

URBAN FLOW

The WULUW Magazine

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The Silent War Scarcity and Fear in Gaza

JOYCE MBURA

On the Perils of WASH
for Girls in Tanzania

The Link Between Water,
Poverty and a Changing Climate

The U.S.A. Water Crisis

For American Women
Money Isn't the Answer

South African Women
Making Waves in Cape Town

A Publication of ROCKBlue

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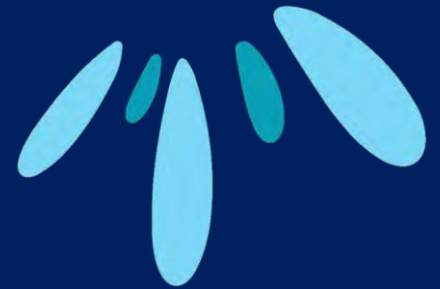
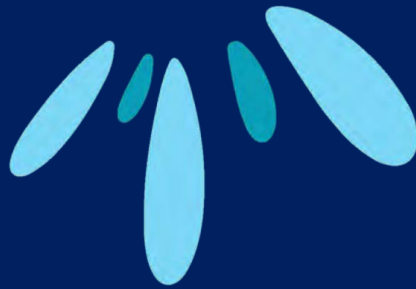
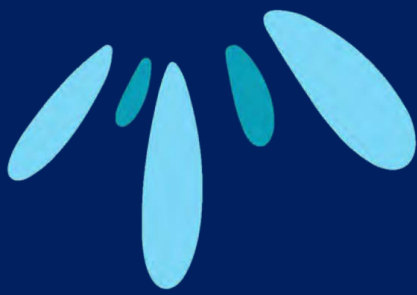
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From the Editor's Desk

From the conflict-driven collapse of infrastructure in Gaza and Lebanon to hunger in South Sudan to the growing numbers of displaced people in Ukraine, being prepared for catastrophic events is more critical than ever.

Humanitarian crises disproportionately impact women and girls. They face increased gender-based violence and a greater lack of access to education, healthcare, work and safe, clean water.

As this challenging year comes to a close, we're sharing stories of amazing women navigating the unexpected, while positively impacting their communities. Thank you for supporting us and women everywhere!

Yuri Mambau
Editorial Director

“Each and every day, women around the world are breaking barriers in WASH. However, there is still much work to be done across the sector. Many more female professionals are needed to work on the front lines of the global water crisis. WULUW is working to inform, educate and train a new generation of women leaders in the field.”

—Peter Macy
Founder, ROCKBlue

How to Become a Civil Engineer

Best Education Tracks, Key Skills and Top Certifications

By Siyabonga Mchunu



Photo Credit: CANVA

It is the desire of Urban Flow Magazine to convince women that there is actually a place for them in civil engineering, a career path that can be highly rewarding for those brave enough to pursue it.

Civil Engineer Industry Profile

Men account for up to 73 percent of the civil engineering workforce in highly advanced and industrialized nations like the United States, and those numbers are invariably more skewed in much of the developing world. It is especially important to us that the industry attracts young women who are enthusiastic about solving some of the world's most pressing problems related to Water, Sanitation, and Hygiene (WASH).

What is a Civil Engineer?

A civil engineer is a professional who plans, designs, supervises, constructs, and maintains critical infrastructure projects.

That can include, but is not limited to, public facilities, buildings, bridges, roads, dams, tunnels, and water and sewage systems – all of which are critical to WASH campaigns around the world.

Civil Engineer Job Description

Civil engineers are expected to complete projects on time and under budget, by working efficiently and effectively in a multi-disciplinary environment.

A typical civil engineer is expected to draft technical reports, manage projects, find solutions to complicated (and sometimes simple) problems, articulate plans in management meetings, ensure compliance, manage costs, and train team members.

Education Requirements

Civil engineering apprenticeships allow you to learn while doing, and earn while you learn, while also acquiring a broad range of skills. Civil engineers can access information on apprenticeships and on-the-job training from accredited national and international institutions.

A typical community college will allow you to enroll for a range of engineering certificate programs, which allow you to take fewer courses and embark on your career pathway a lot sooner.

A top-level university will allow you to enroll for a range of bachelor's degrees that will qualify you to become a civil engineer.

There is also a broad range of bespoke engineering courses that can be conducted through reputable online platforms like Udemy, Coursera, edX, Class Central, and Alison.

Civil engineering is constantly evolving, and professionals must constantly upskill themselves if they hope to evolve with the industry, either by completing a range of online courses, or post-graduate certificates.

What do I Need to Become a Civil Engineer?

Civil engineers are required to complete a Bachelor's Degree program in Civil Engineering or a related field at an accredited university, before being licensed, certified, or registered by an accredited board or authority.

Certifications and any other form of post-graduate study in Civil Engineering or a related field will help advance your career pathway, while improving your salary prospects along the way.

Civil Engineering students are expected to have a strong grasp of mathematics and physics, but while traditional academic pursuits matter, they are invariably outweighed by practical experience, which can usually be attained through an internship or apprentice program.

There are opportunities to acquire some of these critical practical skills at vocational schools and community colleges, while additional (and credible) academic training can also be completed at online schools or public lectures.



How to Become a Civil Engineer (continued)

Conduct your research. Do extensive reading and develop a healthy grasp of what engineering is, and learn to distinguish between the different branches of engineering, so you can understand why each branch exists and how they work.

Lay the foundation. Develop a solid understanding of what skills are required to become a civil engineer, and then establish how far off you are from meeting the rigid set of requirements, which usually includes having a firm grasp of mathematics and physics.

Start studying. When you meet the entry requirements for a bachelor's degree program in civil engineering, you should enroll at an accredited, and reputable institution of higher learning.

Get practical experience. While most education tracks will invariably include an element of practical training in their programs, it is not always a guarantee, especially at universities, where academic traditions are deeply entrenched. It would be prudent to sign up for an apprentice program, immediately after graduating.

Become licensed. While this is not as critical an issue for entry-level civil engineering jobs, you will need to become licensed, certified, and registered as your career evolves. If your work deals directly with the public, you will need to become licensed and certified almost immediately.

Should You Become a Civil Engineer?

Yes, civil engineer salaries are compelling throughout the world, and the job outlook for the next decade is outstanding. The world of WASH needs civil engineers, and it is prepared to splash the cash for their services.



ROCKBlue's WULUW Initiative

Taking an Inclusive, Female-led Approach to Urban WASH

Our Journey So Far

The WULUW initiative, launched in 2022, has successfully mentored 29 individuals through its online program. Divided into three groups, Group A had 6 mentees with a 1:1 ratio, Group B had 13 mentees with a 2:1 ratio and Group C had 10 mentees with a 1:1 ratio. In 2024, 20 more mentees, encompassing both demographics, are set to participate, with plans to double participation in the following year. The program, attracting participants from diverse African countries, is conducted virtually with 10 one-hour sessions over two months. The initiative aims to empower women and youth leaders in Water, Sanitation, and Hygiene, expanding its reach and impact through skill development.

Advancing Women and Youth in Leadership through Skill Development

WULUW is a dedicated initiative focused on advancing women and youth in society to positions of leadership, particularly in the context of decision-making related to Water, Sanitation, and Hygiene activities.

Tailored Mentorship Program for Leadership and Skill Development

Our mentorship program is meticulously designed to nurture essential leadership skills, including negotiation, courageous leadership, and effective communication, within our mentees, emphasizing both women and youth.

Networking and Continuous Engagement for Women and Youth Empowerment

We empower our mentees, including both women and youth, to transform their visions into reality by providing a platform that facilitates networking and sustained engagement with fellow women and youth who have assumed leadership roles in their respective careers.

Women and Youth at the Heart of Communities

WULUW firmly believes that women and youth are at the heart of their communities.

Gaza's Silent War on Women (and WASH)

As the relentless conflict in Gaza rages on, a lesser-known but equally devastating battle unfolds in the shadows—a war targeting the very soul of Palestine, waged against her women.

By Siyabonga Mchunu

Source: UN Women
Photo Credit: CANVA





A year after the beginning of hostilities, and the latest chapter in the War in Gaza has just been written.

News outlets around the world are reporting more than 90 Palestinians have been killed, while 300 more (these figures will undoubtedly have risen by the time you read this) were injured in a weekend attack by Israeli forces on Al-Mawasi, a Bedouin town on the southern coast of the Gaza strip.

The Hamas-run health ministry put the figure at about 114 dead, but in the greater scheme of things that's neither here nor there anymore. Nor are the countless tales of "tents being knocked down, body parts being strewn everywhere, elderly women being thrown on the floor, and young children lying in pieces."

Nor is the fact that the injured were ferried to the nearest local hospital where, invariably, they were confronted by a severe shortage of resources.

All of this has been the all-too-familiar tale of a grizzly war that first broke out on October 7, 2023 – a day that will undoubtedly live long in the memories of all who have been affected by the armed conflict in Gaza.

But in the midst of all the chaos and destruction is a story not often told, the silent war that has ripped at the soul of Palestine: the war on its women!

An Erosion of Dignity

In the aftermath of the Al-Mawasi attack, quotes attributed to Israel's Defense Minister Yoav Gallant expressed his satisfaction with Hamas being eroded every day, with "no ability to arm itself, organize, or care for the wounded".

But the real erosion is seldom spoken about on either side of the warring camps - that is the near-complete erosion of the Palestinian woman's dignity. That is the silent killer!

"Since the start of the war, UN Women has been documenting the experience of women in Gaza, in a series of gender alerts that look at various aspects of how the war is impacting the daily lives of women and girls," read a report drafted by the UN Women Regional Office for Arab States earlier this year.

Among the key indicators observed (and recorded) by UN Women teams bravely negotiating the Gaza chaos are: water, sanitation, and hygiene (WASH) services, which have a disproportionate impact on women throughout the developing world, especially in conflict zones like Gaza.

WASH, or the lack thereof, has an impact on women's health, safety, privacy, and above all else their dignity, and yet there is alarmingly little said or reported on it in the mainstream. In most cases the impact of WASH on women in Gaza isn't even an afterthought.

There is much reported on the dead, injured, and maimed (which is all completely justified), but there is also precious little reported on the wounds that nobody gets to see – the internal trauma and suffering of the women who somehow find the will to get up every day and soldier on in the face of an unthinkable reality.

For many, probably most, women in Gaza that reality is not being able to meet their simplest and most basic needs, like "eating well, drinking safe water, accessing a toilet, having sanitary pads, taking a shower, and a change of clothes."

It is a tale that does the utmost to eat away at the soul, and the statistics are jarring.

"Women who have survived have been displaced, widowed, and are facing starvation. More than one million women and girls in Gaza have almost no food, no access to safe water, latrines, washrooms, or sanitary pads, with disease growing amidst inhumane living conditions," continued the Gaza report.

"Since the start of the current hostilities on 7 October 2023, more than three quarters of the 2.2-million people living in Gaza are estimated to be internally displaced. Many have been displaced multiple times in search of temporary safety from Israeli bombardment and ground operations. Most of the displaced population now resides in Rafah, in the south of the Gaza Strip, with no safe place to go."

The question of safety is a pertinent one in the face of the attacks at Al-Mawasi, also located south of the strip, which had been designated as one of the only safe zones in Gaza in December 2023.

As the War on Gaza drags into August 2024 with no end in sight, it has become increasingly apparent to women and girls that there really is nowhere safe to shelter anymore.

“Women who have survived have been displaced, widowed, and are facing starvation. More than one million women and girls in Gaza have almost no food, no access to safe water, latrines, washrooms, or sanitary pads, with disease growing amidst inhumane living conditions,” continued the report.



Exacerbating Pre-Existing Inequalities

In March, 2023, before the conflict in Gaza was reignited, the United Nations published a fact sheet on Gender Equality and Women’s Empowerment in Gaza – the findings were not flattering.

Among other things, it was reported that just 17 percent of Palestinian women were in some form of formal employment, while entrepreneurship accounted for just 14 percent of total women employment.

Palestinian women account for a mere 11 percent of parliamentary seats, while just 20 percent of women hold managerial positions. Even the highly skilled and educated have been left behind by a deeply troubled and imbalanced society.

The Covid-19 pandemic was a tremendous setback for Palestinian women, many of whom either lost their jobs, or even their entire businesses. The impact of the pandemic was undoubtedly disproportionate, but those gender-related barriers are scaling new heights (or lows) since war broke out again in Gaza, especially in the domestic environment.

“This situation is exacerbating pre-existing gender inequalities and vulnerabilities, with women and girls facing heightened threats and risks as they seek life-saving services and assistance,” read the UN Women report.

Speaking to journalists in Geneva recently, United Nations human rights chief Volker Turk said about 2-million people had already been displaced in this war (that is basically everyone), adding that they had been “pushed into ever-diminishing and extremely overcrowded places in southern Gaza in unsanitary and unhealthy conditions”.

“UNRWA shelters, government schools, public facilities, newly established tented settlements, and the few existing rented spaces holding displaced people are overcrowded and have limited capacities to offer water, sanitation, and hygiene (WASH) services to meet the needs of the population,” read the report.

The authors point out that shelters designed to hold just 2000 people, at best, are currently negotiating numbers well in excess of 20000, with the ratio of access to latrines currently hovering somewhere in the region of 650-1, notwithstanding the capacity to keep those latrines in a sanitary condition is severely limited by the lack of human resources to do the job.

The circumstances in the shelters and camps are brutal for Palestinian women, but they remain a breeze when compared to the realities of women negotiating the streets of Gaza, with nowhere to go and their homes destroyed. Those women have access to no facilities at all.

For them, the nights are long, and the risks are many. The consequences of that are a rapid spread of infectious disease among women and girls living in Gaza, pregnant women being among the most vulnerable.

America's WASH Crisis

By Siyabonga Mchunu

The greatest nation mankind has ever known is not immune to the world's water, sanitation, and hygiene challenges.



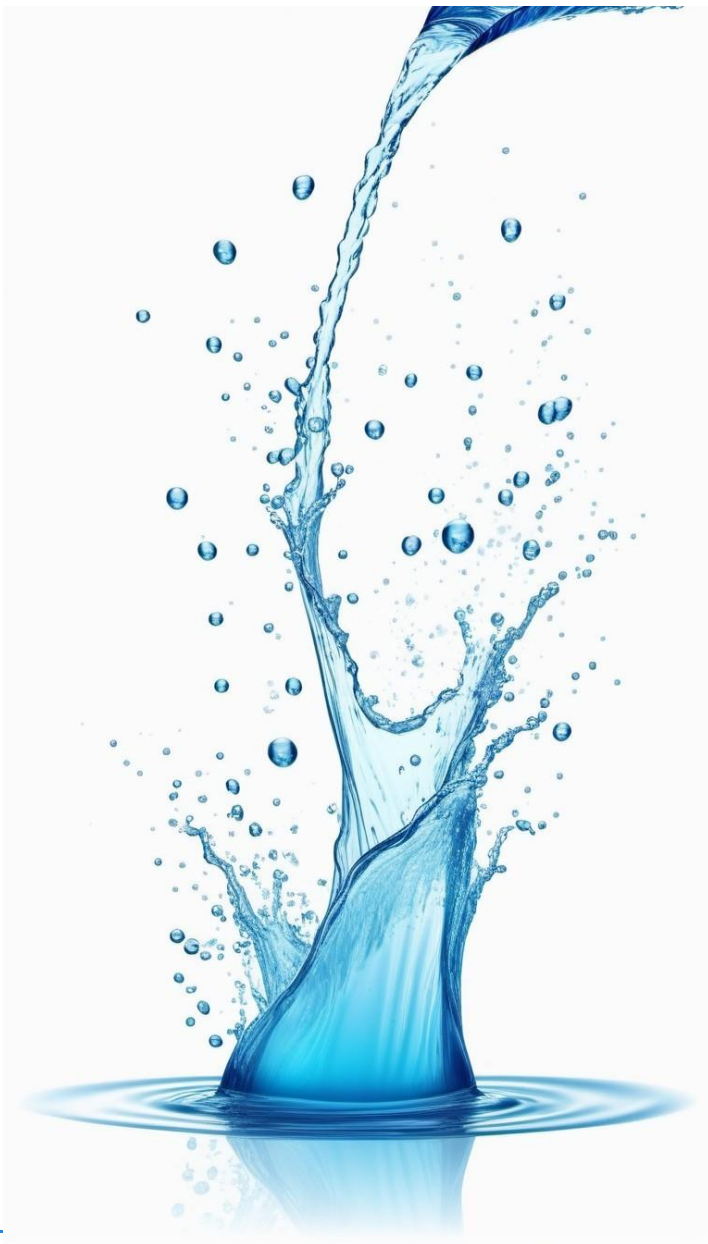
In March 2023, the United States Mission to the United Nations announced a \$49-billion commitment to Global Water Security and Sanitation, which was hailed by the Biden-Harris Administration as a once-in-a-generation commitment to equitable, climate-resilient water and sanitation “home and abroad”.

Particular emphasis is placed on “home and abroad” because in making the \$49-billion commitment, the United States government was also confronting – probably for the first time this century – the reality that it was no longer immune to the water and sanitation crisis that we so often assume merely plagues the developing world. If you read (or listen) to the statement long enough, you will learn that more than of 2-million Americans do not have access to clean drinking water in their households, which is a pretty startling reality.

Even more startling is that more than a million Americans DO NOT have access to flush toilets in their homes.

The United States Mission to the United Nations also reveals that about 24 percent of United States households which rely on private wells have contaminants like arsenic and E. coli in their water, all of which places considerable strain on local health services in those communities.





After my graduate program, I became part of a co-founding initiative to start an organization in New York City called 'NYC CH₂O', which is really focused on helping educate people in New York City about water systems and how it relates to their drinking water, their toilet systems, all of that," said Worsham.

It is a sobering reality for the United States government, and indeed for many Americans, but at least one of them is not in the least bit surprised by either of those statistics. Her name is Kim Worsham, the founder of a water and sanitation company called FLUSH.

Worsham, who has been occupied with WASH campaigns throughout the developing world for much of her professional life, cannot stress enough the need for American authorities - and indeed all Americans - to start waking up and smelling the coffee.

"I am trying to start working a lot more in the U.S around WASH," Worsham told Urban Flow Magazine.

"Uh, there's an emerging crisis for the WASH sector in the U.S. because we have over 2-million people, at least 2-million people in the U.S, who don't have access to WASH services," said Worsham citing the very same report from the United States Mission to the United Nations.

The most alarming thing of all is that despite interventions from the Biden-Harris Administration, there is every indication that things will continue to get worse before they get better.

Worsham shares that conviction, which is why she is so anxious to spearhead a series of WASH campaigns that have to do with sustainable development goals in the United States.

"So, there's a growing concern about that, especially since our numbers keep getting higher in terms of who has access, or in terms of who doesn't have access," added Worsham.

One only needs to consult the issues faced by the people of Jackson Mississippi, who continued to suffer the consequences of a water system that completely failed in 2023, several months after the fact, which just illustrates the sheer scale of the problem (and lack of preparedness) in some parts of the United States.

While similar water supply problems have been reported in places like West Virginia and Arizona, Worsham does warn that those living in some of the more urban parts of the United States should not labor under the misapprehension that this will not in some way affect them. In fact, Worsham was first drawn to WASH campaigns by problems that were experienced in the Great Apple itself, New York City.

"After my graduate program, I became part of a co-founding initiative to start an organization in New York City called 'NYC CH₂O', which is really focused on helping educate people in New York City about water systems and how it relates to their drinking water, their toilet systems, all of that," said Worsham.

"It still runs, I'm just no longer a part of it. I love them, I love what they do, I just moved on," added Worsham, before explaining that the time would soon come for her to reach out to the people of New York again, even if it is under a different campaign banner.



Flushing in a Different Direction

Worsham has since gone on to establish a company called FLUSH, which offers support to water service providers around the world, and in the United States.

Among other things, she currently offers program management support, funding, data systems management, analytics, market research, training and development, and story mapping to communities that she serves.

But, above all else she designs and implements marketing strategies for all relevant stakeholders driving WASH campaigns. In more than a decade of working in WASH, Worsham has found that one of the most crippling factors for people trying to make a difference is the failure to communicate effectively, whether it be among themselves, or with the communities that they are trying to serve.

That is an area where a company like FLUSH absolutely thrives, and Worsham has no doubt as to the impact that has on WASH campaigns, even if she isn't among those rolling up their sleeves and getting their hands dirty working in the field. FLUSH projects are the kind of work that has helped elevate Worsham's status as a WASH Champion, and not just an industry expert or specialist.

Setting Worsham Apart from the Rest

What helps set Worsham apart from other water activists around the world, though, is that she goes beyond the immediate scope of her work, a skill set that she built up while studying in both the United States and Australia - the latter being a country that is as water scarce as any in the developed world.

"Another thing I work on, on the side that's not related to WASH, is um I am an auditor for the Alliance for Water Stewardship Standard in the U.S. So that means I go to company sites that produce things, and I audit their water management systems," said Worsham.

"So, I started working on WASH in 2009. Um, I was in my first Master's program and I was doing a consulting project in India with an organization called Gram Vikas through my university. And that's when I really got interested in water and sanitation."

The work in India provided a unique set of learnings for Worsham, who now has a broader understanding of global WASH challenges than most. That helps inform the work that she does, how she does it, and when she does it. Part of the keys to this work is understanding where you are needed most, and why they need you.

And then, you need to be certain of the intervention you make, usually through creative means. A unique challenge India has faced during the past two decades, for example, is public defecation, and evidence of how a media strategy can go about combating an issue like that was the Poo2TheLoo YouTube campaign spearheaded by UNICEF, just over a decade ago.

While the jury might still be out on just how effective that campaign was, there can be no disputing just how creative, and oddly compelling it was.

Joyce Mbura on the Perils of WASH for Girls in Tanzania

The Curious Case of Ample Water and Scant Supply

By Siyabonga Mchunu



Whichever way you slice it, Tanzania is a water abundant country.

When you consult the Aquastat Fact Sheet for Tanzania, produced by the Food and Agriculture Organization (FAO), you will learn, among other things, that Tanzania actually has access to extensive water resources.

The organization estimates that Tanzania has somewhere in the region of 96.27 km³ of renewable water resources per year, which is well above comparable estimates for global water resources (43,750 km³/year).

That equates to about 2,266 m³ per person a year, when the population of Tanzania is taken into account.

The Falkenmark Water Stress Indicator (FWSI) clearly tells us that this does not paint a portrait of a water-scarce country, by any stretch of the imagination.

When you consult the Hydro-economic Overview and Analysis produced by the Water Resources Group (WRG), you will learn that Tanzania is relatively well endowed with water resources.

That report continues to highlight that Tanzania has “numerous and diverse water resources in the form of rivers, lakes, wetlands and aquifers.”

If you keep reading this compelling water report, you will also learn that the country is divided into nine river basins, which are the Pangani, Wami-Ruvu, Rufiji, Ruvuma, Lake Nyasa, Internal Drainage, Lake Rukwa, Lake Tanganyika and Lake Victoria.

“Water remains a problem in our country. There are places where there is no water, and people have to travel many kilometers to find water. Even the water is not safe, so people still must drink it.”

You will also be astonished to learn that the country shares eleven international lakes and rivers with other nations, including the three East African great lakes of Victoria, Tanganyika, and Nyasa.

And yet, despite everything you now know about Tanzania, reports compiled by influential organizations like the World Bank, UNICEF, and even the Tanzanian government will have us all believe that there is some kind of water stress problem facing the country – with some suggesting that this water stress will be felt as early as 2025, which is just months away.

Water Stress Already a Reality for Some That water supply reality is already faced by millions of Tanzanians living in some

of the most remote regions of the country – many of them have never actually known what it means to have reliable access to water, in the local community, never mind the individual household.

Joyce Mburu, a water activist operating out of Tanzania, is confronted by that grim reality daily, and despite her extensive efforts to help mitigate the problem, the water struggle continues for far too many.

“Water remains a problem in our country. There are places where there is no water, and people have to travel many kilometers to find water. Even the, the water is not safe, so people still must drink it,” a distraught Mburu told Urban Flow Magazine, highlighting some of the grim choices people must make in the face of great adversity.

Dive deeper into the situation in Tanzania, and you will find the uneven distribution of water resources in Tanzania is due to many factors.

During Tanzania’s dry season, for example, some of the largest rivers in the country actually dry up completely. The flow of water in the rivers that don’t dry up completely also decreases pretty dramatically during this period, so there

are really no winners there. And even when the rains do come in Tanzania, some regions of the country experience far greater rainfall than others.

In instances where rainfall is considerably lower, some regions can receive as much as four times less rainfall – and in so many cases the communities we are talking about are completely remote, with no sign of any meaningful water infrastructure, coupled with severely limited road access.

“In villages most of the women are still fighting with water problems, as you know water is everything,” said Mburu. “Most of them are from villages, also the girls, because when you are coming back from school you want to get rest but you are going another kilometer to find water and some places are not good, this can cause the rape, others to get pregnant,” added Mburu, highlighting how the struggle for water can end up creating internal and external scars that will live with those girls for a lifetime.

While the Tanzanian government, and its numerous partners openly acknowledge some of the most pressing water problems facing the country – some have noted the emerging crisis as far back as Independence – there is slender evidence to suggest that there is

the will or the competence to get Tanzania out of this water supply rut.

Hope Wearing Thin

Some of the water issues are purely natural - like instances of declining rainfall - and there is little that can be done about them. However, there are far too many instances where the water supply problems in Tanzania have actually been exacerbated by man – or even manmade.

“In villages, most women are still fighting with water problems.”

A glaring example of this would be the over abstraction of rivers and unsustainable agricultural expansion. Both might help solve some of the most pressing economic problems in the country, but there is also usually a massive price to be paid for that economic growth. Striking some form of balance has proven an Achilles heel for those actively seeking solutions.

The Tanzanian government has drafted numerous plans and frameworks that are designed to help scale back on water supply issues like this, and improve water management in the country, but people like Mbura are not in the least bit convinced by any of it. She has had about as much as she can take from political promises that are seldom accompanied by tangible results.

“Political situations are I can say good or not, people are good at writing on keyboard but when it comes the time to be on the street to fight is difficult,” explained Mbura.

“Few they can go but many not,” added Mbura, explaining that not all politicians were bad eggs, while also lamenting that there were far too few prepared to make a change.

According to the latest UNICEF statistics, there is reason to hope though, and it would be remiss of us to not point that out before you are done with this article.

For one, the Tanzanian Constitution does recognize the right to water and sanitation for the people of that country, which even though it feels like a pretty low bar to set, remains an important point of departure.

But further to that there are numerous plans that have been drafted, and some already implemented, which are designed to address what some might deem the most pressing issues facing the country today – chief among them being quality access to WASH services in Tanzania.

According to the latest statistics, three in five Tanzanian households have access to better quality water, while 31 percent of Tanzanians have access to better sanitation facilities, and almost half of Tanzanians now have access to a handwashing station in their homes. This might all seem like a low bar to set, but it does still represent progress in the campaign for access to better WASH in Tanzania.



INTERNSHIP OPPORTUNITY

WULUW Pilot Internship Program for Young Women in South Africa

APPLY NOW



Contact details : mambauy@rockblue.org, musonzak@rockblue.org or macyp@rockblue.org

OPPORTUNITY

The good news in South Africa is that gender parity is getting better in terms of women's education. The problem is that they are left with a wonderful education and limited opportunities. The labor force participation rate for women stands at only 54.3% compared with 64.9% for men. And, the unemployment rate has increased for the preceding five years.

ROCKblue's Women's Urban Leadership in Utility WASH (WULUW) program, in existence since 2022, is designed to lift up, educate and ultimately employ young South African women for their personal benefit and the benefit of the municipalities they serve, as well as the country in overall. It provides them with mentoring and through this pilot, internships so that they gain tangible skills and work experience they need to kick start their careers in WASH (water, sanitation and hygiene), an area in desperate need for enthusiastic and intelligent women.

TO QUALIFY, YOU MUST:

- Be a female, South African Citizen
- Be a recent graduate and a holder of a civil engineering qualification or related study background.
- Be living within the vicinity of Knysa and Mossel Bay municipalities to avoid relocation costs.
- Have less than 2 years work experience in industry.
- Be enthusiastic and self-driven



THE DETAILS

A minimum of four WULUW mentees will participate in this **mentorship and internship pilot program (12 months)** covering technical and career skills.

Mentees will be paired with a mentor who will provide continuous support, guidance and career advice. While mentors and mentees are required to build life long relationships that contribute to consistent support and advancement of women in leadership positions, in short term mentors will help mentees navigate the challenges of working at the two municipalities, set career goals and develop professional networks.

A monthly stipend to cover expenses will be provided.

Visit our website

Learn about our [WULUW initiative](#)

Global WASH Activist and Marathoner Makes a Splash



Mina Guli, Founder and CEO of Thirst, Helps Give France's Seine River a New Lease on Life

By Siyabonga Mchunu

The already iconic Seine River, which runs for about 777 km along the north of France, received more attention in 2024, primarily because the unique opening ceremony of the 33rd Olympiad was hosted along its banks in late July.

The 33rd Olympiad was not the first time that Paris was given the honor of hosting the Summer Olympics, having hosted the 2nd Olympiad in 1900, and the 8th Olympiad in 1924.

A significant detail about both previous Paris Games is that the Seine River featured prominently in the actual Olympic program, where the river hosted rowing, swimming, and even water polo.

However, just 24 hours out of the spectacular 2024 Opening Ceremony serious doubts had been cast about the river's suitability to host its only scheduled event, which was the marathon (open water) swim, born out of perfectly legitimate fears about water quality.

There was nothing particularly novel about those fears either, as they formed part of a greater narrative about the concentrated levels of industry, agriculture, and urban populations in Paris, and all of her surrounding areas.





Mina Guli, the CEO and Founder of the Thirst Foundation, completed an 800km run (equal to 20 marathons in 30 days), stretching the length of the river from source to sea to spotlight work being done to restore the river.

“We can do hard things when we commit. Not long ago, the Seine was declared functionally dead,” said Guli. Today, she’s being restored to health through dedicated clean-up efforts.”

Despite any skepticism that lingers over the water quality of the Seine River, there is actually compelling, official, and tangible evidence that meaningful strides are being made in that regard.

The fish population in the Seine is starting to surge again, and levels of contamination have been reduced. Guli sees it as part of her duty to continue with the activism, while her body still allows her to, to get that message across.

And this kind of activism certainly does not get any easier, once you have been at it for most of your adult life.

Reflecting on the Seine River Run, Guli said: “It hasn’t been easy, and the job is far from done, but the Seine’s transformation is a beacon of hope and a clarion call to other river cities worldwide: Restore your rivers to benefit your people and nature.”

Guli said her recovery from this year’s Seine River Run had been particularly difficult, weeks after completing it, but insisted that every element of that run remained worth it.

“It’s been two weeks since the Seine River Run ended and I’m definitely feeling the aftereffects, especially in my right hip.

“Thankfully my physio says there are no structural issues, just weak muscles, so I’ve been doing a ton of strength training and am back to 4-5 shorter runs a week!

“Honestly, I’m exhausted. When you’re in the middle of a big campaign, you don’t stop to realize how run down your body is becoming,” added Guli. “These campaigns take a toll physically and mentally but I’ve been working to find time each day to just stop and rest. I haven’t been great at this in the past, but I know that the only way I’ll be ready for my next challenge is by looking after myself.”

“Beyond the pain and exhaustion, what we saw along the Seine continues to inspire me.”



There have been interventions by French authorities to try deal with the problem in the past, starting with the construction of new waste-water treatment plants in 1940, when there was a visible need to cope with the city's rapidly increasing demands.

Public swimming in the Seine River has actually been banned since 1923, because the water was so badly polluted back then already.

But by 1970, it became increasingly apparent to all and sundry that those efforts were proving futile, as about 60 percent of urban sewage was allowed to flow into the iconic river untreated. The situation was (and still is) aggravated by any kind of rainfall.

And had it not been for the drafting of a Water Framework Directive by the European Union in 2000, the problem might very well have continued unabated.

Suffice it to say, there have been a series of interventions by French environmental authorities in the 24 years since then.

The outcomes haven't been completely satisfactory, but most Parisians are bullish after \$1.5-billion was invested in a clean-up program in 2018, which sought to clean the river up before the hosting of this year's sporting showpiece.

However, the people who matter have consistently pointed out that the vision extends well beyond the Paris Olympics, as French environment authorities embark on an aggressive campaign to clean the river up in the long term.

Trusting More and Fearing Less

But even if the public swimming ban in the Seine River is lifted in 2025, as envisaged, there will probably still be considerable skepticism about taking on her waters.

One person who probably won't be as hesitant about taking a dip in the Seine River is water activist and founder of the Thirst Foundation Mina Guli, who has famously said: "Who is anybody else to set a limit on me - other than me? I am the one to say what I can and cannot do."

And in the first week of July (just weeks before the Olympics), Guli completed her Seine River Run (800km) in just 30 days, when she ran the entire length of the iconic river. During her latest Seine River campaign, Guli actually took a plunge into the Seine, alongside a group of 'rogue swimmers' called Les Ourcq Polaires.

The group has been at it for the greater part of five years, and has never been fined for swimming in the Seine. At the heart of their campaign, is the desire to eliminate fears about the safety of the Seine.

"Restoration efforts are revitalizing the Seine, bringing fish and people back to its waters. I joined Les Ourcq Polaires who swim in the river every weekend! They exemplify what it means to cherish your river," Guli told her followers during the Seine River campaign.

SDG6 in "Quotes"

Goal #6 is Clean Water and Sanitation, which seeks to ensure availability and sustainable management of water and sanitation for all.

If you read any of the stories in this issue of Urban Flow Magazine, or any similar publication for that matter, it starts to become abundantly clear that with just six years to go, we are all in a little trouble.

One of the outstanding women featured in this month's issue of Urban Flow Magazine is Barbara Schreiner of the Water Integrity Network (WIN), who laments that self-interest and poor spending have significantly hampered progress on the Sustainable Development Goals, as they pertain to Water, Sanitation, and Hygiene (WASH), but she's not the only one with a view...

*Dr Swastika Surujlal-Naicker:
Head of Research and
Development at City of Cape
Town*

"Having SDG goals is very important, but in order for us to achieve those goals, various solutions need to come on board. Working within local government, it feels like everything takes its time.



There are already a number of sustainable solutions out there, however certain things tie our hands in exploring more innovations in new technology, which may have some of the solutions in addressing the WASH challenges.

"The environment at the moment is reactive, and is still in its infancy in becoming proactive. In order to be proactive thorough research and development in testing of innovation and new technology is needed, and this is still lacking in many municipalities.

"Through investing in proper research and development innovation we believe that many sustainable solutions can be found and sustainably implemented in our environment.

When one has to look at the situational analysis in the Western Cape, and more particularly Cape Town, I think there are a lot of initiatives that are being implemented to overcome the challenges with WASH."

However, the rapid rate of urbanization into the Western Cape and Cape Town presents a challenge, both in the formal and informal areas, which have now become densely populated.

"I know that there is a drive to provide potable water to all residents within informal settlements, be it with various water tankers or having pump distribution networks within our informal settlements.



However, the challenges still arise on the sanitation side. There are research initiatives that are looking at water used in these areas, but it is not yet fully implemented until all the risks have been identified.

"If investments are made now, into the research and development, and looking into various innovations, we should be able to have similar solutions to the WASH challenges within Cape Town. If the sanitation challenges are not addressed, we have seen the impact of that in our own rivers, where we are increasing the rate of pollution, making it quite challenging to rehabilitate."

Mary Galvin: Research Lead at the Water Integrity Network (WIN)

"We are making slow progress. Political will is lacking again and again. People point to other things like finance and capacity, but without political will it is hard to make progress. Work in the sector is informed by a neo-liberal approach, which infuses everything, including finance and approaches to climate change.

"One way to get around all of this is to stop looking only to professionals for the answers, but to work with local people for real change."

Barbara Schreiner: Executive Director at the Water Integrity Network (WIN)

“I think that we have sufficient technical knowledge to solve many if not all of the problems. The challenge lies in governance. Two key challenges in relation to governance: one being that there are people actively involved in undermining the systems in order to benefit personally - i.e., through corruption, fraud, theft etc.

“This has a significant impact on our ability to deliver on SDG 6. The second is that the global economic framework works against a truly equitable system in which services to poor communities would be seen as a priority. The international tax system (and abuses of it) undermine finances available to governments in the global south.

“Late-stage capitalism concentrates wealth in the hands of a tiny minority, while further marginalizing vulnerable communities. Climate change is adding another set of challenges to this, with water and sanitation services being destroyed in floods and storms, and the need to climate proof water and sanitation infrastructure going forward.”

Sol Oyuela: Executive Director of Global Policy and Campaigns at WaterAid

“From sustainable water sources to climate-resilient infrastructure, the solutions do exist and they are within reach. However, they require rampant, immediate investment from countries and a real prioritization of WASH on their agendas.

“Country leaders need to step up and fulfill promises for those experiencing the result of the world’s inaction right now. We are at a crossroads right now, if action is taken today then the SDGs remain in reach but if WASH continues to be pushed into the background, then millions of lives will be lost.”



Image: Wikipedia Common

Climate Change is Pushing People Deeper into Poverty

By Siyabonga Mchunu

It is Thursday, July 18, 2024, and the clock has just struck 13:00 SAST.

I have just typed in a search for “Top Stories in Sudan”, and eight of the top ten search results have to do with the direct impact of the devastating civil war in that country.

Of the anomalies, one has to do with a woman on death row after being accused of collaborating with the Rapid Support Forces (one of the main actors in the war), while the other has to do with a decimated sugar industry (which can also be linked to the onset of war).

Just two weeks out from August, it seems nobody who is anybody has anything to say about a fresh crisis that will be brought on by Sudan's 2024 rainy season. By the time you read this, it might well have been discovered that expert fears about Sudan's rainy season were wildly exaggerated, but the author of this article doubts it.

What I don't doubt is that Sol Oyuela, the Executive Director of Global Policy and Campaigns at WaterAid, saw the disaster coming from a mile away.

Agencies working out of Sudan have spent the greater part of 2024 preparing for above-average rainfall, accompanied by higher-than-average temperatures in the southern and central regions of the already war-ravaged country.

Alarm bells were sounded over riverine and flash flooding in the region, with the most dire consequences for water resources in Sudan.

There are few more glaring indictments on the global community's failure to move the needle on climate change than the situation in Sudan, but activists like Oyuela are not giving up on world leaders just yet.

Few people understand the extent of the information crisis better than Oyuela, who has been grappling with the impact of climate change on water, sanitation, and hygiene (WASH) since she was a teenager in Argentina.

“I first got involved in water issues when I was a teenager in Argentina; there was an awful drought in the North of the country affecting huge sways of people and I became involved in a campaign to increase drinking water access for indigenous communities living there,” Oyuela told Urban Flow Magazine..

That campaign has taken Oyuela from the high mountains of the Andes to the flat plains of the Sahel, which have been plagued by high levels of corrupt government that have contributed significantly to food and water shortages in the semi-arid region. Sudan has not been immune to this phenomenon.

Oyuela, therefore, finds herself better equipped than most to alter the status quo, not least because she is the Executive Director of Global Policy and Campaigns at an influential body like WaterAid, but also because she holds a Bachelor of Arts in International Relations from Sciences Po, accompanied by a Master of Arts in Governance and Development from the Institute of Development Studies.



A Lived Experience - Understanding the Pitfalls

Oyuela understands where the pitfalls are, and from personal experience where the needs are most pressing.

“Once I graduated from University, my first job in an NGO was tackling water issues across Latin America and Africa, working to advocate for decision makers to solve water problems for the most marginalized communities,” she said.

“And this is something I have continued to advocate for throughout my career. Before WaterAid I was working for UNICEF UK, on issues regarding the protection of refugee children and children in conflict,” continued Oyuela.

“I joined WaterAid in 2019 as Executive Director of Global Policy and Campaigns with my role primarily focusing on influencing decision makers at global and national level so that they prioritize issues of water, sanitation and hygiene. During this time, we have really honed in on how climate change is making issues of water access worse for the poorest communities - experiencing either too much water or too little water - and how politicians at all levels need to step up and prioritize solving this challenge,” she added.

When the average Jo on the street discusses climate change and its potential impact on the streets, the conversation is often limited to water scarcity and drought (both of which are completely justified), but the curious case of too much water is somewhat less obvious to all and sundry.



The general reporting on the anticipated rainy season in Sudan, coupled with the military maneuvers of the two warring parties offers up glaring indictments on how far removed the conversation of too much water can be in much of the developing world.

Frankly, this dynamic isn't much of a conversation starter in much of the developed world either, the great tragedy being that leaders of the developed world are often the ones best placed to move the needle

That is where women in leadership, like Oyuela, have a massive role to play. There is actually a strong case to be made that this kind of WASH activism is a calling, and Oyuela has always known that this would be the arena where she ends up.

“I was drawn to working in WASH because of those early experiences in my country - where I saw how water (or lack of) was pushing people further into poverty and affecting the possibilities for communities to develop, thrive and come out of poverty for good,” explained Oyuela.

And just how is it that one goes about trying to convince the most powerful men in the world that there is a crisis unfolding in the developing world, where the most vulnerable are subjected to the most severe impacts of climate change?

“At present, my working day is largely spent designing and delivering our (WaterAid) big campaigns related to pressing global challenges, from health to climate change.

“Part of this role means that I spend time engaging with climate decision makers in government or in global institutions to ensure WASH is made a priority on the climate agenda,” added Oyuela.

“This is vital because if WASH continues to be put on the backburner, the world's most vulnerable will pay the price with their lives, which is not an option for me - or for WaterAid,” she said, painting a pretty grim image of the status quo.

WaterAid has projects all over the developing world, from Latin America in the west, to Africa, where crises of epic proportions are unfolding in places like Sudan and the DRC

Breakthrough in Bangladesh

But a part of the world that is often forgotten in conversations like this is one that has consumed most of Oyuela's energies in recent years - South Asia.

As it so happens, that is where Oyuela has made one of her greatest breakthroughs with a sitting government, in Bangladesh.

In October, 2022, the government of Bangladesh adopted something called the National Adaptation Plan of Bangladesh, which sets a climate change framework for the national administration over a period of 27 years (2023-2050).

And at the core of that document is the government's recognition and acknowledgement of the impact that climate change has and will have on water, sanitation, and hygiene in what is already a deeply impoverished region.

Delighted as she is about this breakthrough, Oyuela has no intention of taking her foot off the gas just yet.

“Two of the most pressing priorities right now are climate change and protecting the world’s most vulnerable – women and girls,” she explained.

“The climate crisis is battering lives through too much water, due to extreme flooding, and too little water, due to unprecedented drought. These climate hazards leave vital water sources contaminated or depleted, stripping people of their health, livelihoods and basic human rights.”

“Unfortunately, women and girls are only worse affected by this because they are often the ones families relied on to retrieve water, forcing them to walk further and longer, leaving them vulnerable and exposed.



“The common denominator here is clean water - with this communities are able to live happy, healthy and fulfilling lives. With the climate crisis rapidly escalating, millions of lives are left hanging in the balance,” Oyuela explained.

When you are somebody in Oyuela’s position it can be pretty difficult to measure the tangible outcomes of the work you have done, but the development in Bangladesh clearly points to something that has gone right.

“Sub-Saharan Africa and Asia are two of the most vulnerable regions right now with unpredictable levels of rainfall, heightened flooding, wildfires and searing temperatures each taking their toll.

“We’re also seeing increasingly more cases of places that were previously drought-prone getting lashings of rain and wet regions being set ablaze in the heat. Despite the knowledge that water underpins climate resilience, global health, food, energy and national security, global action on water security remains poor.”

Oyuela and WaterAid currently run operations out of 22 countries, primarily in Africa and Asia, touching in excess of 28-million lives, by facilitating access to clean water and decent sanitation.

“This is certainly a step in the right direction but we are not done until everyone, everywhere has clean water.”

The Bangladesh project in particular provides some of the most compelling evidence that there is no obstacle too great for people like Oyuela, and it is impossible to hide her passion.

“Our climate advocacy at a national level is exemplified by WaterAid Bangladesh, who influenced it’s government’s long-awaited National Adaptation Plan to incorporate Water Sanitation and Hygiene priorities, the first time that the importance of WASH has been recognized through Bangladesh’s NAP revision process,” she said with a broad smile on her face

But Bangladesh isn’t the only area that provides a glimmer of hope in this regard, with the COP initiative providing a compelling platform for WaterAid to exert some of its influence.

“At a global level I would highlight our Climate Whiplash media campaign, a piece of influencing work emphasizing the critical importance of Water Sanitation and Hygiene that brought together satellite imagery and new data, producing a high-impact media moment ahead of COP28,” she explained.

“The newly commissioned research showed in a powerful and evidence-based way how drought affected areas were becoming more flood prone, and vice versa, showing dramatic climate shifts in some of the countries we work in and one comparative European country.

“The climate crisis was positioned to global leaders as a water crisis and we used the campaign to present climate resilient solutions that global governments need to prioritize.”

Bangladesh

When Too Much Water is a Problem

By Siyabonga Mchunu

Source: Ministry of Environment, Forest, and Climate Change in Bangladesh

Bangladesh does not have a water problem, not by any stretch of the imagination!

If anything, there is too much of the resource, flowing through the entire country - both under the surface and above it.

At the risk of hyperbole, this author would put it to you that wherever you travel in Bangladesh you are likely to encounter overwhelming evidence of a country that actually has an abundant water supply.

Whether it be the seemingly endless rolling hills, the countless seas of green (much of which is accounted for by tea plantations), or the rivers that flow for miles and miles into the blue yonder.

You will genuinely be hard-pressed to find a country more beautiful than Bangladesh, anywhere in the world.

In a recently adopted National Adaptation Plan, drafted by the Ministry of Environment, Forest, and Climate Change in Bangladesh, we are told that nationwide rainfall increases by a whopping 8.4mm per year in Bangladesh.

Further perusal of that document will also reveal that some regions of the country receive as much as 5933 mm of rainfall.

When it Rains, it Pours!

No, the problem in Bangladesh isn't water scarcity! If anything, it is the exact opposite.

At its peak, between June and September (monsoon season) Bangladesh gets far too much rain, and herein lies the rub. Bangladesh's monsoons are getting wetter and more extreme every decade.

Experts in the Bangladeshi government have also forecast that the intensity with which this rain falls will increase in the coming decades - and by all accounts there is simply no stopping it.

The consequences of that increased rainfall are already being felt with increasing regularity by the most vulnerable in that country, partly because of its low-lying topography.

The topography issue is compounded by the fact that those who are unable to afford anything better will invariably build where they are not supposed to, exposing themselves to severe flood risks.

The immediate crisis for those adversely affected is recurrent river flooding, which wipes out entire villages and displaces millions, but the long-term crisis is brought on by the damage to the already severely limited water infrastructure in Bangladesh.



(WA**) - And its Missing Ingredients

No, water is not the problem in Bangladesh!

Regardless of the sources consulted you will find that Bangladesh actually has tons of water, even in some of the driest regions of the country.

The real problem in Bangladesh is sanitation and hygiene!

It is all well and good having an abundant supply of water, but that can serve no meaningful purpose if a truly astonishing amount of it is contaminated in one form or the other.

Those living in the coastal regions of Bangladesh, for example, are confronted by a constant rise in sea levels, which has an adverse effect on coastal ecosystems, brought on mostly by something called salinity intrusion, or the reduction of available fresh water.

All of that affects people's livelihoods, local agriculture, fishing, and indeed the entire regional economy. Salinity intrusion is a disaster of epic proportions, unfolding before our very eyes, and there is seemingly very little any of us can do about it in the short term.

There is an equally alarming crisis unfolding inland, where floods erode the banks of Bangladesh's most prominent rivers, including the: Ganges, Jamuna, Padma, and Lower Meghna.

And we are talking about thousands of hectares being eroded every year, while tens of thousands are displaced because of it. This is not a dance!

The extensive flooding that invariably comes with the territory when those banks burst brings about landslides and untold destruction on existing water infrastructure and drainage systems, which in most cases are already underdeveloped.

The Situation is Toxic

A 2020 paper titled "River toxicity assessment using molecular biosensors Heavy metal contamination in the Turag-Balu-Buriganga river systems, Dhaka, Bangladesh" zones in on the situation unfolding in a very specific river system of Bangladesh, but also effectively brings home the point that nobody is immune to the water crisis in that country.

Given everything you have just read, you will not be surprised to learn that the scientists involved in this study discover exceedingly high levels of aluminum, cadmium, chromium, iron, zinc, lithium, selenium and nickel in the Dhaka River systems.

A 2021 paper titled "River pollution and social inequalities in Dhaka, Bangladesh" continues to feed into this theme of polluted rivers, where some astonishing findings are made about the levels of untreated sewage and industrial effluent that are discharged into that country's water sources.

During these studies scientists discovered exceedingly high levels of ammonia in the Turag River and Tongi Khal.

As an extension of this theme, a 2021 paper titled "New Multibranch Model for Metals in River Systems: Impacts and Control of Tannery Wastes in Bangladesh" revealed that an 85 percent reduction in discharge concentrations would be required to meet internationally approved standards for heavy metals like Chromium, Cadmium, and Arsenic in the Dhaleshwari River System, the pollution of which also has an impact on the Meghna River System and the Bay of Bengal in general.

What Now?

All that water, and nobody can drink it? That is the reality for far too many Bangladeshis - millions of Bangladeshis to be precise. According to the experts at WaterAid, just 60 percent of the Bangladeshi population has access to safely managed water, while about 10 percent of the population just has to pucker up and drink contaminated water. For them, there are no other options.

Just 40 percent of the population in Bangladesh has access to safely managed sanitation, and there doesn't appear to be anything sustainable in the pipeline to help mitigate that either.

We could keep reeling these numbers off, whether we are talking about access to sanitation and hygiene in healthcare facilities, schools, or farms.

But the greater crisis is that the problem is in fact multipronged -and at least one of the key factors is actually totally beyond Bangladesh's control.

While the government of Bangladesh, and all of her partners can mitigate the effects of climate change in Bangladesh, there is really very little they can do about emissions elsewhere in the Asian region, even though they have a direct impact on Bangladesh.

Bangladesh can build its own climate change resilience, but there is very little they can do about pollution in places like China and India, which are experiencing rapid growth and industrialization.

Bangladesh itself is a developing nation, even though it is not polluting at the scale of some of its neighbors. But even so, it is hard to imagine that any government of a developing nation would be prepared to compromise on growth and job creation, in the face of a climate crisis.

These are the decisions that tend to weigh heavily on the soul of any developing nation, including Bangladesh.



Image: Wikipedia Common

A Campaign for Drinking Water in the Australian Bush

Achieving social justice and securing the future

The Australian Outback, which stretches across the country's entire Northern Territory (and beyond) is vast, remote, and virtually untouched. You can walk, drive, or fly for miles without spotting another soul.

Outsiders looking in can be forgiven for thinking that nobody lives there, but if you travel for long enough you will eventually bump into a quaint little settlement deep in the heartland of Australia's Northern Territory called Alice Springs.

It is situated about 1500 km south of Darwin, which accounts for more than half (about 140 000 people) of the Northern Territory's entire population. Quite unlike Darwin, Alice Springs is pretty harsh territory, not for the faint-hearted.

The Todd River, which flows from the MacDonnell Ranges in the north, seldom flows at all, while the entire town is surrounded by what is commonly known to locals as the Red Centre, an arid environment characterized by numerous deserts and plains

Alice Springs summers get particularly hot, while the winters get pretty cold. The Arrernte people, who are the traditional owners of the land, are believed to have lived here for at least 30,000 years, and had become quite immune to some of the geographical challenges that present themselves. However, their lives were complicated by European settlement in what became known as Alice Springs.

To the Arrernte, the place known as Alice Springs in English speaking communities, is actually Mparntwe (pronounced M'bun-twa), which means "watering place", a reference to the series of waterholes that feature prominently in the region.

The irony of that is not lost on any of the 26,000 people who now call Alice Springs home, as remote water security becomes an issue, particularly for the First Nations communities that exist in and around Alice Springs

The Goyder Institute, in partnership with the Australian Government, National Water Grid Authority (NWGA), and the National Water Grid Fund, is actively campaigning to enhance water access and security for the residents of Alice Springs, especially those belonging to First Nations communities.

And at the heart of that campaign is a recent pledge by the Australian government to spend in the region of 150-million Australian Dollars on water infrastructure for First Nations, in an attempt to improve water supply to indigenous communities, and improve the lives of First Nations Australians by closing the gap over a period of two years.

The '2023 Commonwealth Closing the Gap Implementation Plan' is a signature of the Albanese Government, but the role played by Non-Government Organizations like the Goyder Institute cannot possibly be overstated, especially if tangible outcomes are to be produced on time, and under budget.



"The Goyder Institute is based in South Australia and is a partner of the South Australian Government, Australia's national science agency, CSIRO, and three South Australian universities: Flinders University, the University of Adelaide and the University of South Australia," Alec Rolston, Director at the Goyder Institute told Urban Flow Magazine.

“We have access to world-leading experts in water research and policy and decision-making, and we work with government agencies, water utilities, funding bodies, communities and Indigenous Australians to understand where their complex challenges lie regarding water, and form multi-disciplinary, multi-organizational teams to create the knowledge to inform decision making and policy,” explained Rolston.

In the Context of the ‘2023 Commonwealth Closing the Gap Implementation Plan’, all of the emphasis of the Goyder Institute has been placed on developing the knowledge base for everybody involved in trying to improve the water security of First Nations communities like those in and around Alice Springs.

The Goyder Institute has arranged a series of engagements between all the relevant stakeholders, under the banner of “Working Together for Better Drinking Water in the Bush”

A lot of the key agenda items are currently being fleshed out in greater detail, while the implementation of the ‘2023 Commonwealth Closing the Gap Plan’ continues.

“For the first time, we brought national, state and territory policy makers and decision makers, along with water utilities, other service providers (e.g. health and housing), NGOs and representatives of remote Indigenous communities together to jointly address the challenges and identify solutions and priority actions for improving drinking water supplies for remote communities like Alice Springs,” added Rolston.

Some of the key agenda items during those engagements are:

- Bringing together First Nations representatives and national stakeholders addressing remote water security
- Discussing challenges of water delivery to remote communities, sharing responsibility for identifying actions
- Listening to on-ground experiences and aspirations of First Nations remote communities
- Understanding current situations in different states and territories regarding water delivery to remote communities
- Collaborating on identifying high-level solutions to challenges in providing clean, safe, and secure drinking water, and identifying enabling actions and next steps

“This important work put Indigenous voices and community lived experiences to the fore, including those of women, to help inform decision making across multiple scales,” added the Goyder Institute Director.

Campaigns like this one form part of Australia’s desire of coming to terms with its history, while embracing the First Nations component of that country’s heritage.

But Rolston also recognizes that there is a unique opportunity here to try and bridge the gender gap in WASH, the proverbial two birds with one stone.

“Throughout all our work, we aim to amplify the presence of female scientists and community members, striving to achieve gender balance in all that we do, as well as supporting early-career researchers as much as possible in our projects,” added Rolston.

But there are other benefits to the work done by the Goyder Institute, and particularly the project in Alice Springs.

For the indigenous people of Alice Springs, improved water security also means increasing that community’s resistance to climate change, improving the overall wellbeing of that community, enhancing economic participation, sustaining development, and developing a local connection to the country.

And it is through the interventions of institutions like the Goyder Institute that better links are made between the Australian government and the people it is trying to serve.



Image: Daniel Hannah from Pixabay.

Why Hope is NOT a Strategy

Source: City of Cape Town

By Siyabonga Mchunu

Meet the woman taking a proactive stance at the City of Cape Town



In one of the opening scenes of the 2016 film *Deepwater Horizon*, based on a 2010 environmental disaster in the Gulf of Mexico, Mike Williams (Chief Electronics Technician on the actual *Deepwater Horizon*) has a private and thought-provoking conversation with the oil rig's BP representative Donald Vidrine, who is under pressure to deliver on a project that is already late and well over budget.

There is a tension that builds up between the two men, one of whom is determined to do whatever it takes to deliver on an increasingly difficult project, while the other is deeply exasperated by BP's willingness to ignore the potential consequences of cutting corners on a project of this scale, not just for the company but for the entire environment.

Suffice it to say, those consequences are felt by the end of the film, despite Williams reminding his BP superior that "Hope is Not a Strategy".

The beautiful people of Cape Town were reminded of this dark reality in the winter of 2018, when officials working at the City of Cape Town were confronted by the very genuine prospect of not being able to supply residents with water.

A Day Zero That Nearly Was

Like all crises, the situation developed a name – "Day Zero."

Day Zero, while eventually avoided, was a crisis three years in the making, and the City's reaction to it would suggest that for far too long officials were living on hope as a strategy. Hope that the rains would return...before the rivers and dams ran dry.

In the immediate aftermath of the Day Zero debacle, the City of Cape drafted and developed a water strategy, designed to avoid staring directly into the abyss yet again, in a city (and country) that has always been water scarce.

Cometh the Hour, Cometh the Woman

One of the people tasked with ensuring that the residents of Cape Town are never confronted by this gloomy reality again is Amanda Murray, who has been the Head of Water Distribution at the City of Cape Town since 2020, two years after the dreaded Day Zero was so dramatically averted.

Murray had actually been with the City of Cape Town, in a slightly different capacity four years prior to taking up her current role, and so she would have still witnessed first-hand how a three-year drought brought on a tremendous sense of panic, when Level 7 Water Restrictions were first implemented by the City of Cape Town.

Murray is as well-equipped as anybody to recognize the need for a comprehensive water strategy, and spot the early signs of a situation unraveling at the seams. Critically, Murray understands better than most some of the most pressing challenges that pose a significant threat to water provision in the city.

For Murray, there is also a recognition that the city's water problems are not linear, and that they require a multi-pronged approach when dealing with them. It is not just about drought.

"Cape Town is a beautiful city drawing people from all corners to visit and relocate," Murray told Urban Flow Magazine.

A brief glance through the pages of StatsSA will reveal that the Western Cape is not the most populous province in South Africa, not by a long way. Nor is it the most densely populated, also not by a long way.

However, the Western Cape, and by extension the City of Cape Town, is becoming a victim of its own success. Cape Town is becoming the city of choice for more and more South Africans every year, and that has been the trend for more than a decade.

"This does place an ever-growing demand on services," explained Murray.

While this migratory trend has been almost impossible to ignore, particularly for local residents, the jury is perhaps still out on whether the City is equipped to deal with a rapidly expanding and evolving population.

Murray, for her part, insists that navigating these choppy waters is a far more delicate business than some are prepared to acknowledge.

"The balance in maintaining affordable services and standards can be challenging. However, the city does have a water strategy, which maps the way forward," added Murray.

And while the buck ultimately stops with officials at the helm of water distribution, and the politicians they serve, Murray is quick to caution that this is a project that requires all hands to be on deck, almost in the same way that the residents of Cape Town played their part in helping to avoid Day Zero back in 2018.

"As residents of this amazing city, we should look to ourselves to consume less, and aim to leave the world in a better state than what we found it," explained Murray.

There is also clear recognition from Murray that something will ultimately need to be done to ensure that Cape Town is able to keep up with the City's growing infrastructure demands,

Whether that be maintaining what is already there, upgrading, or even replacing where necessary.

That is all a part of the delicate balancing act; finding ways to make the most of the minimal resources at your disposal, because every element of water distribution in a city this big requires finance.

"The reticulation network includes pump stations, reservoirs, and municipal mains up to the property boundary. It is therefore important to operate and maintain these assets to ensure that water supply reaches the consumer," said Murray.

And it is those consumers who are really the only measure of how effective Murray and her team have been at delivering on their mandate. All the stats and all the excuses in the world just don't matter, if at the end of the day, consumers do not have safe water in their homes. That is a massive responsibility to shoulder, but Murray is not deterred by it. In fact, she has been molded by it.

"Aging infrastructure does affect service delivery, and it's important to operate assets to ensure functionality until replacement. The goal is to operate and maintain, plan and implement replacement of assets, and keeping the water flowing.

"Performance is tracked and measured, but ultimately outcomes are defined by the customer experience," said Murray.

Five key commitments are:
Ensuring Safe Access to Water and Sanitation Promoting the Wise Use of Water Ensuring a Reliable Supply of Water From Multiple Sources Improving Regional Collaboration on Water Resources Creating a Water Sensitive City.

It is a lot of pressure for any individual, but Murray was built for this. Her training and knowledge of the local government landscape have prepared her for this, and there is frankly no doubt that she will deliver for the people of Cape Town.

"I started my career more than twenty years ago, in the office of a consultancy firm. My career path followed a natural progression, with a focus on urban design, specifically municipal infrastructure," said Murray.

For women working in WASH or any related field, there is always the question of whether she will be trusted and supported enough to do the job. That is one of the sad realities in the society we live in, even in the 21st century, but Murray said she had not been scarred by it in any way.

The Right Person, in the Right Place, at the Right Time



South Africa is undoubtedly a water-scarce country, whichever way you try to slice it. Depending on where you live in South Africa, the factors contributing to that water scarcity can be either physical or economic, and in some instances, they are both. About 36-million people live in just three of South Africa's provinces, Gauteng, KwaZulu-Natal, and the Western Cape, with Gauteng alone accounting for more than 25 percent of the country's entire population.

There is a strong case to be made that most of Gauteng's water scarcity issues are physical, driven by factors like exceedingly high-water demand, and the alarming levels of pollution that come with the territory in such a densely populated and industrialized part of the country. The dry winters experienced in Gauteng (and its surrounding areas) are the final physical factor that has a significant impact on water scarcity issues in that province. However, Gauteng does remain South Africa's (and indeed Africa's) economic hub, and in theory any notion of water scarcity should have very little to do with economics there, but that is undoubtedly a debate we should park for another day.

Meet the Woman Spearheading WASH Innovation in Cape

Source: City of Cape Town

By Siyabonga Mchunu

Then there is the Western Cape, which experiences everything from arid to temperate climates, and astonishingly dry summers are a thing. Suffice it to say, a lot of the physical factors there do not play into their favor. And while the overwhelming sentiment is that the province is better run than others in South Africa, it is simply not equipped to deal with some of the infrastructure demands that come with a rapidly growing population. To that end, the Western Cape's water scarcity issues are both physical and economic, which places a tremendous handicap on all efforts and campaigns to combat the water scarcity issues in that province, which peaked during the winter of 2018, when local authorities started bracing themselves for what became known to all and sundry as "Day Zero".

Cape Town's Secret Weapon In the face of this type of adversity, finding the right person to manage the water resources that you have at your disposal becomes paramount, and in the context of the Western Cape that hero is Dr. Swastika Surujlal-Naicker who heads up Research and Development at the City of Cape Town's Scientific Services branch. Few people are better equipped to combat a water scarcity crisis brought on by a dramatically evolving society, like Cape Town. The secret, if we can call it that, is understanding exactly what it is that is floating around in your water systems, which Surujlal-Naicker demonstrated so effectively in her successful submission for a Doctorate of Technology Degree at the Durban University of Technology (DUT).

Throughout her professional life, most of which has been spent working in government, Surujlal-Naicker has focused all of her energies on monitoring and controlling the few water resources at our disposal, and in this instance, we are talking mainly about wastewater treatment. In 2013, Surujlal-Naicker published a paper titled the 'Application of Radio-immunoassays to Assess the Fate of Estrogen EDCs in Full Scale Wastewater Treatment Plants', which was followed up by her doctoral submission in 2014, titled 'Detection and Evaluation of the Fate of Estrogen EDCs in Wastewater Treatment', and a third publication in 2014, titled 'Evaluating the Acute toxicity of Estrogen Hormones and Wastewater Effluents Using *Vibrio Fischeri*'.

It is all a bit of a mouthful, but at its heart is the desire to monitor our water resources, while detecting any potential problems a lot quicker, and more accurately. Dr Surujlal-Naicker has the t-shirt.

When the wheels of government, and change, turn as slowly as they do, there is no better person to have working in the city's laboratory than Surujlal-Naicker.

Fueling the Passion

It is one thing to be competent and committed to the cause, whatever it may be, but Surujlal-Naicker's passion is what sets her apart from many of her contemporaries.

"My journey with WASH (Water, Sanitation, and Hygiene) started in the early 2000s, where I did my in-service training with the Centre for Water and Waste Water Technology at the Durban University of Technology," Surujlal-Naicker told Urban Flow Magazine.

"Here I was given the opportunity to conduct research on giving viable solutions to treat various types of industrial waste before being discharged to a waste water treatment facility," she added.

"I knew from a very young age that I wanted to do something related to the science field, and this was motivated after coming fourth in the country for a national science competition in Grade 7, and also being a Pisces I always had a strong connection to water.

"Hence, I continued with this passion in the science field through my secondary and tertiary education. So, I would say this work is my calling, which I was fortunate enough to make my profession of becoming a water scientist," continued Surujlal-Naicker.

A High Stakes Journey

Her professional journey has since taken her to George Municipality (also in the Western Cape) and the City of Cape Town, where Surujlal-Naicker has been since 2014, just in time to watch the "Day Zero" drama unfold right before her eyes. Every morning, she gets out of bed and prepares for work, she does so understanding just how significant the stakes are.

And with each step along the way, Surujlal-Naicker has been equipping herself with the skills she needs to tackle potentially the biggest crisis facing the City of Cape Town today - clean and safe water.

"I then joined the George Local Municipality, where I was managing the Scientific Services Laboratory for both water and waste water.

"My journey into managing and heading up laboratories continued when I joined the City of Cape Town, as the head of the analytical laboratory. which looked at building water quality analysis for various types of waste water, environmental waters and industrial effluent," said Surujlal-Naicker, reflecting on how she came to head up research and development for one of the greatest cities in the world.

Even the greatest cities have serious trouble with notions like innovation and ingenuity, and the City of Cape Town has not been immune to that challenge.

Critically, there is an open acknowledgment from pioneering thinkers like Surujlal-Naicker that the manner in which the city manages its water

"With regard to developing the infrastructure for research and development, we are still in our infancy," said Surujlal-Naicker. "One of the key areas for R&D is to develop many methods for the city to provide support to the water and resilience strategies. This entails ensuring that we have the right scientific equipment and infrastructure for capacity building and skills development in this area."

"This is to provide support to the various new water schemes that the city is currently building, which is for groundwater, desalination of our seawater, as well as the water reuse projects. The current project is to ensure that we are well-equipped to do water quality testing for the contaminants of emerging concern, as well as pathogens of emerging concern, that could potentially be a public health risk," she explained.

Factors like rapid urbanization, increased population growth, and industrialization are all making Surujlal-Naicker's task of managing the pathogens of emerging concern phenomenon that much more difficult.

Laying the Groundwork

While it is not always easy managing tasks of this magnitude, one of the keys is being able to think and plan ahead. It is all about laying the ground work now, to deal with the challenges of tomorrow.

"We are also fortunate to be able to build our first molecular laboratory for our city, which helps us to detect water-borne pathogens in a quicker turnaround time than more traditional culture methods," added Surujlal-Naicker.

It is important for anybody managing tasks of this magnitude to understand that they need to take people with them if they wish to be effective.

Beyond that, the task is also about taking care of legacy, by ensuring that those who follow will be just as equipped to take the project forward when you are gone.

Crafting a Legacy

As passionate as she is about the work, Surujlal-Naicker understands that she isn't going to be available to The City of Cape Town forever, probably because she will move onto bigger and greater things.

To that end, she has already taken measures to ensure that the City of Cape Town endures, in the face of all her water problems.

"One of the areas where I think I made the most impact is the number of young graduates I mentor," said Surujlal-Naicker.

"We have such a large number of unemployed graduates in the country who are not given the opportunity to gain the adequate experience. So, for me to utilise the national treasury graduate program helps us to empower these graduates, by giving them the adequate training and development to become intuitive scientific leaders," she added.

The mentorship of interns, and other young water warriors like them, features prominently in Surujlal-Naicker's daily routine at the City of Cape Town, and to some degree the work she does with them can be more consequential than anything she does with her other water colleagues.

For Surujlal-Naicker, it is not enough that those under her tutelage walk away with a strong set of practical and technical skills, as important as all of those are, but the skills that matter most to her are initiative and leadership, even before her prodigies become registered as professional natural scientists, with the South African Council for National Scientific Professionals.

The City of Cape Town's 'One Laboratory Initiative' is a classic example of Surujlal-Naicker producing better rounded scientists, who will find more efficient solutions in the face of all the bottlenecks that hamper progress in government, and other institutions like it.

"One of the initiatives that I am really proud of is the One Laboratory Initiative, which was championed by some of my staff members who are fresh water and aquatic ecologists and scientists who provide training for different staff on bio-monitoring of our rivers, which resulted in ten of our staff becoming accredited to undertake such bio-monitoring, which determines how healthy our water systems are," said Surujlal-Naicker.

And at the heart of even this project, is the desire to instill passion in those striving to be agents of change.

"Our staff is very passionate in trying to keep our water ways healthy," she added.

The One Laboratory Initiative is also a glaring example of Surujlal-Naicker clearly understanding that detection and monitoring at all levels will often be more effective than scientific innovation, without detracting from its importance in any way.



Lending a Voice to the Voiceless

Source: Barbara Schreiner

By Siyabonga Mchunu

Corruption and self-interest present a genuine threat to the WASH Sustainable Development Goals



There is a certain danger for water activism the world over, in that those leading the charge aren't necessarily best placed to understand what it is that communities need, or how best to deliver what they need.

This is not an attempted swipe at those who give so generously of their time and resources for the advancement of those who need a helping hand, but rather it is a healthy reminder that understanding the communities you are working with is undoubtedly the best way to deliver tangible outcomes.

There is also a genuine risk that most of the world will not be able to deliver on its Sustainable Development Goals for water, sanitation, and hygiene (WASH).

While debates will undoubtedly rage on why those targets are not being met, there will be no sidestepping the fact that far too many who venture into WASH campaigns throughout the world don't really understand enough about the terrain they are operating in.

And among those who do have some understanding of the terrain they are working, there are far too many who don't always take the time to listen to the beneficiaries they are trying to serve.

Barbara Schreiner, a long-standing Executive Director at the Water Integrity Network (WIN) is not one of those people. Every aspect of her professional life, including her academic development, has been geared towards understanding the communities she works with.

Every aspect of her professional life has been geared towards partnering on a project like "Hearing the Unheard", which is led by fellow WASH activists End Water Poverty.

While we at Urban Flow Magazine are tempted to give guilty parties the benefit of the doubt, and just accept that WASH beneficiaries are excluded from the conversation by accident, Schreiner and her colleagues running "Hearing the Unheard" aren't prepared to be as lenient in their assessments.

The "Hearing the Unheard" teams remind the world "It is not an accident that some people are not at the table. It is not an unfortunate set of circumstances. It is structural and it is deliberate. We have created a world in which, according to Oxfam, over the last decade, the richest 1 percent have captured around half of all new wealth."

As the name of that campaign, launched at the 2023 UN Water Conference, would suggest, there is an increasingly pressing global need to amplify the voices of the marginalized in society, in the face of baffling resistance.

"Structural interventions are needed if we want to change this, if we really want to build a world in which everyone has access to safe water and sanitation, a world in which no-one, not a single woman, man, or child, has to battle for safe drinking water or safe and dignified sanitation," said Schreiner.

"It is grassroots communities and water rights defenders like the ones we heard from who are on the frontline: engaging their politicians, standing up to police and corporate power, defending rivers, lakes and groundwater.

Communities are the agents of change. They activate legal obligations and political promises. We need to find meaningful ways to back these communities and water rights defenders standing up for their rights because that is where rights realization is happening," she said.

At its heart, "Hearing the Unheard" is about allowing grassroots communities to be active participants in their own WASH campaigns, and to some degree the masters of their own destinies.

It is a campaign that is currently closest to Schreiner's heart, which is saying something for a career that has already spanned more than two decades.

"It matters because it is critical that marginalized and unserved communities are placed at the center of the discussion around providing services, and not treated as passive 'beneficiaries'," Schreiner told Urban Flow Magazine.

"And it is extremely powerful and moving hearing grassroots women and men talking about what they have achieved and what they hope to achieve," added Schreiner.

While "Hearing the Unheard" has all the hallmarks of grassroots activism, the real strength of the project lies in the fact that it is a modern digital campaign, designed to transcend national, and even continental boundaries.

So, this isn't just about the one-on-one, because testimonies, lived experiences, and demands are no good if people who have the power to make a change do not have access to that information, and that is where Schreiner's team excels. It is not just about reading the room; it is about taking up the space and owning it.

"Hearing the Unheard" has only existed as a concept for just over a year, but it has already had a phenomenal impact on about 54 different groups, represented in more than 18 countries.

While WASH is undoubtedly a socio-economic issue, many of those most closely involved tend to fall into the technical trap.

The conversations about WASH are often dominated by the technocrats, who can tell you everything there is to know about the laboratory work, the infrastructure, and finance –and all of that obviously matters.

But sometimes emotional intelligence can be just as critical when dealing with matters of WASH, and Schreiner has always understood that better than most, even though in some ways it can feel like that has happened purely by accident.

Among her many qualifications, Schreiner has a Bachelor of Arts Degree in Drama, which is hardly something you would associate with somebody who has since pursued a decades-long career in WASH.

"[A] BA (Hons) in Drama may seem odd, but it has given me excellent strengths as a communicator, which is very important in this field," said Schreiner.

And it should go without saying that healthy communication is everything when delivering on the objectives of the "Hearing the Unheard" campaign.

Schreiner has bolstered her capacity to communicate effectively in WASH, by also completing a Master of Arts Degree in Creative Writing, which has undoubtedly made it that much easier for the beneficiaries of her programs - and many of her partners - to consume and explain what it is that everybody is (or should be) trying to achieve in WASH

But being able to break complicated subjects like water, sanitation, and hygiene down for people is potentially of no use if you are not a subject matter expert yourself. Otherwise, there would be nothing to communicate, but fear not because Schreiner has this water activism thing nailed down to the T, having also completed a M Phil in Environment Science at the University of Cape Town.

"[The] M (Phil) Environmental Science gave me very useful technical knowledge about a range of elements in the environmental field, including legislation, policy, economics, social analysis, geography, catchment management etc.," added Schreiner.

Frankly, it is quite possible that you will not find a better-rounded individual to help the world achieve its Sustainable Development Goals, and there is frankly no better person alive to shoulder the unenviable burden of trying to maintain the integrity of the entire WASH industry.

"The combination of a background in arts and science has given me the ability to understand the technical issues, and to communicate with both technical and non-technical people, which has been extremely useful," she said.



“I also have an MA (Creative Writing) which has helped my ability to communicate in written form. But a lot of what has been useful to me has been learned on the job.”

When it comes to any form of activism, but especially water activism, there is really no better training in the world than transitional South Africa, where Schreiner has been an important player for most of her professional life.

At the risk of coming across as a little dramatic, there is probably a strong case to be made that Schreiner was molded by South Africa’s transition from an apartheid state, where the majority of the population was excluded from access to the country’s most important resource (water), to a country where access to water became a right for all who live in it.

At the very heart of South Africa’s socio-economic transition, which has not been without its pitfalls over the past three decades, has been the spirit of cooperation and the ability to communicate across racial and cultural lines.

There can be no better training environment for a water activist trying to bridge an even greater global divide on WASH.

Beyond all that, working in WASH has been somewhat of a calling for Schreiner, and there is probably no industry she would rather be in.

“Initially I came into it from an environmental perspective, but my interest was always informed by my sense of social justice and how one ensured that marginalized communities could benefit and not be disadvantaged by WRM and WASH policy and practice.”

The WASH Gender Gap, According to our WASH Champions

By Siabonga Mchuna

Being highly qualified and experienced isn't always enough

Mary Galvin: Research Lead at the Water Integrity Network (WIN) University of California, Berkeley - PhD, Political Science Yale University - MA, International Relations and Affairs Georgetown University - Bachelor of Arts - BA, Political Science and Government

"Inappropriate treatment has run throughout my career. Some men continue to feel free to shout or humiliate individual women, and sometimes sexual harassment seems too subtle to call out easily.

"At the start of my career in the early 1990s, all the people I knew in professional water positions were men, mostly engineers. In one of my first jobs I attended a multi-stakeholder meeting and men who came into the room asked me to make them some tea. "



Now I see that there are so many more women in the field and that it is increasingly gender inclusive, including my former students, and I am confident that they will address issues. I expect this will add new energies to take the sector forward.

"What needs much more attention are the challenges that many poor women face in accessing water and sanitation services. One of the things that WIN has researched and is raising awareness about is Sextortion."

Amanda Murray: Head of Water Distribution at City of Cape Town
Nelson Mandela University - B Tech Eng, Engineering: Civil
School of Public Leadership at Stellenbosch University - Municipal Minimum Competence, Public Administration

"I started my career more than twenty years ago, in the office of a consultancy firm. My career path followed a natural progression, with a focus on urban design, specifically municipal infrastructure. Years ago, I was at times met with startled surprise when introducing my career choice to new friends and acquaintances. However, I cannot recall that I experienced gender to be an absolute barrier in my

Dr Swastika Naicker: Head of Research and Development at City of Cape Town
Durban University of Technology - Master's Degree, Biotechnology
Durban University of Technology - Doctor of Philosophy (Ph.D.), Biotechnology

"There is definitely a gender gap in WASH, especially in the environment that we work in today. Sadly in today's world, there are still many men who don't have the confidence that a woman can implement or have a brilliant idea.

"I did find it challenging when I first started in the WASH environment, as this environment as and is still quite male-dominated. This, to an extent, has prevented women from being given the equal opportunities to lead in this male-dominated area."

“Women and girls are often the worst affected by lack of access to clean water and decent toilets. They’re often the ones walking long distances to fetch water and earning a living in families where the men have died or left. This places immense pressure on them in their communities.

“This reality is only being made worse by climate change as they are forced to walk longer and further in pursuit of water often meaning they are forced out of work or education. This is why it is critical women are brought into conversations on managing these crises as they are best placed to advise on the reality they are living right now.

“It has been incredibly rewarding to operate as a woman in WASH because there are so many incredible women in the sector at the moment - but it is not without its challenges because as women (and with an accent!) we always have to prove ourselves harder than men have to.”



“Personally, I have not found it difficult to operate in WASH as a woman, or not particularly. I have faced challenges, but they haven’t been severe, but being white, middle-class and very assertive has made my life easier.

“My ability to work was also made easier by being able to employ a childminder to assist me as a single parent. I know that the picture has not been so easy for many women. WIN works in Mexico, Bangladesh and Kenya, as well as other countries in the global south.

“In all of the countries that we work in, senior management in water and sanitation is predominantly male. While there are an increasing number of women working in the sector, there is still a long way to go for them to break through into senior management.”



THE INVISIBLE WAR: Fighting WASH's Enemy

Source: Mary Galvin

Text: Siyabonga Mchunu

“THERE ARE SO MANY IMPORTANT TOPICS WITHIN WASH, AND WIN FOCUSES ON TRANSPARENCY, ACCOUNTABILITY, PARTICIPATION AND ANTI-CORRUPTION AS A MEANS OF ENSURING INTEGRITY.” - GALVIN.

It's Friday, August 8 2024, and the clock has just struck 12, South African Standard Time.

It has been an unproductive week, and despite it now being the weekend, there is slender evidence to suggest that things are going to feel any better.

In preparing the first draft of this article, I am astonished by how difficult it is to get precise information on what WASH global expenditure was in the past financial year, or even for the past two financial years.

It is just as difficult to get a decent handle on what WASH money is actually being spent on, or even where the money is coming from.

When I try to establish “How much was spent on WASH in 2023?” my top search engine result is a link to a 2023/24 WASH Budget Brief for Malawi, which is bizarre because I am nowhere near Malawi.

My second search result links me to a World Health Organization and UNICEF Report on Frontline Health facilities faltering without water, sanitation, and hygiene, which makes absolutely no reference to how much was spent on WASH in 2023, or 2022 for that matter.

It is another useless link in the context of this article.

My third search result does not give me precisely what I am looking for, but it is a lot better because at the very least it helps me begin to paint a portrait of the kind of money being splashed about, in an attempt to achieve some of the Sustainable Development Goals drafted by the United Nations.



However, even after reading through the Water, Sanitation and Hygiene Forecast drafted by the Humanitarian Funding Forecast. I feel none-the-wiser on where the money is coming from, and where it is actually going. It is harder still to get a decent handle on whether the money spent is producing tangible outcomes.

In a world that can sometimes appear as murky as the water that some of its major environmental activists are trying to clean, people like Mary Galvin, a Research Lead at the Water Integrity Network (WIN) have become indispensable.

Galvin, who has been involved with WASH almost since its inception, has watched the industry evolve and expand pretty aggressively over the past three decades, but there is slender evidence to suggest that WASH monitoring mechanisms have kept pace with that dramatic change.

Corruption and the abuse of public power for private gain still feature all too prominently in the WASH conversation.

While the symptoms of that corruption are usually pretty blatant, especially to those who are supposed to be the beneficiaries of global WASH initiatives, accountability remains a serious issue, and a major part of the problem is that those who are supposed to benefit from WASH activism seldom feel empowered enough to expose the abuse of power.

People Skills and Asking the Right Questions

The sheer scale of Galvin's job is enormous, and takes her to all corners of the globe, from Sub-Saharan Africa to Latin America. A lot of flexibility and subtlety are required in this line of work, where it is important to not just look at yourself as some kind of criminal watchdog.

A spirit of cooperation with local partners is much more conducive to producing positive outcomes, especially when you are working with a team as small as the one at the Water Integrity Network, where the margin for error is also small and the stakes almost unacceptably high.

"We look to partners to know what they are taking forward in a country. So, I am juggling work on City Based Inclusive Sanitation, water and climate adaptation, water and sanitation finance globally and in Latin America, financialization, and so on - all with the integrity angle, of course," said Galvin, highlighting just how broad the scope of her work was.

"Like many NGOs, there is a small staff so I take on other roles too - I am running the Monitoring and Evaluation component, which takes a lot of energy," added Galvin.

Galvin admits that before taking on her current role at the Water Integrity Network, she was a touch daunted by the scope and commitment that would be required, but fortunately she went into the storm knowing deep down inside that she was equipped with the skill set required to make the contribution so desperately needed in this industry right now, with so many of the Sustainable Development Goals looking increasingly out of reach in the developing world.

"I have needed to brush up my basic skills to do this. Day-to-day I am conducting research, meeting with Team members individually or as a group around products and strategy, emailing and meeting other organizations around common work, and attending, planning or presenting at webinars and other events," explained Galvin.

"I also support fundraising and sometimes present at conferences or in the media, although this is limited. There are lots of meetings and messages - and it is hard to get concentrated work done," added Galvin, giving off a slight air of frustration at just how much needed to be done in such a short space of time.

"Galvanized" by Experience, Molded by Transition

But if anybody could reasonably be expected to get this work done it would be Galvin.

She started working WASH as far back as 1992, just four years after WASH was developed as a global concept, and it is precisely because the industry evolution since then has been so dramatic, that people like Galvin are still needed in the system, perhaps more so now than ever.

And Galvin could not possibly have asked for a better training ground than South Africa, a country with a dark and troubled history, but by no means unique in the context of water integrity in the developing world.

The country has changed a considerable amount in the past three decades, and Galvin has witnessed a lot of that change.



While a considerable amount of South Africa's change has been for the better, and Galvin has been at the heart of that, there are still times when it feels like nothing has really changed at all, in a country that has now become a hotbed for corruption, stifling all efforts being made by people like Galvin, who are trying to have an impact in WASH.

It might be a little controversial to say this, as a South African I feel I have the license, but it is often felt that South Africa has a bit of an integrity problem that runs through various branches of society, and not just in government either.

Galvin has had first-hand experience of this, while teaching at the University of Johannesburg, where she constantly grappled with a cheating problem among her students.

"As a single mother, I took on a safer position as Associate Prof. at the University of Johannesburg. It was great to work with young people and I had some students who are already doing incredible things, but I struggled to combat high levels of cheating," laments Galvin.

"I also worried that my work wasn't 'wow' enough to influence real change," she added.

Keeping Up the Good Fight

Of all the local fights Galvin had, student cheating is the one that she ultimately gave up on, but even then she has managed to take something positive away from the experience, because nothing in life is ever truly wasted.

"[But] I was able to do important fieldwork on water access with communities in three areas of South Africa," she said proudly.

For many it would be impossible to remain optimistic about this work after an experience in South Africa, but Galvin still has her sleeves rolled up, is fired up and ready to go.

Among other things, not many people have the empathy required to make the entire WASH experience worth the effort, but Galvin certainly doesn't fall into that bracket.

To some, campaigning for WASH is a calling. "Seeing people suffer and believing

that I needed to use my privilege to help people access power for change" is what drew Galvin to WASH, and she has never looked back since, even in the face of adversity - there is a lot that can turn a person off WASH-related work, not least the feeling that your efforts aren't yielding the right results.

"That's what drew me into the field and has kept me passionate about my work. I moved to South Africa in 1992, in my 20s, wanting to be part of building the New South Africa.

Sometimes it feels like the challenges have grown!"

"In academic terms, my work has remained focused on micro hydro politics - how local people seek recourse from the government for water and sanitation services that provide clean, adequate and affordable water and sanitation with dignity," highlighting yet again why Galvin remains the best person for the job.

Galvin started as a development practitioner, academic activist and, even as a consultant, which already helped her build up a multi-faceted skills set, setting her on the path to developing a more comprehensive understanding of the industry than most.

Following the Money

Those skills have helped her understand how to follow the money, by knowing where it is needed most, why it is needed, where it comes from, and ultimately how that money should be used.

Having a solid grasp of each element in the value chain helps lend integrity to the work Galvin does under significant pressure every single day.

As the coordinator of a multi-stakeholder initiative in 1992, Galvin was at the forefront of a difficult campaign in transitional South Africa, where the majority of the population did not have access to water infrastructure of any kind -those were darker times.



“This was when the apartheid government prioritized water to animals over people, and I was part of changing that - with urgency,” added Galvin, illustrating how from early on in her career she had developed skills required to deal with some of the most regressive institutions mankind has ever known.

Difficult conversations like that are still a common feature throughout the developing world today.

The initiative Galvin was involved in became a membership-based organization, coordinating with community-based organizations all over rural KwaZulu-Natal to make input into many new government policies and programs related to water and sanitation, and the local government transition.

“I served as Director for 5 years, and we also made sure that information on resources available to rural communities for water and sanitation projects was translated into isiZulu on paper, through radio shows, in cartoon brochures and in mass meetings that we convened,” said Galvin.

And there really is no better, and more challenging place to develop those skill sets than rural KwaZulu-Natal, where an appreciation for the local culture and customs goes a considerable way to achieving desired outcomes. It is not always what you communicate, but how you communicate.

And even when you feel like you have a firm handle on the local environment, there are still unintended consequences that invariably have an impact on the work that you do.

Galvin understands this better than most, which was demonstrated when she completed her PhD at the University of California, Berkeley on unintended consequences of NGOs’ work in rural development, with income from research contracts on projects at the University of KwaZulu-Natal and the HSRC related to her work.

“With a PhD in hand, I coordinated the South African part of a global multi stakeholder initiative called ‘The Water Dialogues’, considering the role of the private sector in water delivery.

“I facilitated regular dialogues with high level officials from national government, public utilities, multinational private companies, trade unions and civil society organizations. These were based on research that I designed and managed with teams in five areas throughout the country.”

When that project ended, Galvin started a water advocacy NGO called ‘Umphilo waManzi’, conducting action research and advocating evidence-based change at national and local levels.

“The work took on water issues related to community-based climate adaptation and its impact on water. We also engaged with innovative sanitation approaches. We were active members of the South African Water Caucus. But it was very difficult to raise funds and I ended up taking on consultancy work to cover costs of the NGO.”

It is sometimes said that there is no better place to develop your skills as a doctor, than a state hospital in South Africa, and the same probably applies to developing your skills as a water activist.

It is rough terrain, and sometimes you will not feel like you are achieving anything. But it is also precisely the environment that will help build up the mental and physical stamina required to become a genuine force for good in the global arena.

The Water Integrity Network is lucky to have Galvin, whether it is to deal with partners in Kenya, Bangladesh, or Mexico, where she is heavily involved today.

This kind of work can be incredibly thankless, but we should all be thanking Galvin for her courage and stamina.



Travesty of Tea

How an Age-old Industry is Fueling the WASH Crisis

Source: UNICEF:

Text: Siyabonga Mchunu

Between 2015 and 2016 Channel 4 aired what this author actually considered a pretty compelling British drama television series called *Indian Summers*, set in British-ruled India.

One reviewer described the show as “a work of subtlety, intelligence and some beauty”, and they were not wrong either, although I might have been tempted to say something along the lines of “exquisite beauty” - a reference to the extraordinary tea gardens owned and run by a character called Ramu Sood, played by Alyy Khan.

There are probably several takeaways one could draw from both seasons of the production, but in the context of this article there are perhaps just three.

Large-scale tea production in India is steeped in colonial roots, where a culture of exploitation would have undoubtedly come with the territory.

The vast majority of the people working a tea plantation were women - in fact the only men I saw in the show’s plantation performed management tasks.

The actual living conditions for staff on the Indian tea plantations were ghastly, at best.

But then again, this was just a fictional tale, told about 1930s India a different time...a different world. Surely, life on 21st century tea plantations does not mimic any of that, right? Well...

According to a paper published by the Indian Society of Labor Economics, women still outnumber men on tea plantations, accounting for more than half of the labor force on tea farms.

The same paper also clearly established that cheap labor remains one of the key goals for those operating tea plantations, although many of the major companies will no doubt distance themselves from that notion - almost as if they did not exist in a world of increased profits.



Image by Engin Akyurt from Pixabay

The authors of the report also reveal that most of the employment on tea plantations is family-based, which helps ensure the reproduction of unskilled labor on those plantations.

According to a WASH Situational Analysis on Tea Estates in Assam, conducted by UNICEF, women spend 56 percent of their day working on the tea plantation of their employer, while 17 percent of her day is spent cooking, 14 percent on child tending, 8 percent on cleaning, leaving her with just 5 percent of her day to herself.

While it is probably bad enough looking at all of this in the context of somebody in an office job who probably dedicates just eight hours of the day to work, the realization that so much of tea plantation work is back-breaking helps eat away at the soul.

Even in the 21st century, women working on Indian tea plantations are not working in an ideal setting, by any stretch of the imagination, and yet we have not even explored the nub of the matter, which is the state of water, sanitation, and hygiene (WASH), on tea plantations in India (or anywhere else for that matter).

As a point of departure when exploring this question, we should probably examine some of what the UNICEF report has to say about the state of WASH, even if it only deals with the tea plantations of Assam. So, here are some of the established facts.

Water

Findings from the report reveal that the household supply of water on tea plantations is unequal, whichever way you try to slice it.

Executives working in tea plantations have access to five times more water per day than that which is supplied to the labor quarters on those farms.

The manager's bungalows on the tea plantations have access to as much as 35 times more water than that which is supplied to the labor quarters on the same farm.

Laborers only have access to water at certain times of the day. Laborers are still heavily reliant on unprotected and unmonitored hand pumps and ring wells for their water supply.

Iron contamination in the water supply to the labor quarters was 50 percent higher than World Health organization standards, which is a worry even though some efforts are made to filter as much of that out before consumption.

Women working on the tea plantations surveyed have indicated issues with skin irritation, from exposure to contaminated water.

However, despite all that it is worth noting that 85 percent of the households surveyed boiled their water before consuming it, mitigating the risks associated with contaminated water.

It is also worth noting that the vast majority of households surveyed were satisfied with the color and taste of the water they were getting.

Sanitation

About 10 percent of the households surveyed did not have access to toilet facilities, while half of them admitted to open defecation, even if only as a last resort.

While 90 percent of the households surveyed revealed they had access to toilets, more than 73 percent of those were not running toilets.

The UNICEF survey also revealed that there were severe connection issues for toilets to septic tanks and leach pits, and that many of those tanks were full to capacity anyway. The practice of manual scavenging was still being practiced on some tea plantations, when septic tanks needed to be emptied, even though that practice has been banned.

All sludge cleared from these septic tanks was also dumped nearby, exposing locals to risks of contamination to their groundwater, especially during monsoon seasons.

Management of Solid Waste

About 55 percent of households were unable to dispose of their solid waste properly, because there was frankly nowhere to dump it, other than their backyards or in the communal trash can, which was constantly in a state of overflow.

Drainage

The vast majority of households surveyed (about 95 percent) did not have access to a closed water drainage system.

Hygiene

While there are clearly all manner of problems in the households surveyed on the tea plantations, there has clearly been an effort made to ensure that workers practice clean hygiene, and mitigate any health risks that might come with their working conditions.

Most households surveyed had access to soap and water, and washed their hands with soap and water regularly, and at important times (i.e after using a toilet or before preparing food).

Those conducting the survey on the tea plantations discovered there was an acute perception of disease among the workers on the plantation.

Another important takeaway here is that the subject of menstrual hygiene management is no longer a taboo on tea plantations, which has contributed in a meaningful way to about 95 percent of women working these farms having access to adequate material for this management, and suitable methods to dispose of the material.

While the conditions in the household appear to be mostly satisfactory, the real problems seem to manifest in the tea gardens themselves, where women spend most of their working day - more than half of it in fact.



Those conducting the survey could not find any evidence of latrines or urinals anywhere in the fields, and it was also established that far too often workers were forced to relieve themselves in the field, and even then as a last resort - for fear of there being no privacy.

That element of privacy is thought to have contributed in a significant way to increased bladder and kidney problems from working those fields.

And while there was water supply to workers in the field, the steps taken to prevent contamination of that water were not deemed entirely satisfactory, if at all.

There is clearly a considerable amount of work to be done by the owners of tea plantation gardens in Assam - and it should once again be pointed out that the report cited here is merely a reflection of the industry in the Assam region of India - which does beg the question of whether any WASH goals were being achieved in similar environments elsewhere around the world, whether that be on sugarcane plantations along the East Coast of South Africa, or mining hostels on that country's highveld.

Can enough monitoring ever be done?



Images: Wikipedia Common

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