are increasingly reported to run dry. As a result, local communities use the (polluted) surface water of Lake Albert, leading to high incidences of cholera and other water borne diseases.

### Key current challenges and power dynamics

The development of the oil industry is mostly concentrated in and around the Murchison Falls national park, in the North-Eastern region of Lake Albert. Other oil exploration hotspots are located in Buliisa and more over Hoima district and in the lake itself. Infrastructure development to support the booming oil industry is rapidly taking place. There are plans for the construction of at least three new dams in the region: Waki hydropower station in Butiaba, Buliisa; Muzizi hydropower station in Ndaiga, Ntoroko and Karuma dam in Masindi district. Some oil companies also build schools and medical clinics for local communities in the region. The region is divided into three blocks, where three different oil companies are currently having permits for exploration: North (Total), Middle (Tullow Oil) en South (CNOOC).

Another development accompanying the oil industry is the recent population growth, now that job seekers seek their fortune in the growing potentials of the area, also increasing the demand for food and food production.



The Bunyoro kingdom still covers a large area of the catchment. The natural resources belonged to the kingdom but people often used it communally. Now the boreholes are often managed by Water User Groups, with slight differences in regulations between each community. Especially since the development of oil in the Lake Albert catchment, rights to land have become controversial.

#### **Activities so far**

National and local civil society organisations work together to try to envision another, sustainable way of living together with the environment in Lake Albert catchment. They raise

awareness about sustainable use of natural resources among local communities as well as private corporations and local governments. Three of them have formed the Ecosystem Alliance. The National Alliance of Professional Environmentalists (NAPE) seeks to develop sustainable solutions for environmental impact caused by economic development in the region. Research and education among all stakeholders is part of their work, as is the monitoring of government actions and plans. The Africa Institute for Energy Governance (AFIEGO) offers the local people an alternative livelihood by facilitating fruit tree planting, at the same time fighting erosion and deforestation. Both AFIEGO and the Uganda Wildlife Society (UWS) try to empower the local communities by making their voices heard by the local governments, and educating them on their rights and how to claim them.

#### **Conclusions and way forward**

The commercial exploitation of oil already has a negative influence on the quality of water, and poses an even greater risk to the environment in the future. No effective solution has been found for the waste disposal of the oil industry. The drilling is still in exploration phase and is expected to go to production phase in a few years. The demand for water during production phase is expected to expand exponentially. This will be due to the fact that water will be pumped into the oil reservoirs to sustain the pressure to force the oil out. The water will also resurface as "produced" water and will have to be treated.

There is a need to address issues jointly on a catchment level, where (local) authorities, the private sector and the communities are being represented. A program needs to be set up that ensures the availability of technical data on surface water and ground water systems that balances future increase with current existing problems: access to drinking water, combatting depletion of wetlands, aquatic ecosystems. There is a great potential in developing catchment management along the national guidelines. This will provide an institutionalized platform for all stakeholders (government central and local, private, civil society) to give input, highlight issues and demands, and channel contributions.

#### **Links**

<http://www.afiego.org/>, <http://www.nape.or.ug/>



## Towards a Negotiated Approach in the Nile Basin

The Nile countries face a number of serious development challenges. Its water resource base is coming under increasing stress and regional cooperation has reached a deadlock. The 800 members Nile Basin Discourse (NBD) network aims to strengthen civil society participation in Nile Basin developmental processes and programs. NBD is currently keen to move from a reactive towards a pro-active role in supporting Nile cooperation. NBD is currently partnering with Both ENDS and the Delft University of Technology to facilitate a multi-disciplinary team to develop strategic and contextual scenarios of the plausible futures for the Basin for the next 30 years. Scenarios can define a new agenda for cooperation because they inform not only the short, but also medium and long-term goals and bring stakeholders and interests together. It can act as a key step in the initial process of implementing the Negotiated Approach.

### Basic description of the Basin

The Nile is one of the world's great rivers. It traverses 11 countries and nearly 6,700 kilometres. It covers 10% of the African surface area and contributes 60% of the states' GDP. The Basin has highly diverse and variable climate regimes, languages and cultures. The Human Development Index (HDI) of six of the Nile Basin countries rank among the bottom 25. Many of the critical water towers are degraded and in dire need for rehabilitation. There are 17 Wetlands and Ramsar sites covering 35,596 Km<sup>2</sup> that need to be preserved and protected. 42% of the basin is arid and hyper arid areas which causes a strain on the water resources.

The Nile Basin Cooperative Framework Agreement (CFA) was designed to facilitate cooperation between the 11 countries. The CFA is not yet effective however. It has been signed by six countries and ratified by Ethiopia. During the negotiations, the agreement was resisted by two downstream countries because of the water security provisions, leading to a deadlock. The deadlock threatens the stability of the CFA and future Nile cooperation.

### Key current challenges and power dynamics

The Nile countries face a number of serious development challenges. The basin's population of over 160 million people is expected to double in the next 25 years. Four of the 11 countries that share the Nile are among the world's ten poorest countries and poverty is widespread. There is a serious deficit of electric power generation in Sub-Saharan Africa, with less than 10% of basin residents having access to electricity. They also face increasing water scarcity, deteriorating water quality, uneven levels of economic development, and many in the region are affected by HIV/AIDS and malaria. Agricultural demand on water is also increasing, which, combined with the needs of a growing population results in a water resource base that is coming under increasing stress. Climate change poses an additional stress to sustainable water use.

As the CFA deadlock persists, countries within the Nile have started to implement multilateral projects unilaterally. The EU Council recently underscored in its conclusion on EU Water Diplomacy, the urgency to address the tensions and concerns about the water security situation in the Nile.



### Activities so far

The Nile Basin Discourse (NBD) was established with the support of donors in 2002 to strengthen civil society participation in Nile Basin Initiative developmental processes and programs. Having established national level Nile Discourse Forums (NDFs) in each of the 11 riparian states within the Nile Basin, as well as the overall regional Secretariat based in Uganda, the NBD has matured into a civil society network with more than 800 member organizations that raises awareness among civil society actors on Nile Basin development programs and promotes a culture of "One Nile, One Family."



The Nile Basin Discourse has over the years been highly successful in raising awareness on the benefits of Nile cooperation, to bring concerns of affected communities to NBI officials and project implementers, and to facilitate dialogue between stakeholders. It has come to the conclusion though, that it has not been effective in changing the Nile water governance system towards a more inclusive and adaptive system. For this, there is need to create social cohesion and a sense of ownership of people towards Nile Cooperation.

NBD was introduced to the Negotiated Approach developed by Both ENDS and Southern partners, in 2011 and 2012. Based on this introduction, NBD is keen to move from a reactive towards a pro-active role in supporting Nile cooperation. NBD is currently partnering with Both ENDS and the Delft University of Technology to organise a scenarios workshop in February 2014. The purpose of this workshop is to facilitate a multi-disciplinary team from the Nile Basin to develop strategic and contextual scenarios of the plausible futures for the Basin for the next 30 years. These scenarios interweave models like the Nile Basin climate Change model with storylines and as a consequence increase their utility as negotiation tools during the policy making process.

### Lessons and results

In large or trans boundary river basins, where the basin community is diverse like in the Nile, before the community starts working effectively together, it needs a common interest or problem through which the future can be imagined. There is need to create social cohesion and a sense of ownership of people towards Nile Cooperation. Scenarios can help bridge this gap to facilitate community crystallisation and ignite constructive dialogue. Scenarios define a new agenda for cooperation because they inform the short, medium and long-term goals of a particular basin. It can act as a key first step in the initial process of implementing the Negotiated Approach.

### Challenges and way forward

As long as gains to one riparian state are equated to losses to others, there is a high likelihood of a deadlock situation because there is no middle ground on which the divergent arguments can interact. There is need to find ways to have more fruitful regional dialogue on water resources management. To reconstruct dialogue, there is need to define a new agenda that addresses the structural properties of the water use commons dilemma.

The scenarios and storylines developed will be presented to policy makers (Nile-COM, Nile-TAC, ENTRO, NELSAP-CU and Nile-Sec) and other stakeholders, and are envisaged to be used as part of a renewed process of developing a regional water resources management plan. In parallel, Negotiated Approach pilot processes will be initiated in three trans-boundary sub-basins or NBI investment areas with a trans boundary component so as to increase and show the constructive engagement of local actors in water management.

### Links

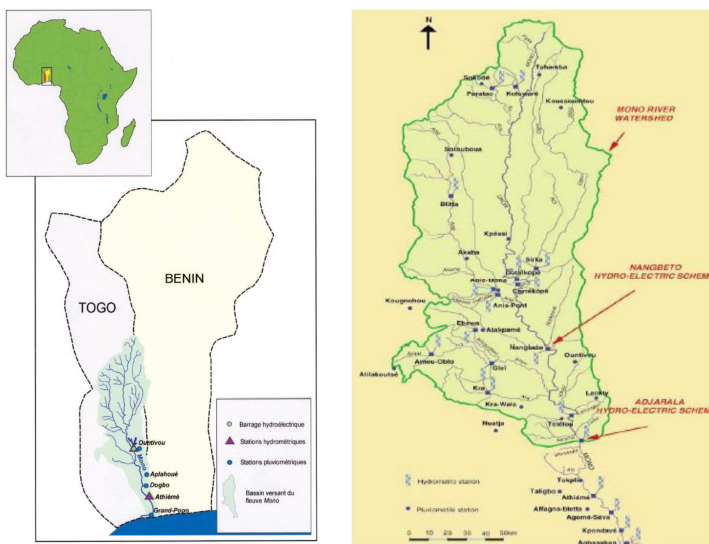
[www.nilebasindiscourse.org](http://www.nilebasindiscourse.org), [www.tbm.tudelft.nl](http://www.tbm.tudelft.nl), [www.bothends.org](http://www.bothends.org)

## Towards a Negotiated Approach in the Mono River Basin - Togo and Benin

The trans-boundary Mono River Basin in Togo and Benin is experiencing population pressure, and impacts from climate change and human interventions such as large-scale dam building, mining and agriculture. Development in the Mono is driven mostly by national energy needs. The new planned Adjaralla dam is therefore controversial. In 2011, the two riparian states started a process to manage their shared river by setting up a Mono River Basin Authority (MBA). To ensure local stakeholders' voices are heard, Both ENDS supported JVE - Jeunes Volontaires pour l'Environnement, to start a Negotiated Approach (NA) to IWRM. JVE extensively consulted communities to assess their needs, problems, solutions and ambitions in relation to the Mono River Basin, collecting relevant information on the basin itself and engaging in dialogue with government authorities. JVE is currently the only CSO representative involved in the so far top-down process of creating the MBA. They are setting up a Mono Citizens Board and a Mono CSO Forum, and work on alternatives such as pico-hydro.

### Basic description of the basin

The Mono River is the major river of eastern Togo. It is approximately 400 km long, and drains a basin of about 20,000 km<sup>2</sup>. Along the southern portion of the, it forms the international boundary between Togo and Benin. The river drains into the Bight of Benin. Communities live from small scale farming, fisheries, and livestock rearing. The river is dammed 160 km from its mouth by the Nangbeto hydroelectric dam, a partnership between Benin and Togo completed in 1987. Studies have reported economic benefits, but also forced displacement, conflicts on compensation, substantial modification in the ecology of the lagoon system at the river's mouth and reduction in water flow. Besides the international agreement between Togo and Benin on electricity, Mono was devoid of a legal and institutional framework for the management of its water resources, up till 2011 when the set up of the Mono Basin Authority of the Mono Basin (MBA) was initiated.



### Key current challenges

An integrated vision and management of the Mono is urgent. This geographical area shelters large development projects including the exploitation of phosphate and limestone, and the construction of hydroelectric dams to serve the energy needs of Togo that is currently for 80% dependent on Ghana, Ivory Coast and Nigeria for its energy supply. The projects have caused or threaten to cause conflicts between different actors and users of the basin. Participation of communities is weak and there is a lack of coordination and dialogue between the various stakeholders (governmental and local authorities, donors, civil society organizations and Basin citizen).

Apart from the impacts from dam building, the river faces pollution from mining, the sugar industry, cotton farms and urban waste. In addition, there are conflicts between farmers and pastoralists and between native and immigrating fishers. Land policies are weak. The current MBA set up in the Mono to enhance governance and sustainable management of the basin would be far from being reached if no immediate action is undertaken to ensure the voice of all

stakeholders is heard and discussed. At the start, only government authorities of both countries have been involved.

#### Activities so far

JVE - Jeunes Volontaires pour l'Environnement is a strong network represented in more than 22 countries in the world. In Togo and Benin, they started piloting the NA in 2011 with extensive consultations with the communities in Togo and Benin to assess their needs, problems, solutions and ambitions in relation to the Mono River Basin, collecting relevant information on the basin itself (water availability, various uses, and impacts of climate and development scenarios) and analysing relevant policies and



engaging in dialogue with government authorities. A comprehensive inception report includes concrete proposals towards the authorities based on what the Mono basin citizens want. This is currently being used for negotiations with government authorities in Benin and Togo. JVE also closely follows the decision-making process around the Adjaralla dam and works on alternatives for large-scale dams such as piloting pico-hydro dam constructions in close cooperation with communities and local authorities.

#### Lessons and results

JVE is currently accepted as only CSO representative involved in the process of creating the MBA. JVE has set up a Mono users committee in Togo and are working on the establishment of a Mono citizens Board and a Mono CSO Forum. The NA pilot was very timely as it focuses on much needed empowerment of local communities to be able to speak up. It creates ownership and closer linkages with the basin, and supports them to positively engage in constructive dialogue on how to equitably share the resources.

#### Challenges and way forward

A mapping study by JVE showed there are various local groups active in the basin, either self-established or set up through official degrees, which have enough capacity to support the soon-to-be established Mono Basin Authority in scaling up successful practices and programmes for the well-being of communities. It is imperative that transparency, inclusiveness and sustainability govern the work of the new body, and all stakeholders will be meaningfully engaged in the decision-making process on the future development of the basin. JVE will continue to support the communities, elaborate joint development plans and engage the MBA, government authorities, private sector and development partners.

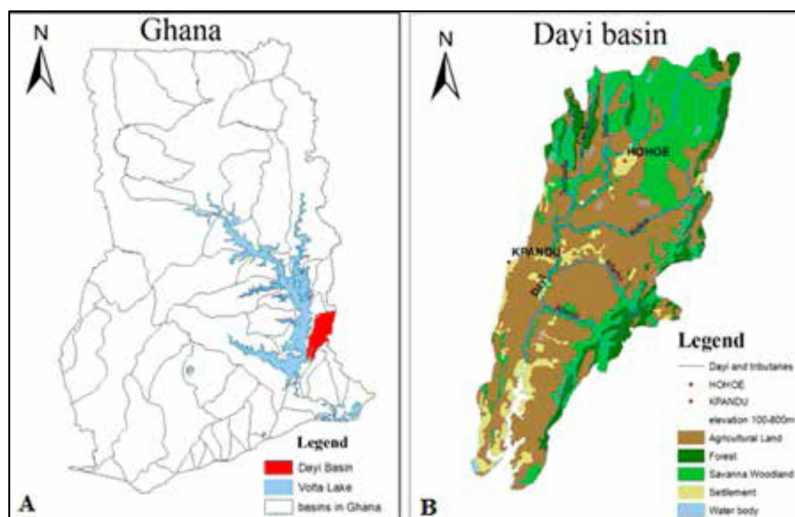
#### Links

[www.jve-international.org](http://www.jve-international.org) , [www.youtube.com/watch?v=KAPicerekps](https://www.youtube.com/watch?v=KAPicerekps)

## Towards a Negotiated Approach in Dayi basin in Ghana

Dayi basin is situated in the mountainous Eastern region of Ghana where Dayi River emanates since 1965 into Lake Volta. In the seventies the once sizeable cocoa sector of the region shrank by a man made ecological crisis. From 2008, the national NGO Development Institute started the GEF funded program called Dying Rivers and the Dutch Development Cooperation supported ADAPTS project. Both aimed to increase the resilience of the communities in the basin to climate change and to achieve sustainable management of the Dayi water resources. Buffer zones and small-scale irrigation were established, making the farmers more resistant to drought and quadrupling their income. Meanwhile, close cooperation with the Water Resources Commission was established. Local community representatives now have a place in the Dayi Basin Board inaugurated in 2010 (the 5<sup>th</sup> in Ghana and the most democratic one), and climate change was given due recognition in the basin and national Ghana Water Plan. As yet the board is not operational however due to lack of cooperation between district actors and, notably, lack of funding.

### Basic description of the basin



Dayi basin is part of the Weto mountain range, separating Ghana from Togo, which used to be a sub-tropical rainforest area. After 1900 the German colonizer introduced rain fed cocoa farming around the capital of Ho which attracted labour migrants from neighbouring areas. However, the slash and burn practices resulted in a steady degradation of the vegetation. Negative effects became visible around 1980 with a crisis in the cocoa economy. Dayi became a stagnating region with

increased cultivation of cassava (threatening the tree based economy), while youths migrated to Accra. Some promising new crops are now developed. Around 60% of the population depend on rain-fed farming for their livelihood. However, average annual rainfall decreased from 1700 mm/year in 1975 to 1400 mm/year at the present. Rainy seasons have become shorter, and perennial springs have become seasonal.

The decreasing amount and reliability of rainfall amplifies the negative effects of shifting cultivation and of population growth and results in a drying out of water resources and in a depletion of soil fertility.

### Key current challenges and power dynamics

Dayi basin experienced national exploitation of its natural resources. The 1965 Akosombo dam resulted in the creation of Lake Volta that submerged part of Dayi basin. The region was also geographically cut of from the market of the capital of Accra. Since the 1970s some large scale irrigation was set up by the national Irrigation Development Authority, with only limited success. The World Bank funded Ve-dam hardly capacitated local farmers groups and functioned far below its capacity and mainly provided the capital city of Ho. The Ho district administration was relatively slow to develop due to limited national investments in for example roads, while local taxation lagged behind expectations.

For decades Dayi basin is suffering from a silent underdevelopment. No strong environmental coalition exist, while most forest land is converted to agricultural use with only few forest

reserves remaining. In addition to increasing water scarcity, pollution of the dump sites of the few cities is increasing. Only in the past decade some clear efforts at reversing this trend were developed in Dayi. The Cocoa Board tried to reinvigorate the ailing cocoa sector by distributing drought resistant cocoa seedlings but no efforts were undertaken to restore the vegetation.

### Activities so far

In 2008 DI started the ADAPTS project, which is based on the NA principles and sets out to integrate climate change considerations in water management planning (see [www.adapts.nl](http://www.adapts.nl)). DI promoted community based natural resource use in amongst others Hoadze village, by halting the slash and burn agriculture, creating buffer zones around spring sources and promoting an economy based upon tree crops and small-scale irrigation. This increased farmers' resilience as well as their income. At district and national level, DI stressed the impact of climate change on communities and the need to act. DI has a strong ally in the national Water Resources Commission in developing integrated approaches to water resources and promoting the buffer zone concept, as WRC needs it to protect vital water resources near Accra.

In 2010 the Dayi Basin board was inaugurated as the 5<sup>th</sup> board in Ghana under the auspices of the WRC. The Dayi Basin Board was the first rural one in Ghana and the first with bottom up election procedures and involvement of local representatives. Twelve of fifteen seats are reserved for district authorities, one for an NGO, one farmer group and the chiefly house. The Dayi Basin Plan was also the first to explicitly incorporate climate change considerations.



Despite its promising start the Dayi basin board has not been functional yet. In October 2013 the Ministry of Lands, Housing, Water and Sanitation announced to support the ADAPTS approach, but could not provide financial means. The board is mainly in the stage of informing the stakeholders and has not taken up a position yet on critical problems.

### Lessons, results and next steps

The NA has proven its value by linking stakeholders at all levels: local, district and national level. This resulted in a coalition between the national WRC and the Dayi district, and the creation of the Dayi Basin Board with local representatives. The incorporation of climate change in the National Ghana Water Plan is a precondition, as is the attention for buffer zones. The big challenge is to start implementing the proposed integrated basin management. This will demand investments at community level and financial sustainability of the functioning of the Board itself. Also the district institutions will need to improve their cooperation. The reversal of the ecological and economic underdevelopment in Dayi requires concerted action at all levels, although the ground work has been done.

### Links

[www.adapts.nl](http://www.adapts.nl), [thedeivin.org](http://thedeivin.org)

## Towards a Negotiated Approach in Senegal River basin

The Senegal River Basin is one of the major waterways of West Africa. As the region develops the pressure on the use of this water is increasing and maintaining the balance between different water users including communities and nature is critical. The Senegal River Basin Development Authority (OMVS) is the key convenor for these discussions and is tasked with facilitating the development of strategy and action plans for the basin as a whole with the participation of key stakeholders. Within the structure of OMVS there is a framework for civil society engagement, that currently needs strengthening. This will involve both developing the capacity of civil society organisations to engage in river basin discourses and strengthening the engagement mechanism in the basin's governance framework itself. In partnership with OMVS, the Ecosystem Alliance will work to re-new the stakeholder platform engagement. In three pilot regions of the basin the partners will engage with local CSOs to develop a means of engagement, supply basic knowledge and information of wetland service provision and value, risks and opportunities for wetlands in basin planning and instigate consultation meetings.

### Basic description of the basin



The Senegal River is a West African river of, 1790 km long, taking its source in Guinea at a 750 km altitude and flowing through Mali, Mauritania and Senegal, before joining the Atlantic Ocean in Saint Louis. Located in a water scarce region, the river is key resource for development in terms of energy (hydropower and irrigation for biofuels), food (intensive and subsistence) and water (from industry to community). The basin has a significant wetland resource whose health is to

a large extent dictated by the river itself. Floodplain wetlands and the Delta are dependent on the river's regime being maintained within certain boundaries and hold huge value for communities supporting the livelihoods and local economies many thousands of people. The area has a total population of 35 million inhabitants, of whom 12 million live in the river basin, and where malaria control intervention coverage is among the lowest in the world.

The organisation pour la mise en valeur du fleuve Sénégal (OMVS; in English 'Senegal River Basin Development Authority') is an organisation grouping the four countries for the purpose of jointly managing the Senegal River and its drainage basin. OMVS aims to promote self-sufficiency in food security, to improve the income of the local populations, and to preserve the natural ecosystems.

### Key current challenges and power dynamics

There has already been quite considerable development of water resources in the basin that have had demonstrable impacts. In Senegal, the Diama Barrage was constructed in 1986 to improve the opportunities for freshwater agriculture in the Senegal Delta by reducing the saltwater influence due to tidal influence. Whilst this has been partially successful, it has also created the loss of major areas of wetland and created a situation where a mono-culture of approximately 100.000ha of reed now covers the delta; this has neither value for biodiversity, people or society more widely. The improved situation for freshwater agriculture is also driving increasing investment in the Delta area itself, such as the emergence of Senoïl's 10-30.000ha

biofuel production plantation near a created freshwater reservoir (Lac de Guiers), leading to the drying up of former wetland areas.

The riparian states want to continue to develop the river's water resources to support the economy in the region. Food security, energy needs, growth of the urban population and the need for improved upstream navigation to support trade are all key drivers. The remaining wetland resources are at risk as the role that wetlands are already playing and could play with improved wetland management and restoration are not taken into account. Without action these values will continue to be overlooked both because OMVS does not have a basin wide knowledgebase and because the key stakeholders in wetland values – typically rural communities – are not able to engage with the planning and implementation of existing frameworks.

### **The Ecosystem Alliance in the Senegal Basin**

The Ecosystem Alliance, and especially Wetlands International and Forum Civile, is a coalition of CSOs working in the Senegal basin. Although the Senegal Basin has many wetlands, there is a lack of knowledge about their location, characteristics, the ecosystem services they provide, their values, and their vulnerability. The Alliance will further develop the knowledgebase by, among others, undertaking a 'quick scan' study on wetland values and threats. The Alliance is also working to advance civil society engagement within the river basin planning and management frameworks, in close collaboration with OMVS, through improving the implementation of its framework for civil society engagement and the representation of civil society stakeholders. This will involve both developing the capacity of civil society organisations to engage in river basin discourses and strengthening the engagement mechanism in the basin's governance framework itself. The final aim is to set up operational civil society engagement platforms in three basin sub-regions, and thus develop a model for civil society engagement for application across the basin accepted by OMVS. Another line of action is negotiation with companies such as Senoil to take into account community needs and positions.



On-going international pilot projects for example to alleviate the reed problem are monitored to ensure that within these plans space is available for nature and for more traditional rural livelihoods for local communities. Influencing the process of implementation of OMVS's sustainability strategy called SDAGE (Schema Directeur d'Amenagement et de Gestion des Eaux du fleuve Senegal) is also part of the activities, with the aim of increased attention for wetlands and their ecosystem services. The Alliance takes care of the maintenance and restoration of wetlands integrated into the SDAGE implementation.

### **The way forward**

For the future, the main challenge will be the up scaling of the civil society platform model to the whole Senegal River basin scale. For that it'll be needed to increase capacities of CSOs, which are still weak, in the basin and promote a better private sector engagement and a better synergy of the different government bodies.

### **Links**

[www.omvs.org](http://www.omvs.org) , <http://afrique.wetlands.org/>



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