

HOPE IN A DROP OF WATER

THE URGENCY IN AVERTING
A GLOBAL WATER CRISIS

2022



“More children die from unsafe water and poor sanitation than from war.”

UNICEF⁶



HOPE IN A DROP OF WATER

THE URGENCY IN AVERTING A GLOBAL WATER CRISIS

© Norwegian Church Aid

Managing editor: Lisa Sivertsen

Editor: Marianne Alfsen/Felix Media

Authors: Kit Dyer, Gudrun Bertinussen

Graphic Design: Anna Maria Pirolt/
Felix Media

Printing: 07 Media

Publication date: August 2022

ISBN: 978-82-692942-0-0

Cover picture: Five year old Alefa Thomson carries water with her mother in the village of Kambuwe in Malawi. (Photo: Håvard Bjelland/NCA).

Back page picture: Woman and child at the water well provided by Norwegian Church Aid for refugees and villagers in Burkina Faso. (Photo: Håvard Bjelland/NCA)

Contact us:

Postal address: P.O. box 7100, St. Olavs plass, 0130 Oslo, Norway

Street address: Bernhard Getz' gate 3, 0165 Oslo, Norway

Phone: + 47 22 09 27 00

E-mail: nca-oslo@nca.no

www.nca.no



ABOUT US

For 75 years, **Norwegian Church Aid (NCA)** has been mandated by Norwegian churches to save lives and seek justice for all people regardless of faith, creed, political preference, ethnicity, gender or other identities. We are faith-based and ecumenical. Assistance is provided based on humanitarian principles.

There are NCA programmes in over 30 countries, and emergency preparedness with ACT Alliance national members in more than 140 countries located on all continents. Water, Sanitation and Hygiene (WASH) is a core competency of NCA and implemented in cooperation with local partners. Our WASH programmes address immediate needs to save lives and maintain human dignity in emergencies, and sustainable access to safely managed water and sanitation. We also address root causes to inequitable access to water, support peace building, combat gender-based violence and promote climate smart agriculture.

WE MUST BUILD A WATER SAFE FUTURE FOR ALL



We are facing a global water crisis. If we do not manage the world's most important resource more effectively, it is estimated that as many as five billion people will be living in areas with insufficient access to safe water in 2050 (UN World Water Development Report 2022).

90 per cent of natural disasters are water-related, according to the UN Environment Programme (UNEP). Climate change is a driver of extreme weather causing havoc in local communities inflicting the most harm to the poor and vulnerable. Nature and biodiversity must be better protected, with its waterways and ecosystems that provide nature-based solutions to extreme weather.

Having witnessed the massive destruction of urban infrastructure in the ongoing brutal bombardment of Ukrainian cities, millions are left without adequate access to water. Water pipes, pumps, storage as well as sewage networks are hit by aerial strikes and destroyed. Civilian infrastructure, such as water supplies, must be better protected in war. It is life-threatening within days when war-torn areas are cut off from water supplies.

Access to water and sanitation is a prerequisite for a life with dignity. Inadequate sanitation and hygiene in schools leads to higher absence for girls during monthly menstruation. Our experiences show that community engagement from boys and religious leaders can bring down such barriers to education for girls.

We must make greater effort to protect the right to water and reverse the growing water crisis and the ways in which water scarcity harms and excludes. Firstly, the water crisis is mainly due to the unfair and uneven distribution of water within and between countries, with industrial production and consumption being among the biggest drivers of water shortage.

Secondly, climate and environmental crises are adding to the problems and making access to clean water, adequate sanitation, and hygiene more unstable. Longer droughts, more intensive flooding and more frequent high impact storms are destroying local communities – too much and too little water – with a negative

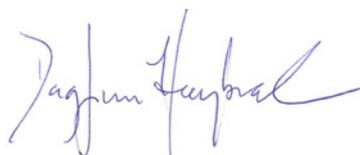
impact on health, livelihoods, and food production. It is fundamentally unfair that poor countries need to plan for massive investments in mitigating against and adapting to the effect of climate change caused by emission of CO₂ in rich countries in the north.

Thirdly, the water crisis hits the poor and marginalised hardest. These vulnerabilities intersect with gender. Women and men, boys and girls are affected differently. Lack of access to adequate water pushes girls out of schools and women out of livelihoods. The poorest and the elderly often stay behind in times of war and lack access to water in the destroyed rubble of their houses where they try to wear out the war. We must never ignore the role women play and they are the key to successful interventions of support in these communities.

Fortunately, the water crisis is neither inevitable nor unsolvable. In this report there will also be examples of what can be done and scaled up. Improved agricultural methods in Malawi, repairing wells in Burkina Faso, restoring water pipes in Syria, are just a few examples of how Norwegian Church Aid and other water actors are contributing.

We are concerned that water aid has stalled, and is less of a priority of the international community as aid budgets are cut in many rich donor countries. Access to adequate, accessible, affordable and safe water has catalytic effects on local communities, public health, on education, economic opportunity and food security and needs higher attention if we are to be prepared for the multiple overlapping food and climate crises ahead.

Political will and collaboration can change this and transform the trajectory towards a water-safe future. Norwegian Church Aid calls upon the Norwegian government to take a more leading role internationally. Together – in a partnership between local communities, the private sector, governments, and civil society – we can achieve a water-safe future for all.



Dagfinn Høybråten
Secretary General

CHAPTER 1: A PREREQUISITE FOR A LIFE IN DIGNITY AND A BASIC HUMAN RIGHT



UNSAFE WATER: Habiba Adam Adam drinks unsafe water dug out from a dried up river bed. (Photo: Håvard Bjelland/NCA)

Access to water, sanitation and hygiene is a human right, and a prerequisite for reaching other development goals. Despite decades of calls for action, the world is steering towards a water crisis. For instance, the number of people lacking access to safely managed water in Sub-Saharan Africa has increased since the launch of the UN Sustainable Development Goals (SDGs) in 2015.

“Safe water is dependent on adequate sanitation and hygiene. Without the latter two, there will be no safe water to consume.”

SUDAN, 2021: *With her bare hands, 25-year-old Habiba Adam Adam digs into the dirt in the dried out river bed to find drinking water. This is the only source of drinking water available to people in the village of Treij in Darfur, Sudan.*

Every day, she spends two hours riding her donkey across the barren landscape to get water. Every day, she needs to dig deeper. This day she finds a trickle at one metre. It takes hard work for a young mother to get something as basic as drinking water. But even worse: The water she brings home to her family is not safe.

“I wish we had clean water, so we could get rid of the diseases in our village. I am not sure how long I will manage to stay healthy this time. We are many who are ill with diarrhoea and infections because of the water,” she says.

STAGGERING NUMBERS

Water is a prerequisite for securing an adequate standard of living. It is a basic condition for life and for survival. It is disturbing that in 2022, so many people are still deprived of their right to water.

The numbers are staggering: 771 million people¹ lack access to basic drinking water services, while as many as 2 billion people² – or 26 per cent of the world’s population – lack access to safely managed water. That is, according to the UN definition, water coming from an improved water source that is accessible on premises, available when needed and free from faecal and priority chemical contamination.

The failure to provide safe water is devastating. For instance, more children die from lack of access to safe water than from war, according to the United Nations Children’s Fund (UNICEF)³. According to the World Health Organization (WHO), the deaths of 297 000 children aged under five could be avoided each year if the risk factors to the provision of safe water were addressed⁴.

Sharp geographic, sociocultural and economic inequalities persist for such basic services. 8 out of 10 people who lack access to basic drinking water services live in rural areas, and nearly half live in least de-

veloped countries according to the latest SDG progress report from UN-Water. Most of the people who lack access to safely managed water live in Sub-Saharan Africa⁵.

Women and children carry the burden of fetching water. While boys begin collecting water while young children, girls continue fetching water into adolescence and adulthood. This means that valuable time and opportunity is lost for women and girls, time that could have been spent on income generation, on school and homework, studies, play, or just some free time and rest.

Today, women around the world will spend a collective 200 million hours collecting water, according to the organisation Water.org. Millions are also spending valuable time to find a place to defecate because they do not have a toilet in the household. Water.org has estimated that 266 million hours are lost each day.

It is estimated that up to 443 million school days are lost every year because of water-related illnesses, according to the Human Development Report, 2006.

WATER, SANITATION AND HYGIENE ARE INTERLINKED

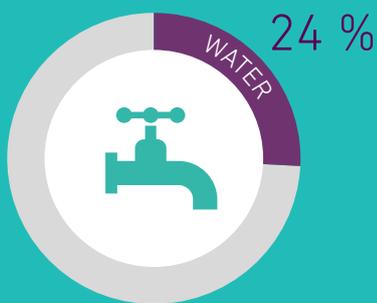
Safe water is dependent on adequate sanitation and hygiene. Without the latter two, there will be no safe water to consume.

Research and experience shows that creating any one barrier to protect water is not enough to eliminate all the pathways for contamination – we need to target all of them. The barriers could be infrastructure, i.e. building a good toilet, or they could be behavioural, i.e. washing hands with soap or being scared to use a toilet at night.

This is why we label our efforts with the acronym WASH – Water, Sanitation and Hygiene – not simply “water supply” or “hygiene”.

THE GOAL IS UNIVERSAL ACCESS

What we want to achieve is universal access to drinking water, to sanitation and to hygiene.



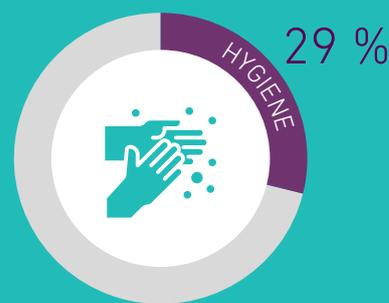
2 billion people lack safely managed services – 26 % of the world's population

771 million lack safe drinking water. Another 1.2 million have access to basic water services, but with a number of limitations such as distance, price, disruptions, quality, inadequate amounts.



3.6 billion people lack safely managed services – 46 % of the world's population

Including 1.9 billion people with basic services, 580 million with limited services, 616 million using unimproved facilities, and 494 million practising open defecation.



2.3 billion people lack basic services at home – 29 % of the world's population

Including 670 million people with no handwashing facilities at all. Over half of these people (374 million) lived in fragile contexts.

UN/WHO, 2020

When we talk about universal access to drinking water, this is one where the drinking water is from an improved source that is accessible on premises, is available when needed and is free from faecal and chemical contamination.

When we talk about universal access to sanitation, this is one where people use improved facilities that are not shared with other households and where excreta are safely disposed of in situ or removed and treated off-site – safe for us and safe for the environment.

When we talk about universal access to hygiene, we are talking about a basic handwashing service. This is where a handwashing facility with both soap and water is available at home.

Many people take access to water and sanitation for granted. But it is not always safe to approach a water station, or to walk to a latrine. The risks are not only from pathogens and spread of disease. Lighting up a latrine and installing locks can make it more safe for children and women.

Water and sanitation facilities must be safe, available, accessible, affordable, socially and culturally acceptable, provide privacy and ensure dignity for all individuals. This should include absence of violence and harassment of persons that identify as transgender and gender non-conforming that seek to access basic services.

Universal access means that also people living with a disability should be able to access a water station and enter a latrine.

A HUMAN RIGHT

The Universal Declaration on Human Rights from 1948 does not explicitly mention water. However, it is widely

agreed that water is included in Article 25 where it states that “(...)everyone has the right to a standard of living adequate for the health and and well-being of himself and of his family, including food, clothing, housing and medical care”.

A number of international conventions affirm the right to adequate standard of living. In a comment to the International Convention for Economic, Social and Cultural Rights it was also stated that “(...)the human right to water is indispensable for living a life in human dignity. It is a prerequisite for the realisation of other human rights” (UN, 2002). There should be sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses, according to the convention.

Over the years, there has been no lack of initiatives to ensure this right. The “Water for Life” decade ran from 2005 to 2015 to raise the profile of water globally.

Within that period, in 2010, the UN General Assembly recognised the human right to drinking water and sanitation as essential for the full enjoyment of the right to life and all other human rights.

FAILED EFFORTS

While there was some improvement in people's access to drinking water during the “Water for Life” campaign, evaluations showed that water access was not stable over time.

While wells were built, pumps and parts were not maintained, reliable data was missing in most of the least developed countries and measurement of progress highly insecure. Water quality was not regularly tested. Ground water sources were depleted by lack of legal regulation and overuse.

WHO IS IN CHARGE?

There is no single UN entity working exclusively with water issues. More than 30 UN organisations carry out water, sanitation and hygiene programmes, reflecting the fact that water issues run through all of the UN's main focus areas. UN-Water coordinates efforts across UN agencies⁶.

In large-scale crises, such as conflicts or natural disasters, United Nations Children's Fund (UNICEF) leads the humanitarian community's coordination cluster on water, sanitation and hygiene.

Through a *Joint Monitoring Programme for Water Supply, Sanitation and Hygiene* (JMP), World Health Organization (WHO) and UNICEF have become the leading source on water, hygiene and sanitation data. JMP maintains an extensive global database and measures progress at national, regional and global levels⁷.

“The water crisis is mainly due to the unfair and uneven distribution of water within and between countries.”

The continuing compelling need to address the water deficit was firmly recognised in the 2030 Agenda for Sustainable Development, adopted in 2015. Sustainable Development Goal (SDG) number 6, with its targets and indicators, provides a framework for concerted efforts to improve access to water, adequate sanitation and improved hygiene through better management of water resources.

Coinciding with Agenda 2030, the UN General Assembly launched another international decade for action in 2018 – the “Water for Sustainable Development” – aiming to accelerate efforts and introducing a stronger focus on management of water resources bringing together states, private sector and civil society organisations.

The campaign stresses in particular the threat of a 40 per cent shortfall in freshwater resources in the world by 2030 caused by overuse of water resources to agriculture and to private sector industries. In order for the growing world population to access adequate amounts of safe water, water needs to be more sustainably and equitably managed. In particular for the poorest populations and for marginalised and vulnerable groups.

SLOW PROGRESS

Despite all efforts, progress is not on track. On the contrary, in Sub-Saharan Africa, the number of people lacking access to safely managed drinking water has increased from 703 to 766 million people since the launch of the Sustainable Development Goals in 2015⁹.

In sanitation, 494 million people in the world are practising open defecation with inadequate access to safe sanitation. 55 countries still have a significant number of people with little access to latrines. In Oceania, the number of people practising open

defecation increased between 2015 and 2017, the progress stalled in other regions. Also, the efforts to improve management of waste water stalled.

On the positive side, some progress has been made in access to handwashing facilities, with a global increase from 54 per cent of the global population to 71 per cent of the global population.

The UN is again rallying for political support to address the water crisis, improve management of water, sanitation, hygiene, waste water, ground sources, rivers and lakes and to improve governance of water. There is a need to mobilise more high-level engagement from states.

RENEWED EFFORT

In 2020, UN-Water launched the SDG 6 Global Acceleration Framework, to mobilise action across governments, civil society, the private sector and the UN.

In 2022, we have eight years to go to achieve the 2030 agenda. Global monitoring shows that despite an enormous effort in the past 20 years, we are not on track to meet our SDG 6 targets of universal access to safely managed drinking water, safely managed sanitation and basic hygiene¹⁰.

Achieving this target will require a four-fold increase in rates of progress, and even more in least developed countries and fragile contexts, to reach those who are the most vulnerable. Failing to do so will impact people's health and wellbeing, it will impact education and health institutions, the agricultural sector so critical for the survival of poor people dependent on what they can grow, and it will impact the private sector industries that provide jobs and income generation opportunities.

While the world is faced with many challenges, concerted effort to address the water crisis cannot wait. All states need to commit to their responsibility to fulfil basic rights of their citizens. However, where states are weak, we need the international community to support the implementation of the SDG 6. Norway and other donor states must ensure there is adequate funding to implement SDG 6 on water, sanitation and hygiene in all countries, leaving no group of people behind.

We cannot afford not to deliver on the SDG 6: Clean water and sanitation – as the other 16 global goals are dependent on it.

NORWAY'S ROLE

Norway has proven to be an important champion of other SDG goals and objectives. With this report, Norwegian Church Aid urges the Norwegian Government to take a more leading role in achieving SDG 6 internationally. Norway, with its rivers and lakes, its technology, its experience with water quality and hydrology, with governance and regulation of natural resources, is a natural partner to the SDG 6.

There can be enough water for all if water management and governance is improved. States must realise their human rights obligation towards their citizens to provide basic services. This means that governments in all countries are responsible to ensure access to water and sanitation in a manner that allows an adequate standard of living and life in dignity for all. Free and independent media and civil society can be supported to remind states of their obligations and play a role to prevent corruption.

POOR MANAGEMENT AND BAD GOVERNANCE

Water scarcity is often the result of poor management of water resources, by a lack of regulations, enforcement and inadequate infrastructure. Poor people and marginalised groups suffer the most when water is poorly managed.

According to UN-Water World Development Report 2019, poorer households tend to spend a greater percentage of their household budgets on access to water than wealthier households.

Governments at municipal and state level have a responsibility to fulfil the basic right to adequate access to water and sanitation services for its population, and that water sources are protected and not depleted.

Monitoring of these responsibilities shows gaps in delivery of them. Most countries have financing plans for water and sanitation infrastructure, but more than half of these plans are insufficiently used in decision-making. While most countries have national standards for drinking-water and wastewater, institutions tasked with regulatory oversight of water and sanitation service delivery are stretched and unable to undertake the required surveillance¹³.

The state should also regulate the role of the private sector. In many settings, the private sector provides water and sanitation services, and has developed innovative technologies that can be put to use. However, the private sector is dependent on clear and predictable regulatory contexts. The private sector can be prevented from doing harm by ensuring that water sources are not depleted, and that the environment is not harmed from its industries.

Many countries still lack basic data on its population's access to water in their household, in community centres, schools, health clinics. Lack of adequate data and monitoring also hampers good decision making.

EFFORTS NEEDED ON ALL LEVELS

A drinking source will not stay safe unless the community has the resources to manage sanitation and hygiene practices at home, at work and in institutions such as schools and health clinics. Local authorities need to have resources and capacity to safely manage its waste, and there need to be regulations in place to avoid depletion of water sources and prevent water pollution.

Like in so many other fields of life, the poor spend more than the wealthy to access such basic needs as safe drinking water, and in rural areas, water for their animals and agricultural home gardens and fields. Equity in access is dependent on the resources in the community, local government and the state.

Therefore, aid agencies such as Norwegian Church Aid, must work on the individual, community, national and global level to address the water crisis. We must strengthen the capacity of local communities to sustainably manage water resources, safely manage sanitation and teach individuals to protect themselves through good hygiene practices.

COMMUNITY ENGAGEMENT

Fundamental to human rights is the importance of people and community groups advocating towards their governments to fulfil these rights. Community engagement is often a prerequisite to improved access to services and to achieving rights. In low-resource settings, participatory approaches and community engagement in managing water resources has proven key to maintaining wells, water pumps, to managing safe sanitation, and to ensuring that vulnerable groups are not excluded.

Community groups demand sufficient information about water resources, related risks, and how decisions related to access to water are taken.

Poor management of water resources is detrimental to the poor and to poor communities who are dependent on the ability of local governments to provide basic services such as access to water and sanitation. The activism of indigenous groups have improved their

6 CLEAN WATER AND SANITATION



SLOW PROGRESS

Some progress in access to water over the last decades was challenged by large gaps in reliable data. Wells were built but not maintained as one example. When designing the Sustainable Development Goals (SDGs), experts argued that what needs to be measured is lasting access to adequate water, and that is how the concept of “safely managed” water and sanitation was introduced.

As numbers show below on selected sub-objectives, progress is either slow or at standstill. With the current progress, the SDG 6 will not be achieved. Data on other key indicators are still unreliable or even absent, with too few countries able to report.

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

Proportion of population using safely managed drinking water services:

Status 2015: 70 %
Status 2021: 74 %

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

Proportion of the world’s population using a safely managed sanitation service:

Status 2015: 47 %
Status 2017: 45 %

Proportion of population with a handwashing facility with soap and water available at home:

Status 2015: 54 %
Status 2020: 71 %

UN-Water¹²

“All SDGs are interlinked (...) progress towards the eight SDG 6 targets has catalytic effects across the entire 2030 Agenda.”

UN-Water¹³



NORTH IRAQ, 2016: Hygiene education in the refugee camp in Dohuk, with mainly Yezidi refugees that had fled the ISIS attacks. The refugees learned about the importance of hygiene, since risk of disease is higher than when they lived in their original homes. NCA worked with other humanitarian partners to ensure access to safe water, safe sanitation installations and that refugees are informed and advised on how to maintain adequate hygiene in their new situation. Children can protect themselves from disease by maintaining good hand hygiene and understanding why. 28 000 people lived in the Kabartho camp at that time. (Photo: Håvard Bjelland/NCA)



SOUTH SUDAN, 2022: In Malakal refugee camp in South Sudan, the population is living in an unsafe environment caused by surface water that is a breeding ground for disease and vectors that carry malaria and cholera pathogens. NCA is working to improve access to safe water, improved sanitation and a more safe environment where wastewater is not left still on the surface. (Photo: Håvard Bjelland/NCA)

influence over management of ecosystems, and the protection of rivers, lakes and groundwater sources, referring to the UN Declaration on the Rights of Indigenous Groups. The alarming degradation of rivers and lakes causing harm the climate, wildlife, public health, and local economies, have led to a growing movement asking for better protection of nature.

AVERTING A WATER CRISIS

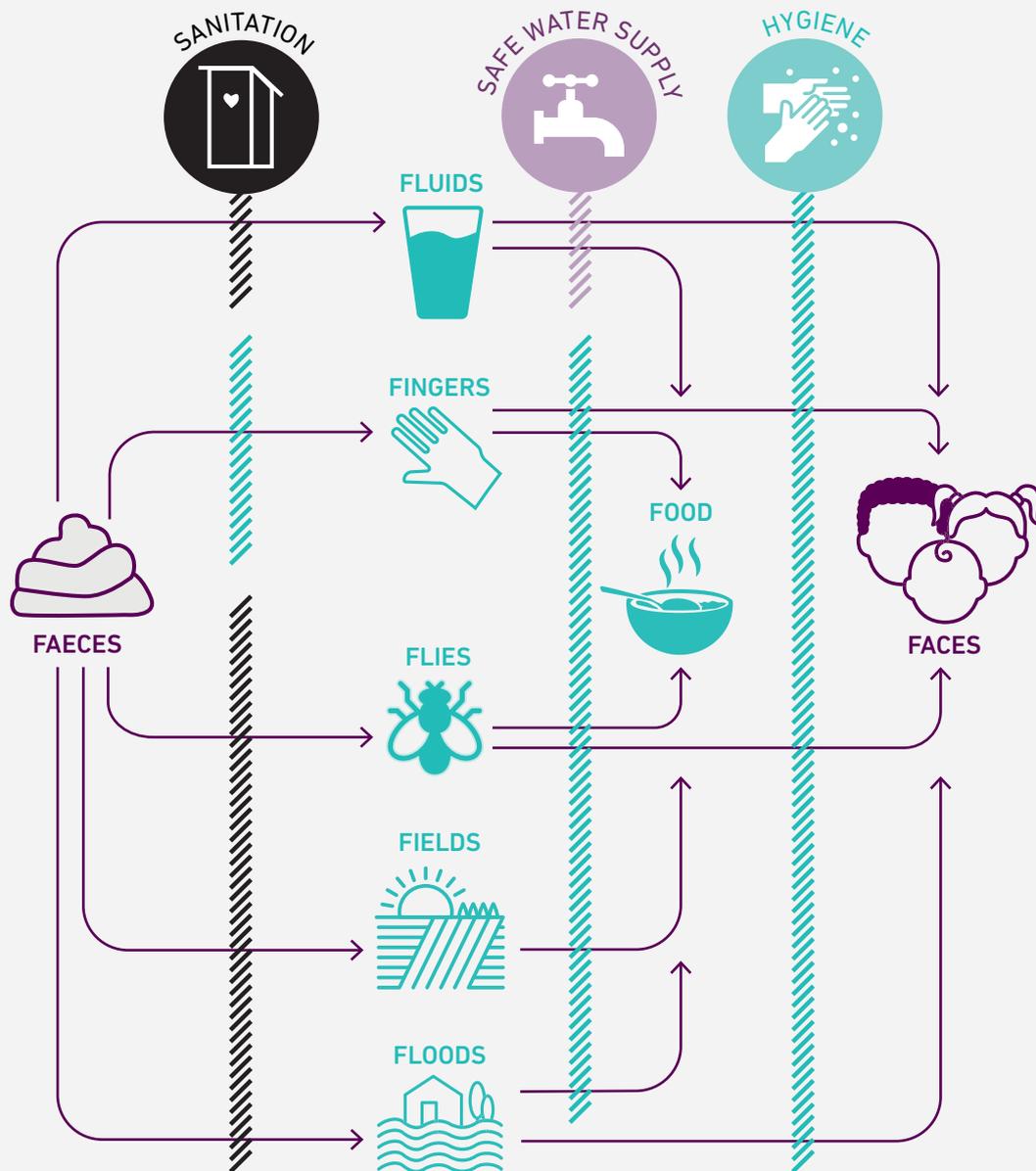
To sum up: the water crisis calls for action at the individual, community, national and global levels. It is neither inevitable nor unsolvable.

In the second chapter of this report we will look at the water crisis in light of the climate crisis.

The third chapter looks at the water crisis from a gender perspective. The chapter also explores intersectional identities that illustrate the ways in which vulnerable persons must be protected – such as indigenous groups, women, children, ethnic minorities, religious groups and others.

The fourth chapter takes a look at the effects of war on water, sanitation and hygiene services.

INFECTIOUS DISEASES AND THE SIX F'S



WHEN WATER CARRIES DISEASE

About 829 000 people are estimated to die each year from diarrhoea as a result of unsafe drinking water, sanitation and hand hygiene, according to WHO¹⁴.

Infectious diseases are caused by germs or pathogens: bacteria, viruses, etc. that are transmitted between people. Diarrhoeal diseases are of particular concern as they are still one of the biggest killers in the world. They particularly kill small children or those whose underlying health is compromised, e.g. those who are malnourished.

Non-communicable, acute and chronic respiratory diseases are also big killers. While the treatment of these diseases belongs in the Health Sector, WASH works on preventing the transmission by establishing

barriers. The F-diagram (above) describes the pathways from the source of the disease to us – fluids, fingers, flies, food, fields and floods.

While public health is at the very centre of action to improve access to water and sanitation, we cannot ignore the underlying reasons why people behave the way they do. These reasons are many, ranging from individual impairments blocking access, to community norms especially about toilets and fetching water, to the impact of social status and hierarchy on access, to safety and security. The analysis we need to make before implementing projects needs to draw on a wide range of social studies, and not just on the physical environment in which people live.

CHAPTER 2: CLIMATE CHANGE, WATER AND FOOD SECURITY



WATER IS LIFE: Salome Foster fills up her bucket from the village well in Chingawe, Malawi.
(Photo: Håvard Bjelland)

As millions of people across the world's poorest countries must adapt their life and food production to a new normal, one thing is essential: People cannot increase their resilience to extreme weather variability without improved management of water resources and climate resilient sanitation.

"Climate change disrupts predictable water supply, undermines food production, and worsens the global food crisis."

MALAWI, SEPTEMBER 2021: *She fills her bright yellow water bucket from the village well in Chingawe. With her baby safely strapped to her back, she expertly places the bucket in its stand on her small vegetable plot. Because of the experience of the prolonged droughts, new methods are needed to adapt to the changing climate.*

Drip tubing extending from the bucket delivers the water gradually to the vegetables throughout the day – allowing Salome to tend to other chores, rather than carrying bucket after bucket to irrigate her plot.

A simple irrigation starter kit, consisting of a bucket, perforated tubes, a handful of quality seeds and fertilizer, was all it took for Salome Foster to increase her family's income and food security in the arid countryside – making her more resilient to the increasingly more frequent and intense droughts affecting Sub-Saharan Africa.

A DIRE WARNING

Irrigation methods is one way to adapt to increasing water scarcity caused by global warming and affecting food-security. The level urgency in the latest report from the Intergovernmental Panel on Climate Change (IPCC) has never been more pronounced: "This report is a dire warning about the consequences of inaction," said Hoesung Lee, Chair of the IPCC, upon its release on 28 February 2022.¹

The report warned that the world is set to reach the 1.5°C level within the next two decades. Time is running out, only drastic cuts in carbon emissions will prevent an environmental disaster. The world is already facing unavoidable, multiple climate hazards, including a growing food-crisis.

The unfair fact is that poor countries must find resources to adapt to climate change caused by carbon emissions from rich countries. That is why Norwegian Church Aid is advocating for an urgent scale up of funding to climate smart adaptation programmes for millions of people who are dependent on rain-fed agriculture in developing countries.

The failure to do so will cause extreme poverty, mass migration and possibly famine, as people's livelihoods will be increasingly affected by extreme weather variability – and too much or too little water.

URGENT NEED FOR ADAPTATION

Malawi is among the most vulnerable countries in the world – ranked 174 of 189 countries in UNDP's latest Human Development Index 2019. Around 70 per cent of Malawians live below the poverty line according to the World Bank. The economy is heavily dependent on agriculture, employing nearly 80 per cent of the population².

The latest IPCC report underlined that the warming temperatures are causing shifts between wet and dry in new ways that are not in line with natural fluctuations.

Malawi, for instance, faced drought in 2017 and 2018, and when rain came, it was in the form of extreme downpours over a short period of time – such as during Tropical Storms Idai in March 2019, Ana in January 2022 and Gombe in March 2022. The storms keep coming, more frequently and with stronger force.

In the period between the two storms, despite the Covid-19 pandemic hitting hard, the agricultural sector in Malawi experienced an increase in the all important maize production. However, the positive growth in agricultural production in 2021 is projected to be subdued in 2022, due to climate change and extreme weather³.

The January 2022 storm was particularly severe, damaging farmland and destroyed key infrastructure. More than 900 000 people were displaced in a matter of days. Positive economic progress in 2021 has been reversed by the damages.

In the worst hit areas, sanitation installations were damaged and cholera broke out in two provinces in the aftermath of the flooding. The floods ripped simple latrines to debris, and washed away human waste into waterways. In May 2022, the southern Malawi provinces survived yet another tropical storm, and the cholera epidemic spread to more provinces.



ZALINGI, DARFUR IN SUDAN, 2020: Kaltuma Mohammed Umer remembers the times when there was enough water in the river bed during the dry season. Now, the dry seasons are longer, and there is not enough water. (Photo: Håvard Bjelland/NCA)

ADDING TO THE STRAIN

These are the conditions in which Salome Foster is farming to feed her family. It's paramount to secure her children nutritious food and safe water in order to stay clear of malnutrition and disease.

During 2022 storms, Salome avoided the worst: Since her village lies on a hillside, her fields were not as badly flooded by the extreme rainfall. Annual storms and flooding are part of the natural annual weather cycle. What is new is the variability and that floods not only overflow in a nutrient manner the fields, but with these extremes, the floods are destructive. Salome's vegetables were saved, but more needs to be done to continue to adapt crops and methods to the new normal.⁴

The war in Ukraine has worsen yeilds and food insecurity for small farmers all over the world in countries dependent on import of fertilizers, wheat and fuel for transport.

In Malawi, the fact that many farmers have not recovered from crop damage from the storms, combined with the rise in prices on fertilizers, spread fear that there will be lower production next year, due to lack of purchasing power. Prices on fertilizers have doubled since 2020 and it is likely that national crop production will fall to 15-25 per cent below average⁵.

The situation in Malawi is not unique. It illustrates the situation on the wider African continent. Action to scale up support to prevent hunger and famine, and increase food security, is critical.

Agriculture accounts for about 70% of global water withdrawal according to World Bank. The need for water in food production is constantly competing with domestic, urban, industrial and environmental uses. Food security depends on water security and reliable and predictable supply of water.⁶

According to the UN, more than one-fifth of the world's river basins have recently experienced either rapid increases in their surface water area indicative of flooding, a growth in reservoirs and newly inundated land; or rapid declines in surface water area indicating drying up of lakes, reservoirs, wetlands, floodplains and seasonal water bodies⁷.

WATER SCARCITY ON THE INCREASE

Of particular concern to NCA is that as climate shocks such as droughts and floods increase, increasingly undermine the livelihood and food security of already marginalised and other vulnerable people.

Today, 1.42 billion people – including 450 million children – live in areas of high or extremely high water vulnerability¹², with about 4 billion people, representing nearly two thirds of the global population, experiencing severe water scarcity during at least one month of the year¹³.

This is set to worsen, with UN-Water warning that by 2050, 50 per cent of the world's population risk living in water scarce areas, with severely limited access to water and some 4.8 to 5.7 billion people living in areas that are potentially water scarce at least one month per year. The impact on the agricultural systems that support them is likely to be far reaching¹⁴.

As in the example from Malawi, the overlapping crisis drives vulnerabilities and more dramatic flooding, longer droughts, disruption to the global commodity market, increasing debt in many poor countries, and lack of good governance and corruption intersect and lead to these alarming numbers. People cannot increase their resilience to climate change without reliable water, hygiene and sanitation services. At the same time, such services cannot function sustainably without considering climate adaptation and environmental standards. Climate risk assessments



CHURCH FOREST, ETHIOPIA, 2018: By supporting the Ethiopian Orthodox Church in their efforts to maintain the old church forests, the desert is pushed back and diversity of flora and fauna is saved for future generations. Supporting nature based solutions is one of many ways to adapt to and mitigate the effects of extreme weather from climate change. Priests on their way to Gara Menagesha Medhanialeam and Mariam Monastery to attend service. (Photo: Hilina Abebe/NCA)

and adaptation will increasingly be essential for accessing safe and stable water, sanitation and hygiene services.

THE RESPONSIBILITY OF RICH COUNTRIES

States, especially rich and powerful states, must commit to reverse the negative effects of climate change by keeping their commitments to drastically cut CO₂ emissions and to fulfil the Paris Agreement. Inaction will lead to an end result where we all lose.

Small farmers and poor people in the south will feel the consequences first, and will pay the price by facing a drop in income, and an increase in food insecurity, malnutrition, starvation and famine.

Therefore, Norway and other developed states need to step up climate finance. And climate finance must not come at the cost of development assistance in other critical fields.

“Protecting our fresh water sources under and above the ground is a key in addressing the food crisis.”



THE VALUE OF WATER

Along with being a drinking water source, almost all the food we eat, as well as the production of other essentials such as clothing and shelter, depends on reliable and timely supply of adequate amounts of good quality water. Water has effect on health, education, the economy and the environment. The value of water is therefore about much more than its price was the main message on World Water Day 2021⁸.

However, as the global population increases and urbanises, and as our standards of living change what we eat, the demand for water to grow food is rapidly increasing. Global water demand is predicted to increase by 55 per cent by 2050, mainly because of rapidly increasing demands from industry, although agricultural demand will remain the biggest users of water⁹. Most of the water we consume is for irrigated agriculture – 72 per cent of all extracted water. 12 per cent is for industry and 16 per cent for household and other municipal services¹⁰.

Water is, however, a finite resource unevenly distributed across the globe, with large disparities in the availability and accessibility of water resources between regions¹¹. Already, demands are often difficult to meet in dry regions, although many communities have developed water harvesting and animal husbandry coping strategies in response to periodic drought.



**HERAT BORNO
DISTRICT, DARFUR, SUDAN, 2021:**

Imagine a field so dry that you cannot sow a single seed. Or so wet that all the seeds are washed away. This was Mohammed Abraham's reality, until he learned new agricultural techniques. "Two years ago, I joined an NCA project, learning about new technology and resilient farming. I learned about irrigation and was followed up by agricultural engineers," he says. (Photo: Håvard Bjelland/NCA)

"Norwegian Church Aid is advocating for an urgent scale up of funding to climate smart adaption programmes."

EXAMPLES OF CLIMATE ADAPTATION ACTION

URGENT ACTION:

- Strengthen social safety nets such as social security programmes, school feeding programmes, nutritious food for mothers and children, preparation for large scale cash programmes, to prevent malnutrition, disease from unsafe water, and avoiding famine.
- Strengthen locally led local disaster risk reduction initiatives to train communities to identify their own locally determined climate hazards and how to mitigate them.
- Support climate resilient food systems, and in particular small scale farmers threatened by climate change and rising costs.
- Small scale farmers need access to improved value chains, renewable energy and inputs in agricultural production such as affordable fertilizers, equipment and climate resilient seeds.

MEDIUM AND LONGER-TERM ACTION:

- Strengthen national climate adaptation planning to enable national and regional government to better prevent and mitigate food and water insecurity, and protect the most vulnerable.
- Support nature based solutions against flooding and drought such as management of waterways, forestry and improved management of wet and dry lands.
- Support coastal protection against surge storms and tsunamis with equitable solutions to poor people living often dwelling on disaster prone land.

(UNEP, Adaption Gap Report 2021)

WHAT WE DO

Climate smart economic empowerment is one of NCA's strategic programmes.

This includes increasing people's access to climate smart food production systems, jobs, and other income opportunities. This is done in order to reduce unemployment, strengthen food security and income opportunities, and build people's resilience to climate change and other shocks. Examples are:

- Introduction of new agricultural methods in Malawi
- Micro investment in vegetable production in Tanzania
- Training in entrepreneurship and renewable energy for youth in Somalia
- Building water cisterns and water committees in Sudan for people and livestock to get through the dry season and droughts

CHAPTER 3: WOMEN, PARTICIPATION AND INCLUSION



VILLAGE LATRINE: Hurmat leaves the latrine in the Hindu village of Qazi Rasool Bux in Pakistan, which was built with support from the 2017 Norwegian Broadcasting Corporation Telethon. (Photo: Håvard Bjelland/NCA).

Women carry out the responsibility for water in households and for agriculture in many countries in the south. This responsibility becomes a burden when water is increasingly more scarce, more costly or polluted.

Women are essential stakeholders when seeking affordable solutions and must be included and empowered to improve the management of water and safe sanitation.



FEELING SAFER: “We now have a toilet in the village with a door that can be locked, and we can go to the toilet any time”, says Hurmat’s friend (right), 18-year-old Rehana (left).

PAKISTAN, SANGHAR PROVINCE,

2017: *What if a man sees her going to the toilet? It would be too shameful. So she holds it in, and waits. For the dark. Then she goes into the bush, together with other village women – for safety.*

This used to be 15-year-old Hurmat’s everyday life, before NCA installed latrines with locks in her village, Qazi Rasool Bux. “I was afraid to go, but there was no other option”, says Hurmat. “Now we can go to the toilet when we need to”.

PAKISTAN ON TOP OF THE LIST

Open defecation means the human practice of defecating outside in the open rather than in a toilet. People chose fields, bushes, forests, ditches, streets, canals, or other open spaces. In some areas, it is culturally acceptable, while in other areas the practice is common simply because there are no toilets, or because the toilets are unsafe.

Pakistan is one of the countries in the world with the highest rate of open defecation because of lack of latrines. In Hurmat’s province alone, 70-80 per cent of the population lack latrines – a fact which affects women more than men: While men can sit down and do what they need to do anywhere, women must wait to find privacy in the dark.

Human faeces in and around the area where people live increases the risk of disease. For instance, UNICEF estimates that 55 000 children under five in Pakistan die every year from diarrhoea due to poor water and lack of safe sanitation.

THE IMPACT ON WOMEN AND ADOLESCENT GIRLS

While the linkages between improved water and health outcomes are well established, there are also significant linkages between improved access to water

and the Sustainable Development Goal 5 on gender equality. Poor access to water and sanitation has a particular negative impact on women and girls, their access to education, their productivity, health and wellbeing.^{1,2}

Women have increased water, sanitation and hygiene (WASH) needs, particularly during menstruation or while pregnant or breastfeeding. For example, research in India demonstrates a strong association between open defecation and premature birth³. When gender intersects with other vulnerabilities, such as young age, adolescence, old age, or disability, women may become increasingly vulnerable.

Women and girls often face greater social pressure related to timing and location for bathing, using a toilet or managing menstruation, as well as greater risk from violence when they do so.

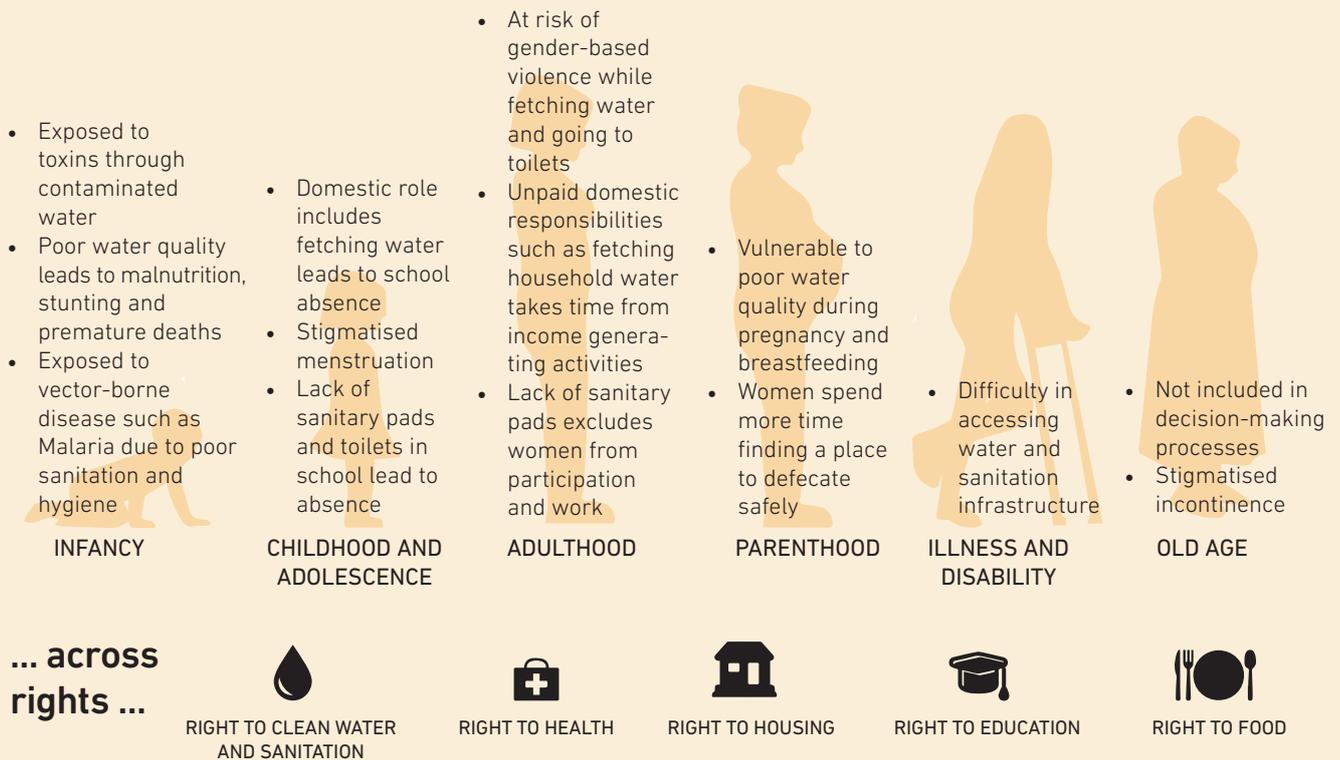
Reports from across the globe document physical and sexual harassment and assault, as well as the fear and stress faced by women and girls when they access shared sanitation facilities or defecate in the open.

Household responsibilities for WASH are closely related to the traditional roles of women and girls including water collection, cooking, cleaning, and childcare.

Women and girls are responsible for fetching water in four out of five households where a drinking water source is off premises.⁴

This illustrated how improved access to water and sanitation can be transformative for women and girls. Time will be saved for other tasks, or maybe some time for leisure activities. There will be improved learning outcomes, health outcomes for the youngest children in particular and economic opportunity if time can be spent on income generation rather than fetching water.

Gender, age, and disability intersect and drive vulnerability to unsafe water, sanitation and hygiene ...



MANAGING MENSTRUATION

Menstruation is a normal part of women's and girls' lives, but understanding the ways in which menstruation can be a barrier for participation in social life makes it a public health and a human rights issue.

While menstrual hygiene practices can vary considerably across the world, access to WASH services during menstruation is fundamental – hygiene items (including sanitary products), water for cleaning, a private place to change and wash and a safe place to dispose or clean products.

Cultural stigmas and taboos around menstruation, as well as a lack of access to information, toilets, clean water and sanitary products, prevent women and girls from attending school, work, accessing health care, and taking part in their communities.

More than 500 million women and girls worldwide lack access to adequate information, sanitary products, and facilities to manage their period. Research shows that better access to private facilities with water and safe, low-cost menstrual items could significantly reduce the health impact on women and girls.

In addition, poor WASH facilities in schools are shown to have an impact on whether a girl attends school or not on any given day, and whether she continues with her education. UNESCO reports that 1 in 10 girls in

Sub-Saharan Africa misses school during their menstruation. When staying at home is the main method for managing menstruation, these girls can miss out as much as 20 per cent of the school year.⁵

Despite the burden of managing WASH at household level women are largely under-represented in the WASH technical professions, in areas ranging from technicians and managers of small, village-based schemes right through to the ministerial level.

At the local level, women remain instrumental and are engaged in maintenance of water stations and latrines. Water committees need to be established in communities to ensure that the community takes part to mobilise costs for maintenance and buying of parts if water installations fall apart. Such structures at the very local level, is a key to sustainable WASH in low-resource settings where authorities at the regional or national level are unable to ensure basic services.

PEOPLE LIVING WITH DISABILITY

There are more than one billion people living with disability in the world. Access to sanitation is a matter of dignity as well as living a healthy life.

A disabled school child, or an elderly unable to walk, might be dependent on a wheelchair that does not fit into a toilet or cannot be manoeuvred up stairs.



GREECE, CHIOS, 2015. Syrian refugees, who just arrived by boat from Turkey, are standing in line for food and water. A boy in a wheelchair also embarked on the dangerous trip over the ocean, to refugee camps with very limited access to services. (Photo: Arne Grieg-Riisnes/NCA)

80 per cent of all people living with disability in the world are living in a low-income setting, according to the WHO.⁶

Sustainable Development Goal 17 stresses that no one shall be left behind.

To protect the rights of people living with disability and their access to basic services, the principle of universal design is included in the Convention on the Rights of Person Living with Disabilities adopted in 2006. Yet, many states have not included the convention in its national laws.

Lessons learned and best practice documentation have illustrated ways in which water, sanitation and hygiene facilities can be adapted to the needs of all people, even in low-resource settings. People living with a disability themselves have knowledge of how to find affordable solutions to have access to sanitation or water stations.

For example, according to UNICEF and WHO, less than 50 per cent of schools in the world have latrines accessible to pupils with limited mobility. The lack of adequate water and sanitation installations is a factor driving the number of children living with a disability that is out of school.

According to UNICEF, children living with disability are 47 per cent more likely to be out of primary school, 33 per cent more likely to be out of lower-secondary school and 27 per cent more likely to be out of upper secondary school.

Fulfilling the rights of people living with disability to equitable access to water, sanitation and hygiene is not only a matter of resources, we also need to address stigma and taboos.⁷

AGE MATTERS

Age is also a factor adding to a person's vulnerability with regards to access to water, sanitation and

hygiene. Vulnerability increases when age intersects with disability and gender.

Around half of the world's elderly population above the age of 60 is living with a disability according to last year's Global Humanitarian Overview. The Covid-19 pandemic showed that old people can be more vulnerable to disease, including disease caused by unsafe water and lack of latrines.

In developing countries, many elderly have to continue working as there are few safety nets. Lack of latrines is a challenge for elderly, as incontinence increases with age and old people need to access latrines more often.

PARTICIPATION IS KEY

The way forward is to build down barriers for vulnerable groups and encourage inclusion of more voices in planning of water and sanitation installations. By consultation and participation, it is possible to find solutions also in low-resource settings. Solutions can be inexpensive, and limitations are often also determined by stigma and attitudes where people without a strong voice will not be heard.

There is still a lack of disaggregated data that can help us better understand who is included and who is not. It is estimated that 15 per cent of the world's population live with a disability.

Norway and other donor states can ensure that no groups of people are left behind, and ensure time for participation by diverse groups in design, planning, implementation of water, sanitation and hygiene aid efforts. This can build down barriers to participation for people with disability, the elderly and other vulnerable groups.

Norway can tear down barriers to girls' education by making visible management of menstruation as fundamental to girls' access to school and learning.

TANZANIA, 2022: Period with Dignity Campaign with youth, adolescent girls and boys, addressing girls' need for support to manage their menstruation and not lose out on their education. Students at Mkonge Secondary School in the Lindi district presenting their poem about menstrual hygiene management challenges to religious leaders and government representatives. (Photo: NCA)



WHAT WE DO

As part of our WASH programmes, NCA works to improve menstrual hygiene management through access to adequate information, preparation, and support with which to manage menstruation in a healthy, safe, and dignified manner.

- In emergency settings, sanitation pads are distributed, and information shared about safe disposal.
- In addition, there is a need to encourage more openness about menstruation in order for girls and women to have support from their husbands, brothers and fathers, as well as from the community leaders.
- As part of the World Menstruation Day 2022, NCA engaged in campaigning and mobilisation of men and boys, including male religious leaders.
- This year, more than 14 country offices in NCA celebrated World Menstruation Day by different activities.
- In Nigeria, Tanzania and Malawi, religious leaders, men and boys were engaging actively in the campaign to break the stigma and taboo.
- For example, in Tanzania, school boys participated in an essay competition on how to support girls' access to education during menstruation. As part of the campaign, sanitary pads were distributed. At the end of the day, and after learning about the importance of being able to manage menstruation, boys asked for sanitary pads to bring back home to their sisters.
- Religious leaders were also engaged, and Sheikh Mlewa Shaban from the Kilimanjaro Region stated in social media that «women and girls need access to sanitary products, a private place to change and wash, and information about menstrual health and hygiene in order to manage their period in a safe and dignified manner.»
- In Nigeria, religious leaders participated in a radio programme speaking about menstruation breaking the stigma and taboo that can make husbands, fathers and brothers support their wives, daughters and sisters to hygienically manage their menstruation and not miss school and community activities.

"Norway and other donor states can ensure that vulnerable groups participate in design, planning, implementation of water, sanitation and hygiene aid efforts and build down barriers to participation for people with disability, the elderly and other vulnerable groups."

CHAPTER 4: DESTRUCTION OF WATER INFRASTRUCTURE AS A WEAPON OF WAR



DISPLACED BY WAR: Idrissa Djeneba at the water station built by NCA in the village of Fara, Burkina Faso. (Photo: Håvard Bjelland/NCA)

Destruction of civilian infrastructure in war is a war crime. Yet, targeted destruction of water supply or contamination of water is used as weapons of war. These violations cause life-threatening disease to spread in populations trapped in war zones. Children, the elderly and the chronically ill are the first victims.

BURKINA FASO (2022): *“In the village it was dangerous to fetch water because you might expect an attack any time, we heard shooting from the neighbouring village”, says Idrissa Djeneba from Kelebo in Burkina Faso.*

Her experience is not unique. A pattern in the war in Burkina Faso has been targeted attacks on water facilities and purposeful contamination of water resources, spreading fear and forcing people to flee their homes and villages.

Idrissa and her family fled to Fara village three years ago. Access to water remained a challenge, as the village lacked a functioning well. Idrissa had to walk four kilometers to fetch water. Now, Norwegian Church Aid (NCA) has installed a new well, assisting the internally displaced as well as the host community. The time saved from fetching water can now be used to earn a living and put food on the table instead.

ATTACKS ON WATER POINTS

In spring 2022, 11 humanitarian NGOs published a concern with the attacks on water installations by armed men in Burkina Faso. The group of NGOs have documented attacks on 32 water stations since the start of 2022 – including poisoned wells, destruction of generators, and attacks on people waiting in line to fill up their buckets or jerrycans. A water truck has also been set on fire.

The NGOs were alarmed by the magnitude of the attacks. Almost 300,000 people were left without access to adequate water. They concluded that deliberate attacks on water stations were used as a weapon of war in Burkina Faso.¹

Making a village uninhabitable by destroying water points or poisoning water sources, is a form of warfare that is violating the human rights of the civilian population to protection and basic services. This form of warfare will also disproportionately harm the women who fetch water, children, the elderly and the chronically ill, as they are the most vulnerable to waterborne disease, to stunting and to malnutrition caused by unsafe water.

A WAR CRIME

Recognising the severity of warfare that intentionally or unintentionally destroyed essential infrastructure made the UN Security Council adopt the draft resolution 2573 in 2021: Protection of Objects Indispensable to Survival of the Civilian Population. The resolution speaks clearly to the obligation of parties in a conflict to protect civilian objects.

Water and sanitation infrastructure, as well as the electricity grid powering water pumps and treatment plants, are essential and basic services that safeguard against public health risks. In war and conflict, if such essential infrastructure is targeted, the entire population will be at risk within a short period of time.

UNICEF has documented that for children and infants under five, more than 20 times as many die from unsafe water, sanitation and hygiene than from violence in conflict².

Humanitarian actors are faced with monumental tasks to assist and prevent outbreak of disease when water and sanitation installations are deliberately targeted.

DESTRUCTION IN SYRIA

In Syria, more than ten years of conflict has resulted in widespread destruction of civilian infrastructure – including houses, schools, health clinics, electricity grid, and water and sanitation infrastructure.

Prior to the war, 98 per cent of people in cities and 92 per cent of people in rural areas had reliable access to safe water. Ten years later, only 50 per cent of water and sanitation installations across Syria are functioning properly, and it is estimated that the population has 40 per cent less drinking water than prior to the war.³

Water that used to be available through piped systems, is for many only available by purchasing from water trucks – at a more expensive rate than the original water works would charge.

A report from 2021, from a UNICEF survey among its beneficiaries, found that 15 per cent have access to water once a week or less, and 19 per cent do not have access to water in their house⁴.

UNICEF also reports that repairs and reconstructing damaged water infrastructure is challenged by a spike in prices. Construction materials have risen 55 per cent in only six months. The crisis in global trade and transportation reflects directly on the ground in Syria and hampers recovery of these communities.

SEVERE IMPACT

Access to clean water and a safe environment with adequate latrines impact children's health. According to the UNICEF report referred to above, acute malnutrition among children under five has risen in the first quarter of 2022, from 1.5 per cent to 1.7 per cent in North West Syria, and severe acute malnutrition increased from 0.3 per cent to 0.4 per cent compared



SYRIA, DAMASCUS, 2018: Renovation of urban water infrastructure in the Jaraman neighbourhood, with appropriate security fencing. Father Alexis of the Greek Orthodox Church is accompanying a visiting delegation from NCA. Father Alexis headed the diaconal aid agency of the church until he tragically died from a Covid-19 infection during the height of the pandemic. (Photo: Håvard Bjelland/NCA)

"Denying access to water is a weapon of war and illegal under international law."

to the first quarter of 2021. In order to battle malnutrition, the child is dependent on having access to safe water.

The pattern of destruction of civilian water and sanitation infrastructure, the devastating effect it has on the local population, and in particular waterborne diseases, led analysts to argue that water is weaponised in the war in Syria. The Islamic State armed group has also deliberately contaminated drinking water in Aleppo, Raqqa and other cities.

MASSIVE DESTRUCTION IN UKRAINE

The destruction to civilian infrastructure in Ukraine has been massive. The UN estimates that the scale of the destruction amounts to more than 100 billion USD⁵. For instance, analysis of satellite images suggests that roughly 80 per cent of residential infrastructure has been damaged to some degree in Mariopol, a city where around 460,000 people lived prior to the war.

Other assessment teams have used light sensing from city light to map the extent of destruction, and concluded that there are drastic reductions in the outskirts of Kyiv, most of Kharkiv and Kherson, and also significant changes in less affected western Ukraine, such as in Lviv.⁶

The stories of suffering and survival in the wake of the brutal urban warfare by the Russian forces has shocked the world. Civilians are risking their lives to fetch water, as electricity stopped pumping water into the buildings.

UNICEF reported in April 2022 that they estimate that 1.4 million people are without access to safe water in

the east of the country. Adding the number of people with only limited access to safe water, UNICEF reports that over 6 million people are struggling to access this basic need and prerequisite for life – for cooking, for living in a clean environment, for staying healthy⁷.

In the spring of 2022, reports from the government of Ukraine warned against an increase in diarrheal infections and fear of cholera outbreak in Mariopol. Cholera outbreaks are common in contexts of massive destruction to water and sanitation infrastructure⁸.

INCREASED PROTECTION NECESSARY

Denying access to water is a weapon of war and illegal under international law. Still, deliberate destruction of water and sanitation infrastructure, contamination of water sources, military siege preventing maintenance, creates life-threatening living conditions for the civilian population in Ukraine – and in several other ongoing conflicts.

Norwegian Church Aid urges Norway to support the efforts to increase protection of civilians in urban warfare, and agree to a Political Declaration to address the humanitarian harm arising from the use of explosive weapons in populated areas.

The Norwegian Government should continue its engagement to raise concerns for protection of civilian infrastructure in war, to safeguard people's access to water in cities under bombardment and siege. Technology, such as satellite images and analysis of city lights might be tools to document violations and provide evidence in future efforts to hold warring parties accountable.



BORODYANKA, UKRAINE, APRIL 2022:

Picture taken by NCA partner, Hungarian Interchurch Action (HIA), during an assessment visit, days after the Russian withdrawal. In addition to the human toll, there were also massive destruction of civilian homes and city infrastructure, such as water and sewage pipes and electricity. (Photo: HIA)



SYRIA, HOMS, 2018: In collaboration with local NGOs, NCA had solar power systems installed to replace diesel driven generators. They supply electricity to community centers and schools, and to pump water to households. Electricity is a basic need and essential part of the water and sanitation infrastructure. (Photo: Håvard Bjelland/NCA)

WHAT WE DO IN UKRAINE

People who are on the road, fleeing the war, need basic services such as water, sanitation, hygiene, food, a safe place to sleep and safe transportation.

- Acute needs for the internally displaced and refugees by cash transfer programming, where the people themselves can prioritize what basic needs come first. Implemented with Swiss ACT Alliance member HEKS-EPER in Romania and Ukraine.
- Safe and adequate access to water and sanitation for refugees at reception centers, collective housing centers and in private houses, by repair of water systems, toilets and access to hand-washing, showers for personal hygiene, and washing rooms for clothes.
- Distribution of hygiene materials such as soap, toothbrushes, sanitation pads, baby nappies for refugee and conflict affected populations to maintain dignity and hygiene and stay healthy.
- Carrying out assessment of needs and gaps to plan for repairs and maintenance in Ukrainian cities.

WHAT WE DO IN SYRIA

Water, sanitation and hygiene programmes are implemented with Syrian partners in homes, schools and health clinics.

- Rehabilitation of damaged water systems to ensure sustainable water supply.
- Support to dignified menstrual hygiene management for women and adolescent girls.
- Rehabilitation of damaged sewage infrastructure for improved public health.
- Hygiene promotion, awareness raising, provision of hygiene materials to prevent communicable disease including Covid-19.
- Capacity building of local partner on implementation of water, sanitation, hygiene and renewable energy.

CHAPTER 5:

POLICY RECOMMENDATIONS

The water crisis is neither inevitable nor unsolvable. These are Norwegian Church Aid's policy recommendations.

Access to adequate water, sanitation and hygiene services is often determined by poverty, class, ethnicity, gender, disability and other intersecting identities that are drivers of inequality.

Extreme weather variability, depletion of water resources, lack of good governance of water resources and sanitation, pollution to the environment, risks the health of the planet, and the chance for local communities to thrive and individuals' health, wellbeing and opportunities in life.

GENERAL RECOMMENDATIONS TO ALL GOVERNMENTS AND DONORS

- All states must realise their human rights obligation towards their citizens to manage water and sanitation in a manner that allows an adequate standard of living and life in dignity for all.
- All states must ensure adequate funding to implement Sustainable Development Goal 6 on water, sanitation and hygiene – leaving no group of people behind.
- Governments and private sector actors must work for a responsible private sector that does not deplete water resources at production locations, in particular in countries with poor regulation against pollution and overuse.
- Governments must commit to reverse and mitigate the negative effects of climate change, by drastically cutting emissions, provide climate finance and fulfil the Paris Agreement.
- Governments must allow indigenous groups sustainable influence over management of ecosystems, and protect rivers, lakes and groundwater sources.

CLIMATE CHANGE, WATER AND FOOD SECURITY

- Norway and other developed states need to step up climate finance, but not at the expense of development assistance to combat poverty. Increase in climate finance needs to be in addition to development assistance.
- States, especially rich and powerful states, must commit to reverse the negative effects of climate change by keeping their commitments to drastically cut emissions of CO₂ and to fulfil the Paris Agreement.

WOMEN, PARTICIPATION AND INCLUSION

- Norway and other donor states can ensure that vulnerable groups participate in design, planning, implementation of water, sanitation and hygiene aid efforts and build down barriers to participation for people with disability, the elderly and other vulnerable groups.
- Norway can tear down barriers to girls' education by making visible management of menstruation as fundamental to girls' access to school and learning.

WAR AND WATER

- Norway and other states need to ensure protection of civilian infrastructure in war to safeguard people's access to water in cities under bombardment and siege. Denying access to water is a weapon of war and is illegal under international law.
- Norway and other states must support the efforts to increase protection of civilians in urban warfare, and agree to a Political Declaration to address the humanitarian harm arising from the use of explosive weapons in populated areas.

AN AVOIDABLE CRISIS

The water crisis is avoidable. Improving access to safe water, adequate sanitation and the opportunity to maintain personal hygiene and keep the environment clean can be achieved.

A renewed partnership between citizens, private sector, authorities, civil society and community groups is needed to address the crisis in governance of the world's water resources.

With this report, Norwegian Church Aid appeals to the Norwegian Government to mobilise for action to avoid the looming water crisis.



BURKINA FASO, 2021: Water tower installed by NCA in the village of Fara outside Boromo in Burkina Faso, providing water for internally displaced people and local villagers. Dofini Boue from the local water committee is attempting to repair the overflow. (Photo: Håvard Bjelland/NCA)

ENDNOTES

Chapter 1:

A prerequisite for a life in dignity and a basic human right

- 1) UNICEF (2022): Unicef Data, *Sanitation*, July 2021, and: *UN-Water (2021): Summary Progress Update 2021—SDG 6 — water and sanitation for all*. Version: July 2021
- 2) WHO (2022): *Fact Sheet, Drinking-water*, 21. mars 2022
- 3) UN-Water (2021): *Summary Progress Update 2021—SDG 6 — water and sanitation for all*. Version: July 2021
- 4) WHO (2022): *Fact Sheet, Drinking-water*, 21. mars 2022
- 5) UN-Water (2021): *Summary Progress Update 2021—SDG 6 — water and sanitation for all*. Version: July 2021
- 6) UNICEF (2019): *Water Under Fire: For Every Child, Water and Sanitation in Complex Emergencies*
- 7) unwater.org: About UN-Water
- 8) WHO/UNICEF *Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP)*: washdata.org
- 9, 10, 11 og 12) UN-Water (2021): *Summary Progress Update 2021—SDG 6 — water and sanitation for all*. Version: July 2021
- 13) WHO (2019): *UN-Water global analysis and assessment of sanitation and drinking-water (GLAAS)*, 2019 Report
- 14) WHO (2022): *Fact Sheet, Drinking-water*, 21. mars 2022

Chapter 2:

Climate change, water and food security

- 1) Intergovernmental Panel on Climate Change (2022): *Sixt Assessment Report, Press Release, 2022/08/PR 28* February 2022
- 2) World Bank (2022): *Poverty & Equity Brief, Malawi, Africa Eastern & Southern*, April 2022
- 3) Famine Early Warning Systems Network (2022): *Malawi Key Message Update: A below-average harvest and worsening macro-economic conditions severely limit post-harvest improvements*, May 2022
- 4) Relief Web, Situation Report (2022): *Malawi, Africa, Tropical Storm Ana - Operational Update #1, N°: MDRMW015*, published 8 April 2022
- 5) FAO (2021): *The State of Food Security and Nutrition in the World*
- 6) World Bank resource pages on water and agriculture. Updated 8 May 2020. <https://www.worldbank.org/en/topic/water-in-agriculture>
- 7) UNESCO (2020): *The United Nations World Water Development Report 2020*
- 8) UN Water (2021): *The United Nations World Water Development Report 2021: Valuing water*
- 9) UNESCO (2020): *The United Nations World Water Development Report 2020*
- 10) WHO & UNICEF (2021): *Progress on Household Drinking Water, Sanitation and Hygiene 2000-2020*
- 11) FAO (2021): *The State of the World's Land and Water Resources for Food and Agriculture (SOLAW)*
- 12) UNICEF (2021): *Water Security for All*
- 13) Mekonnen, M.M. and Hoekstra, A.Y. (2016): *Four billion people facing severe water scarcity*
- 14) UNESCO (2020): *The United Nations World Water Development Report 2020*

Chapter 3:

Women, participation and inclusion

- 1) MacArthur, J., Carrard, N. and Willetts, J. *WASH and Gender: a critical review of the literature and implications for gender-transformative WASH research*. *Journal of Water, Sanitation and Hygiene for Development (2020) 10 (4): 818–827*
- 2) Wendland, C., Yadav M., Stock, A. and Seager, J. (2017) *Gender, Women and Sanitation*. In: *J.B. Rose and B. Jiménez-Cisneros, (eds) Water and Sanitation for the 21st Century: Health and Microbiological Aspects of Excreta and Wastewater Management (Global Water Pathogen Project)*.
- 3) and 4) Kayser, G.L., Rao, N., Jose, R. and Raj, A. (2019) *Water, Sanitation and Hygiene: measuring gender equality and empowerment*.
- 5) UNESCO (2014): *Puberty education & menstrual hygiene management*
- 6) WHO (2011): *World Report on Disability*.
- 7) UNICEF (2021): *Make it count: Guidance on disability inclusive WASH programme data collection, monitoring and reporting*, and: UNICEF (2021): *Seen, Counted, Included: Using data to shed light on the well-being of children with disabilities*.

Chapter 4:

Destruction of water infrastructure as a weapon of war

- 1) Norwegian Refugee Council with other NGOs in a statement. "Burkina Faso: Over en kvart million mennesker rammet av angrep på vannfasiliteter i tørkesesongen", 3 May 2022
- 2) UNICEF (2022): *1.4 million people without running water across war-affected eastern Ukraine*, Press release, 15 April 2022
- 3) and 4) ICRC (2021): *Syria water crisis: Up to 40% less drinking water after 10 years of war*. Online article, 1 October 2021
- 5) UN News (2022): *Ukraine: 'Massive scale' devastation, one-quarter of population in need*, 21 April 2022, and: *Ukraine war: \$100 billion in infrastructure damage, and counting*. 16. March 2
- 6) Direct Relief (2022): *Analyzing the scale of Ukraine's Destruction*, report, 23 March 2022
- 7) UNICEF (2022): *1.4 million people without running water across war-affected eastern Ukraine*, Press release, 15 April 2022
- 8) France 24 (2022): *War in Ukraine: Cholera fears in Mariupol*", 6 June 2022, news article on TV and blog

Access to adequate, accessible, affordable and safe water has catalytic effects on local communities, public health, education, economic opportunity and food security.

Protecting water sources and securing adequate access for all people needs to be given more attention by the international community, by states and by the private sector.

We have to step up our efforts to better manage water – in order to be prepared for the multiple overlapping food, climate and nature crisis.



771 million
people do not
have clean
water close to
home

Norwegian Church Aid urge all states to realize their human rights obligation to manage water and sanitation in a manner that allows an adequate standard of living and life in dignity for all. All states must also ensure adequate funding to implement Sustainable Development Goal 6 on water, sanitation and hygiene – leaving no group of people behind.



NORWEGIAN CHURCH AID
actalliance