

INTEGRATED DROUGHT AND FLOOD MANAGEMENT



Contribution of media women/men in the advocacy and awareness-raising in West Africa

Mrs. Félicité CHABI-GONNI VODOUNHESSI,
Project Manager of GWP-WA

**«Soil degradation in the Sahel
is not a fatality»**



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«Integrated drought and flood management: contribution of media men/women in advocacy and awareness-raising in West Africa»

Editor's words

Prepare populations and decision-makers to better manage floods and droughts and contribute to the sustainable development of countries

According to the special report of the Intergovernmental Panel on Climate Change (IPCC) published in October 2018, at the current greenhouse gas emission rate, global warming will reach 1.5°C above the pre-industrial levels, between 2030 and 2052. This projected increase in global warming will lead to severe consequences, including: (i) the upsurge and intensification of extreme climatic events like floods, droughts, sea-level rise; (ii) the depletion of water resources; (iii) the decrease in agricultural and livestock production with livestock losses estimated at between 7% and 10%; (iv) food and energy insecurity; (v) the increase in threats to terrestrial and marine biodiversity; (vi) health damage and (vii) economic losses. Those consequences will accelerate the degradation of the surface conditions of rivers already subjected to strong and ever-increasing demographic pressure. Although there is no certainty about the level of precipitation, it is estimated that the number of rainy days will decrease, but the intensity of the rains is expected to increase. This could induce more floods leading to material and human losses if people are not well informed, sensitized and prepared.

However, the IPCC informs that it is still possible to limit this temperature increase to 1.5°C and limit the damage to humans and their environment with determined public policies and properly directed investments. This requires an emergency and rapid implementation of major transformations, in all sectors of society and throughout the world.

In West Africa, the level of vulnerability, not only of people but also of the economy, is quite well known, with the recurrent and frequent risks of flooding and drought recorded in recent decades in various countries. Our countries need to urgently develop and implement harmonized legal, policy and strategic frameworks for the integrated management of extreme hydro meteorological phenomena, not to undermine the efforts of our States and development partners for poverty eradication and the achievement of the sustainable development goals.

In addition to national efforts, « *International cooperation can provide an enabling environment for this to be achieved in all countries and for all people, in the context of sustainable development. International cooperation is a critical enabler for developing countries and vulnerable regions* »

The IPCC further recommends, inter alia, that « *Strengthening the capacities for climate action of national and sub-national authorities, civil society, the private sector, indigenous peoples and local communities can support the implementation of ambitious actions implied by limiting global warming* ».

The IPCC recommendations strengthen the vision of Global Water Partnership West Africa (GWP-WA), that guides its approach of building the capacities of all stakeholders on the Integrated Water Resources Management (IWRM). Indeed, since 2007, GWP-WA has been organizing training, awareness-raising and exchange meetings on water resources management and



The Executive Secretary of GWP-WA

Armand HOUANYE



The Executive Director of VBA

Robert DESSOUASSI

IWRM for media men/women, a major civil society group, from countries in the West African countries.

It is against this background that the regional workshop, co-organized by the GWP-WA, the Volta Basin Authority (VBA) and the Country Water Partnership (CWP) of Burkina Faso, brought together journalists from Burkina Faso, Benin, Côte d'Ivoire, Togo, Mali, Ghana and Niger from 20 to 22 November 2018 in Ouagadougou. Through the theme of this meeting « *Integrated drought and flood management: contribution of media men/women in advocacy and awareness-raising in West Africa* », GWP-WA and its partners prepared and equipped information and awareness-raising relays to mobilise populations and decision-makers to better play their roles. The context of exacerbation of extreme hydro-climatic events, including drought and floods in West Africa, due to the consequences of both anthropogenic action and climate variability and change makes the case for the action of the organizing partners.

This confirms once again the commitment of the GWP-WA with the CWPs together with the major actors of the sustainable development of the countries and the sub-region such as ZIE, VBA, IUCN/PACO, WAEMU, ECOWAS, etc., to address challenges that States and populations are facing.

The valuable results of this workshop provide a good basis for the very near future implementation of the project « *Integrating Flood and Drought Management and Early Warning for Climate Change Adaptation in the Volta Basin* » from March 2019 to March 2023. The project will be executed jointly by the World Meteorological Organization (WMO), GWP-WA and VBA with funding from the Climate Change Adaptation Fund in countries sharing the Volta Basin (Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali and Togo). VBA, WMO and GWP-WA rely on the active participation of States and all stakeholders to make the project a successful experience in building capacity for monitoring, early warning and triggering the management of situations generated by floods and droughts in countries of the basins./.

Reporting and Communications

West African journalists trained on Integrated drought and flood management in Ouagadougou

From 20 to 22 November 2018, Ouagadougou hosted the regional training workshop for media actors on the integrated management of droughts and floods in West Africa. Organized by the Global Water Partnership West Africa (GWP-WA) in collaboration with the Burkina Faso Country Water Partnership (CWP-BF) and the Volta Basin Authority (VBA), the meeting, which is being held following a series of 7 workshops, gave journalists and communicators a better understanding of the issues, challenges and solutions related to integrated drought and flood management for the development of the countries of the sub-region.

said that involving media actors in the production and dissemination of information in local languages for awareness-raising and education of the general public is very important. He also pointed out that the populations of the Volta Basin are confronted with extreme climatic phenomena, including floods and droughts, which often have disastrous consequences. He explained that anticipation can reduce or mitigate the effects of these extreme weather events.

Opening the regional workshop, the Executive Secretary of GWP-WA, Mr. Armand HOUANYE, stressed that floods and droughts are two closely related issues. He highlighted that their management is an important task to which sustainable solutions must be put in place. He argued that this meeting is an opportunity to strengthen cooperation and integration with media actors. He also noted that



Participants in the plenary session

«Integrated drought and flood management: contribution of media men and women in advocacy and awareness-raising in West Africa», this is the topic of the regional training workshop for journalists and communicators from seven West African countries (Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali, Niger, Mali and Togo). Among other objectives, the meeting aimed to strengthen and consolidate the knowledge of attending journalists and communicators on the issue of droughts and floods, provide a forum for exchanges on the impacts, challenges and good practices in drought and flood risks prevention and management through interviews and field visits. This 8th workshop provided an opportunity for media women and men to exchange on their roles in the awareness-raising and advocacy processes for integrated drought and flood management in countries and at the sub regional level in West Africa.

Two speeches marked the opening ceremony of this important sharing workshop. In his intervention, the Executive Director of the VBA, Mr. Robert DESSOUASSI, welcomed the organization of this training session for media actors and indicated that humanity is experiencing an increasing water demand for multiple uses. He

GWP-WA has demonstrated the importance of the media in advocacy and awareness-raising and has begun to collaborate with them over the past two decades. He expressed his hope for this meeting that media actors would be ambassadors and advocacy actors in the field of water. He concluded by inviting all journalists and communicators present to join the West African Network of Water and environment Journalists.

The first phase of the training was devoted to communications and discussions on the topic of drought and flooding. On this subject, Mr. Armand HOUANYE presented issues and challenges related to floods and droughts in West Africa. He said that «the West African sub-region is almost every year affected by floods and droughts». If we want to overcome natural disasters, he said, actors need to «move from the healing stage to the prevention and management stage». Otherwise, he warns, «more serious damage and losses will occur if a culture of integrated management of those natural disasters is not established over time with the ever-increasing population growth, particularly in the cities of the sub-region».

INTEGRATED MANAGEMENT, A SOLUTION AGAINST DROUGHT

On the issue of drought management, Mrs. Félicité VODOUNHESSI, Project Officer at GWP-WA, provided some answers through her presentation. Indeed, she explained that with integrated and participatory management, the consequences of floods and droughts can be minimized or mitigated. In this regard, the example of the Integrated Drought Management Project in West Africa (IDMP-WA) was used as an illustration of a successful case.

Another successful example in terms of mobilizing stakeholders to address the challenges of integrated flood management was that of the Volta Basin. The Executive Director, Mr. Robert DESSOUASSI, said that the basin is a common good of its six riparian countries, namely Benin, Burkina-Faso, Côte d'Ivoire, Ghana, Mali and Togo. «*The basin does not belong to a single country, that is why the management promoted by the VBA in this cross-border space is concerted and participative,*» he explained.

PILOTING DROUGHT RESILIENCE ACTIONS

The second phase of the workshop was devoted to field visits. Two project sites illustrating the results of the integrated drought management served as frameworks for practical work for participants journalists and communicators. The first site, covering an area of about two hectares, located in the village of Ramitenga in the rural commune of Loubila, presents the benefits of the drip irrigation. The second site, located in the village of Komki in the rural commune of Komki-Ipala, also attracted attention because of its results from an innovative practice of building resilience against drought. The effects of both projects are perceptible and visible through observing but also by listening to the beneficiaries. The common difficulty of the two sites raised by the beneficiaries is related to the lack of water which is a limitation to their actions to making the most of the profits that the sites can offer them.



Visit in Ramitenga around the big diameter well

At all stages, Journalists and Communicators, like researchers, posed questions, commented and made proposals. Experts and partners from VBA and GWP-WA, present at the training, also intervened to provide both contributions and clarifications on issues raised by participants.

While the first two days were quite busy for the participants, the third day was relatively less busy. It was devoted to writing the articles published in this issue of «*Inf'o*» magazine, edited by GWP-WA at the end of each training session organized for the media actors.

At the end of the regional workshop, following discussions with the Executive Director (ED) of the VBA, participants agreed to set up a network to help raising awareness on the VBA issues and share with populations of the Volta Basin riparian countries and beyond, the development challenges for the basin as well as the actions undertaken, the results yielded and the prospects. To keep the network alive, the Executive Director of VBA has committed to allocate resources in the institution's budget, to ensure the sustainability of the annual meetings of Journalists and Communicators working on issues related to water resources and the environment in the basin.

Joachim BATAO
Burkina Demain (Burkina Faso)

Communications

Moving from a traditional to an integrated management of floods

In an introductory statement, the Executive Secretary of GWP-WA, Mr. Armand HOUANYE, recalled the traditional flood management implemented so far in the countries before inviting for an integrated approach to solve the problem.



A. Houanye making his presentation

According to Mr. A. HOUANYE, no much consideration was given to floods as a development issue in countries. Flood management focused on the separation of rivers from populations, flood control and protection. But today, he argued that with the population growth, the phenomenon of climate change, rapid urbanization and large-scale urban sprawl, or the need to preserve or restore ecosystems associated with resources, it is imperative to move from traditional approach towards an integrated

Five principles for an integrated flood management

- Manage the entire water cycle.
- Integrate land and water resource management in a multi-disciplinary approach.
- Reduce community vulnerability and flood risks through an intersectoral approach.
- Ensure the participation of different stakeholders and communities.
- Introduce the concept of integration into hazard management methods while ensuring the preservation of ecosystems.



flood management that considers several parameters such as land use, coastal zone protection, river basin management...

Mr. A. HOUANYE defined the floods as a phenomenon, which results from the overflow of rivers beyond their bed (minor, medium and major) spreading over their normal limits through a rapid or a slow flooding of an area usually out of water. He indicated that floods can be caused by natural (meteorological and hydrological) and/or anthropogenic factors related to land use. He supported with well sourced statistics the frequency and almost on an annual basis of floods in recent decades in West Africa with negative but also positive effects on some aspects such as groundwater recharge and improving floodplain productivity.

In addition to the negative effects of floods known to all, such as loss of human life and material damage, he noted as positive effects the recharge of aquifers, the rejuvenation of river ecosystems and the development of agriculture or fisheries following the withdrawal of water. Stressing the need to change the paradigm by considering floods as part of a natural process and not as an intrusion of nature and an obstacle to economic development, he stressed the relevance for countries of the subregion to address their flood management challenges. These include, among others, strengthening governance and institu-

tional flood risk management frameworks at the national level and in transboundary basins; improved understanding of flood risks at the national level and in transboundary basins; and increasing investment in flood risk prevention and management. Finally, as a final challenge, he pointed out the improvement of flood risk preparedness for an effective response to better construction in restoration, rehabilitation and reconstruction at the national level and in transboundary basins. Above all, Mr. HOUANYE stressed the need to prioritise as well the development of individual and institutional skills and knowledge in flood prevention and management.

Building community resilience for an effective drought management

In a second communication on drought issues and challenges in West Africa, Mr. Armand HOUANYE started by clarifying the concept of drought. He said that «drought can be perceived as a temporary lack of water, caused necessarily but not exclusively by climatic irregularity, which can cause damage to an activity, a group of people or the environment». He explained that there are four (4) types of droughts that are meteorological drought, agricultural drought, hydrological drought and socio-economic drought. He recalled that in the 1970s, West Africa recorded a decrease of about 20% in its rainfall and that the sub-region experienced historical droughts in the years 1931, 1968 and 1973.

According to Mr. Armand HOUANYE, to deal effectively with droughts, it is imperative to meet the challenges at the institutional, legal and operational levels. In addition to better know and document related issues, he advocated for the promotion of a political dialogue on the management of the issue and the establishment of an enabling environment that considers regulations, policies, strategies, coordinated management of initiatives and development of synergies, advocacy, education, information and communication at all levels. The establishment and operationalization of warning systems on drought prevention and management and the promotion of initiatives to strengthen community resilience are also essential to overcome the phenomenon of droughts in the subregion.

Following the Executive Secretary of GWP-WA, Ms. Félicité VODOUNHESSI, Project Manager at GWP-WA, discussed drought-related stakes in her presentation. She mentioned that there exists in reality only one drought, the meteorological drought that can be manifested in agricultural, hydrological and socio-economic droughts. She recalled the four (4) principles of Integrated



Water Resources Management to support the need for an integrated approach to better manage drought. She argued that it is important to have «a comprehensive drought monitoring and early warning system to quickly announce the beginning and the end of the drought». But she adds that it is also essential to determine the severity of drought and to quickly communicate reliable and well sourced drought-related information to the stakeholders of the associated sectors. Integrated drought management can be part of a climate change adaptation strategy, she concluded.

Volta Basin brings IWRM at the heart of flood and drought management

The Executive Director of the Volta Basin Authority, Mr. Robert DESSOUASSI, introduced the sub-regional institution, which brings together six neighboring countries and told participants that IWRM is the approach that VBA promotes.

Before unveiling the ambitions and flagship projects of the Volta Basin Authority (VBA), Mr. Robert DESSOUASSI stressed that the Volta Basin is a 400,000 km² hydrographical basin, drained by the 1,850 km long Volta River and shared by six (6) riparian countries: Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali and Togo. He mentioned that the VBA was created on 19 January 2007 with a mandate to «Promote ongoing dialogue and sustainable development for equitable benefit-sharing for poverty reduction and better socio-economic integration».

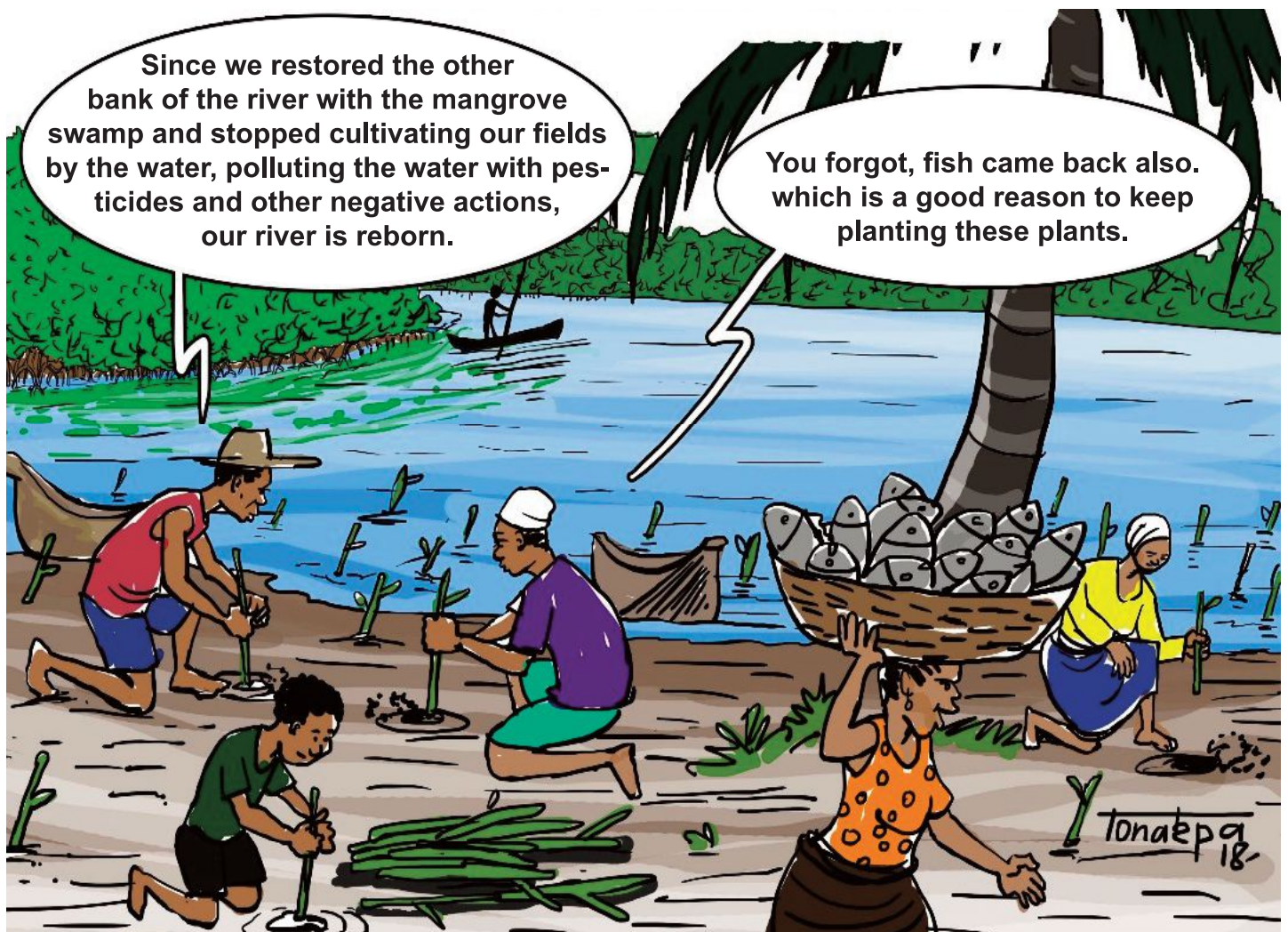
Mr. Robert DESSOUASSI said that the Volta Basin, like many others, is affected every year by floods and droughts. To face the threats generated by these extreme natural phenomena, which are increasingly recurrent, the solution requires an integrated approach that promotes initiatives to strengthen the resilience of populations living in the Volta Basin through systematic hydro-climatic

and environmental monitoring (basin observatory), which must be carried out by setting up operational systems for to collect, process and analyse hydro-pluvio and climatological data.

To achieve this, the Executive Director recommends the establishment of an early warning system and a functional system for disseminating relevant information to various water users in the basin, involving community and local radio stations, the chiefdom...

In his presentation, Mr. DESSOUASSI shared with the Journalists and Communicators constraints and difficulties that face his institution. He highlighted the lack of knowledge on groundwater resources in the basin, land issues and conflicts related to land and soil use, low funding for common works and interests.

As prospects, he pointed out the need to strengthen dialogue among stakeholders and to raise finance for the implementing development activities in the Basin. Finally, he appealed to media actors to support the VBA in making itself better known within Member States and to share information on past, ongoing and coming projects with populations in order to improve the influence of the institution in the sub-region.



Drought resilience in Komki: assisted, degraded land regenerates to meet expectations

The impressive and edifying results of the experience carried out in Komki Ipala, a rural commune in the Kadiogo province at the western end of Ouagadougou in Burkina Faso, is a case study which shows the possibility to reduce the impacts of drought.

Komki Ipala, Wednesday, November 21, 2018, it is about 3 PM. The delegation arrives on the site of a pilot project that promotes innovative practices in building resilience against the drought. When we get off the bus that drove us to the site, a degrading desert landscape appears before us. A stark contrast. On the one hand, the vegetation is composed of bare, rocky and lateritic soil, in herbaceous places where we can see some shrubs weakened by the devastating effects of drought and undeniably linked to human action in an area where arable land is becoming increasingly scarce. On the opposite side, there is a sign at the entrance of a plot of land protected by grids of about 2 meters high.

THE REGENERATION OF DEGRADED LAND

The land seems to be a little more generous in this area. The entire site is covered with grasses that can sometimes reach a height of about 2 meters. Creepers, neems, thorns and fruit trees such as guava, in short, a diversity of shrubs. Here, the greenery and abundance of their leaves made us think that this portion of the vegetation is drought-resistant. Nature has regained its rights: a parrot flies over our heads as if to welcomed us. Flies, dragonflies, bees and locusts in their biotope indicated their presence and gave the impression of being disturbed in their vesperal tranquility.

The information mentioned on the sign at the entrance to this 2-hectare site indicates that this perimeter is a multifunctional agro-forestry park. The results were obtained following the implementation of the pilot action to promote innovative practices for building resilience against the drought. The pilot action is being implemented within the framework of the Integrated

Drought Management Project in West Africa (IDMP-WA) of Burkina Faso by the Country Water Partnership (CWP) of Burkina Faso in collaboration with multiple actors such as the regional departments in charge of environment, the green economy and climate change, agriculture and water resources of Komki-Ipala; the town hall of Komki-Ipala and the Kolgoweogo group of nurserymen. Funding for the project was provided by Denmark, the World Meteorological Organization (WMO) and the Global Water Partnership (GWP).

For this vesperal visit, all beneficiaries and institutional actors were present. The village chief, surrounded by his elders in the presence of the group's leaders, preceded us on the site for a warm welcome. This is a proof that the whole community is committed to this project of high expectations.

«Oh, yeah! There are Ghanaians and Togolese among you,» said one customary leader. And the head of delegation, Mr. Sidi COULIBALY, Head of Communication and Knowledge Management at GWP-WA, told him to provide him more comfort: «There are also Malians, Ivorians, Beninese, Nigeriens». The scene being set, it is time for a guided tour led by Mr. Souleymane OUEDRAOGO. During our walk, our steps were cushioned by the thick dry straw that covers the ground, leaving room for a concert punctuated by the crushing of hay in contact with high heels and other shoes. «I would like to lay down here, it's like a mattress,» says an impressed colleague who is quickly taken up by another: «You risk to be awakened by a snake». Suddenly, the sound of an animal coming out of hiding was heard. «It's a hare,» shouts Mrs. Maimounata DIADA of Niger's Tambara Television.

FROM ARIDITY TO GREENERY

This was a very dry and arid place 3 years ago, now nature has regained all its rights and the ecosystem improved. But how was this achieved? Explanations with Mrs. Félicité CHABI-GONNI VODOUNHESSI, Project Manager of GWP-WA: «The technique consists in making scarifications at ground level using delphino ploughs to improve porosity and the capacity of water infiltration into the ground». The Agronomist Engineer and the Technical Assistant at GWP-WA, Mr. Cheick A. BAMBARA, emphasized the relevance of



Group picture on the Komki Ipala site



trees in the regeneration process of the vegetation cover. «*Their roots allow the soil to be perforated, maintain the particles, i.e. the surface layer, subject to water and wind erosion; and improve the biological activity of the soil through organic matter (root exudates, dead leaves....)*,» he highlighted.

The project beneficiaries said that to plant tree, the soil was fortified with manure. With few resources, we achieved three things: restoring the ecosystem and biodiversity, generating income through the sale of hay and making the case for adopting good practices in farming. «*If I could have this space to grow beans, I*

would be saved,» said one village resident. His wish will certainly not be granted at the risk of seeing the site return to its pitiful state of yesteryear. All that remains is to apply this method in his own arid lands. Komki's pilot experience has shown that it is possible to increase the resilience of millions of people vulnerable to drought.

Marcelle AKA
Quotidien L'Inter (Côte d'Ivoire)

Interviews

With few resources, the Komki-Ipala restoration project has achieved spectacular results after one year of implementation. To understand various techniques that have been deployed and made this possible to achieve these results, we interviewed two resource persons at the heart of the implementation. Respectively, Mr. Hilaire ILBOUDO, Programme Officer at the CWP-BF and Mrs. Félicité VODOUNHESSI, Project Manager at GWP-WA, who explained to us the approach used to obtain edifying results in one year.

Mr. Hilaire ILBOUDO, Programme Officer at the CWP-BF.

«With some techniques, we were able to recolonize 82% of the herbaceous stratum in a year»

What was the focus of the Project implemented in the commune of Komki-Ipala?

The Komki-Ipala restoration project aimed to restore the vegetation of a site abandoned for more than 30 years and that could no longer be used for agricultural purposes. Several techniques allowed us to recolonize 82% of the herbaceous stratum within a year. For more than 3 years now, the shrub stratum has been completely recovered.

What specific techniques were used?

It's a set of techniques, a package of technologies that we've deployed. We started to secure the site so that animals would not get access to it. Because the first greatest problem is foremost related to the animals. We then moved to make a living hedge. The advantage of a quickset hedge is that it breaks the wind to avoid wind erosion that carries away clay and also water erosion. Then we made lines with the delphino plough to break the speed of the water and serve as a silt trap. Within these silt traps, we found a more intense recovery of the herbaceous stratum than within the plots. We also made gullies, again to break the water, because the Komki-Ipala site is on the hillside with an angle of about 18°, so the water erosion is very strong. Water erosion was





the biggest problem to be solved. With the delphino plough, we made skates, we also made gullies that we built. There are also the forest zaï that made it possible to recolonize the shrub layer and finally, we made half-moons inside for the warehouse. This allowed us to recolonize the entire area of the two hectares.

How long did it take to implement this technology package ?

The project lasted one year. We worked on the site for 7 months and at the end, we were able to recolonize the 82% herbaceous stratum, which initially was 0.2% on the surface. The results were achieved within a year. After this year, we only did the follow-up, to enhance ownership within the beneficiaries. To date, the beneficiaries have appropriated the different techniques. They can duplicate by themselves the experience, to explain what has been done. Because we have implemented the project using an educational way. It is a school case that applied techniques gradually. Then we came back to see how the beneficiaries implemented them. We explained to them why we were doing it and, together, we appreciated the results.

Mrs. Félicité CHABI-GONNI VODOUNHESSI, Project Manager of GWP-WA

«Soil degradation in the Sahel is not a fatality»

Can you explain how you did to achieve spectacular results within a year?

This intervention demonstrated to farmers that it is not an end when land is degraded in the Sahel. Initially, with the community, we tried to identify an abandoned, bare soil that was «dead», as the community used to name this. With an area of about two hectares, we applied the assisted natural regeneration technique. The first step is to put a fence in place, because in the Sahel the divagation of animals disturbs crops. The fence helped to secure the site. Following this protection, it was necessary to make scarifications to increase the water infiltration capacity of the ground. In addition to the natural growth of some grasses, it was also necessary to plant a few trees to allow the soil to settle properly. And after a year, we noted a difference in the vegetation cover comparing the outside of the fenced ground. The population was able to harvest hay after one year. And I would like to point out that not all the surface area of the site is watered. It is only a few fruit trees that we have planted that are watered. The soil is allowed to regenerate naturally, and it is much more through water infiltration. On the site, in the part that has not been fenced, there are places where the soil is really leached, and this is related to wind and rain erosion.

We noticed on the site that some trees have been planted. Do you think they will survive?

In addition to the assisted natural regeneration where we have naturally growing herbs, it was also necessary to reforest. So, we planted a few trees with deep roots to fix the soil. Farmers mow grass to make hay for animal feed. But in the long term, the ambition is to have trees on the site. If you come back to the site in 5 or 10 years, you will find that the trees have really grown tall. For the moment, they are still small, we water them but, in a few



years, their roots will be able to fetch the tablecloth themselves and we will no longer need to water them. Initially, you could not notice any topsoil, but we can now see that we are between 10 and 15 cm of topsoil, i.e. a rich layer of soil. Outside the ground,

the farmers plan to isolate part of the site to produce cereal and vegetables.

In other words, it is a project that strengthened the resilience of local communities?

The project strengthened the resilience of local communities. Often these are small actions that do not require big investments. When I talk about soil scarification, you will realise that resources were invested on the site. The main resources were a human work and a ploughing force. When local communities master this practice, they do not need financial support to replicate it on other lands that have been abandoned in the area. This requires a transfer of knowledge so that they can replicate on all lands, because in the whole Sahel, peasants move when the soil is no longer rich. We can't keep moving forever. The idea is to demonstrate that when the soil is poor, you can regenerate it instead of moving around all the time.

At the end, the project contributed therefore to fights against migration...

The project contributed to fight against migration, as well as against rural exodus. In Sahelian countries such as Burkina Faso, farming activities are concentrated only during the rainy season. In the dry season, many young people go to cities to look for small jobs. If there are actions of this kind, they have enough to take care of themselves, to generate an income on the spot and this can help to mitigate the rural exodus.

Interview by Rolande AZIAKA
Ecoconscience TV (Togo)



Strengthening the resilience of communities in the Northern Massili sub-watershed to climate change impacts in Burkina Faso: Towards the promotion of ecological and sustainable solutions in West Africa

Burkina Faso is one of the Sahelian countries facing recurrent drought problems despite significant efforts deployed by the government and its partners. According to statistics from the integrated drought management pilot project, four (4) million people in Burkina Faso are still facing drought hazards. A real issue that impacts on the social, economic, environmental and even political future of the country. To address these important concerns of the populations of this part of the West African sub-region, the GWP-WA in synergy with the CWP-BF, the Regional Direction of Agriculture, Hydraulic Resources, Sanitation and Food Security; the Regional Chamber of Agriculture of Plateau Central; the Nakanbé Water Agency; the Loubila City Hall launched the Project to strengthen the resilience of communities in the Northern Massili sub-watershed through the promotion of ecological and sustainable solutions. This site of the village of Ramitenga located at about 35 km from Ouagadougou was identified for the implementation of the project. For better management of the site, the village groupment «Sidwaya» comprising 17 operators, including 9 women, was selected to ensure the functioning and sustainability of the project. One of the important aspects of this project is the ecological solution provided to those communities through the installation of a large diameter well connected to a solar energy supply system.

This innovation has had a positive impact on the daily lives of farmers and the entire community. Among other changes, there has been a strengthening of solidarity between farmers and the community, the possibility of cultivating over the year; the reduction of tasks on the site, efficient water management (reduction of waste), knowledge on solar energy production technology through training and the use of equipment, etc. This has resulted in the cultivation of eggplant, onion (Galmi violet), potato, corn, etc.



The example of RAMITENGA deserves special attention from the Burkinabe authorities and development partners to further strengthen these technologies and extend them to other communities facing multiple climatic hazards including droughts. This will certainly improve the living conditions of millions of people in the sub-region.

The operators of this site face several difficulties, including the lack of sunshine at certain times of the year to supply the site with energy, insufficient seeds, problems to sell agricultural products on the market, etc. This project certainly and sustainably contributes to improving food security of the beneficiary populations and Burkina Faso.

Ibrahim Diolombi Mahamadou
Journal l'Union (Niger)

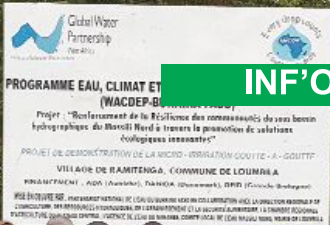
Farmers of the Sidwaya Groupment made a case of water management and innovative solutions

The Sidwaya groupment in the village of Ramitenga in the rural commune of Loubila (Central Plateau region), makes market gardening its main activity. For off-season crops, the groupment used a motor pump, resulting in fuel costs that impact the profits made. In 2014, the Sidwaya groupment was identified by the CWP-BF to benefit from the support of the Water, Climate and Development Programme (WACDEP) in Africa through the Project «Strengthening the resilience of communities in the Northern Massili sub-watershed through the promotion of innovative ecological and sustainable solutions».



Solar plaques in Ramitenga

On the 2 hectares of fenced land for the Sidwaya groupment where the greyish grass marries the green of the living plants, the roar of the motor pump offered by the Manedg-



Group picture at the entrance of the Ramitenga site

zanga Association has given way to the soft noise of the runoff. For good reason, innovative and ecological solutions in water management are being tested. The solar-powered drip irrigation system has been successfully implemented and the use of chemical fertilizers has been abandoned for organic fertilizer. A breath of fresh air for the environment.

Composed of 17 farmers, including nine (09) women, the members of the group were introduced to good farming practices and responsible water resource management. These achievements are the result of the Project. On Wednesday 21 November 2018, a team from Burkina 24 noted this during the regional training workshop for Journalists and Communicators from seven West African countries.

... A CASHFLOW OF CFA 800,000 FRANCS

In the farming community, group work has become a cement. There is no distinction in roles between women and men, reports Minata Sodr , a market gardener for nearly 50 years and treasurer of the groupment. *«The only distinction that exists, she says, is at the time of the okra harvest. A man should not harvest okra (in the Moaga tradition, editor's note). Only women are allowed to do so. As for the rest of the work, we do it together. On the*

site, production is spread over the whole year and alternates between onion, eggplant, okra, sorrel and potato cultivation.

The impact of the project on the lives of producers is visible and quite significant both in terms of community and economic life. With the resources from the sale of the production, says Minata Sodr , women, for example, participate in the management of the family by relieving husbands of daily expenses. «We pay for the children's supplies and bring some vegetables home to improve the food quality,» says the accountant who manages a cash flow of nearly CFA 800,000. In short, part of the production is sold, and the other part contributes to improving the diet of the members of the groupment and their respective households.

In a nearby area, a NGO used the same solar-powered irrigation system to rationalize water use for the benefit of other village members. Rasman  Konseiga, Project Manager of the Association "Manebdg-zanga", requested to strengthen the capacities of producers on the management of market gardening areas. *«We are in the process of transforming them into organic producers» and as such, comments Rasman  Konseiga, they need to be supported. The Project Manager says that «it is necessary to support the Groupment in setting up a good programme of activities for production according to the periods in order not to follow the traditional calendar».*

Ignace Isma l NABOLE
Burkina24.com (Burkina Faso)



The solar system on the Well

Fighting against drought brings smile to women

Women account for 60 to 80% in agriculture in sub-Saharan Africa. But drought and desertification are serious obstacles that affect their development. In response, GWP-WA and its partners promoted innovative practices to build resilience against drought in the villages of Ramitenga and Komki which are benefitting to women.

The two projects in Ramitenga and Komki share the same objectives, namely to increase the resilience of communities against drought and ensure the empowerment of women, who are the first victims of recurrent desertification and droughts. Women are severely affected in several ways: health, food security, economic activities and according to the World Bank and the United Nations Food and Agriculture Organization (FAO), they produce up to 80% of the food for household consumption in sub-Saharan Africa.

In Ramitenga, a village located in the rural commune of Loubila, 35 km from Ouagadougou, the SIDWAYA Farmers' Association is composed mainly of women (9 out of 17) who are beneficiaries of the WACDEP Burkina pilot project. This project promotes drip irrigation technology and the use of solar energy as a means of building resilience and fighting poverty. The project has provided SIDWAYA association members with photovoltaic solar panels to ensure the availability of water for the crops. An ecological and economical alternative to the motor pump system, once used by farmers in the village. This new system has resulted in the intensification of off-season cultivation, generating additional income for the SIDWAYA association members.

Sodré Aminata is the treasurer of the SIDWAYA association. Her slim silhouette shows nothing of her role as a woman leader who ensures well her position. With a smiling face, she explained the distribution of income at the end of each season: «*2/3 of the income is paid into the cooperative for the maintenance of the pump and the entire irrigation system. The remaining 1/3 of the income is distributed among the members of the association*».

In her green eggplant field, Sinaré Alimata, a member of SIDWAYA association, talked about the project's impact on the daily lives of women in the village. «*Here in the village, she said, the obligation of men is to provide cereals for the family. All other*



Aminata SODRE

charges are for women. We buy condiments we don't grow for the meal (salt, oil, broth...). We contribute to the schooling of children and during the feasts, we buy our clothes and those of the children «.

WOMEN AT WAR AGAINST THE ADVANCE OF THE DESERT ...

In Burkina Faso, an estimated 4 million people are exposed to the aliases of the drought phenomenon. These are mainly women, 60 to 80% of whom are involved in agriculture. In the village of Komki, 47 km from Ouagadougou, a rural commune of Komki Ipala, women play a key role in the establishment of a multifunctional agro-forestry park. The initiative, developed as part of the implementation of the Integrated Drought Management Project in West Africa (IDMP-WA) in Burkina Faso, focuses on promoting innovative practices to strengthen drought resilience through the establishment of a multifunctional agro-forestry park in the Commune of Komki-Ipala. IDMP-WA was launched in January 2015 at regional level with three pilot countries, Burkina Faso, Mali and Niger. This is a joint initiative between the Global Water Partnership (GWP) and the World Meteorological Organization (WMO).

In Komki, 2 hectares of land have been developed and protected by a fence. Within the surface area, a 5 m by 5 m water retention basin collects runoff water. Through techniques such as assisted natural regeneration and the Zai (the practice of depositing organic matter in a hole before planting trees), nature is very green on the plot at a certain time of year. The CFAF 25 million project is already contributing to the restoration of ecosystems to increase the resilience of rural populations against drought. While today, the populations only benefit from the sale of fodder produced on the site, the initiators hope that the restoration of the vegetation will allow the practice of market gardening of interest to women.

Mamadou TOGOLA
Maliweb.net (Mali)



Burkina: Between the vegetable perimeters Sinaré Alimata rediscovers the taste of life



Salimata SINARE At work

In an area heavily affected by drought, Sinaré Alimata grows vegetables over the year in her village in Ramitenga, about 35 km from Ouagadougou. An activity that now allows her to give a smile to her family.

«Apart from the field work, all the chores are concentrated on us. All we have is through the strength of our arms that we got it,» says the new bride who became a mother at 17, Sinaré Alimata. Like her, many other local women are married to the village as soon as they reach puberty. Originally from Zitenga, Alimata settled in the village of Ramitenga, Loumbila commune, after her marriage.

Without any diploma, she started to do market gardening to meet her most basic needs. A difficult start, the bride still remembers.

«Every morning, we would get up very early to fill buckets to water our market gardens. We were at the edge of the dam». In addition to courage, for Alimata «you must be strong to draw water from the well and above all have a certain balance to be able to walk in the trenches without falling,» she says. Today, she does not hide her relief at having a new, modern and developed agricultural production area.

Alimata, through the Sidwaya group, can grow the off-season to produce agricultural speculations. An emerging pump has been installed inside the well with a device connected to the solar system that allows either to start or stop the pumping

This site was developed in the village in consultation with the community association «Manebdg Zanga» (development for all) as part of the West African component of the Water, Climate and De-

velopment Programme (WACDEP) Burkina Faso. Concretely implemented by the Country Water Partnership of Burkina Faso (CWP-BF), the project aimed to use solar energy for drip irrigation in market gardening production as a measure to adapt to climate change and fight poverty.

After four years, as a beneficiary she is delighted with the effects of the project on her life. Between two words, she expresses her relief: «Before the project arrived, we had no income-generating activity that could help our children in case of emergencies. Now we have the minimum to bring them joy».

Kaboré Habibatou, a friend, appreciates her courage «we have known each other for more than 30 years. She has always been committed to the causes of her loved ones».

In addition to their market gardening perimeter, which she promotes with the other members of their group, this mother of seven children has time to take care of them, four of whom are still young.

The smiles on the face of her children give courage to Alimata who is less affected by the hardship of life because of the market gardening perimeter unlike other women who suffer from the horrors of falling rainfall. With her small savings, she was able to afford two 100 kg bags of maize for her family. From now on, hunger is far from her household.

With the drip micro irrigation demonstration plot, hope is reborn in the life of these women who have now decided to do market gardening, their main activity in the village of Ramitenga,

Kadiatou Mouyi Doumbia
Les Echos (Mali)

Farming in the context of drought: Ramitenga's success story



Welcome at Ramitenga

Over 90 per cent of women contribute to the agricultural sector of Burkina Faso. However, the increasing effects of climate change; resulting in adverse drought during the dry season in the West African country, force farmers to rely on diesel-powered water pumps for irrigation.

However, due to the costly nature of such an irrigation system, farmers like Sodre Aminata, reverted to rain-fed agriculture; meaning she could only farm once in a year.

Aminata, who is a member of a farmer association called SIDWAYA at Ramitenga, a village located in the rural community of Loubila in the Plateau-Central Region of the country, now heaves a sigh of relief following the introduction of a drip irrigation system by the Country Water Partnership of Burkina Faso (CWP-BF) and the Global Water Partnership West Africa (GWP-WA).

With the mid-morning temperature of about 37°C in the month of November, coupled with aridness and not a single cloud in sight, it is certain that the rains are far from the region.

Nonetheless, following the introduction of the system four years ago, Aminata and her colleagues have been less worried about the extreme weather condition facing her region as she is able to produce fruits and legumes not only for domestic use but also for commercial purposes.

Aside being intensive ploughing, the cost of fuel for the generator meant that farmers spent the little money they made from the sale of their agricultural products to power the pump; making it economically inefficient.

Worst off, the onset of the dry season made it practically difficult, if not impossible, for water to be drawn out of the well due to the lower capacity of the generator; and this meant that, farmers could only cultivate crops once in the year; making them idle most

of the time during the dry season.

However, the introduction of the drip irrigation system has changed the life style for Aminata and her colleague farmers.

Today, they can till their lands and cultivate crops even in the absence of rain; making it possible for them to harvest farm products about three times in the year and cater for family needs through the sale of their products.



The big diameter well

WHAT WAS DONE?

The project aimed to make drip irrigation for market gardening using solar energy as a measure of adaptation to climate change and fight against poverty. Its ultimate goal is to achieve an efficient management of agricultural water for vulnerable people in Ramitenga.

The project involves the provision of a solar powered pump, making it possible for farmers to pump water from the 31meter deep well to a water tower located on the borders of the site. The water discharged from the water tower is then channeled towards the irrigated plots.

SUCCESS STORY

On a field visit to the project site by some 20 journalists participating in a workshop on integrated drought and flood management, organized by GWP-WA in collaboration with the Volta Basin Authority (VBA), Aminata took us around her eggplant farm which has blossomed with fruits.

Obviously satisfied with the progress of her farm, Aminata said she is now able to farm over the year following the introduction of the drip irrigation system; making her economically sound. She says she now farms efficiently and effectively with the minimal use of physical energy.

“When we were using the generator, it meant carrying water from the well to my farm. But now, I no longer carry water in buckets. The use of the solar powered pump makes it possible for water to be sent directly to my farm.”

“Also, we no longer waste water and water is available for domestic use too. So, I can water my crops without worrying about what I’m going to drink because the water is available. And there is enough water to help me cultivate okra, eggplant, and groundnuts two or three times in the year.”

According to Aminata, during the dry season, they also make nurseries for crops such as potatoes and those nurseries are watered with the drip irrigation system and at the onset of the rainy sea-



Eggplant at Ramitenga site

son, the sprouts are transferred to the beds.

Vice President of the groupment, Tientore Rasmane, says not only has the introduction of the drip irrigation system provided a mechanized farming practice, but has also led to harmony among members within SIDWAYA association and the village as a whole.

According to Tientore Rasmane, when profits are made from the farms, the money is used to buy maize and shared among poor families in the village.

He also noted that to ensure the sustainability of the project, 33 per cent of the profit made is put aside for the maintenance of the system.

CHALLENGES

Although the provision of the drip irrigation system, which is solar powered is economically efficient, members of this small farmer groupment expressed concerns over the impacts of the climate change that affect their source of livelihood.

“When the sun doesn’t shine, it’s difficult to generate power to start the pump. We wished we had batteries to store the energy we get from the sun when it’s shining,” Rasmane stated.

Nonetheless, it is worth noting and comforting that, Sodr  and her colleague farmers see greenery even in the face of drought as a result of GWP-WA’s intervention through its Water-Climate and Development Program (WACDEP) in Africa; thus, bringing relief and smiles to the people of Ramitenga.

Jasmine Arku
Graphic News Paper (Ghana)



Integrated drought and flood management: Contribution of media women/men in the advocacy and awareness-raising in West Africa

(Ouagadougou, 22 November 2018) - About 20 media women and men from Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali, Niger and Togo took part in the regional workshop on Integrated Drought and Flood Management: Contribution of media men/women in advocacy and awareness-raising in West Africa.

The meeting, co-organized by Global Water Partnership West Africa (GWP-WA), the Volta Basin Authority (VBA) and the Country Water Partnership (CWP) of Burkina Faso, was held from 20 to 22 November 2018 in Ouagadougou at the premises of the VBA Executive Directorate.

At the end of the workshop, all participants indicated that they had a better understanding of the key concepts related to droughts and floods as well as the issues connected to their integrated management. They indicated that they now have a good understanding of the involvement and role of the media in promoting integrated drought and flood management in West Africa in their respective countries for sustainable development.

Participants particularly noted the good organization of the workshop, which made it possible to clarify the concepts during the presentations and then reinforce the understanding of these concepts in the field by visiting pilot sites. Finally, the knowledge gained, and lessons learned from the visit enabled media actors to produce press articles and produce radio and TV magazines on the spot. *«The field visit is always an enriching initiative that allows us to gather concrete elements of information in addition to connecting with experts,»* said one of the participants.

«When I came here, I thought it must be another workshop like the dozens we have attended in the past,» said Aboubakar Sidiki SYLLA of the Ivorian **Radio and Television (RTI)**. *“But, I must admit that the workshop in Ouagadougou is quite different. A very good experience that combines theory, field visit and journalistic production practice”*.

Joachim BATAO of Burkina Faso's online newspaper **Burkina Demain**, this workshop is undoubtedly *«the best workshop for journalists I have attended so far»*. And Jasmine ARKU of the Ghanaian **Graphic News Paper** added at the same time as her compatriot Samuel ASAMOAH of **Metro TV**, that the session was *«an eye opener»*. Being from the very humid southern part of the country, the field visit to the Ramitenga site where solar energy is used for drip irrigation and Komki Ipala with the successful experience of restoring degraded soil for agroforestry, allowed them to be confronted with real situations that are replicable in the northern part of their country, Ghana. *«The workshop allowed me to know that floods, if well managed, did not only have negative effects,»* concludes Jarmine ARKU.

The contact with media women and men during this workshop made it possible to change the perception that researchers had of journalists. *«I understood that we need as researchers to make an effort to involve journalists in our work from the outset if we want our results to be known and understood by the population and decision-makers,»* said Gnenakantanh COULIBALY, a doctoral student at ZIE under a specialization in flood management.

Mr. Alassane TOURE representative of the consultant in charge of developing the national drought management plan in Burkina Faso, explained that he has *«understood all the benefits for a specialist to approach media men and women in order to create mutual trust that can facilitate a good understanding of each other's functions and work»*.

To reinforce the achievements of the Ouagadougou workshop, the participants recommended, among other things, that:

- This kind of practical thematic workshops should be organized at the regional level and, if possible, in the countries to enable journalists to familiarize themselves with the various concepts;
- Partner organizations pool their efforts and resources to provide better training for the better involvement of media women and men in the sustainable development of the region;
- The participants in this workshop be integrated into the network of journalists already trained by GWP-WA and its partners since 2007 called «ShareInfo»;
- The formalization with VBA of the network of journalists of the Volta Basin to support the communication efforts of the Executive Directorate towards the populations and decision-makers of the riparian countries of the Volta Basin; this could be achieved through the establishment and a regular animation of a media forum similar to the basin stakeholders' forum.

At the end of the workshop, all participants committed themselves to making productions to inform, raise awareness and educate populations and decision-makers on the issues and challenges related to droughts and floods from the documentation and with the resource persons available at the workshop. Personal commitments for the post-workshop period range from maintaining collaboration with Country Water Partnerships (CWPs) in countries to creating sections in the media or even creating media (TV, websites or radio) specializing in environmental issues, especially online.

Participants believe that the objectives of the workshop were largely achieved beyond their expectations.

GWP-WA and VBA are committed to supporting the media in their efforts to inform and educate the population on all issues related to integrated natural resources management. Both organizations called up on participants and media women and men in general to get closer to the CWPs (for GWP) and national focal points (for VBA) for a better understanding of the issues discussed at national level.

For more information on SOPs please visit the GWP-WA website: <https://www.gwp.org/en/GWP-West-Africa/PARTNER/partnerships/country-water-partnerships/>

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