



Coping with the COVID-19 pandemic in Uganda's Water and Environment Sector

Overview

The 2019 Coronavirus Disease (COVID-19) broke out in the People's Republic of China in December 2019 and was declared a world pandemic on 11th March 2020. By 25th May 2020, a total of 5.5million people had been confirmed infected with the virus, with over 300,000 deaths worldwide. Uganda had registered a total of 212 cases with 68 recoveries, and zero deaths. With no known vaccine and cure yet, the World Health Organisation (WHO) advises on preventive measures which include avoiding close contact between people (social distancing), and frequent hand washing with soap, among others. This puts the lives of many vulnerable people in Uganda with no access to safe water, sanitation and poor hygienic practices at the risk of contracting several diseases. This briefing paper analyses the water and environment situation in the country, and proposes options to cope with the COVID-19 outbreak.

Introduction

The Water and Environment Sector (WES) is mandated to provide access to safe water and sanitation services in both rural and urban areas. The sector constructs new, and rehabilitates piped systems, boreholes, shallow wells, springs and rainwater harvesting tanks. Construction of public sanitation facilities and campaigns for improved hygienic practices are also carried out, plus promotion of hand washing with soap. Following the outbreak of COVID-19 in the country, the sector prepared an emergence response plan critical to prevention, control and resilience of the population against the disease. It should be noted that this plan is yet to receive funding.

Key messages

- Access to safe water is at 69% in rural areas and 79% in urban areas.
- Basic sanitation in rural areas is at 16.6% and in urban areas at 37.4%.
- Hand washing with soap is at 36% in rural areas and 40% in urban areas; only 42% of the schools have access to a hand washing facility.
- The quarantine cash flow loss for the National Water and Sewerage Corporation (NWSC) is estimated at 76% and 92% for Umbrella Authorities (UAs).
- The air quality in the country has improved during the lockdown to WHO acceptable standards.

Situation Analysis of WES during COVID-19

Access to improved drinking water sources

By the end of June 2019, access to safe drinking water was at 69% and 79% for the rural and urban population respectively. This indicated an average of 10 million people without access to drinking water. However, only 85% of water systems are functional at any given point in time in the rural areas, while in urban areas, 94% piped water service is available. The percentage of towns with pro-poor strategy where people pay



Community borehole in Kalungu District

less or equal to household connection in the service area was 31% which is very low and presents the challenge of affordability to the urban poor. Lack of access to safe water poses a breeding ground for outbreak of diseases like COVID-19 or even would accelerate its spread. On the other hand, access to water is vital for running health facilities where the patients receive treatment.

Access to sanitation

According to the Sector Performance Report 2019, rural access to some form of sanitation was 77.2% and 87.9% in urban areas except Kampala in the FY2018/19. The use of basic sanitation in rural areas was at 16.6% and in urban areas 37.4%. The least performing regions were Karamoja and the Central region (districts of Wakiso, Mityana and Mukono). Open defecation is practiced by 22% of the population in the country. The low latrine coverage exposes the vulnerable groups (slum dwellers, markets, health centers, landing sites, refugee settlements) to diseases like cholera which may overwhelm the health facilities and further aggravate the spreading of COVID-19.

Hygiene (hand washing with soap)

Frequent and correct hand hygiene is one of the most important measures to prevent infection of the COVID-19 and other diseases. The status of hand washing with soap by June 2019 was 36% in rural areas, and 40% in urban areas. Only 42% of the schools had access to hand washing facilities indicating an average population of about 26million out of 45million Ugandans only washing hands with soap (SPR, 2019). The major challenges here relate to water accessibility and affordability of soap. In a few cases, the culture of hand washing is not yet embraced yet for COVID-19 prevention, one has to frequently wash hands with soap.



A child washing their hands in Nakalama sub-county, Iganga District

Cash inflows for water utilities

Provision of safe water is one of the critical aspects of preventing the spread of COVID-19, thus His Excellency the President directed NWSC, as well as water Umbrella Authorities (UAs) to keep providing water to the communities regardless of their bill settlement. However the continuity of the service necessitates payment of operational costs e.g. water treatment chemicals, and staff salaries. Currently these costs are higher than the cash inflow which has caused the layoff of some staff members and operations to be below capacity. The utilities have reported an estimated lockdown cash flow loss of 76% and 92% for NWSC and UAs respectively.

Solid waste management

The solid waste management in public places like markets, urban centers is quite inadequate. This has worsened under COVID-19 lockdown. There has been a decline in waste management in urban centers with the possibility of disease outbreaks if no immediate attention is given. For example, the eight Clean Development Mechanisms (CDMs) established by the National Environment Management Authority (NEMA) were reported to be filling up as the workers lacked transport to go to the sites during the lockdown. The current improper management of garbage exposes the surrounding



population with air pollution and possible disease outbreaks like cholera. Improper disposal of waste like masks may be detrimental to the population.

Air quality in the country

The emissions of particulate matter (Pm_{2.5} and Pm₁₀) are said to be the biggest contributors to air pollution in the country (NEMA). The real time equipment recorded a decrease of particulate matter (PM_{2.5}) concentration during total lockdown. Prior to the COVID-19 lockdown, the mean PM_{2.5} concentration was 62.8µg/m³. This was way above the WHO ambient air quality standard (25µg/m³). However, this reduced to 11.7µg/m³ which is within acceptable levels. The nitrogen dioxides (NO₂) mean concentration emissions too reduced from the WHO unacceptable level of 34µg/m³ to 18µg/m³ in the month of April 2020. A considerable reduction in noise pollution was noted with the closure of the bars, night clubs and churches. However, with the end of the lockdown the air pollution levels will escalate.

Management of the ecosystems

The WES grapples with environmental degraders and wetland polluters through human settlement, industrial development and waste discharge. During the first half of the FY 2019/20, environmental crimes reported in Kampala and Wakiso districts were 41% and 32% respectively. The environmental crimes included sand mining, wetland degradation/encroachment, poor waste management and mishandling of hazardous waste. This has partly resulted in the rampant floods that are exacerbating the livelihoods of people who are already stressed by the COVID-19 lockdown. More illegal timber cuttings and encroachment on forest reserve land was reported during the lockdown. The lockdown limits access to clean fuel sources given the limited cash flow. Thus many people have resorted to use of firewood which is environmentally unsustainable.

Recommendations

- The Ministry of Water and Environment (MWE) should focus on rehabilitation of boreholes and shallow wells as part of the immediate response to increase water coverage since they serve over 18.7 million people living in rural areas. Network extensions, bigger storage facilities, rain water tanks, solar mini piped systems can be provided where feasible especially in areas with high population concentrations to ease access. In the long run, new piped systems can be implemented as a preferred technology.
- The Government through the Ministry of Finance, Planning and Economic Development (MFPED) should clear the outstanding water bill owed to the utility service provider and give a subsidy to UAs. This will boost their income to cover operational costs thus keep afloat during the COVID-19 pandemic.
- The Ministry of Health (MoH) and MWE should sensitise communities on safe disposal of solid waste such as masks and promote sorting for reuse and recycling where feasible. Incinerators



should be stationed at all health centers for proper disposal of would-be hazardous waste products like gloves and masks used during this pandemic.

- The Ministry of Works and Transport, and Kampala Capital City Authority should opt for green economy stimulus measures to cope with pollution after the lockdown. They should promote use of bicycles, while vehicles in dangerous mechanical condition should be impounded to improve the air quality.
- The Water, Sanitation and Hygiene (WASH) practitioners should enhance safe sanitation; more frequent and regular hand hygiene observations. Hand washing facilities (equipment, water, soap, and sanitizers) can be availed in places like schools, health facilities, public toilets, reception centers as an emergence measure.
- The NEMA should enforce the eviction of ecosystem encroachers in line with the presidential directive. This should be done in consideration of the COVID-19 health guidelines which require social distancing of the evictees, and taking them to a place where they can access water to keep proper hygienic practices.
- The MWE should set up a monitoring mechanism for COVID-19 WASH activities. This will ensure timely follow-ups and implementation of planned outputs, and promote transparency and accountability.
- The MWE should ensure proper coordination and collaboration of the different stakeholders in WASH. The network of three key ministries (MWE, MoES, MoH) and other Development Partners will smoothen planning and implementation of key activities thus reduce wastage of resources.

Conclusion

The provision of safe water, sanitation and hygienic conditions is essential for protecting human health during infectious disease outbreaks, like COVID-19. Considering the water and environment status in the country, there is need to embrace the positive effects realized under COVID-19 and apply WASH related control and preventive measures to the outbreak. The sector should look at new ways to cope with drastic changes like climate and WASH related disease outbreaks.

References

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