BRIEF

Addressing water and sanitation challenges for schools and health facilities

November 2024 | Kenya, Garissa and Turkana Counties

Key Messages

- **Critical need for increased sanitation infrastructure**: schools in the host and refugee communities have a high learner-to-toilet ratio, with over 80% of these facilities failing to meet national standards for both male and female learners. Access to proper sanitation facilities is crucial for the quality of education, as it influences school attendance and reduces the risk of children dropping out.[1]
- Host communities in Garissa and Turkana experience more significant challenges than refugee communities. They often **rely on unsafe water sources that need further treatment**. Specifically, half of the schools in the Garissa host community rely on unimproved water sources and 9% do not have access to any water at all. Without access to safe water for drinking, food preparation, hand-washing, achieving basic education outcomes becomes challenging.
- In both health and school facilities, **hand-washing stations are often inadequate, with a lack of soap reducing their effectiveness**. This poses a significant barrier to maintaining proper hygiene for learners and patients. Additionally, the absence of hand-washing facilities in 68% of households in the refugee camps contributed to unmet water, sanitation, and hygiene (WASH) needs, increasing the risk of cholera for household members.[2]

Context & Rationale

Kenya is frequently impacted by extreme climate events, such as floods and droughts, with the frequency and intensity of these incidents expected to increase due to global climate change.[3] According to the Kenya Red Cross Society (KRCS), as of May 2024, approximately 1,967 schools and 62 health facilities were affected by floods in the most severely impacted areas of the country.[4] This situation has significantly disrupted the WASH sector, primarily due to inadequate access to sanitation infrastructure and clean water, which has led to an increase in water-borne diseases. The increasing influx of refugees into camps in Dadaab and Kakuma has placed additional strain on these already inadequate facilities.[5]

The humanitarian situation in the Arid and Semi-Arid Lands (ASAL) regions, particularly in the WASH sector, was already dire. Findings from the 2023 Multi-Sector Needs Assessment (MSNA) highlighted widespread household-level water insecurity, with many households lacking access to adequate, reliable, and safe water sources.[6] To assess the extent of household-level needs, REACH followed up with an MSNA in June 2024 across Garissa, Turkana, and Mandera counties, including the Dadaab and Kakuma refugee camps and the Kalobeyei Integrated Settlement. The results indicated that most households still faced challenges in the WASH sector, driven by a lack of sanitation facilities and poor hygiene practices, particularly in the refugee camps.

With funding from UNICEF, REACH followed up with a WASH needs assessment in schools and health facilities in Garissa and Turkana counties. This assessment aimed to provide updated WASH data for schools and health facilities, highlight the extent of the impact on vulnerable groups, and support response prioritization for affected communities. The findings indicated that both host and refugee communities face significant challenges, such as inadequate sanitation infrastructure and limited access to clean and reliable water sources.

+80%

of schools in the host and refugee communities do not meet the recommended learner-to-toilet ratios for boys and girls.

59%

of schools in the Garissa host community lack basic water services

26%

of health facilities in the Garissa host community do not have hand-washing stations designated for patients

unicef for every child

Kingdom of the Netherlands

REACH Informing more effective humanitarian action

Compromised hygiene standards in schools impact the quality and access to education

Most schools in the host and refugee communities do not meet the recommended learner-to-toilet ratios. At the primary school level, the recommended learner-to-toilet ratio is one toilet for 25 girls, one toilet for 30 boys, and a urinal facility.[1] However, **over 80% of schools in all assessed locations fail to meet these recommendations**. For example, in the Garissa host community, the learner-to-toilet ratio was 68 for boys and 57 for girls. Additionally, the Kakuma and Kalobeyei refugee camps have higher learner-toilet ratios than the Turkana host community. In Kakuma camp, the ratios are particularly concerning, with 101 boys and 80 girls per toilet. Access to proper WASH facilities is crucial for the quality of education, as it influences school attendance and reduces the risk of children dropping out.[1]

Limited water access hinders latrine sanitation in the host schools

Most schools in the host community do not clean their toilets with water and detergents on a daily basis. Specifically, 84% of schools in Garissa and 54% in Turkana reported not cleaning their toilets every day. The main reasons for this are the lack of water and cleaning detergents. While latrine cleaning appears to be more frequent in camp schools, they still face similar challenges as those in host community schools, particularly concerning the **shortage of cleaning detergents and inadequate access to water**.

Limited inclusive toilets compromises access to education in host schools

The majority of schools in the host community lack latrines that are accessible to individuals with mobility or physical impairments, resulting in social isolation and limited access to educational services. **Specifically, 90% of schools in Garissa and 63% in Turkana lack facilities adapted for individuals with physical impairments.** In contrast, many schools within the camps: Kalobeyei (100%), Dadaab (60%), and Kakuma (63%) are equipped with toilets designed for learners with physical disabilities, thus promoting inclusive access to education. However, very few schools in both communities have toilets that are suitable for children younger than five years old, which hinders access to education for younger children who are of school-going age.

Hygiene messages are critical in improving sanitation in schools

Hygiene promotion activities have positively influenced behaviour among learners. In Garissa County, 54% of host schools and 90% of schools in the Dadaab camp reported conducting hygiene promotion initiatives. As a result of these efforts, there was a noticeable change in behaviour among learners, particularly in the proper use of toilets and a reduction in cases of open defecation. This improvement can be attributed to the hygiene promotion activities, which were commonly carried out through health campaigns and hygiene workshops. These promotional messages are crucial for maintaining good hygiene practices in schools.

Table 1: Learner-to-toilet ratios against the recommended ratios (1:30 for boys and 1:25 for girls)

	Garissa County		Turkana County		
	Garissa host	Dadaab	Turkana host	Kakuma	Kalobeyei
Male	1:68	1:42	1:60	1:101	1:90
Female	1:57	1:38	1:51	1:80	1:73

Unsafe water sources and flash floods impact sanitation

Most public schools in Kenya, especially in rural areas, face water challenges ranging from inadequate water to unsafe water for drinking.[7] According to the WASH findings, over half (59%) of schools in Garissa and 25% in Turkana do not have any water services. Furthermore, nearly half of schools in the Turkana host community have access to limited drinking water services. Community leader interviews in these areas indicate a lack of safe drinking water in schools, affecting 65% of communities in Turkana and 55% in Garissa. **Without access to safe water for drinking, food preparation, hand-washing, and general hygiene, achieving and maintaining basic education outcomes becomes challenging**. Additionally, the lack of safe water sources, combined with irregular flooding in the rural ASAL areas, poses significant health risks to local communities.

Damaged WASH infrastructure leads to water shortages

Most schools in Garissa (77%) and Turkana host communities (35%) lacked daily access to water. This issue primarily resulted from insufficient maintenance and leakages in the WASH systems. Health facilities in the refugee camps faced similar challenges with water supply. In Dadaab, 71% of health facilities had water stations that were functioning but with minor damages. The main causes of the damaged water infrastructure were attributed to inadequate maintenance and equipment failure.

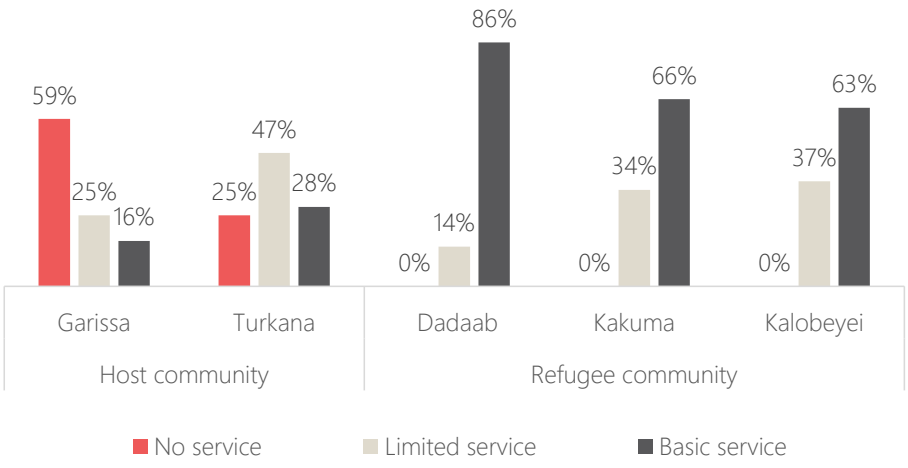
March-May 2024 rains impacted sanitation in schools

Flash floods during the March-May long rains season had a negative impact on sanitation standards in schools in the ASAL areas. For example, 56% of schools in the Dadaab refugee camp reported that stagnant water accumulated around their compounds, creating breeding grounds for mosquitoes and **increasing the risk of diseases such as malaria and other water-borne illnesses**.

Additionally, 44% of schools and 34% of health facilities in Garissa reported that the **floods occurring from March to May caused damage to toilets, resulting in a reduced number of usable latrines.** This likely contributed to the high learner-to-toilet ratios observed in schools. Many community leaders also pointed out that damaged WASH infrastructure, along with stagnant water pooling on school premises, directly resulted from the rainy season that occurs from March to May 2024.

These findings highlight the critical need to repair damaged water infrastructure and invest in resilient WASH systems to improve the health outcomes of vulnerable community members and enhance the learning environment for pupils.

Figure 1: Proportion of schools by water service levels according to the WHO/UNICEF Joint Monitoring Programme for water supply[8]



Schools and health facilities lack basic hygiene services

Hand-washing is crucial in improving hygiene standards in communities. The simple act of cleaning hands can save lives and prevent the spread of infectious diseases.[9] However, 62% of schools in Garissa and 42% in Turkana host communities lack hand-washing stations, posing a significant barrier to maintaining proper hygiene among students. The high ratio of population to hand-washing points leads to long queues which can result in learners not washing their hands or overusing and/or damaging the few stations.

In the 2024 MSNA, the highest household-level needs were found in WASH (78% for refugees, 65% for host communities), attributable to the lack of access to sanitation facilities in host community households (38%) and a lack of hand-washing facilities in the refugee community (68%). The availability of hand-washing devices that are equipped with water and soap in schools and health facilities improves hygiene practices, particularly menstrual hygiene management, and reduces the risk of transmission of infectious diseases.

Inadequate sanitary facilities affect girls' experiences at school, causing them to miss classes during their menstruation or even drop out.[10] According to 63% of community informants in Garissa and 76% in Turkana, girls need safe, convenient school sanitation facilities with sustainable disposal systems and a consistent supply of sanitary towels. Pit latrines were the common method for menstrual waste, contributing to the number of non-functional latrines.

Health facilities face challenges related to waste disposal. Although most health facilities indicate that they do not store infectious waste for long periods, findings have shown that waste is often collected and disposed of off-site without prior treatment. In most cases, the waste is even burnt in open areas. These practices pose significant environmental, health, and social risks.

Recommendations

REACH conducted the WASH assessment in Garissa and Turkana Counties after the March-May 2024 long rains assessment when WASH-related needs may have increased due to flooding in some areas. Whereas the majority of schools and health facilities remain functional, there are existing WASH-related challenges that need to be addressed. Some recommendations for approaching the current situation are:

- Increase efforts to provide safe water services in schools and health facilities particularly in the Garissa and Turkana host communities.
- Invest in basic sanitation infrastructure and services in schools (both in the camps and host communities) and in health facilities to address the current limitations in access to these essential services.
- Strengthen hygiene services in schools and health facilities within the host communities by implementing targeted hygiene programs that include a regular supply of essential hygiene materials and hygiene promotion.
- Future studies should assess the resilience of water supply systems and WASH infrastructure in schools and health facilities against climate shocks like floods and droughts to ensure sustainable access to safe water and sanitation.
- Additionally, future research should explore community knowledge, practices, and attitudes towards hygiene and sanitation, particularly focusing on handwashing, waste disposal, and menstrual hygiene management (MHM) to inform targeted interventions.

Methodology Overview

The assessment of WASH institutions in Garissa and Turkana County host communities including and the Dadaab and Kakuma Refugee camps and the Kalobeyei Integrated Settlement, employed a census methodology with a quantitative approach i.e. all public primary schools and public health facilities were targeted. REACH collected secondary information including the list of the schools and health facilities from the Government and WASH implementing partner records through the Garissa and Turkana County Governments Departments of Health and Education and the United Nation High Commissioner for Refugee (UNHCR). This data included a comprehensive list of public schools and health facilities, which was crucial for determining the total number of institutions in the county and for logistical planning. The secondary data also formed the basis for targeting facilities to be mapped through primary data collection and provided standards for categorizing facility types as the coordinates from the list of institutions was used for spatial reference. The coordinates converted into Keyhole Mark-up Language (KML) files, which were then imported into the maps.me navigation app for the field officers to track. To facilitate the process, REACH applied for a National Commission for Science, Technology and Innovative (NACOSTI) permit to allow access to the public institutions. In total, 732 public schools (including 6 secondary schools in the Dadaab refugee camps and 9 in the Kakuma camp and Kalobeyei Integrated settlement) and 301 public health facilities were assessed. At each institution, the heads of the facilities were interviewed using a structured questionnaire. Following each interview, the GPS coordinates were recorded and uploaded to ensure accurate location verification and to aid in developing detailed infrastructure maps. The process also included an observational component to evaluate the WASH conditions of the institutions, guided by the interview guide.

Additionally, key informant interviews were conducted with community leaders in the host communities and refugee camps, key informants from WASH implementing agencies, and public health officers from the counties/ national government. While face-to-face data collection was preferred, remote phone-based data collection was used in areas that were inaccessible, specifically Turkana East. In these locations, snowball method was employed to obtain contact information for key informants. Data was collected between 18th June and 5th July 2024.

Endnotes

[1] Basic Education statistical booklet of 2020, Kenya.

[2] Report on Cholera outbreak in Dadaab refugee camp, June 2023.

[3] International Food Policy Research Institute 2023 report: From climate risk to resilience: Unpacking the economic impacts of climate change in Kenya.

[4] Flash floods in Northern Kenya cause displacement and damaged infrastructure, ACTED, 2023.

[5] Refugee pupulation figures for Dadaab and Kakuma are found here.

[6] El Nino floods worsen humanitarian needs in Kenya report, March 2024.

[7] Clean Water Project For Schools In Kenya report.

[8] Water service ladders based on the WHO/UNICEF joint monitoring programme for water supply, sanitation and hygiene.

[9] Data on hygiene shared by UNICEF.

[10] Menstrual Health and Hygiene report by the World Bank Group, May 2022.

ABOUT REACH

REACH Initiative facilitates the development of information tools and products that enhance the capacity of aid actors to make evidence-based decisions in emergency, recovery and development contexts. The methodologies used by REACH include primary data collection and in-depth analysis, and all activities are conducted through inter-agency aid coordination mechanisms. REACH is a joint initiative of IMPACT Initiatives, ACTED and the United Nations Institute for Training and Research - Operational Satellite Applications Programme (UNITAR-UNOSAT).