

**Series 2 – Environment, Water, Sanitation and Regional Development – Enhancing development in a clean safe environment and, access to water and sanitation services.**

# COVID-19 Impacts on Water Burden among Households in Turkana

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## Key Messages

*Effective training is a key determinant for adopting online learning in educational institutions.*

*Transformational leadership characteristics are important in managing change that is required in learning institutions during the COVID-19 pandemic and beyond.*

*Modelling the way is a necessity in university management of online teaching and learning through COVID-19 Season*

## Context

Following confirmation of the first case of the novel Coronavirus Disease (COVID-19) in Kenya in March 2020, the Government issued an advisory in ensuring high standards of hygiene through regular handwashing using soap and water. A national protocol on COVID-19 was launched, which among others, underscored handwashing and high levels of hygiene maintenance. These required an increased household water demand that caused elevated household water bills, leaving poor households vulnerable to water insecurity.

Accessing safe water is a challenge for pastoral communities living in arid and semi-arid regions such as Turkana (Balfour et al., 2020). This situation is worse for internally displaced persons in the county. There are 164,519 households with an average household size of 5.6 in Turkana (KPHC, 2019:25). Most have no access to piped water. As a result, the majority must walk long distances, averaging between 5-10 kms, in search of water. In some areas, such as Kibish and Lomelo, the distances can average 20 kms (KNBS, 2018). Further, vulnerable and poor households are forced to fetch water from riverbeds that lack potable water and are often dry, making water scarcity in the arid and semi-arid regions of Kenya a potentially devastating socio-economic challenge. These regions may suffer increased vulnerability from the pandemic.

The pandemic has severely modified the patterns and behaviour of the economy of water (Vammen and Guillen, 2020). Water service providers (WSPs) have also been adversely affected. The Lodwar Water and Sanitation Company (LOWASCO), for instance, finds it hard to effectively supply clean water due to decreased revenues from non-payment (LOWASCO official, pers. comm.). With the government's directive that WSPs should not disconnect water supply for 3 months (March-May 2020) including households in default, WSPs faced challenges in meeting some of their operational costs such as power bills and staff wages (Senkwe and Gakubia, 2020). The directive is far from adequate, largely temporary, and unsustainable (Senkwe and Gakubia, 2020).

## Study Approach and Results

This research was carried out through household interviews in the water diaries study, key informant interviews involving a range of stakeholders involved in water, health, and sanitation sectors in the county, and secondary data from media, government institutions, and water sector development partners working in Turkana. It was complemented with results from the REACH Kenya Programme, based at the Institute for Climate Change and Adaptation. The study assessed respondent views on the impact of the pandemic on water security and its burden on households. It also established possible solutions to the risks faced by communities in Turkana. The REACH Programme implemented a household survey in Turkana Central in October 2017 and established that from 909 household heads, 25% were concerned that water is costly and 36% relied on river water as a secondary source.

The study further established that the number of poor households with non-piped water was three times more than the non-poor households with piped water connections. The majority of households, therefore, had to rely on water kiosks, boreholes with hand pumps, neighbours, and the dry riverbed-scooping as their main sources. Furthermore, the study established that the number of poor households using surface water as their main source was almost four times more than the non-poor ones. This means that such households are exposed to risks including waterborne diseases and water access issues. This situation is worsened by open defecation which is a major problem in the region and poses a threat to surface water quality.

The water, health, and sanitation situations have further been challenged by the COVID-19 pandemic which has likely increased household water demand as more frequent hand washing is advocated for. This increased demand increases the vulnerability of poor households in semi-arid urban and pastoral areas to water insecurity and health challenges. Therefore, the current pandemic is a critical wake-up call to all the stakeholders in the water sector to rethink strategies that protect vulnerable community members not only from the usual water-borne diseases but also from other deadly viral pandemics such as COVID-19. In Turkana, water points such as water kiosks, boreholes, hand pumps,

Figure 1: Water kiosk in Lodwar, Turkana County

Photo: Dennis Ong'ech



and riverbeds are considered meeting points. There are usually small crowds when people go to fetch water or take animals to drink. From observation, many of the water points are sometimes crowded, social distancing is not observed, and people do not wear masks. This complacency could be due to social relations among the locals, being unaware of threats and risks of COVID-19, and the unaffordability of masks. Therefore, besides community sensitization, there is a critical need for community water point management planning to reduce human traffic, the interaction between people at any given time, and to effect social distancing as required by government directives to reduce the infection rates at community level. The county is well placed to address this issue by advancing the installation of water Automated Teller Machines (ATMs) in the water kiosks to minimise the use of cash payment and further reduce the long queues as people can access water any time of the day, thus reducing human interaction.

Many WSPs are dependent on electricity which accounts for 30-40% of their total operational costs (WASREB, 2020). To ensure uninterrupted water services provision, the government gave a directive to the Kenya Power Lighting Company not to disconnect WSPs electricity which is a relief but continues to be a burden as the debts accumulate and will ultimately have to be paid (Senkwe et al., 2020). To address the issue of accumulated electricity bills and enhance institutional resilience towards unforeseen financial dilemmas which can compromise service delivery, WSPs need to carry out energy audits to reduce electricity consumption and enhance efficiency (Senkwe et al., 2020). Further, through water audits, they can generate datasets that can be very instrumental in achieving leakage reduction and enhancing pump efficiency. Water audits address this by comprehensively assessing infrastructural components, technical operations, financial management, and governance which helps in generating a broader understanding of the existing operations and maintenance practices and challenges. Alternative renewable energy supply is also important in supporting the cost of water delivery. Lodwar municipality has installed nine boreholes with solar pumps, which operate effectively for 8-10 hours a day. But, there is still a need to install more water boreholes with solar systems to help reduce the operational costs incurred by LOWASCO and the county government.

## Policy Recommendations

### Short-Term

- Through the county budget and emergency response funds supported

by the water sector trust funds, the County Government of Turkana should provide budget lines for water bowzers to ensure access to affordable and safe water to the local community and public institutions such as schools, hospitals, markets, and other social amenities. This arrangement will help in increasing the supply and reducing the costs of water thus reducing the water burden and health risks on women, households, internally displaced people, and the vulnerable community members who cannot afford piped water.

- The county government, through its water service provider, should ensure effective water supply through continued monitoring and evaluation of the existing supply system. This ensures continued and uninterrupted water supply irrespective of the changing demand.
- Commission a floods monitoring study and vulnerability assessment of the water supply systems to flash floods that have been frequent in Turkana and provide recommendations on how water supply systems can be protected from the impacts of such events. This will greatly help in addressing costly infrastructural destructions and water shortages resulting from flooding events thus ensuring uninterrupted water supply.

### Medium-Term

- Enhance efficiency and institutional financial resilience through increased revenue collection by reducing leakages, addressing non-payment and enhancing pump efficiency. Further, reduce the operational costs incurred by LOWASCO on electricity bills by carrying out energy audits and installing alternative power systems such as solar power systems to help reduce electricity bills. Solar power systems are more sustainable and cost-effective. By reducing operational costs, the water services provider can provide water at a subsidised and affordable fee.
- Design a water relief project focusing on the provision of water at affordable rates to support vulnerable groups (IDPs, women, poor households, and homeless) through reduced costs. This can be supplemented by more sustainable approaches as well as regular and up to date payment of water bills by the national and county government.
- Train unsupported community management groups on community water point management and planning to reduce human traffic and interaction at any given time. This will greatly help in addressing the social distancing protocol of people being two metres apart to reduce the

infection rates at the community level. Many water sources in Turkana are managed through the unsupported community management model where the community organises themselves to manage and operate the water sources without a formal structure of governance (financial, technical or social) that guarantee the sustainability of the water source.

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