UNHCR
The UN Refugee Agency

ANNUAL REPORT 2021

on Water, Sanitation and Hygiene

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The report provides an overview of Water, Sanitation and Hygiene (WASH) service provision in the United Nations High Commissioner for Refugees (UNHCR's) operations. It highlights key achievements in UNHCR's global efforts to ensure universal and equitable access to water, sanitation and hygiene services that are environmentally sustainable to refugees and the host communities.

OVERVIEW OF UNHCR WASH PROGRAMMES **2021**

39 Countries
delivering UNHCR WASH Programmes

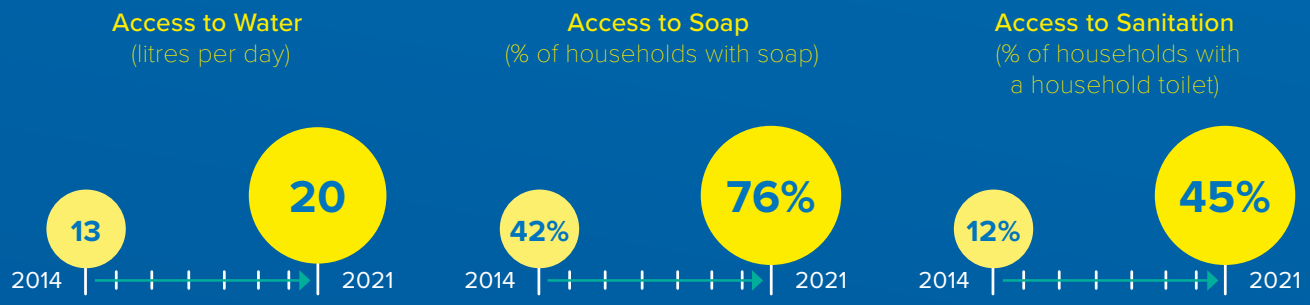
176
Refugee Sites
hosting over 4.4 million refugees, reporting to the WASH Monitoring System

14
Persons per toilet

20
Litres of water per person per day

45%
Households with a household toilet

WASH PROGRESS 2014-2021



KEY HIGHLIGHTS

39 UNHCR operations are delivering WASH services

The largest operations are **in Bangladesh, Sudan, Ethiopia,** and **Uganda**

On average, **20 litres of water per person** is supplied per day

26 operations report into the WASH Monitoring System, covering 176 sites (refugee camps and settlements)

WASH SERVICE PROVISION

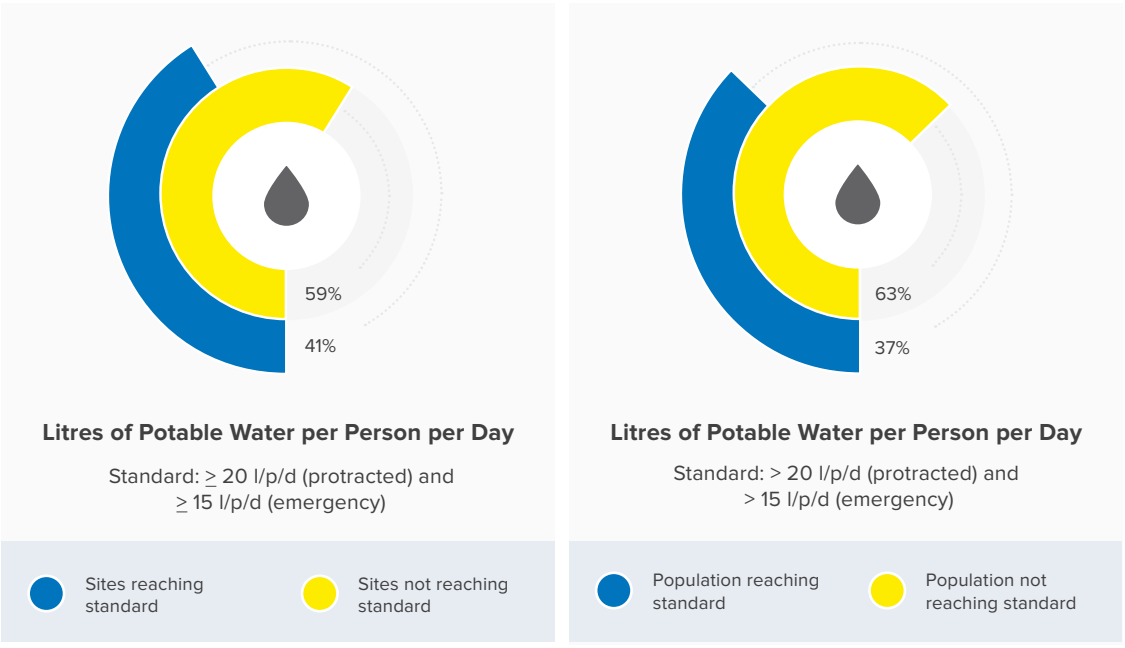
Access to Water

In 2021, an average of 20 litres of water per person per day (l/p/d) was provisioned in UNHCR refugee operations, reaching the UNHCR post-emergency minimum standard[1] and continuing a positive trend in water availability since 2014, when the average was 13 litres. However, the standard is not reached at 59% of the refugee sites, see Figure 1. During emergencies, 10 l/p/d was provided in 2021, while in post-emergency situations, the average is 20 l/p/d. Water availability differs notably between regions due to the differing contexts, with the Middle East providing significantly larger quantities of water to persons of concern (PoCs) than other regions. The share of refugee households with at least 10 litres of potable water storage capacity per person has slightly increased from 70 to 75% from 2018 to 2021. However, the proportion of households using a protected water source has slightly decreased from 93 to 88% from 2018 to 2021. Both remain below the standards of 80% and 95%, respectively.

Access to Sanitation

Despite the positive development, in most (88%) refugee sites, families do not have access to a household toilet and continue to share with several households (Figures 2 and 3). The number of households with toilets steadily increased, from 12 to 45% (2014 to 2021), but has not reached the targeted 85% for protracted situations. Concurrently the share of households using only toilets has increased from 80% in 2018 to 86% in 2021, which helps increase ownership of the facilities, regular cleaning, and positive effects on health conditions. During emergencies, toilet coverage averages 52 persons per toilet, improving to 14 persons per toilet in post-emergency contexts. These toilet coverage standards are reached in 68% of sites, with 73% of the refugee population receiving adequate service levels.

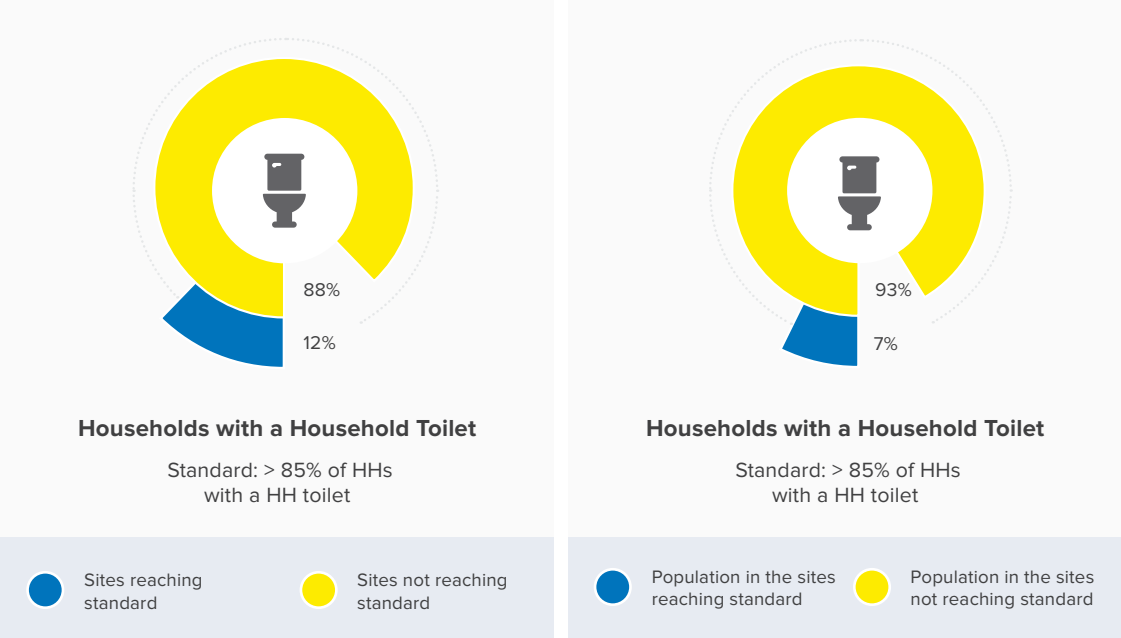
Figure 1. *Refugee sites and population reaching UNHCR WASH Standards on litres of potable water per person per day*



Source: UNHCR WASH Monitoring System, 2021

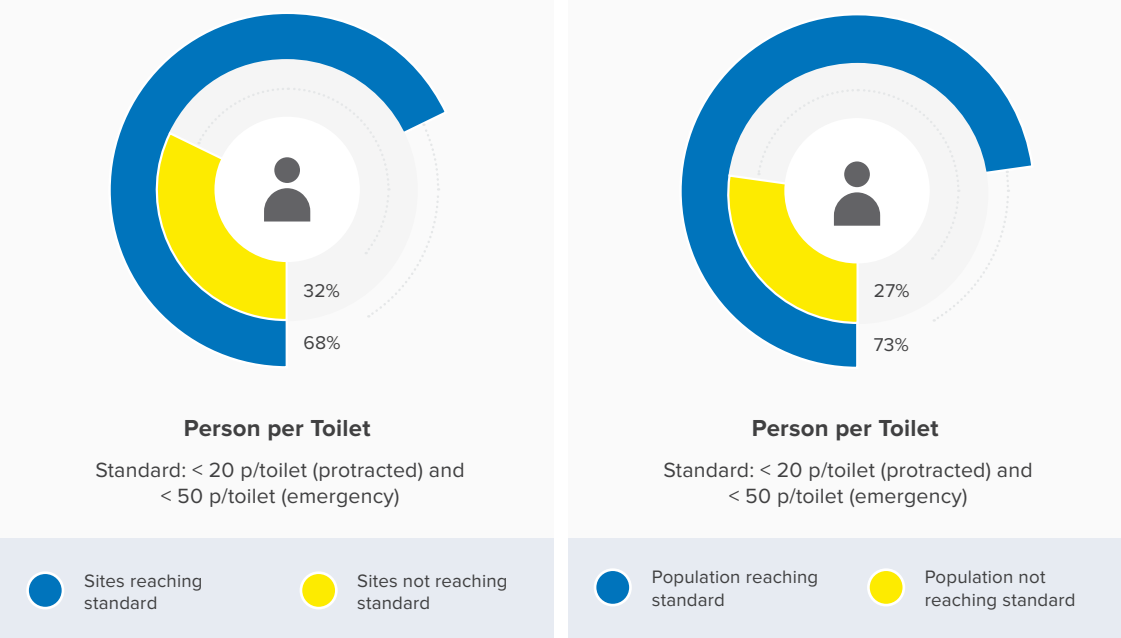
[1] https://wash.unhcr.org/download/wash-indicators-and-targets/

Figure 2. Refugee sites and population reaching UNHCR WASH Standards on the share of households with a household latrine



Source: UNHCR WASH Monitoring System, 2021

Figure 3. Refugee sites and population reaching UNHCR WASH Standards on person per latrine coverage



Source: UNHCR WASH Monitoring System, 2021

Access to Hygiene

The average number of persons per hygiene promoter has remained below 1,000 for post-emergency situations, with 669 people per hygiene promoter in 2021. The share of women of reproductive age who are satisfied with menstrual hygiene management materials, distributed by UNHCR and partners, and facilities remains significantly below the standard of 90%, with only 56% being satisfied in 2021 but improved from 38% in 2020.

COVID-19 Preparedness and Prevention

UNHCR has maintained a comprehensive set of COVID-19 preparedness and response activities since the beginning of the outbreak. With increased attention to installing handwashing facilities, improving access to water and sanitation facilities, cross-sectoral dissemination of culturally appropriate messages and distribution of hygiene supplies, especially hand soap and sanitisers, UNHCR aimed to decrease the risk of infections and spread of COVID-19 amongst PoCs. Institutional WASH improvements were also established as a part of COVID-19 prevention. For instance, to improve water availability at a public school in Minawao camp in Cameroon, a water supply network connection was established and water storage added. In Nigeria, COVID-19 funds were utilized to support three solar boreholes, establish two new boreholes, and rehabilitate one existing borehole, benefitting over 10,500 persons of concern.

CLIMATE SMART WASH SERVICES

In line with the second pillar of UNHCR's Strategic Framework for Climate Action, UNHCR WASH programmes aim to enhance the resilience of refugees to climate-related and other environmental risks while also preserving the natural environment and mitigating environmental degradation in displacement settings.

By the end of 2021, UNHCR has solarized 192 boreholes. These represent 41% of those listed by UNHCR and partners on its Borehole Database. To accelerate the solarization of boreholes in refugee sites, UNHCR established the Project Flow in 2021. Project Flow utilizes a revolving financing mechanism to support water pumping systems' solarization and targets 180 boreholes in the next 10 years. The fund supports high upfront capital investments in solar energy to run energy-intensive water pumping equipment. Funds are paid back through fuel cost savings within 5 years. As demonstrated by solarization projects in Cameroon in 2021, the installation of 8 borehole pumps energized by solar systems can reduce operational costs for fuel and provide a sustainable and cost-effective access to potable water and improved hygiene for UNHCR's PoCs. Employing solar water pumping has financial advantages as it allows for cost efficiencies and provides environmental benefits, avoiding up to 380,000 tons of CO2 emission over 15 years by shifting from fossil fuels to solar energy.

MONITORING AND INNOVATION

UNHCR systematically collects and analyses data from WASH operations through the WASH Monitoring System. WASH monitoring is used to enhance accountability to affected populations, address inequalities and gaps, and inform decision making. In 2021, 26 operations (176 sites) utilised the system to monitor the key WASH indicators at the community and household levels. The WASH Monitoring System consists of five components: annual household Knowledge, Attitudes and Practice Survey (KAP), Monthly Report Card (MRC) on community-level WASH data, WASH in healthcare facilities and schools, and water infrastructure assets (Borehole Database portal).

Real-Time Monitoring (RTM) of WASH infrastructure and services began in 2019 in 6 refugee operations, and in 2020 UNHCR won the European Union (EU Horizon Prize). RTM uses a low-cost technology (LoRaWAN) to collect real-time information from sensors placed on strategic infrastructure and enables monitoring trends and gaps in services from a distance. Monitoring WASH data and

Sudan. Resourceful Tigrayan refugees start new lives in Sudanese camp. © UNHCR/Ahmed Kwarte

analyses provide quantitative evidence that inform operations of potential efficiencies and enable optimization of, e.g., water supply networks, resulting in reduced costs and saved water. Preparations for further scale up took place in 2021, and in 2022, UNHCR will expand beyond water tank sensors and will start to roll out to improve monitoring of water networks and groundwater levels.

Plastic latrine slabs are often used to quickly scale up sanitation coverage in acute emergencies. A project on improved emergency latrine slabs funded by the Bill and Melinda Gates Foundation facilitated the development and testing of latrine slabs better suited for refugee emergencies. Based on the feedback from refugees, the project aimed to push latrine slab manufacturers to produce slabs that had self-closing mechanisms that improve user experience and overall hygiene by reducing flies and odours escaping from the pits. The improved technical specifications, including the increased focus on disability and environmental considerations, have resulted in a framework agreement with a slab manufacturer ICONO, with nearly 3,000 slabs made of recycled plastic being procured for Sudan (2,700), Uganda (120), Nigeria (100) and with 370 of those slabs being designed for people with disabilities.

FROM EMERGENCY RESPONSES TO INCLUSION

While focusing on basic WASH services to help combat COVID-19, UNHCR responded to multiple displacement emergencies globally and worked towards refugee inclusion in national WASH systems.

In Uganda and Ethiopia, the inclusion of refugees into national WASH systems continued as national service providers (water utilities) continued to take further responsibility for water services provision in refugee settlements. In both countries, a structured government-led process for transition, including governance structures and distribution of responsibilities, is in place and followed. Various stakeholders are engaged in these processes, and the handover is occurring gradually.

In Uganda, refugee inclusion began in 2019 as the government included refugees in the National Development Plan and the Water and Environment Refugee Response Plan (WERRP). A Memorandum of Understanding was developed with the Ministry of Water and Environment. Since then, a Roadmap has been developed to guide the utility transition with several refugee sites currently in different stages of transition. During the transition, the use of water trucking has significantly decreased as water supply systems are upgraded and solarized, with an average of 19 l/p/d supplied to PoCs in 2021.

Similarly, in Ethiopia, in close collaboration with the government, United Nations Children's Fund (UNICEF) and KFW Development Bank, a structured approach is utilised to guide the transition in the Gambella region. The Itang Water Utility Model, established in 2017 in Gambella, is now supplying 18 l/p/d and serving over 216,000 refugees in Jewi, Kule and Nguenyyiel camps and approximately 30,000 people in the host communities. Since its establishment, the model has been further developed to include a business and optimisation plan. In 2021, UNHCR and UNICEF and partners continued providing technical and operational support to the utility, including the design and implementation of the optimization project.

Mainstreaming development engagement in responses from the outset and advocating for the inclusion of refugees in national WASH systems remains one of UNHCR's priorities. Planning sustainable WASH solutions in the early stages of emergencies is critical, as the decisions taken affect the operations' service levels and cost structure in the years to come.

As a part of the emergency response to the Ethiopia crisis in Sudan, UNHCR scaled up WASH services for around 50,000 refugees. After scaling basic sanitation coverage and water supply services and meeting basic humanitarian standards (15 l/p/d, 50 persons/toilet) in a challenging context, UNHCR and partners have met post-emergency targets (20 l/p/d, 20 persons/toilet) for over 80% of the population. They are planning to enhance the overall sustainability of water and sanitation services for the longer term.

In the DRC, over 73,000 new refugees from the Central African Republic arrived in 2021 and were scattered along the 1,577 km border. The area is fraught with logistical challenges, significantly challenging the response programme. UNHCR has responded to basic WASH needs, including drilling three boreholes with community water management structures formed and pump repairers trained. Based on area-based approaches, UNHCR aims to develop sustainable groundwater exploitation through hydrogeological analysis, potential further drilling and installation of solar systems to pump water for refugees and host communities.

The far north Cameroon crisis impacted 60,000 persons, including 50,000 refugees from Cameroon fleeing to Chad and 10,000 Chadian host community members. Refugees live in two camps and spontaneous sites in Ndjamena and host community villages along the border. As part of the emergency response, UNHCR has provided access to WASH services by constructing sanitation facilities, drilling boreholes and promoting good hygiene behaviours in the two camps where post-emergency standards are met (23 l/p/d and 18 persons/latrine). With the participation of WASH stakeholders, WASH support has been scaled up in the often-remote spontaneous sites and host villages with a clear effort to improve the refugee water and sanitation conditions.

As the humanitarian situation in Afghanistan deteriorated, leading to millions displaced in 2021, UNHCR scaled up its response both in the country and in surrounding countries. In Iran, preparations for an influx required a joint-WASH and Shelter mission to support the government in planning two reception sites and two potential settlements in eastern border areas of Sistan and Baluchistan, Khorasan Razavi and South Khorasan. Alongside partners, Shelter and WASH strategies were developed, and site plans were developed for 4 sites, including work around basic site preparation and construction of WASH facilities and water networks.

COLLABORATION AND PARTNERSHIPS

Through Geneva Technical Hub (GTH), established in 2021, UNHCR collaborates with technical experts and Swiss academia to provide technical support and capacity building to operations on complex technical problems related to hydrogeology, water resources and sanitation. Rapid Groundwater Potential Maps (RGWPM) have been developed for 13 refugee sites to increase the probability of finding water when drilling boreholes and the productivity of finalised wells to support the planning and set-up of sustainable water supply. RGWPM methodology is based on a combined analysis of satellite images, digital elevation models and geological maps. It is a practical tool supporting borehole sitting in emergencies when time is critical. Through the GTH, other operations have benefitted from support on hydrogeology, water resource management, and sustainable sanitation, including Bangladesh, Chad, Malawi, Sudan, Zambia, and Zimbabwe.

Under the UNICEF-UNHCR Blueprint initiative, a pilot in 10 focus countries continues. A global collaboration towards realizing both agencies' joint Global Refugee Forum (GRF) pledge to stand by refugees and work with governments to ensure the inclusion of refugee children and their families in national systems and plans. This includes making refugees visible in national datasets, plans, budgets, and WASH service delivery systems in WASH. The joint 'WASH in Emergencies' training was updated and piloted in 2021 and is rolled out more widely in 2022.

Zambia. WASH Facility. © UNHCR/Sam Chisanga