



Bomet County Water, Sanitation and Hygiene (WASH) Masterplan 2022-2050

A ROADMAP TOWARD
UNIVERSAL ACCESS FOR
WASH SERVICES

Executive Summary

July 2022



Executive Summary

The Bomet County Water, Sanitation and Hygiene (WASH) Masterplan sets out a Roadmap for achieving Universal 'Basic Access' to WASH Services for the residents of Bomet County, whilst at the same time rapidly accelerating access to 'Safely Managed' WASH services (as defined by [Sustainable Development Goal 6: Water and Sanitation for All](#)).

The creation of this plan means that the County Government of Bomet can invest its existing WASH resources much more effectively; will be better able to attract additional WASH resources to the county; and will have increased capacity to coordinate and direct external agencies effectively, further increasing the effectiveness of implementation.

By transforming the provision of sustainable clean water, sanitation and good hygiene in the county, this Masterplan will ultimately improve health, education and livelihoods for Bomet's residents.

Current WASH Access in Bomet County

The currently best available data shows that across the county 8% of households have access to safely managed water services, and 27% of households have access to basic water services. This means that 65% of people currently have inadequate access to water (Limited supply or worse). With regards to sanitation, 6% of households have access to safely managed sanitation, and 39% have access to basic sanitation, leaving 54% of residents with inadequate access (Limited or worse). Only 37% of households have access to basic hygiene.

Creation of this WASH Masterplan

In order to address these challenges systemically and sustainably, in January 2020 the creation of the WASH Masterplan was initiated and then facilitated by Dig Deep (Africa), in close collaboration with Bomet County Government's Departments for Water and Environmental Services and Public Health & Medical Services, as well as the Kenya Red Cross, AquaClara Kenya and World Vision Kenya. This creation process has followed the 5 stage model espoused by the [WASH Agenda for Change](#) coalition.



Targets set by the WASH Masterplan

The aim of the Masterplan is to achieve Basic WASH access for all residents of Bomet County by 2036 for water, and by 2030 for sanitation and hygiene. This means that every resident of the county will have a clean and reliable source of water within 1km of their house; an improved sanitation facility on their premises that meet their needs; and a place to wash their hands with soap and water.

It is important to note that this falls short of Sustainable Development Goal 6 (SDG6) for water and sanitation, which stipulates:

- 1) an improved water source that is accessible on premises, available when needed and free from faecal and priority chemical contamination
- 2) use of improved sanitation facilities that are not shared with other households and where excreta are safely disposed of in situ or removed and treated offsite.

Due to the current levels of access and investment, the goal of achieving Universal Safely Managed WASH access by 2030 is not currently feasible for Bomet County without extremely significant external investment. Given this, the WASH Masterplan sets out an ambitious yet pragmatic Roadmap for achieving Basic Access to water by 2036 and Basic Access to sanitation by 2030, while at the same time aiming for significant progress towards SDG6 by 2050.

The Roadmap

These targets will be accomplished through a phased series of strategic interventions.

There are four phases, each designed to develop the WASH system towards SDG6. These phases are intended to be a pathway towards further development, while also providing tangible improvements to WASH access in the short term. There is some overlap between these phases, but they are differentiated from each other in the complexity of the associated interventions.

Phase I comprises the most simple and affordable interventions which can reach the most vulnerable, and negatively affected people, and each ensuing phase addresses access higher up the ladders for water and sanitation.



- **Phase 1: 2023-2025** - Remove dependence on surface water resources by implementation of community water source protection programmes, in particular by protecting all local springs, and eliminate open defecation with a county-wide programme of CLTS.
- **Phase 2: 2023-2027** - Provide hard-to-reach areas with community rainwater harvesting, or boreholes where appropriate, and scale-up CLTS across the county with Post ODF interventions such as sanitation marketing and training of community artisans
- **Phase 3: 2025-2030** - Expand and develop existing water supply schemes to provide standpipes for public access where community water sources are unavailable, and develop a subsidy scheme for people who are unable to afford improvements to domestic sanitation due to complex needs (e.g. physical disabilities) or lack of economic means.
- **Phase 4: 2030-2050** - After Basic access to water and sanitation has been achieved for everyone, the priority will shift to providing safely managed water and sanitation services. This will involve the installation of last-mile connections to domestic residences, and instigating onsite treatment of fecal sludge where applicable using septic tanks, development of reticulation networks, and pit exhaustion using tanker trucks.

Strategic Interventions required to achieve universal access

To deliver each phase, a series of strategic interventions have been developed to strengthen the entire WASH system in Bomet County.

Water

1. Safeguard sustainability of all existing water projects through the Department of Water taking formal ownership of all community water points - without a handover plan to the water department to undertake formal management of these water points, the continued operation of these water sources is not sustainable.
2. Safeguard sustainability of all existing water projects through the Department of Water creating a plan and budget for all schemes - this should include planning the ongoing repair, and replacement of all existing



schemes should be budgeted for based on the expected lifecycle of infrastructure to minimise disruption due to failure

3. **Improve access to safe water sources in the county by protecting all community springs** – springs offer an affordable and plentiful option for clean water provision, and protecting springs can quickly reach a large proportion of the rural residents of the County with Basic water access.
4. **Perform an investigation into the availability of groundwater resources in hard-to-reach areas** – where other water sources are not available, boreholes can be a relatively low-cost alternative to treatment of surface water. Exploratory investigation of groundwater availability and quality (with special respect to the presence of fluoride) will be necessary to ascertain the potential of this approach.

Sanitation

5. **Achieve countywide Open Defecation Free (ODF) status through countywide Community Led Total Sanitation (CLTS) interventions** – declaring the entire county ODF through the countywide implementation of CLTS, and regular follow-ups by Community Health Volunteers (CHVs) is an urgent priority.
6. **Once ODF status is achieved in each village, increase % of household with basic sanitation access through countywide post-ODF interventions** – initiating an effective post-ODF strategy across the county to strengthen sanitation supply chains, train local craftspeople and follow-up on sanitation and hygiene education at the community level initiated during CLTS will drive continuous improvement in access levels and prevent backsliding to open defecation
7. **Ensure that every household can access basic sanitation through toilet construction subsidies targeted at the poorest and most vulnerable households** – based on the economic situation of many residents of the county, market-based approaches can only reach the more affluent sections of the population. It will therefore be necessary to provide support to the remaining households, and to develop a policy that will guarantee fair and equitable provision of services.



8. **Ensure basic access to sanitation for all schools and health centres through investing in VIP latrines in all institutions** - VIP latrines are necessary to ensure safe disposal of waste from institutional facilities. This investment should utilise designs developed by Dig Deep in Bomet that include extra reinforcement for toilet substructure that protect against collapse in unstable soils, facilities for menstrual hygiene disposal, and SATO pans installed in toilet apertures to reduce odour.
9. **Increase access to the transport and treatment of fecal waste services through investment in increasing Bomwasco's capacity for pit exhaustion and building wastewater treatment works outside Bomet Town** - the development of sewerage services outside Bomet Town will address the growing need to dispose of water in urban areas as water networks develop. Pit exhaustion services will also be increasingly required as more residents have access to latrines which contain waste.

Hygiene

10. **Address the WASH needs of women and girls through creating a policy on public gender-separated washrooms and the safe disposal of menstrual products** - the public consultation and survey activities undertaken have highlighted the negative experiences of women interacting with institutional sanitation services. The improvement of these services to be more gender-sensitive is therefore a priority.
11. **Improve hygiene for the next generation through undertaking periodic hygiene promotion and menstrual health education in schools** - hygiene promotion and menstrual health education in schools has so far been done on a piecemeal basis. To institutionalise the process of learning, the promotion and education of these issues among students should be made a formal part of the curriculum so these gains are maintained and reinforced.
12. **Improve hygiene standards in schools and clinics through integrating key performance indicators for hygiene into existing inspection regimes** - as per the previous recommendation, establishing and maintaining hygiene standards in institutions is a major challenge. Inspections and monitoring criteria by health and education authorities will serve to provide a consistent standard for hygiene in these institutions.



Institutional strengthening

13. **Improve monitoring of WASH through extending the 2021 Sotik survey across the entire county** - Monitoring of water and sanitation access across the county needs to be improved. This can be done through extending the survey already conducted in Sotik sub-county across the four remaining sub-counties of Konoin, Bomet East, Bomet Central and Chepalungu. To entrench the capacity of staff to manage and compile this data, this should be done by engaging Public Health Officers and CHVs to undertake the data collection and management.
14. **Improve coordination, data sharing and training available amongst all WASH partners through expanding the WASH Hub** - Data on existing and future water schemes should be digitally stored at the WASH Hub, be freely available to all, and used to plan efficient design of all WASH interventions. In addition, the WASH Hub should play the key role in facilitating information sharing, coordination and training across all partners working on WASH in the county.
15. **Improve communication with, and accountability to, the public through creation of public consultation and communication policy** - It has been highlighted in focus group discussions, and through findings of the Water Integrity Network report, that public trust and understanding of WASH projects is low. To make this Masterplan successful it is important to get broad democratic buy-in, and to respond to the changing needs of the public.
16. **Improve governance of sanitation by instituting a Directorate within the Ministry of Water to govern sanitation** - The fragmentation of roles and responsibilities concerning sanitation within the county has been highlighted as a major challenge to improving sanitation services. Uniting all these functions under a single directorate will help to solve these coordination problems.
17. **Hold meetings on a biannual basis to review progress towards the goals of the Masterplan and incorporate changes to the strategic direction of the Roadmap as it becomes necessary.**



Funding

18. Increase financing levels for WASH through leveraging this Masterplan - substantial finances will need to be found to invest in more infrastructure, capital maintenance costs and operating costs. In particular, there will need to be substantial development of the infrastructure and supporting systems around sanitation.

Cost of the Masterplan

As noted above, the costs for the Masterplan are based on:

- Achieving Basic WASH access for all residents of Bomet County by 2036
- Providing an estimated 44% of residents with access to safely managed water, and 54% of residents with access to safely managed sanitation

It should be noted that, due to the fact the development of safely managed water and sanitation are dependent on the ability of households to afford fecal sludge management services and household water connections, these figures are dependent on the economic situation of the population and are conservative estimates. The number of people who can afford to access safely managed services by 2050 could be much higher.

The costs are calculated from 2022-2050 and take into account the capital, capital maintenance and direct support costs of the new projects required to reach these targets. Note: they do not include capital maintenance and direct support for existing infrastructure.

The total cost of implementing the Masterplan from 2022-2050 is \$398 million, of which approximately:

- \$354 million is for water service provision
- \$23.2 million is for sanitation service provision
- \$20.6 million is for WASH in public institutions.

The following table shows a summary of the total costs associated with implementation.



	Cost (KES)	Cost (USD)	Percent of Total
Water Infrastructure	KES 41,611,800,884	\$353,700,308	88.8%
Sanitation Infrastructure	KES 2,725,758,801	\$23,168,950	5.8%
WASH in Schools	KES 2,137,340,040	\$18,167,390	4.6%
WASH in Health Facilities	KES 295,243,346	\$2,509,568	0.6%
Menstrual Hygiene Management	KES 53,530,800	\$455,012	0.1%
Direct Support Costs	KES 332,729,480	\$2,828,201	0.7%
Grand Total	KES 46,861,160,004	\$398,319,860	

This is currently well beyond the budgetary capacity of the County Government of Bomet. To be able to address this shortfall, a range of funding streams will need to be leveraged.

Financing Options

The Water and Sanitation sector has relied heavily on the exchequer for financing. However, over the years, with declining resources, the sector has suffered from inadequate funding. The following financing options can be explored:

Government Financing

Government financing continues to play an important role in the development of the water and sanitation sector. In line with the Poverty Reduction Strategy Paper (PRSP), the national government finances are directed to the sector through Water Sector Trust Fund (WSTF) whose major responsibility is financing provision of water and sanitation to disadvantaged groups. This remains a viable option to finance water supply to rural areas and urban low-class areas. Other national institutions funded by the national governments through which funding of rural water supply can be sourced to include Lake Basin Development Authority.



External Funding

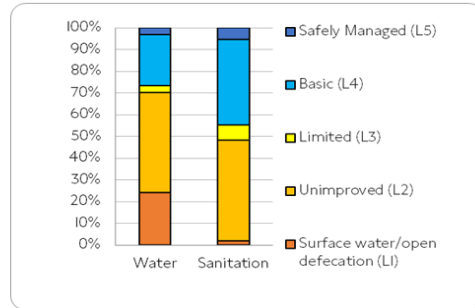
Funding of development programs through external resources in the form of concessionary loans, grants or commercial loans continue to play an important role in the development of water resources. Concessionary loans and grants can be obtained at relatively low cost through government to government agreements and are normally designed to benefit the disadvantaged groups.

Private Sector Involvement and Donor Funding

The nature of the private sector participation envisaged will be largely in the form of public- private sector partnerships. The companies bring in management expertise, technical skills and credit standing to finance investments. A mutually beneficial partnership is built between the public and private sector to ensure that consumers ultimately get the best service possible within the means available. The partnership can be fulfilled in different forms, such as service, management, and lease contracts, concessions and joint ownership.

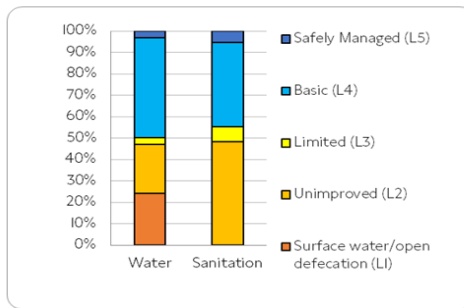


CURRENT STATE OF WASH ACCESS (2022)



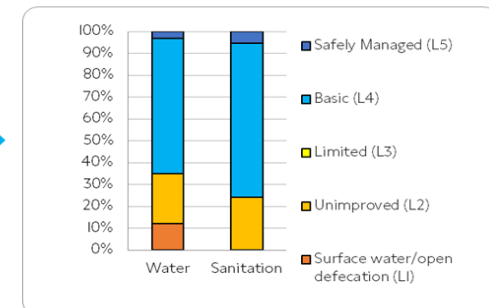
This is the current state of water and sanitation infrastructure in the county, shown in terms of the JMP WASH ladders.

PHASE 1 2023-2025: COMMUNITY LED TOTAL SANITATION AND SPRING PROTECTION



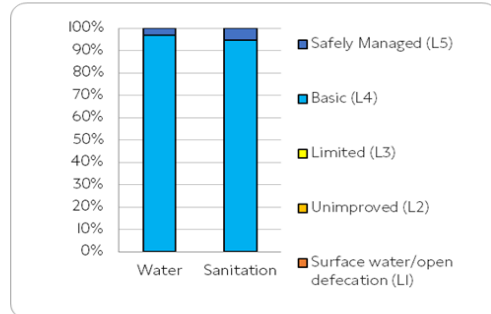
Eliminate open defecation with a county-wide programme of CLTS. Protect local springs to reduce dependence on surface water sources.

PHASE 2 2023-2027 COMMUNITY RAINWATER HARVESTING AND POST ODF



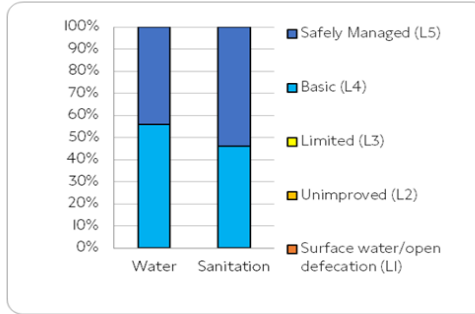
Provide hard-to-reach areas with community rainwater harvesting, or boreholes where appropriate. Scale-up CLTS across the county with Post ODF interventions.

PHASE 3 2025-2030 PUBLIC STANDPIPES AND SANITATION SUBSIDIES

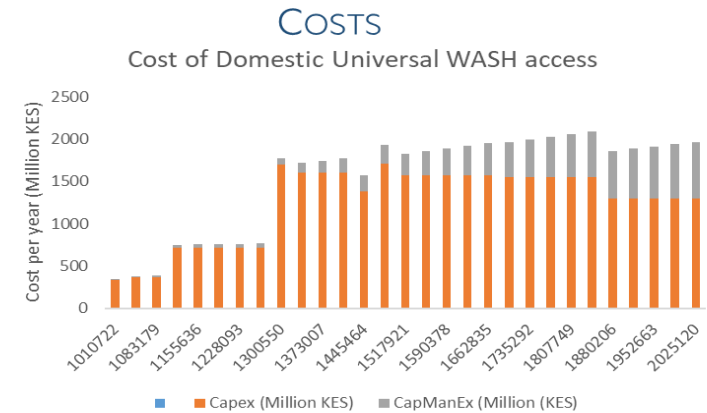


Expand and develop existing water supply schemes to provide standpipes for public access. Develop a subsidy scheme where people are unable to afford improvements to domestic sanitation.

PHASE 4 2030-2050 LAST MILE CONNECTIONS AND FECAL SLUDGE MANAGEMENT



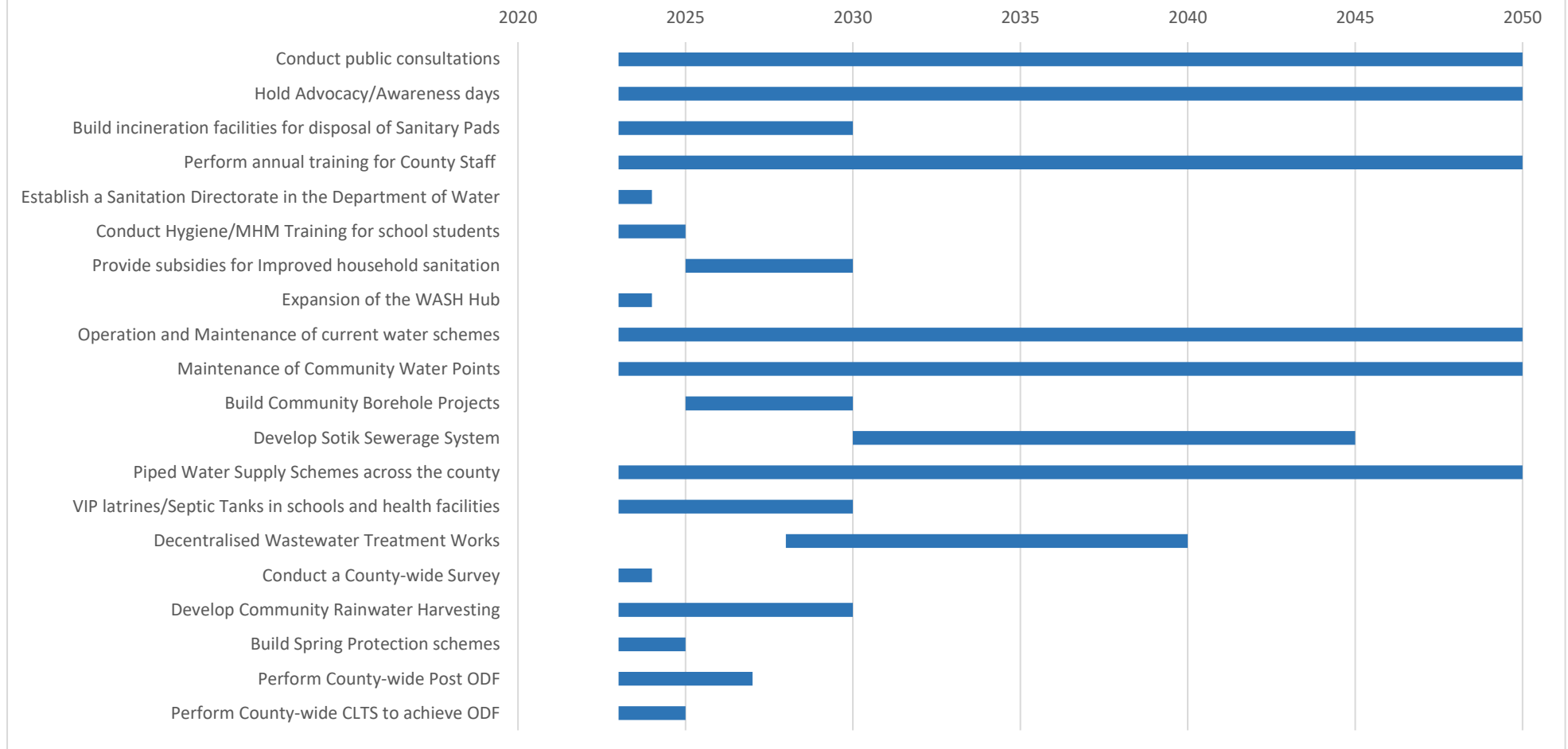
Install last-mile connections to domestic residences. Develop pit exhaustion capacity



Phased Roadmap for Universal WASH Access in Bomet County, (Figure 26, Bomet County WASH Masterplan 2022-2050, July 2022)



Activities to Achieve Universal WASH Access in line with the strategic interventions



Interventions required to achieve the objectives of the Masterplan (Figure 27, Bomet County WASH Masterplan 2022-2050, July 2022)