2025
REPORT

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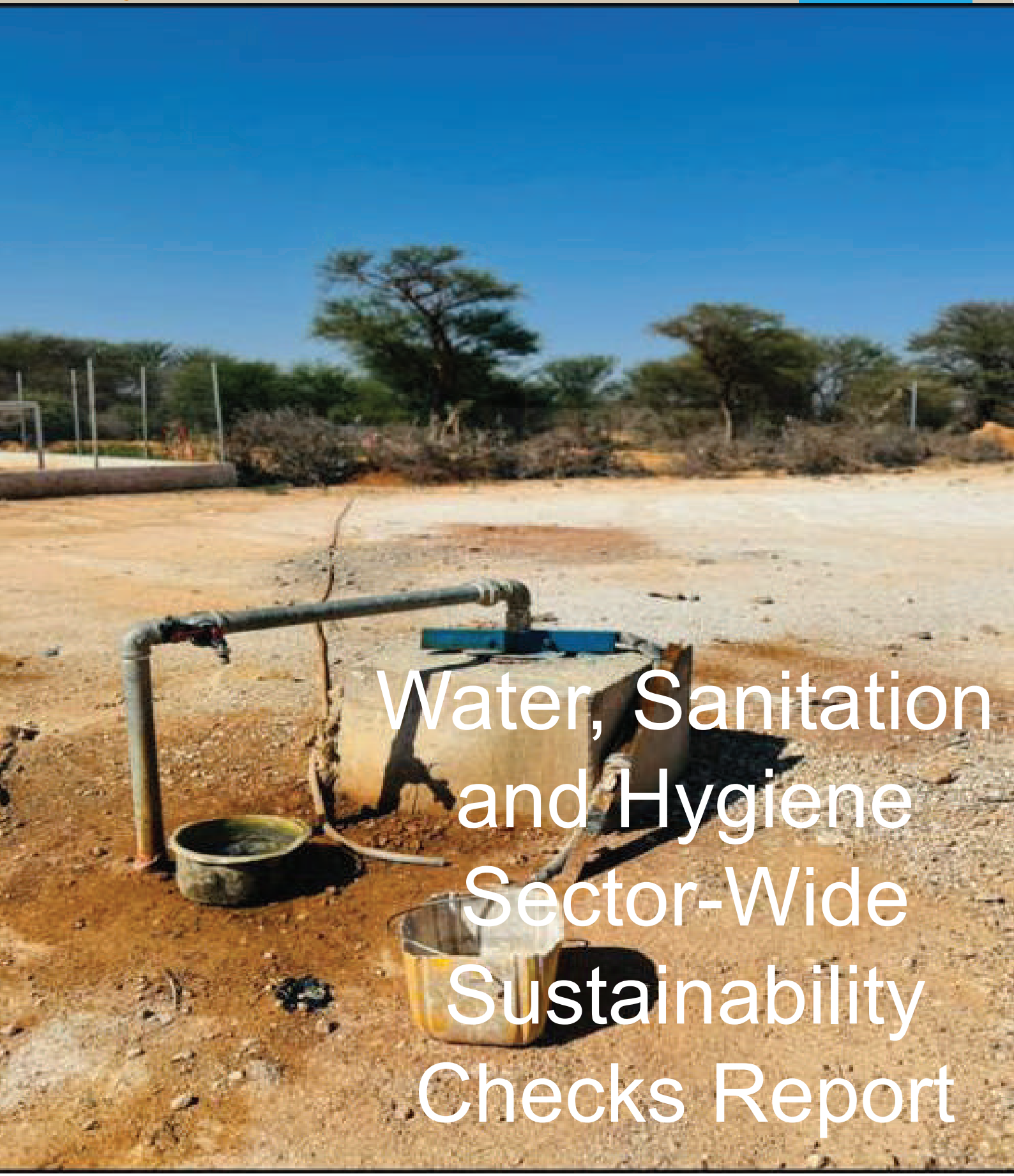

Water, Sanitation and Hygiene Sector-Wide Sustainability Checks Report

Puntland Statistics Department-MoPEDIC

FOREWORD

In recent years, the Puntland State Government, in collaboration with international partners, has made commendable strides in enhancing water and sanitation services. Agencies such as USAID's Bureau for Humanitarian Assistance (USA BHA), UK Aid, and DGIS through ASWA II have played instrumental roles in supporting these efforts. According to preliminary findings from the 2024 UNICEF WASH Needs Assessment in Somalia, 78% of Puntland's population now has access to basic water services, while the SWSC study indicates that 40% have access to basic sanitation. This reflects substantial progress since 2014, when only 68% had access to improved water sources and 28% to basic sanitation services.

The WASH Sector Wide Sustainability Check (SWSC) was initiated as a prerequisite by the Netherlands Government's Directorate-General for International Cooperation (DGIS) prior to approving the second phase of funding. DGIS has been a vital supporter of WASH resilience initiatives in Somalia, particularly in the Mudug region, including Galkayo and Harfo, where significant investments have been made to improve water, sanitation, and hygiene services. This assessment seeks to ensure accountability, evaluate the long-term viability of interventions, and inform future investments for greater efficiency and impact. The SWSC represents a pivotal step in assessing and improving the sustainability of WASH services across Puntland, encompassing urban, rural, and internally displaced person (IDP) settings. The objectives of this assessment include evaluating the current state of WASH service delivery, identifying institutional, financial, environmental, and technical challenges, and proposing actionable recommendations to strengthen the sector's resilience and effectiveness. The assessment employed a comprehensive and participatory methodology, combining qualitative and quantitative tools. It included consultations with stakeholders across all levels—government ministries, local authorities, development partners, service providers, and community representatives—using structured interviews, focus group discussions, and field observations to ensure the reliability and validity of findings.

Key challenges identified in the report include limited institutional capacity, particularly among municipal authorities, insufficient and unsustainable financing, inadequate maintenance services, weak government support, and the absence of robust quality monitoring and coordination systems. Additionally, factors such as climate change, water scarcity, unaffordable water tariffs, inadequate infrastructure (especially energy), and limited community engagement further hinder the sustainability of WASH services. In response, the Ministry of Minerals, Energy, and Water Resources, in collaboration with other government institutions and sector partners, has developed the Puntland WASH Sustainability Strategic Response Action Plan. This plan outlines strategic recommendations, including the need to strengthen institutional leadership, improve coordination, enhance financial planning, and promote innovative, context-appropriate solutions. It also underscores the importance of inclusive stakeholder engagement to ensure ownership, accountability, and long-term sustainability.

We hope that the insights and recommendations presented in this report will serve as a valuable resource for policymakers, practitioners, and development partners committed to advancing sustainable and resilient WASH services in Puntland. We call on all stakeholders to engage collaboratively and take concerted action in implementing the strategic response plan for the benefit of our communities.

Mr. Daud Mohamed Omar
Minister of Planning, Economic Development & International Cooperation
Puntland State of Somalia

For UNICEF Signature

ACKNOWLEDGEMENT

The Puntland Ministry of Planning, Economic Development and International Cooperation (MoPEDIC) and UNICEF-Somalia would like to extend its deepest gratitude to all stakeholders whose valuable contributions have made the successful completion of this WASH Sector Wide Sustainability Check Report possible.

I particularly wish to acknowledge the exceptional efforts of the Puntland Statistics Department of MoPEDIC and the dedicated team who have been at the forefront of coordinating the planning and implementation of this critical assignment. Their unwavering commitment and expertise have been instrumental in ensuring the quality and comprehensiveness of this report.

I am also grateful to the various government ministries and agencies whose contributions have significantly enriched this assessment. These include the Ministry of Energy, Mineral, and Water; the Ministry of Education; the Ministry of Health; the Ministry of Environment, Range and Climate Change; Puntland Water Development Agency (PWDA); and Puntland Information Management Centre for Land and Water (IMC). Their collaboration and technical input have been invaluable in guiding this process.

Furthermore, I extend my gratitude to the municipalities of the districts covered in this study, as well as to the community members and respondents who generously shared their time, perspectives, and experiences. Your input has provided essential perspectives that have greatly enhanced the relevance and depth of this assessment. Finally, I extend my heartfelt thanks to UNICEF for their support and facilitation role throughout this exercise. Your commitment to improving WASH services and promoting sustainable development in Puntland is deeply appreciated.

The findings and recommendations of this report are intended to guide efforts to enhance the sustainability of WASH services across Puntland, particularly through the Puntland WASH Sustainability Response Action Plan aimed at promoting inclusive and resilient development.

Thank you all for your valuable contributions and dedication.

Executive Summary

The available literature shows that the WASH sector in Puntland, Somalia, faces complex challenges exacerbated by climate change, including prolonged droughts, erratic rainfall, flooding, and saltwater intrusion, which severely impact water sources. These pressures are intensified by displacement and migration driven by conflict and disasters, particularly affecting IDPs in overcrowded settlements with limited access to safe water, sanitation, and hygiene, raising the risk of waterborne diseases like cholera. Weak governance, inadequate funding, and limited technical capacity further constrain the maintenance and expansion of services, especially in remote areas. Sustainability is therefore critical, requiring reliable, affordable, climate-resilient, and locally managed systems.

To assess sustainability challenges, Puntland Government in collaboration with UNICEF, conducted a comprehensive study on the sustainability of Water, Sanitation, and Hygiene (WASH) services in Puntland. Utilizing a mixed-methods approach, the study examined critical factors such as functionality, accessibility, and barriers to WASH services, including climate impacts, financial constraints, and institutional challenges. The study aimed to provide policymakers with actionable data to improve the sustainability of WASH infrastructure and services management, particularly for vulnerable communities like internally displaced persons (IDPs) and nomadic populations.

The study included a household survey of 1,500 households across five regions (Sanaag, Sool, Bari, Nugaal, and Mudug), ensuring representation from urban, rural, and IDP areas. Additionally, surveys were conducted with 188 healthcare facilities, 311 schools, and 237 water point managers to assess institutional access to WASH services.

Key findings revealed that while 85.2% of water points were operational at the time of the survey, functionality dropped to 77.6% over the week, with only 59.6% operating 24/7. Disparities were evident, with 87.6% of households having daily water access, but only 64.7% of IDP households reporting consistent access. Schools and healthcare facilities showed relatively high access to functional water sources, with 92.4% of schools and 94.4% of health facilities connected to working water points. However, only 60% of IDP households had water access within a 30-minute walk, highlighting significant inequities. The study also identified critical challenges in water point maintenance and repair. About 16.5% of water points experienced mechanical failures, with 53.2% reporting downtime due to technical issues, particularly in IDP areas. While 48.7% of repairs were addressed within 48 hours, the lack of regular technical support (only 27.8% of water points received it) and inadequate funding for maintenance (57.4% of water facilities faced dysfunction due to financial constraints) underscored the need for stronger institutional support and financial mechanisms. Additionally, only 50.2% of water points had established systems for raising maintenance funds, and 30.9% of caretakers worked voluntarily, indicating a need for standardized compensation and clear responsibilities.

Financial barriers were a significant issue, with 83.2% of households reporting financial stress over WASH services, as over 61% of households report monthly expenditures below $300. Urban households are more likely to incur high monthly WASH costs, with 33.9% spending over $30, rural households spends an average of $13 to WASH Services, and IDPs, despite often having the lowest income, make up a large share (44.6%) of those spending around $10/month. The data also suggests that WASH services are more costly to households in all settings, highlighting issues of affordability and potential inequity in service delivery. Healthcare facilities and schools also faced financial gaps, with only 19.8% of health facilities and 37.5% of schools having annual budget plans for WASH maintenance. Alarmingly, no IDP schools reported having an annual budget, highlighting the urgent need for better financial planning and resource allocation.

Water quality and reliability were also key concerns. Only 35% of water points implemented water safety measures, and 42.6% reported government monitoring in the past year. Environmental factors like drought impacted 41.8% of water points, with 67.7% citing drought as the primary cause of water shortages. This vulnerability to climate change underscores the need for resilient infrastructure and diversified energy sources, as 51.5% of water points relied on solar power, and 54% of schools used oil powered electricity. However, the reliability of water in schools and healthcare facilities is high, with 92.4% of schools reporting consistent water availability in their premises and 94.4% of health facilities connected to functional water sources.

Sanitation and hygiene practices showed positive trends, with 93.4% of households having access to latrines, and 83.2% reporting well-maintained facilities. However, 37.8% of households without latrines resorted to open defecation, particularly in IDP communities (67.3%). Handwashing practices were strong, with 98% of households washing hands at critical times, and 84.9% using soap and water. Schools and health facilities also reported high levels of functional handwashing stations (77.8% and 86.6%, respectively).

To address these challenges, the study proposed strategic recommendations that informed the formulation of the comprehensive response action plan for enhancing WASH sector sustainability (see the details in the attached annexes). The focus areas of the recommendations and the strategic response action plan were: Strengthening local governments' technical and managerial capacity through tailored training on WASH infrastructure planning, operation and maintenance, revenue generation, resource mobilization, and financial management; Establishing a Puntland WASH Sustainability Framework with clear goals, strategies, indicators, and accountability mechanisms, aligned with the Five-Year Development Plan and integrated into broader development and cross-sectoral priorities; Innovating and Institutionalizing diversified Financing Models through promoting public private partnership mechanisms, and encouraging community-based financing approaches; and Integrating climate adaptation and resilience strategies, like creating emergency funds and contingency plans to ensure the functionality and sustainability of WASH services.

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1.1 Introduction

The Puntland Statistics Department, operating under the Puntland Ministry of Planning, Economic Development, and International Cooperation, was tasked with conducting the Puntland Sector-Wide Sustainability Check Assessment. The process began with an inception meeting aimed at engaging stakeholders and establishing a Technical Working Group (TWG) comprising experts from government institutions, local and international NGOs involved in the WASH sector, and the UNICEF WASH team. The inception meeting also led to the formation of an Assessment Steering Committee, which included the Director Generals of government ministries and agencies responsible for WASH services, chaired by the Director General of the Ministry of Energy, Minerals, and Water (MoEMW).

During this phase, UNICEF's WASH team initially proposed a set of sampled assessment indicators. These proposed indicators were reviewed and refined in consultation with the TWG members before being finalized. Subsequently, the Puntland Statistics Department's technical team developed questionnaires based on the finalized indicators. These questionnaires were shared with TWG experts for further review and customization to ensure alignment with the assessment's objectives.

This collaborative process aimed to comprehensively address the identified dimensions and measure the sustainability of WASH programs across all sections of WASH interventions.

The SWSC evaluated water infrastructure, sanitation, hygiene practices, and conditions across households, schools, and health facilities. The study also examined the institutional capacities and preparedness of government entities engaged in the WASH sector, with a particular focus on local governments, which hold the primary mandate and responsibility for delivering social services, including WASH services.

1.2 SWSC Objectives

The WASH sector wide sustainability check (SWSC) is a study to assess the sustainability of WASH facilities, services, and behaviors with a Puntland, subnational or programmed-based scope guided by UNICEF guidance note. It provides an assessment of the current sustainability of services within the scope of the study and looks at the enabling environment and the conditions for their future sustainability. SCs aim to monitor the sustainability of services and sustained behaviors regularly and to address underlying causes by assessing a number of sustainability factors.

The main objective of the Puntland Sector Wide Sustainability Check is to collect and analyse data which represents the population of Puntland to understand the status of water points and latrines, the frequency of usage, level of disruptions caused by climate or lack of maintenance. This information will feed into policy making by Puntland and UNICEF while being a reference point for further sustainability checks by other states or the Federal Government of Somalia.

The specific goals of this SWSC assessment in Puntland include:

1. Assess and analyze the current degree of sustainability of water and sanitation facilities and services in the area of study, and the sustainability of behavioral change and social norms newly created (for example the absence of open defecation, and practice of hand washing with soap).
2. Assess the underlying factors influencing the likelihood and level of future sustainability such as; local financing mechanisms, capacities, appropriacy of designs and siting, water quality, functional monitoring systems, community involvement, etc.
3. Provide information on key sustainability challenges and corresponding recommendations to the Government.
4. Document how actual sustainability and the underlying factors can be improved to deliver more.
5. Sustainable and resilient programs and sector outcomes by the sector partners and UNICEF.

1.3 Purpose and Scope of The Sustainability Assessment

As recommended by UNICEF, the SWSC covers six different sub-sectors in which the factors and related indicators have been developed: rural water, urban water, rural sanitation and hygiene, urban sanitation and hygiene, WASH in schools, and WASH in health care facilities. The dimensions being analysed will be covered underneath the pre-specified sub-sectors and furthermore, each dimension will cover 1 or more indicators which are measured by questions specified within the survey.

In order to achieve the scope outlined here, 4 surveys were deployed which consists of a household survey, water point management survey, health facilities survey and school survey. The assessment will cover 5 pre-war regions in Puntland; Bari, Sool, Sanaag, Nugaal and Mudug. Within those regions the groups of interest are urban, rural and IDPs with nomadic population excluded due to time limitations and logistical requirements.

The main purpose is to understand what the factors are that prevent long term self-sustainability in order to address the bottlenecks through policy recommendations. Factors of interest include; functionality, accessibility, availability, affordability, financing mechanism, inclusivity, quantity, climatic resilience, quality of design and construction, service provider capacity and alignment of user preference.

1.4 Structure of The Report

This report contains 6 sections. Firstly, the Introduction, which outlines the background and introduction of the assessment, objectives, purpose, and scope of the WASH sustainability check. This is followed by the Methodology section that defines the technical processes adopted in conducting the SWSC assessment, including the sampling methodology, questionnaire development, field operations and quality management standards, and data processing and analysis procedures. The third section relates to the Desk Review of the available resources about what has been said earlier on the subject.

The Fourth section Findings focuses on the results of the assessment, structured into sub-sections on:

1. Water Infrastructure Accessibility and Functionality
2. Water Infrastructure Breakdown Experiences
3. Water Infrastructure Maintenance and Operational Services Management
4. Financial Sustainability
5. Water Supply Quality and Reliability Monitoring
6. Water Infrastructure Administration and Coordination Systems
7. WASH Infrastructure Resilience and Adaptation for Climatic Events
8. Sanitation and Hygiene Facilities, Services, and Practices
9. Inclusivity and Community Participation in WASH Programs.

The Fifth Section analyzes the capacity of local institutions in terms of technical, financial, strategic thinking, and planning, as well as regulatory frameworks for delivering sustainable WASH services. Lastly, the Sixth Section presents strategic policy recommendations for addressing the current WASH infrastructure gaps and challenges, paving the way for sustainable WASH programs for the people of Puntland.

2.1 Introduction

The assessment utilized sophisticated mixed methods, employing both qualitative and quantitative statistical techniques. It integrated primary data collection with a comprehensive desk review. Additionally, the assessment targeted diverse respondents across various sectors, including the WASH community, government officials, households, and service providers at water points, schools, and health facilities. These respondents were sampled across different residential settings—urban, rural, and IDP communities—spanning five pre-war regions.

A comprehensive desk review was conducted ahead of the survey and data collection phase of this study to derive relevant and meaningful insights that can complement the quantitative part of the study. The desk review collated previously completed studies that looked at WASH-related services in Puntland or had a relevant component within the studies to WASH services. This exercise enhances the overall study by mapping out the current landscape of WASH services and unmet demand and highlighting gaps in current research.

2.2 Sampling Methodology

The sampling frame of the enumeration areas (EA) developed for the 2020 Somalia Health and Demographic Survey were used for the sustainability check survey. The EAs did not include nomadic areas with survey tabulation domains consisting of urban, rural, and IDP areas within 5 regions of Puntland.

. Each region was allocated to 20 EAs and a sample size of 300 households per region, with total sample size for households was 1500 households. Those EAs were distributed to rural, urban, and IDP using population proportional to size method, and I5 households was randomly selected from each EA. The sampling frame of EAs for the urban, rural, and IDP strata of each region should be sorted by region, stratum, and hierarchical geographic codes. This geographic ordering of the sampling frame of EAs within each stratum provided additional implicit stratification in the sampling frame. At the first sampling stage, the specified number of samples EAs for each stratum was selected within each stratum systematically with probability proportional to size (PPS), where the measure of size is based on the total number of dwelling structures in the frame for each EA. A new listing of households was conducted in each sample EA. In the listing, it is important to completely cover all the dwelling units and households within the boundaries of the sample EA. At the second sampling stage, a sample of 15 households were selected from the listing of households for each sample EA, using random systematic sampling.

2.3 Questionnaires and Survey Tools

The study applied four questionnaires designed to target respondents selected from households, water point management teams, health facilities, and schools across Puntland. These questionnaires are designed to gather information on pre-defined indicators that were used to evaluate the sustainability of WASH services in the region. The questions cover various dimensions outlined by UNICEF in their sustainability check tool document. In collaboration with UNICEF representatives, the Department of Statistics refined a large set of potential indicators, narrowing them down to 17 indicators for the health facilities questionnaire, 23 for the water point management questionnaire, 17 for the household questionnaire, and 14 for the school questionnaire. In addition to these essential tools, the department developed separate questionnaires for Focus Group Discussions, which supplemented the sectoral questionnaires. Furthermore, a distinct questionnaire was designed for key informants from government institutions—particularly ministries involved in WASH programs and local governments—to assess institutional capacities and identify gaps in delivering and maintaining WASH infrastructure and services within a sustainable framework.

2.4 Field Staff Training

Recruitment and training of fieldwork staff took place in Garowe, Puntland, Somalia with an eight-day workshop designed to upskill and bring up-to-speed enumerators with an emphasis on quality data collection methods, deep understanding of the correct manners in dealing with respondents and knowledge of data collection tools whilst in the field. An additional number of enumerators was be brought into the training workshop to either cover any dropouts or non-compliance with training instructions. Enumerators was be trained on using the paper-based questionnaire in both Somali and English translations, followed by training on the digital or Computer-Assisted Personal Interviewing (CAPI) format of the questionnaire and ethical data collection practices. The training sessions emphasized high-quality data collection methods, proper conduct with respondents, and a thorough understanding of data collection tools to be used in the field. To evaluate staff understanding and tool accuracy, we conducted two days of pilot work.

2.5 Field Operations

MOPEDIC were used computer-assisted personal interviewing (CAPI), which allows a face-to-face data collection method in which the interviewer uses a tablet or mobile phone to record answers given during the interview. Recruited EAs worked in teams and travel within the assigned states of the region to interview houses. Once enumerators finish collecting data for the day, they alerted their supervisor who conducted quality checks to ensure all households assigned have been interviewed. Fieldwork lasted 20 days and during this period, 1,500 households across five regions were interviewed. Similarly, the assessment also enumerated 311 schools, 188 health care facilities and 233 waterpoints.

2.6 Data Quality Control Mechanism

As previously mentioned, supervisors conduct daily data checks to ensure that questions are properly understood and all mandatory questions are answered. They also verify that skip patterns have been applied correctly and that respondents provide the required units of measurement. Additionally, a dedicated team within the Department of Statistics conducts an in-depth review of the interim data and provides detailed feedback to the data collection team on necessary adjustments. This process occurs daily, and the iterative nature of these checks ensures the production of high-quality, reliable final data that can be confidently used for policy purposes.

2.7 Weighting Procedures

Weighting has been applied exclusively to the household dataset, following the methodology outlined in the MICS weighting calculator template. A listing exercise was conducted prior to fieldwork, gathering data on the number of households in each selected sampling site. The Department of Statistics also maintained information on the estimated household populations for key subgroups of interest (i.e., IDPs, urban, and rural populations), which was used as the basis for one component of the weighting calculation. This process generates probability-based weights for households within each subgroup and region, ensuring that the sample, to the greatest extent possible, accurately represents the population of Puntland.

2.8 Data Analysis Protocols

The Department of Statistics has processed the datasets to produce the prespecified indicators in a table format against the subgroups of interest and the different regions. The UNICEF team and the Department of Statistics have worked closely together to ensure the relevance of the data to be inputted in the final report and reduce the vast quantity of information to prioritize the most important indicators.

2.9 Limitations and Constraints of The Study

One of the biggest constraints of the study is the limited time available which has led to a reduced scope in the study. For example, the nomadic population was excluded due to time and logistics. Another constraint of the study includes an accurate understanding of the questionnaire in the local language (Somali) to extract the exact information required. Some questions also attempted to invoke memory or understanding of WASH services and some available representatives of water points, health, and school may have benefited in being allowed to contact peers/colleagues to provide a more detailed and comprehensive answer. The study timeline spans from late August 2024, starting with the inception meeting for stakeholder engagement, to the end of December, when the survey report is expected to be validated and finalized. It is important to note that the selection and finalization of indicators, as well as the development of assessment questionnaires, were completed within two months. Another month was dedicated to training field staff and conducting field data collection, along with data validation activities. The data processing, analysis, and report writing were carried out within one month, a significantly demanding and time-pressured task.

Sector Wide Sustainability Check Assessment Findings

- Assessment of the Functionality and Accessibility of Water Facilities
- Analysis of Infrastructure Breakdowns and Service Accessibility
- Maintenance, Technical Support, and Operational Management
- Water Infrastructure Administrational and Coordination Systems
- Financial Sustainability for WASH Infrastructure Maintenance and Operations
- Water Quality and Reliability Monitoring
- WASH Infrastructure Resilience and Adaptation for Climatic Events
- Analysing Sanitation and Hygiene Service Accessibility and Practices
- Community Participation in WASH Programs
- Assessing Institutional Capacity and Mechanisms for The Sustainability of WASH Infrastructures and Services

Household Water Availability and Access

56.8%
of households accessing water within a 30-minute round trip

74.8%
of households experiencing seasonal water shortages

Household Sanitation & Hygiene

40.8%
of households have access to improved, non-shared latrines

20.9%
of households have handwashing facilities near latrines

Infrastructure Breakdowns and Service Accessibility in Water Supply Systems

53.2%
of water points experiencing downtime in the past 12 months

33.3%
of water points reporting delays of more than 48 hours in receiving technical support or spare parts

Community Participation in WASH Programs

74.3% of settlements with active WASH committees

3.1 Assessment of the Functionality and Accessibility of Water Facilities

The findings indicate that overall, 85.2% of the water points surveyed were operational at the time of the study. However, the functionality of these water points varied significantly by location. Urban areas demonstrated the highest level of functionality at 93.3%, while rural areas recorded a slightly lower rate of 83.6%. The situation was most concerning in IDP settlements, where only 75.0% of the water points were operational. The study further revealed that while 77.6% of the water points were operational throughout the week, only 59.5% provided round-the-clock service. Urban areas again outperformed their rural and IDP counterparts in terms of 24/7 service availability.

85.2%
of the overall waterpoints are functional at the time of the study

From the household perspective, the data reveals that 92.6% of Puntland households excluded nomads collect water from functional water points within a 30-minute trekking distance, yet only 60% of IDP households met this standard. . In addition to that, 89.9% of the households obtains water from sources built within their premises, with only 33.4% of households in IDP settlements have water sources attached to their structures.

Moreover, 87.6% of households declared their waterpoints are open and water is accessible at all times of the day. Urban households enjoyed the highest accessibility rates at 89.3%, compared to 87.3% in rural areas. In contrast, households in IDP settlements faced significant challenges, with only 64.7% reporting access to water at all times of the day.

92.6%
of households in targeted settlements access water points within a 30-minute round-trip walk.

Public institutions such as schools and health facilities also face distinct challenges. While a high proportion of schools (92.4%) have functional water points—with urban and rural schools showing similar high performance—IDP schools lag behind at 80%. Health facilities in Puntland show an overall high connectivity rate (94.4%) to functional water sources, although urban areas tend to have better access compared to rural locations. In IDP settlements, all health facilities reported having on-site water sources, underscoring an effort to mitigate access issues despite the broader challenges.

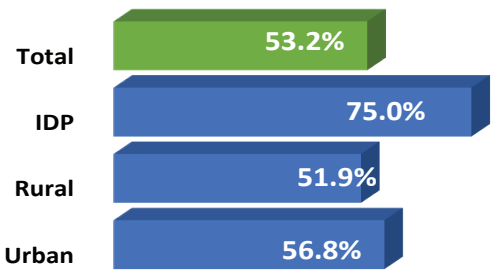
89.9%
of households access water from sources within their premises.

3.2 Analysis of Infrastructure Breakdowns and Service Accessibility

The assessment similarly highlighted that mechanical breakdowns and technical downtimes are recurring issues that adversely affect service reliability. In the month prior to the survey, 16.5% of water points experienced a mechanical failure. Urban water points reported a higher incidence of such failures compared to rural ones, while IDP settlements reported no breakdowns during the same period.

However, over the past 12 months, more than half (53.2%) of the water facilities reported experiencing downtime due to technical problems. IDP settlements recorded the highest frequency of downtime, with a substantial number of facilities facing multiple breakdowns annually. Reporting mechanisms for these breakdowns were examined, revealing that while a significant portion of incidents (66.7%) were reported within the standard 48-hour period, nearly 28.2% of cases received no feedback or corrective action. Delays in accessing technicians and spare parts further exacerbate these challenges, with approximately one-third of water points reporting that such delays extend beyond 48 hours. These issues underline the need for more robust and responsive maintenance protocols.

Waterpoints that experienced at least one breakdown over the past 12 month prior the survey data



Only 39.7% of water points have access to technicians within a 48-hour response time

The study also reveals significant challenges in maintaining water infrastructure in Puntland, with only 39.7% of water points having access to technicians and 35.4% to spare parts within a 48-hour response time. Conversely, 33.3% face delays exceeding 48 hours for technicians, and 32.5% for spare parts, while 27.0% face absolute struggle to access technicians and 19.4% to obtain spare parts. These issues are particularly acute in rural and IDP areas due to accessibility and financial constraints. With 53.2% of water points experiencing breakdowns 1-2 times annually, the lack of timely technical support and spare parts poses a critical sustainability challenge for Puntland's water infrastructure.

35.4% of water points with access to spare parts within 48 hours

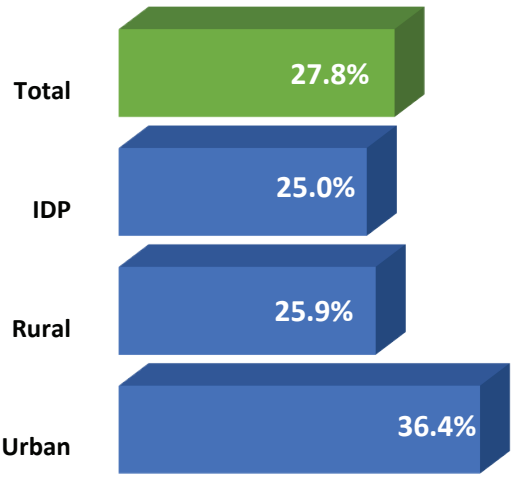
3.3 Maintenance, Technical Support, and Operational Management

The report reveals that only 50.2% of the surveyed water points have established effective funding systems for operations and maintenance. Urban areas, while marginally better at 54.5%, still face challenges compared to the lower performance in rural areas (49.2%). Facilities with functional funding systems generally adhere to regular maintenance schedules; IDP facilities, in particular, reported consistent maintenance practices. However, technical support from local government agencies is markedly low, with only 27.8% of water points receiving regular technical assistance. This deficiency is evident across all residential settings, although urban areas show slightly better access. An important aspect of the operational management is the assignment of dedicated caretakers. The majority of water points (75.1%) have designated individuals responsible for their upkeep, but the caretaker workforce is overwhelmingly male, especially in rural settings. Additionally, only 55.1% of caretakers reported receiving any financial compensation, highlighting significant gaps in formal support structures. Access to trained maintenance personnel is another critical concern. Overall, only 39.7% of the water points reported having access to trained technicians, with urban areas enjoying better access compared to rural areas. These technicians are generally equipped with plumbing, mechanical, and electrical skills; however, gender disparity remains a challenge, as female participation in technical roles is minimal.

Energy sources also play a significant role in the sustainability of water facilities. Solar energy is the primary source for 51.5% of water points, with rural areas leading in solar adoption. In contrast, schools, particularly in urban areas, rely heavily on conventional electricity.

The need for diversifying and promoting renewable energy sources, especially in urban institutions, is a key recommendation derived from the findings.

Percentage of waterpoints recieving technical support from Local District or Water Authorities



51.5%
of water points using solar energy as the primary source

3.4 Water Infrastructure Administrational and Coordination Systems

The Government of Puntland established the Puntland Water Development Agency (PWDA) to coordinate water infrastructure development and oversee water supply management. The agency has regional focal points to facilitate local-level coordination and plays a central role in improving water access by mobilizing resources, conducting surveys, constructing water points, providing technical support, and monitoring water quality and facility operations. However, the agency faces foundational challenges that limit its effectiveness. These include institutional gaps in both technical and financial capacities. Government budget allocations to the agency cover only staff salaries, with operational funding remaining inadequate and inconsistent. As a result, the agency is heavily dependent on external partner support. This dependency undermines sustainability, as local institutions lack the capacity to independently expand, maintain, and manage water infrastructure.

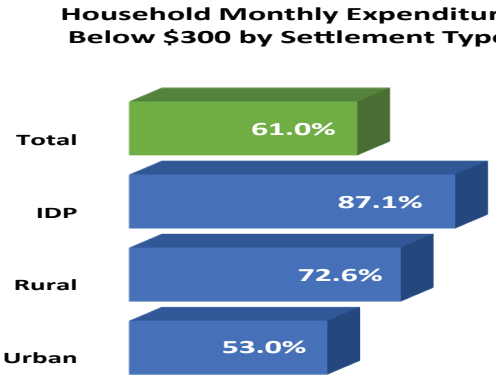
The study found that only 21.1% of water facilities were associated with established and operational water supply management bodies. Urban areas reported the highest level of involvement (27.3%), followed by rural areas (20.1%), while no functional coordination bodies were reported in IDP settlements. Formalized service management models were adopted by 32.9% of surveyed water points, with urban areas showing the highest uptake (40.9%). Among these, 85.9% operated under a community-led management model. However, the transition of government-constructed water points into private ownership was a common concern raised during focus group discussions. Regarding water infrastructure planning, 70.9% of water points had undergone hydrological or hydrogeological evaluations before construction. Urban areas showed the highest compliance (79.5%), followed by IDP settlements (75.0%) and rural areas (68.8%).

However, only 67.5% of surveyed water points confirmed that assessment data was fully applied in planning and design, suggesting gaps in implementation.

3.5 Financial Sustainability for WASH Infrastructure Maintenance and Operations

Financial sustainability is a critical component for ensuring the long-term functionality of WASH infrastructure, particularly in post-conflict settings like Puntland, where institutional capacity and budget constraints are prevalent challenges. As previously highlighted, more than half of the surveyed water points experienced mechanical breakdowns, with an average of two incidents per facility annually. Beyond the costs of maintenance, operational expenses such as caretaker compensation and fuel for generator-powered water points are essential financial requirements to sustain infrastructure functionality and service delivery.

Access to WASH services in Puntland is heavily constrained by financial barriers, particularly for vulnerable populations. Over 61% of households report monthly expenditures below $300, including 87.1% of IDPs, 72.6% of rural households, and 53.0% of urban households. More specifically, nearly one-quarter (23%) of households survive on less than $200 per month, with the burden most pronounced among IDPs, where 58.6% fall within this lowest income bracket.



This demonstrates widespread poverty, particularly among displaced and rural populations. Despite this, WASH services remain a significant financial burden across all settings. Urban households are more likely to face high WASH costs, with 33.9% spending over $30 per month. Rural households tend to spend around $13 on WASH services, while IDPs—despite having the lowest overall income—account for a large share (44.6%) of those spending approximately $10 monthly. Such financial burdens may compel households to reduce water consumption and limit the use of other WASH-related products to manage their constrained income amid competing basic needs. These figures underscore the affordability challenges and potential inequities in WASH service delivery, particularly for the most vulnerable populations. Alarmingly, 83.2% of households report financial stress related to WASH costs, compounded by the absence of cross-subsidy policies to support low-income groups.

83.2%
of households experiencing Financial strain related to WASH expenses

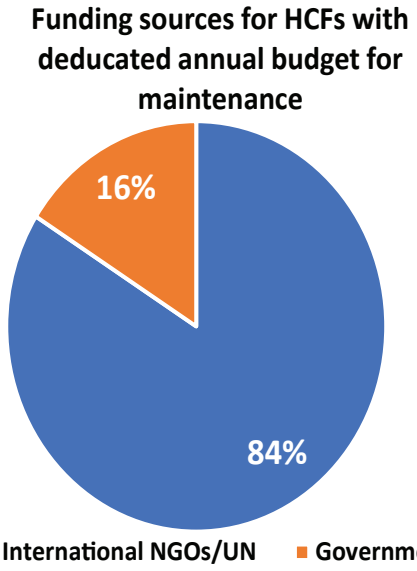
The lack of structured and predictable funding for water infrastructure maintenance and operations undermines sustainability and contributes to frequent service disruptions. Over 57.4% of water facilities reported the experience of a period dysfunction due to financial constraints, with IDP (66.7%) and rural (62.7%) areas most affected. Urban areas report lower dysfunction rates (30.4%). Additionally, only 50.2% of surveyed water points have structured financial mechanisms for maintenance and operations. Among these, 75.0% are managed by WASH community committees, particularly in IDP and rural areas, while 17.6% are operated by the private sector. Government-managed water facilities account for only 3.4%, reflecting systemic institutional gaps. Revenue collection remains inconsistent, with only 40.1% of service providers regularly collecting funds for maintenance. While 83.2% of service providers that collect revenues manage to carry out maintenance tasks, only 21.8% report that internally collected funds are sufficient to cover full operational and maintenance costs. The situation is particularly dire in IDP settlements, where no water point is financially self-sufficient, posing existential risks to service continuity.

50.2%
of water points with structured financial mechanisms for maintenance and operations

40.1%
of service providers consistently collecting funds for water point maintenance

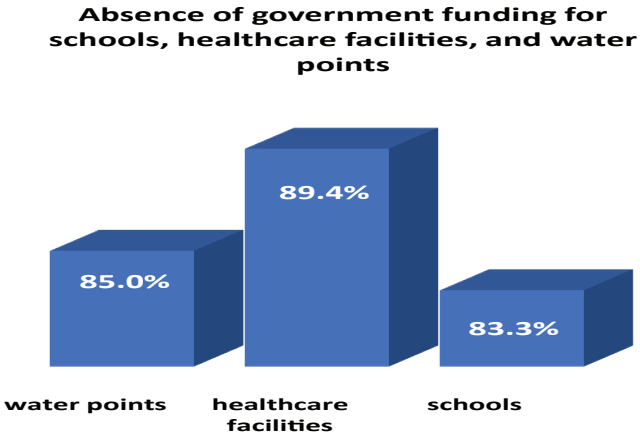
21.8%
of water points where internally collected funds are sufficient to cover full operational and maintenance costs

The financial sustainability of WASH infrastructure in healthcare facilities and schools remains weak. Only 19.8% of healthcare facilities (HCFs) have dedicated annual budget plans for maintenance. Among them, 84% rely on international NGOs and UN agencies for funding, while while government contributions remain marginal (16%).



19.8%
of healthcare facilities with annual budget plans for maintenance

For schools, 37.5% have established budget plans, with urban schools demonstrating better financial planning (50.4%) compared to rural areas (26.9%). However, no schools in IDP settlements reported having structured budget plans for WASH infrastructure maintenance. Financial allocations for WASH services remain insufficient, with only 6.4% of schools reporting that their internal budgets fully cover operational and maintenance costs. Systematic government funding is nearly absent: 85% of water points, 89.4% of healthcare facilities, and 83.3% of schools receive no dedicated budgets. Emergency support is sporadic and unplanned, leaving facilities reliant on unstable external aid.



3.6 Water Quality and Reliability Monitoring

This report also examines the quality and reliability of water supply systems in Puntland, Somalia, focusing on water safety measures, government monitoring practices, household reliance on safe water sources, and institutional water access in schools and healthcare facilities. It is important to note that this study did not include practical water quality testing procedures. Instead, it assessed water quality control practices, including the implementation of water safety measures, government monitoring efforts, and the reliability of water supply systems in Puntland.

Water quality and reliability monitoring remain major concerns in Puntland.

The study found that only 35% of water points had implemented water safety measures. The most common measures include regular water quality testing primarily through observational methods such as assessing taste, color, and smell. Followed by protection of the water source from contamination (e.g., covering wells) and maintenance of clean surroundings, Barriers to implementing water safety measures include inadequate technical knowledge, limited awareness, and restricted access to essential materials. Focus Group Discussion (FGD) participants further emphasized the absence of documented and translated water quality control and safety measurement guidelines, which hinders communities' ability to adopt and enforce proper safety practices.

35%
of water points have implemented water safety measures

Reporting of water safety issues remain critically low, with only 2.4% of respondents at the Puntland level reporting such activities. Additionally, 42.6% of water points had received quality monitoring from government authorities in the past 12 months. However, feedback mechanisms are deficient: 41.6% of monitored facilities received confirmation that water met quality standards, while 24.8% reported no feedback from authorities.

Households in Puntland heavily depend on improved water points, though disparities exist. The study found that 74.1% of households rely on their primary water source for drinking year-round, primarily utilizing berkads, boreholes, pipelines, and tanks. However, 25.9% of households avoid using their main water source for drinking, with 59.4% attributing this to concerns over water quality. Reliance on primary water sources is highest among rural households (91.6%) due to limited alternatives. In contrast, urban (64.4%) and IDP (61.6%) households more frequently turn to bottled or purified water as an alternative. The Primary water quality concern indicated by the study has been salinity levels. During the Focus Group Discussions, participants consistently highlighted major water quality issues, with the primary concern being the high salinity levels in the water available to households.

In addition to the salinity levels, declining water levels and increased livestock consumption in dry seasons exacerbate contamination risks.

Water reliability in schools is notably high, with 92.4% of schools reporting available water from their main supply. However, access to basic drinking water was lower at 83.6%, with IDP schools recording the lowest rate (66.7%). Similarly, 94.4% of health facilities are connected to functional water sources, with IDP settlements again showing slightly lower reliability. While institutional water access is commendable, IDP schools and rural healthcare facilities require prioritized upgrades to ensure equitable service delivery.

2.4%
of respondents at the Puntland level reported water safety issues

42.6%
of water points received quality monitoring from government authorities in the past 12 months

74.1%
of households rely on their primary water source for drinking year-round, mainly using berkads, boreholes, pipelines, and tanks

"Participants consistently highlighted major water quality issues, with the primary concern being the high salinity levels in the water available to households."

3.7 WASH Infrastructure Resilience and Adaptation for Climatic Events

The study further highlights significant vulnerabilities in WASH infrastructure due to climatic events. A total of 41.8% of surveyed water points reported failing to meet demand for at least one month in the past year due to environmental factors, with drought and declining water table levels being the primary causes. From the household perspective, 31.3% of households in Puntland informed to the study that they experienced a water shortage lasting at least one month in the past 12 months due to environmental factors. Additionally, 30.4% of surveyed water points experienced climatic events such as floods, droughts, and strong winds, with half of these reporting severe damage. Consequences included temporary drying up, water contamination, and infrastructure breakdowns.

41.8%
of water points failed to meet demand

30.4%
of water points impacted by climatic events

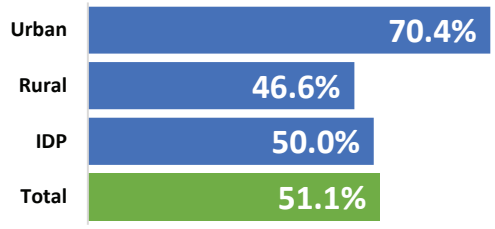
Despite these threats, only 30.0% of water points had risk management and contingency plans, and water points with contingency plans were exclusively located in urban (36.4%) and rural (29.1%) areas, with no such plans reported in IDP settings. Additionally, 47.7% of water points reported receiving timely warnings from early warning systems during natural disasters, reflecting a roughly even split between those who receive such warnings and those who do not.

This suggests potential gaps in the distribution and accessibility of early warning information for water point management. A significant 71.3% of water points reported the absence of defined and predictable emergency response mechanisms. Meanwhile, 13.9% stated that such mechanisms were partially established but irregularly functional, and only 10.5% reported having fully established and functional emergency response schemes.

71.3%
of water points without defined emergency response mechanisms

The study assessed waterpoint climate resilience by looking at the capacity of water point infrastructure to withstand climate impacts, while also accounting for the effects of droughts and seasonal variations on groundwater table levels. Findings show that 51.1% of surveyed water points reported being designed to withstand climatic impacts, with urban areas leading (70.5%), followed by IDP settlements (50.0%) and rural areas (46.6%). The most commonly implemented protective measures included flood barriers or diversion structures, soil erosion control mechanisms, and safeguarded water storage tanks. While these efforts improve resilience, substantial gaps remain, particularly in emergency response preparedness.

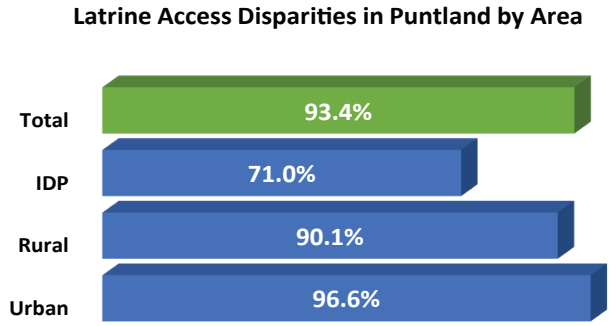
waterpiont climate adaptation in terms of structural resilience and ground water table level



Similarly, 53.7% of health facilities and 44.4% of schools reported having protective measures against climatic hazards. However, common challenges such as infrastructure damage, disrupted services, and health risks from contaminated water remain prevalent. Despite the importance of preparedness, only 36.0% of schools and 38.8% of health facilities had risk management plans, while only 4.0% of schools and 9.6% of health facilities had access to emergency response funding. Sustainability issues in WASH infrastructure resilience highlight several key challenges. Rural and IDP settings exhibit disproportionately lower levels of infrastructure protection, with both facing particularly severe challenges in preparedness and emergency response capabilities. Additionally, government contributions during crises are often ad hoc, neither programmatic nor predictable, which undermines long-term resilience

3.8 Analysing Sanitation and Hygiene Service Accessibility and Practices

Access to latrines in Puntland is widespread, with 93.4% of households reporting availability. However, significant disparities exist: urban areas lead with 96.6% access, followed by rural areas (90.1%) and IDP settlements (71.0%). Improved, non-shared latrines remain scarce, accessible to only 40.8% of households, predominantly in urban areas (54.4%). Rural and IDP communities rely heavily on unimproved facilities, such as open pits or shared bucket systems, with 58.2% and 56.9% of households, respectively, using such unsafe options.



40.8%
of households with access to improved, non-shared latrines

On the other hand, Maintenance of latrines is a critical issue, particularly in IDP settlements, where only 48.8% of households report well-maintained facilities. Open defecation persists among 37.8% of households without latrines, peaking in IDP communities (67.3%). In addition, 57.7% of healthcare facilities claim their communities are Open Defecation Free (ODF), however, 42.9% of households in rural/IDP areas report witnessing open defecation, indicating discrepancies between reported progress and on-ground realities

37.8%
of households in Puntland practice open defecation

From the institutional perspective, Healthcare facilities demonstrate progress in sanitation infrastructure, with 94.1% reporting dedicated toilets. However, usability and equity gaps persist: Rural HCFs lag in access to functional and usable latrines, with only 84.0% meeting privacy standards, compared to 100% in IDP areas and 98.3% in urban areas. Additionally, only 36.0% of rural HCFs have sex-separated latrine structures.

Menstrual hygiene materials are available in only 22.3% of facilities, and disability-accessible toilets exist in just 10.6%, highlighting unmet needs for vulnerable populations. Similarly, schools exhibit high coverage of dedicated toilets (94.2%), but rural areas (91.8%) and accessibility for marginalized groups lag. Only 16.0% of schools provide menstrual products, with rural schools at 7.2%. Disability-accessible toilets are rare (8.5% overall), though IDP schools perform better (50.0%).

In Puntland, handwashing practices are nearly universal (98% of households), yet only 84.9% use soap and water. IDP households lag significantly (67.6%), compared to urban (88.8%) and rural (79.9%) areas. Access to handwashing facilities near latrines is limited (20.9% overall), with IDP settlements at just 7.8%, reflecting systemic gaps in hygiene infrastructure.

98%
of households in Puntland practice handwashing. However, only 84.9% use soap and water during the process.

20.9%
of households in Puntland have access to handwashing facilities near latrines

7.8%
of households in IDP settlements have access to handwashing facilities near latrines, reflecting significant gaps in hygiene infrastructure

Regarding health facilities, handwashing stations are functional in 86.8% of facilities, but consistent water and soap availability is low (43.1%). Waste management practices remain precarious, with 20.2% of facilities resorting to open burning of infectious waste. In schools, Functional handwashing stations exist in 77.8% of schools, but rural areas struggle (66.0%). Consistent water and soap availability is highest in IDP schools (75.0%), compared to urban (58.8%) and rural (41.5%) areas. Daily group handwashing occurs in 39.8% of schools, led by IDP institutions (50.0%), suggesting opportunities to replicate best practices.

On the other hand, he data indicates that hygiene promotion activities are regularly conducted, at least once per year, by individuals, health extension workers, or other external actors in all residential types. Notably, 84% of health facilities reported conducting hygiene promotion activities regularly on a yearly basis. The strong culture of hygiene promotion is further underscored when examining the data by area type. In IDP settings, all surveyed health facilities (100%) confirmed regular hygiene promotion activities, while 82.4% of rural and 86.2% of urban health facilities also reported consistent engagement in such initiatives.

3.9 Community Participation in WASH Programs

Community engagement in WASH programs varies significantly. While 74.3% of settlements have WASH committees, female representation is limited: 24.5% of committees lack women representatives, and there is no significant variation across different settlement locations, as their rates closely align with the overall proportion. Participation in water point planning is high in IDP (100%) and rural (84.7%) areas but lower in urban settings (65.9%), suggesting that community involvement in water point planning and construction is less prominent in urban locations compared to rural and IDP areas. The findings also reveal that female participation in planning and community engagement meetings is significantly lower than male participation. This disparity is largely attributed to competing responsibilities, limited access to information, and insufficient community support. However, respondents and focus group discussion (FGD) participants strongly emphasized that this gap is not primarily driven by gender bias or discrimination but rather by these structural and social constraints. Gender disparities in leadership persist: only 2.9% of school principals are female, with IDP areas (16.7%) outperforming rural (2.7%) and urban (2.4%) regions. Healthcare facilities show stronger female leadership (62.2% overall), peaking in IDP areas (100%). Sanitation clubs exist in 68.5% of schools, with female leadership highest in IDP settlements (66.7%), compared to rural (29.7%) and urban (25.2%) areas.

3.10 Assessing Institutional Capacity and Mechanisms for The Sustainability of WASH Infrastructures and Services

Strong and capable government institutions, particularly municipalities, are essential for ensuring the long-term sustainability of WASH infrastructure and the continuous provision of WASH services to citizens. Recognizing this, the Puntland Statistics Department developed a questionnaire targeting local governments and government ministries and agencies involved in the social sector. The aim is to assess the capacity and preparedness of these institutions to take a leadership role in sustaining WASH infrastructure and services. Based on this approach, we sampled 10 districts—Galdogob, Galkayo, Burtinle, Garowe, Eyl, Qardho, Dhahar, Badhan, Carmo, and Bosaso—representing approximately 30% of districts with elected local councils. Additionally, we targeted and successfully interviewed all social sector ministries. Under this section, the study assessed leadership roles, technical and financial capacities, and the challenges faced by municipalities in managing WASH programs.

Key informants from both municipal and ministerial authorities acknowledged that the responsibility for leading, upgrading, expanding, and sustaining WASH infrastructure and services falls under the mandate of local governments according the established legal frameworks. However, in practice, their role is often limited to facilitative functions such as site allocation, community engagement, and program oversight.

Key informants from municipal authorities highlighted that the planning and implementation of WASH programs are primarily managed by ministerial authorities and humanitarian organizations, sidelining local governments in critical decision-making processes. Despite these limitations, municipalities play an active role in improving general sanitation and hygiene, including rubbish collection, draining stagnant rain water, and monitoring program progress. However, their ability to evaluate the impact and sustainability of WASH programs is hindered by a lack of monitoring tools, such as performance indicators and frameworks, as well as insufficient technical and financial capacities. ***Half of the surveyed districts lack dedicated offices for WASH coordination, and those that exist often lack the financial and capable human resources to fulfill their roles effectively.*** While Puntland's decentralization policy mandates municipalities to lead WASH initiatives, the absence of actionable strategic frameworks and financial mechanisms undermines their ability to take ownership. Local governments emphasized the need for capacity building, reliable funding, and stronger partnerships to fulfill their mandates effectively.

The capacity of local governments to manage WASH services varies significantly across districts. Some districts, such as Garowe and Bosaso, have made progress in recruiting skilled staff and mobilizing community participation. However, these districts remain heavily reliant on external humanitarian support, creating uncertainty about the long-term sustainability of their programs.

Local governments in Puntland face significant financial challenges in managing WASH infrastructure and services. Revenues, primarily derived from taxes, are insufficient to meet community needs due to low economic activity and weak tax collection systems. As a result, districts rely heavily on external funding from humanitarian agencies, which is neither guaranteed nor sufficient to ensure long-term sustainability. Budget allocations for WASH activities are minimal, and many districts lack emergency funds or contingency plans to address revenue shortfalls or unexpected expenses. Community contributions, while helpful, are sporadic and inadequate to meet the growing demand for WASH services. Vulnerable populations are particularly affected, as even modest fees for water services are often unaffordable. The centralization of decision-making further restricts local governments' ability to manage resources independently, delaying responses to urgent WASH issues and limiting long-term planning. Efforts to reduce dependence on humanitarian aid, such as community mobilization and improved resource management, have been insufficient to address underlying financial and capacity gaps.

In summary, ***Puntland's local governments face significant challenges in sustaining WASH infrastructure and services due to limited leadership roles, technical and financial gaps, and centralized decision-making.*** Addressing these issues requires coordinated efforts to empower municipalities, enhance technical and financial capacities, and decentralize resource management. By fostering local ownership and building resilient systems, Puntland can achieve sustainable WASH service delivery, ensuring equitable access to clean water and sanitation for all communities.

Strategic Policy Recommendations for Creating WASH Sustainability in Puntland

To ensure long-term WASH sustainability, the study presents a suite of strategic policy recommendations designed to address institutional, financial, technical, and operational gaps. By implementing these comprehensive strategic policy recommendations, Puntland can create a resilient, inclusive, and sustainable WASH service framework that effectively meets the needs of its diverse communities while reducing reliance on external support.

Enhance Institutional Technical Capacity:

Strengthen the technical and managerial capacity of local governments by implementing tailored training programs. These programs should focus on WASH infrastructure planning, operation, maintenance, revenue generation, resource mobilization, and financial management. Empowering local officials and technical staff will build institutional resilience and reduce reliance on external support.

Develop a Comprehensive WASH Sustainability Framework

study recommends establishing Puntland WASH Sustainability Framework with clear goals, strategies, indicators, and accountability mechanisms. This framework should align with Puntland's Five-Year Development Plan, integrate WASH financing into broader development goals, and foster cross-sectoral collaboration with health and education sectors. A long-term financing strategy should gradually transition from donor dependency to locally driven mechanisms.

Enhance and Institutionalize Integrated Financing Models

Develop a comprehensive Puntland WASH Financing Strategy that integrates financial contributions from state, district, private sector, and development partners. Strengthen local tax collection and financial management systems through digitalization and improved transparency. Encourage community-based financing through user fees, voluntary contributions, and local fundraising to foster local ownership and reduce donor dependency.

Strengthen Maintenance and Breakdown Handling Systems

Address technician shortages and spare parts accessibility by establishing centralized technical hubs at regional and district levels. These hubs should house trained technicians and maintain an inventory of spare parts to ensure repairs are conducted within 48 hours. Community training programs, with a focus on gender-inclusive recruitment, are essential to empower local technicians and reduce mechanical breakdowns.

Establish Emergency Funds and Contingency Plans

Create dedicated emergency funds at the local level to ensure rapid responses to service disruptions caused by breakdowns or natural disasters. Develop robust contingency plans—including risk assessments and preparedness strategies—to ensure continuity of WASH services during crises.

Integrate Climate Adaptation and Resilience Strategie

Incorporate climate change adaptation into WASH planning by constructing climate-resilient infrastructure using sustainable materials and technologies. Provide training for local government staff on emergency response and climate adaptation. Support the development and implementation of emergency response plans and rapid response teams to better manage climate-induced disruptions.

Prioritize Infrastructure Expansion and Promotion

Upgrade existing WASH infrastructure, expand water supply networks, and improve sanitation facilities—particularly in underserved urban slums and rural communities. Address water quality concerns by investing in alternative safe drinking water sources, such as purification systems and rainwater harvesting, and by establishing clear water safety guidelines.

Foster Inclusivity, Community Engagement, and Awareness

Enhance public understanding and ownership of WASH services through community sensitization initiatives. Increase female representation in WASH committees, engagement meetings, and training programs to ensure diverse perspectives and empower marginalized groups. This participatory approach will improve accountability and support long-term sustainability.

Annex: WASH (Water, Sanitation, and Hygiene) Sector-Wide Sustainability Check Response Plan

- This is a strategic document designed to assess and address sustainability challenges in water, sanitation, and hygiene programs.
- This template can be used by organizations, governments, or other stakeholders to ensure that WASH projects are sustainable, both in terms of their environmental impact and their long-term social and financial viability.

This template is designed to provide a structured overview of the WASH Sector-Wide Sustainability Check and response actions. It includes sections on:

1. Executive Summary
2. WASH Sector Assessment
3. Response Strategies
4. Action Plan & Timeline
5. Monitoring, Evaluation & Reporting
6. Risk Management and Contingency

Sheet 1: Executive Summary

Section	Details
Purpose of the Plan	The Puntland Sector-Wash Sustainability Check (SWSC) aims to assess the sustainability of Water, Sanitation, and Hygiene (WASH) facilities, services, and behaviors across the Puntland regions. This initiative, supported by DGIS (The Netherlands) and UNICEF. The study encompasses a comprehensive analysis of water, sanitation, and hygiene infrastructure and practices in urban, rural, and Internally Displaced Persons (IDP) settings, including schools and healthcare facilities. The findings will guide the Puntland Government and UNICEF in policy-making, program design, and the development of sustainable WASH systems to improve access, functionality, and resilience.
Key Findings	The Puntland Sector-Wash Sustainability Check (SWSC) assessment has identified critical challenges and opportunities within the WASH sector, revealing significant gaps in service coverage, infrastructure maintenance, financial sustainability, and institutional capacity. The study underscores the need for a comprehensive, multisectoral approach to address these challenges and ensure long-term sustainability in water, sanitation, and hygiene services. Key findings highlight limited accessibility to clean water and functional sanitation facilities, particularly in rural, IDP, and underserved urban areas. The high prevalence of open defecation and inadequate sanitation services in schools and healthcare facilities present serious public health concerns. Maintenance of WASH infrastructure is hindered by insufficient technician availability, spare parts accessibility, and weak financing mechanisms. Financial dependency on external donors remains a major challenge, exacerbating vulnerabilities in service continuity. Moreover, climate-induced disruptions such as floods and droughts threaten the resilience of WASH services, further stressing the sector. Institutional capacity gaps, including limited technical expertise, insufficient funding, and lack of coordinated frameworks, impede the effective management and delivery of WASH services.
Overall Strategy	To address these challenges, a holistic strategy is proposed, focusing on strengthening institutional capacity, enhancing maintenance systems, and developing sustainable financing models. The strategy emphasizes decentralization and improved coordination between local and national authorities to align policies with community needs. Establishing a comprehensive WASH sustainability framework will guide interventions, integrating climate adaptation measures and fostering cross-sectoral collaboration with health and education sectors. Expanding and upgrading WASH infrastructure, particularly in underserved regions, is prioritized, alongside community-driven approaches to eliminate open defecation and promote hygiene practices. The strategy also calls for empowering communities through inclusive engagement, awareness campaigns, and gender-responsive initiatives to enhance ownership and equity. By promoting innovative financing mechanisms, such as community-based contributions and emergency funds, and investing in resilient infrastructure with renewable energy solutions, the strategy aims to build a sustainable WASH ecosystem that reduces reliance on external support while ensuring continuous service delivery. These measures collectively lay the foundation for achieving equitable, resilient, and sustainable WASH outcomes in Puntland.

Sheet 2: WASH Sector Assessment

Aspect	Current Status	Key Issues/Gaps
Technical Sustainability	**Infrastructure Condition:** While significant investments have been made, much of the existing water infrastructure is aging and prone to frequent breakdowns. Limited water quality improvement and standards pose significant challenges to ensuring safe and sustainable water access. **Monitoring System technology:** The water information management system (WIMS) is currently newly establishment, with ongoing upgrades and a review process to enhance its functionality and effectiveness to fill data. Wash technical work group: The WASH Technical Working Group currently is not active. Strengthening the group is essential to improve coordination, technical support, and the overall effectiveness of WASH interventions. **Regional repair center:** the establishment of regional repair centers in ac, providing valuable support for the maintenance and repair of water infrastructure.	**Outdated Infrastructure:** low quality equipment, water source depletion, and inadequate maintenance leads to frequent malfunctions and a reduced lifespan of repairs. The limited of comprehensive water quality and treatment systems and the absence or enforcement of clear quality standards can result in the consumption of unsafe water, leading to health risks such as waterborne diseases. **Technology:** The water information management system (WIMS) is currently non-active, to improve data collection, monitoring, and decision-making processes for water resource management is to activate the system. Wash technical work group: limited capacity of the WASH Technical Working Group, which make difficult effective coordination, technical support, and the overall implementation of WASH interventions. **Repairing centers:** lack of regional repair centers in most areas, with only a few locations having access to such facilities. This limits the timely maintenance and repair of water infrastructure, particularly in underserved regions.
Financial Sustainability	**Financial:** The financial sustainability of Puntland's WASH sector relies on multiple funding sources, including government budgets, donor contributions, and community-based cost-recovery models. While donor funding plays a critical role in initiating and sustaining WASH programs, community contributions and user fees are increasingly in urban recognized as essential for long-term sustainability. However, the reliance on external funding remains significant.	**Insufficient Funds for Operations and Maintenance (O&M):** Many water systems lack adequate financial resources to cover routine maintenance and repair costs. This often results in prolonged downtimes and compromised service delivery. Unsustainable Pricing Models: User fees for water services are often insufficient to cover operational costs, particularly in rural and IDP communities where affordability is a major concern.
Institutional Sustainability	**Institutionally:** The WASH sector in Puntland benefits from strong capacities within the MOEMW/Puntland Water Agency and well-established policy frameworks. Institutions, are equipped with the mandate and resources to oversee WASH services effectively. Furthermore, collaborative frameworks involving government entities, UN, INGOs have facilitated coherent planning and execution of WASH programs.	**local Challenges:** weak local government structures in some regions, which difficult consistent service delivery, Poor inter-local government coordination has also been identified. limited Capacity: In some areas, the limited capacity of staff presents a challenge to effectively implementing and maintaining WASH services.
Social Sustainability	**Community Engagement:** The current status of social sustainability in the WASH sector highlights significant efforts in community engagement and the promotion of hygiene practices. Awareness campaigns and community-based interventions have fostered basic knowledge of the importance of safe water usage, sanitation, and hygiene practices across urban, rural, and IDP settings.	**Low Community Ownership:** Some communities don't take enough responsibility for their WASH facilities, which leads to poor maintenance and makes it harder to keep them working well over time. Additionally, behavior change efforts have not fully translated into sustained practices such as regular handwashing or consistent latrine use.
Environmental Sustainability	**Solar System:** The adoption of renewable energy, particularly solar power, has been a positive step, with 51.5% of water points powered by solar energy.	many water points still rely on fuel-powered generators, which increase operational costs and reduce sustainability.

Sheet 3: Response Strategies

Aspect	Key Strategy	Action Item	Responsible Party	Timeline	Resources Required
Technical	1.Expand maintenance capacity	1. Upgrading and expanding water supply system (semi-urban and rural areas).	[MOEMW, PWDA, UN and INGOs]	5 years	$50,000,000
	2.Conduct Technical Comprehensive Assessments	2. . Rehabilitation of 250 Existing Systems.			
	3.upgrade water infrastructure	3. Drilling 100 new boreholes. (20 borehole each year)			
	4.Drill New boreholes	4. Construction of 25 sub-surface dams.			
	5.Improve Water Quality	5. Strengthen the existing mobile repair team at PWDA and establish each regional technical repair teams.			
	6.Strength water information management system (WIMS)	6. Construction of public latrines at the water point areas.			
		7. Conducting Technical Comprehensive Assessments in hole Puntland boreholes and regular monitoring in water quality, through assessment of the water information management system (WIMS), two times per year.			
		8. Establishing water lab for each region			
Financial	1.Establishment Puntland wash fund strategy	1. Increasing government support for WASH.	[MOEMW, PWDA, WASH COMMITEE UN and NGOs]	5 years	
	2.Wash committee saving	2. Engagement of private sector diaspora and religious groups.			
	3.Community contribution	3. Increasing Donor fund raising efforts.			
	4.Donor fund rising				
Institutional	1. Improve wash technical group,	1. Capacity-buildings MOEMW, PWDA and Local government.	[MOEMW, PWDA, UN, and INGOs]	5 years	$5,000,000
	2. Develop government institution capacity	2. Establishing and strength technical WASH committee.			
	3. Improve coordination mechanisms,	3. Strengthen the coordination mechanism.			
	4. Strengthen monitoring and evaluation (M&E)				
Social	1. Community contribution	1. Launching an awareness campaign.	[MOEMW, PWDA, UN and INGO]	3 year	$2,000,000 materials
	2. Community conflict resolution mechanism	2. Training community members on WASH management practices.			
	3. Capacitate wash committee	3. Establishing and strengthening Community conflict resolving group.			
	4. Increasing Women's Roles in WASH	4. Increasing female representation.			
Environmental	1. Strength Climate-resilient WASH infrastructure	1. promoting renewable energy include solar system, wind turbans with batteries in all water points across Puntland.	[MOEMW, PWDA, UN and INGO]	5 years	$20,000,000 materials
		2. Drilling deep boreholes to ensure water availability during droughts.			
		3. Commence tree plantation programs to promote environmental sustainability.			
		4. Improving water catchment areas			

Sheet 4: Action Plan & Timeline

Action Item	Responsible Party	Timeline	Resources Required	Status
1. Upgrading and expanding water supply system (semi-urban and rural areas).	[MOEMW, PWDA, UN and INGOs]	5 years	$40,000,000	Not Started
2. Rehabilitation of 250 Existing Systems.				
3. Drilling 100 new boreholes. (20 borehole each year)				
4. Construction of 25 sub-surface dams.				
5. Strengthen the existing mobile repair team at PWDA and establish each regional technical repair teams.				
6. Construction of public latrines at the water point areas.				
7. Conducting Technical Comprehensive Assessments in hole Puntland boreholes and regular monitoring in water quality, through assessment of the water information management system (WIMS), two times per year.				
8. Establishing water lab for each region				
1. Increasing government support for WASH.	[MOEMW, PWDA, UN and INGOs]	5 years		Not Started
2. Engagement of private sector diaspora and religious groups.				
3. Increasing Donor fund raising efforts.				
1. Capacity-buildings MOEMW, PWDA and Local government.	[MOEMW, PWDA, UN and INGOs]	5 years	$5,000,000	Not Started
2. Establishing and strength technical WASH committee.				
3. Strengthen the coordination mechanism.				
1. Launching an awareness campaign.	[MOEMW, PWDA, UN and INGOs]	3 years	$2,000,000	Not Started
2. Training community members on WASH management practices.				
3. Establishing and strengthening Community conflict resolving group.				
4. Increasing female representation.				
1. promoting renewable energy include solar system, wind turbans with batteries in all water points across Puntland.	[MOEMW, PWDA, UN and INGOs]	5 years	20,000,000	Not Started
2. Drilling deep boreholes to ensure water availability during droughts.				
3. Commence tree plantation programs to promote environmental sustainability.				
4. Improving water catchment areas				

Sheet 5: Monitoring, Evaluation and Reporting

Indicator	Target	Measurement Method	Responsible Party	Timeline
Water Supply Functionality	95% operational	Field inspections, surveys	MOEMW	Quarterly
Activate Water Information Management System (WIMS)	80% cover for real-time water data	Reports generated from WIMS	MOEMW	Quarterly
Community Engagement	70% community participation	Surveys, focus groups discussion	MOEMW	Quarterly
Increasing Women's Roles in WASH	40% female representation in water committees	Committee records, surveys	MOEMW	Quarterly
Training Effectiveness	90% of participants report knowledge gain	Post-training evaluations	MOEMW	Quarterly

Sheet 6:Risk Management and Contingency

Risk	Impact	Likelihood	Mitigation Strategy	Contingency Plan
Political Instability	Delays in project implementation	Low	Strengthen stakeholder engagement	Seek additional partners
Climate Change	Water source depletion due to the drought	High	drill deep boreholes	drill deep boreholes
Funding Shortages	Project suspension	High	Save emergency fund	Seek emergency funds
Technical Failures	breakdown of water systems	High	Conduct regular maintenance and inspections	Deploy rapid-response repair teams
Security Concerns	Restricted access to project sites	Low	Collaborate with local security forces	focus on secured areas
Natural Disasters	Infrastructure damage	medium	Design resilient infrastructure	Prepare disaster recovery plans

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