



Can public consultations and social media let people influence the development of the Mekong river?



How refugees and migrants are discriminated and denied basic water and sanitation services.

STOCKHOLM

WATERFRONT

#2 | AUGUST | 2019

NEWS BRIEFS

Disappearing glaciers, the new climate debt trap and more.

Who is being left behind?

WATER DANGERS

Let everybody have a say!

Everybody needs water and therefore everybody should have a say in decisions about water. In theory, it's as simple as that. In real life, however, we know that access to clean water is not accessible for all, that the poor tend to be hardest hit by disasters and that marginalized groups seldom can influence important water decisions.

We also know that the climate crisis, degraded ecosystems and increasingly extreme and unpredictable weather patterns are likely to widen the the gaps between the rich and the poor in coming years. The situation is serious. According to a World Bank estimate this could mean that decades of progress are wiped out and that 100 million people are pushed back into poverty.

But we're not doomed to follow that track. This year the water community is committing to reversing this trend and deliver on the 2030 Agenda's promise of leaving no one behind. Not least will the upcoming World Water Week be important with its theme *Water for Society – Including All*.

WaterFront has dedicated a full issue to this important theme. On page 4, we talk to leading experts about what it really means to leave no one behind and on page 8 we visit an informal settlement in Kenya to learn what residents there find most important. In the Mekong region public consultations were meant to give local residents a say in dam development but the process has left many disappointed, learn more on page 14. We also explore the difficult water situation faced by many refugees on page 16. For insights into why women should play a bigger role in water diplomacy, turn to page 20. Enjoy the read!



Torgny Holmgren
Executive Director,
SIWI

SIWI
ISSN 1102 7053



REGULAR FEATURES:

- 03 BRIEFING** Water news round-up
- 23 CALENDAR** Events coming up

The printing process and paper have been certified according to the Nordica Swan label for environment quality.



NO. 2 • AUGUST • 2019 • PUBLISHER Torgny Holmgren | Executive Director, Stockholm International Water Institute (SIWI)

EDITORIAL STAFF

Maria Sköld | Editor
Marianne Engblom | Graphic Designer

Contact: waterfront@siwi.org

2019 EDITORIAL BOARD

Xanani Baloyi
Lotta Samuelson

PHOTOS

All photos, if not stated differently, are credited iStock.
Collins Oduor | Cover Photo

STOCKHOLM WATERFRONT

Stockholm WaterFront is a quarterly magazine that aims to inform the global water debate and be a source of knowledge and inspiration for professionals worldwide with an interest in water issues. Stockholm WaterFront mixes popular science articles with news reporting and carries

analyses by some of the world's most knowledgeable water writers. It is published in print and digitally by Stockholm International Water Institute, and is free of charge.

STOCKHOLM INTERNATIONAL WATER INSTITUTE

Box 101 87
Visiting Address: Linnégatan 87A
SE-100 55, Stockholm, Sweden
Tel: +46 8 121 360 00
Fax: +46 8 121 360 01
www.siw.org



Rapidly disappearing glaciers

The Himalayan glaciers, which feed the major rivers of Asia, are the fastest shrinking in the world and the pace seems to be increasing. Researchers from the Indian Energy and Resources Institute have been monitoring the Kolahoi glacier over the past decade and have found that it lost 18 per cent of its ice volume between 1990-2018. The rate seems to be growing and, to make matters worse, the glacier has turned from white to grey and brown, causing it to absorb more heat.



CHINA halts river project

China has announced that the country will not proceed with controversial plans to blast sections of the Mekong River for greater shipping access. The project has been met by protests in the affected area in northern Thailand, where residents and environmental groups fear the activities would endanger the waterway's ecosystems as well as the livelihoods of people living along the river. Local groups have asked for clarifications around the actual status of the project.

Index for water risk

Bloomberg has launched what is said to be the world's first benchmark index to price financial water risk to equities. The Water Risk Index is designed to inform asset owners and investment managers of the water risk to equities in their financial portfolios. The idea is to translate key metrics of water risk into financial measures that can be incorporated into financial models.

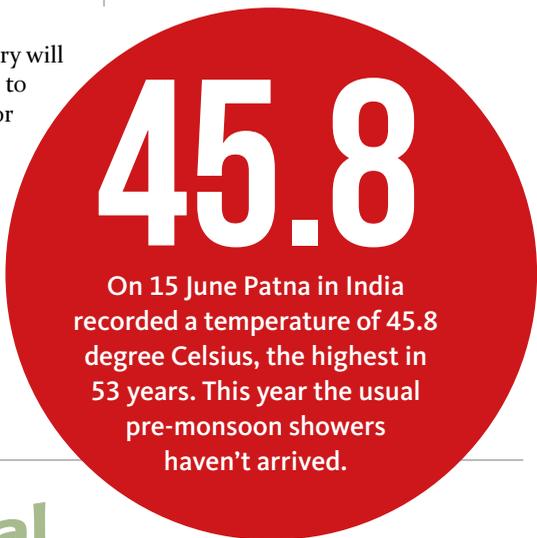


Photo: Denis Onyodi: IFRC/DRK/Climate, Flickr

Warnings of climate debt trap

There is growing concern that countries vulnerable to extreme weather events will find themselves trapped in a new vicious cycle of climate-related debt. Recently the International Monetary Fund granted Mozambique a USD 118 million loan to rebuild its infrastructure after the country was hit first by cyclone Idai in March and then by Cyclone Kenneth in April, marking the first time in recorded history that two strong tropical cyclones have struck the country during the same season.

According to the Global Facility for Disaster Reduction and Recovery, such disastrous patterns look set to become increasingly common due to climate risks and urbanization. The UK-based Jubilee Debt Campaign warns that this will make disaster-prone countries lag further and further behind and urges the international community to support the building of more resilient societies.

Mathematical models used on Lake Victoria



Researchers from Stockholm Resilience Centre are using advanced mathematical models to measure the impact humans have on Lake Victoria. The freshwater lake, the world's second largest, has been significantly changed by eutrophication and the introduction of Nile perch in the 1980s. The lake is considered a good example of how freshwater environments are changed by humans, which offers valuable lessons for ecosystem theory in general.

Leaving no one behind – what is it to you?

This year there is much talk about inclusion. World Water Week will be held on the theme *Water for Society – Including All* and the 2019 World Water Development Report is dedicated to the topic of leaving no one behind. But what does that really mean? *WaterFront* asked three experts involved in the development report what inclusion means to them.

Text | Maria Sköld

Marianne Kjellén Senior Advisor Water & Ocean Governance Programme UNDP

What does “leaving no one behind” mean to you?

“It means doing things differently. There are invisible structures in our society that impedes everyone from benefitting equally from the advances of development. We need to redress this situation by

1. scrutinizing our procedures, practices and ways of thinking to reveal the areas which lead to discrimination or somehow unequal or inequitable results, e.g. in accessing sanitation facilities or water for irrigation. And
2. by also adding positive action to support groups and individuals that may otherwise be marginalized. For example, extra spotlight and support to the presence and representation of the concerns of indigenous peoples in natural resources management can help generate more equitable and potentially more sustainable solutions to development challenges.”



Marianne Kjellén led the drafting of the WWDR chapter on Political, legal and institutional dimensions and contributed to other chapters.

“Poor people are also hit harder because they are more likely to lose all they have, and unlike wealthy people there may be no bank savings or insurance schemes to bail them out after having lost everything. This is dramatic.”

Why are the poor hardest hit by the climate crisis?

“In disasters, poor people are hit harder partly because they are more exposed. Poor people tend to live in e.g. flood prone areas and may have dwellings of a structural quality that is unable to withstand a flood. Poor people are also hit harder because they are more likely to lose all they have, and unlike wealthy people there may be no bank savings or insurance schemes to bail them out after having lost everything. This is dramatic!”

Is there a group or a topic you would like to draw special attention to?

“It is the multiple deprivations that are most difficult to overcome. Hence, children in income-poor minority ethnic groups would be a ‘group’ that would need particular attention. The trick is that this “group” is spread throughout society and may be found in pockets of urban slums, or in remote rural areas. Yet, we need to keep these ‘intersectional’ in mind in order to overcome the tendency of marginalization or discrimination.”

Why is it so important to address exclusion and inequality?

“Inequality and relative poverty are disruptive to society and detrimental for the affected individuals. Exclusion needs to turn to inclusion, addressing every aspect of inequality and discrimination. Above all, it’s a moral imperative to our society.” ●

Alejandro Jiménez Programme Director SIWI

Why is it so important to achieve universal access to water and sanitation?

“Universal means for everyone – our measure of leaving no one behind. Those that presently lack access to water and sanitation also suffer multiple deprivations and are hence those in greatest need of any improvement of their living conditions. As you know, water is needed for life, and access to sanitation is dignity. The access to water and sanitation are human rights, so universal access is also a legal and moral imperative. This stands to improve health and wellbeing among those concerned, and indirectly contributes to more just and peaceful societies.”

Is there a group or a topic you would like to draw special attention to?

“There are multiple layers of vulnerability that overlap with each other. One example could be the patterns through which indigenous peoples are deprived of access to water supply and sanitation services. Some are specific to them and some are characteristics shared with other marginalized groups. For example, it is often not taken into



Alejandro Jiménez contributed to the WWDR's chapter on Political, legal and institutional dimensions as well as other chapters.

consideration that, in many cases, indigenous peoples' knowledge systems and traditions are closely linked to maintaining a sustainable balance with their living environment in a way that may differ from other groups. At the same time, the way they are excluded from decision-making processes and unfairly treated in water management is similar to the experiences of other vulnerable groups. Examples of this could be a lack of awareness about how to influence decision-making, language barriers, or access for relevant spaces for participation. Indigenous peoples account for about 5 per cent of the world's population but they make up 15 per cent of the poor.” ●

“Those that presently lack access to water and sanitation also suffer multiple deprivation and are hence those in greatest need of any improvement to their living conditions.”

Jenny Grönwall Advisor Water Policy & Rights SIWI

What does “leaving no one behind” mean to you?

“Leaving No One Behind is ultimately about justice, and what is a ‘fair deal’ to one person means something else in another context. The notion serves as a constant reminder to us working in the water community that our duty is to have the interests of the poorest and most vulnerable in mind when conceptualizing problems and solutions.”

Why is it so important to achieve universal access to water and sanitation?

“There is simply no alternative. But it should be stressed that in the terminology of the international human rights framework, ‘access’ has several dimensions and connotations. In particular, the affordability aspect of it is complex to define, and thereby to realize universally. SDG 6.1–2 use the word somewhat differently, with accompanying indicators that are measured and reported upon.

“From the point of view of quality, it is not access to ‘water’ per se we are talking about. This water



Jenny Grönwall is co-author of the chapter about political, legal and institutional dimensions in the 2019 World Water Development Report (WWDR) and also wrote about groundwater dependence among poor urban dwellers.

should be fit for purpose—and there are many different purposes of water use. For instance, it can be argued that the standards for what is considered potable drinking water is shifting with the advances in microbiology and other scientific fields, and in water treatment technology. But not all societies can afford to apply such insights and new knowledge sometimes bring ethical concerns. In parallel, we must deal with the fact that water is too precious to be used only once—for what purposes can and should water then be recycled?” ●

“The notion serves as a constant reminder to us working in the water community that our duty is to have the interests of the poorest and most vulnerable in mind.”



Alice Omondi (left) is aware of the risks when collecting untreated water from Lake Victoria, but often doesn't have a real choice.

Dirty water silently kills

In the informal settlements of Kisumu, Kenya, lack of safe water and sanitation is a constant worry. Research shows that water here, when available, is heavily contaminated and unsafe, but residents don't feel listened to.

“I am mourning my kid. The doctor told me he could have survived if our family was using clean water,” Alice Omondi says, speaking about her one-year old son who she lost to cholera a month ago.

Text | Protus Onyango **Photos:** Collins Oduor and Protus Onyango



Now Ms Omondi worries about the safety of her two remaining children. Here in Nyalenda, an informal settlement in Kenya's third largest city Kisumu, people

are scared to use the water but often feel they have no choice.

“We are suffering as we have no water. We are forced to draw untreated water from the lake or rivers for washing and cooking. Sometimes, when one can't afford to buy drinking water from vendors or people with illegal connections, we drink what we have,” Ms Omondi said.

After nursing her kids to sleep and asking the neighbours to keep an eye on them, Alice Omondi leaves her one-room house and heads for Lake Victoria, 4 kilometres away, to draw water for her household. People here either collect untreated water from the lake or dig shallow wells for water access, while pit latrines is the standard solution for sanitation. The area is not connected to the water and sewage services that the Kisumu Water and Sanitation Company (KIWASCO) provide to more well-off parts of the city.

Consequently, residents are right to worry about water quality. New research from local and international water experts reveal dangerously high levels of bacteriological contamination in the water of the area. Professor Daniel Olago, from the University of Nairobi's Department of Geology's African Collaborative Centre



The dangerous water is a common topic among residents here.

ing Kisumu residents

for Earth System Sciences, is one of the researchers:

“The study concluded that there were potential risks to human health due to high content of coliform bacteria. The study attributed the contribution to pit latrines that were present in virtually all

faecal coliforms. Out of the 22 water sources sampled, 21 were contaminated with TTC and only one sample conformed to the WHO drinking water standard,” Olago said.

All kinds of water turned out to be contaminated. The highest levels were

The situation is similar in many informal settlements across Eastern Africa with poor housing and non-existing wastewater management. Another recent study found traces of 25 harmful viruses in surface water in the informal settlements in Uganda, Tanzania and Ghana. The study was presented in April by researchers from IHE Delft Institute for Water Education in the Netherlands, the Central University College, Accra, Ghana, the Nelson Mandela African Institute of Science and Technology, Arusha, Tanzania, and the Makerere University, Kampala, Uganda, and is described as a first of its kind.

The researchers found that most groundwater in Bwaise in Kampala, as well as the Unga Limited and Sombetini informal settlements in Arusha, contained traces of herpes viruses, poxviruses, and even papilloma virus, which can cause cancer. ●●●

“Out of the 22 water sources sampled, 21 were contaminated with TTC and only one sample conformed to the WHO drinking water standard.”

compounds. The pit latrines are located close to the water points,” Olago said.

He and his team collected 275 water samples from 22 water sources and found high Thermal Tolerant Coliform (TCC) in almost all of them.

“Apart from boreholes, all the other sources of water in Kisumu had growth colonies indicating contamination by

recorded in surface water such as rivers, but also groundwater has been polluted.

“The movement of harmful bacteria from the toilets to groundwater make the water unsafe for human consumption and its usage can lead to water related diseases. Young children and vulnerable members of the society are therefore at risk,” Olago said.



KISUMU Kenya's third largest city, after Nairobi and Mombasa, with a population of one million. It is located 350 km west of the capital Nairobi.

●●● “The latter could be one of the causes of different types of cancers in the region. To our knowledge, these viruses have never been found in groundwater before on such a large scale, perhaps because there has never been an in-depth analysis,” said Dr Jan Willem Foppen, the study’s lead researcher who is a hydrologist.

Cancer is one of the major killer diseases in the East African region, responsible for 100,000 lives every year.

In the two-year study, the scientists analyzed water samples from different sources, including surface water,

above-ground hosts that include frogs, mice, rats, cows, horses, monkeys, and humans,” Foppen said.

Of the human disease-causing pathogens found in the water samples, herpes virus and poxviruses can cause various types of skin infections, while the papilloma virus can lead to cervical cancer, laryngeal cancer and mouth cancer.

“This could be the tip of the iceberg,” Foppen said. “With the method we applied, we have not found all viruses, instead, we found the most abundant ones.”

Next the scientists will try to find out how infectious the virus particles are.

“This could be the tip of the iceberg. With the method we applied, we have not found all viruses, instead, we found the most abundant ones.”

spring water, dug wells and piezometers (groundwater from specific depth) in the three countries.

“We discovered 25 different DNA virus families, of which 14 families are from

“There is no easy fix or solution to the problem of provision of safe affordable water to people living in slum areas. But let’s do something about sanitation, let’s improve sources of drinking water, and

identify new pathways with local communities towards more sustainability,” Foppen said.

Back in Kisumu’s poorer areas, local residents feel that their water safety concerns are not being addressed.

“It is a tragedy that the national and county governments can neglect its people and let them die from diseases that can easily be prevented by supplying clean water and a good sewage management system,” said Alphonse Odhiambo who is living in the area.

Water quality is however not the only worry for people here. Extreme weather, causing droughts and floods, is another looming threat. Lucy Atieno describes how she came back from work one day in April, only to find that her house had been swept away.

“It rained when I was out doing menial jobs and when I returned to my house it was there no more. It had been carried away by raging water. Fortunately, my 10-year-old daughter was rescued by neighbours but only after gobbling ●●●

What do you think of the water situation?



Jack Yugi, 48, motor cycle operator, Manyatta

There are major cities around the world that have millions of residents but have better water and sewerage system. Ours has a population of about one million, sits next to a fresh water body but we have no water. I call upon our Governor-Prof Anyang Nyong'o to make a difference by putting Kisumu on the global map as one that all its residents can access clean water.



David Ongeche, 60, village elder, Nyalenda

We miss the old days when we could drink clean water from the lake and rivers and none among us got ill. The water now is so polluted but you must use it because there is no alternative. Let Government come to us for solutions on how to bring us clean water. Sitting in offices and implementing kneejerk solutions won't ease our problems. We are so much worried for our children who can't grow to reach our age because of drinking and eating poison.



Emma Anyango, 63, takes care of her grandchildren, Otonglo

Lake Victoria can provide water to all 50 million Kenyans, from Kisumu to Mombasa, to Turkana and to Moyale. What is required is prudent management of public funds and sustainable planning. Women suffer the consequences of unclean and unavailable water. They have to walk for long hours to fetch water from streams and rivers. This has to stop.



Alphonse Odhiambo, 28, barber, Obunga

It is a tragedy that the national and county governments can neglect its people and let them die from diseases that can easily be prevented by supplying clean water and good sewage management system. The youth are angered and we are waiting for the politicians to come for our votes in 2022. We will vote them out and only work with those who are ready to sign performance contracts with us.



Benter Odhiambo lives in a formal settlement that is served by the city's water and sanitation network. But access is increasingly unreliable and many also have to buy water from

Water for the urban poor

In many parts of the world rapid urbanization makes it hard for planners to keep up with fast-growing demand for water and sanitation.

This is not least true in Sub-Saharan Africa, where the urban population is growing faster than anywhere else and insufficient water supply has become the norm.

In informal settlement areas semi-treated or untreated sewage is often discharged directly into water courses.

It is estimated that 80 per cent of all communicable diseases are directly or indirectly linked to insufficient access to water and sanitation.

At the same time, water scarcity is a growing problem, with at least 200 cities across the globe fast running out of water.

Source: Olago, 2018; Down to Earth 2018

●●● dirty water. She was treated for dysentery at the local hospital," Ms Atieno said.

Both recurring drought and flooding impact supply, quality and use of clean water for poor residents of Kisumu,



Tinashe Masimbe

according to the study *Impact of Climate Extremes on Water Quality and Supply in Urban Informal Settlements in Kenya: A Case Study of Kisumu City*. Disaster risk reduction

expert Tinashe Masimbe from the University of Nairobi has interviewed 333 residents in informal settlements about how they experience extreme weather.

Most respondents complained that water pollution is particularly bad during the heavy downpours normally occurring in April-May and then again in August-November, frequently causing pipes to break. That time of the year many suffer from contagious water-borne diseases and malaria.

"There is an elevated risk of water contamination from poorly sited pit latrines and it is worsened by frequent

flooding and then surface run-off carries the overflow down towards Lake Victoria basin, contaminating wells and the environment," Masimbe said.

Dry spells are instead associated with typhoid, when residents only have access to unsafe well water. "Respondents also reported drought as a driver of water resource conflicts, especially among women who use water more frequently during dry spells for household use," Masimbe said.

It should be noted that though households in the informal settlements studied by Masimbe are the ones most affected by increasingly extreme weather, they are not the only ones impacted. Water is growing increasingly scarce also in the formal settlements served by KIWASCO.

Benter Odhiambo, who lives in a better planned Migosi estate said KIWASCO'S supply is also irregular and the residents here sometimes go without water for days.

"But when we get the water, we secretly sell to our neighbours from the slums at Sh50 (0.5 US Dollars) per 20-litre jerrican for drinking. This way, we can make an extra coin for our subsistence," Ms Odhiambo said. ●



m private vendors.

WHAT ARE THE OPTIONS?

Professor Eric Odada, a leading water expert in Kenya and adviser to the UN Secretary General Antonio Guterres, warns that in reality there are few reliable options available to the country's urban poor. Tests reveal that not even bottled water is necessarily safe to drink.

As head of hydrology at the University of Nairobi Professor Odada is in charge of one of only three laboratories in Africa able to run tests of bottled water. In his view, results are horrifying.

“What the business people do is to draw unclean water from the taps and bottle it without any analysis and sell it to unsuspecting consumers,” he said.

Odada blamed out-dated methods of water purification and corruption for the sorry state of water in the country.

“The National Environmental Management Authority (NEMA) and the Government Chemist are using old methods developed by WHO for Europe for the 1940s period. These were designed to tackle impurities resulting from mining. They are irrelevant here,” Odada said.

He would like to see more focus on providing clean water, saying that this could save 60 per cent of the money now spent on treating diseases.

“A majority of people are dying from water-borne diseases. Clean water improves productivity at work. Today, many employees only work for a half day and leave due to complaints resulting from unclean water,” he said.

Professor Odada further noted that Nairobi and other urban centres in Kenya have thousands of illegal boreholes which have unclean water.

“These are the boreholes where a majority of water vendors get the water they sell to people. They use lorries to deliver water and at the same time

transport human waste at night to dump at undesignated areas,” Odada said.

He called for more focus on dealing with chemical toxins from herbicides and high-tech pollution, for example mobile phones and computers, dumped into rivers.



Professor Eric Odada

According to Professor Odada, one of the major urban sanitation challenges is that the access gap is likely to grow in low-income countries with rapid urbanization.

“Sewerage coverage is very low in many large cities, wastewater treatment is very limited and the existing infrastructure is insufficiently operated and maintained and is rapidly deteriorating. No one even knows where the water pipes are,” Odada said.

He noted the results are environmental degradation and endemic diseases leading to increased mortality and morbidity. Children are particularly affected, with some being stunted for life and others dropping out of school. Economic growth is also held back, with low productivity and constraints on vital services such as housing, drainage and transport. Ultimately, cities become less competitive.

To improve water services for everyone is therefore a shared interest. Professor Odada would like to see higher rates for residents living in affluent estates and lower ones for those living in low-end estates or informal sectors.

“Now the reverse is happening. Those people in Muthaiga, Runda, Karen and related estates across Kenya have been given subsidized rates, while poor ones pay 60 times more than the rich ones, more than even the rates charged in Scandinavian countries,” Odada said.●

“What the business people do is to draw unclean water from the taps and bottle it without any analysis and sell it to unsuspecting consumers.”

Studies referred to

Kanoti, J.R., Olago, D., Opiyo, N., Nyamai, C., Dulo, S., Ayah, R. and Taylor, R. (2019) *Microbial and Physical Chemical Indicators of Groundwater Contamination in Kenya: A Case Study of Kisumu Aquifer System, Kenya*. Journal of Water Resource and Protection, 11, 404-418.

Olago, D.O. (2019) *Constraints and solutions for groundwater development, supply and governance in urban areas in Kenya in Hydrogeol. J* (2019) 27: 1031.

Masime, Tinashe (2018). *Impact of Climate Extremes on Water Quality and Supply in Urban Informal Settlements in Kenya: A Case Study of Kisumu City*.

Foppen, Willem (2019). *Virus communities with adverse human health risks found in groundwater below slums in Africa*.

Marginalization of people with disabilities

One billion people, or 15 per cent of the global population, live with some kind of disability. This limits their access to water, sanitation and hygiene. Here are some key challenges.

- **The design** of water and sanitation facilities are often a problem. A case study in Ethiopia, for example, found that the entrances to toilets often were too narrow for wheelchairs, forcing individuals to drag themselves on the dirty floor to reach the toilet*.
- **The distance** to toilets and clean water can be a big challenge for people with reduced mobility who live in informal settlements, including many elderly and children.
- **Prejudice** around diseases such as HIV-aids can lead to discrimination, with people denied access to shared facilities.
- **Participation** in decision-making is often difficult for people with disabilities. Sometimes the reason is prejudice, at other times lack of information is the main problem, for example for people who don't hear or see so well.
- **Poverty** is particularly high among people with disabilities. They are less likely to have a job or get education. As populations age, there will be more people with disabilities, according to statistics from the World Health Organization, WHO. ●

*Wilbur, J (2010): Principles and Practices for the Inclusion of Disabled People in Access to Safe Sanitation: A Case Study from Ethiopia.

15%

One billion people, or 15 per cent of the global population, live with some kind of disability. This limits their access to water, sanitation and hygiene.





19%

of women have some kind of disability, compared to 12% among men. However, in low and middle-income countries, women are estimated to comprise up to three-quarters of persons with disabilities, according to UN Women.

COMMUNITY PARTICIPATION

Text | Lan Nguyen

How can people get more of a say in planning processes? In the Lower Mekong region public consultations were meant to give voice to local populations, but the results have left civil society disappointed.



According to the 1995 Mekong Agreement, signed by Cambodia, Laos, Thailand and Vietnam, communities should be consulted ahead of development projects that alter the river. The idea is to make it possible for people dependent on the river to influence decisions that could completely change their lives.

This is especially important for disadvantaged or vulnerable groups and consultation processes have been set up with local communities as well as organizations such as women's groups, farmer's associations and fisher's associations.

In an area brimming with plans for dam development, there should be plenty to discuss. To date, there are proposals to construct 88 new dams in the Lower Mekong basin before 2030, including 11 large-scale hydropower dams. An additional 120 dams are planned for tributaries.

Governments are hoping that this massive hydropower expansion will help countries keep up with growing energy demand, but for people living alongside rivers, such plans can destroy their livelihoods. The Don Sahong Dam Project, initiated in Laos, has for example been criticized for making it impossible for fish to migrate between Cambodia, Laos and Thailand. For local fishers, that could spell disaster, though developers claim they have mitigation measures in place that allow the movement of migratory fish up- and downstream.

The Don Sahong Dam Project has therefore been the focus of several consultation processes. In Vietnam, civil society organizations have organized nearly 20 public consultations, with six separate sessions for women communities and three sessions for ecological clusters. The goal was to provide "timely and complete information" to community members, especially farmers and women, and to gather information on their views about the project. The information was passed on to the Vietnam Mekong River Commission as well as the Mekong River Commission.

In total, 782 local community members participated, but there seems to have been plenty of confusion surrounding the process, according to the synthesize report on the results from the report "Community Consultation on Don Sahong Hydropower Project" by local NGO PANnature. Many participants said they had received no prior information on the project.

IN THE MEKONG BASIN

Still, according to the report, participants came out strongly against the development process.

Results are similar for other public consultations in the area. A study of the consultation process about a dam on Pak Beng found that there was too little public data available for the discussions to be meaningful. The NGO Save the Mekong called for a boycott of the consultation process around the Pak Lay dam. According to the group, they had raised several serious concerns regarding the development of dams in other places – Xayaburi, Don Sahong and Pak Beng – that had not resulted in any action.

The existing process for consulting the general public is increasingly viewed with suspicion by civil society. “Previous Prior Consultations have been regarded as a rubber stamp to satisfy community consultation obligations. In reality, these processes have not taken community concerns into account,” claimed Wora Suk of the Thai Extraterritorial Obligation-Watch Working Group in a 2018 press release by Save The Mekong after the group decided to boycott consultations around the Pak Lay dam.

For a fresh start, to ensure that public consultations really serve the interests of vulnerable groups, several things would be needed:

- Better public data so that people are able to assess the situation.
- Make data available ahead of meetings so that people can make informed decisions.
- Clarify the decision-process, what can be influenced?
- Make sure that people’s opinions are acted upon.

While the consultations may not have led to the public participation envisioned in 1995, another tool has surfaced that can make it easier to raise concerns – social media.

In the Mekong region, Facebook has proved to be particularly popular, with more than 60 per cent of Thais signed up to the network and 50 per cent of Vietnamese. In Cambodia 4 people in 10 use Facebook and in Myanmar and Laos 3 in 10.

As a consequence, Facebook has often become the platform of choice also for discussing planning and development issues. One example is the Open Development Mekong Group, that was set up to facilitate Facebook exchanges between development workers, experts and the interested public from five lower

ABOUT THE AUTHOR

Lan Nguyen is a development worker and freelance writer focusing on environment and development issues in Vietnam and the Mekong region. She has a Bachelor’s of Journalism degree from the Institute of Journalism and Communication in Hanoi, Vietnam, and Master of Development Management from Asian Institute of Management in Manila, the Philippines. She established the Open Development Mekong Facebook group which she is currently monitoring.

Mekong countries. The idea is to combine open data, data journalism, and peer reviewed research approaches to make decision-making more informed and effective.

This type of dialogue has the potential to raise the quality of decision-making but is seldom a useful tool for poor people wanting to make their voices heard. Conversations are often held in English, a language not commonly spoken in the area. Many also lack the confidence to publicly question authority and voice a dissenting opinion.

New, stricter cyber regulations in for example Thailand and Vietnam will likely make even more

“New, stricter cyber regulations in for example Thailand and Vietnam will likely make even more people think twice before speaking up.”

people think twice before speaking up. Freedom of speech activists have claimed that the new laws are draconian and can stifle free speech.

Still, governments in the region pledge allegiance to the Dublin statement on water and sustainable development from 1992. The declaration calls for “a participatory approach, involving users, planners and policy-makers at all levels”. This was recently reiterated at the conference “Promoting community participation in decision-making in Mekong water governance” held in Hanoi, Vietnam.



Dr. Le Anh Tuan, Vice Director of Dragon Institute for Climate Change Research in Can Tho University, emphasized how this approach must be upheld. He particularly reminded the audience of how “Women play a central part in the provision, management and safeguarding of water.” But how to ensure a more participatory approach remains to be seen. ●

Refugees struggle to



get clean water



The Middle East is one of the most water-stressed areas of the world and the influx of refugees adds to the pressure on local resources. In Gaza, the water situation has resulted in a marked increase in kidney failures.

Text | Rehab Abdalmohsen – Egypt **Photos:** UNHCR

“**Drinking water** is good for your health but if you are living in a refugee camp, then try to avoid drinking for the sake of your health, it is 100 per cent polluted,” said Mohammad Abu Hasna, Director of the Gaza office of the Organization of Islamic Cooperation Representative in the Gaza Strip.

Abu Hasna described the difficulties of getting clean drinking water for people living here:

“The water inside the camps is not drinkable, mostly depending on pumped water from wells affected by seawater, and with a high chloride concentration. The only solution people have is to buy water.”

He added that people who can’t afford to do so will drink whatever water they have, resulting in health issues.

According to United Nation Relief and Work Agency, UNRWA, the Gaza strip hosts eight refugee camps with 560,964 Palestinian refugees, and 1,276,929 registered refugees in total, out of a population of two million people living trapped on a thin slice of land along the Mediterranean.

The precarious water situation is described in a report from the NGO Oxfam International: “Less than four percent of fresh water – in Gaza – is drinkable and the surrounding sea is polluted by sewage”.

According to the report, water pollution is a major factor behind a dramatic increase in kidney problems in the Gaza

Strip, with 13–14 per cent increase every year in the number of patients admitted to Gaza City’s Shifa Hospital for kidney problems.

Abu Hasna, from the Organization of Islamic Cooperation Representative, believes desalination could be a solution. The World Bank and other international agencies are supporting the construction of a desalination plant here as part of the Gaza Sustainable Water Supply Program.

“We do not want to leave Gaza, we want to find some solutions to our problems,” he said.

Nearby Lebanon also hosts many Palestinians displaced as a result of the 1948 Palestine war, but in recent years the country has also welcomed many Syrians who have been forced to flee their country. One in six people in Lebanon is a refugee, meaning that Lebanon is the country with the highest

“According to United Nation Relief and Work Agency, UNRWA, the Gaza strip hosts eight refugee camps with 560,964 Palestinian refugees, and 1,276,929 registered refugees in total.”

proportion of refugees in relation to its national population.

At the end of 2018, Lebanon hosted close to 1 million people from Syria and 475,000 Palestinians under the mandate of UNRWA. ●●●

●●● **Zahe Ayche**, who owns a small shop at the Bourj el-Barajneh refugee camp in Lebanon, was born in this camp. His parents came here to protect their children and other family members after the Palestine war.

The water quality in the camp is “very poor” Ayche said. The family buys water for drinking, but like most people here, they use the very salty and polluted water to clean and shower

and sometimes even to cook. Few people here can afford to buy clean water for all their needs.

“Let me tell you something, the water is affecting every aspect in our lives. Our metal kitchen tools rust within a week or two, our infrastructure is ruined because of the water’s high-salinity, and I know

people with skin problems because of the water issues,” he said.

Still, compared to the more recently arrived refugees in the Syrian camps, he feels fortunate. For them, lack of water is a major problem.

“They lack menstrual supplies and private, safe toilets, and when it rains, they do not have a roof to protect them,” Ayche said.

“They lack menstrual supplies and private, safe toilets, and when it rains, they do not have a roof to protect them.”

More than 1 million Syrians have fled, searching for protection in neighbouring Lebanon since the start of the brutal civil war in 2011.



Photo: Ather Zahi Aisha

“REFUGEES ARE BEING LEFT BEHIND”

Refugees and migrants are among the world’s most vulnerable groups when it comes to access to water and sanitation. The situation is particularly alarming at a time when the numbers of forcibly displaced are the highest on record, with someone forced to flee every two seconds.



Waterfront asked Burt Murray from the UN High-Commissioner for Refugees, UNHCR, what should be done.

5 questions to Burt Murray, Head of the Global Water, Sanitation, and Hygiene Unit UNHCR

1 What does “leaving no one behind” mean to the world’s refugees and forcibly displaced?

“Today, the world is witnessing the highest levels of human displacement on record. An unprecedented 70.8 million people around the world have been forcibly displaced from their homes as a result of conflict, persecution, or human rights violations.

Away from home, refugees and internally displaced people, IDPs, are among the most vulnerable and disadvantaged groups and may be denied access to basic water supply and sanitation services.

The SDG 6 target for water is that everyone should have access to safely managed water.

By the end of 2018 UNHCR’s WASH Monitoring System indicated that only 35 per cent of refugees have access to safely managed drinking water supply located on premise. This is well behind the global average where 71 per cent of the global population has access to safely managed drinking water services on premise.”

2 Is the situation improving?

“In fact access to water supply decreased in several emergency refugee situations, where the sharp rise in refugee population exceeded the ability of UNHCR and its partners to scale up water supply operations, and at one point in South Darfur access to drinking water for refugees dropped to the dangerously low level of 5 litres per person per day.

“In terms of sanitation the situation for refugees is even worse. The SDG 6 target is for everyone to have access to their own household toilet (not shared with other households). In refugee situations only 17 per cent of refugees have access to their own household toilet. This is well behind the global average where 39 per cent of the global population has access to their own household toilet with safely managed sanitation services. In the worst case in Republic of Congo as many as 25 families are sharing one toilet. The fact is, refugees are being ‘left behind.’”

3 What are the main obstacles facing refugees and migrants when it comes to access to water and sanitation?

“Refugees and internally displaced people face discrimination and may be denied access to basic water supply and sanitation services



The United Nations High Commissioner for Refugees, UNHCR, warns of the precarious water and sanitation situation many refugees face. According to the agency's WASH Monitoring System only 35 per cent of refugees globally had access to safely managed drinking water on premise, compared to 71 per cent for the population at large.

At the same time, the organization notes, the presence of a high number of refugees continues to add pressure on existing water resources and wastewater infrastructure in countries such as Lebanon.

Marie Therese Merhej Seif, UN Environment regional facilitator for civil society organizations for the west Asia region, believes that

“Lebanon is bearing the burden of

the war bill much more than any other country in the region, especially when we consider how small the country is, and how big the load is on our resources”.

She added:

“Our infrastructure could not keep up with the sudden influx of people and the result is that both sides suffer. We used to say that the amount of freshwater in Lebanon was as abundant as the oil in the Arab Gulf countries but look at the situation now”.



on the basis of their race, religion, nationality, membership of a particular social group, or political opinion.

“There are many factors which influence the marginalization of displaced people. For example, refugees may be marginalized due to their ineligibility to vote, or stateless persons may be marginalized because they do not have identification documents.

“Unplanned rapid population growth in the areas receiving displaced people can overwhelm existing WASH infrastructure. The immediate result is that the new arrivals (e.g. refugees and internally displaced people, IDPs) cannot access services and resort to practices such as open defecation or drinking from unsafe surface water sources. This is most recently documented in Colombia where over 440,000 Venezuelans have been registered between May and June 2018 and where WASH infrastructure in the border towns is unable to cope with the massive influx.”

4 What is the role of host governments?

“The average length of protracted refugee situations (i.e. those with 25,000 or more people of concern, displaced for 5 years or more) now exceeds twenty years. However, host governments often refuse to accept that the displacement situation may become pro-

tracted and insist that refugees or IDPs remain in camps with temporary or communal facilities at a lower level of service than the surrounding host community. As a result, WASH service level inequality may develop, where refugees and IDPs receive lower levels of WASH service when compared to the hosting community. For instance, refugees in camps in Jordan receive approximately 35 litres of water per day, while the target that the Jordanian Government uses for citizen in towns outside of Amman is 100 litres of water per day.

“Adequate WASH services may exist in areas where displaced people are hosted. However, specific groups or individuals may be denied access to those services due to their nationality, ethnicity, religion, sexuality, political opinion or other conditions. As a result of this social discrimination, these groups or individuals resort to accessing water from unsafe sources and may be forced to practice open defecation or other unsafe sanitation behaviours. For example, in Kenya and Djibouti new refugee arrivals were stigmatized and faced discrimination by the refugees who had been living in these camps and settlements for several years. This discrimination included limiting the access time to WASH facilities, such as water points and communal latrines.

“Even if adequate WASH services exist, specific groups may not be able to afford access to those services. This form of marginalization is directly linked to legal status and the ‘right to work’ or ‘freedom of movement’. As a result of restrictive legal policies, refugees and stateless persons are often the most marginalized in this regard.”

5 What should be done to improve the situation?

“In order to ensure that refugees are not ‘left behind’ as we work to achieve the Sustainable Development Goal 6 target of ‘safe drinking water and sanitation FOR ALL’, the UNHCR is advocating for the human right to water and sanitation. Together we can:

- Work towards removing legal and social discrimination and promote equality of access to basic water and sanitation services for both refugees and host communities.
- Work towards inclusion of refugees, asylum-seekers, stateless persons and internally displaced people in national development and financing plans for WASH services.
- Advocate for governments to allow refugees the right to work and pay for water supply and sanitation services.”

Listening and Learning

with women water experts in the Nile Basin

Text | Jessica Troell and Elizabeth Yaari

Research shows that peace agreements signed by women are more likely to lead to durable peace and that gender equity is associated with a lower instance of conflict. The UN Security Council has repeatedly pointed to these facts but there are still very few women involved in peace processes, write Jessica Troell and Elizabeth Yaari in this analysis.



“I want to contribute to raise women’s awareness and have them involved in decision-making about water issues. It is a national security issue to have the whole of society engaged in water decision making processes.”

Participant Reflection, Women and Water Diplomacy in the Nile (WIN) Workshop

ABOUT THE AUTHORS

Elizabeth A. Yaari, Senior Programme Manager, Transboundary Water Management Department, SIWI, and **Jessica Troell**, Senior Attorney; Director, International Water Program; Director, Africa Program, Environmental Law Institute (ELI)

The joint management of the world’s water resources is a fundamental aspect of the sustainable development agenda. Engaging a diverse cross-section of stakeholders in decision-making processes around shared waters broadens the set of environmental and social impacts that are considered and the knowledge and skills employed to address them, thus increasing the likelihood of sustainable and equitable solutions.

“Capacity building is necessary; we need education, trainings, and more opportunities like this. We also need internships for young women, and short courses for women already working in the field. Those in senior positions have not been exposed to the same things as the younger generation.”

Participant Reflection, Women and Water Diplomacy in the Nile (WIN) Workshop

Similarly, the transformative role of women in conflict prevention and peacebuilding has been repeatedly demonstrated, including research showing that gender-inclusive peace processes are 35 per cent more likely to last at least 15 years, that peace agreements signed by women are positively associated with more durable peace, and that higher levels of gender equity are associated with a lower instance of conflict (Krause et. Al., 2018; UNSC, 2000). Despite this evidence and the formal recognition of the UN Security Council of the critical role of women in peace and security efforts, between 1990 and 2017, women constituted only 2 per cent of mediators, 8 per cent of negotiators and 5 per cent of witnesses in all major peace processes.

Thus, women in transboundary water governance face a battle on two fronts – overcoming the traditionally male-dominated worlds of both water and peacebuilding.



In the Nile Basin, SIWI and partners have initiated a growing network of women water professionals active in transboundary water management under the ‘Women and Water Diplomacy in the Nile (WIN)’ platform in an effort to understand and elevate the differentiated expertise of the Nile’s women water leaders.

Listening and learning together over two weeklong workshops, participants were able to share knowledge, perspectives, and experiences – elevating both common and divergent viewpoints in an informal peer-to-peer learning environment.

Building on the voices and experiences from the basin, a new paper, ‘Tapping our Potential: Women’s Water Leadership in the Nile Basin’ provides recommendations for improved and inclusive decision-making in transboundary waters. Recommendations range from gender-sensitive workplace policies and educational priorities, to legislative revisions, to interventions supporting an enabling environment for improved inclusive decision-making, such as elevating male champions and supporting further capacity building and network support. Indeed much work remains and more opportunities are needed to listen and learn from those paving the pathway to improved and inclusive water governance. ●

“We have so many women working in water now but when I joined I was the only one and I have worked hard to recruit more women. Most of us are at the low level. I want to contribute to a policy that will promote the women to reach higher levels in the sector.”

Participant Reflection, Women and Water Diplomacy in the Nile (WIN) Workshop

Tapping our Potential: Women’s Water Leadership in the Nile Basin.
www.siwi.org/publications

About the network

The Women and Water Diplomacy in the Nile network and related activities are implemented under the Stockholm International Water Institute’s Shared Waters Partnership with the support of the Swedish International Development Agency (Sida). The Shared Waters Partnership (SWP) is a platform designed to improve cooperation over shared waters in regions where water is, or may become, a source of conflict or where water can serve as a catalyst for peace. The overall objective of SWP is peaceful cooperation between basin states sharing transboundary water resources.

For more information on SIWI’s Shared Waters Partnership visit:
<https://www.siwi.org/what-we-do/shared-waters-partnership/>

Missing data equals opportunities lost

Text | Jenny Grönwall

We lack the full picture about how, where and from whom the urban poor get their water. This heterogeneous group is ‘left behind’ in terms of water-related development, but also in the current debate because we know very little about it, writes Jenny Grönwall.

There are vital gaps in knowledge that cannot be filled by crunching the numbers or extrapolating from those we have. Information is missing because we do not ask the right questions to those concerned; hence, the statistics from household surveys offer no disaggregated data, instead providing a misrepresentation of the reality of the poor. The devil is in the details and the attempts made to rectify this situation by researchers and organs like the UN-Habitat with its Urban Inequities Survey highlight the problem: an inadequate understanding leads to an inequitable response.

It is often held that water ‘services’ are accessed by those in informal urban areas at a much higher price than by residents living in other parts of the very same city. What is obscured in such a statement are hidden costs. Costs in the form of poor health—including DALYs (Disability-Adjusted Life Years), morbidity and even mortality—but also shaped into worries

“Luckily, the current framework marks a paradigm shift in thinking. Instead of ensuring that some are counted for, we now go for the all-encompassing.”

about the family’s wellbeing, and the inability to plan for accessing enough, and sufficiently safe, water. This has no price tag, unless you calculate the opportunity cost of incomes forgone while chasing water for the daily needs. Or while waiting for the private water vendor to pass by. A vendor who also does not exist on paper; who cannot be held to account if he does not show up or sells sub-standard water.

The human rights-based approach (HRBA) provides an antidote to the uncertainty and known unknowns, alongside the 2030 Agenda’s taking aim at universal and equitable access

to water. ‘For all’ is the guiding star. This stands in contrast to the now almost forgotten focus on ‘halving the proportion of people without’ sustainable access to safe drinking water. This target of the Millennium Development Goals inevitably led to a reaching for the lowest hanging fruits and fostered the measuring of relative change.

Luckily, the current framework marks a paradigm shift in thinking.

Instead of ensuring that some are counted for, we now go for the all-encompassing. Global leaders made commitments with Sustainable Development Goal (SDG) 6 and they explicitly reaffirmed their commitment to the human rights to water and sanitation with the 2030 Agenda’s declaration. The aspirations enveloped in this—universality being the foremost—indicate that the process to achieve the SDGs must promote inclusion. It is pledged that development, including water resources management and services, must leave no one behind.

To this comes that the HRBA is people-centred. It builds on appointing accountable duty-bearers to respect and protect our human rights, to fulfil them. Indeed, the greatest promise lies in there being a catalogue of obligations to pin to governments and agents of the state, corresponding to all the rights we are born with, and die with. The very idea is that human rights are justiciable and can be tried in a court of justice. This is expected to give rights-holders legal security rather than having to resort to whatever a charity or an NGO can provide.

Yet, commitments can only take us this far. It is actions that change the world. But that can only happen when we have enough data to comprehend the real challenges faced by the urban poor, and other groups that are similarly left out. There is only one way to really find out: ask them! ●

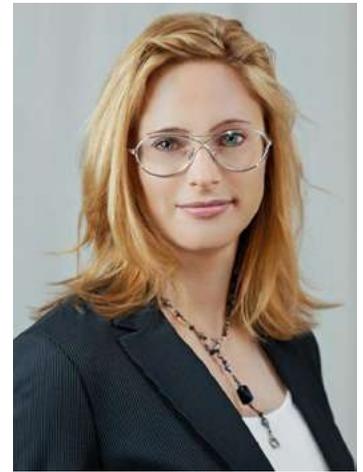


Photo: SIWI

ABOUT THE AUTHOR

Jenny Grönwall is advisor Water Policy & Rights at SIWI.



Photo: Mikael Ullén

25–30 AUGUST

World Water Week

Time for the leading yearly water event, with Stockholm Water Prize, Stockholm Junior Water Prize and other highlights.

www.worldwaterweek.org



Illustration: Worksmann

23–26 SEPTEMBER

United Nations General Assembly

On 23 September the UNGA holds a climate summit, followed by a High-Level Political Forum meeting to assess progress on the Sustainable Development goals. On the 26th follows a high-level dialogue on financing.

www.un.org

All publications can be found online at www.siwi.org/publications



15–17 OCTOBER

Budapest Water Summit

Meeting in the Hungarian capital Budapest, experts and decision-makers will discuss the theme Preventing Water Crises.

www.budapestwatersummit.hu

23–24 OCTOBER

Our Ocean Conference

The Our Ocean Conference gathers in Oslo, Norway, to tackle threats such as climate change, loss of biodiversity, and pollution, all topics with a strong link to freshwater.

<https://ourocean2019.no/>



NEW SIWI PUBLICATIONS

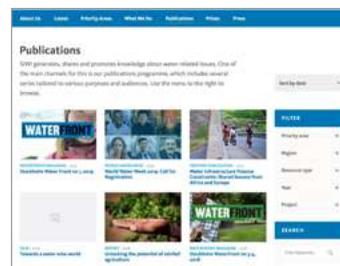
Water in the landscape

How should hydrological aspects be included when restoring landscapes for sustainable production? This is the topic of the policy brief *Water for productive and multifunctional landscapes* from SIWI Swedish Water House.

PPP for water infrastructure

Public private partnerships offer new possibilities in water management,

Read our latest publications!



as explained in a new paper from the Africa-EU Water Partnership Programme, *How can Alternative Service Delivery improve water services?*

Water Diplomacy as a resource

Ahead of the High-Level Political Forum on the Sustainable Development Goals, SIWI presented a new policy brief *Water diplomacy: Facilitating dialogues*.

WaterFront – Sign up on the WaterFront mailing list to make sure you don't miss any of our issues! www.siwi.org/waterfront-subscribe

STOCKHOLM **WATERFRONT**

THE NEXT ISSUE

In WaterFront 3/2019 we look at behavioural change. Story ideas? Contact us at waterfront@siwi.org



Change the future

Nominate to the 2020 Stockholm Water Prize!



Her words inspire you. His actions make a difference. She may have travelled the world developing solutions, changing minds, or discovering new ways of thinking.

Who is your next Stockholm Water Prize Laureate? Who is helping us to chart a better course, when we can no longer rely on old maps?

The world's most prestigious water prize helps to shine a light on our water heroines and heroes. Do you know of an outstanding woman, man or organization whose actions, research or thought leadership is transforming the world to make it more water wise?

NOMINATE TODAY at siwi.org/nominate.



Congratulations, Dr Jackie King!

Dr King is the 2019 Stockholm Water Prize laureate for developing tools that have revolutionized water management and helped decision-makers understand the true value of rivers.

2019 Stockholm Water Prize Founders

• Bacardi • Europeiska ERV • Poul Due Jensen Foundation • Ragn-Sells
• Water Environment Federation • Xylem • Ålandsbanken
Supporter: Grand Hôtel



CONNECT WITH SIWI

siwi.org/prizes

#stockholmwaterprize