

They are invisible

2018 WATER, HYGIENE AND SANITATION BAROMETER

Inventory of access to a vital resource #04 MARCH 2018

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**SOLIDARITÉS
INTERNATIONAL**

A KEY PLAYER IN THE FIGHT
FOR WATER SINCE 1980

EDITORIAL

THEY ARE INVISIBLE

Even today, around 2.6 million men, women and especially children continue to die every year from diseases caused by unsafe water and an unsanitary environment. This horrific figure is due to a little-known fact: in 2018, one third of the world's population is still drinking water that can endanger their health. 2.6 billion people still lack adequate sanitation facilities.

As humanitarian workers, fighting this deadly scourge and its undeserved, atrocious consequences is our daily combat, both in the midst of severe humanitarian crises and at the national and international level, so that the voices of the people we assist can be heard. On a wider scale, our goal is to defend and uphold the cause of hundreds of millions of people whose most fundamental rights are not respected: families afflicted by war, people living in slums, citizens of failed or failing States, farmers and livestock breeders affected by drought, minorities, etc. More often than not, they are totally off the radar screen, ignored by politicians and the media. They are invisible.

Every year, on the pages of our *Water, Hygiene and Sanitation Barometer*, we seek to portray the realities of these men, women and children: those who are threatened by cholera in the DRC or Haiti; those who are asserting their right to water in Dhaka; those living in Yemen where water was already scarce before the war; Syrians, Rohingyas, or those living in the Sahel... All those men, women and children whose lives, health and hope for the future are under threat because they do not have access to drinking water and sanitation.

With the assistance of experts from various backgrounds—politicians, humanitarian workers, doctors, academics—this 4th issue of the Barometer examines the current situation of this vital, shared resource, analyzes the causes and consequences of drinking water shortages, highlights the actions being taken to achieve universal access to water and sanitation, evaluates progress made by world nations, condemns the lack of political will and funding, and pinpoints inconsistencies. It also focuses on a series of proposed solutions, from a local to a global level, so that the forgotten cause of drinking water access will no longer be invisible to the general public, and that appropriate decisions will finally be taken.

Without major political and financial commitments from world nations, without fierce determination from field workers, access to drinking water will not only continue to be a humanitarian emergency, it will also fast become an ever more tangible threat to the whole of humanity.



BY ALEXANDRE GIRAUD

Managing Director of SOLIDARITÉS INTERNATIONALE



SOLIDARITÉS INTERNATIONALE

Providing emergency assistance to those affected by armed conflicts, natural disasters and epidemics, followed by early recovery assistance, has been the raison d'être of the humanitarian NGO SOLIDARITÉS INTERNATIONALE for nearly 40 years.

Access to water, sanitation and hygiene is the focus of our teams' expertise and the projects they implement in the field. Currently present in around twenty countries, they provide vital humanitarian aid to over five million people on the basis of their needs, respecting their dignity, and without judging or taking sides, in accordance with the fundamental principles of humanitarian action...

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THE SOLIDARITÉS INTERNATIONALE WATER AGENDA

Every year on March 22, World Water Day, SOLIDARITÉS INTERNATIONALE campaigns against contaminated water to raise public awareness and force decision-makers to act. That is why, this year, we are publishing internationally the fourth issue of "The Water, Sanitation and Hygiene Barometer".

SOLIDARITÉS INTERNATIONALE is a member of the French Water Partnership, Coalition Eau (a group of french NGOs committed to water) and the [Re]Sources think tank. In 2016, we took part in Marrakesh COP22 on the issue of water in the Sahel and attended World Water Week in Stockholm. We took part in the 8th World Water forum in Brasilia in March 2018. We will follow every step in the implementation of the SDGs and pay particular attention to the implementation of Goal 6 on universal access to drinking water and sanitation.

We work alongside French governmental organisations such as the "Conseil National du développement et de la solidarité internationale" and the "Groupe de Concertation Humanitaire" to strengthen humanitarian relief, make the 2015-2030 SDGs possible and establish a French strategy promoting effective rights of access to drinking water all around the world.



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THE INVISIBLE REALITY OF WATER AND SANITATION

SOLIDARITÉS INTERNATIONAL cannot over-emphasize how vital access to drinking water and sanitation is for populations. This issue has gradually established itself both on the international agenda and in people's minds. However, forceful campaigning at political forums and before national and international governing bodies should not overshadow the invisible reality of the most vulnerable populations.



BY ANNE-LISE LAVAU
Program Quality and Technical Department Manager

Ironically, the more water and sanitation come under the spotlight through a series of political victories, the more certain overlooked realities become invisible. For example, efforts to improve access to drinking water and sanitation within towns must not mask the needs of the most vulnerable populations, who are invisible to public policymakers. This situation extends beyond the humanitarian sector, so large-scale collaborative action must be taken, covering slums, informal camps, refugee camps, internally displaced people, isolated rural areas, post-crisis situations, etc.

From a humanitarian perspective, there is a strong connection between all of these situations. Often, an extremely vulnerable person moves from one

situation to another. When a family is affected by natural disaster or armed conflict, they are then vulnerable to a series of other traumatic experiences: becoming displaced once or several times, living in an informal or refugee camp, migrating to isolated rural areas or congregating in slums on the outskirts of towns.

INVISIBLE NEEDS REQUIRE AN INCREASINGLY INNOVATIVE APPROACH AND INVISIBLE POPULATIONS NEED A STRONGER VOICE.

These situations present exceedingly complex challenges in terms of water and sanitation. First of all, it is difficult to access the most vulnerable populations and to identify and analyze their needs

quickly. Following this initial stage, the challenge is to provide a fast, sustainable, high-quality response.

In many cases, a longer-term response is necessary, involving multiple stakeholders and covering multiple sectors and countries, even though, for certain field operations, only short-term plans seem possible due to instability and difficult access. This means that invisible needs require an increasingly innovative approach and invisible populations need a stronger voice.

The humanitarian crisis affecting the population of the North Mali region (see page 12) is one of the invisible situations that we now want to bring to light.

THE CONSEQUENCES OF INSUFFICIENT WATER

Insufficient access to water and hygiene causes serious consequences for all sectors of the economy, as well as for all categories of the population: men, women and children.



BY ALBERTO ACQUISTAPACE
Water, Sanitation and Hygiene Focal Point

The economy, education, health, the environment, shelter, communities, disaster responses... When populations do not have access to water and essential services such as hygiene or sanitation, the resulting deficiencies will have a dramatic impact on their lives. Yet simple solutions do exist, and just need some investment and sufficient political commitment.

HEALTH



- Communities without WASH and hygiene education facilities are negatively affected by waterborne diseases and place strain on health centres
- Health centres without WASH facilities become high-risk locations for infections
- Without WASH facilities and hygiene education, diarrhoea hinders absorption of nutrients, reduces immunity and causes malnutrition
- Without WASH facilities and hygiene education, food production (slaughterhouses, restaurants, canteens, domestic cooking, etc.) is a health risk

SHELTER



- Unsustainable management of water resources can cause dwellings to become less hygienic or less habitable (dampness, insects, rodents), or can even cause the destruction of dwellings or whole communities (for example due to flooding or landslides)

DISASTER RESPONSES



- Communities without WASH facilities and hygiene education have lower resilience and are less able to cope with disasters
- WASH facilities that are not sufficiently equipped against disasters can become an additional health risk (e.g. flooded latrines)

EDUCATION



- Children have to collect water rather than going to school
- Schools without WASH facilities become high-risk locations for infections
- Schools without menstrual hygiene facilities prevent girls from going to school every month

ECONOMY



- People (especially women in some countries) have to collect water rather than work
- Some productive activities (especially agriculture) cannot be carried out without water

ENVIRONMENT



- Lack of sustainable access to water causes uncontrolled usage of water resources, which has a negative or sometimes irreversible environmental impact

COMMUNITIES



- Lack of access to water can create inter-community and intra-community conflicts
- Lack of access to water can create social inequality within communities (according to social class, gender, etc.)

2.6 MILLION PEOPLE DIE EVERY YEAR DUE TO WATER-RELATED DISEASES AND INSALUBRIOUS LIVING CONDITIONS

ACCESS TO WATER

- » **2.1 BILLION PEOPLE, OR 30% OF THE WORLD POPULATION, do not have access to domestic drinking-water supply services.**
- » 844 MILLION PEOPLE do not even have access to a basic water supply.
- » 263 MILLION PEOPLE live more than 30 minutes away from the nearest water point.
- » 159 MILLION PEOPLE still drink untreated surface water that is drawn from rivers, streams or lakes.
- » IN COUNTRIES AFFECTED BY ARMED CONFLICT or going through a period of upheaval, children are 4 times less likely to have access to a basic water supply than children living in other countries.



ACCESS TO SANITATION

- » **4.5 BILLION PEOPLE, or 60% of the world population, do not have access to safely managed sanitation facilities.**
- » 2.3 BILLION PEOPLE still do not have decent toilets.
- » 600 MILLION PEOPLE share toilets or latrines with other families.
- » 892 MILLION PEOPLE defecate out in the open; this practice is on the rise in Sub-Saharan Africa and Oceania due to population growth.



HEALTH

- » **361,000 CHILDREN UNDER THE AGE OF 5 die every year from diarrhoea, OR MORE THAN 1,000 CHILDREN EVERY DAY.**
- » 842,000 PEOPLE die every year from simple diarrhoea caused by:
 - unsafe drinking water
 - inadequate sanitation
 - unwashed hands after defecation
- » ONE THIRD OF HOSPITALS in developing countries do not have clean running water.
- » 50% OF CASES OF CHILD UNDERNUTRITION are due to recurrent diarrhoea and intestinal infections caused by unsafe drinking water, inadequate sanitation and lack of hygiene.



EDUCATION

- » **272 MILLION SCHOOL DAYS are missed due to diseases caused by a lack of sanitation facilities.**
- » ONLY 45% OF SCHOOLS in the Least Developed Countries and other low-income countries are equipped with toilet blocks (in 2011 – based on a sample of 49 countries).
- » ONLY 51% OF SCHOOLS in the Least Developed Countries and other low-income countries are equipped with adequate water sources (in 2011 – based on a sample of 51 countries).

WATER & GENDER

- » **1 WOMAN OUT OF 3 IN THE WORLD is exposed to diseases, shame, harassment or abuse because she does not have a safe place to go to the toilet.**
- » 526 MILLION WOMEN are left with no other choice than open defecation.
- » Women and girls with no access to toilets spend 97 BILLION HOURS PER YEAR looking for an appropriate place to relieve themselves.
- » IN AFRICA, 90% OF WATER COLLECTION and wood gathering tasks are left to women.
- » Women and girls spend up to 6 HOURS PER DAY collecting water in Africa.



ECONOMY

- » **IN 2015, THE WATER SECTOR ONLY BENEFITED FROM 4% OF TOTAL PRIVATE SECTOR INVESTMENT worldwide, representing a total of 4.1 BILLION DOLLARS.** The majority of these investments were made in China and Brazil.
- » 260 BILLION DOLLARS ARE LOST every year due to a lack of access to water and sanitation (time and productivity losses due to sickness and medical expenses).
- » \$1 dollar invested in improving access to sanitation yields \$5.5.
- » \$1 dollar invested in improving access to water yields \$2.



PRESSURE ON WATER RESOURCES

- » **40% OF THE WORLD POPULATION will be faced with water shortages by 2050.**
- » 500 MILLION PEOPLE suffer from severe water shortages all year round.
- » 20% of the world's aquifers are overexploited.
- » Agriculture consumes about 70% OF THE WORLD'S FRESH WATER (and up to 90% in the majority of the Least Developed Countries).
- » 80% OF WASTE WATER WORLDWIDE is released into the environment without being properly treated.
- » BY 2050, UP TO 2 BILLION PEOPLE are likely to suffer from increasing water stress. This number could reach OVER 3 BILLION IN 2080.



CLIMATE CHANGE

- » **90% OF ALL NATURAL HAZARDS ARE WATER-RELATED.** Their frequency and intensity are increasing.
- » DAMAGE CAUSED BY FLOODING IN URBAN AREAS could represent up to 1,800 BILLION DOLLARS PER YEAR BY 2080.
- » Since 1992, floods, droughts and storms have affected 4.2 BILLION PEOPLE (95% of these people were hit by natural disasters) and caused 1,300 BILLION DOLLARS' worth of damage.



SUSTAINABLE DEVELOPMENT GOAL

- » **28.4 BILLION DOLLARS OF CAPITAL INVESTMENT is required between now and 2030 to provide basic WASH facilities for those who lack them.**
 - Basic access to water (an improved water source within 15 minutes' walking distance): \$6.9 billion per year.
 - Basic access to sanitation (improved sanitation facilities): \$19.5 billion per year.
 - Basic access to hygiene (hygiene facilities with soap within the home): \$2 billion per year.



Satkhira, Bangladesh, July 2016.

THE RIGHT TO WATER: SPEAKING UP FOR THE INHABITANTS OF DHAKA'S SLUMS

In the overpopulated, insalubrious slums of the Bangladeshi capital city, SOLIDARITÉS INTERNATIONAL has decided to improve sustainable access to drinking water and sanitation by supporting populations in asserting and exercising their right to water. Here is an overview of the organization's pilot project in the Chalantika slum.



BY CRISTINA THEVENOT

OPERATIONS MANAGER FOR ASIA AT SOLIDARITÉS INTERNATIONAL

Bangladesh is undergoing rapid urbanization, as populations migrate towards towns to escape rural poverty and natural disasters. Between 300,000 and 400,000 people arrive in Dhaka every year, 30% of whom settle in one of the city's 5000 slums. The greater the distance from the central business district and major roads, the scarcer access to water and electricity becomes.

Due to unsafe water pipes, pollution and nonexistent or derelict infrastructure, the water that slum inhabitants use and consume is still of very poor quality. As a result, 97% of those living in Chalantika report having difficulties accessing drinking water.

In response to this situation, slum inhabitants have started to form community groups to assert and exercise their right to safe drinking water and sanitation. However, they lack support, technical knowledge and skills. In addition, local public authorities lack sufficient skills and resources to improve and extend basic services to cover slum areas, where living conditions are often poor.

"ON THEIR OWN, THESE POPULATIONS CANNOT MAKE THEMSELVES HEARD BY THE AUTHORITIES THAT GOVERN THEM."

"We must speak up for these invisible populations, by giving them support and the means to assert and exercise their rights, in coordination with local authorities," explains Cristina Thevenot, Operations manager for Asia at SOLIDARITÉS INTERNATIONAL. *"The inhabitants of Dhaka slums have been marginalized. Access to drinking water was recognized by the United Nations as a universal human right in 2010. Yet, in Dhaka and elsewhere, it is difficult for people to exercise this right."*

"Of course, some less developed nations do not have sufficient financial means to install the necessary infrastructure to provide this essential service. But we must push for obstacles to be removed, for autonomy, responsibility, capacity building and coordination between community groups and local authorities. On their own, these populations cannot

**BETWEEN
300,000
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**INCREASING
CIVIL SOCIETY'S
ABILITY TO TAKE ACTION AND
CAMPAIGN FOR ACCESS TO
FUNDAMENTAL RIGHTS**

To date, many similar projects undertaken by NGOs did not place sufficient emphasis on involving and creating a connection between slum inhabitants and local authorities. Yet participation and cooperation between all stakeholders is crucial for these projects to be effective and sustainable.

In order to consolidate its activities within Dhaka's slums, SOLIDARITÉS INTERNATIONAL has decided to extend its operations to 10 other slums, in partnership with the Resource Integration Centre (RIC), for a three-and-a-half-year project funded by EuropeAid and Fondation Agir.

"This project will focus on building the capacity of civil society organizations (CSO) to take action and campaign for fundamental rights and access to basic services—water, sanitation, hygiene and waste management—as well as to participate in local governance by cooperating with local authorities and establishing strong, official connections with them."



**BY NICOLAS
ROCHAS**

Following our initial collaboration with SOLIDARITÉS INTERNATIONAL in 2016, for a rural drinking water access project in Bangladesh, we wanted to extend this partnership to encompass the challenges of drinking water access in urban settings. Upon completion, this pilot project will benefit around 400 people living in a Dhaka slum. The project is fully compatible with the objectives of the Communauté d'Agglomération du Pays de Saint-Omer Water Fund, which we have been managing for the past two years. This is also an opportunity for us as an Urban Planning and Development Agency to make our own contribution to urban development efforts, by providing assistance and offering solutions for one of the most densely populated megacities in the world. Currently, the population density in Dhaka is over 45,000 people per km² and this figure is set to rise due to the combined effects of demographic trends and global warming. Every year, an additional 300,000 to 400,000 people take up residence in Dhaka. As a low-lying country, Bangladesh is particularly vulnerable to rising sea levels, a reality that places yet further stress on Dhaka. Over the next 50 years, it is estimated that between 10 and 40 million Bangladeshis will be displaced by climate change. On top of this, about one third of Dhaka's 15 million inhabitants are currently living in slums. Consequently, there is a dual emergency: managing the current situation and preparing for the future. To address these challenges, a multifaceted approach is necessary, combining urban planning, strategic planning and access to water and sanitation. This is the objective of our partnership with SOLIDARITÉS INTERNATIONAL, with whom we have already had the opportunity to share expertise regarding decision-making tools and cartography, for example.



YEMEN: OUT OF WATER, OUT OF TIME



OPINION COLUMN BY FRANCK GALLAND,

Expert in water resource security concerns, member of (Re)sources

On March 22nd, 2012, former U.S. Secretary of State Hillary Clinton made public a report commissioned by the Office of the Director of National Intelligence (ODNI), entitled “*Global Water Security*”. Released to coincide with World Water Day, the report offered an unprecedented look at the U.S. Intelligence Community’s global analysis of the potential security consequences of water scarcity for U.S. allies, suggesting the possibility of American humanitarian or military intervention.

The report painted a bleak picture of Yemen. Long before Houthi rebels took control of Sana’a in September 2014, plunging the country into a tribal and religious war, Yemen was already recognized as the most water-scarce country on the planet².

Gone are the days when, less than 40 years ago, Yemen was known as Arabia Felix (“*Happy Arabia*”) due to its location in the most fertile area of the Arabian

Peninsula and its remnants of ancient hydraulic infrastructures including the Great Dam of Marib, believed to be the world’s oldest hydraulic structure.

UNPRECEDENTED WATER STRESS AND A BURGEONING DRUG CULTIVATION INDUSTRY

As of 2018, Yemen’s annual per capita renewable water supply is less than 200 m³. Worse yet, this catastrophically low figure is projected to drop to 40 m³ by 2050. This alarming outlook points to a crisis of unprecedented scale impacting a nation of 25.3 million whose population is projected to double over the next 25 years. Such data has led American intelligence experts to conclude that Yemen may not survive as a nation in the absence of water resources and infrastructures, two elements that are vital to a population’s survival.

The country’s descent into hell can be attributed to several factors similarly present in a number of other countries

with little or no water resource governance, i.e. a lack of investment in the maintenance and renewal of existing collective infrastructures and a glut of individual pumping installations that has placed a strain on water tables.

As elsewhere, insufficient reforms to agricultural irrigation practices are also all too frequently to blame for continuous pressure on water resources. On top of this, Yemen has one key characteristic in common with another country suffering from water stress: Afghanistan. Like Afghanistan, Yemen channels a large proportion of its water resources towards drug production: the former is the world’s biggest producer of opium and the latter is the leading producer of qat.

A scourge to the region that is devastating Yemen and parts of the Horn of Africa, “*catha edulis*” continues to paralyse much of Yemeni society on a daily basis. Over 30% of the country’s arable land is believed to be used

for growing the psychoactive plant, which consumes between 40 and 50% of agricultural water resources. The surface area devoted to growing qat has reportedly doubled in size since 1970, leading the plant to displace grains as Yemen’s primary crop. Qat farming also accounts for 70% of the country’s skyrocketing pesticide use, a phenomenon resulting in increased pollution of soil and groundwater.

Adding yet another layer of complexity to the current security equation, qat trafficking controls constitute a territorial issue for the armed militias who have de facto carved up Yemeni territory³. Each hectare of qat has an estimated value of 8,000 USD which, prior to the conflict, would have represented between 20% and 30% of Yemeni household expenses⁴.

A NATION BESET BY A HARROWING CONFLICT TARGETING CIVILIAN POPULATIONS AND CRITICAL INFRASTRUCTURES

As the qat scourge continues inexorably to deplete and contaminate water resources, the crisis has been compounded by the toll of a high-intensity yet unspoken conflict.

A proxy war playing out between Saudi Arabia’s Sunni coalition and Shia Iran has targeted civilian populations and their critical infrastructures, as was the case in Syria and Iraq. Water, energy and sanitation infrastructures have all been damaged.

Such was the case for a critical wastewater treatment plant serving Sana’a and the surrounding area. On March 26th, 2015 the plant suffered damage from bombing. On April 17th, 2015 it was yet again impacted when an energy plant on which its operations depended was bombed⁵. As the conflicts in Syria and Iraq made clear, without electricity there can be no production or distribution of water, nor can there be waste removal or wastewater treatment.

Next came the rationing of fuel oil, crucial to supplying the generators that kept the plant up and running. The reason: a naval blockade, first ordered in May 2015. A country progressively running out of everything was now cut off entirely.

Less than two years later, it is clear that the near-total disruption of wastewater treatment plant operations in Yemen’s capital has taken a significant toll, creating yet further hardship for a population already deprived of medicine and dependent on food aid.

A partial or total disruption of treatment plant operations has therefore been largely to blame for the cholera epidemic ravaging the country, especially in areas under rebel control. Over one million people have been infected, many of whom—overwhelmingly children—have died without access to treatment. Chronicle of a tragedy foretold.

The environmental toll of depleted wastewater treatment capacities is also grim, as soil and groundwater in the Sana’a area are now permanently polluted. A war waged through the deliberate or indirect targeting of critical infrastructures—and among them those responsible for sanitation—has thus set the stage for a humanitarian and environmental catastrophe that must be stopped before it is too late.

In Yemen, as in other recent conflicts, far too many critical structures (water, sanitation, electricity) have been bombed, either as direct targets or as collateral damage.

ENFORCING THE GENEVA CONVENTIONS AND PASSING A WATER AND SECURITY RESOLUTION AT THE UN SECURITY COUNCIL

To curb this destructive trend, it is critical that the strict observance of humanitarian law be enforced. To this end, the 1949 Geneva Conventions’ more recent Additional Protocols concerning the protection of victims of international armed conflicts also provide for the protection of critical structures such as dams, dykes and nuclear plants, per Article 56.

Article 15 of the 1977 addenda also calls for the total protection of these sites in the event of a non-international armed conflict. Dedicated, if rarely used, signage also exists for signalling critical infrastructures to protect them from bombings: a symbol composed of three horizontal orange circles (like a traffic light turned on its side) serves to neutralize and protect these sites.

Any infrastructure that is vital to a population’s survival (water, energy and sanitation) must imperatively be recognized as a neutral zone, as is already the case for hospitals. Senegal raised this very issue before the UN Security Council along with the issue of hydro-diplomacy, i.e. the prevention and resolution of cross-border conflicts linked to water resources.

For Senegal, a recent term presiding over the Security Council was a prime opportunity to bring the water and sanitation debate to the highest table. On November 22nd, 2016, the country organized a session on strategic and security issues surrounding water resources in an effort to pave the political way for a Security Council resolution on the theme Water & Peace. Through this initiative, Senegal followed in the footsteps of Namibia which, in 2000, took action to bring about the historic Resolution 1325. Entitled *Women, Peace and Security*, the text concerns the role of women in conflict resolution, peace talks and reconstruction. Although a Water and Security resolution has yet to be passed, a formal stand is unquestionably and urgently needed. In addition to the UN Security Council, various regional strategic bodies (the North Atlantic Treaty Organization—NATO, the Organization for Security and Co-operation in Europe—OSCE, the Shanghai Cooperation Organization—SCO, the Gulf Cooperation Council—GCC, etc.) must be reminded of the vital necessity of protecting water, sanitation and energy infrastructures, through both legal and physical means, during violent conflicts.

¹ “*Global Water Security, Intelligence Community Assessment*”, Office of the Director of National Intelligence, 2012.

² “*Crisis in Yemen: Food, Water and the ‘Slow Motion Coup’*”, Tess Marslen and Sinéad Lehane, Global Food and Water Crises Research Programme, Future Directions International. February 2015.

³ “*Yemen: L’ONU inquiète du risque de partition*”, Le Monde, Marie Bourreau and Louis Imbert, 18 January 2018.

⁴ “*De l’eau pour le Yémen*”, Cercle Les Echos, Franck Galland, 11 May 2015.

⁵ “*From Bombs to Cholera in Yemen’s War*”, The New York Times, Alia Allana, 19 November 2017.



Goundam Cercle, Northern Mali, June 2016.

THE MULTIPURPOSE ROLE OF WATER IN NORTHERN MALI OR THE NEED TO UNDERSTAND THE CONNECTIONS BETWEEN LAND AND POWER

In northern Mali, depletion of water resources due to recurrent droughts and high population pressure—movements are restricted in the area as a result of armed occupation and insecurity—makes water-sharing a crucial issue for survival and stability.

BY NATACHA CALANDRE

Food Security and Livelihoods
Focal Point

Water cannot be viewed in isolation from land, soil and ecosystems: it has far-reaching implications, affecting health, nutrition, agriculture, livestock breeding, fisheries, income, access to basic necessities, and political and socio-economic stability. The distribution of water across these various domains requires an integrated approach to evaluating and managing resources, to achieve a balance between production and consumption, food and water quantity and quality, ecologically sustainable development and socially just access.

The water challenges in northern Mali are a good illustration of the connections between land and power. When taking action, we must consider a wide range of issues, understand how various territories fit together, and comprehend the complexity of stakeholder interests.

THE INTERACTION BETWEEN POWER DYNAMICS AND RESOURCE MANAGEMENT METHODS

In northern Mali, which bears the scars of persistent armed conflict, the universal challenges of fighting climate change are compounded by territorial and resource control issues, which have an even greater impact on the population's food security and on environmental sustainability.

Competition for water access also causes antagonism between agricultural and pastoral communities, or between nomadic and sedentary populations. Sometimes, this rivalry is mainly the evidence of deep-rooted social tensions. In this specific context, where competition for land and water takes various forms, it is a complex task to analyze the situation, to understand resource management mechanisms and to devise plans for production and development.

The inequitable distribution of resources often jeopardizes the fundamental right to food and water. Among the causes are territorial agreements between various interest groups, land grabbing and "privatization", and the lack of clear and established rules for using resources. These struggles for power and property result in restricted access to resources for certain fringe populations—yet another form of violence. In addition, this situation encourages unsustainable exploitation of natural resources and hinders community management initiatives.

THE TRANSITION FROM MANAGING SUPPLY TO MANAGING DEMAND

Today, the major challenge is to increase water supplies and to protect, restore and manage natural resources, in order to satisfy human, social and economic needs and to cope with various pressures (population density, farming and livestock breeding methods, urbanization, etc.).

In the absence of national authorities, political and legal frameworks and regional policies, the accomplishment of this goal hinges on restructuring "power" around resources. This can be achieved by establishing local governance entities, creating and promoting user groups and professional organizations, as well as developing regulatory mechanisms that provide for social objectives and encourage rational water usage. Acknowledging the fact that water has various uses and defending the universal right to use natural resources are two fundamental issues that must

play a central part in the development of water demand management policies.

MOVING TOWARDS LOCAL, INTERCONNECTED SOLUTIONS: IS COLLABORATIVE MANAGEMENT POSSIBLE?

Controlling water usage implies changing rules and methods and rethinking collaborative management practices. These changes must take place on a very local scale in order to accommodate diverse situations, and also on a regional scale to account for interconnections between land and resource use.

These new socio-economic relationships foster recognition of all local stakeholders, tradesmen, farmers and communities as managers of territorial resources. This requires a precise understanding of the history of political and socio-cultural occupation in this region, as well as conflicts, property rights and current methods of governance and how they interact with traditional conventions.

The development of management systems for water or other resources requires the creation of consultation mechanisms that enable inter-community and intra-community agreements to be negotiated on the basis of a regional assessment, as well as the conclusion of mutually beneficial "contracts" between users. This calls for new, context-specific models combining technological, economic and environmental innovations (storage, water and soil preservation, micro-irrigation and promotion of water-efficient production techniques, protection of ecosystems, waste reduction, etc.) with organizational and institutional advances. Restoring sustainable access to water and land in this fragile region is the only way to ensure social and economic progress.

PROVIDING WATER IN THE CENTRE OF MOSUL

"During 2017, the SOLIDARITÉS INTERNATIONAL team in Iraq distributed water, in person, to thousands of people who were trapped in Mosul, just after Islamic State forces had abandoned the town. Once we had built a water treatment plant on the banks of the Tigris producing no less than 12,000 litres of drinking water daily, our teams distributed water to over 30,000 people per day, in the centre of Mosul. Every day, we filled about twenty reservoirs in the Wadi Hajar district. In addition to quenching the population's thirst, reestablishing drinking water supplies in the western districts of Mosul should also help to contain potential epidemics, which remain a threat due to unsanitary living conditions within the town. Now that peace has returned, our teams are redirecting their efforts towards rehabilitating the water network, to contribute to rebuilding the city, which is in ruins after many years of war"

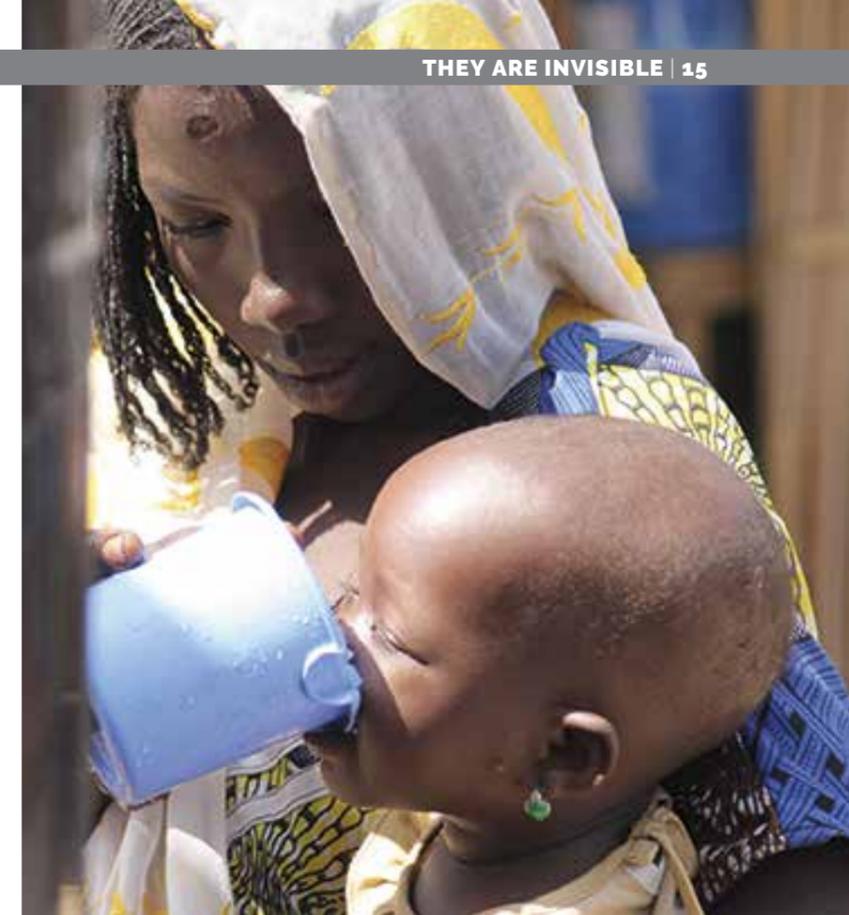
DENIS VANHONGEGEM
Country Director



DRINKING WATER TO FIGHT MALNUTRITION IN NIGERIA

"In the town of Maiduguri, which provides refuge for over 1.5 million displaced people who have fled from combat zones, malnutrition rates are well above critical thresholds. Tens of thousands of children under 5 years old are in mortal danger. In collaboration with local medical centres, SOLIDARITÉS INTERNATIONAL is fighting malnutrition, which is caused by an unhealthy, insalubrious environment in 50% of cases worldwide (WHO). Our teams are installing water and sanitation facilities at health clinics. They are also repairing the large numbers of boreholes that have been destroyed and building toilets in vulnerable, overpopulated districts of Maiduguri."

GILLES VOURCH'
Country Director



DRILLING DEEP IN BANGLADESH

"Since August 2017, hundreds of thousands of people have fled Myanmar for Bangladesh. They are stranded in villages and in official or informal refugee camps, where water access is a real challenge. To reach sufficient quantities of groundwater, which is safe and available all year round, it is necessary to drill very deep. As the moment, people are using water from the aquifer, which is very shallow. But when the dry season arrives the aquifer will shrink, eliminating access to this water source. We therefore decided to drill to a depth of several dozen metres to ensure a sufficient year-round water supply. Each borehole yields 15 litres of water per person per day for about 1,100 to 1,200 people. Several boreholes are being drilled in an effort to provide as many people as possible with water in the refugee camps. Although the groundwater yielded by this deep drilling is free from contamination, we analyze it regularly, especially to monitor the iron content."

LUCILLE TRUTTA
Water, Sanitation and Hygiene Manager



SOLAR PUMPS IN AFGHANISTAN

"Nearly 4 years after they arrived, more than 4,500 people from Pakistan are still living in Gulan camp, in Afghanistan. Until now, submersible pumps were used to supply the water network in the camp. However, since the refugees are here for an extended period, a more sustainable solution has been implemented. We decided to install solar pumps to supply water. This project has been a success in Mali, at another of SOLIDARITÉS INTERNATIONAL's missions. We thought it would be advantageous to try the same technique here. The 10 wells that provide water for the whole camp are equipped with 21 solar panels on a steel frame, connected to a command panel and a control system. The submersible pumps are now powered by energy from the solar panels, but there is still a backup diesel generator for each borehole, in case the weather is cloudy with no sunshine."

CRISTINA THEVENOT
Operations Manager for Asia



Nayan Tara
BANGLADESH



Charlène
CAR



Narges
AFGHANISTAN



Jacqueline
HAITI



Baba Harber Adjawiakoye
MALI



Umoja Bahita
DEMOCRATIC REPUBLIC OF CONGO



Zahra Danlha
NIGERIA



Mary Bol
SOUTH SUDAN



Almoudou Yattara
MALI



Susie May
MYANMAR



Nia Abdoulaye Touré
MALI

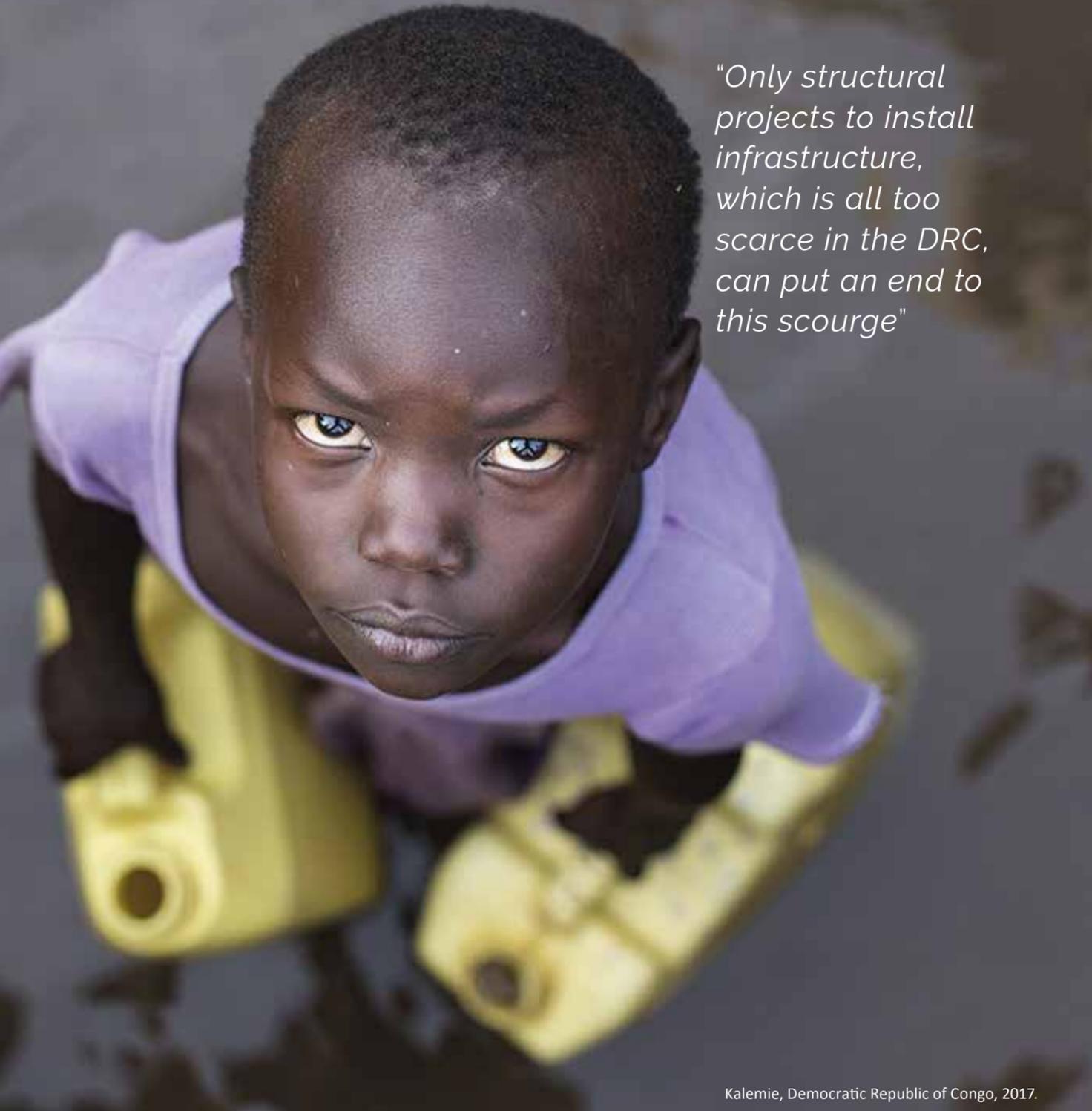


Dilmas et Tahara
MYANMAR

GIVING INVISIBLE PEOPLE A VOICE

There are thousands, millions, billions of them. Their human rights are not respected. Their voices do not carry. They are invisible and voiceless. All these men, women and children have been forgotten because they had to flee to another country, deserting their homes due to war, natural disaster or an epidemic. Today, they have no access to drinking water. These are the people for whom we provide vital assistance, in person, with dignity.

Wherever they are from—Bangladesh like Nayan Tara, or Mali like Baba Harber Adjawiakoye, or Nigeria like Zahra Danlha, or Haiti like Jacqueline, or Afghanistan like Narges, or elsewhere—we have chosen to give them a voice. So that, by telling their story, their suffering may be heard.



"Only structural projects to install infrastructure, which is all too scarce in the DRC, can put an end to this scourge"

Kalemie, Democratic Republic of Congo, 2017.

PETITION TO FINALLY ERADICATE CHOLERA FROM THE DRC

IT'S TIME TO ROLL UP OUR SLEEVES AND DEFEAT THE DIRTY HANDS DISEASE

Cholera disappeared from industrialized countries decades ago. Although it is easy to prevent, treat and eliminate, between 3 and 4 million people are infected by the "dirty hands disease" every year, of which 100,000 will perish, simply because they do not have access to drinking water and sanitation. The populations of the Democratic Republic of Congo (DRC), the worst-affected country in Africa, are particularly afflicted by this unjust situation. Over several decades, the disease has taken hold in the DRC, where the most severe cholera epidemic in the past 25 years has infected 40,000 people and claimed 900 lives.

SOLIDARITÉS INTERNATIONALE ASKS: How can so many deaths from cholera in the DRC be explained, when short, medium and long-term solutions to prevent and control this infectious disease have been tried and tested? How can these figures be justified, when a similarly dire situation in Haiti in 2012 had a very different outcome: close coordination between state, humanitarian and private partners enabled a drastic decrease in the number of cases in 2017 (10,814 to date in comparison to over 500,000 in 2010/2011)?

SOLIDARITÉS INTERNATIONALE ASSERTS that in the DRC, after just 6 months of indifference on the part of the international community, the east of the country witnessed the worst upsurge in cholera cases in 25 years. To date, some 44,071 suspected cases and 882 deaths have been registered in 22 of the country's 26 provinces. Every week, an additional 1,800 to 2,000 people are infected, a 71% increase in comparison to 2016.

SOLIDARITÉS INTERNATIONALE TESTIFIES that in the Tanganyika, Haut-Lomami, Kivu and Ituri provinces and more recently in the Kasai provinces, which are all severely affected by the epidemic, there are not enough humanitarian NGOs fighting outbreaks of cholera to prevent the infectious disease from spreading, due to lack of resources.

Despite the fact that patients are receiving better care, the number of deaths has increased 12.4% in comparison to the same period in 2016. Emergency programs combining medical care, chlorination of water points and disinfection of infected homes do save lives, but they will never eradicate the epidemic. Only structural projects to install infrastructure, which is all too scarce in the DRC, can put an end to this scourge.

SOLIDARITÉS INTERNATIONALE CANNOT ACCEPT the complaints of certain international decision-makers that NGOs use public funds to duplicate the same disease mitigation projects every year, while the same decision-makers flatly refuse to consider any attempts by humanitarian or private organizations to suggest effective long-term solutions. Urban water networks and sanitation projects which would eventually eradicate cholera—as was the case in Europe in the 20th century—*"are too costly, too far off in the future and do not meet urgent humanitarian needs."*

SOLIDARITÉS INTERNATIONALE DENOUNCES these conflicting viewpoints, which can only lead to stalemate. Especially since, on the one hand, SOLIDARITÉS INTERNATIONALE is currently called upon to provide an emergency response during outbreaks of the epidemic in the Kalemie and Masisi areas while at the same time, the organization is struggling to obtain funds to proceed with the construction of a water network in Kalemie, which would tackle the root causes of the disease. Today, this project is totally reliant on funding from French water boards, regional authorities and public institutions.

SOLIDARITÉS INTERNATIONALE IS OUTRAGED that despite decades of experience of major crises, epidemics and efforts to reduce the extremely high morbidity rates in this region, many decision-makers still do not understand that access to drinking water, hygiene and sanitation is almost always the key to an effective

solution to epidemics. And that medical intervention alone is insufficient.

SOLIDARITÉS INTERNATIONALE NO LONGER ACCEPTS the international community's inability to bring together all the necessary partners—governmental, humanitarian and development organizations and private stakeholders—to pool their resources and expertise.

SOLIDARITÉS INTERNATIONALE CALLS UPON all the public and private stakeholders involved in humanitarian aid and development in the DRC to come together and implement a joint program to fight cholera, a deadly disease that could so easily be controlled.

SOLIDARITÉS INTERNATIONALE REAFFIRMS that the solutions to eradicate cholera by 2030 are well-known:

- Increase funding for the rapid deployment of medical teams during epidemic outbreaks
- Invest in water and sanitation infrastructure projects, especially in urban and semi-urban areas
- Improve monitoring and alert systems.

HOW MANY MORE YEARS OF EPIDEMICS, DISEASE AND DEATH MUST GO BY BEFORE THESE MESSAGES ARE FINALLY HEARD?

Invisible voices

"My seven-year-old child, Salume, drank water from the lake every day. One day he had abdominal pain, and very soon after he started to vomit and suffer from continuous diarrhoea."



UMOJA BAHITA
DRC

FROM EMERGENCY TO DEVELOPMENT: A THREE-TIER APPROACH TO ERADICATE CHOLERA FROM TANGANYIKA

Emergency action alone is insufficient to fight the “dirty hands disease”. In eastern Democratic Republic of Congo (DRC), where cholera is endemic, “knock-out” activities and long-term development must be closely coordinated to effectively combat the disease.

BY EMMANUEL RINCK
Operations Manager
for Africa

Lake Tanganyika is one of the reservoirs for cholera in Central Africa. SOLIDARITÉS INTERNATIONAL has been fighting waterborne diseases there since 2002. In Kalemie and the surrounding area, cholera has been widespread for over 20 years. In the communities which suffer from regular, severe outbreaks of the disease, people die every year.

THE “KNOCK-OUT” APPROACH

To fight the epidemic, SOLIDARITÉS INTERNATIONAL has devised a three-tier approach combining emergency and development activities. The first phase is an emergency response, called the “knock-out” approach, which is put into action as soon as the epidemic threshold is reached to contain the outbreak. This phase involves emergency chlorination at every water point to prevent infected

water from being consumed, as well as mass awareness-raising campaigns on good hygiene practices. These activities are carried out in coordination with regional and provincial health authorities.

A “SHIELD” FOR DRINKING WATER

An emergency response alone cannot prevent the spread of cholera in an area where the disease is endemic. It is not a satisfactory solution for the communities or for us, as humanitarian workers. That is why the second phase of the program revolves around the rehabilitation and extension of the municipal water network in Kalemie, to provide a permanent supply of drinking water. Alongside this rehabilitation work, support is provided for the local organizations that are responsible for managing and distributing water to the population. These two complementary activities safeguard water quality and ensure that the local community takes ownership of the water facilities. This structural approach, which has been implemented since 2010, is known as the “shield” approach.

LOCAL COMMUNITIES ARE THE FIRST LINE OF DEFENSE AGAINST THE DISEASE

The third phase of SOLIDARITÉS INTERNATIONAL’s strategy is based on the promotion of a chlorine solution by a local organization. SOLIDARITÉS

INTERNATIONAL provides capacity-building support for this local organization, whose objective is to make this product into an everyday commodity. Through these activities, SOLIDARITÉS INTERNATIONAL is promoting local entrepreneurship and clearly showing that communities are capable of protecting themselves from the dangers of dirty water and the scourge of cholera. In this way, SOLIDARITÉS INTERNATIONAL is starting to implement an exit strategy from the area.

From the first diagnosed case through to autonomous water treatment by the communities themselves, SOLIDARITÉS INTERNATIONAL is combining emergency activities with a structural, developmental approach, to fight diarrhoeal diseases in the short-term and the long-term. The aim is to make the point that fighting cholera must be done on all fronts, simultaneously.

Invisible voices

“One day, the water in the swamp will dry up and we will no longer be able to stay here.”



MARY BOL
South Sudan

“MANAGING WATER SAFELY”

THE RESULTS OF A SCIENTIFIC IMPACT STUDY OF THE ENDEMIC CHOLERA ZONE IN UVIRA, DRC.

BY MARTIN LEMÉNAGER

Water and Sanitation Project Team Manager at the Agence Française de Développement

The primary benefit of a water and sanitation project is often said to be a positive impact on health. This seems obvious yet it is difficult to measure accurately, mainly because, between the moment water is collected from its source and the moment it is consumed, it can come into contact with a number of potential contaminants. Most of the existing studies discuss “treatment at point of use” projects. It is rarely possible to evaluate drinking water network improvement projects using scientifically proven methods. It is undeniably difficult to compare towns that have or do not have water networks, and pipes cannot be distributed like chlorine tablets or training sessions.

The implementation of a project in Uvira, in the South Kivu region of the DRC brought together all the necessary conditions for such an impact study. This research is especially valuable because cholera is rampant in the area. The study relies on support from the organizations involved and draws on data collected during a regional program that was launched by the Veolia Foundation over 10 years ago.

In 2013, the Agence Française du Développement (AFD) decided to grant a subsidy to the “Project to fight cholera in Uvira by improving access to drinking water and hygiene”. This project follows the emergency-development continuum, is supported by multiple partner organizations and aims to improve the health and living conditions of 210,000 people. The project is managed by the national public company Regideso with assistance from the Veolia Foundation and has received financial support from the European Union via the Water Facility fund. Water production and distribution

infrastructure will be rehabilitated and extended (daily production will increase from 4,500 to 11,500 m³/day, a new 2000 m³ reservoir will be built and 40 km of pipes, 3000 water meters and 102 water fountains will be installed) to generate a continuous water supply and prioritize the health zones where cholera epidemics have been pinpointed. The NGO Oxfam GB will carry out hygiene awareness activities, and ADIR, a local NGO, will assist in organizing the use and management of the water fountains.

The AFD and the Veolia Foundation have appointed the renowned London School of Hygiene and Tropical Medicine (LSHTM) to conduct a scientific impact study. The initial results were published in 2015 in the public health journal PLoSMed. By comparing chronological drinking water production data with health clinic registers, the researchers found that “23.2% of registered cholera cases in this town between 2009 and 2014 can be directly attributed to recurrent disruptions at the water treatment plant, mainly due to power cuts”.

These findings were a high-profile contribution to the debate about the importance of the quality of water services within the framework of the Sustainable Development Goals (SDGs). SDG Goal 6.1 aims for “universal and equitable access to safe and affordable drinking water for all”. This definition requires several criteria to be met: accessibility (at home), availability (on demand, generally via continuous service), and quality (always free from contamination). This represents a big step forward, in terms of quality, from the “improved drinking water sources” mentioned in Millennium Development Goal (MDG) 7.

The study, which will continue until the end of 2019, uses a combination of three methods:

- analysis of time series data on the quantity of water distributed and the incidence of cholera and diarrhoeal diseases;
- random assignment of the order in which tertiary network extension work was performed into 16 clusters, enabling counterfactual “pipeline” analysis (comparison of the first and the last districts where extension work was performed);
- monitoring the hygiene practices, water-related behaviour and socio-economic circumstances of a cohort of 500 households, using a qualitative approach.

The findings from this study will contribute to the multi-sector cholera eradication plan, which is coordinated by Congolese authorities. They are also of interest to the WHO Global Task Force on Cholera Control, which has just published a road map to eliminate cholera by 2030.

Invisible voices

“Since Hurricane Matthew struck, I can’t use the water spring any more. I have to go and buy water at the kiosk, but I don’t have any money. I don’t know what I’m going to do...”



JACQUELINE
Haiti

TAKING ACTION FOR A CHOLERA-FREE HAITI IN 2022



THREE QUESTIONS FOR JEAN-SÉBASTIEN MOLITOR
Country Director for SOLIDARITÉS INTERNATIONALE in Haiti.

WHAT IS THE SCOPE OF THE CHOLERA EPIDEMIC IN HAITI?

Cholera was first introduced in 2010 by UN forces from Nepal, where the disease is endemic, and it quickly spread throughout Haiti. By 2014 the epidemic had infected more than 700,000 people and caused nearly 9,000 deaths. Since then, the number of cases has drastically declined. As of October 31st, 2017, 11,916 suspected cases had been reported since the beginning of the year—a 66% drop from the previous year. The decrease in the number of deaths over the past few years (around 1% of cases) is mainly due to two factors: the absence of a major outbreak and the implementation, in July 2013, of the National Plan for the Elimination of Cholera, developed by Haiti's Public Health and Population Ministry, the World Health Organization and UNICEF. The plan entails a coordinated response from NGOs and authorities combining disease prevention, an outbreak alert-and-response system and the improvement of access to drinking water and sanitation. But let's not be fooled: this significant drop in no way eliminates the risk posed by the disease, particularly for the most vulnerable households.

WHAT ACTIONS ARE NGOS IMPLEMENTING IN THE FIELD TO COMBAT CHOLERA?

The fight against cholera is a two-pronged effort. The health component consists of treating patients in a specialized acute diarrhoea treatment clinic (Centre de Traitement des Diarrhées Aiguës – CTDA) staffed by trained health professionals. The investigation component consists of gathering information from each patient at the CTDA, then inspecting his or her home to identify the source of contamination and, lastly, disinfecting the patient's home and any surrounding homes to create a health perimeter that will prevent the disease from spreading. To complement chlorination interventions, kits containing soap, chlorine tablets and rehydration salts are distributed to affected households and surrounding homes. SOLIDARITÉS INTERNATIONALE has been actively involved in the implementation of this national response plan, from the distribution of cholera kits and the disinfection of affected households to the rehabilitation and securing of water sources, particularly in the West, Nippes and Southeast provinces.

IS THERE HOPE FOR A CHOLERA-FREE HAITI?

The National Plan for the Elimination of Cholera (PNEC) does indeed set an objective of total eradication by 2022: an achievable goal so long as coordination between national authorities, water, sanitation and hygiene actors and health care structures continues to run smoothly and the project continues to be funded. It should be noted that funding for 2017 stands at 14%, and yet the numbers show that we're moving faster than PNEC projections. We need to maintain this momentum. The goal for 2018 is to get down to an incidence rate (new case/total population) of below 0.1%. As of October 31st, 2017 the incidence rate stood at 0.11%—confirmation that our efforts have been successful.

Invisible voices

"The filtering station that was installed in the village has changed a lot of things in our everyday life. The water we were drinking before was making us ill."



BABA HARBER ADJAWIAKOYE
Mali

"MANAGING WATER AND HYGIENE TO BREAK THE CHAIN OF INFECTION."

3 QUESTIONS FOR SOLENNE BARBE

Director of Operations of medical NGO ALIMA*

What is the medical importance of water in health clinics?

Access to drinking water is a basic necessity that determines the health of both a population as a whole and its individuals, particularly children. In terms of medical operations, water is also a critical component of clinical hygiene. Given that nosocomial diseases are now a major public health issue, clean drinking water is clearly essential in the medical sphere. In addition to concerns surrounding everyday water intake, our pediatric services use water in therapeutic milk to treat undernutrition, particularly in newborns and intensive care patients. If the water used is not perfectly clean and drinkable, we cannot feed the children as they will experience diarrhoea or vomiting.

In what ways is an NGO like SOLIDARITÉS INTERNATIONALE an asset to medical workers like you?

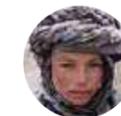
We deal with waterborne epidemic diseases as well as diseases for which water serves as a breeding ground for carriers (malaria and dengue in particular). Our expectations of an NGO with the technical expertise of SOLIDARITÉS INTERNATIONALE will vary according to the specific operations. But the overall key for us is adaptability and an understanding of medical work and how water ties into it. For example, when SOLIDARITÉS INTERNATIONALE performs chlorination, drains latrines and provides access to clean drinking water during a cholera epidemic, that gives us more time to focus on providing medical treatment. At ALIMA, we have the technical capacity to perform those operations, but if we do not have to hire staff and manage the bureaucracy that goes along with that, we can devote more time to providing treatment for more people. When we are racing against the clock to open a 300-bed clinic in Haiti, we look to SOLIDARITÉS INTERNATIONALE to isolate the outer link and break the chain of infection.

Aside from cholera and malnutrition, what other illnesses could ALIMA and SOLIDARITÉS INTERNATIONALE join forces to combat?

We conduct a number of different activities that could stand to benefit from the expertise of SOLIDARITÉS INTERNATIONALE, particularly those targeting malaria and dengue. But it's not as straightforward as that. Such interventions require additional expertise that goes beyond the scope of our own skills or those of an NGO like SOLIDARITÉS INTERNATIONALE. We need to work with entomologists who can map out the breeding sites of disease-carrying mosquitoes and set up water treatment programs to purify water sources located close to inhabited areas. We also need to develop water treatment research and innovation projects tailored to this type of scenario.

Invisible voices

"Water is very important to us, because we can't live without it"



NARGES
Afghanistan

*Established in 2009, The Alliance for International Medical Action (ALIMA) brings together and supports NGOs specializing in humanitarian medicine in order to implement high-quality, large-scale treatment projects, both in response to humanitarian emergencies and in the context of ongoing crises.



“TO END MALNUTRITION, THERE IS A NEED FOR DONORS TO COME OUT OF COMPARTMENTALIZED FUNDING”



A graduate of the London School of Hygiene and Tropical Medicine and responsible for the adoption of research for the SHARE Consortium, a research program on sanitation, hygiene and health, **SOPHIE DURANS**, author of the report *“The Recipe for Success”*, takes a look at the link between access to water and malnutrition.

What is the link between WASH and undernutrition?

A child under two years who is stunted – who fails to grow as tall as expected for their age – often has reduced physical and mental development. WASH can affect child growth via three direct pathways: diarrhoea, soil-transmitted helminths (intestinal worms that are transmitted through contaminated soil), and environmental enteric dysfunction (an

intestinal inflammation that reduces absorption of nutrients). These three pathways can affect how the body responds to infection or parasitic infestation, and may have a negative impact on nutritional status and health.

Why is access to water, sanitation and hygiene so important in the fight against undernutrition?

Evidence exists to highlight the links

between WASH and specific forms of undernutrition. A systematic review published in 2013 found that there was suggestive evidence of a small effect of WASH on stunting (Dangour et al. 2013). These findings were upheld by a more recent review of the literature (Freeman et al. 2017). While both reviews show that WASH interventions can be effective for nutritional outcomes, not every type of WASH intervention has shown to be effective. We need

more research to determine which interventions might be most effective to improve children’s nutritional status.

It has been well known for several years now that there is a link between WASH and undernutrition. How do you explain why it is still difficult to mobilise funds, especially for financing for the WASH-nutrition link?

There are a number of reasons why it can be difficult to mobilise funds. First, while we do know there’s a link between WASH and nutrition, the evidence base isn’t unanimous, and questions remain about the specific contributions of different WASH interventions. Second, funding still occurs in silos, although our analysis of donors in *“The Recipe for Success”* highlights the extent to which specific donors have moved towards integrated funding for WASH and nutrition. Third, the WASH sector is relatively under-resourced, which presents further challenges, particularly around the allocation of funds within the sector for hardware (eg. taps and toilets), compared to the software (eg. behaviour change communication).

What advice could you give to non-medical NGOs such as SOLIDARITÉS INTERNATIONALE so that they can be more effective and efficient in their fight against malnutrition?

NGOs like SOLIDARITÉS INTERNATIONALE should ensure that their programmes are informed by the best available evidence. While the links between WASH and nutrition are complex,

enough evidence exists to warrant action. Following existing guidelines on WASH and nutrition, such as those from WHO, can be useful to ensure programmes are following the best available evidence and good practice.

What are your main recommendations for ending malnutrition?

In *“The Recipe for Success”* report, we set out clear recommendations for a number of decision-makers. For donors, we recommend they fund multi-sectoral approaches and incentivise more effective WASH and

nutrition integration, both in humanitarian and development contexts. For WASH policy-makers and practitioners, we recommend increasing the ‘nutrition-sensitivity’ of policies and programmes using approaches like targeting geographical areas where undernutrition is most prevalent.

In the report *“The Recipe for Success”*, you explain that the SDG to end malnutrition will not be achieved. Why?

We know that food alone isn’t enough to tackle the problem; half of all cases of undernutrition are linked to infections that are caused by poor WASH. The current progress on addressing the underlying causes of malnutrition hasn’t received adequate attention to date. Our report, which analysed nutrition and WASH plans across ten countries, found that nutrition plans recognised the importance of WASH for nutrition, but many lacked detail about which WASH actions should be prioritised, and

how to practically integrate them into nutrition programmes. Similarly, WASH plans also lacked detail of actions to maximise nutrition impact.

If all actors must share responsibility to fight malnutrition, don’t the states have a more important role to play, especially on the preventative aspect and regarding WASH? How can we make them realise that they must provide the means to fight malnutrition by integrating WASH?

In the report, we set out recommendations for national governments to encourage them to better integrate WASH and nutrition. These include ensuring their policies and financing align with the SDGs and their interconnected goals to strengthen WASH, establishing effective cross-ministerial coordination mechanisms, and ensuring these structures incorporate meaningful participation of civil society and affected communities. We also suggested that that governments have updated and available national WASH and nutrition plans so others can hold them to account.

Invisible voices

“Each morning, it is my job to collect water from the well. With this water, my Mum can cook and we have clean water to drink every day. Because water is life.”



CHARLÈNE
CAR



TOILET ACCESS: A HEALTH EMERGENCY

For 38% of the world's population, finding a place to relieve oneself is a daily struggle. This harsh reality has had a devastating impact on the health and social evolution of affected populations.

BY ANNE GUION

Journalist at *La Vie*

We are grateful to the editorial boards of *Le Monde* and *La Vie* for granting permission to republish this text, which originally appeared in the special issue *L'Atlas de l'eau et des océans*, published in partnership with SOLIDARITÉS INTERNATIONALE.



In one of the most memorable scenes of the Danny Boyle film *Slumdog Millionaire* (2008), which follows a poor child from the slums of Mumbai to a better life, young Jamal gets locked in a latrine that is perched over a sea of excrement. Eager to get the autograph of a Bollywood actor who is in the neighbourhood, Jamal doesn't think twice about jumping down the hole to escape. The scene plays for laughs, but it is also sadly realistic. India is among the countries most lacking in access to sanitation: 560 million Indians have no choice but to defecate out in the open in the absence of an accessible toilet.

The scope of the problem extends well beyond the slums of Mumbai. On a global scale, 2.4 billion human beings—38% of the world's population!—lack access to adequate toilets. Although the problem is most apparent in rural areas of developing countries, the situation is even more alarming in urban areas, where informal settlements are rapidly springing up. An estimated 1 billion people are currently living in these makeshift housing zones—a figure that is expected to triple by 2050. “A continuous race between infrastructure development and physical growth is currently playing out in cities. And public authorities just aren't keeping up”, says Gérard Payen, former Adviser on Water and Sanitation to the UN Secretary General. In these disadvantaged areas, finding a place to relieve oneself is a daily struggle. The “flying toilet” method is a common solution: inhabitants defecate into plastic bags, then dispose of them by tossing them onto rooftops or as far away as possible from their dwellings. For those with access to a latrine, like young Jamal in *Slumdog Millionaire*, faeces are evacuated into a pit or cesspool that is rarely cleaned by sanitation crews. And even when the pit is emptied, not all faecal matter is safely removed. The rest ends up in nearby rivers, which are often also a source of drinking water for people and livestock, resulting in dire health crises. Every year 314,000 children under the age of five die of diarrhoeal diseases linked to unsafe drinking water and poor hygiene conditions.

A TABOO TOPIC AT THE UN
In the aim of giving these populations

the chance to one day enjoy acceptable living conditions, 195 nations unanimously approved 17 Sustainable Development Goals (SDGs) at a UN summit in September 2015. Among other initiatives, the program sets the objective of universal access to sanitation by 2030—a daunting task, especially given that sanitary concerns have long been overlooked by the UN. “Aid providers generally dedicate 10 times more resources to water than to sanitation facilities. ‘Water and Sanitation’ programs often fail to budget for hygiene awareness training, toilet advocacy or the construction of wastewater and sewage disposal systems”, British water and sanitation specialist Maggie Black told *Le Monde Diplomatique* in 2010. “It's a taboo issue, especially within the hallowed walls of the UN, where no representative wants to bring up his or her country's toilet and wastewater problems,” says Gérard Payen. “Consequently, prior to 2015, the UN hadn't produced a single text on wastewater. It didn't even have a single subject-matter expert on hand”.

The other difficulty comes down to the fact that a community's ability to access sanitation networks is contingent on public authorities, unlike other less vital services like mobile telephone service. In other words, you can't go ahead and connect your home to the existing sanitation network on your own. It's even harder in the case of developing countries, where public authority structures tend to be precarious. Yet, just because a country is poor doesn't mean it is lacking in sanitation infrastructure. And vice versa. “It's really a question of political will”, Payen explains. “Is access to water and sanitation seen as a priority over the construction of roads, hospitals and so on?”

SPOTLIGHT ON INNOVATIVE SOLUTIONS

The private sector has been called to the rescue. In 2011, the Bill and Melinda Gates Foundation launched the “Reinvent the Toilet Challenge” for which competitors had to develop toilets that are adapted to the sanitary limitations of developing countries. Some innovative solutions have already been tested on a small scale, such as the Peepoo system, which was implemented in 2009 in the Kibera

shantytown in Nairobi, Kenya. The system improves on the “flying toilet” method thanks to a biodegradable bag that neutralizes the pathogens in faeces, allowing for both the bag and its content to be used as fertilizer.

Urgent action must be taken: insufficient toilet access has an indirect but significant impact on development. For example, gender inequalities are exacerbated by poor hygiene conditions. Young girls often drop out of school once they reach puberty since there is no protected place for them to change during their period. The stakes are high: this is a political fight for human dignity. With this in mind, specialized NGOs have long fought for recognition of drinking water and sanitation as basic human rights—an effort which finally bore fruit in 2010 when the United Nations voted to officially recognize the Human Right to Water and Sanitation. In 2014, Indian prime minister Narendra Modi launched the “Clean India” initiative with the objective of providing all Indians with access to adequate sanitation facilities by October 2nd, 2019: the 150th anniversary of Gandhi's birth. Indeed, during Gandhi's time in South Africa (1893-1915), the apostle of peace realized that the large Indian population's lack of hygiene only served to consolidate their status as “untouchables” in the eyes of the white minority. At a meeting in India many years later, he even declared that “sanitation is more important than independence”. His message is clear: there can be no liberation without human dignity.

Invisible voices

“All of the problems you see here are linked to water. If water doesn't get here soon, we're going to leave.”



ALMOUDOU YATTARA
Mali

COUNTRIES IMPORTING AND EXPORTING VIRTUAL WATER



VIRTUAL WATER

Although water has an economic value, it would be technically difficult to establish a water market, mainly for cultural reasons. Nevertheless, water is frequently exchanged in virtual form, as an integral part of consumer goods, and this is often regarded as a solution to water problems for countries with minimal resources. However, taking a purely economic view of water has its limitations, especially with regards to sovereignty and food security.

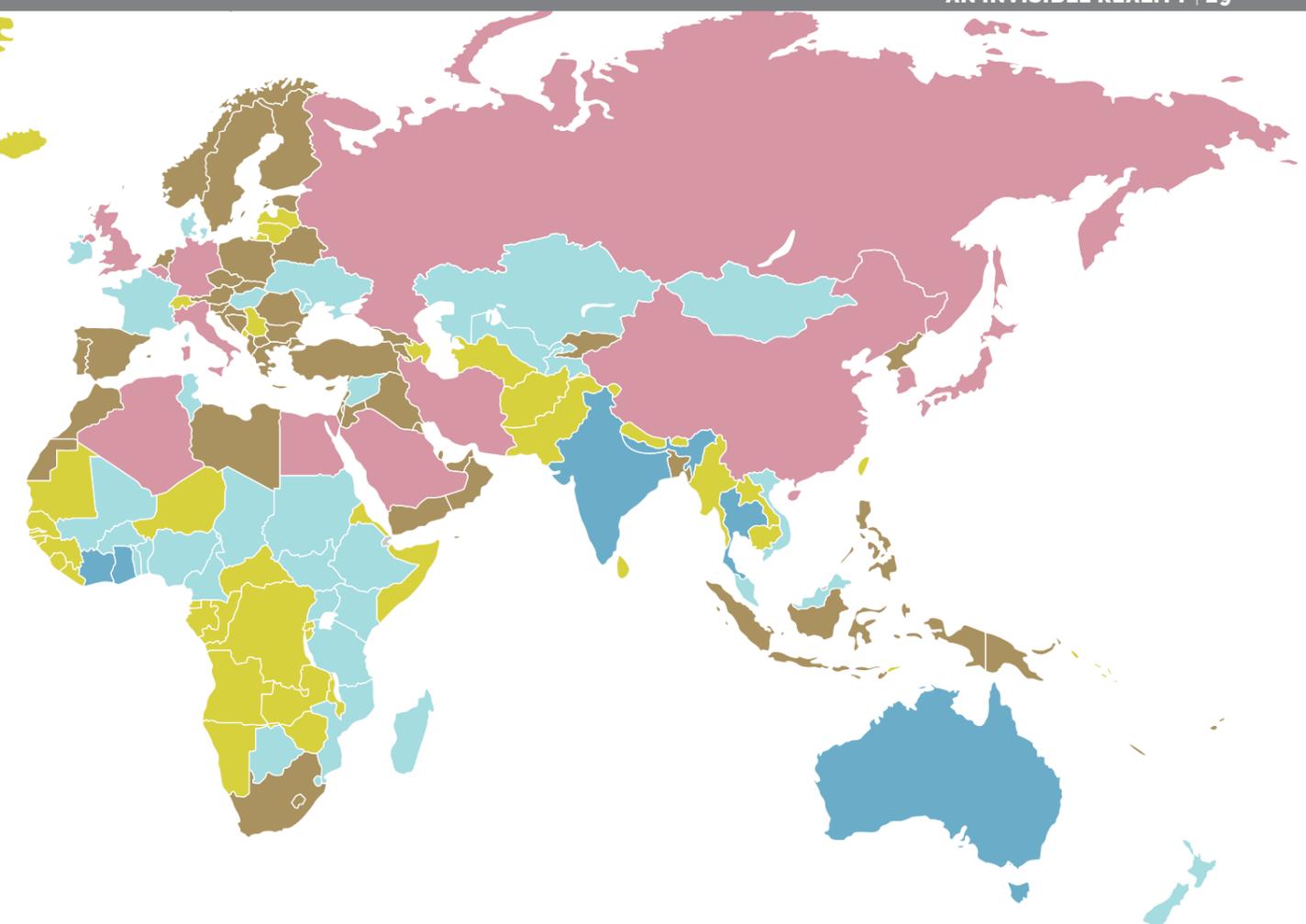
BY DAVID BLANCHON

Geographer and author of the *World Water Atlas* (Atlas Mondial de l'Eau) – Editions Autrement

The concept of virtual water was introduced by John Anthony Allan in 1993 and provided a new approach to water-related issues. The production of agricultural and industrial goods consumes a certain amount of water, from 250 litres per kilo for potatoes to over 15,000 litres for one kilo of beef. A portion of this "real" water is lost and cannot be put to any other use in the water catchment area where production took place. But it is consumed elsewhere. The dividing

line between virtual water/real water depends on which viewpoint and scale of analysis are used: "virtual water" refers to water that is used to produce exportable goods in one place and is then virtually consumed in another location. These virtual water exchanges are very significant: while average water consumption in OECD countries is around 120l/person/day, it is estimated that between 2000 litres (in Africa) and 5000 litres (in Europe) of water are required to cover daily food needs.

On a global scale, even though countries exchange very little real water, massive quantities of virtual water are transferred. These water transfers amount to about 1300 km³/year and are growing fast. Since virtual water is often related to food products, the main exporters of virtual water are also the "breadbaskets" of the world: the United States, Canada, Australia and France. Conversely, the main importers are the Middle Eastern States and China, which have agricultural deficits.



Egypt imports the virtual equivalent of 3.5 km³ of water in the form of wheat, mainly from the United States and Australia, while Thailand exports water in the form of rice. The concept of virtual water must be used cautiously, but it explains how countries with water deficits can compensate for their relative lack of water by importing it "virtually" in the form of agricultural products.

THE LIMITS OF A PURELY ECONOMIC PERSPECTIVE ON WATER

Taking virtual water into consideration has been presented as a solution to the problems posed by diminishing water resources, especially in Western Asia and North Africa.

In theory, those countries with limited water resources should export expensive, low-water content food products and import inexpensive, high-water content products. On either side of the Mediterranean, the ideal exchange would be grains grown in the North versus citrus fruits from the

South. In practice, the equivalent of the Nile would flow into North African and West Asian countries in the form of virtual water. Such a prospect would theoretically optimize water usage and help to protect the environment by avoiding the construction of costly water development projects.

However, virtual water is by no means a miracle solution to the water problem in these regions. In particular, the agricultural product market is not a perfect market: tariff and non-tariff barriers (quality standards) prevent southern hemisphere countries from exporting their produce. In addition, global commodity prices fluctuate: a rapid increase in the price of grains, as was the case between 2006 and 2008, makes crop substitution much less attractive. Ultimately, countries that decide to stop growing grains are placing their sovereignty and food security at risk. If there were widespread shortages of grains globally, it is quite clear that grain-producing countries would favour their internal markets and raise taxes on exports.

Countries that had chosen the virtual water approach would then find themselves in great difficulty and "hunger riots" would ensue. These examples show how limited a purely economic perspective of water can be. Since water is by nature vital and irreplaceable, its true value far exceeds its monetary value.

Invisible voices

"When I finish work and arrive home, I draw water to cook, bathe and do my laundry. The tap in the village is very useful for us."



NIA ABDOULAYE TOURÉ
Mali



JEAN LAUNAY
*"TO MAKE A STRONG CASE
 AND ACHIEVE THE SDGS BY 2030,
 WE NEED TO GET BACK
 TO THE BASICS AND DEVELOP
 COMMON SENSE SOLUTIONS."*

DEBATE Alain Boinet, founder of SOLIDARITÉS INTERNATIONALE, sat down with Jean Launay, President of the French Water Partnership and Jean Marie Tétart, Director of the Agence Française de Développement (AFD) to discuss the status of water in official development assistance.

ALAIN BOINET My first question is a follow-up to your recent appeal to President Macron concerning the Sustainable Development Goals (SDGs) and major water-related concerns. The conclusions of the Interministerial Committee for International Cooperation and Development (CICID), published following an assembly on February 8th, will serve as a road map for the next five years on a number of topics: increasing Official Development Assistance (ODA), providing additional resources for humanitarian emergencies during crisis situations, and so on. What is your assessment of the CICID's conclusions as far as water is concerned?

JEAN LAUNAY The French Water Partnership (FWP) informed the president of three requirements concerning water. The first is that France needs to set an example, both in achieving the SDGs and in pursuing its policy of international cooperation. This is the first time a goal has been specifically dedicated to water, but water also remains a cross-cutting issue present in several SDGs. The second is that there must be follow-through on the Paris Agreement, and that follow-through includes funding commitments. If you want to get results, you have to do more than just list achievements; you have to provide evidence. The third requirement: commitment to ODA. The February CICID report, which centred on defining the priorities of our international cooperation, invoked many of the proposals included in our appeal to the president. That's something we should be pleased about, because it exemplifies the consistency we seek between political discourse and action in France and it indicates that France can exert leverage on the commitments of other countries.

JEAN-MARIE TÉTART Water is addressed in five telling lines of the CICID's conclusions. It is presented as the most vital of services, a reminder that no appropriate action in the fields of health care, education, the

economy, etc. can be taken if there is no water. The issue of sanitation, a condition for the robust sustainability of drinking water access, is also addressed. Even as the Millennium Development Goals (MDGs) have widened populations' access to quality water, the situation could deteriorate rapidly if sanitation isn't taken into account. The populations with the least access to these services are those of the 14 priority countries for French development assistance, cited at the end of the report. In those countries, loans are senseless; it is donations that are needed. And donations are the preferred route in the CICID road map. It is a coherent program which can be summarized as follows:

1. Water is a basic service for all and the most vital of services.
2. Water access cannot be sustainable without sanitation.
3. Those countries under the highest strain are to be given priority, a commitment made possible by increasing targeted donations.

ALAIN BOINET What are your thoughts on the relative lack of decentralized cooperation in response to our concerns? Some say such cooperation may be in jeopardy, much like the Oudin-Santini Law itself. The Agence Française de Développement (AFD) has seen its water budgets increase considerably over the past few years, yet close to 90% of those additional funds are granted as loans, mostly to urban areas of developing countries. Going forward, we should expect to see more donations, as we have requested, but as yet there are no indications on the volume of these donations. There will also be a proportional increase in bilateral aid. What can we anticipate, suggest and solicit in terms of donations and bilateral aid, both in general and specifically for water and sanitation?

"WE NEED TO ENSURE THAT CLIMATE GOALS DON'T DISTRACT FROM EFFORTS TO PROVIDE ACCESS TO VITAL SERVICES"

JEAN-MARIE TÉTART

JEAN LAUNAY The list of countries deemed "priority" by the CICID report is limited to a number of African countries and Haiti. That's helpful. Numerous international assemblies have concluded that the African continent is a critical challenge. Moreover, on numerous occasions President Macron has emphasized the importance of renewed North-South cooperation and support for African development. It's also of no small significance that the CICID's report invokes the right to access to water and sanitation. It's the first time this right has been reaffirmed in an interministerial statement of such importance. Those NGOs who have long been working on water and sanitation issues should feel validated. It is time to translate those words

into funding commitments. We need to fight to maintain and actively implement the 1% stipulated in the Oudin-Santini Law. Even though this figure has been set in law, it has not been utilized to its full potential. This requires the commitment of all local and regional authorities who are legally authorized to exercise this policy. The government cannot act alone. Coordination and political consistency are needed to enforce a potential commitment that is already protected by law and that has now been reaffirmed by an interministerial assembly.

CONTINUED >

Invisible voices

"Thanks to everything SOLIDARITÉS INTERNATIONALE gave me at the health clinic, I will now be able to drink water without getting sick."



ZAHRA DANLHA
Nigeria

JEAN-MARIE TÉTART Decentralized cooperation isn't entirely absent from the CICID's report. On one page we see that State funding of decentralized cooperation will be doubled by 2022. As for water, the 1% allowance has not yielded maximum efficiency. One common obstacle to decentralized cooperation is elected officials themselves, who often fail to follow through on their commitment. As it stands, "water and sanitation" expertise is going to move down to the community level, which means we may need to revisit the 1% allowance. Now is the time to start engaging with elected officials at the inter-municipal level.

ALAIN BOINET But let's not forget that President Macron has vowed to progressively increase Official Development Assistance from 0.38% to 0.55% of the GNI until 2022. That represents an additional 6 billion in 4 years—no small sum! You are actively preparing for the 8th annual World Water Forum (WWF) in Brasilia, an event that SOLIDARITÉS INTERNATIONALE will also be attending. What messages will the FWP deliver on the SDGs—particularly SDG 6 and climate issues? The UN will also be hosting a High-level Political Forum on the SDGs in New York this July. What are the FWP's priorities? What are its challenges and objectives?

JEAN LAUNAY Six messages centred on the following six observations will form the basis of the FWP's talking points in Brasilia.

1. 30% of the world's population is deprived of the services that ensure easy access to quality drinking water.
2. 60% of the world's population lives without properly-draining toilets and proper wastewater treatment.
3. 80% of the world's wastewater is released into the environment without being treated.
4. 40% of the world's population will be affected by water shortages by 2050. This is global warming at work. Any denial of that is simply wrong.

5. The disappearance of wetlands. 64% of the world's wetlands have disappeared since 1900.
6. 200 million people will be forced to migrate as a result of climate change by 2050. This figure does not take into account migrations due to war.

JEAN-MARIE TÉTART We need to ensure that climate goals don't distract from efforts to provide access to vital services. It's no use trying to explain climate concerns to those who have no water; we can't cut loans for access to services to fund climate actions. In terms of sanitation, which is increasingly becoming a priority need, we need to be realistic about the fact that it's going to take quite some time before we are able to amass the resources necessary to install wastewater disposal and treatment systems in numerous cities in developing countries. So, for now, we should be thinking about how we can implement basic sanitation at the plot level through non-collective sanitation services, and so on. We'll need to consider which sanitation models are best adapted to each country; otherwise we're headed for disaster.

ALAIN BOINET Getting back to SDG 6, what does the FWP propose in the areas of global water governance, SDG monitoring and funding to reach SDG goals by 2030, particularly SDG 6?

JEAN LAUNAY As soon as there is political recognition of the UN's SDGs, an intergovernmental body connected to the UN should be established to ensure monitoring and country-specific implementation and to oversee international water governance. A statistical evaluation of countries' varying SDG targets will have to be conducted. Some countries may have set an overly-ambitious number of targets, but we need to be pragmatic

and remember that the goals should be feasibly achievable. That said, pragmatism shouldn't hamper the political will to achieve them. That's where statistical monitoring for 2030 water-related targets comes in. If there is a political will to reach these targets, that's a good start. The methods used to evaluate international indicators must be at once credible and ambitious, but also accountable and cross-cutting. At the initial stage, levels of statistical knowledge will vary from one country to the next, making objective monitoring a challenge. It comes down to the recurring issue of knowledge sharing. Under the aegis of the UN, this procedure will lay down innovative frameworks for reflection and information sharing. The key is to get everyone to agree on the goals, monitoring mechanisms and a method of evaluation that credibly accounts for data sharing.

ALAIN BOINET The question of the financial resources needed to achieve the SDGs has come up. The cost has been estimated at 3,300 to 4,500 billion dollars, 1,700 billion of which will go towards SDG 6 alone. Aid provided by Official Development Assistance—currently

around 145 billion dollars annually—won't cover these costs. So, how do we go about finding funds and to what extent might dedicated funding for adaptation be a solution?

JEAN LAUNAY As things currently stand we're seeing political will exert a leveraging effect. If we want to achieve these goals, we need to look to other, more innovative methods that place greater emphasis on local populations. The FWP advocates for nature-based solutions: don't degrade natural systems, don't pollute wetlands. If we are able to quickly foster these realizations in core populated territories and if we steer clear of practices that

"WE NEED TO BE PRAGMATIC AND REMEMBER THAT THE GOALS SHOULD BE FEASIBLY ACHIEVABLE"
JEAN LAUNAY

"THE IMPLEMENTATION OF THE SDGS MUST HAPPEN AT THE LOCAL LEVEL"
JEAN-MARIE TÉTART



From left to right: Jean Launay, Jean-Marie Tétart, Alain Boinet

harm the surrounding environment, that's de facto money we don't have to invest in restoration. Social innovations are another strategy. We can think about the social pricing of water. People need to be made aware that water has a value. The worst thing you could do in Africa is perceive water as having no value, no price tag. Yet, how are we supposed to foster an awareness of the value of water that also incorporates a form of progressive social pricing determined by a person's resources? At the same time, international awareness of the SDGs may bring other financial backers, foundations, insurers, and so on, in addition to the AFD, into the loop. And let's not forget the areas of technical expertise, technology, scientific innovation and knowledge sharing. These concrete actions in the realm of advocacy

have a multiplying effect on funding commitments, which are themselves the cornerstone of action.

JEAN-MARIE TÉTART If, for any given French community, water was not subsidized at 60 to 70%, the price would be unacceptable. For water to remain affordable, it must be only partially self-financed. In Africa the percentage of self-financing will need to be even lower. What is required is at once a progressive implementation of affordable services and an allowance for social acceptance of the price. None of this will be

possible without subsidies. We now need to adapt our sanitation techniques to make them more resilient. The gradual depletion of water resources calls for a new approach to fostering social acceptance, a new economic

model and different techniques to ensure resilience down the road. The implementation of the SDGs must happen at the local level.

CONTINUED >

Invisible voices

"With the ceramic water filter from SOLIDARITÉS INTERNATIONALE, my children no longer get sick from drinking water."



MURMAD DULAR
Camp Mullah
Father of Dilmah [photo]
Myanmar

ALAIN BOINET You have stated that demography poses formidable challenges for us. You have also stated that 30% of water distribution costs should be self-financed, which means the remaining 70% needs to be subsidized. That is a substantial cost for the least developed countries, let alone those in crisis. If we expect to succeed, we need to wake up and mobilize all of our capacities. 2030 isn't far away; we don't have much time.

JEAN LAUNAY A local humanitarian organization based in the Lot county of France is currently intervening in Burkina Faso. I assisted them in utilizing the 1% allowance to fund their projects, which enabled them to build wells and a reservoir for fish-farming in a rural community. The pump is now broken and the local community doesn't know how to repair it. Maintaining installations is thus a problem. I was told by a successor of mine in the National Assembly, a woman of African heritage, that the solution of the future must involve women, because they are the ones who fetch water. So, perhaps women should receive special training. Additional support for development assistance should take all kinds of forms. A purely financial solution won't be sufficient. A monitoring system should be set up to ensure future maintenance of any installations. The best way to guarantee maintenance isn't to intervene ourselves, but to provide the local population with the resources to maintain these water-access installations.

ALAIN BOINET Indeed, it's a serious issue in emergency situations and in reconstruction and development. But it's even more complicated in crisis situations. Critical maintenance of installations calls for community management committees composed of members of the local population. We dealt with this in the DRC where, after substantial infrastructure

construction, we then had to deal with cost recovery. It's a difficult phase that collides with economic, social and political difficulties and even skills and procurement. You've got to fight to succeed.

JEAN-MARIE TÉTART You find the same problem in cities. The output of urban networks is disastrous—below 50%—and no effort has been made to rectify the situation. More and more water is being produced and subsequently wasted as a result of leaks. That's the imbalanced economic model of water pricing. We've got to look to local authorities to diagnose these problems and propose strategies that all local stakeholders agree on. Do we trust territorial authorities with the implementation of the SDGs?

ALAIN BOINET The FWP and its members exemplify the necessary complementarity between various stakeholders faced with the monumental scale of the task. The FWP has a critical role, but will it be fully heard at the 8th annual World Water Forum in Brasilia, and subsequently in New York?

JEAN LAUNAY I sense a change happening at international assemblies. It seems to me that the subject of water, once relegated to the World Water Forums, is being increasingly integrated into a number of broader international platforms. Water is becoming sufficiently cross-cutting to allow for its linkage to the climate issue. I think that helps foster greater visibility of the water issue at the political level, but I'm also seeing mounting criticism of these forums and their proceedings: who's spending what there and to what end?



JEAN-MARIE TÉTART

is Mayor of Houdan and former Deputy of Les Yvelines. He serves on the Board of Directors of the Agence Française de Développement (AFD) and Expertise France.



JEAN LAUNAY

is President of the French Water Partnership, a platform for French water stakeholders operating internationally. For over ten years, the FWP has been bringing together NGOs, businesses, local authorities, scientists, experts, as well as government and public institutions in an effort to give water a place on the global political agenda, to promote an international, multi-stakeholder approach to water-related issues and to pool the very best of French technical expertise. **Learn more:** www.partenariat-francais-eau.fr/en/

MAKING PROGRESS VISIBLE TO TAKE TANGIBLE STEPS FORWARD

Is freshwater management improving on a global scale? It is difficult to say without tools capable of providing an accurate overall perspective that transcends vastly diverse local situations.



BY GÉRARD PAYEN

Advisor to several teams of UN statisticians
Vice-president of ASTEE
Water advisor to the UN Secretary General from 2004 to 2015

At a United Nations summit in 2015, world leaders unanimously adopted the global Sustainable Development Goals (SDGs), which aim to overcome the greatest challenges facing humanity by 2030. Water is an important part of this program; in fact over 10% of the 169 targets are related to water. For the first time, world leaders have a shared vision of all water-related challenges. They have not only recognized the importance of access to drinking water and sanitation for populations, but also the stakes of water pollution caused by human activity, water resource management, protecting aquatic ecosystems and water-related natural disasters (floods, droughts, hurricanes, etc.).

To make tangible progress towards these distinct goals, there will be regular statistical monitoring of progress indicators in every country and at the global level. Since the targets include areas that were not previously monitored by the UN or are more ambitious than previous targets, most of the SDG indicators are new and the statistical systems will need to be adjusted accordingly. Therefore, the international community is currently fine-tuning and testing these new indicators.

The indicators for access to drinking water and sanitation have reached the most advanced stage and, in mid-2017, the UN published global estimations on both pre-existing indicators and new concepts. These estimations showed that drinking water needs have tripled: in 2015, although there were less than

600 million people who still did not have access to improved drinking water sources, 2.1 billion people—around 1 in 4 people—were without safely managed water. This new indicator differs from the previous one because it also includes the number of people affected by contaminated water sources, or who do not have access to water close to their homes, or whose water supply is not available for more than 12 hours a day or 4 days a week. These figures are still incomplete. For example, there is only sparse data for French overseas territories. Sanitation needs have also been reassessed and, in 2015, 2.1 billion people lacked basic sanitation while 4.5 billion lived in areas where sewage is not treated.

MANY COUNTRIES WILL NEED TO STEP UP THEIR NATIONAL POLICIES TO ACHIEVE THE AMBITIONS OF THE SDG TARGETS, BECAUSE THE 2000-2015 TRENDS ARE INSUFFICIENT

Additional new indicators are being developed to measure the flows of untreated wastewater before discharge, the water quality in rivers and streams, or the concentration of agricultural, industrial or urban outputs per litre of water. Unfortunately, SDG target 6.4, which aims to put an end to the overexploitation of water resources, will not have a global indicator to measure progress towards sustainable water resource management, despite

the fact that this problem affects nearly one quarter of the population worldwide.

Once the 2015 estimations have been established, the UN and national statistics departments will chart progress annually, with the hope that specific targets will be reached through effective field activities. Post-2015 progress has not yet been quantified but we already know that many countries will need to step up their national policies to achieve the ambitions of the SDG targets, because the 2000-2015 trends are insufficient. For example, the number of people who do not have access to improved, uncontaminated drinking water sources did not decrease between 2000 and 2015; in fact it increased to 2 billion people. Major political momentum is required to reverse this trend and attain universal access by 2030.

"MAJOR POLITICAL MOMENTUM IS REQUIRED TO REVERSE THIS TREND AND ATTAIN UNIVERSAL ACCESS BY 2030."

Invisible voices

"During the rainy season, I can collect water for washing and cooking. But for drinking, we use water from the taps installed by SOLIDARITÉS INTERNATIONALE. That way the children do not get sick."



SUSIE MAY
Myanmar

THE WORLD WATER FORUMS: AN OPPORTUNITY TO FURTHER THE CAUSE OF WATER?

The World Water Forum (WWF) has been organized every three years since 1997 by the World Water Council and a host country, and has become a regular, emblematic meeting place for the water community. It is, however, regularly the subject of serious criticism.



BY SANDRA METAYER

Coordinator for Coalition Eau

AN ARENA FOR MULTI-STAKEHOLDER DISCUSSIONS

The WWF is the largest gathering of water stakeholders and has progressively become a prime venue for debates and discussions. For many, these tri-annual symposiums are an opportunity to come together, exchange experience and share testimonies with a large number of other participants. The Forum casts a spotlight on water-related issues and fosters discussions about certain key themes within the water sector (water governance, integrated resource management, cooperation, etc.).

The Forum is also an opportunity to create momentum on a national level, by stimulating dialogue and reflection among water sector players and public authorities, as is the case at the national water and sanitation forums which take place in several African countries in the run up to the international event.

DISPUTED LEGITIMACY AND LIMITED POLITICAL IMPACT

Although the WWF has progressively gained recognition, it has nevertheless been criticized right from the start due to links between the World Water Council and major companies in the water sector. Participants at the Alternative World Water Forums (AWWF) disapprove of the suspected influence of water multinationals on the Forum, as well as the "trade fair" format and the high cost of the event.

In the absence of a UN mandate, the political impact of the Forum is limited. The ministerial declarations that are negotiated for each Forum should provide impetus for the international community to take action. However, these declarations are not legally binding and therefore suffer from a severe lack of political momentum. It is difficult to evaluate whether they have any tangible impact on national or international policies. In addition, the WWF does not have any tools to monitor commitments and its impact has never been assessed.

INSUFFICIENT ROOM FOR CIVIL SOCIETY PARTICIPATION

The WWF has slowly opened up to NGOs/CSOs, as well as to youth and women's movements, with increased participation among civil society organizations in the thematic sessions at the Forum. More recently, they have also been invited to take part in the preparatory stages of the Forum. However, civil society involvement varies from one Forum to another, from high involvement during the 6th WWF in Marseille in 2012, to much lesser involvement during the 7th WWF in South Korea in 2015. The "Citizen's Forum", an emanation of the Forum's citizen movement, is sometimes very isolated and receives little attention. Moreover, financial support for southern hemisphere partners wishing to attend the Forum is often very limited and difficult to obtain.

THE 2030 AGENDA: AN OPPORTUNITY FOR NEW STRATEGIC OPENINGS?

In the face of these difficulties and following the adoption of the UN 2030 Agenda for Sustainable Development, there are new opportunities to intensify intergovernmental discussions on water issues. A good example is the United Nations High-level Political Forum on Sustainable Development, where UN members are invited to make regular progress reports on the implementation of the Sustainable Development Goals (SDGs), including SDG 6 regarding water and sanitation. Other opportunities may also arise since a group of nations, including France, have put forward a proposal to create a UN intergovernmental mechanism specifically intended to monitor progress towards SDG 6. Civil society must occupy these arenas to make sure that commitments are upheld and that corrective measures are taken to cope with current global challenges.

Invisible voices

*"Water, water and more water...
There is water everywhere but not
a single drop to drink."*



NAYAN TARA

Bangladesh



2018 WORLD WATER FORUM IN BRASILIA

SOLIDARITÉS INTERNACIONAL will once again attend the World Water Forum to act as the voice of humanitarian organizations and especially to speak out on behalf of our program beneficiaries, who are among the most vulnerable to diseases caused by unsafe water and unsanitary living conditions. We have been invited to participate in two sessions. The first is entitled "Sanitation for all". We will present our Humanitarian Innovation Fund (HIF) project on the management of faecal material during the initial phase of emergencies. The second

session, to which we have been invited by Action Against Hunger (AAH), will allow us to discuss the WaSH in Health approaches implemented by SOLIDARITÉS INTERNACIONAL. But above all, the "Emergency" group from the French Water Partnership (FWP), of which SOLIDARITÉS INTERNACIONAL is a member, has been selected to coordinate "The Invisible Realities" session. In partnership with other NGOs, this session will enable us to highlight and focus on the critical situations which affect some of our beneficiaries.

THE HIGH-LEVEL POLITICAL FORUM ON SUSTAINABLE DEVELOPMENT

This UN forum is officially responsible for monitoring the 2030 Agenda. Every year, member states meet in New York to review progress on the implementation of the Sustainable Development Goals. During this forum, each country is asked to present a summary of national progress. The July 2018 forum will be particularly important for water: six goals will be examined, including SDG 6 which aims to achieve universal access to water and sanitation, as well as good management of water resources, by 2030.

SUSTAINABLE DEVELOPMENT GOALS

195 STATES COMMITTED TO UNIVERSAL ACCESS TO DRINKING WATER AND SANITATION IN 2030

On September 25, 2015, The United Nations adopted the Sustainable Development Goals, which finally recognize the significance of water and set a target: access to drinking water and sanitation for all by 2030. SOLIDARITÉS INTERNATIONAL will carefully monitor progress, to make sure that States mobilize the necessary means to put an end to the fatal scourge and total injustice of unsafe water.

SUSTAINABLE DEVELOPMENT GOALS – CHAPTER 6

6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all

6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.



6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.

6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.

6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.

6.b Support and strengthen the participation of local communities in improving water and sanitation management.

SPOTLIGHT ON INNOVATION: POLYTER

Philippe Ouaki, inventor of Polyter water retention granules, wants to bring his solution to as many people as possible to help generate wealth and stabilize economies amidst the rural exodus in isolated villages of the Sahel and elsewhere.

Tell us about Polyter. How does it work?

When I was six years old, I realized that if I planted an oak tree, I wouldn't be able to see it grow to its full, majestic height in my lifetime. After this revelation, I went on to study plants. In 1992 I created Polyter, a water-retaining agent that absorbs and stores water in granules, which can latch onto the root of a plant without causing it to rot. The advantage of Polyter is that it supplies roots with a ready source of water without impeding their growth. They can continue to expand in the soil. In practical terms, with one kilo of Polyter, a tomato grower in the Sahel who had previously been producing 400 kg can now produce 2 tons using the same amount of water, seeds and surface area.

Polyter seems to be quite useful for development, but can it also be beneficial during humanitarian emergencies in refugee camps?

Yes, Polyter can definitely be used in humanitarian emergencies. It's unthinkable that populations in

refugee camps have to wait to be given something to eat. The big advantage of Polyter is that you don't have to be an expert to use it. It gives anyone who uses it a green thumb. What's more, Polyter isn't just a Band-Aid; it's a technology that is usable right out of the box and that helps grow plants in record time. I already have ready-to-use kits. Polyter can shorten the crop cycle by up to 3 weeks for some vegetables. It's a simple technology that can change people's lives.

You have been working with NGOs for several years. What made you choose this sector?

For many years I worked with big industrial groups. It was a great arrangement for them, but they never saw to it that the technology got into the hands of small independent farmers. They used it for large-scale cultivation, destroying forests to grow rubber and pineapples trees. I can't accept that. I want everyone to be able to benefit from Polyter and I would rather see farming communities develop thanks to Polyter than have the technology solely benefit major corporations.

We intervene in the Sahel, in Chad, CAR, Mali, North-East Nigeria... What role could Polyter play in humanitarian assistance efforts in these water-scarce countries?

Soil with low water availability can still yield healthy crops. And the dry season, which is typically seen as a disadvantage, is actually an asset.

It's the best time of year for growing vegetables. During the dry season there are fewer diseases, less fungus, etc. By combining drip irrigation with Polyter, farmers can grow a surprisingly bountiful yield of vigorous crops using very little water. And a year-round supply of produce will stabilize prices.

But the Sahel doesn't seem very fertile...

I recently went back to a village in Burkina Faso that I hadn't visited in 20 years. Back then, the World Bank had said the area would be impossible to reforest. They should come have a look today! We rose to the challenge and installed nurseries. Today 50,000 trees are growing on 100 hectares, covering

13 villages. Wealth has been generated. Farmers are currently growing mangoes, millet and vegetables. These are real, tangible results.

"WE CAN SAVE UP TO 90% OF WATER ON CERTAIN CROPS."

The SDGs aim to provide access to drinking water for all by 2030. Given that 70% of water is used for farming, how might Polyter be instrumental in reaching this goal?

The vast majority of farming water isn't consumed by plants; it is lost to gravity or evaporation. The plant itself consumes very little water. And that's where the Polyter solution comes in. We can save up to 90% of water on certain crops, such as chili peppers. An infinitesimal amount of water is all it takes to generate wealth.

L'ESPOIR D'UNE EAU POTABLE POUR TOUS

Bien que l'accès à l'eau potable soit reconnu comme un Droit de l'homme depuis 2010, 2,6 millions de personnes meurent chaque année de maladies liées à l'eau.

Un fléau contre lequel Solidarités International mène depuis 1980 un combat quotidien sur les terrains les plus sensibles, en apportant aux plus fragiles une aide digne et vitale, toujours délivrée en mains propres. Mais aussi en faisant entendre leur voix auprès des instances nationales et internationales.

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