

Water Under Fire

VOLUME 1

Emergencies, development and peace in fragile and conflict-affected contexts

Cover: Mohammad, 10, walks from Myanmar to the Kutupalong makeshift settlement for Rohingya refugees in Ukhiya, Cox's Bazar, Bangladesh. He made the journey on 15 September 2017, after his house was burned down and two of his brothers were fatally shot.

"My only dream is to survive," Mohammad said.

From 25 August to 5 September 2017 alone, more than 146,000 Rohingya refugees fled from Rakhine State, Myanmar, across the border into Cox's Bazar, Bangladesh. Up to 80 per cent of the new arrivals were women and children. Most people walked 50–60 km each day for up to six days and arrived in dire need of food, water and protection.

UNICEF is scaling up its response in Bangladesh to provide refugee children with protection, nutrition, health, and water and sanitation support. Demand has increased with more recent influxes of refugees, and UNICEF continues to mobilize more support and strengthen its existing activities.

Many more children in need of support and protection remain in the areas of northern Rakhine State that have been wracked by violence. UNICEF does not currently have access to the affected areas. Its clean water and sanitation work has been suspended, as have school repairs that were under way.

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Foreword

Every child has the right to water and sanitation. Yet every day, hundreds of millions of children go without. Globally, across fragile and conflict-affected contexts, 420 million children lack basic sanitation and 210 million children lack access to safe drinking water.

In fragile contexts, access to safe water and sanitation is often compromised; infrastructure is damaged, pipelines fall into disrepair and underdeveloped systems fail to meet immediate daily needs. Where no adequate water and sanitation services existed to begin with, the onset of conflict exacerbates the problem – particularly where water itself is a scarce resource, under increasing threat from a changing climate.

Humanitarian needs are on the rise: conflicts are more frequent, affect more people and last longer. In 2018, UNICEF reached 43.6 million people with emergency water supply.¹ And, from a development perspective, fragile and conflict-affected contexts have the furthest to go. Children living in extremely fragile settings are more than eight times as likely as children in non-fragile contexts to lack access to basic drinking water, and coverage of basic sanitation is even *decreasing* in nine fragile contexts.² With these basic needs unmet, children fall ill, schools and hospitals cannot function, and disease and malnutrition spread.

We can no longer respond to crises with humanitarian assistance alone; we must work towards building sustainable and resilient services that can help to create a more stable future for children and their families.

UNICEF launched the Water Under Fire campaign on 22 March 2019 to draw global attention to three fundamental areas where change – and, in particular, stronger leadership – is urgently needed to secure access to safe and sustainable water supply and sanitation in fragile contexts. This first volume of the report series is dedicated to the humanitarian–development–peace nexus, which links the 2030 Agenda for Sustainable Development, the United Nations sustaining peace agenda and the core responsibilities of the United Nations Secretary-General’s Agenda for Humanity.

In preparing this report, we have been inspired by the volume of practical, implementable solutions that can be replicated and scaled up, from Bangladesh, Ethiopia, Lebanon, Nigeria, Somalia, the State of Palestine, Yemen and beyond.

And through these examples we can see the powerful potential of water and sanitation interventions that bridge the humanitarian–development divide and contribute to building peace. Our courageous colleagues and partners demonstrate that we can make this vital shift in what we do and how we do it, but only if governments, humanitarian and development partners, finance institutions, the private sector and communities find new ways to work together.

As the world marks 30 years since the adoption of the United Nations Convention on the Rights of the Child, there has never been a more urgent time to safeguard the right to water and sanitation, for every child.

A handwritten signature in black ink that reads "Kelly Ann Naylor".

Kelly Ann Naylor

Associate Director,
Water, Sanitation and Hygiene (WASH) Section,
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Executive summary

Survival and development indicators differ starkly between the child born into an extremely fragile context and the child born into a stable, protected and developed country context. Children living in extremely fragile contexts are often more than eight times worse off across water, sanitation and hygiene (WASH) indicators. And they fare just as badly on WASH-related indicators such as health, nutrition and education. Today, more than 800 million children live in 58 fragile contexts, including more than 220 million children living in 15 extremely fragile contexts.³ By 2030, more than 80 per cent of the world's poorest people could be living in fragile contexts.⁴ Action is needed now to close this gulf of inequity before it widens further.

At the World Humanitarian Summit 2016, the then United Nations Secretary-General Ban Ki-moon advocated for unified support for the Agenda for Humanity, which builds upon the 2030 Agenda for Sustainable Development and links to the United Nations sustaining peace agenda. The convergence of core responsibilities under these agendas is particularly relevant in relation to Sustainable Development Goal (SDG) 6: Ensure availability and sustainable management of water and sanitation for all.⁵ This report is anchored on – and structured around – four of the five core responsibilities set out in the Agenda for Humanity.⁶ Unpacking each in turn, the report examines how to realize – through strengthening the resilience of the WASH sector in fragile and conflict-affected contexts – the core responsibilities to:

- Leave no one behind
- Prevent and end conflicts
- Change people's lives:
From delivering aid to ending need
- Invest in humanity.

Applying a humanitarian–development–peace lens, the report explores the nature of WASH service delivery in fragile and conflict-affected contexts, moving from the discussion of a conceptual framework to the contribution of tangible examples of best practice – from UNICEF and partners – to the evidence base.

All partners are called on to support the following change agenda, which is based on the examples of best practice:

Leave no one behind

Children in fragile and conflict-affected contexts experience multiple vulnerabilities and challenges. To ensure that no child is left behind calls for a human rights-based approach to WASH service delivery that is both multisectoral, where relevant, and transcends the humanitarian–development divide.

Governments, WASH sector, donors and other sectors are called on to:

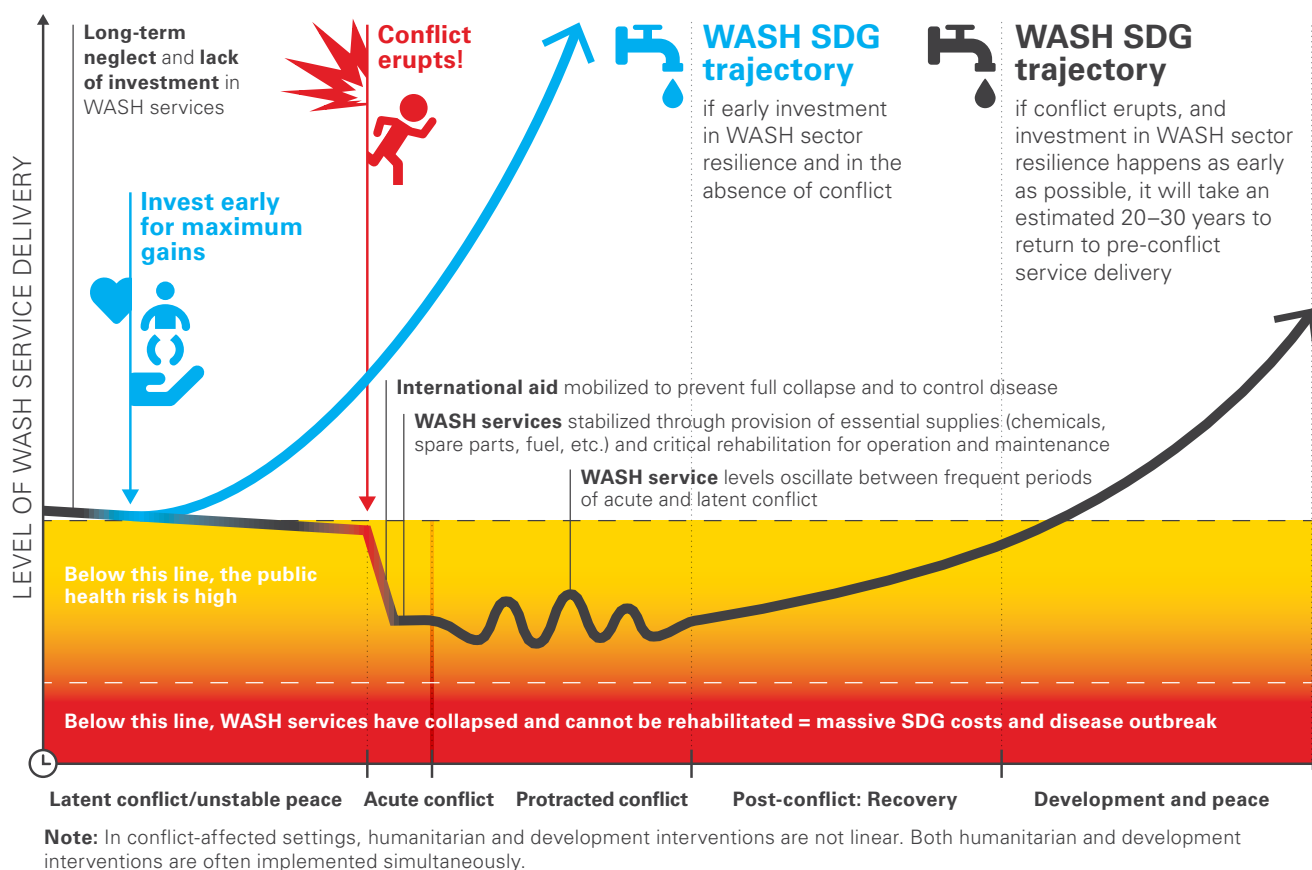
- realize the rights to water and sanitation for the entire community (host communities, internally displaced persons, refugees, migrants, women, girls and boys, persons with disabilities, etc.) through inclusive policies, planning and programming
- strengthen multisectoral collaboration where it is relevant to securing multiple outcomes for children.

Prevent and end conflicts

Exclusion from services such as water and sanitation can fuel grievances that can lead to violence. Understanding how WASH interventions intersect with larger social, political, economic, cultural and environmental factors is necessary to uphold the 'do no harm' principle, prevent violence and end conflicts.

- The WASH sector is called on to ensure that both humanitarian and development WASH interventions in fragile and conflict-affected contexts are conflict-sensitive as a minimum requirement.
- Governments, WASH sector and private sector are called on to adopt a more systematic and strategic approach to leveraging WASH interventions to address the drivers and dynamics of conflict and to sustain peace.

Framework for WASH Sector Resilience in Fragile and Conflict-affected Contexts



Change people's lives: From delivering aid to ending need

A change in approach from delivering aid to ending need in fragile and conflict-affected contexts is a **call to action** that will ensure that humanitarian needs are met, and the effects of hazards are absorbed and reduced, and disasters prevented, while protecting and accelerating progress towards the SDGs for water and sanitation.

As such, all actors are called on to support the overarching action to **strengthen the resilience of the WASH sector**. Guided by the Framework for WASH Sector Resilience in Fragile and Conflict-affected Contexts, the WASH sector is to apply a risk-informed approach, ensuring that emergency preparedness and prevention measures are incorporated into policies and strategies; planning, monitoring and review; institutional arrangements (service delivery, coordination and accountability); and capacity development (see above).

More specifically, this calls for actors to make the following changes:

Policies and strategies

- Donors and WASH sector (international partners) are called on to stay and invest during all phases and especially during conflict.
- Government, donors, banks and WASH sector are called on to:
 - invest in preparedness and prevention early, prior to the decline and collapse of the WASH sector
 - prevent WASH systems from collapse in both the acute and protracted conflict phases
 - address long-term water security
 - invest in renewable energy as a reliable, cost-effective and environmentally sustainable solution for powering water and sanitation systems during conflict.

Planning, monitoring and review

- Governments, WASH sector, Global WASH Cluster (GWC) and Sanitation and Water for All (SWA) are called on to:
 - integrate multi-year humanitarian and development appeals and planning processes based on a risk-informed approach
 - advocate for more durable solutions from the onset of an emergency
 - integrate humanitarian WASH indicators into existing government monitoring systems for development, especially indicators related to the inclusion of vulnerable groups
 - strengthen knowledge management systems on policy and programming across the humanitarian–development–peace nexus.
- Donors and banks are called on to increase the global humanitarian and development WASH envelope, as well as multi-year, unearmarked and flexible funding.

Institutional arrangements: Service delivery, coordination and accountability

- Government, WASH sector and private sector are called on to invest in resilient service delivery models, such as public–private partnerships, that can operate during conflict.
- Governments, WASH sector, GWC and SWA are called on to strengthen:
 - national and sub-national humanitarian and development coordination structures
 - governance (including government’s regulatory role) and accountability in the WASH sector, while ensuring accountability between government, service providers and end users.

Capacity development

- Government, donors, banks, WASH sector and private sector are called on to:
 - professionalize the WASH sector through the development of minimum benchmarks for coordination and programming
 - strengthen South-South learning.

Invest in humanity

New ways of working, new partnerships and innovative financing mechanisms are required to bridge the gap in financing WASH service delivery in fragile contexts to reach the most vulnerable children.

- Governments are called on to develop a policy position:
 - on who pays for what in WASH service delivery
 - that ensures that service provider operation and maintenance costs are fully covered as a prerequisite for attracting commercial financing.
- Governments, donors, banks and key WASH sector stakeholders are called on to:
 - establish public–private partnerships as a way of blending sources of finance and achieving results, while recognizing that they are complex instruments to set up and manage
 - convene to solve the financing gap, specifically by:
 - > developing policy environments under which service providers have more scope to borrow
 - > using concessional and grant financing to de-risk projects and encourage commercial lenders to actively participate in lending to service providers
 - > structuring investments in such a way as to attract financing – for example, by establishing public–private partnerships.



1. Introduction

This is a tale of two children: the child born into an extremely fragile context and the child born into a stable, protected and developed country context.

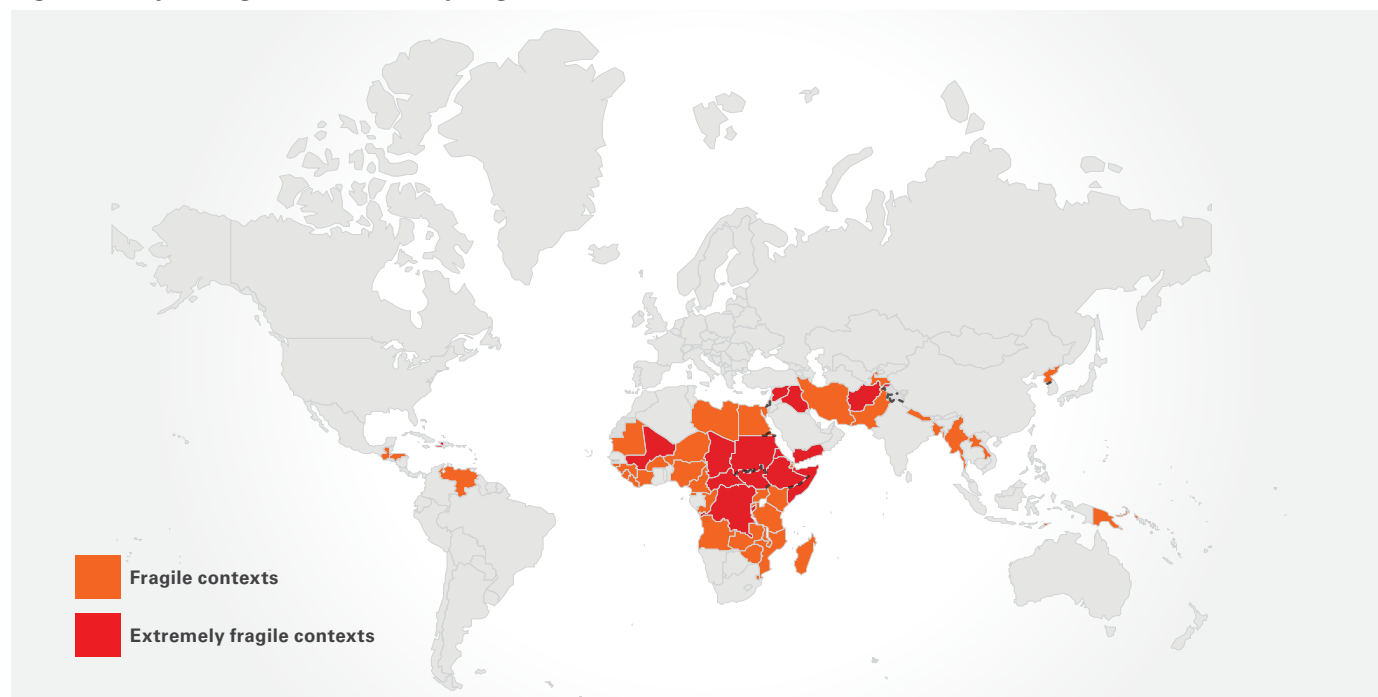
The difference in survival and development indicators is stark: Children living in extremely fragile contexts are worse off – in many cases, more than eight times worse off – across water, sanitation and hygiene (WASH) indicators as well as WASH-related indicators such as health, nutrition and education. Fragile contexts are marked by protracted conflict, water scarcity, climate change impacts, diseases such as cholera and Ebola, rapid urbanization, forced displacement and migration. More than 800 million children live in 58 fragile contexts across the globe, including more than 220 million children living in 15 extremely fragile contexts (see *Figure 1*).⁷ Of great concern is the prediction that more than 80 per cent of the world's poorest people could be living in fragile contexts by 2030, further widening the gulf of inequity.⁸

Without safe WASH services, children's rights to nutrition, health, protection and education are at risk: They are at

risk of malnutrition and exposed to preventable diseases including diarrhoea, typhoid, cholera and polio, which threaten their survival and development; they are vulnerable to sexual violence as they collect water or venture out to use communal latrines; and they deal with affronts to their dignity as they bathe and manage menstrual hygiene. In hospitals and community clinics, a lack of water and sanitation hampers treatment of injury and disease, and it compounds the health and nutrition risks caused by waterborne diseases. Without WASH services in learning environments, children face security risks and difficulties managing menstrual hygiene – dangers that can interfere with their enrolment, attendance and success in school. The situation is even more dire in low-income contexts affected by armed conflict, where WASH systems may be subjected to damage and destruction; to denial of essential services and supplies; and to deterioration and, eventually, collapse.

Fragility and armed conflict have increased worldwide over the last decade, displacing tens of millions of people globally – many of them children – and placing under strain the host communities that must deliver basic services such as water

Figure 1. Map of fragile and extremely fragile contexts



Source: United Nations Children's Fund, 2019, based on: Organisation for Economic Co-operation and Development, *States of Fragility 2018*, OECD Publishing, Paris, 2018, p. 85.

Note: This map does not reflect a position by UNICEF on the legal status of any country or territory or the delimitation of any frontiers. The dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. The final boundary between the Sudan and South Sudan has not yet been determined. The final status of the Abyei area has not yet been determined.

and sanitation to a growing population.⁹ While expanding WASH systems into areas where there are none is often paramount for saving lives, preventing the WASH sector and existing systems from deterioration and collapse in protracted crises must be a major priority of humanitarian responses – and closely linked to protecting and accelerating sustainable development efforts and opportunities to build and sustain peace. Achieving this means addressing short-term needs while strengthening long-term capacity. It requires building sector resilience that will ensure the rights to safe water and sanitation and prevent outbreaks of disease and malnutrition while mitigating tensions over water and sanitation resources and services. And it demands that humanitarian and development organizations align from the start, and consider the fragility and conflict dynamics in which interventions are taking place, to support interventions that are conflict-sensitive and to establish WASH sector resilience.

Agenda for Humanity: A decisive commitment to ending suffering

At the World Humanitarian Summit 2016, the then United Nations Secretary-General Ban Ki-moon advocated for unified support for the Agenda for Humanity, which builds upon the 2030 Agenda for Sustainable Development and links to the United Nations sustaining peace agenda.¹⁰ The convergence of core responsibilities under these agendas is particularly relevant in relation to Sustainable Development Goal (SDG) 6: Ensure availability and sustainable management of water and sanitation for all.¹¹ Indeed, the global aspirations of the SDGs – and in particular the 2030 Agenda’s central theme, *Leave no one behind* – cannot be achieved without significant progress in fragile and conflict-affected contexts. In such settings, the Agenda for Humanity seeks to “prevent and end suffering more decisively and with more capacity, resolve and resources.”¹² Governments and international organizations, aid providers and the private sector, local communities and individuals were all called upon by the Secretary-General to “commit to implementing concrete initiatives aimed at making the Agenda a reality.”¹³

When the current Secretary-General António Guterres took his oath of office, he laid out the following vision in alignment with the Agenda for Humanity: “We must . . . bring the humanitarian and development spheres closer together from the very beginning of a crisis to support affected communities, address structural and economic impacts

and help prevent a new spiral of fragility and instability. Humanitarian response, sustainable development and sustaining peace are three sides of the same triangle.”¹⁴ This interconnection has come to be known as the ‘humanitarian–development–peace nexus’ and it has been articulated in policy, frameworks, guidance on action and legal instruments to guide donor funding. In his ‘prevention vision’, the Secretary-General also cites the twin resolutions on sustaining peace, along with the SDGs, as critical to addressing the multidimensional risks that can lead to insecurity in the modern world. It is crucial to ensure that the outbreak of crisis, violence and disaster is averted through preventative measures and new approaches in the international system.¹⁵

A report anchored on the Agenda for Humanity

In support of this approach, this Water Under Fire report is anchored on – and structured around – four of the five core responsibilities set out in the Agenda for Humanity.¹⁶ Unpacking each in turn, the report examines how to realize – through strengthened WASH service delivery in fragile and conflict-affected contexts – the core responsibilities to:

- Leave no one behind
- Prevent and end conflicts
- Change people’s lives:
From delivering aid to ending need
- Invest in humanity.

The report explores the nature of WASH service delivery in fragile and conflict-affected contexts and contributes new case studies on best practices – from UNICEF and partners – to the evidence base. Its intended audience comprises governments, donors, development and commercial banks, United Nations agencies, non-governmental organizations (NGOs) and private sector stakeholders across humanitarian and development sectors in WASH. Following an overview of global trends in conflict and fragility, the report unpacks the evidence around the multiple vulnerabilities, deprivations, disadvantages and discrimination a child faces as a result of poor water and sanitation in fragile and conflict-affected contexts to understand how to avoid any child being left behind. Next, it explores how WASH services can both be a cause of conflict and provide opportunities to build and sustain peace.

The key focus areas of the report are how to change people's lives by ending need, and ways to invest in humanity. The report reveals the importance of addressing WASH service delivery by applying a humanitarian–development–peace lens. The report supports 'localization' by encouraging solutions that, wherever possible, complement and strengthen the existing national and local WASH sector. Crucially, the report sets out a change agenda for strengthening WASH sector resilience in fragile and conflict-affected contexts by transcending the humanitarian–development–peace divide, which is based on examples of best practice. These best practices are in

turn based on a set of internationally agreed WASH sector 'building blocks': policy and strategy; planning, monitoring and review; institutional arrangements; capacity development; and financing.¹⁷ The relevant change agenda actions are outlined at the end of each of the four main sections of this report.

Implementing this change agenda in full will ensure that the rights to water and sanitation for all are realized in humanitarian settings – while at the same time moving towards sustainable development and peace.





2. Overview of global trends in conflict and fragility

This section takes a brief look at recent and current global trends in conflict and fragility as they relate to water and sanitation and to the provision of these basic services to the world's most vulnerable children and their families.

The world has become increasingly violent in the last decade, and the new threats and resulting trends that have emerged are affecting both middle- and low-income countries, particularly in urban areas.¹⁸ Ancient cities such as Aleppo, Mosul and Taiz have been destroyed in recent warfare – causing widespread suffering and catastrophic damage to infrastructure, and weakening the delivery of basic services.¹⁹ Civilian deaths as a result of armed conflicts doubled from 2010 to 2016, with an increasing number of civilians – children and women included – dying from indirect effects of conflict such as unmet medical needs, food insecurity, malnutrition, inadequate shelter or contamination of water.²⁰ As this overview shows, when conflicts affect access to WASH services, other sectors such as health, protection and education also suffer, further restricting access to their basic rights for children and for entire communities. In addition, growing challenges across fragile contexts – including climate change impacts, population growth (the world population is expected to reach 9.7 billion by 2050, an increase of 2 billion people)²¹ and migration, rapid urbanization, malnutrition, and new and persistent epidemics like Ebola, Zika and cholera – may compound the difficulties of providing safe water and sanitation for families.

Water and sanitation in conflict-affected contexts

In 2018, there were more than 50 active armed conflicts around the globe.²² The total number of people needing humanitarian assistance reached a global historical record in 2018, affecting 120 million people;²³ this included 70.8 million people forcibly displaced from their homes.²⁴ The Syrian conflict alone has given rise to a staggering 11.6 million refugees and internally displaced persons as at December 2018, leading to a refugee crisis that has affected neighbouring middle-income countries including Egypt, Iraq, Jordan, Lebanon and Turkey. These countries, and the host communities within them that support refugees, which are often located in urban areas, are under strain to ensure the delivery of basic services such as access to safe water and sanitation.²⁵ Other middle-income countries affected by prolonged violence and conflict include Libya and Ukraine.

In 2017, more than half of Libya's schools did not have access to quality drinking water or sanitation facilities, while the country's entire water infrastructure was under threat from attacks and sabotage.²⁶ If Libya's three primary water service providers do not receive critical operation and maintenance (O&M) support as well as institutional strengthening, 6 million people could lose access to adequate water.²⁷ In Ukraine, the shelling of already outdated water facilities and networks – located in the vicinity of the 'contact line' between government-controlled territories and non-government-controlled territories – puts at risk the water supply for more than 3.9 million people, and jeopardizes the treatment of wastewater in sewage treatment plants, which may lead to contamination of water resources.²⁸

The situation is even more dire in low-income countries affected by armed conflict. In Yemen, more than four years of aerial bombing and ground engagement have adversely affected the country's WASH infrastructure, leaving an estimated 18 million people unable to access clean water and sanitation, and weakening the WASH sector at large.²⁹ Sieges and blockades by parties to the conflict have led to fuel shortages and reduced availability of spare parts, restricting access to clean water and wastewater treatment capacity, and raising the price of water trucking.³⁰ South Sudan's ongoing and brutal civil war, involving widespread human rights abuses and war crimes, as recently captured in a United Nations report, has also created a sustained, complex emergency.³¹ Nearly half of the population (41 per cent) cannot access safe drinking water due to conflict and poor management of the limited resource, resulting in varying degrees of crisis by geographical area.³² Countries in the Sahel region of Africa – including Burkina Faso, Cameroon, Chad, Mali, the Niger and Nigeria – experienced increases in political violence and in inter-communal violence in the first quarter of 2019.³³ The situation in the Sahel also highlights how inequality, marginalization, exclusion, poor governance, weak institutions and sectarian divides in combination with persistent droughts and desertification can contribute to resource scarcity (arable land and water).³⁴ In turn, this can increase the susceptibility of those affected to negative coping mechanisms, and abuse and exploitation, including, for example, recruitment by armed groups.³⁵

Water: Connector or divider?

While the intersection of climate change, resource scarcity and conflict is acute in the Sahel, it is not the only region where water scarcity is an issue that can potentially lead to

conflict. Water is at risk of becoming a ‘threat multiplier’ for conflict in other geographical regions and riparian countries – including in the Middle East, the Nile Basin and Mekong River Basin, between India and Pakistan in the Indus River Basin, and between Afghanistan and the Islamic Republic of Iran.³⁶ Nearly 4 billion people – roughly half of the world’s population – are affected by severe water scarcity for at least one month each year, and approximately 2 billion of this number suffer severe water scarcity for at least six months of the year.³⁷ Continuous population growth, unsustainable economic development and climate change may exacerbate water scarcity, further heightening the risk of disputes over water arising both locally and between riparian countries.

And yet, water has more often served as a connector than as a divider. While recognizing the risks associated with water in fragile and conflict-affected contexts, there are also opportunities: Evidence clearly shows how water resource management can serve as an entry point for dialogue that addresses a wider range of issues and results in collaboration, and even treaties, between opposing parties.³⁸ Joint mechanisms/commissions established by states that share watercourses – such as the Permanent Indus Commission (India-Pakistan) and the Senegal River Basin Development Organization – have continued their work and served as a means of communication (sometimes the only one) between the parties, even during armed conflicts.³⁹

Water’s power to connect also extends to the provision of essential services in situations where the front line of a conflict bisects the service coverage area of an essential service such as water supply, sewerage and/or electricity supply. Typically, the provision of water and electricity across front lines creates a more conducive environment for dialogue, in support of a mutual interest in restoring services, especially when the services either originate on opposing sides (e.g., in Dara’a, Syrian Arab Republic, prior to 2019, where water originated on the opposition-held side and energy supply on the government-held side) or criss-cross the contact line (e.g., in Ukraine, where the Voda Donbasa water supply originates on the government-held side, flows into the opposition-held side, and then flows back into the government-controlled areas in multiple locations – all the while serving millions of people).⁴⁰ This dynamic has played out prominently in urban areas of Iraq, Libya and Yemen as well as the Syrian Arab Republic and Ukraine. For humanitarian actors, humanitarian principles can help to guide this dialogue, in particular when it comes to ensuring inclusive coverage of such services to all

civilians, regardless of race, ethnicity, religious belief and/or political affiliation.

Defining fragility more broadly

Armed conflict and fragility are deeply intertwined yet distinct concepts; fragility includes conflict but, taken more broadly, encompasses a diverse and multifaceted set of issues. Definitions, methodologies, data sets and specific criteria for identifying contexts of fragility vary across key development actors, including the World Bank, Organisation for Economic Co-operation and Development (OECD), Department for International Development (United Kingdom of Great Britain and Northern Ireland) and New Deal for Engagement in Fragile States. The present report uses the OECD States of Fragility Framework (2018), which identifies 58 fragile contexts and provides useful guidance for understanding fragility and prioritizing action and engagement.⁴¹

According to OECD, “Fragility is defined as the combination of exposure to risk and insufficient coping capacity of the state, system and/or communities to manage, absorb or mitigate those risks. Fragility can lead to negative outcomes including violence, the breakdown of institutions, displacement, humanitarian crises or other emergencies.”⁴² Fragility is defined by OECD as a shifting and multidimensional phenomenon in which an extensive set of economic, political, societal, environmental and security factors converge to manifest as risks and coping capacities specific to the particular context at that moment in time. While this list of factors that may contribute to fragility is not exhaustive, each factor is instructive of a host of dynamics.

Water and sanitation in fragile contexts

The above factors have influenced decades of WASH sector neglect or deficiency in fragile contexts, resulting in unreliable and inefficient services that are increasingly at risk of failure (or no services at all).⁴³ This neglect is compounded by the effects of conflict on a country’s economy and on its institutions – effects that can take a generation to restore, much longer than the time frames for recovery from either natural disasters triggered by extreme climatic events and seismic activities, or from an economic downturn.⁴⁴ In such contexts, water service providers struggle to recover from consumers the minimum required O&M costs and, in turn, find it hard to attract financing from banks. Maintaining a positive cash flow becomes yet more difficult as service providers lose their market share, as consumers are

increasingly forced to turn to either unsafe sources such as surface water, or to more expensive options such as water trucking and bottled water. Such alternatives can provide a contingency water supply during conflict, but can disadvantage poor and vulnerable children and their families, who are forced to spend a higher proportion of household income on a smaller quantity of safe drinking water.

On top of this, the WASH sector is under increasing pressure to provide effective humanitarian and development solutions to various growing challenges. In 2017, there were an estimated 258 million international migrants worldwide, with the majority of them residing in urban areas.⁴⁵ Coupled with forced displacements, and based on estimates suggesting that 68 per cent of the global population will be urban dwellers by 2050,⁴⁶ this will place enormous strain on existing urban WASH services that were not designed for such rapid urbanization. Some regions will be more affected than others: The United Nations projects that population growth to 2030 will disproportionately take place in Africa and Asia, with the highest fertility rates in countries such as the Niger and Nigeria.⁴⁷ The explosion of new epidemics such as Ebola and Zika in recent years has challenged the WASH sector to both identify and realize its critical role in controlling these diseases. Persistent diseases such as cholera – which is an indicator of the failed provision of long-term water and sanitation services – is endemic in

47 countries.⁴⁸ Most of these contexts are fragile, with war-torn Yemen the location of the most recent explosion of cholera, which was first detected in late 2016 and erupted in 2017 (the epidemic is ongoing at the time of writing). That outbreak has been linked to decades of WASH sector neglect, and poor coverage, that reached the point of failure when conflict erupted in 2015.⁴⁹

Climate change impacts, meanwhile, are already contributing to a growing water crisis that puts millions of children at risk. Changes in precipitation, extreme weather events, increasing temperatures, and sea level rise negatively affect the availability and quality of drinking water and undermine sanitation and hygiene services.⁵⁰ Climate change is expected to cause more frequent heatwaves and more frequent and intense droughts and floods in the coming years. A warming climate will accelerate the cycle of evaporation, condensation and precipitation, reducing how much water seeps into groundwater aquifers and flows into surface water sources. Climate change will also cause more intense Atlantic hurricanes and global tropical cyclones – with both increased rainfall and storm surge – affecting safe water and sanitation still further.⁵¹ These factors exacerbate the effects of conflict and fragility on water and sanitation systems, fuel migrations and indirectly affect the hunger and health of entire populations.





3. Leave no one behind

Children in fragile and conflict-affected contexts experience multiple vulnerabilities and challenges. To ensure that no child is left behind calls for a human rights-based approach to WASH service delivery that is both multisectoral, where relevant, and transcends the humanitarian–development divide.

Leave no one behind is the “central theme of the 2030 Agenda and places a new obligation on us all to reach those in situations of conflict, disaster, vulnerability and risk first so that they benefit from and contribute to sustainable long-term development.”⁵² It is also a core responsibility of the Agenda for Humanity, which aims to address the rise in protracted displacement around the world as well as the growing number of inequalities – cutting across gender, age and disability – faced by vulnerable groups such as children.⁵³

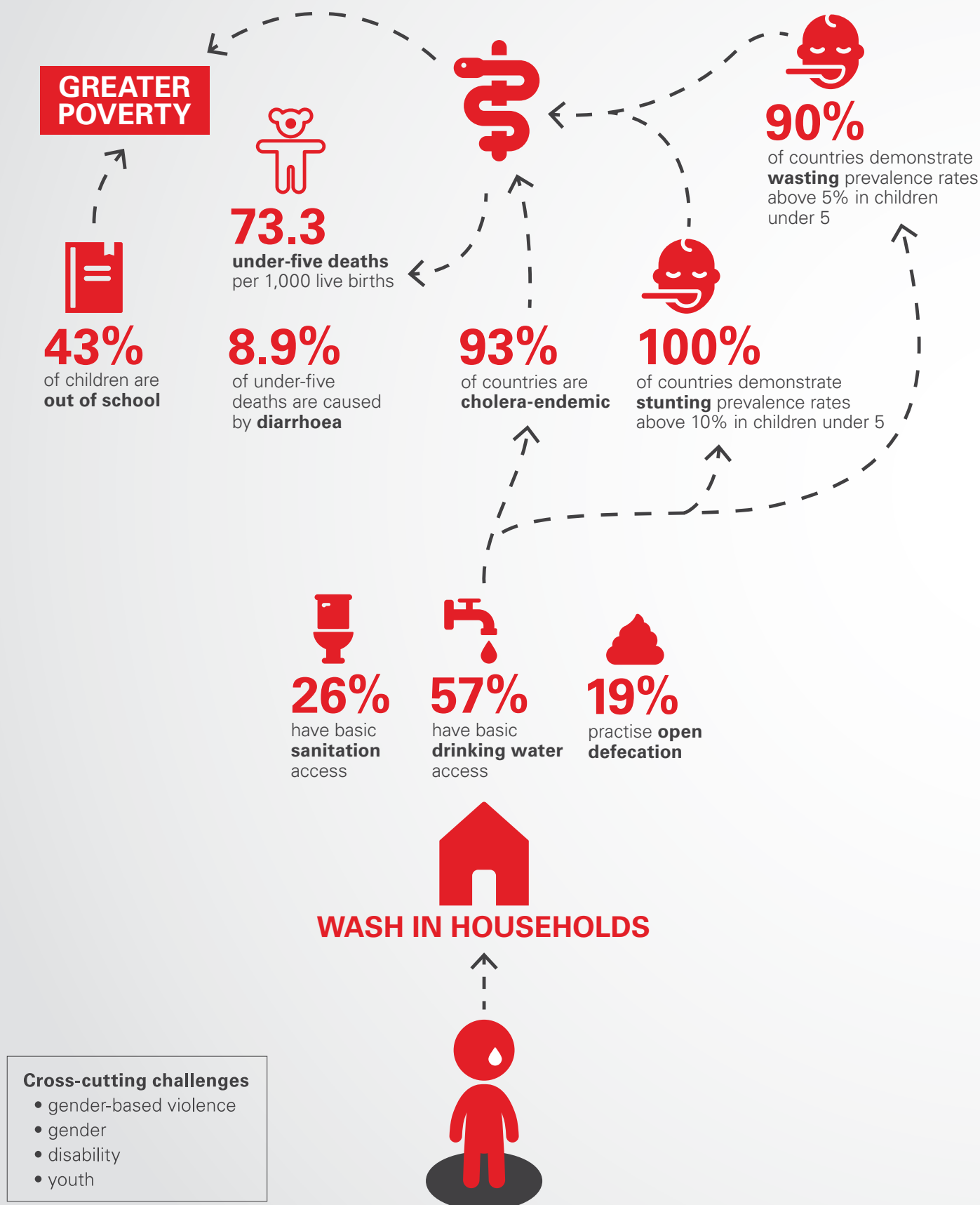
3.1 Multiple vulnerabilities of children living in fragile and conflict-affected contexts

Access to water and to sanitation are not only rights in themselves but they also contribute to the realization of other child rights such as health, nutrition and education. For example, quality WASH services contribute to the prevention of diarrhoea and malnutrition, which lowers a child’s disease burden and has a positive impact on reducing household poverty. Realization of these child rights varies greatly depending on the context into which a child is born. This is a tale of two children: the child born into an extremely fragile context and the child born into a stable, protected and developed country context (*see Figure 2, left and right hand side respectively*). Outcomes for children in extremely fragile contexts are bleak due to poor access to water and sanitation, which contributes to high rates of morbidity, mortality and malnutrition and low levels of school attendance, all of which serve to perpetuate a vicious cycle of poverty for families and communities. The multiple vulnerabilities, deprivations, disadvantages and discrimination faced by children in fragile and conflict-affected contexts are explored in turn over the following pages.

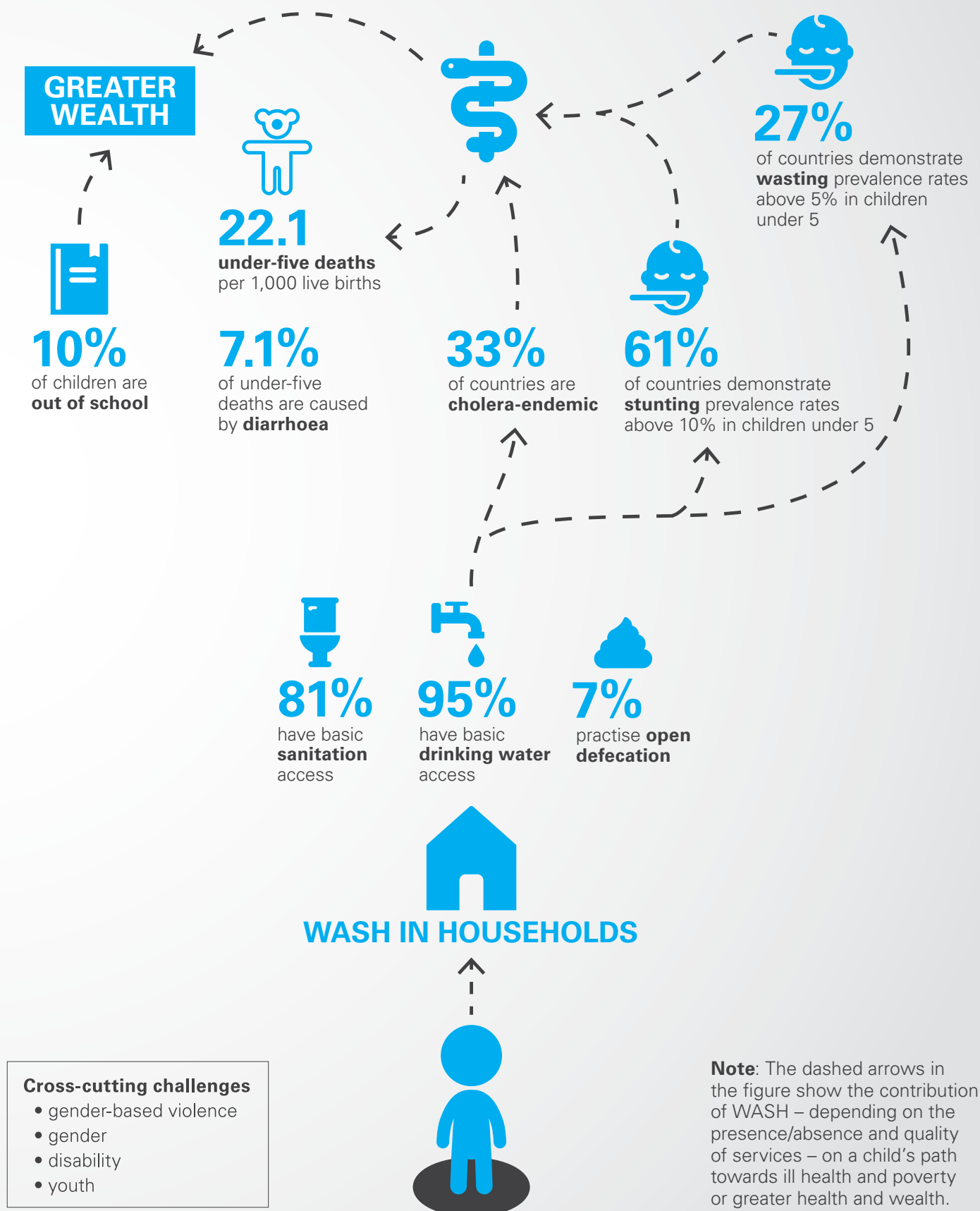
Access to water and to sanitation are not only rights in themselves but they also contribute to the realization of other child rights such as health, nutrition and education.

Figure 2. A tale of two children: Born into an extremely fragile context or a non-fragile context

A TALE OF TWO CHILDREN: BORN INTO AN EXTREMELY FRAGILE CONTEXT



A TALE OF TWO CHILDREN: BORN INTO A NON-FRAGILE CONTEXT

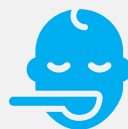




WASH: Alarming low proportions of households in extremely fragile contexts have access to basic water and sanitation services (57 per cent and 26 per cent respectively). Compared with non-fragile contexts, children in extremely fragile contexts are more than eight times as likely to lack basic drinking water and almost four times as likely to lack basic sanitation.⁵⁴ Open defecation rates are high (19 per cent) – almost three times the rate in non-fragile contexts. Section 5 of this report expands on WASH-related inequities within fragile contexts in more detail, demonstrating that, in most cases, fragile contexts are not on track to achieve the SDGs for water and sanitation by 2030.



Health: Poor water and sanitation is a leading contributor for diarrhoea, which is responsible for 8.9 per cent of under-five deaths in extremely fragile contexts.⁵⁵ Under-five mortality is more than three times greater in extremely fragile contexts, at 73.3 deaths per 1,000 live births compared with 22.1 deaths per 1,000 live births in non-fragile contexts.⁵⁶ Communities that are poor and vulnerable, and places without readily accessible safe water, sanitation and health care suffer disproportionately from diarrhoeal diseases.⁵⁷ One of the deadliest diseases that causes diarrhoea is cholera, which is endemic in 93 per cent of extremely fragile contexts.⁵⁸ Cholera can kill within hours through rapid dehydration, and outbreaks of the disease are often attributed to the failure of long-term WASH systems and behaviours.



Nutrition: Chronic malnutrition among children under 5 years of age is found in 100 per cent of extremely fragile contexts – i.e., each context demonstrates stunting prevalence above 10 per cent in children under 5 – compared with 61 per cent of non-fragile contexts.⁵⁹ The prevalence of acute malnutrition among children under 5 years of age is also concerning: 90 per cent of extremely fragile contexts demonstrate wasting prevalence above 5 per cent in children under 5, compared with 27 per cent of non-fragile contexts.⁶⁰ Most emergencies occur in settings where children already suffer from chronic malnutrition. In recognition of this, the European Commission Civil Protection and Humanitarian Aid Operations (ECHO) department, in its nutrition strategy, advocates for both nutrition-specific and nutrition-sensitive programmes (including WASH programmes) to tackle both chronic and acute malnutrition and in the process bridge the humanitarian–development divide.⁶¹



Education: A staggering 43 per cent of school-aged children (across primary and secondary education) in extremely fragile contexts are out of school, compared with 10 per cent of children in non-fragile contexts.⁶² Though evidence linking WASH in schools to improved school attendance and better learning outcomes is weak, data indicate that girls worldwide are more likely to drop out of school or not even enrol in the first place⁶³ – in part due to concerns around menstrual hygiene management. A small but growing body of evidence suggests that gender-sensitive WASH programmes may be a driver for schoolgirls to both participate more fully in school and stay in school. In Zambia, for example, the ratio of female to male enrolment was raised, and absence and drop-out rates for girls reduced, through the provision of improved sanitation facilities for girls.⁶⁴



Disability: About 110 million persons with disabilities worldwide do not have access to improved WASH services.⁶⁵ Conflicts and

disasters disproportionately affect persons with disabilities and their families, and are among the main causes of disabilities. Children are three times as likely to be injured or permanently impaired than killed in conflict,⁶⁶ and there is some evidence that disability inclusion in emergency and disaster management reduces morbidity and mortality.⁶⁷



Gender-based violence (GBV):

Though systematic gathering of evidence on WASH and GBV in emergency and development contexts is challenging due to the sensitive nature of GBV, reports of many cases exist. For example, a programme run by UNICEF from 2009 to 2010 in the Democratic Republic of the Congo's North Kivu province linked WASH, protection and health in the prevention of GBV.⁶⁸ The connection between sanitation and GBV became apparent due to a lack of private latrines: As a result, women had no choice but to find private places to defecate, often at night and at a considerable distance from their homes, putting them at increased risk of sexual assault. Women also faced violence – including rape – when collecting water from springs outside of the village.⁶⁹ A joint report by the Office of the United Nations High Commissioner for Refugees (UNHCR) and Save the Children documented the experiences of refugee children in camps in Guinea, Liberia and Sierra Leone: Children most often reported experiences of rape in connection to using the toilet or taking a bath, and described men lying in wait for them to enter toilet blocks.⁷⁰

3.2 Linking humanitarian and development action through an integrated, multisectoral approach

Reversing the multiple vulnerabilities, deprivations, disadvantages and discrimination that children face in fragile and conflict-affected contexts calls for an approach that identifies and includes vulnerable groups, and is both multisectoral, where relevant, and transcends the humanitarian–development divide. Only in this way can we successfully target the most vulnerable and ensure that no child is left behind. The following two case studies based on the experiences of UNICEF, government and partners in Haiti and in South Sudan demonstrate why such an approach is critical.





Case study

A multisectoral approach to eliminating cholera in Haiti that links humanitarian and development action⁷¹



To eliminate cholera in Haiti, the WASH and health sectors have converged to integrate humanitarian and development action to target the most vulnerable populations in cholera hotspots.

The Global Task Force on Cholera Control (GTFCC) has set out a road map towards eliminating cholera globally by 2030.⁷² The road map identifies three strategic axes for elimination, which rely upon the integration of humanitarian response and development work. The first, humanitarian-focused axis aims to ensure that countries have in place early detection mechanisms and rapid response teams to deal effectively with cholera cases. The second, development-focused axis aims to prevent cholera outbreaks by targeting cholera hotspots with long-term WASH and health interventions. According to a 2019 cholera investment case by GTFCC, every US\$1 spent on long-term cholera elimination translates into US\$10 of benefits – demonstrating how improved WASH services provide multiple benefits.⁷³ GTFCC is highlighting this impressive return on investment to advocate for cholera-endemic countries to prioritize long-term WASH investment in cholera hotspots.⁷⁴ By doing so, they will not only rid a country of the scourge of cholera, but also benefit the most vulnerable – including children and their families – and move the country towards meeting the water and sanitation targets of the SDGs. The third axis focuses on ensuring effective coordination and partnership at the local, regional and global level across government, the private sector, civil society, United Nations agencies and international non-governmental organizations (INGOs), as well as between health and WASH sectors and across humanitarian and development partners.

Despite multiple challenges posed by fragile institutions and systems, Haiti has merged humanitarian response and development actions across the WASH and health sectors and engaged multiple stakeholders across all levels of government in its efforts to eliminate cholera. Results and evidence following several years of implementing this approach demonstrate that the strategy is proving successful and could be adapted and replicated in similar contexts worldwide. The multiple actions carried out so far across the aforementioned three axes align with the Government of Haiti's National Plan for the Elimination of Cholera in Haiti 2013–2022,⁷⁵ and are set out below:

Axis 1 – Coordination: Coordination between all levels – from the highest tier of government to actors on the ground – has played a critical role in Haiti's great strides towards cholera elimination. The High-level Committee for the Elimination of Cholera in Haiti, which comprises representatives of line ministries, United Nations agencies and the World Bank, and which reports to the President of Haiti, helps to ensure that all stakeholders collaborate and are accountable for moving the agenda towards the elimination of cholera. Technical and operational review committees – comprising representatives from government, United Nations agencies and civil society – meet on a regular basis (as often as weekly during peaks in an outbreak) and report to the High-level Committee, ensuring strong technical input into decision-making as well as the inclusion of multiple partners.

Axis 2 – Early detection, preparedness and response: In Haiti, epidemiological surveillance is mainly used in the fight against cholera to enable the immediate detection of new cases; a response solution can then be delivered to the right place at the right time. Studies have shown that the risk of being infected with cholera is higher within a 200-metre radius of the first case and within a five-day window of its diagnosis.⁷⁶ Responding quickly and effectively to stop transmission therefore rests upon knowing the exact location, in real time, of each suspected case of cholera. In Haiti, UNICEF-supported rapid response teams are mobilized to respond within 24 to 48 hours to both the infected household and surrounding households; ensuring early detection and a complete response within just 24 hours of an alert was found to reduce the size of 176 localized outbreaks by an impressive 74 per cent and their duration by 64 per cent.⁷⁷ After more than six years of running and fine-tuning the response system with highly satisfactory results, additional preparedness and prevention



Haiti

Despite the important results achieved to date, financing long-term WASH interventions still remains a major constraint for Haiti. Yet, on 20 July 2019, there had been no confirmed cholera cases nationally for 22 consecutive weeks.

measures have been put in place. Both the cholera-specific surveillance system and the rapid response teams are now fully integrated into existing Ministry of Public Health and Population systems, to detect and respond to cases of not only cholera but also other waterborne and infectious diseases. This will reinforce the national health system in the long run.

Axis 3 – Prevention through long-term WASH and health interventions in cholera hotspots: UNICEF and partners conducted several scientific research studies and successfully used the recommendations that emerged from these to demonstrate the link between cholera outbreaks, poor water and sanitation coverage, and high-risk hygiene practices among the population in four urban zones considered the main cholera hotspots in Haiti. The numerous risk factors among these populations included access to fewer than 12 hours of water supply per week by the public water supply networks; inconsistent chlorine residual levels in the water supply; dependence on untreated surface water or unprotected wells and boreholes; and high rates of open defecation, especially around crowded public spaces (e.g., markets, bus stations). The results of the studies were used with bilateral donors to advocate for the prioritization of long-term investment in WASH interventions as a prevention measure, focusing first on cholera hotspots.

Despite the important results achieved to date, financing long-term WASH interventions still remains a major constraint for Haiti. Yet, on 20 July 2019, there had been no confirmed cholera cases nationally for 22 consecutive weeks.⁷⁸ For Haiti, elimination of cholera is in sight.



All stakeholders collaborate and are accountable for moving the agenda towards the elimination of cholera.



**\$10
of benefits**

for every \$1 spent on long-term cholera elimination.



Case study

Role of WASH and gender sectors in addressing short- and long-term malnutrition in South Sudan⁷⁹



An integrated gender, WASH and nutrition project in South Sudan educated and empowered households to address malnutrition and at the same time reduced the incidence of GBV.

South Sudan's protracted crisis is aggravated by high levels of armed conflict, a chronic economic crisis and food insecurity. Despite the recent peace agreement, 7.1 million people are today in dire need of humanitarian assistance

according to the *South Sudan Humanitarian Needs Overview 2019* produced by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA).⁸⁰ Addressing both short- and long-term determinants of malnutrition is challenging in a country that has witnessed decades of annual cycles of humanitarian response. While there is limited evidence of the positive impact of WASH services on nutrition outcomes, observational data often find a link between WASH factors and chronic malnutrition such as stunting, with a growing body of evidence supporting links with acute malnutrition.⁸¹

In South Sudan, social and cultural norms have historically limited women's access to education and decision-making power, and high rates of GBV have been experienced by women. In a safety audit conducted by Action Against Hunger, women typically identified having to travel long distances (especially during the evening and at night) as the main barrier to accessing WASH services such as water points and defecation areas, since this exposes women and children to GBV risks related to sexual harassment, violence and exploitation.⁸² Women and girls also reported frequently experiencing sexual harassment related to stigma around menstrual hygiene and practising open defecation.⁸³ These dynamics restrict women's and girls' ability





South Sudan

Addressing both short- and long-term determinants of malnutrition is challenging in a country that has witnessed decades of annual cycles of humanitarian response.

to maintain proper hygiene and sanitation practices, directly increasing their risk of disease.

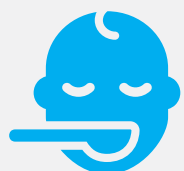
Action Against Hunger responded with an integrated gender, WASH and nutrition project that delivered a package of activities to educate and empower households to address interconnected health risks such as diarrhoea and malnutrition. The project was implemented within the catchment areas of 12 outpatient treatment programme sites in Aweil East county in Northern Bahr el Ghazal state. From January 2018 to April 2019, the project was able to successfully address 10,798 cases of acute malnutrition through a combination of nutrition-specific and nutrition-sensitive interventions (including WASH interventions) to address both short- and long-term malnutrition. WASH and gender were used as key enablers of each other's success. Providing access to safe water and basic sanitation close to the home significantly reduced GBV and the reduction of GBV was a significant factor in motivating community participation.



7.1 million

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10,798

cases of acute malnutrition

successfully addressed through the integrated gender, WASH and nutrition project.

3.3 Specific vulnerabilities faced by displaced persons, including children

Refugees and internally displaced persons represent two particularly vulnerable and disadvantaged groups, who may be discriminated against and denied access to basic WASH services. Eighty per cent of internally displaced persons⁸⁴ and 60 per cent of refugees⁸⁵ are accommodated by host communities in 'out-of-camp' situations, in which it is a constant challenge to target services equitably given the unique vulnerabilities of displaced populations and the existing vulnerabilities within host communities. The delivery of services to one group and not the other, or in a manner that the host community perceives as inequitable, has led to tensions arising between displaced persons and host communities.

In fragile and conflict-affected contexts, the United Nations Special Rapporteur on the human rights to water and sanitation has called on governments, donors and humanitarian and development actors to ensure the rights of all vulnerable groups – especially displaced persons, including children – within a community, such that the rights to sustainable water and sanitation are progressively realized for all.⁸⁶ All groups, especially those that are vulnerable, should be given access to information on WASH services and disease prevention, and enabled to participate fully in the planning of WASH service allocation and management. Governments and service providers should be accountable to the community, and the community accountable for its own role.



Case study

Refugee integration into host communities through basic WASH services⁸⁷



In Ethiopia, the Global Compact on Refugees has provided a framework for ensuring resilient water and sanitation services for both refugees and host communities, at the same time aiding refugee integration by alleviating a source of tension between the two groups.

In response to the challenge of peacefully integrating displaced persons into host communities and ensuring their right to immediate and long-term services, the United Nations General Assembly affirmed in 2018 the Global Compact on Refugees (GCR). This provides a 'do no harm' framework and a programme for action to support refugees and other displaced populations to ensure that their presence neither creates nor exacerbates tensions with host communities (*for more on the do no harm principle, see section 4*).⁸⁸ The GCR seeks to ease pressures on countries that host large numbers of displaced persons by ensuring that interventions benefit both these populations and host communities, and also enhance the self-reliance of displaced persons, while reducing resource competition. Embedded within this approach are elements of conflict sensitivity and conflict prevention, and also a commitment to strengthening social cohesion. States are encouraged to pursue policies and development planning – particularly around 'alternatives to camps' – that are inclusive of refugees, asylum seekers, stateless persons and internally displaced persons and which support their integration into existing urban and rural communities.

The GCR has been successfully implemented in Ethiopia, which currently hosts some 900,000 refugees from

20 countries. Until recently, the prevailing paradigm of aid focused on donors funding NGOs to rehabilitate, construct and operate water systems for refugee populations only, while the Ethiopian government focused on providing services to host communities via inefficient water and sanitation systems that had deteriorated over time due to lack of investment. This approach led to tensions developing between the two groups, as host communities saw their level of service decline while more reliable systems based on international aid were offered to refugees.⁸⁹

To manage the large and increasing number of South Sudanese crossing the border into Ethiopia since 2014, several large camps were established in the Gambella region. Three camps close to Itang town initially hosted around 210,000 people, dwarfing neighbouring Itang (population: 20,000). This imbalance in population and resources allocated to the new arrivals has created significant tensions. In response, UNICEF, UNHCR, private sector actors and various government entities partnered to provide resilient integrated water and sanitation services for both the refugees and host communities. In the spirit of localization and to improve the sustainability of services, UNICEF and UNHCR developed a public–private partnership model that leveraged private sector expertise to professionalize the government's institutional and human resource capacities. And having developed a sound business model for service delivery, which includes optimal service provision and improved cost recovery, the service providers are now better placed to cover their operation and maintenance (O&M) costs and remain sustainable in the long run.

The implementation of the GCR helped to ensure that the entire community, both host and refugee populations, gained access to basic services such as water and sanitation over time in an equitable, transparent and sustainable manner. Host communities and refugees were included in the planning of the water supply system rehabilitation and upgrade as stakeholders with rights. Under the GCR, the government is encouraged to allow refugees to work, so it was decided that humanitarian support in the form of vouchers for water would be reduced over time. Data systems were developed to map services and improve operational performance, while accountability to end users was enhanced by a complaints and referral system, improving trust in the state's ability to provide services. In this way, the implementation of the GCR is helping the Ethiopian government to resolve long-term humanitarian



Ethiopia 

The implementation of the GCR helped to ensure that the entire community, both host and refugee populations, gained access to basic services such as water and sanitation over time in an equitable, transparent and sustainable manner.

crises, support peaceful coexistence between refugees and host communities, and realize its obligations to meet the SDGs for all of its people.

Under the Building Self-Reliance Programme – a multi-year, multisectoral programme funded by the Department for International Development (United Kingdom) – UNICEF is expanding the public–private partnership model of service provision to support six additional Ethiopian refugee camps and their host communities. As part of the continued successful coordination with UNHCR and the Administration for Refugee and Returnee Affairs, UNICEF is collaborating with UNHCR to develop standard operating procedures for integrated WASH service provision programmes.⁹⁰



Ethiopia currently hosts

900,000

refugees from 20 countries.



An inclusive and sustainable WASH system now benefits

230,000

people – the entire community.



**Change
agenda**

3.4 Change agenda: Leave no one behind

Children in fragile and conflict-affected contexts experience multiple vulnerabilities and challenges. To ensure that no child is left behind calls for a human rights-based approach to WASH service delivery that is both multisectoral, where relevant, and transcends the humanitarian–development divide.

Governments, WASH sector, donors and other sectors are called on to:

- **realize the rights to water and sanitation for the entire community.** Policies, planning and programming processes are to give due recognition to the entire community, especially vulnerable groups (host communities, internally displaced persons, refugees, migrants, women, girls and boys, persons with disabilities, etc.), adopting the human rights principles of equality and non-discrimination, access to information, participation, accountability and sustainability, to progressively realize the rights to water and sanitation for all across humanitarian and development contexts.
- **strengthen multisectoral collaboration where it is relevant to securing multiple outcomes for children.** While ensuring the primacy of the rights to water and sanitation for all, develop mechanisms that encourage cooperation and accountability between the WASH sector and other sectors when key child survival and development outcomes are at risk – for example, child health during a cholera outbreak, child nutrition in a food security/malnutrition crisis, energy to power water and sanitation systems, and education in environments where access to schools is challenging.



4. Prevent and end conflicts

Exclusion from services such as water and sanitation can fuel grievances that can lead to violence. Understanding how WASH interventions intersect with larger social, political, economic, cultural and environmental factors to ensure that no one is left behind is thus a key first step towards adhering to the do no harm principle, preventing violence and ending conflicts.

Preventing and ending conflicts is closely linked to the other core responsibilities of the Agenda for Humanity as well as to the overarching United Nations sustaining peace agenda.⁹¹ It is perhaps most deeply connected to the call to leave no one behind, given that principle and core responsibility's focus on ensuring inclusion and equity, especially in the effective delivery and management of basic services such as water and sanitation. *Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict*, a joint United Nations and World Bank study published in 2018, highlights the key role that exclusion from services plays in fuelling grievances that can lead to the mobilization of group violence, particularly in contexts where state capacity is weak and/or state legitimacy is contested.⁹² The study stresses the importance of addressing inequalities and exclusion, for example, by ensuring that institutions are made more inclusive through institutional reform and the use of inclusive decision-making in relation to core state functions such as the provision of basic and social services.⁹³

Ensuring that no one is left behind is thus a key first step (where relevant) towards preventing violence and ending conflict. Meaningful participation in decision-making by children, youth and women – often traditionally excluded from such processes – is of paramount importance, particularly given the great impact that access to (or denial of) basic and social services has on their daily lives. Whether the context is humanitarian action, recovery or development, it is important to understand how WASH interventions may exacerbate tensions and conflict or potentially address and resolve these issues. For example, in eastern Ukraine, where 3.2 million people are served by a single water system that twice crosses the contact line, the need for water creates an interdependence between the two sides. As such, water has become a key component of negotiations in Minsk, Belarus, with discussions on the avoidance of infrastructure damage from shelling balanced with a focus on keeping the water system running for the good of all citizens.⁹⁴

It is crucial to note the disastrous impact that protracted armed conflict has on WASH services, causing decline or shut-down in services and a heightened risk to public health. This is due to direct impacts such as damage, destruction, injury and death, as well as indirect impacts such as loss of capacity and resources to operate and maintain services.⁹⁵ For example, armed conflict in parts of Yemen resulted in significant infrastructure damage, accelerating the disintegration of already overburdened water and sanitation systems and contributing to the largest documented cholera epidemic in modern times – more than 1.3 million individuals were infected with cholera and 2,732 lives lost in the period April 2017–December 2018.⁹⁶ The combination of attack and chronic neglect brought the water, sanitation and power systems – and the health care system that relies on them – to the brink of collapse. The crisis was compounded as water scarcity in cities such as Sana'a became severe, civil servants were paid inconsistently, supplies became scarce and WASH experts' entry to Yemen was delayed and sometimes denied.

4.1 Challenges to leveraging WASH services to prevent conflict, and ensuring conflict sensitivity and building peace

It is now better understood how, despite good intentions, WASH interventions in fragile and conflict-affected contexts are at risk of inadvertently exacerbating conflict or contributing to wider conflict dynamics. Where to drill boreholes, how to share and manage resources among refugee populations and host communities, whether to allow water points to be used for crops and/or livestock, and how to govern water resources can all be contentious issues. The implementation of WASH interventions has sometimes failed to take into account how specific decisions can intersect with larger social, political, economic, cultural and environmental factors, and in turn contribute to, or exacerbate, conflict dynamics. The WASH sector faces several challenges in this regard, including the below.

The need for systematic conflict analysis

Although in a number of contexts, WASH interventions and broader social services delivery are informed by national or sub-national conflict assessments, conflict analysis is not undertaken or tracked by the WASH sector (or any sector) in a systematic way. Nor is there typically a good understanding of how a WASH intervention and its

immediate context may interact with one another, and unintended consequences are not usually monitored and recorded. The meaningful use of conflict analysis in the WASH sector is limited by several issues: First, existing conflict analysis may be unsuitable, unavailable or insufficient for use by WASH actors. Analyses conducted by country-level partners may be at the political economy or 'higher' level and therefore can neither inform the WASH sector (or any sector) about local dynamics nor provide comment on specific geographical areas where interventions are planned. Use of other conflict analyses completed by a United Nations mission, OCHA and/or a United Nations Country Team may be restricted, even among other United Nations entities, due to their sensitive nature. In other cases, conflict analysis may be highly decentralized, leaving WASH actors dependent on local actors' capacity to produce up-to-date, quality analyses. In the context of a shrinking humanitarian space, the need to work remotely poses significant challenges to the systematic development of an accurate, context-wide conflict analysis. Second, in many contexts, the situation and dynamics on the ground can change rapidly, calling for light and ongoing conflict scanning – often missing in challenging security environments. Third, WASH experts trained in specific technical skills relevant to the sector may be ill-equipped to engage with conflict analysis or conflict scanning information and adapt service delivery accordingly. Finally, there is often no system for monitoring and reporting on the unintended consequences of WASH interventions, both for the purposes of institutional and sector learning, and to improve practice.

Threats to neutrality and impartiality

WASH actors must constantly navigate 'political' situations while upholding their commitment to the humanitarian principles of neutrality and impartiality. For political and/or security reasons, governments may not want to provide services in geographical areas where armed groups or opposition elements are active, or in which perceived supporters of such groups and elements exist. Water and sanitation systems and services may subsequently break down in those areas, further exacerbating fragility and conflict, and demanding a response from the WASH sector.

The United Nations may be perceived as biased and too closely aligned to one of the confronting parties despite its best intentions to remain impartial. In particular, in situations where United Nations peacekeeping missions under Chapter VII of the United Nations Charter have engaged

in combat operations, the neutrality and impartiality of United Nations agencies that operate with humanitarian and development mandates may be threatened. For example, in the Democratic Republic of the Congo, the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (Mission de l'Organisation des Nations Unies pour la stabilisation en République démocratique du Congo; MONUSCO) Force Intervention Brigade has engaged militarily with armed groups in the east. In Mali, the United Nations Multidimensional Integrated Stabilization Mission in Mali (Mission multidimensionnelle intégrée des Nations Unies pour la stabilisation au Mali; MINUSMA) troops have provided military intelligence to '*Barkhane*' troops, the counterterrorism military operations deployed in the north. This engagement increases the risk that other United Nations organizations with humanitarian and development mandates (and, potentially, their partners) are also perceived as parties to the conflict, as non-state armed groups may not distinguish between different parts of the United Nations system.

The Humanitarian Country Team in Mali underscored that in the operational context characterized by great complexity and volatility (ongoing military operations, crime, residual presence of armed groups, asymmetric warfare, the presence of self-defence groups, and inter- and intra-communal tensions), MINUSMA operations could contribute to the confusion among communities and stakeholders between mandates for peace and security and for humanitarian activities. To mitigate this risk, the Humanitarian Country Team provided MINUSMA with a specific set of recommendations to draw the Mission's attention to the fact that multiple aspects of its mandate (security, electoral, political) presented tangible risks that could have a serious impact on the safety of humanitarian personnel and beneficiaries, on the humanitarian space in general and on the right populations receiving assistance.⁹⁷

Systemic weaknesses and insufficient capacity

Systemic weaknesses and a lack of capacity in relation to conflict sensitivity and peacebuilding expertise characterize the WASH sector. While the sector has a strong community-based approach guiding its engagement, assessments may at times overlook key conflict dynamics in favour of technical solutions. Purely technical assessments of WASH needs can result in resource allocation and service delivery plans that lack a comprehensive communication and accountability component, and as such may favour, or be perceived to favour, one group over another – and are

WASH actors must constantly navigate 'political' situations while upholding their commitment to the humanitarian principles of neutrality and impartiality.

thus not conflict-sensitive. WASH interventions in fragile contexts can be leveraged to address underlying causes of conflict and to strengthen social cohesion, but such opportunities are rarely pursued, much less realized. Where such attempts are made, robust consultation with other, non-WASH actors is critical. For example, in post-war Kosovo, the highly technical approach that the United Nations took to reconstructing the WASH sector contributed to the impediment of the peace process by consolidating divisions between actors through separate water governance mechanisms; by disempowering the local actors by placing ownership with international actors; and by avoiding the proactive resolution of tensions.⁹⁸ Lack of conflict sensitivity and peacebuilding capacity in the WASH sector reflects not only a shortfall in training, but also institutional weaknesses in actively applying conflict sensitivity in WASH sector planning processes and in prioritizing the necessary skills in staff recruitment practices.

Positive contribution of WASH community engagement to peacebuilding is overlooked

Investment in the 'peace capacities' of basic and social services has to date been inadequate. Until recently, despite recognition that delivery of basic and social services in conflict-affected contexts is a key peacebuilding pillar and strategy beyond peace dividends, United Nations peacebuilding efforts have primarily centred on matters relating to security sector reform, political stabilization, economic liberalization and transitional justice.⁹⁹ As a result, investment in leveraging service delivery for peacebuilding across sectors such as health, nutrition, education, protection and WASH has been limited, and the exchange of information and experience between WASH and peacebuilding domains of expertise remains limited. Best practice in WASH programmes across UNICEF and partners involves extensive community consultations and

invites local participation in key decisions such as how to allocate water resources and how to meet ongoing O&M costs for water supply systems. Involving communities in this way encourages them to take joint responsibility for managing water access and promotes a shared interest in maintaining water points. Taking such an approach to decision-making has greatly reduced tensions among community members around access to water and has helped to promote dialogue, ensure dispute resolution mechanisms are in place, and strengthen peacebuilding within communities. Integrating peacebuilding outcomes and metrics into WASH programming is key.

Lack of attention to climate change impacts

The potential for climate change impacts to exacerbate existing conflicts or contribute in some way to future conflicts cannot be ignored. Given the water scarcity issues associated with the rapid acceleration of climate-related shocks and stresses (as well as other factors such as 'hydro-politics' and population growth), long-term prevention measures not previously considered must come to the fore – including measures to enable the collaborative environmental protection of resources. As described briefly in section 2 of this report, the Sahel region of Africa is particularly vulnerable to rapid temperature rises and water scarcity, which serve as potential conflict accelerators both within and between groups.¹⁰⁰ In the Sahel, temperatures are rising 1.5 times faster than the global average, increasing the frequency of droughts and floods, and in turn affecting water supply, food production and livelihoods.¹⁰¹ Such effects have been associated with an increase in violence and conflict, especially between farmer and herder groups – often from different ethnic backgrounds – who compete for scarce resources. As these more traditional conflicts have escalated, the emergence of extreme violence and militancy has introduced greater complexity and more acute violence to the conflict dynamics.¹⁰² In conflict and displacement settings that happen to be located within a disaster-prone area, the more protracted the crisis becomes, the greater the likelihood that multiple crises (e.g., including climate-related hazards) will occur at the same time, complicating humanitarian action, slowing development progress and typically overwhelming all of those involved.

The Diffa region of the Niger provides a good example of a complex humanitarian situation. A range of vulnerabilities are shaped by food insecurity and high malnutrition rates; population influxes that began in 2013 and accelerated

following attacks by Boko Haram in 2015; and water insecurity exacerbated by alternating droughts and floods.¹⁰³ In May 2017, the region contained 248,000 displaced persons: 51 per cent of this number were internally displaced persons; 43 per cent were Nigerian refugees; and 6 per cent were returnees. Stress on water supplies contributed to tensions and conflicts between herders and agro-pastoralists, resulting in two deaths in 2016. Kidjandi, a settlement located 70 km from Diffa town, had a pre-emergency population of 1,100; by 2017, it had grown to about 25,000 people, placing intense pressure on the provision of basic services.¹⁰⁴ The Kidjandi water supply, which relied on a borehole constructed circa 1960 with two motorized pumps, was only sufficient to meet the needs of 28 per cent of the 2017 population. To help fill the gap, WASH sector actors instituted a water trucking operation – though this was at great expense (US\$3,600 per day) due to the long trips required to gather water.¹⁰⁵ The displaced population was reluctant to leave the region amid continuing security concerns, so a long-term solution founded on community engagement was provided to address both community tensions and multiple water users: the implementation of a piped water system. A public–private partnership model was set up to collect revenue and operate and maintain the system, establishing a sustainable drinking water service for years to come.

To ensure that they do no harm, WASH sector actors must acquire a collective understanding of the multiple risks in fragile and conflict-affected contexts such as Diffa. They should also put in place relevant environmental safeguards, especially in countries prone to water scarcity, natural disasters and climate change impacts, such as those in the Sahel and the Middle East. And addressing these multiple risks is essential for WASH sector actors both in their own operations and in their partnership arrangements.

4.2 Ensuring conflict sensitivity and building peace through WASH interventions

Given the above challenges, it is important for the WASH sector, as well as other social sectors, to more systematically use conflict analysis (including rapid conflict scans) in programming to understand the overall conflict dynamics in a particular context, including the following: key stakeholders; underlying root and proximate causes of the conflict; potential triggers for worsening the conflict; and existing or potential capacities for peace. It will also be

important for the WASH sector to be conflict-sensitive while implementing programmes, and, where possible, leverage WASH as a social service for peacebuilding. In some contexts, the specific language of ‘peacebuilding’ itself may not be conflict-sensitive as notions of conflict and peace may be politicized. In such contexts, it is useful to apply the same theories and approaches of peacebuilding, but use language that refers to reducing risks and strengthening social cohesion (or the social contract) and resilience. This is why understanding context and conducting a conflict analysis is an important first step.

How to successfully implement conflict sensitivity

Conflict analysis does not always need to be formal, expensive or time-consuming. Often, a conflict analysis conducted by a United Nations agency or development partner can be reviewed through a different lens to understand how the context-specific conflict dynamics may affect, or be affected by, WASH sector programming interventions. At the very minimum, interventions must be conflict-sensitive, non-discriminatory and do no harm; however, it would be naive to assume that WASH infrastructure can always be depoliticized. Whether delivering WASH services where tensions between communities are high or where relations between government and civil society are strained, WASH actors must continually analyse the conflict dynamics and the two-way interaction between intervention and context. This will require both consistent monitoring for unintended consequences linked to the intervention, and the creation of mechanisms to track and deliver institutional learning.

Existing guidance in this area includes *Water and Conflict: A toolkit for programming*, published by the United States Agency for International Development (USAID), which explores the intersection between conflict, fragility and water resource management – providing useful information on how to move from a conflict analysis to intervention and programming.¹⁰⁶ UNICEF also offers guidance – in the *Conflict Sensitivity and Peacebuilding Programming Guide* – including on results that build social cohesion, with specific examples given for the WASH sector.¹⁰⁷

Leveraging interventions to build peace

The essential nature of WASH services allows for specific interventions to be leveraged across a range of situations to

bring groups in conflict together, to strengthen both ‘vertical’ and ‘horizontal’ social cohesion, and to build peace.¹⁰⁸

- Vertical social cohesion is a key peacebuilding result when relationships between the state or sub-national authorities and citizens (or inhabitants of a discrete territory) are strengthened, trust is built and the government is seen as transparent, accountable and able to deliver services.
- Horizontal social cohesion is a key peacebuilding result when relationships and trust are built both within and between different groups (based on religion, ethnicity, gender or other category).¹⁰⁹

Across the humanitarian–development–peace nexus there are several examples of emerging and promising practices to highlight in this regard, including the example cited in the previous section concerning the implementation of the Global Compact on Refugees (GCR) in Ethiopia. In the United Nations Peacebuilding Support Office (PBSO) report *Peace Dividends and Beyond: Contributions of administrative and social services to peacebuilding*, the author develops a case study on a WASH intervention in drought-affected Central Somalia.¹¹⁰ Though neither a conflict analysis was conducted nor was peacebuilding the initial intention of the project, UNICEF quickly discovered that water access had long been a source of conflict between three clans. Successfully implementing the delivery of four water systems and ensuring that the local communities were trained to maintain them required extensive negotiations and conflict management over nine months. While this was a long process, it produced positive results: conflict resolution, reconciliation, clan co-management of water systems, and strengthened horizontal social cohesion. After this was achieved, the communities, who were now working together, engaged with both state authorities and the private sector to ensure the long-term sustainability of the water systems.¹¹¹

Relationships between water supply, sanitation and hygiene (WASH) service delivery and peace-building and state-building: A review of the literature, an Overseas Development Institute (ODI) study, cites a case from South Kivu province in the Democratic Republic of the Congo, where a conflict grew between two villages based on perceptions of unequal access to water.¹¹² Grievances between the communities were fuelled when new water services were delivered to Swina but not to neighbouring

The essential nature of WASH services allows for specific interventions to be leveraged across a range of situations to bring groups in conflict together, to strengthen both ‘vertical’ and ‘horizontal’ social cohesion, and to build peace.

Ilhua, leading to threats being made against the source of the water supply. A local water management committee, led by women, intervened to negotiate a solution whereby Ilhua was connected to the new system and the communities subsequently managed the water supply together.¹¹³

Other literature from various WASH actors cites a host of these interesting and exciting case studies; however, the overall evidence base for the contribution of WASH interventions to peacebuilding needs to be better understood and further developed.¹¹⁴ To enable more explicit conclusions to be drawn in this regard, it will be necessary to pay robust attention to designing explicit peacebuilding programming and to ensuring that formal evaluations of programmes are conducted.

As a contribution to the existing literature, the following case studies have been developed to illustrate how recent WASH interventions have directly strengthened social cohesion by addressing underlying root causes of conflict. WASH services can provide a means to build bridges between groups in conflict with one another: Addressing everyday frustrations at lack of access to quality water and sanitation services can help to restore normalcy, stability, security, responsibility, transparency and a sense of community. Furthermore, WASH-based peacebuilding efforts have provided an entry point for UNICEF and partners to bring in additional services for children.



Case study

Urban peacebuilding through WASH interventions in Tripoli, Lebanon¹¹⁵



A multisectoral intervention that leveraged the need for improved WASH services across Tripoli contributed to horizontal social cohesion by rebuilding trust between divided neighbourhoods in the city.

Tripoli, a dense urban environment, is home to Alawite communities, primarily concentrated in the Jabal Mohsen neighbourhood, and Sunni Muslims, who live mostly in the Quobbe and Tabbaneh neighbourhoods. These neighbourhoods became divided and sectarian largely as

a result of the civil war in Lebanon and the situation has been exacerbated by complex social, political and economic factors – including key grievances linked to service provision.¹¹⁶ For example, income inequality is high in Tripoli and state service provision and accountability are poor – therefore non-governmental and sectarian groups have filled the gap in the provision of services such as schools and hospitals.¹¹⁷ In other cases, private sector providers have delivered services, but their accountability has fallen short. Rivalries between the sectarian neighbourhoods turn violent on occasion, and pressure from the conflict in the Syrian Arab Republic led to clashes during the period 2011–2014 as the two communities became sympathetic to opposing factions in the war and to arriving refugees. While the exact reasons for and perpetrators of inter-communal and inter-sectarian violence are difficult to identify, neglect from the central government and political and socio-economic inequalities are root causes.¹¹⁸

A wider political settlement was brokered to end the escalating violence, and Lebanese troops arrived in 2014 to maintain the peace. By this point, conflict extending back to the 1980s combined with prolonged neglect had destroyed Tripoli's WASH infrastructure and services.¹¹⁹ The government water service provider tried to remedy the problem and connect the water supply to the newly rehabilitated water networks in Quobbe to deliver water to Jabal Mohsen, but Quobbe residents – motivated by





Lebanon

simmering tensions and conflict – filled in the trenches dug by the contractor and pushed out the government water service provider. Jabal Mohsen residents, prevented from receiving sufficient water of an appropriate quality, were left with no choice but to buy water or collect poor quality water from the existing unreliable and dilapidated piped water system. Other problematic issues included poor rates of access to sanitation, and garbage strewn across Tripoli.

Local groups including local NGO Lebanese Relief Council (LebRelief) sought to intervene through various conflict management and peacebuilding initiatives during this period, bringing Tripoli communities together to address service gaps. Social awareness and behaviour change communication campaigns were launched to connect poor sanitation and water to health, to environmental awareness and to the building of social cohesion through improved services. First, LebRelief organized a WASH fair to raise awareness of the poor WASH conditions and their impact on community health and well-being. Young people played a central role in organizing the fair and promoting participation by both the Alawite and Sunni Muslim communities, using scientific instruments and technologies such as microscopes to identify and demonstrate the presence of bacteria in water, and ultraviolet light to detect bacteria on hands. Being able to see the bacteria that can exist in water invisible to the naked eye helped to drive home the hidden risks that unsafe water and sanitation pose to communities. Encouraged by this successful interaction with both communities on WASH awareness, LebRelief next organized a large community theatrical performance, involving children, to communicate key WASH messages and address everyday experiences of Tripoli residents. Children often serve as powerful connectors – their involvement encouraged parents from both communities to attend the performances.

These two major participatory grassroots exercises, among many others, contributed to horizontal social cohesion through rebuilding trust between sectarian groups and neighbourhoods in Tripoli by leveraging the need for improved WASH services across the city. This then provided an opportunity for UNICEF to use its convening power to bring together community leaders and government service providers to discuss water and sanitation infrastructure and improving services for all. With collaboration established and funding acquired, the next step was to implement the infrastructure upgrades. Tripoli youth from the Alawite and Sunni Muslim communities were further integrated into

Vertical social cohesion was also built between the government water service provider and local population by improving the WASH infrastructure as well as by establishing accountability mechanisms.

the programme, both through ongoing WASH campaigns and through skills training and employment opportunities. Having learned the specific skills required, they were subsequently responsible for implementing the WASH infrastructure improvements. Marginalized youth were also trained to rehabilitate spaces used as impromptu dumps and turn them into child-friendly green spaces, acquiring skills for future employment.

Vertical social cohesion was also built between the government water service provider and local population by improving the WASH infrastructure as well as by establishing accountability mechanisms. A customer relations unit was set up in the government water service provider as a mechanism to receive complaints and feedback. As a final result, following the awareness-raising efforts, the infrastructure improvements and the introduction of accountability mechanisms, residents started to pay affordable amounts for the delivery of a safe water supply. This was the first time in decades that the government water service provider had received revenue from these poor and vulnerable communities; this is remarkable considering that residents in some richer areas (e.g., in Beirut) refuse to pay. While regulation of WASH services and solid waste management remains a major issue, the Jabal Mohsen, Quobbe and Tabbaneh neighbourhoods have demonstrated outstanding achievements in building both horizontal and vertical social cohesion – the former is demonstrated by the divided groups working together to improve a service that benefits the entire community; the latter is shown by their willingness to pay for the service.¹²⁰



Case study

Water and public health diplomacy in the Middle East¹²¹



Advocacy and awareness-raising efforts on the environmental and public health dangers of contaminated water have helped to coalesce public opinion, among Palestinians and Israelis, around the need for action to address the risks.

The State of Palestine, including the West Bank and the Gaza Strip, shares a watershed basin with Israel. The groundwater and streams that flow across the territory supply the population with drinking water and provide water for agricultural and industrial use. The historical lack of cooperation and fairness between the two parties in managing their shared water supply has resulted in a

situation where surface water and groundwater can be heavily polluted from a combination of industrial and domestic sewage – threatening the environment and public health.¹²² A wastewater treatment plant and other infrastructure in the Hebron area of the West Bank were proposed as a solution by USAID in partnership with the Palestinian Water Authority and other stakeholders in 2001.¹²³ Diplomatic negotiations and internal advocacy at the community level in both the State of Palestine and Israel did not, however, prevent delays, disagreements and a decade of inaction.¹²⁴ Only in 2011 were efforts renewed to advance sanitation solutions, with the World Bank and the French Development Agency stepping in to build the needed infrastructure.

Far more complicated is the situation in the Gaza Strip, where the ongoing conflict between the Palestinians and Israelis has led to the latter exercising control through the blockade of goods into the Gaza Strip, and arguing that critical inputs for WASH infrastructure such as cement, piping and electrical equipment could potentially be used to construct tunnels, make bombs and contribute to a safety threat against the Israeli population, rather than for the intended purpose – the improvement of WASH services.

From 2001, the regional NGO EcoPeace Middle East was involved in implementing a new strategy that simultaneously advocated for policy change at the government level and raised awareness at the community level across both territories. Environmental and public health risks such as





Israel and the State of Palestine

untreated sewage polluting the water supply, as in the case of Hebron, and Palestinian and Israeli beaches, as in the case of the Gaza Strip, were cited as threats to the safety of the Palestinian and Israeli populations.¹²⁵ In addition, an Israeli desalination plant for drinking water was under threat of intermittent closure due to significant contamination of the water source area by Gaza Strip wastewater flowing out to the sea. Alongside its advocacy with government and grassroots awareness-raising efforts, EcoPeace Middle East embarked on Facebook campaigns highlighting the issue as a 'lose-lose situation' for both sides. As a result of this work, public opinion – typically polarized across the spectrum of conservative and liberal political views and between Palestinian and Israeli groups – coalesced around the need for action to reverse the environmental destruction and support clean water and public health as a mutually beneficial solution for all affected populations.

While noting the important role of the various appeals for respect for international humanitarian law and international human rights law, what broke the stalemate in this case was a pragmatic approach on both sides to protecting public health. The pragmatic approach was influenced by awareness-raising efforts among Palestinian and Israeli citizens to communicate to the populations the broader public health risks such as sewage plumes, caused by the lack of functional wastewater treatment facilities, polluting groundwater and affecting their beaches. These plumes also travelled to the intake of the Israeli desalination plant described above – which is responsible for producing 15 per cent of the country's drinking water – causing it to intermittently shut down. EcoPeace Middle East's strategy was to focus on a broader water security platform – as water security in Israel is a top political priority – and galvanize the support of the local community through social media, videos and cartoons.

In Israel, for example, local mayors, lobbied by their constituents, then wrote a letter to the Israeli Prime Minister's Office to call on the Prime Minister to resolve the issue. Not only was a solution provided for the construction of the first modern sewage treatment plant in Gaza, but materials were also allowed into the Gaza Strip to support other WASH infrastructure improvements. In this way, the shared resource of water and the common needs for clean water and a healthy environment together provided an entry point for encouraging a broader understanding of the need to promote human security and cooperation between the Palestinian and Israeli populations.



Change agenda

4.3 Change agenda: Prevent and end conflicts

Exclusion from services such as water and sanitation can fuel grievances that can lead to violence. Understanding how WASH interventions intersect with larger social, political, economic, cultural and environmental factors is necessary to uphold the do no harm principle, prevent violence and end conflicts.

The WASH sector is called on to ensure that both humanitarian and development WASH interventions in fragile and conflict-affected contexts are conflict-sensitive as a minimum requirement. WASH sector actors must always analyse the ongoing conflict dynamics and the two-way interaction between intervention and context, in line with the leave no one behind principle and core responsibility. Consistent monitoring of interventions, including any unintended consequences, is required to ensure that they do no harm.

Governments, WASH sector and private sector are called on to adopt a more systematic and strategic approach to leveraging WASH interventions to address the drivers and dynamics of conflict and to sustain peace. Where possible, WASH actors should leverage service delivery as a potential connector to build both vertical and horizontal social cohesion and maximize its positive impact, including by building legitimacy and trust in government and service providers as well as within and between communities.



5. Change people's lives: From delivering aid to ending need

So that children's survival and development needs are met, emergency preparedness and response must be connected to sustainable development programmes that will ensure the rights to water and sanitation for all and thus contribute to the realization of universal WASH coverage – as committed to by the Member States of the United Nations under SDG targets 6.1 and 6.2. To make this happen, new ways of working must be adopted, covering policies and strategies; planning, monitoring and review; institutional arrangements; and capacity development.

Anchored on the Agenda for Humanity's core responsibility to change people's lives by moving from delivering aid to ending need, this section aims to build the resilience of governments, service providers and communities to provide WASH services in both humanitarian crisis and development settings across fragile and conflict-affected contexts. As stated in the introduction, the Agenda for Humanity was developed to complement the 2030 Agenda for Sustainable Development, which provides the overall global framework and direction for the WASH sector, encouraging countries to review their potential to achieve universal WASH coverage, to set targets accordingly and to review which sector building blocks (such as capacity building) must be strengthened to achieve their targets. While financing is most commonly cited as the barrier to achieving WASH sector targets, myriad bottlenecks prevent countries from reaching their sector goals. These bottlenecks include protracted conflict and instability, sector inefficiency, lack of regulation and accountability, and weak capacity, all of which can only be overcome through reform, the allocation of additional resources and the implementation of different ways of working that bring together humanitarian and development stakeholders.

While some fragile contexts are making progress towards meeting the SDGs for water and sanitation, others are not.

In many cases, water and sanitation services have deteriorated due to decades of neglect characterized by inadequate O&M, insufficient rehabilitation, and population growth outpacing investment in services. For example, from 2000 to 2017, urban water coverage decreased in the Niger, from 94 per cent to 84 per cent, and urban sanitation coverage decreased in Zimbabwe from 65 per cent to 46 per cent.¹²⁶ In North and South Darfur, the Sudan,

over the same period, not only did services decline in some urban areas, but the rate of open defecation also increased in rural settings, from 26 per cent to 41 per cent.¹²⁷

In contexts where there is sub-national fragility and armed conflict, the level of WASH service delivery is often lower than national averages, which can exacerbate tensions within affected communities and between affected communities and the state. North-east Nigeria, site of the protracted conflict between the government and Boko Haram, has the lowest water coverage of any region in Nigeria.¹²⁸ And in the Kasai Central and Kasai provinces of the Democratic Republic of the Congo, where long-simmering resentment against the government exploded in warfare in 2016, water and sanitation coverage is among the lowest in the country, with only 16 per cent of the population able to access basic water and just 8 per cent able to access basic sanitation.¹²⁹

Progress towards meeting the WASH SDGs in fragile contexts is alarmingly off track according to the latest World Health Organization/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) estimates from 2000–2017.¹³⁰ As few as 1 in 3 countries (18 out of 50) are on track to eliminate open defecation by 2030, with the remaining two thirds progressing too slowly or actually in reverse: open defecation has increased since 2000 in 6 countries (Congo, Democratic Republic of the Congo, Madagascar, Myanmar, Papua New Guinea and United Republic of Tanzania). Only 1 in 5 fragile countries (10 out of 54) are on track to achieve universal access to basic drinking water by 2030, with the remainder progressing too slowly and coverage actually decreasing since 2000 in 8 countries (Burkina Faso, Chad, Comoros, Democratic People's Republic of Korea, Guinea, Solomon Islands, Bolivarian Republic of Venezuela and Zimbabwe). And just 1 in 10 countries (5 out of 52) are on track to achieve universal access to basic sanitation, with progress on coverage proceeding too slowly in the remainder, including in 9 countries where coverage is in decline (Cameroon, Chad, Democratic Republic of the Congo, Gambia, Kenya, Papua New Guinea, Myanmar, Syrian Arab Republic and Zimbabwe).

To reverse this discouraging SDG progress and ensure life-saving support in emergencies requires resilient governments, WASH services and communities that can absorb, reduce and rebound from the effects of hazards such as those driven by conflict, and prevent them from escalating into disasters.

Resilience, according to the United Nations Office of Disaster Risk Reduction, is the ability of the government, systems (in this case, the WASH system) and communities “to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.”¹³¹ And this resilience cannot be built over short humanitarian time frames: It takes years to integrate measures to improve emergency response and measures to prevent/reduce the negative impacts of emergencies, whether driven by conflict, natural hazards or decades of WASH sector neglect. Such measures relate to implementing a risk-informed approach that covers all facets of the WASH sector (e.g., coordination, monitoring, policy, financing) and service delivery (e.g., implementation, infrastructure, supplies, staff).

The implementable actions described here and set out in the change agenda are designed to not only reduce the impact of protracted crisis, but also to both protect and accelerate progress towards achieving the SDGs, in particular SDG 6. The actions follow the Sanitation and Water for All (SWA) Framework, agreed upon by several sector agencies, which includes national leadership of sector strengthening approaches, drawing on the SWA guiding principles, five building blocks and four collaborative behaviours.¹³² The structure of this section draws on the SWA Framework to cover: policies and strategies; planning, monitoring and review; institutional arrangements; and capacity development. Resourcing through humanitarian appeals is covered in the subsection on planning, while raising sector financing from other sources is addressed separately (*see section 6*).

5.1 Policies and strategies to ensure WASH sector resilience

The proposed Framework for WASH Sector Resilience in Fragile and Conflict-affected Contexts is designed to both provide a predictable humanitarian response, and reduce and prevent disaster, while protecting gains made towards achieving the SDGs.

The transition from humanitarian response to development work in fragile and conflict-affected contexts is not a linear progression, with some experts seeing it as a ‘contiguuum’ model, implying that all instruments across the humanitarian–development–peace nexus can be used simultaneously.¹³³ Apart from countries that are entirely subsumed in conflict, most fragile contexts must simultaneously respond to

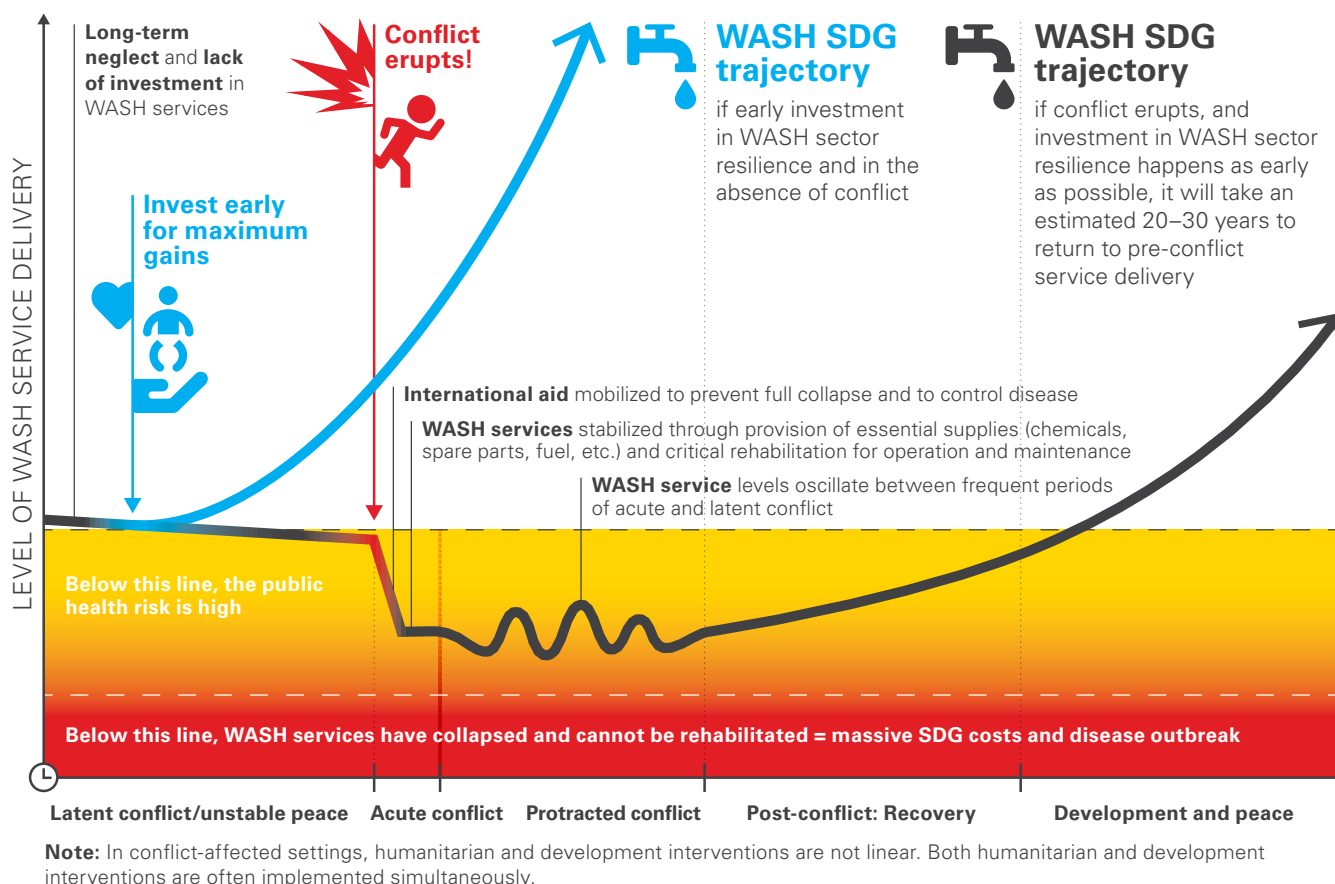
humanitarian need in some parts of the country, recovery in others, and development and peace elsewhere. In protracted conflict, multiple phases often occur in the same location and at the same time due to frequent cycles of both conflict and periods of relative stability. Taking into account these overlapping and simultaneous emergency, recovery and development phases within a given context, the following framework is proposed to guide the prioritization of key interventions during each of the phases both to prevent and control public health outbreaks and to protect and accelerate progress in realizing SDG 6 (*see Figure 3*). Each key phase of the Framework for WASH Sector Resilience in Fragile and Conflict-affected Contexts is considered in more detail below: the latent conflict/unstable peace phase; acute conflict phase; protracted conflict phase; and post-conflict phase.

Latent conflict/unstable peace: Invest early for maximum gains

During periods of latent conflict or unstable peace, investing in upgrading water and sanitation services that have suffered decades of neglect will provide the greatest returns for children by protecting public health, reducing community tensions and more rapidly accelerating progress towards the realization of human rights, peace and development.

Fundamental to this investment are improvements to service delivery performance as well as to equitable and rights-based access, while ensuring accountability mechanisms for government, service providers and the community. Unfortunately, in many cases, conflict cannot be averted. So, it is critical to ensure that government and WASH service providers are sufficiently prepared for future conflict by implementing a risk-informed approach that integrates emergency preparedness and prevention measures into all aspects of their operation, including institutional capacity (e.g., structure, coordination, management and operational procedures), human resource capacity, supplies and financial resources. Emergency preparedness and prevention measures relevant to the conflict context that support a risk-informed approach are given in this section and in previous sections. An example of a prevention measure is the promotion of community-based or public–private partnership models of service delivery that can operate during conflict as they are structured to provide some independence from negative political persuasion and financial drain by parties to the conflict, as described below under institutional arrangements (*see section 5.3*).

Figure 3. Framework for WASH Sector Resilience in Fragile and Conflict-affected Contexts



Acute conflict: Emergency response

When conflict erupts, whether or not it involves armed combat, the priority for international aid is to prevent the collapse of the WASH sector, including the existing WASH services – as this is the most effective means by which to rapidly control disease and provide life-saving services to millions.

Without this support, in addition to the potential human catastrophe, WASH systems are likely to be damaged beyond repair, resulting in the need for far greater long-term investment than if the system was simply kept operational. The priority is to operate and maintain existing WASH services by providing the essential supplies (e.g., chlorine, spare parts, generators, fuel) and critical rehabilitation necessary to keep the system running. This approach also involves creating incentives for personnel, such as critical training, to reduce the ‘brain drain’ that results from service providers operating in a challenging, dangerous and

resource-constrained environment.¹³⁴ For example, in Yemen in 2018, UNICEF and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH provided critical technical and operational training to the remaining local water and sanitation corporation staff based on a rapid needs assessment.¹³⁵ This approach to keeping existing systems operational has been proven in countries such as Iraq, the Syrian Arab Republic and Yemen, through interventions mainly led by the International Committee of the Red Cross (ICRC) and UNICEF, particularly in urban environments, but the approach may also be applicable to existing rural WASH service delivery during conflict.¹³⁶

In situations where the existing host community services are overwhelmed by displaced persons, new WASH services must be installed and operated or existing services enhanced to meet the needs of both the displaced population and host community, as demonstrated in the case study of Gambella, Ethiopia (see section 3). Another example is the Rohingya crisis in Bangladesh, to which the Government of Bangladesh and the international community

activated a massive humanitarian response in 2017 to the surge of Rohingya refugees arriving in the Cox's Bazar district.¹³⁷ By the end of 2018, however, nearly 730,000 new refugees had arrived in Bangladesh, overwhelming the host community.¹³⁸ To alleviate the strain on water and sanitation, an extensive network of WASH services was constructed amid the challenging congested conditions within the camps. Both of these examples illustrate that sustainable solutions can be introduced from the start of an emergency, bridging the gap towards recovery and development.

Protracted conflict: Frequent cycles of latent and acute conflict

In protracted conflict – which is marked by frequent cycles of latent and acute conflict – efforts can be made to bridge the gap towards recovery while strengthening the resilience of the WASH sector to respond to acute conflict as it arises.

More concretely, this means prioritizing key resilience strengthening efforts such as capacity building for key WASH sector personnel, and developing WASH service delivery models that can operate during conflict. From the beginning of the protracted conflict, it means taking a risk-informed approach to investing in durable solutions such as critical rehabilitation and, where possible, construction of sustainable WASH infrastructure. At the same time, due to frequent eruptions of acute conflict, it is crucial to ensure a strong emergency preparedness and response capacity. Opportunities will also arise to leverage WASH services to proactively address the root causes of conflict and instability (*see section 4*).

Post-conflict: Recovery and peace

Post-conflict, the rate of acceleration towards peace and development is much slower than when recovering from natural disaster or economic downturns.

In fact, the return of a country's economy and institutions to the pre-conflict level of service is 30 years on average, with the most optimistic recoveries lasting 20 years.¹³⁹ During this stage, it is particularly timely to emphasize peace dividends and leverage WASH service delivery to support dialogue and deliberation, and nurture trust and cohesion building. Overall, the same approach of strengthening WASH sector resilience as described in the latent conflict/unstable peace phase applies – though the investment must take place over a longer time frame to reach the same result.

Strategies and policies across all phases

In line with the Framework for WASH Sector Resilience in Fragile and Conflict-affected Contexts described above, policies are needed to assist government and service providers during all phases, and to prevent repeated cycles of conflict and violence.

The level of service provided can change dramatically in type, quality, durability, quantity and cost according to the phases described above. Policies should cover basic standards such as the minimum quantity of water that must be supported in emergencies, typically 15 litres per person per day,¹⁴⁰ and reach towards the national standards for development, typically 80 litres per person per day. More complex policies around subsidies may also be required depending on the vulnerability of populations in humanitarian settings, and these policies may link with global frameworks where relevant. For example, the Global Compact on Refugees (GCR) may be used as a framework to ensure an equitable subsidy for WASH service delivery in poor host communities that accommodate both internally displaced persons and refugees to prevent tensions developing between the populations (*see section 3*).

Addressing water scarcity is critical when developing WASH sector resilience to ensure that the water source used does not become a cause of future conflict or natural disaster.

In humanitarian situations, where the focus is on saving lives, the scarcity of water is often a secondary consideration. This is understandable in a rapid-onset emergency but unreasonable in protracted crisis settings that last many years and in which water scarcity may exacerbate the conflict or ignite future conflicts. Given the significant number of protracted crises globally, agencies with a dual mandate for humanitarian response and development should consider serious engagement in water resource management; at a minimum, they should undertake a water resource assessment prior to developing sources. Furthermore, in contexts where UNICEF and other dual mandate agencies stay and deliver throughout a crisis and beyond, there is a need to take greater responsibility for strengthening the management of scarce water resources.

For example, in Lebanon, UNICEF is supporting the government on strategic research and technical studies aimed at addressing how to manage the country's water resources more sustainably. A key focus is the sustainable management of groundwater, the main source for Lebanon's drinking

water supply. As part of the government's National Water Sector Strategy, devised to address water scarcity, UNICEF conducted a feasibility analysis to support an environmental impact assessment for aquifer recharge interventions at four sites believed to be technically suited to such technology.¹⁴¹ This will assist the government in making decisions regarding the responsible development of the water source, improving the resilience of WASH service provision and reducing the likelihood of future tensions arising due to water scarcity.

Promoting renewable energy to power WASH systems is an emerging priority in creating WASH sector resilience, as it is both a reliable and independent form of power supply.

Delivery of water and sanitation services, particularly in urban environments, depends on other services such as power. Power shut-downs, whether deliberate, unintended or resulting from neglect, are often the main bottleneck to providing water and sanitation services in fragile and conflict-affected contexts. ICRC is one of the few agencies that has systematically built its capacity in providing more durable energy supply solutions. UNICEF and other agencies involved in urban WASH services must consider how to build their own capacity to intervene in

providing more durable energy supply solutions or establish suitable partnerships to complement their WASH expertise.

The pace of innovation in this field is accelerating, though renewable energy cannot immediately provide the scale of power required for large urban water and sanitation systems (there are some exceptions to this, such as in Jordan, where the power supply to large camps is generated by solar panels, which can be accommodated by vast areas of unused land). Renewable energy provides a reliable, cost-effective and environmentally sustainable source of power, especially in situations where the conventional power supply is unreliable due to fragility and conflict, or in remote settings where it is challenging to ensure transmission. In these settings, aid partners are increasingly working with governments and service providers to invest in renewable energy options. For example, the Mauritanian government, with UNICEF support, initiated a water supply project based on the installation of boreholes powered by solar panels for 23,000 people across 40 drought-prone remote communities from 2015 to 2017. The success of the project led the government to develop plans to assist more than 2,500 remaining small and remote communities to gain access to small water supply networks equipped with solar energy by 2030.¹⁴²



5.2 Planning, monitoring and review

Planning

Building WASH sector resilience starts with a risk-informed approach to planning, which is based on an understanding of the environment and risks and, importantly, the human, infrastructural and financial resources available.

A risk-informed approach to planning covers a combination of prevention, preparedness and response measures. And following the planning and initial stages of implementation, it is critical to ensure monitoring and follow-up, which can lead to the fine-tuning of activities, or even a different approach, where necessary.

Multi-year planning and appeals are critical in ensuring the preparedness and prevention measures necessary for WASH sector resilience.

The humanitarian architecture for planning and appeals required to invest in long-term preparedness and prevention is lacking, however. Humanitarian appeals are typically made on an annual basis and most humanitarian funds cover a time frame of less than one year. This short-term approach is most damaging to resilience strengthening efforts during protracted crisis, as it leads to insufficient time frames to either lessen

the impacts of disasters or to strengthen the capacity for an effective humanitarian response should a disaster overwhelm both the emergency preparedness and prevention measures. According to OCHA, the trend for short-term appeals over multiple years is worsening: the average humanitarian appeal lasted nine years in 2018 compared with five years in 2014.¹⁴³ While reforms made at the World Humanitarian Summit 2016 have been reflected in donor commitments in the Grand Bargain, the humanitarian architecture in most emergency responses is still not structured to support long-term investment in building the resilience of governments, service providers and communities.¹⁴⁴

Given these short humanitarian funding windows, it is perhaps no surprise to learn that, on average, only 3 per cent of total humanitarian funds disbursed in the period 2008–2016 went to disaster preparedness and prevention, as reported by donors to the OECD Development Assistance Committee.¹⁴⁵

UNICEF and the humanitarian sector have made significant progress in regard to multi-year planning, with 12 out of 23 Humanitarian Country Teams either already working to multi-year plans or developing new multi-year plans in 2018. In the case of UNICEF, as of June 2019, 11 country offices have in place multi-year Humanitarian Action for Children appeals aligned to inter-agency, multi-year plans and 15 country offices have multi-year partnership planning agreements with civil society partners.¹⁴⁶ While these efforts are a welcome start,



further action is required to ensure that multi-year appeals are developed in all protracted crisis settings. Evolving humanitarian dynamics have been listed as a challenge in upscaling multi-year planning and appeals; regular reviews, and flexible funding arrangements to accommodate the findings of such reviews, could help to overcome this challenge.

Ensuring donors remain committed to multi-year and flexible funding arrangements is critical to support efforts made by the humanitarian sector in multi-year appeals.

The *Grand Bargain annual independent report 2018*, published by the ODI Humanitarian Policy Group in June 2018, recognized that progress has been made by the Grand Bargain in multi-year planning and funding. At the same time, a recommendation made at the Grand Bargain Second Annual Meeting of June 2018 stressed “the need for more flexible, unearmarked and multi-year funding, as well as for appropriate legal and structural change within donor and humanitarian agencies to appropriately utilize those types of funds to implement innovative and more efficient response”.¹⁴⁷ The greatest progress has been reported by the group of donors, with a majority (14 out of 18) either maintaining or increasing the volume or percentage of multi-year funding that they make available. This reported progress contrasts sharply, however, with the experiences reported by aid organizations. For example, UNICEF saw a slight decrease in multi-year humanitarian funding across all sectors from 2017 (US\$472.4 million) to 2018 (US\$438.4 million).¹⁴⁸

The overall impact of progress by donors against this core commitment to multi-year planning and flexible funding is difficult to discern. Substantial progress is being made by a number of small and medium-sized donors, many of whom had already been performing well in this regard prior to the Grand Bargain. In the absence of increased progress among the largest donors, however, it seems unlikely that there will be a reduction in earmarking on the scale envisaged by the initiative. This requires further analysis and high-level political dialogue between the constituent groups of the Grand Bargain on whether any further increase in the volume of flexible funding can be realistically expected given global political trends.

An example of where access to flexible funds became a matter of life and death was in Yemen in 2017, during the eruption of the largest cholera outbreak in recent years. To meet population need, the World Bank provided a flexible funding agreement that enabled UNICEF to address emerging

issues based on its understanding of on-the-ground realities. The grant encompassed three components – health and nutrition, WASH and emergency cash – and provided a flexible mechanism for UNICEF to move funds from development to responding to the emergency and saving lives, and use development approaches to respond to emergencies.

Processes are under way to link humanitarian and development planning and appeals.

Increasing the amount of multi-year and flexible humanitarian funding available is only part of the challenge. Another hurdle to overcome is how to engage the development sector to work more closely with the humanitarian sector, in particular to integrate a risk-informed approach into development programmes. Providing the structure for such cooperation requires combined humanitarian and development planning and appeals processes. Countries such as Chad are leading the way in linking national humanitarian and development appeals and planning processes by aligning key priorities under its Humanitarian Response Plan with both its United Nations Development Assistance Framework and its World Bank Country Partnership Framework.¹⁴⁹

UNICEF has invested in tools that the WASH sector can use to advocate for a more resilient WASH sector from the very beginning of a humanitarian response.

The WASH Return on Investment tool, though still under development, is gaining traction among early adopters and is in use in a number of emergency contexts including in north-east Nigeria and Somalia. The tool provides evidence for effective advocacy to both promote and plan for durable WASH solutions early on in an emergency response, and especially in protracted crisis settings. It allows countries to make an informed choice between short-term, low-capital solutions that carry high O&M costs, like water trucking, and more durable solutions that require a high capital investment but have lower ongoing O&M costs, such as water system rehabilitation or construction, which will lay a solid foundation for advancing the WASH SDGs. The WASH Return on Investment tool also enables countries to select the most environmentally sound solutions based on a carbon offset calculation for each option, and provides a calculator to determine the financial sustainability of a service based on an estimated consumer tariff.



The WASH sector is reviewing key enabling environment tools to address disaster and climate change-related risks, facilitating recommendations that will improve the resilience of the WASH sector.

Another development to assist the WASH sector in preparing for and preventing disaster is the WASH Bottleneck Analysis Tool (WASH-BAT). As at June 2019, WASH-BAT had been used in 44 countries, including fragile states such as Eritrea, Haiti, Iraq, Somalia and the State of Palestine. UNICEF – in conjunction with the Global WASH Cluster, the Stockholm International Water Institute and the University of Oxford – is providing an additional set of criteria for use in the tool. These criteria enable a risk-informed approach covering prevention, preparedness and coordination measures, which not only makes better use of available funds but also encourages integration of planning processes between humanitarian and development actors. The WASH-BAT process requires all relevant stakeholders to be part of the consultative and joint

planning exercises, as well as review and follow-up, adding to the joint ownership of future recommended actions. This will help the WASH sector to provide prevention measures to address locally identified risk and, ultimately, evidence to influence the budgeting and planning processes of national and sub-national governments.

Monitoring and review: Closing the feedback loop to increase impact

Integrating humanitarian indicators into development monitoring systems will provide evidence on the WASH sector's ability to account for vulnerable groups in the provision of long-term WASH services.

A significant portion of monitoring currently takes place in the context of projects with a direct reporting line to the donor, and thus does not contribute to national systems of monitoring. While its effects are yet to be felt in most

countries, SDG monitoring (as laid out in SDG 17) places significantly greater emphasis on supporting national efforts led by national statistical offices and relevant line ministries. In the WASH sector, this approach is backed by the third SWA collaborative behaviour: “Use one information and mutual accountability platform built around a multi-stakeholder, government-led cycle of planning, monitoring and learning”.¹⁵⁰ As we seek to integrate vulnerable groups such as displaced persons and migrants into long-term WASH service delivery, there are opportunities for the humanitarian sector to engage on strengthening these systems to ensure that these vulnerable groups are accounted for.

In developing stronger systems to monitor who does and does not have access to WASH services, it should be remembered that the ultimate purpose of having solid evidence is to provide regular updates on what actions are ongoing and what is their impact. Such information is often reviewed in regular meetings of government and partners (where coordination platforms exist) and, in some countries, larger annual or biannual meetings also take place, at which sufficient time is provided for detailed joint review and reflection on the data, and agreements can be made on where major new policies or changes in approach are needed. The latest United Nations Water (UN-Water) Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) report – led by the World Health Organization (WHO) – shows that 74 out of 110 countries report conducting joint sector reviews, and of these 74 countries, 56 per cent of countries listed as non-fragile said they had a joint sector review mechanism, compared with 83 per cent of countries listed as fragile.¹⁵¹ The term ‘joint’ is, however, interpreted as the key development partners only; the coming together of humanitarian and development partners is yet to be captured in a global monitoring system. A combined humanitarian and development monitoring system for WASH could ensure that we leave no one behind in the delivery of WASH services, especially not marginalized groups such as internally displaced persons, migrants and refugees.

Knowledge management: No need to reinvent the wheel

Joint review and sector platforms also provide an opportunity for other types of knowledge exchange beyond simple monitoring, enabling partners to draw lessons from research and other types of study or data.

Unfortunately, the development sector does not systematically manage knowledge such as the lessons learned during periods of latent conflict/unstable peace in regard to development policy and programming endeavours (for example, tariff setting and reduction of non-revenue water), risking years of development progress. And from the humanitarian perspective, lessons learned in the emergency and recovery stages are not systematically managed for the benefit of preparing for future emergencies. As such, WASH sector actors in many fragile contexts face a huge knowledge management gap. When conflict erupts, the heightened insecurity prompts many international development partners to leave the area. Government often relies upon any that do remain – such as United Nations agencies and ICRC – especially to help during the recovery phase in revising policies and programming towards development.

5.3 Institutional arrangements: Service delivery, coordination and accountability

Developing models of WASH service delivery that can operate during conflict is a fundamental part of resilience.

Investments should be grounded in a risk-informed approach that prioritizes WASH service delivery solutions that can operate during acute and protracted conflict. In fragile contexts, the long-term erosion of the state can lead to the parallel erosion of publicly owned assets. For example, from 1990 to 2015, Yemen saw a decrease in nationally operated urban piped water systems, from around 75 per cent coverage to 35 per cent, and a sharp increase in water trucking and bottled water, which together constitute more than 50 per cent of current service delivery.¹⁵² Lack of capital investment in water and sanitation means that infrastructure with high capital investment costs (e.g., piped water) is in decline in urban and semi-urban environments across many fragile contexts, which further compounds fragility. Over the same period in the Democratic Republic of the Congo, piped water to households in urban areas decreased from 69 per cent to 40 per cent coverage, which reveals a concerning trend away from the availability of urban piped water on the premises.¹⁵³ Alternatives to piped water supply often include water trucking, which is expensive, of uncertified quality and inefficient. Shown below are contexts in which at least 10 per cent of the urban population relies on delivered water – this has risen to alarming levels in Mauritanian cities, where water deliveries service 38 per cent of the

population – all of which are fragile contexts except Algeria and Mongolia (see Figure 4).¹⁵⁴

Community-based and public–private partnership models of WASH service delivery can operate during conflict due to a level of independence from political and financial manipulation by parties to the conflict.

Outside of states that maintain strong control of the ownership and delivery of WASH services, such as Ethiopia, the Syrian Arab Republic, Ukraine and the Bolivarian Republic of Venezuela, the trend towards small and medium-sized service providers has grown to fill the gaps in state service provision. Both community-based and public–private partnership models are often structured in a way that allows them some freedom from political and financial manipulation by state and non-state actors. While this may not have been the explicit intention of the structure (which is usually based on efficiency), the autonomy that this provides has a positive impact on the capacity to sustain services during conflict.

At scale, there are examples from Yemen, where, with assistance from UNICEF, the World Bank and ICRC on supplies, the local water and sanitation corporations have maintained WASH services for millions of Yemeni people during the conflict that erupted in 2015. There are many

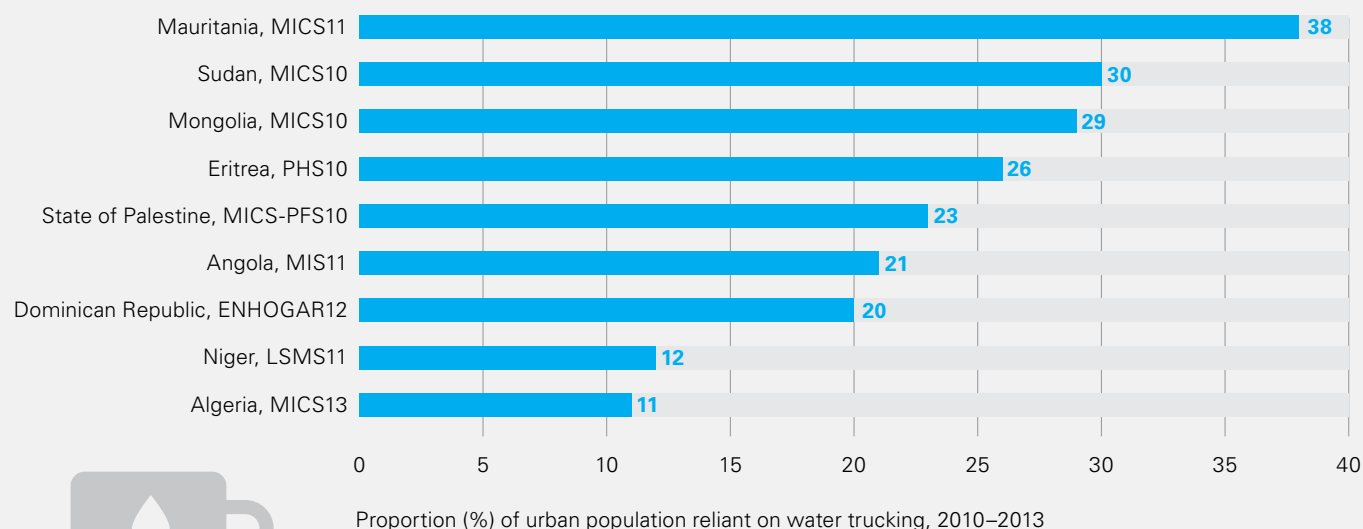
more examples from other extremely fragile and conflict-affected contexts. In Boroma, Somaliland, Somalia, for instance, SHABA water corporation, which has operated since 2004, developed tariffs based on a community participatory process and has steadily increased household connections to reach almost 9,000 homes; SHABA consistently provides safe water through conflict, drought and outbreaks of diseases such as cholera while running at a profit.¹⁵⁵ While the cost recovery model covers O&M costs, UNICEF has supported the SHABA water corporation to carry out capital expenditure projects.

A 2017 World Bank report on transitioning the water sector from emergency response to development recommends that “Governments in countries that are FCV [fragile, conflict and violence] affected should actively encourage utilities [service providers] to cover their operation and maintenance costs through consumer tariffs as early as possible and even during subsequent emergencies”.¹⁵⁶

Coordination and leadership

The WASH sector, among other sectors, has recognized gaps associated with the essential roles that leadership and coordination play in improving the quality, technical competences and accountability of a humanitarian response.

Figure 4. Contexts where at least 10 per cent of the urban population relies on water trucking



Source: World Health Organization (WHO)/United Nations Children’s Fund (UNICEF) Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) global database (2019).

These gaps are often further exacerbated during the acute conflict phase, highlighting the importance of developing a risk-informed approach to improve the WASH sector's capacity to lead, coordinate and deliver assistance.¹⁵⁷ Furthermore, transitioning from humanitarian-led coordination mechanisms to government-led mechanisms – which are fit for purpose and promote accountability – plays a crucial role in promoting sustainability and transcending the humanitarian–development divide.

The Global WASH Cluster (GWC), led by UNICEF, plays a critical role in ensuring the effectiveness of humanitarian response by enhancing “predictability, accountability and partnership.”¹⁵⁸ GWC provides support to government coordination mechanisms under the mandate of the Inter-Agency Standing Committee (IASC), the highest level humanitarian forum of the United Nations. As of June 2019, GWC was activated in 29 countries, of which 76 per cent are fragile contexts.¹⁵⁹ To develop resilience in the humanitarian WASH sector, both UNICEF and GWC are working with governments to transition from a WASH cluster-led coordination system to a government-led coordination system, by strengthening leadership and coordination of WASH services among national and sub-national governments in a number of contexts including Afghanistan, Ethiopia and Kenya. The next step is to link humanitarian coordination (whether still led by a WASH cluster or already transitioned) to development coordination structures.

Embedding humanitarian coordination in development coordination structures can strengthen linkages between humanitarian and development sectors, while allowing for the necessary independence sometimes required to fulfil their mandates.

Coordination of the WASH sector in **Afghanistan** is applied under a collective responsibility approach, and the country demonstrates how effective coordination can be when mandates, roles and responsibilities are clearly established and articulated for all key stakeholders.¹⁶⁰ The national WASH cluster is led jointly by the Ministry of Rural Rehabilitation and UNICEF, with supporting leadership roles held by the Danish Committee for Aid to Afghan Refugees and Norwegian Christian Aid. This collaboration has brought about a harmonized perspective to preparedness and response planning, and demonstrates the effectiveness of a close working relationship between government, NGOs and United Nations agencies. This approach is also replicated at the sub-national government level, with WASH sector coordination led

by the provincial Rural Development Department and co-led by the most active NGO partner in the province. WASH provincial coordination teams engage actively and collectively at the government-led coordination forum, the Provincial Disaster Management Committee, which is chaired by the provincial governor. These efforts have resulted in an increased flow of information across the multiple coordination forums that exist in the country and are supported by clear mandates and governance structures in the majority of provinces.

For national-level coordination, each partner's roles and responsibilities are outlined in a responsibility matrix managed by the WASH cluster. In addition, a detailed annual implementation plan provides guidance on WASH programming. At the sub-national level (province), there is no responsibility matrix as such – lead and co-lead responsibilities are, however, clearly defined in their governing terms of reference.

While these are positive developments, one of the challenges faced by the WASH cluster is to ensure that the transition of coordination to government does not compromise humanitarian principles, especially in the context of escalating conflict in the country since 2015. Complete transition of coordination to government is a major concern, especially for populations that live in districts controlled or contested by anti-government elements – which make up a significant portion of the country.

Overall, however, these initiatives help to increase accountability and connectedness across the various bodies and are considered a very positive move towards increasing efficiency and coherency – and building WASH sector capacities and resilience – in Afghanistan across the humanitarian–development nexus. As a result, the WASH cluster has consistently performed well over the last three years, and even surpassed the WASH target set out in the Afghanistan Humanitarian Response Plan in 2018, responding to 1.9 million people in need.¹⁶¹

Strengthening national humanitarian and development coordination in highly political and complex environments is challenging.

In **Myanmar**, the WASH cluster operates in a highly political and complex environment, coordinating the response to different conflicts in Rakhine, Kachin and Shan states as well as to natural disasters across the country.¹⁶² Although all respective WASH ministries are led by the civilian arm

of the government, the WASH sector is fragmented and government-led development sector coordination is not yet operational at sub-national level. Capacity for coordination, emergency preparedness and quality programming is limited, and knowledge of humanitarian architecture and coordination, international standards and humanitarian principles is weak.

In this context, government engagement has been recognized as essential for leadership and coordination of the WASH sector and vital to transcending the humanitarian–development divide. Government departments and humanitarian actors across the states have demonstrated varying levels of interest to engage with each other in humanitarian coordination and response. To improve participation by sub-national governments and promote engagement and leadership, the Kachin and Shan WASH Cluster focus has shifted to localization, adopting a phased approach that identifies entry points such as capacity development opportunities, fostering of mutual accountability and information sharing to involve governments. With a mutual interest in increasing local capacity of humanitarian actors and government, the WASH cluster focused its efforts on the capacity gaps identified, including in technical WASH topics, coordination and the humanitarian architecture, as well as in humanitarian principles, international standards, protection and gender mainstreaming.

This has resulted in the development of greater engagement and mutual accountabilities across government departments and humanitarian partners to varying degrees of success, depending on the nature of the conflict, political context and level of engagement across the states. In Kachin state, for example, where the uptake was highest, government participates and co-leads technical working groups with humanitarian partners, widening the scope of technical solutions to transcend the humanitarian–development divide. Additionally, government engagement with the Kachin humanitarian partners, who are primarily local NGOs, has strengthened mutual accountability on technical areas of the humanitarian response. Local and regional universities have also participated with government on technical working group discussions and projects, fostering interest in the WASH sector among local students. Focusing on government capacity, the curriculum also included vertical exchange within ministries, whereby state WASH officers were trained as trainers and supported by the WASH cluster to deliver trainings to their local township peers.

In Kachin and Shan states, the WASH cluster will continue to use the identified entry points for localization and capacity building with the vision of government-coordinated WASH service delivery, linking humanitarian and development action. This will take time and requires trust building between government and the local Kachin organizations. The upholding of humanitarian principles will need to be central.

Strengthening accountability between government, service providers and the community

While nurturing the important role of the private sector in WASH sector resilience, we must also promote and strengthen the government’s role in regulating these services.

The proliferation of private sector-supported WASH systems described above is a positive development, but it has also led to instances of excessively high tariff setting that have negatively affected the poor, along with reductions in the reliability, quality and quantity of water. For example, in Monrovia, Liberia, alternative water sources such as water trucking and bottled water cost US\$10 per cubic metre on average, compared with piped water from the Liberia Water and Sewer Corporation, charged at US\$1.32 per cubic metre.¹⁶³ Without equity-based regulation, piped water – which is both cheaper and more abundant – does not reach the poorer quintiles of a population, and poor and vulnerable communities, including children, are further disadvantaged as they are forced to access significantly more expensive alternative water sources. As such, more investment is required in strengthening the regulatory role of government in establishing and enforcing equitable and non-discriminatory access, quality and pricing for WASH service delivery in both humanitarian and development settings. Regulation is also required for the governance of service providers covering a range of service delivery models including community-based and public–private partnerships and ‘build-operate-transfer’ mechanisms.

Accountability is an interaction between three parties – policymakers, WASH service providers and the community.

In addition, an overall accountability mechanism – that encompasses policymakers (primarily the government at the national and sub-national level) but may also include

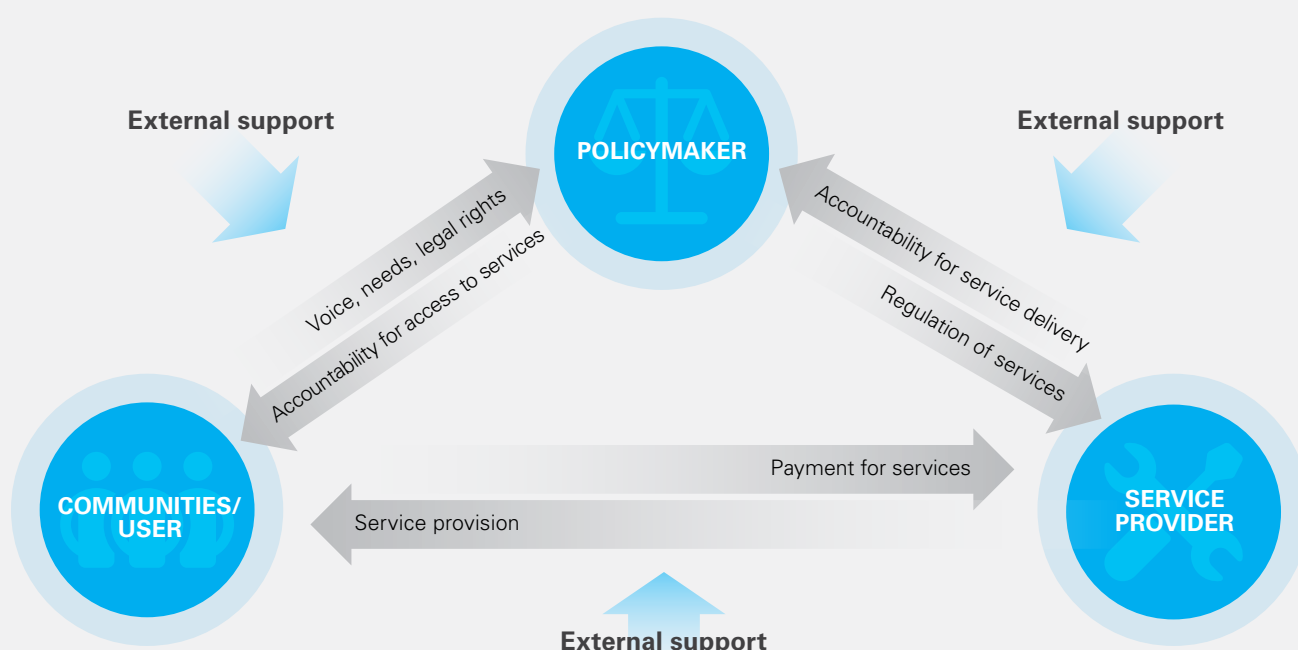
IASC-mandated platforms such as GWC, service provider and community (end users) – must be put in place to improve the accountability of, and trust in, both government and service providers, thereby building vertical social cohesion. In conflict-affected contexts where government's policymaking role is compromised, weakened or non-existent, the WASH cluster will typically take a stronger role. Ensuring active participation by government, service providers and end users in planning WASH services, and integrating accountability mechanisms into planning processes, will also promote dialogue and collaboration between different groups, thus strengthening horizontal social cohesion.¹⁶⁴ The accountability framework below shows the existing functions and relations within public service delivery (see Figure 5).

The Accountability Framework for Sustainable Water and Sanitation Services demonstrates the important role of accountability to communities and end users. It is grounded on a human rights-based model, where duty bearers (policymakers and service providers) protect, respect and fulfil their obligation to provide safe water and sanitation to

communities, and these communities/end users, including the vulnerable, are encouraged to know their rights to safe water and sanitation. Accountability in fragile settings can, however, be quite challenging to promote, when either government or service providers have weak capacities or are part of the conflict itself. And yet, some promising examples can be found.¹⁶⁵ In Gambella, Ethiopia – where both the refugees and host communities participated in planning the siting, allocation and operation of the Gambella camp's water service – professionalization of the service providers has led to the use of performance metrics to measure how many complaints have been addressed sufficiently (*for case study, see section 3*).

Humanitarian and development collaboration can improve national WASH sector accountability. The Global WASH Cluster (GWC) and Sanitation and Water for All (SWA), two of the most influential platforms representing the WASH sector across humanitarian response and development work, have joined forces to assist national governments to improve the accountability of sector governance and coordination.

Figure 5. Conceptual model of the Accountability Framework for Sustainable Water and Sanitation Services



Source: Based on United Nations Development Programme Water Governance Facility and United Nations Children's Fund, *Accountability in WASH: Explaining the concept*, Accountability for Sustainability Partnership: UNDP Water Governance Facility at Stockholm International Water Institute/UNICEF, Stockholm/New York, 2015. The conceptual model is based on: World Bank, *World Development Report 2004: Making Services Work for Poor People*, World Bank, Washington, D.C., 2003.

Over the past years, SWA has led several initiatives to support governments and external support agencies to adopt ways of working to reinforce collaboration, alignment and efficiency, and deliver sustainable services in the WASH sector; and to progressively eliminate inequalities in access using its framework of five building blocks and four collaborative behaviours.¹⁶⁶ Partners of both GWC and SWA are working towards including a limited number of indicators in this framework to better take into consideration the preparedness and prevention needs in country profiles. In the long run, these indicators could potentially even be used to complement the WHO-led UN-Water GLAAS report. This revision of the SWA Framework to include humanitarian indicators can complement other tools also currently under revision – such as WASH-BAT, described above and used sector-wide – to improve the resilience of the WASH sector. The next step would be to pilot the revised humanitarian–development accountability mechanism and tools at the country level.

5.4 Capacity development

Localizing institutional and human resource capacities is an essential part of building WASH sector resilience.

National and sub-national governments often lack the institutional resources and technical competences required to lead and coordinate emergency responses and to deliver WASH services. Capacity building is hindered not only by lack of available financial resources and inappropriate allocation, but also by the time frames for response involved in emergencies. And it can be further hampered by political and bureaucratic bottlenecks associated with the fragmentation of the WASH sector.

Capacity building efforts across Kenya's WASH sector have successfully boosted its institutional and human resource capacities to reinforce humanitarian–development coordination.

In **Kenya**, since the WASH sector was devolved in 2013, it has been led at the sub-national level by the County WASH Forum, which is chaired by the County Water Department.¹⁶⁷ The County WASH Forum is a sector stakeholder forum that brings together all WASH stakeholders, including the private sector, and has provided inputs to county-level annual work planning and budgeting, partnerships and the sustainability agenda. Humanitarian coordination is performed by a subcommittee of the

County WASH Forum called the Water and Environmental Sanitation Coordination mechanism (WESCOORD), which has been in existence since 2001. In 2011, as part of the drought response, UNICEF deployed a surge team, embedded in government through a secondment with WESCOORD, to provide technical support to WASH sector coordination.

As a result of these capacity building efforts, increased attention has been paid to raising the profile of WASH sector coordination, across the humanitarian–development divide. Systems strengthening of national and sub-national coordination structures for the WASH system is relatively high on the government's agenda and has provided opportunities to further develop the capacities of the County WASH Forum and WESCOORD and expand the resources they require. Due to devolution, capacity building has prioritized building sub-national capacities through a series of trainings and workshops, focusing on emergency preparedness and development planning, needs assessment, information management, and monitoring and reporting. Capacity building of the County WASH Forum has been ongoing since 2014, and several counties now have quarterly sector coordination meetings, while capacity building of WESCOORD has continued for almost two decades. This approach, coupled with the secondment of human resources, has improved the institutional and human resource capacities required to reinforce humanitarian–development coordination for the WASH sector, although there is still a long way to go.

Establishing minimum benchmarks for building resilience in government and service providers is a fundamental part of the professionalization of the WASH sector.

There is a recognized need to improve, across the WASH sector, professionalization that fosters leadership, coordination and improved service delivery. To ensure that governments and service providers adopt a risk-informed approach that includes emergency preparedness and prevention measures and associated accountability mechanisms, as described above, it is recommended that they establish minimum benchmarks for WASH sector resilience. These minimum benchmarks should cover both institutional and human resource capacities. Furthermore, government institutions, technical line ministries/ departments and service providers must play a central role in defining these benchmarks.

A South-South cooperation approach may be key to operationalizing the proposed benchmarking in fragile and conflict-affected contexts, in light of the unique challenges faced.

According to the United Nations Office for South-South Cooperation: “Southern actors are at the front-line of conflict; promoting creative and viable alternatives for sustaining peace. In this context, it is necessary that Global South partners can unconditionally support each other and promote contextually relevant and inclusive alternatives to guarantee durable peace.”¹⁶⁸ A successful case study of South-South learning comes from a collaboration between the Brazilian and Ethiopian governments, supported by the United Kingdom and United States governments and UNICEF. The support, which extended to urban WASH and water resource management, with a focus on technology and capacity transfer, has subsequently led to improvements in Ethiopia’s delivery of WASH services.¹⁶⁹

Other encouraging South-South developments are strengthening long-term capacity through local universities. A Master’s degree in Humanitarian WASH was established by Action Against Hunger with the support of Institut Bioforce and GWC in 2008 at Institut International d’Ingénierie de l’Eau et de l’Environnement (2ie), University of Ouagadougou, Burkina Faso. This initiative has delivered more than 180 qualified humanitarian WASH programme managers to date. Action Against Hunger is also preparing to launch – in October 2020 – a new Humanitarian WASH Master’s degree with the German Jordanian University, Madaba, Jordan. The project was officially launched in November 2018, with the financial support of the UNICEF Middle East and North Africa Regional Office and the Office of U.S. Foreign Disaster Assistance, in strong collaboration with the University itself, GWC and Institut Bioforce. The Master’s degree programme is being designed in collaboration with WASH practitioners from the Middle East region.¹⁷⁰





5.5 Change agenda: Change people's lives – From delivering aid to ending need

A change in approach from delivering aid to ending need in fragile and conflict-affected contexts is a call to action that will ensure that humanitarian needs are met, and the effects of hazards are absorbed and reduced, and disasters prevented, while protecting and accelerating progress towards the SDGs for water and sanitation.

As such, all actors are called on to support the overarching action to:

Strengthen the resilience of the WASH sector.

The WASH sector is to apply a risk-informed approach, ensuring that emergency preparedness and prevention measures are incorporated into policies and strategies; planning, monitoring and review; institutional arrangements (service delivery, coordination and accountability); and capacity development.

More specifically, this calls for actors to make the following changes:

Policies and strategies

Donors and WASH sector (international partners)

are called on to stay and invest. To protect SDG gains, donors, banks and WASH sector actors are to remain in country and committed, collaborate progressively, and invest over the long-term at the local level in fragile contexts, during all phases and especially during conflict.

Government, donors, banks and WASH sector are called on to:

- **invest in preparedness and prevention early, especially during the latent conflict/unstable peace phase, prior to the decline and collapse of the WASH sector.** Government, donors, banks and WASH sector are called on to invest early, to both reverse the long-term deterioration of WASH services in fragile contexts and reduce the risk of humanitarian crisis, as well as to protect and accelerate progress towards the SDGs.
- **prevent WASH systems from collapse in both the acute and protracted conflict phases (especially relevant in urban areas affected by conflict and/or**

hosting displaced persons). During emergency response, the priority public health intervention is to prevent collapse of the existing WASH system and related services (such as power supply) through the provision of supplies and spare parts to WASH and power service providers for rehabilitation and O&M.

- **address long-term water security and seek opportunities for peace.** In contexts of high water insecurity, prevent water shortages and seek opportunities to build social cohesion between communities within and across borders, by: (1) assessing the long-term impact of extracting the water resource prior to developing new sources or rehabilitating existing ones; and (2) responsibly and equitably managing the limited resource across the community of end users.
- **invest in renewable energy as a reliable, cost-effective and environmentally sustainable solution for powering water and sanitation systems during conflict.** Where possible, invest in solutions to strengthen the resilience of power supply, such as **renewable energy**, which will reduce dependency on expensive, carbon-based fuel and unreliable electrical grids.

Planning, monitoring and review

Governments, WASH sector, Global WASH Cluster (GWC) and Sanitation and Water for All (SWA) are called on to:

- **integrate multi-year humanitarian and development appeals and planning processes.** Government and WASH sector actors should integrate multi-year humanitarian and development appeals and planning processes.
- **integrate a risk-informed approach into WASH budgeting and planning processes.** Using risk as the basis, integrate preparedness and prevention measures within government budget and planning processes, including sector-specific processes such as the WASH joint sector reviews and WASH bottleneck analysis.
- **advocate for more durable solutions from the onset of an emergency.** Analyse the return on investment for short-term versus durable solutions, spanning economic, social and environmental considerations, as the basis for multi-year appeals and advocacy.

- **integrate humanitarian WASH indicators into existing government monitoring systems for development**, especially indicators related to the inclusion of vulnerable groups.
- **strengthen knowledge management systems on policy and programming**. The WASH sector and government are called on to strengthen knowledge management systems on policy and programming (on tariff structures, subsidies, etc.) across emergency, recovery and development phases, to ensure that knowledge gains are not lost when transitioning between phases and will inform best practice in responding to each of these phases.

Donors and banks are called on to **increase the global humanitarian and development WASH envelope, as well as multi-year, unearmarked and flexible funding**.

Institutional arrangements: Service delivery, coordination and accountability

Government, WASH sector and private sector are called on to invest in resilient service delivery models that can operate during conflict. Encourage the development of business models for small and medium-sized WASH service providers based on sustainable, equitable and non-discriminatory service delivery. Develop models such as community-based and public–private partnerships or build-operate-transfer mechanisms, which include structures that guard against financial and political drain by parties to the conflict, thereby ensuring their increased autonomy to provide WASH services.

Governments, WASH sector, GWC and SWA are called on to:

- **strengthen national and sub-national coordination structures**. Governments are called on to strengthen national and sub-national WASH humanitarian and development coordination structures and accountabilities, while maintaining the independence of both.
- **improve national governance and accountability in the WASH sector**. GWC and SWA are called to collaborate more closely. The SWA Framework should be tailored to better serve fragile and conflict-affected contexts by promoting resilience and preparedness,

thereby protecting development investments, while aligning with and contributing to the humanitarian agenda.

- **ensure accountability between government, service providers and end users**. To improve the accountability of, and trust in, government and service providers, thereby building vertical social cohesion, integrate accountability mechanisms into planning and service delivery processes, and ensure the active participation of government, service providers and end users to promote horizontal social cohesion.
- **strengthen government's regulatory role**. Strengthen government's regulatory role to establish and enforce equitable access, quality and pricing for WASH service delivery in both humanitarian and development settings. Regulation is also required to ensure the governance of service providers, covering options such as community-based and public–private partnerships or build-operate-transfer mechanisms.

Capacity development

Government, donors, banks, WASH sector and private sector are called on to:

- **professionalize the WASH sector through the development of minimum benchmarks for coordination and programming**. Government and WASH sector are to develop a minimum level of professionalization that will enable them to better prepare for and respond to emergencies as well as to integrate risk-informed programming, including conflict sensitivity.
- **strengthen South-South learning**. Encourage the benchmarking process to be undertaken in the spirit of South-South learning exchange, and for capacity development plans to cover both institutional and human resource needs.



6. Invest in humanity

New ways of working, new partnerships and innovative financing mechanisms are required to bridge the gap in financing WASH service delivery in fragile contexts to reach the most vulnerable children.

To address the Agenda for Humanity's core responsibility to invest in humanity, this section explores both the challenges to and opportunities for bridging the financing gap in fragile and conflict-affected contexts. It does so by discussing the roles and interests of various stakeholder groups, starting with policymakers and their formative role in deciding 'who should pay for what' in the WASH sector. It then moves on to explain a common predicament for many WASH service providers in fragile and conflict-affected contexts, followed by examples of bold moves made by policymakers to keep their service providers solvent and to leverage commercial finance through public-private partnerships with support from external partners.

Four foundational facts are crucial to note. First is the huge capital investment required to meet SDG 6, estimated at US\$114 billion per year globally,¹⁷¹ of which US\$60 billion per year is needed for fragile contexts.¹⁷² Second is that these contexts do not have the required resources. The latest WHO-led UN-Water GLAAS report shows that a high proportion of countries listed as fragile contexts had insufficient resources to meet national targets for water and sanitation: specifically, many fragile contexts had less than 50 per cent of the resources needed for urban sanitation (76 per cent of fragile contexts); for rural sanitation (79 per cent); for urban water (47 per cent); and for rural water (66 per cent).¹⁷³

The third fact concerns the largely unmet needs of the global humanitarian WASH appeals, which almost exclusively originated from fragile contexts in 2018, with the exception of appeals from the Philippines and refugee-receiving countries such as Turkey.¹⁷⁴ Between 2014 and 2018, the average funded portion of the global appeals remained relatively stagnant and has even dropped from 48 per cent to 42 per cent.¹⁷⁵ Fourth and by no means last is the prediction that more than 80 per cent of the world's poorest people could be living in fragile contexts by 2030.¹⁷⁶ It is clear that the 'business as usual' approach to financing fragile contexts is hopelessly inadequate to bridge the gap in financing WASH service delivery to reach the poorest and most vulnerable children and their families across the humanitarian-development divide.

Humanitarian and development actors must focus their resolve and create new ways of working, new partnerships and innovative financing mechanisms to turn this situation around. It is important to keep in mind both the third SWA building block on financing and the fourth collaborative behaviour: "Build sustainable water and sanitation sector financing strategies that incorporate financial data on all 3Ts (taxes, tariffs and transfers), as well as estimates for non-tariff household expenditure".¹⁷⁷ Again, the emphasis on planning, monitoring and review is key for financing to be connected to other sector strengthening activities (see section 5.2). In order to address the large investments required to achieve the SDG targets, dialogue and working relationships with governments, donors, development and commercial banks, United Nations agencies, NGOs and private sector stakeholders across humanitarian and development sectors in WASH will need to change. The various funders and financiers must work together to identify ways to bridge funding gaps through financing such as concessional loans, guarantees, commercial loans and/or impact bond-type structures.

6.1 Who pays for what?

In any service delivery sector, this is a fundamental public policy question that defines whether there is space for any form of debt financing (commercial, concessional or blended). Conventional thinking about funding service delivery identifies three main sources, known as the '3Ts': user tariffs and fees (tariffs), allocation of tax revenue (taxes) and aid funding (transfers).

Defining public policy on how to share the burden of costs across the 3Ts is a decision that must take into consideration: (1) the characteristics of a service; (2) the level of access/coverage in the sector; and (3) concerns about equity. For example, the telecommunications sector has characteristics that enable it to generate funding from tariffs more easily than the electricity sector, which in turn can do this more easily than the WASH sector, and generating funding from tariffs for urban water is easier than for rural water.

These considerations lead to the services provided by some sectors, such as telecommunications, being mainly funded by user tariffs – they may even be a net contributor to general taxation. Other sectors such as education and health remain 'spending sectors', financed through a mix of taxation and user charges. The WASH sector sits

somewhere in between these two extremes, but the exact situation varies considerably across countries – from countries that fund only some capital expenditure from taxation to countries that fund most capital expenditure and O&M costs.

Who pays for what in the WASH sector is a policy position taken by countries – whether implicitly or explicitly – and is not a consideration specific to water and sanitation services (see Figure 6).

Taxes and transfers

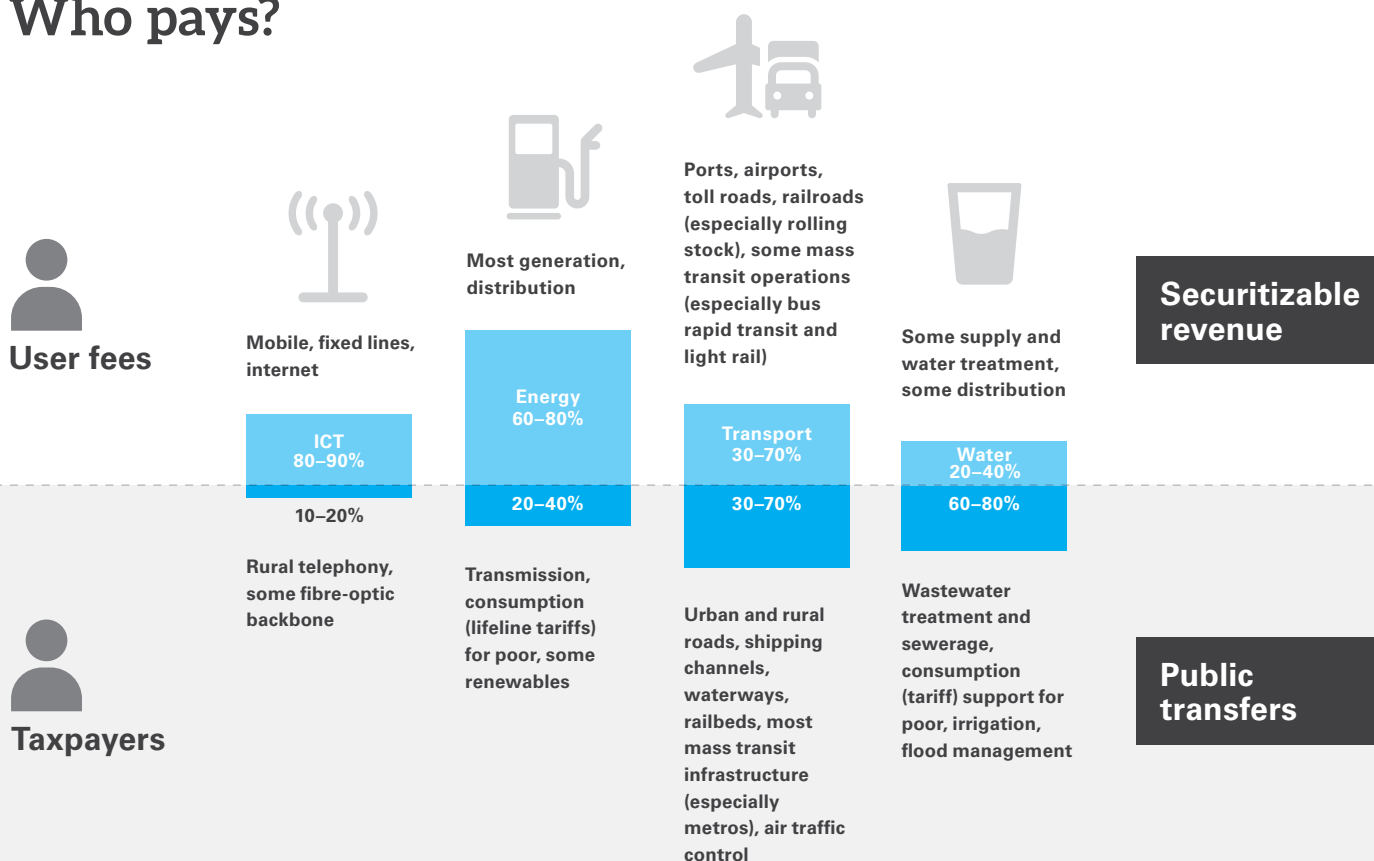
With few exceptions, both taxes and transfers are used by low- and middle-income countries to fund most WASH sector capital expenditure and to offset the difference between O&M costs and actual tariff revenues.

Of 605 developing country service providers for which International Benchmarking Network for Water and Sanitation Utilities (IBNET) data were available, only 15 per cent covered O&M costs and had a cash surplus. None of the service providers that did cover O&M costs were located in fragile and conflict-affected contexts.¹⁷⁸ From a debt financing perspective, this means that 85 per cent of the service providers do **not** have the cash surplus required to repay any form of debt, as the cost of service delivery is greater than the revenue from tariffs.

The question is whether this policy position is based on an unwillingness to pay or an unwillingness to charge?

Figure 6. Who pays for what? Illustrative global averages for various sectors

Who pays?



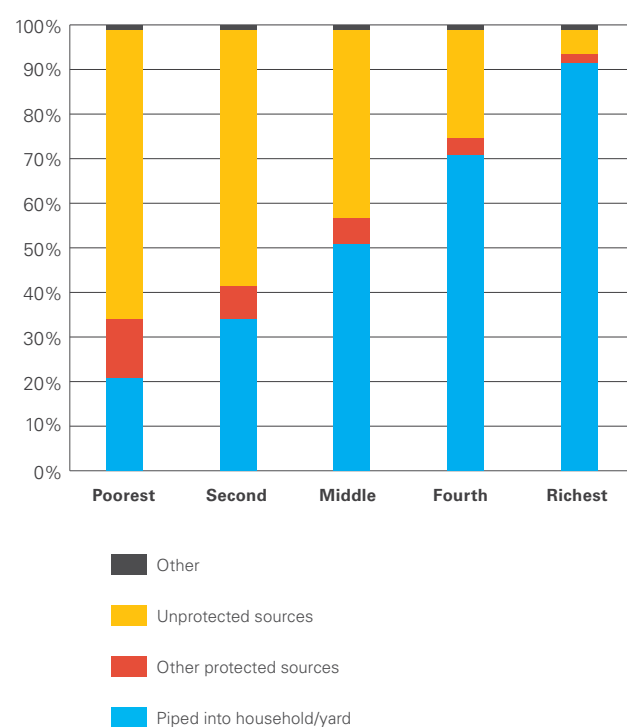
Source: Based on World Bank, 'Sustainable Infrastructure – for the SDGs and Beyond' (internal document), 2016.

Blended finance

Could water and sanitation services in fragile contexts – particularly those in protracted crisis – draw on blended finance to reverse the vicious downward cycle of failing services and falling revenues? On the downside, the cash flow of service providers comes under additional stress in protracted crisis through six common routes:¹⁷⁹

- **Loss of grid electricity:** Failure of grid electricity supply is an immediate and serious threat to cash flow. When service providers lose, or have only intermittent access to, grid electricity during crises, energy costs increase by up to six times as providers replace pre-crisis, subsidized electricity with high-speed, high-cost diesel back-up generators to pump and treat water.
- **Loss of subsidies:** Service providers lose subsidies they received pre-crisis. These subsidies come in a variety of forms: (1) cash transfers from general taxation; (2) direct payment of staff salaries and pensions; (3) cheap or free electricity; and (4) other goods in kind (e.g., chemicals for water treatment).
- **Loss of market share:** When grid electricity fails and subsidies are withdrawn, service providers find it increasingly difficult to provide services: water is rationed, system pressure drops and water quality deteriorates. Providers' revenues fall as consumers switch to buying water from water tankers and other alternative sources.
- **Loss of control over water sources:** The strong private interests involved in tanker water provision can also lead to service providers losing control of publicly owned water sources. In turn, this can lead to a drop in a service provider's water production, affecting its revenue and cash flow.
- **Loss of staff:** Where salaries are not or cannot be paid, staff morale drops and personnel leave, leading to the loss of 'institutional memory', which is a particularly vital resource when managing a system in which many assets are hidden underground.
- **Fall in exchange rates:** Though an indirect impact, falls in the value of the local currency against the US dollar can cause the cost of inputs such as diesel and consumables to eat into cash flow. Where official exchange rates are fixed, a black market for fuel and other inputs quickly appears.

Figure 7. Iraq: Sources of drinking water by wealth quintile



Source: Based on Iraq Multiple Indicator Cluster Survey 2018.

These attacks on cash flow lead to service providers rationing water and the growing prevalence of alternative services to fill the gap. Alternative provision includes: bottled water, tanker water, household wells, informal water networks, and buying from neighbours. Alternative provision is often many times more expensive than piped water provision, yet it coexists with piped water supply to fill the service gap (see Table 1).

On the upside, however, this strongly indicates a willingness to pay for water in fragile contexts. Furthermore, as alternative provision tends to be regressive (i.e., due to poorer households being less likely to be connected to piped water, the cheaper option), helping service providers to win back market share, even if this includes tariff increases, would be progressive (pro-poor).

Table 1. Cost of water supply per cubic metre: Service providers versus private providers

Context	City	Service provider	Cost per cubic metre (US\$)	
			Service provider (average tariff)	Alternative provider
Sierra Leone	Freetown	Guma Valley Water Company	0.17	6.00
Liberia	Monrovia	Liberia Water and Sewer Corporation	1.32	10.00
Nigeria	Port Harcourt	Port Harcourt Water Corporation	–	2.00
Democratic Republic of the Congo	Kinshasa	Regideso	0.75	2.00–5.00
Congo	Brazzaville	Société Nationale de Distribution d'Eau	0.35	3.50
Zimbabwe	Harare	Harare Water and Sanitation	0.40	12.00
South Sudan	Juba	South Sudan Urban Water Corporation – Juba	1.00	15.00
Somaliland, Somalia	Hargeisa	Hargeisa Water Agency	1.20	8.00–12.00

Source: Based on de Waal, D., et al., 'Water Supply: The Transition from Emergency to Development Support – Evidence from Country Case Studies in Africa', Synthesis report, World Bank, Nairobi, February 2017.



Case study

Hargeisa Water Agency, Somaliland, Somalia¹⁸⁰Somaliland,
Somalia

Implementing a tariff increase and realizing efficiency gains enabled Hargeisa Water Agency to weather a short-term financial shock, but securing finance for long-term water infrastructure investments proved more challenging.

In Hargeisa in Somaliland, Somalia, charges levied by alternative suppliers of water were as much as 10 times those charged by service provider Hargeisa Water Agency (HWA). Following the 2016–2017 drought in Somaliland, the value of the Somaliland shilling fell by 30 per cent. As over half of the service provider's expenditure is for diesel purchased in US dollars, the currency depreciation created a recurrent deficit. HWA had to temporarily borrow funding from both the Central Bank of Somaliland and from diesel suppliers. Realizing that this would not solve the problem, a World Bank team worked with the service provider on a package of efficiency measures (to reduce energy requirements and non-revenue water) and a tariff increase.

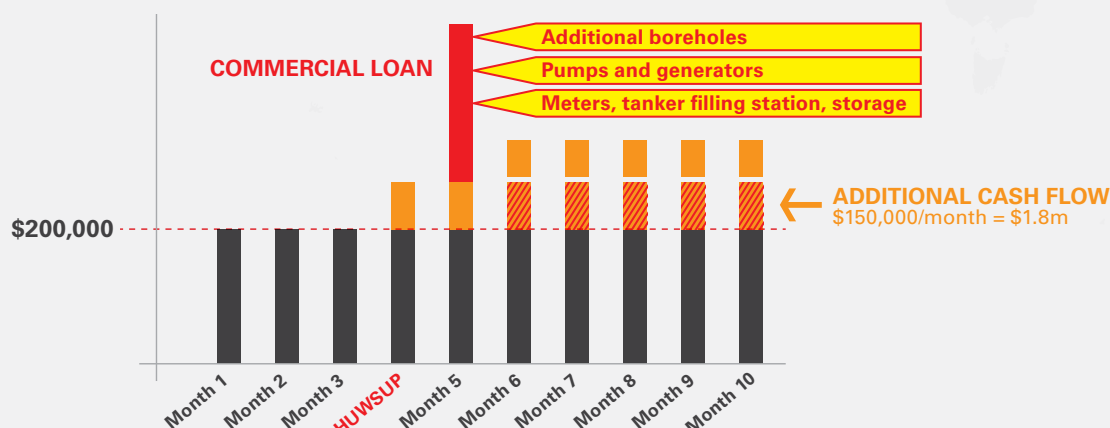
The case for an emergency tariff increase was made based on an analysis of three years of billing and collections data, and minimized the impact on less well connected households. The Cabinet of Ministers of Somaliland approved the tariff increase in April 2018, raising the service provider's annual revenues by around US\$1 million – enabling HWA to both cover its operating expenses, including the higher diesel costs, and begin to pay down its outstanding debts. The tariff increase combined with the

efficiency gains prevented the service provider from having to partially shut down its water production and distribution operations, which would have led to water rationing and loss of market share to more expensive private providers.

The way in which HWA weathered this shock to its financial viability shows that it is possible to strengthen the political will to charge for water, provided that there is clear evidence of an existing willingness to pay, along with analysis of the impact of tariff increases across wealth groups. Taking the next step to introduce commercial or even blended finance in fragile contexts is much more challenging, however, as it requires a commercial lender to take on the risk associated with lending to a service provider.

In January 2018, the World Bank team worked with the HWA management team to develop a preliminary investment proposal to present to Dahabshiil Bank in Hargeisa, a local bank. The proposal hinged around the investments that will be possible following the completion of Hargeisa Urban Water Supply Upgrading Project (HUWSUP), a large-scale project financed by the European Union. The business case was that once HUWSUP was completed, more water would be sold, increasing monthly revenue by US\$150,000. Taking a commercial loan would allow HWA to complete further revenue-enhancing projects such as those highlighted in yellow below (see Figure 8). Dahabshiil Bank indicated active interest in investing in HWA, but (1) wanted to see HUWSUP completed before committing itself; (2) was only interested in making short- to medium-term loans; (3) had concerns about lending to a public entity; (4) would only lend in US dollars; and (5) requested a more detailed analysis of each potential investment, with a focus on how soon the actions would begin to generate additional cash flow.

Figure 8. Commercial finance borrows against future cash flows to finance additional investments that will increase water supply and reduce cost



Source: Based on World Bank staff calculations. Note: HUWSUP refers to Hargeisa Urban Water Supply Upgrading Project.

This second part of the HWA case study illustrates well some of the key issues involved in putting both commercial and blended finance into practice:

- **The long-term nature of water infrastructure investments calls for long-term finance:** Most commercial banks, however, prefer short- to medium-term maturities. Returns on WASH sector investments tend to be lower than in other sectors, and legal restrictions may limit private investment in the WASH sector.
- **Even with blended finance there has to be positive cash flow:** The strategic use of development finance and philanthropic funds to mobilize private capital flows can leverage additional funds for the sector and reduce borrowing costs compared with a fully commercial arrangement. Blending can reduce the cost of debt by lowering interest rates or increasing the means (infrastructure) by which a service provider can produce and deliver services. Transactions using blended finance must nevertheless generate a positive cash flow (revenues greater than O&M costs) in the future to repay the debt.
- **Sequencing of loans:** Commercial banks do not necessarily see donor sources of finance as de-risking their exposure. In the Hargeisa case, Dahabshiil Bank wanted to see HUWSUP completed before it made any commitment to lend to HWA; at the time of writing, HUWSUP is two years behind schedule and not yet complete.
- **Turning service providers around is not just about buying hardware:** Conscious of the many steps in between taking a loan and seeing the benefits of a turnaround strategy, Dahabshiil Bank carefully questioned the HWA team about both how and when investments in the service provider would increase revenues.

Blending can reduce the cost of debt by lowering interest rates or increasing the means (infrastructure) by which a service provider can produce and deliver services. Transactions using blended finance must nevertheless generate a positive cash flow (revenues greater than O&M costs) in the future to repay the debt.

The only way to mobilize commercial finance is to give it a go. Grant or concessional elements can be used to catalyse more commercial investment than would occur without blending. Blended finance can create new understandings, relationships and potential opportunities between the water and financial sectors, which can promote the long-term goal of increasing commercial financing. A mix of instruments can be used, such as capital subsidies, partial credit guarantees, tenor extensions, political risk insurance and dedicated lines of credit.

6.2 Public–private partnerships

Could public–private partnerships be a way to both blend finance and achieve results? Public–private partnerships offer one way to more strongly connect finance and results,

as the following case study from Jordan – a refugee-receiving country – demonstrates. It also reveals some of the potential challenges that may arise, however.





Case study

Disi pipeline and As-Samra wastewater treatment plant, Jordan¹⁸¹

Two public–private partnerships that successfully helped to alleviate pressure on Jordan’s overstretched WASH system illustrate the opportunities and risks that must be balanced in taking such an approach.

Jordan ranks as the world’s second most water-scarce country, with annual renewable water resources of about 105 cubic metres per person, far below the internationally accepted threshold of severe water scarcity of 500 cubic metres per person per year. Over the period 2011–2015, an estimated 1.3 million refugees moved to Jordan, having been displaced by the conflict in the Syrian Arab Republic. The influx was equivalent to 20 per cent of Jordan’s pre-crisis population – placing tremendous pressure on water services throughout the country. Coping with water scarcity in Jordan has required the expansion – over the same period – of bulk water production facilities, including the Disi pipeline, and the As-Samra wastewater treatment plant.

The Disi Water Conveyance Project was a US\$1 billion public–private partnership for a build-operate-transfer contract that delivers an additional 100 million cubic metres of water in Jordan annually. The Disi pipeline carries water for 300 km over an elevation of 1,000 m, from deep aquifers

in the south of the country to Amman. The public–private partnership brought together government assets (e.g., land), commercial finance, concessional finance and guarantees – a good example of blended finance.

The As-Samra wastewater treatment plant was also a public–private partnership/build-operate-transfer contract designed to treat the wastewater of 3.5 million inhabitants of Amman and its surrounding areas. Following the second development phase, the plant was treating 364,000 cubic metres of wastewater per day and producing 133,000 cubic metres of reclaimed water per day for agriculture. The plant generates biogas from its digesters, making it very nearly energy self-sufficient. The public–private partnership blended finance from local banks (in local currency) with bilateral grant funding from USAID and the Millennium Challenge Corporation to reduce the capital costs.

While these public–private partnership deals were financially viable at the time of signing, unforeseen increases in energy costs have placed a large subsequent burden on public finances. Interruptions in the Egyptian natural gas supply in 2011 forced Jordan to switch to more expensive electricity generation methods and diversify its energy mix. This increased Jordan’s exposure to global energy markets and caused a threefold hike in energy costs. The WASH sector in Jordan is very energy intensive, as water has to be pumped up from aquifers and valleys to the main population centres in the highlands. Around 15 per cent of the energy produced in Jordan is consumed by the WASH sector. So, despite





making good progress in absorbing these shocks – through investments in renewable energy and other energy-efficiency measures – the projects had vastly increased electricity costs, which were passed on to the Water Authority of Jordan. This has led to the accumulation of 2.4 billion Jordanian dinar (US\$3.4 billion) in debt (see Figure 9a). This debt takes the form of accounts payable to electricity companies and bulk water suppliers, advances from the Ministry of Finance and larger annual deficits (see Figure 9b). Together, the outstanding debt and build-operate-transfer liabilities amount to around 15 per cent of national gross domestic product (GDP) in a country where the debt-to-GDP ratio is already over 90 per cent.

Figure 9a. Consolidated revenues, operational expenditure and depreciation for Water Authority of Jordan and service providers

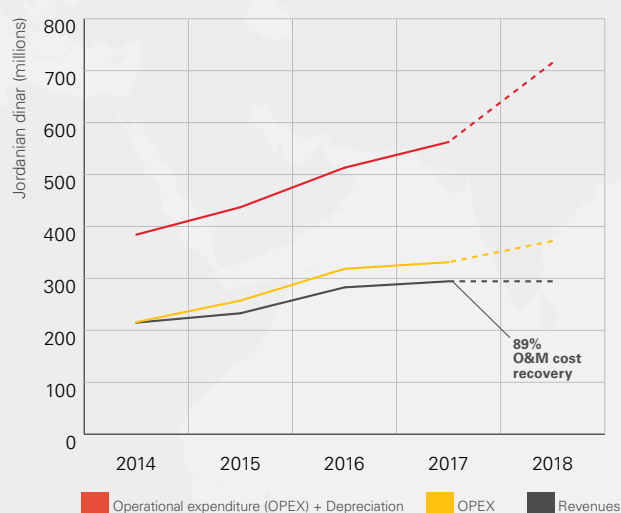
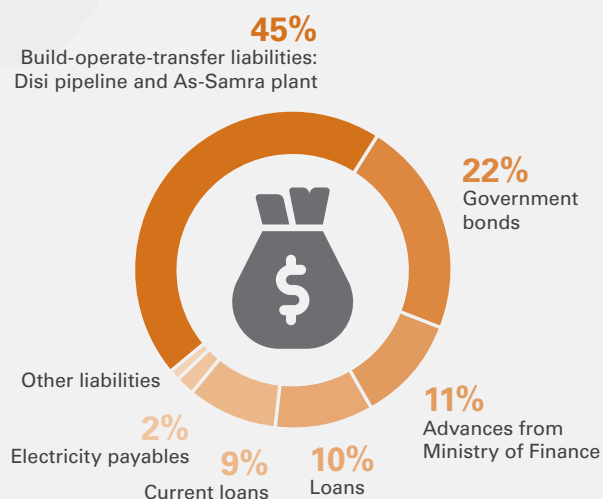


Figure 9b. Composition of Water Authority of Jordan liabilities (as at end 2017)



Source: Both figures based on Water Authority of Jordan audited financial statements.

The Jordan case study illustrates some of the opportunities and risks that public-private partnerships can hold:

- The public-private partnerships in Jordan were successful both in blending finance and linking finance to private sector expertise:** The two public-private partnerships brought in private sector knowledge to ensure efficient engineering design, project management and operating skills. This knowledge was key to turning the blended finance into successful projects. In the case of the As-Samra wastewater treatment plant in particular, it also shielded the project greatly from the subsequent and unexpected energy price rises.
- The division of risk between public and private sectors is a difficult judgement call:** Had the Disi pipeline been unable to pass on the higher energy costs to the Jordanian government, the project would have failed. Because it was able to pass on the costs, however, a less cautious approach was perhaps taken in regard to the energy efficiency of the initial project design.
- The larger the public-private partnership deal, the larger the potential contingent liabilities 'hidden' within:** Like a Trojan Horse, large unanticipated contingent liabilities (unknown costs) can get passed on to the public purse. In the case of Jordan, the state has had to increase its debt-to-GDP ratio to cope with debt accumulated by the WASH sector.
- The WASH sector is no longer allowed to raise debt of any kind:** The combination of increased energy prices and increased debt repayments that led to a cash flow crisis at the Water Authority of Jordan greatly constrains the opportunity to undertake any new public-private partnerships or blended finance deals. The Ministry of Finance has taken over much of the Water Authority of Jordan's debt, but in return does not allow the Water Authority of Jordan to raise any further debt.



6.3 Change agenda: Invest in humanity

New ways of working, new partnerships and innovative financing mechanisms are required to bridge the gap in financing WASH service delivery in fragile contexts to reach the most vulnerable children.

Governments are called on to develop a policy position:

- **on who pays for what in WASH service delivery.** With few exceptions, both taxes and transfers are used in fragile contexts to fund most WASH sector capital expenditure and to offset the difference between tariff revenues and actual O&M costs. Decisive action by policymakers in each country is needed to ensure that O&M costs for WASH services are fully and reliably covered, as this defines whether or not there is space for any form of debt financing, i.e., commercial, concessional or blended.
- **that ensures that service provider O&M costs are fully covered as a prerequisite for attracting commercial financing.** Service providers unable to demonstrate that their revenues cover their O&M costs are highly unlikely to be considered creditworthy by lenders – even if there is grant or concessional financing to lower effective interest rates – as debt has to be repaid from ‘free cash flow’. Policy positions can allow for a mix of funding sources (tariffs, taxes and transfers); the key test is that the sources cover O&M costs reliably. Governments in many countries have concerns about the impact of raising water tariffs, even though households (especially poorer households) purchase water from vendors at much higher prices than those charged by service providers. This is particularly the case in fragile contexts where non-service provider sources dominate the water supply and septage management markets.

Governments, donors, banks and key WASH sector stakeholders are called on to:

- **establish public–private partnerships as a way of blending sources of finance and achieving results, while recognizing that they are complex instruments to set up and manage.** Public–private partnership arrangements can be structured to bring together commercial, concessional and grant financing into investments that also draw on private sector efficiency. The success of public–private partnerships depends greatly on their design – which should include careful risk allocation, transparent procurement processes, sequencing of investments and their matching with revenue streams, and clear arbitration procedures – especially in fragile and conflict-affected contexts where political risk guarantees can play an important role.
- **convene to solve the financing gap.** There are significant challenges in attracting financing into fragile contexts, which will require new partnerships and new ways of working, specifically to:
 - develop policy environments under which service providers have more scope to borrow
 - use concessional and grant financing to de-risk projects and encourage commercial lenders to actively participate in lending to service providers, ensuring that they move away from their natural preference for short-term maturities towards medium-term investments
 - structure investments (such as public–private partnerships) that will attract financing, ensuring that challenges such as the division of risk between public and private sectors and the potential contingent liabilities ‘hidden’ within are well understood and managed.



7. Conclusion: For every child, water and sanitation

Deterioration and destruction of WASH systems, and water insecurity are increasingly widespread causes of social, economic and political instability, threatening the survival, health and development of children and their communities, and peace and development at all levels.

Action is needed now, across the humanitarian–development–peace nexus, to reverse the slow, and often negative, progress in WASH service delivery in fragile and conflict-affected contexts, to prevent water-related tensions manifesting between groups and political entities, and to ensure the rights to water and sanitation, for every child.

The tangible examples presented throughout the report clearly demonstrate how WASH services can be planned, financed and delivered to alleviate suffering, reduce risk and lessen the vulnerability of children and their communities on a global scale – in line with both the Agenda for Humanity and the sustaining peace agenda, and as a contribution to achieving the Sustainable Development Goals. Drawing on the experience of UNICEF and partners, the report has set out a framework for WASH sector resilience that can be replicated and scaled up. Innovative financing mechanisms and creative partnerships will also be needed to attract the necessary funding and financing.

Focusing on contexts of protracted conflict, the report has also pointed to the many opportunities to use WASH services as a platform to address underlying fragility and conflict. Concrete examples have been given of both interventions that bring communities together and build peace, and projects that build WASH services through inclusion, ensuring that no vulnerable groups are left behind.

Committed and innovative partnerships are now needed to implement all aspects of the report's change agenda – based on the Agenda for Humanity's core responsibilities – to leave no one behind; prevent and end conflicts; move from delivering aid to ending need; and invest in humanity. Governments, donors, humanitarians, development practitioners, peace and security practitioners, the private sector, banks and civil society are called on to step up and deliver for children – not as individual entities, but in partnership as one.

The tangible examples presented throughout the report clearly demonstrate how WASH services can be planned, financed and delivered to alleviate suffering, reduce risk and lessen the vulnerability of children and their communities on a global scale.



Endnotes

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- 3 Source for population data: Figure 2.2 Fragile country classification, in United Nations, Department of Economic and Social Affairs, Population Division, *World Population Prospects 2019*, Online Edition, 2019. The States of Fragility Framework 2018 lists 58 fragile contexts: Organisation for Economic Co-operation and Development, *States of Fragility 2018*, OECD Publishing, Paris, 2018, available at: <www.oecd.org/dac/states-of-fragility-2018-9789264302075-en.htm>, accessed 10 June 2019.
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- 6 The fifth core responsibility – Uphold the rules that safeguard humanity – while related, is not directly relevant to the present discussion.
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Inside back cover: A child drinks water from a tap in Kinyinya hill, Kinyinya Commune, Ruyigi Province, Burundi, Thursday 25 January 2018. The water point was recently inaugurated by UNICEF and its partners to provide the 2,500 people in the local community with access to safe drinking water and basic sanitation services.

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