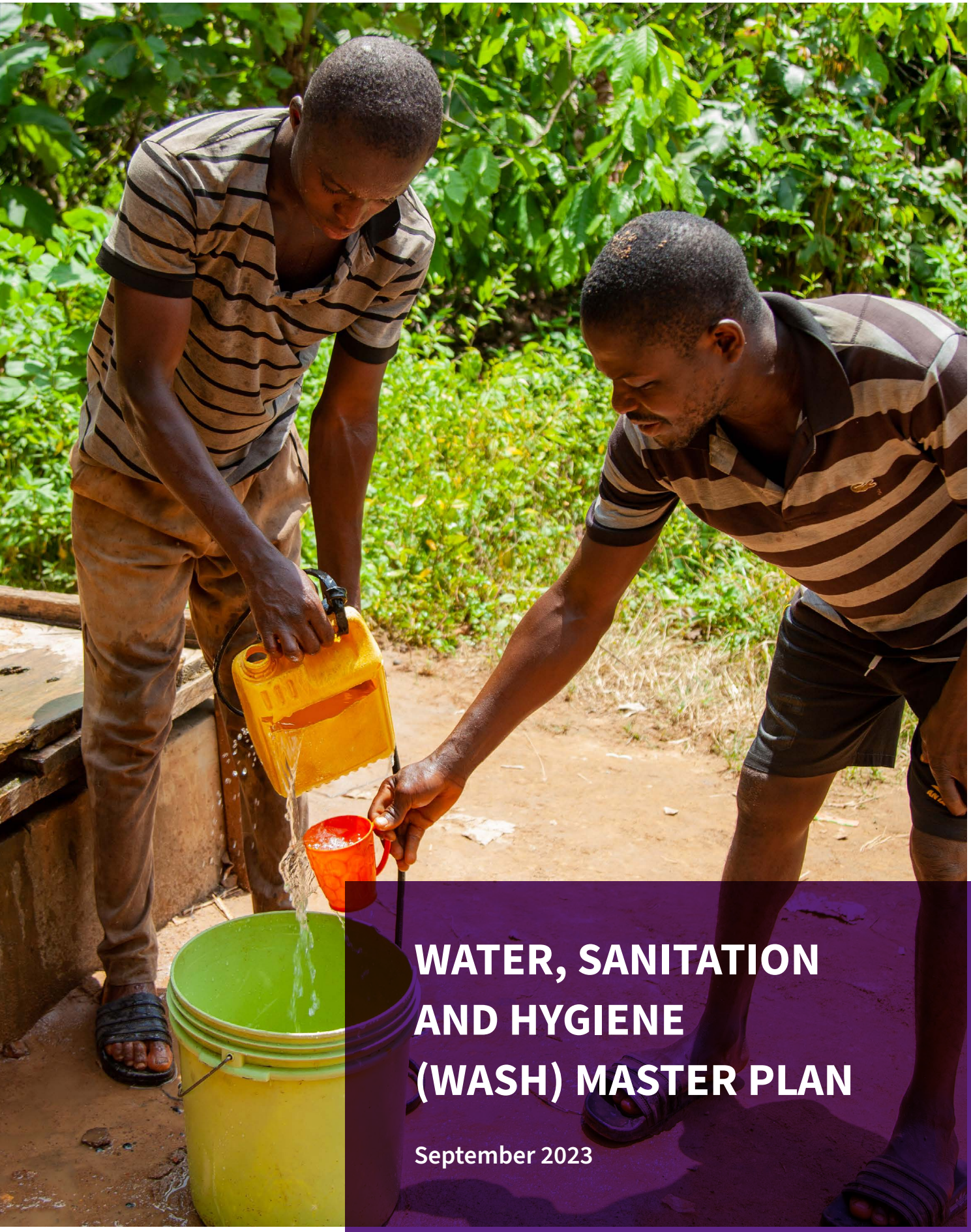
TANO NORTH MUNICIPAL ASSEMBLY

Tano North Ahonidie Dwumadie (TNAD)



WATER, SANITATION AND HYGIENE (WASH) MASTER PLAN

September 2023

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Tano North Ahonidie Dwumadie (TNAD)
September 2023

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ACRONYMS AND ABBREVIATIONS

BM	Benchmark
CHOs	Community Health Officers
CHPS	Community Health Planning and Services
CWSA	Community Water and Sanitation Agency
DACF	District Assemblies Common Fund
DEHU	District Environmental Health Unit
DESSAP	District Environmental Sanitation Strategy and Action Plan
DPCU	District Planning Coordinating Unit
DPP	Dual Path Platform
EHSD	Environmental Health and Sanitation Directorate
ESP	Environmental Sanitation Policy
GES	Ghana Education Service
GHS	Ghana Health Service
GWCL	Ghana Water Company Limited
G2D	Grade 2 Disabilities
HCF	Health Care Facility
JMP	Joint Monitoring Programme
MDTP	Medium-Term Development Plan
MMDAs	Metropolitan, Municipal and District Assemblies
MSWR	Ministry of Sanitation and Water Resources
MB	Multibacillary
MHD	Municipal Health Directorate
NMTDPF	National Medium-Term Development Policy Framework
NWP	National Water Policy
OPD	Outpatient Department
PCR	Polymerase Chain Reaction
PHC	Population and Housing Census
PTA	Parents Teachers Association
RDT	Rapid Diagnostic Testing
SHEP	School Health Education Programme
SMC	School Management Committee
SDG	Sustainable Development Goal
TNMA	Tano North Municipal Assembly
WRC	Water Resources Commission
WSMT	Water and Sanitation Management Team
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization

ACKNOWLEDGEMENT

This WASH Master Plan is the result of a close partnership between development partners such as Conrad N. Hilton Foundation, IRC, World Vision International, Safe Water Network, Netcentric Campaigns, Aquaya Institute and GiZ who contributed in diverse ways to the development of this master plan. We express our sincere appreciation especially to IRC for the technical guidance and support and the Conrad N. Hilton Foundation for the financial support towards the development of the plan.

We would also like to thank the Chiefs, Civil Society Organisations, Honourable Assembly Members, Heads of Departments of the Assembly and community members for their participation, contributions and interest in the development of the master plan.

Special thanks also go to the Ahafo Regional Coordinating Council, Community Water and Sanitation Agency, National Development Planning Commission (NDPC), Office of the Head of Local Government Service, Ministry of Sanitation and Water Resources and the Water Resources Commission for their expert advice and guidance. Thanks to their commitment and support.

The Assembly hopes that this WASH Master Plan will promote growth and development in Tano North Municipality.

Photo: National and local level stakeholders joining hands in support of the district-wide initiative

PREFACE

The National Development Planning (System) Act, 1994 (Act 480) enjoins the MMDAs to undertake development planning functions. The preparation of the WASH Master Plan by the Tano North Municipal Assembly (TNMA) is therefore in fulfillment of a statutory obligation. It is also to provide the Assembly with a blueprint and a directional guide in the forward march for the development and progress of the municipality in the next years. Additionally, it is to serve as a marketing tool by which stakeholders of the municipality can buy into and support in areas of interest.

The document contains the programmes, projects as well as activities to be undertaken by the Assembly from the year 2023 - 2030. The implementation of the WASH Master Plan in the municipality is therefore to enhance efficiency and effectiveness in the management of water, sanitation and hygiene for the mutual benefit of all stakeholders.

In preparing the master plan, the existing WASH challenges in households, schools, health institutions and other public places were taken into consideration. Emerging threats to water resource management, and the capacity of the Municipal Assembly to deliver on its Service Authority mandate were also analysed. Also, realistic projections for the proportion of households and institutions that should have access to 'basic' and 'safely managed' water and sanitation services were made.

The processes involved in developing the plan has been guided by various stakeholders made up of NDPC, Ahafo Regional Planning Coordinating Unit, Development Partners such as Conrad N. Hilton Foundation and IRC, Civil Society Organisations, Religious Organisations, Traditional Leaders and Community Members. A Technical Committee was also formed to further provide quality assurance.

By the tireless efforts of all these actors, I am proud to say that Tano North Municipal Assembly has a WASH Master Plan that will provide strategic directions for the next eight years. It is a great pleasure to present this Plan to all stakeholders of the Assembly as I call on all to renew our commitment towards the development of the municipality.

HON. ERNEST KWARTENG
MUNICIPAL CHIEF EXECUTIVE

EXECUTIVE SUMMARY

The provision of safe water, sanitation, and hygiene (WASH) has broad public health benefits that reduce multiple diseases, contribute to socioeconomic outcomes and achievement of the relevant Sustainable Development Goals. Ghana has an enormous endowment of water resources which provide for the necessities of life and socio-economic development. However, despite improvements in access to water services many people do not enjoy safe, reliable, and affordable water services. A significant number of the population also do not have access to improved sanitation especially in the rural communities.

The Tano North Municipal is among the six (6) Municipal and District Assemblies within the newly created Ahafo Region. The municipality has a population of 93,608 (PHC, 2021) which is projected to reach 98,961 by 2025 and through to 106,085 by 2030. The most densely populated towns of the municipality are Duayaw Nkwanta (15,560) and Yamfo (12,532). Other relatively large settlements in the municipality are Tanoso (7325) Bomaa (8695) Terchire (6551) Susuanso (1399) and Adrobaa (4520).

The WASH master plan is informed by guidelines of the National Development Planning Commission of Ghana and framed within the targets of United Nations' Sustainable Development Goal 6. The master plan provides a framework for coordinating and aligning efforts of all actors towards achieving the stated goal and vision for WASH in the municipality.

The process of developing the plan was participatory. It involved stakeholders at local, regional and national levels. The National Development Planning Commission, IRC, Safe Water Network, World Vision International, Community Water and Sanitation Agency, chiefs, and the Asutifi North District Assembly played various roles in preparing the document. The plan preparation process was completed within a year (January to December 2022).

Photo: National, district and traditional leaders interacting with partners

The Tano North Ahonidie Dwumadie (TNAD) initiative envisions a universal access to safe and sustainably managed water, sanitation and hygiene services by 2030. The Municipal Assembly aims to increase the proportion of population with access to safely managed water sources from 9% in 2022 to 18% in 2026 and to 26% by 2030. Furthermore, the Municipal Assembly intends to increase the proportion of the population with access to at least basic water services from 62% to 76% in the medium term (2026).

The municipal midterm target is to increase the proportion of population with access to potentially safely managed sanitation for rural areas from 13% to 32% by 2026. Also, increase urban population access to potentially safely managed sanitation from 36% in 2022 to 78% in 2026 and further to 100% for both urban and rural by 2030. It also intends to eliminate open defecation from 19% to 0% in the medium term.

The strategic directions to guide the Tano WASH Master Plan initiative are summarised as 'SAFE': (i) Strengthening enabling environment and capacity, (ii) Accountability and enforcement promotion, (iii) Facility and service coverage expansion and (iv) Enhancing partnerships to leverage resources. An overview of the Tano North strategic framework is presented below.

The infrastructure and recurrent costs required to provide universal access to WASH services in the municipality is estimated at US$ 20.7M, comprising US$ 7.2M for universal sustainable water services and US$ 13.5M for sanitation. The estimated cost excludes the investment required for WASH in schools and health care facilities. The investment required for strengthening local and district level systems related to the strategic directions on Strengthening the enabling environment and capacity for WASH, Accountability and enforcement promotion, and Enhancing partnerships to leverage resources are not covered in the cost projections.

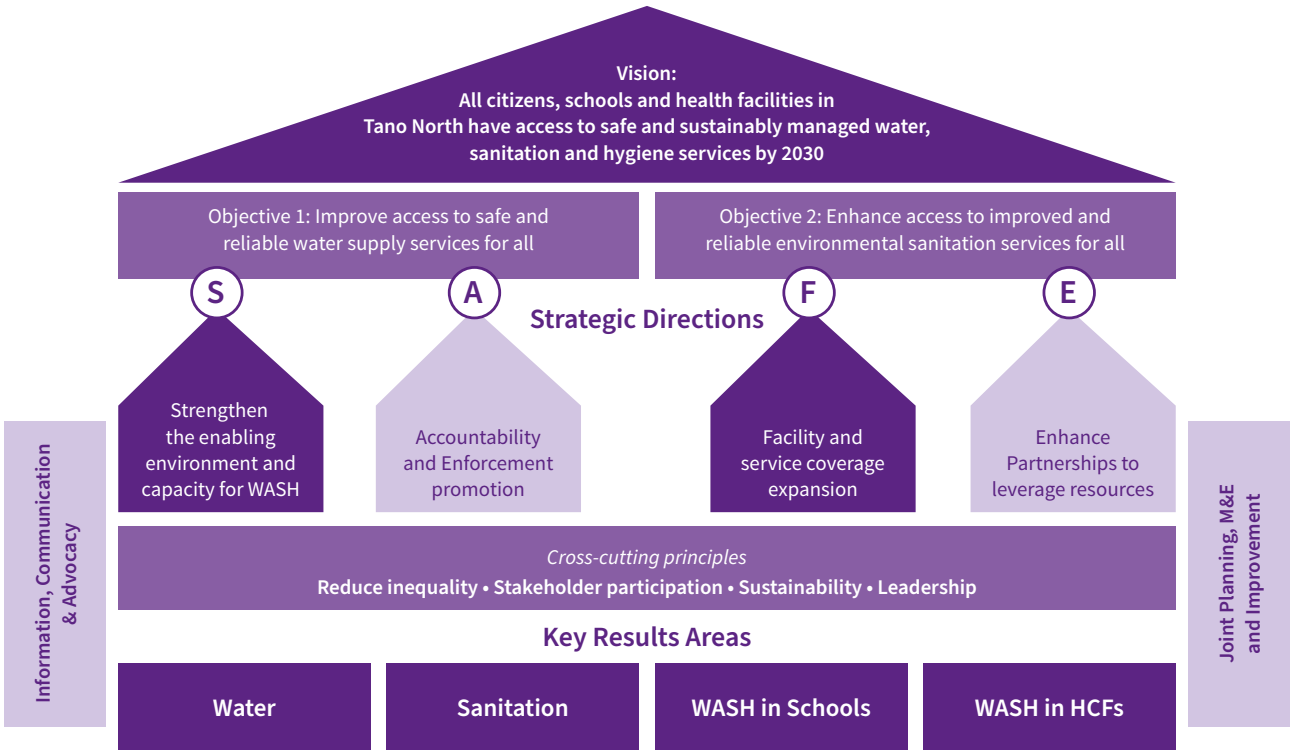

Figure 1 Strategic framework for TNAD

1 INTRODUCTION TO THE WASH MASTER PLAN

1.1 INTRODUCTION

Access to safe water, sanitation and hygiene is the most basic human need for health and well-being. (United Nations[1])

Globally, it has been acknowledged that the provision of safe water, sanitation, and hygiene (WASH) is fundamental to improving people's quality of life, socio-economic development and public health outcomes. Mobilising relevant stakeholders to collaborate to achieve pertinent WASH targets, such as the applicable Sustainable Development Goals (SDGs), within an integrated framework is essential to enhancing well-being.

The Tano North Municipal Assembly and its major development partners and stakeholders developed this 7-year (2023-2030) WASH master plan termed the Tano North Ahonidie Dwumadie (TNAD).

The Tano North initiative was inspired by the Asutifi North District Assembly's innovative 13-year ANAM WASH Master Plan initiative (2017–2030), implemented in partnership with IRC and other Conrad N. Hilton Foundation grantees. The ANAM WASH Master Plan initiative made significant progress and received a favourable midterm evaluation. The ANAM initiative's substantial strides and positive reviews served as the impetus for replicating the WASH master plan initiative in three other districts in the Ahafo region, including Tano North.

1.2 RATIONALE

This WASH master plan presents the broad vision, programmes, and strategies jointly developed, negotiated, and owned by the WASH stakeholders in Tano North, including the Municipal Assembly, traditional authority, private sector entities, service providers, service users, the Ahafo Regional Coordinating Council, and development partners such as IRC, among others.

The WASH master plan provides an integrated approach for the provision of WASH services within the Tano North Municipality. The master plan serves as a result-oriented tool for local government actors, communities, development partners and other relevant stakeholders to harmonise, mobilise and contextualise their efforts towards achieving the relevant Sustainable Development Goals (SDGs) and national targets in their operational areas. As WASH stakeholders collaborate and create synergy to realise a shared vision of universal access to safe water, sanitation, and hygiene services, the master plan will improve effectiveness and efficiency in the use of resources by minimising duplication of efforts and working at cross purposes.

The overarching goal of the Tano North initiative is to enhance the overall quality of life of the people. Through the Tano North initiative, the Tano North Municipal Assembly and stakeholders envision that "By 2030, all people in the Tano North Municipality have access to sustainable safe water, sanitation and hygiene services in households, schools and other institutions." The 7-year master plan serves as a blueprint to guide and improve planning, coordination, costing, resource mobilisation, comprehensive tracking of WASH sector performance and results.

1 https://www.un.org/sustainabledevelopment/water-and-sanitation

1.3 PROCESS OF DEVELOPING THE MASTER PLAN

Developing the master plan took close to five (5) months, from August to December 2022. The process can be characterised as multi-stakeholder, participatory and multi-stage, starting with district inception workshops, then data collection and strategic planning workshops, rapid network assessments and validation meetings. Relevant stakeholders from the local, regional and national levels actively participated in the process. The main stages of the master plan development process are outlined below.

1.3.1 INCEPTION AND LAUNCH WORKSHOP

An inception workshop was organised and facilitated by IRC in July 2022 which brought together stakeholders from government, private sector, service providers, private operators, development partners, service users, and traditional authorities, among others, from the WASH sector in- and outside the municipality. IRC, Safe Water Network, all three selected municipal and districts assemblies, chiefs and traditional authorities participated. Key stakeholders welcomed the initiative, pledged to cooperate with the consortium partners and participate actively in developing the master plan and its implementation.

1.3.2 SERVICE MONITORING AND DATA COLLECTION

In September 2022, data was collected from all handpumps, solar pumps, limited mechanised boreholes (LMBs) and small town piped schemes in the district. These data covered the status of the assets, functionality and water services, their management, and the performance of service providers. In addition, data was collected on access to water and sanitation services from a representative sample of 300 households. Also, data was collected on WASH services in schools and health care facilities. An adapted version of the CWSA's data collection forms was used by district-based staff to gather data. Mobile phone technology (mWater) was used for data collection.

1.3.3 STRATEGIC PLANNING WORKSHOP

The strategic planning workshop was held at Goaso from October 26 to 28, 2022. The workshop discussed the needs, vision, defined outcomes, strategies, implementation arrangements and funding mechanisms to achieving full WASH coverage. The forum provided a common platform for discussing the challenges and opportunities of attaining full WASH coverage in the district by 2030. The discussions were informed by the service monitoring data and contextual analysis reports, forming the basis for the master plan. The workshop covered three districts: Asunafo South, Asunafo North, and Tano North. Officials from the Asutifi North District Assembly also participated to share the ANAM experience and lessons.

About 45 participants from government, including representatives from selected Municipal and District Assembly departments, the Ahafo Regional Coordinating Council, the Ministry of Sanitation and Water Resources, CWSA, WRC, and the National Development Planning Commission (NDPC), attended the workshops. In addition, traditional authorities, private sector actors, development partners, CSOs and NGOs also participated.

1.3.4 RAPID NETWORK ASSESSMENT

In February 2023, Netcentric Campaigns, together with IRC conducted a rapid network assessment exercise in the municipality. The goal of the exercise was to understand the structures required for building a people-centred WASH network and the opportunities for creating strong connections among technocrats, traditional authorities, and communities to enhance the success and sustainability of the WASH initiative. The WASH network will also advance communication by identifying and building on channels that people can use to raise issues, make complaints, or learn about WASH. This rapid network assessment exercise ended with a validation workshop with participants from the Ahafo Regional Coordinating Council, as well as the Asunafo South, Asutifi North, Tano North municipalities in attendance.

1.4 NATIONAL OVERVIEW OF WATER, SANITATION, AND HYGIENE

Ghana's population, which currently stands at approximately 30.8 million, is rapidly urbanising (Ghana Statistical Service, 2021). In 2009, the urban population reached 50% for the first time, and by 2016, it had increased to over 54%. By 2030, a projected 63% of an estimated population of 37.8 million will reside in urban areas. By implication, the demand for water and sanitation services is estimated to rise rapidly, particularly in urban areas.

The Government of Ghana aims to make sustainable water, sanitation and hygiene services universally accessible by 2030 and to manage water resources sustainably for multiple purposes. Hence, the Ministry of Sanitation and Water Resources was established in 2017 to provide policy direction, coordinate, monitor, and evaluate the performance of the sanitation and water subsectors in achieving the government's ambitious targets.

Water service coverage is relatively high at the national level, as shown in Figure 2 below. However, a considerable part of the population, especially in rural areas, continues to depend on surface water, unimproved sources, or sources that are more than a 30-minute round trip away (limited water services).

A significant proportion of the population also lacks access to improved, unshared (at least basic) sanitation, as illustrated in Figure 2 below. Open defecation is a major issue, especially in rural communities. A significant amount of liquid waste is improperly disposed of, endangering human health and the environment. The poor WASH service delivery is also impacted by inadequate financing and weak regulatory enforcement.

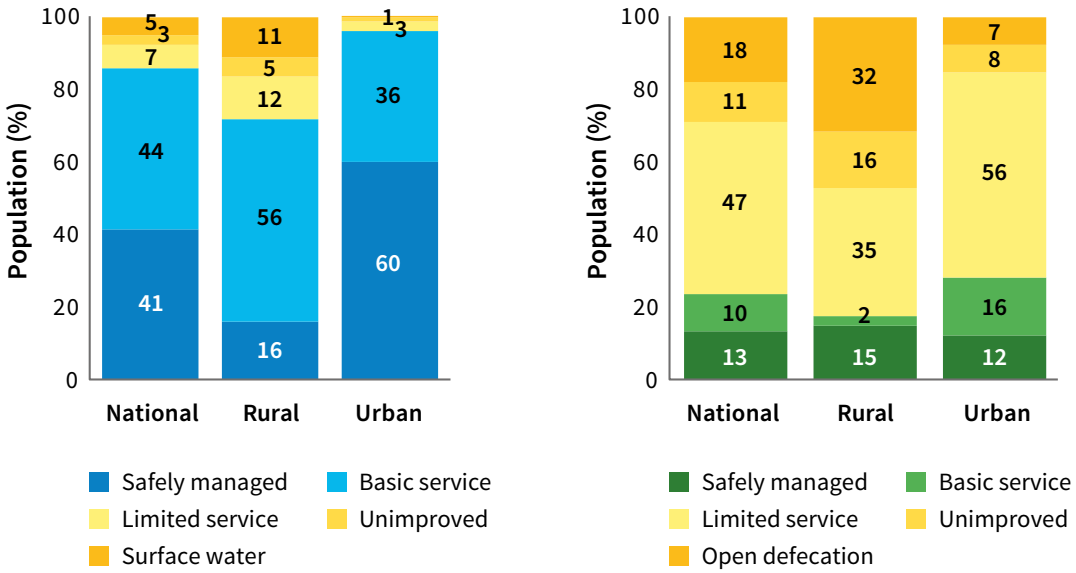

Figure 2 JMP 2020 water (left) and sanitation (right) service ladder

Source: WHO/UNICEF JMP (2021)

1.4.1 NATIONAL COMMITMENT

Government is enjoined to ensure that the national economy is managed efficiently to maximise the welfare of the citizenry (as stipulated in Article 36, Clause 1 of Ghana's 1992 Constitution). To this end, the National Development Planning Commission (NDPC), through the National Medium-Term Development Policy Framework (NMTDPF) (2022-2025), guides the preparation of sector and district development plans to ensure the achievement of both regional and national development goals and objectives.

Ghana's WASH sector plan envisions ***"sustainable water and basic sanitation for all by 2025"***. This national vision requires that *"all people living in Ghana have access to adequate, safe, affordable and reliable water services, practise safe sanitation and hygiene and that water resources are sustainably managed."* The goal is ***"to contribute to improvement in the living standards of Ghanaians through increased access to and use of safe water, sanitation and hygiene and sustainable management of water resources."***

These national priorities and targets are aligned to (and slightly more ambitious than) the global SDG targets 6 below.

- Target 6.1 – By 2030, achieve universal and equitable access to safe and affordable water for all.
- Target 6.2 – By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying attention to the needs of women and girls and those in vulnerable situations.
- Target 6.3 - By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.

These national commitments and global targets guide planning and target-setting at the regional and district levels, enabling intergovernmental alignment for efficient collaboration and maximising results.

1.4.2 WASH POLICY ENVIRONMENT

The Tano North WASH Master Plan was developed, taking into consideration the WASH policy context. The WASH sector policies, strategies and action plans outlined below reflect the institutional context within which the Tano North WASH Master Plan was developed.

The Environmental Sanitation Policy (ESP), first published in 1999 and revised in 2010, was under revision to meet current development objectives and address the aspirations of sector actors. The consolidated National Water Policy (NWP), first prepared in 2007, was also under revision at the time of developing the WASH master plan.

While the Ghana Water Company Limited (GWCL) is primarily responsible for providing urban water services, the Community Water and Sanitation Agency (CWSA) has traditionally focused on rural water subsector improvement. The Environmental Health and Sanitation Directorate (EHSD) of the Ministry of Sanitation and Water Resources (MSWR) leads the sanitation and hygiene subsector. The Water Resources Commission (WRC) regulates and manages Ghana's water resources and coordinates related policies.

The Water Sector Strategic Development Plan (2012-2025) provides a framework for implementing Ghana's vision of sustainable water and basic sanitation for all by 2025, with policy objectives and targets for the water and sanitation sector. The National Environmental Sanitation Strategy and Action Plan (2010-2015) provides strategies and action plans specifically for the environmental sanitation subsector. It guides planning at the district level (for the development of the District Environmental Sanitation Strategy and Action Plan - DESSAP) by the Metropolitan, Municipal and District Assemblies (MMDAs) for implementation.

The development of the Ghana Water, Sanitation and Hygiene Sector Development Programme (GWASHSDP) was underway to create one unified water resources management, water supply, sanitation, and hygiene development programme for Ghana. The GWASHSDP is expected to provide strategies and action plans specifically for the environmental sanitation subsector to inform planning at the district level (for the development of the District Environmental Sanitation Strategy and Action Plan - DESSAP).

2 PROFILE OF THE MUNICIPALITY

This section presents the characteristics of the municipality in the key areas that affect the WASH sector and covers the physical features, demographic characteristics, political administration, and the social-cultural and economic situation of the Tano North Municipality pertinent to WASH service delivery.

2.1 PHYSICAL FEATURES

The Tano North Municipal Assembly is one of the six administrative districts/municipalities in the Ahafo Region. It was carved out of the then Tano District in 2004 with legislative instrument (LI) 1754 and upgraded into a municipality in 2017 by Legislative Instrument (LI) 2267. It has Duayaw-Nkwanta as its administrative capital. The Municipality lies between latitudes 70 00′N and 70 25′N and longitudes 20 03′ W and 20 15′ W.

The municipality shares boundaries with Offinso Municipality in the Ashanti Region to the North. To the South, it is bounded by the Ahafo Ano North Municipality. It shares the East with Tano South Municipal Assembly in the Ahafo Region and Sunyani Municipal Assembly in the Bono Region and Asutifi North District of the Ahafo region. It has a total land area of 876 square kilometres which represents 10.3% of the total 8505 square kilometre land area of the Ahafo Region.

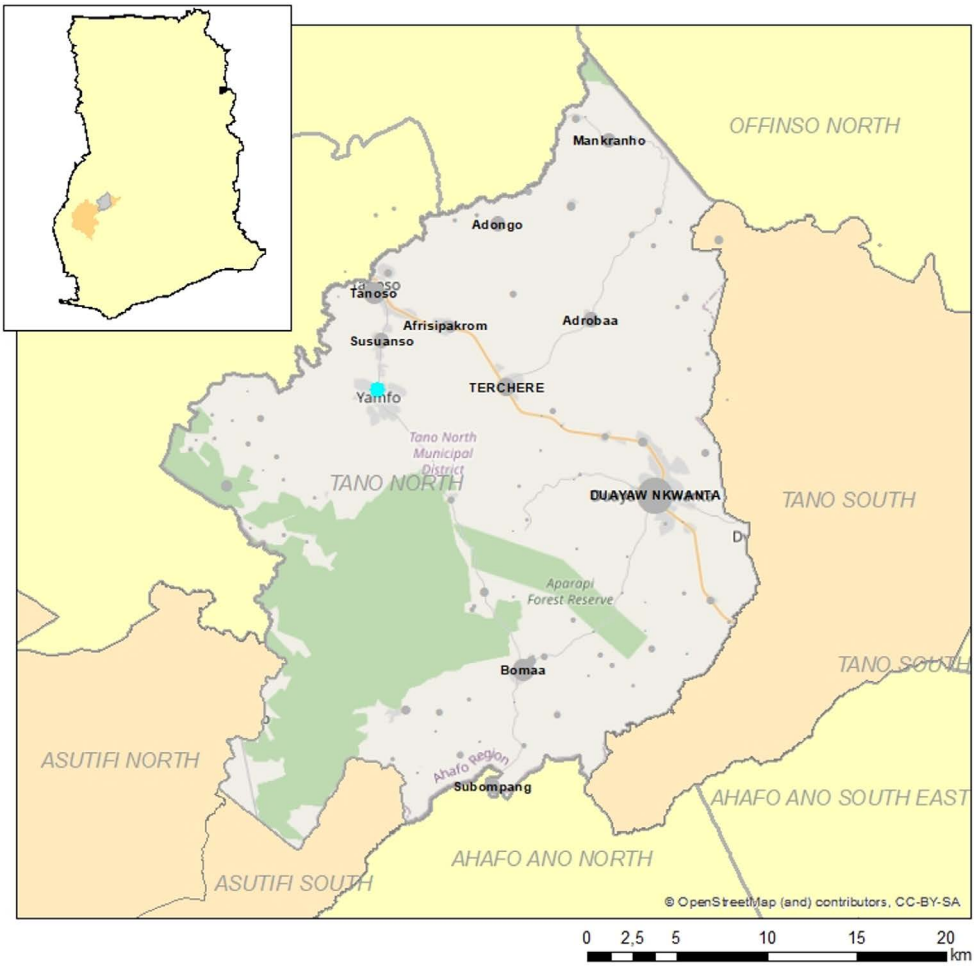

Figure 3 Map of Tano North Municipality

2.1.1 CLIMATE

The municipality lies in the semi–equatorial climatic zone and experiences double maxima rainfall regime, from April–June and September–November. The period between December and March is the dry season characterised by harsh harmattan conditions. The mean annual rainfall of the municipality is 1,308 and the mean monthly temperature ranges between 25 C (mainly in August) and 33 C (in March). The relative humidity of the area is generally high, between 75 and 80 percent during the rainy season and between 70 and 72 percent in the dry season.

2.1.2 VEGETATION

The municipality has two main vegetation types, the moist semi-deciduous forest, mostly in the southern and south-eastern parts covered by the following three main forest reserves: Aparipari, Bosomkese and Omankwayemu Forest Reserves. The second dominant vegetation type is the Guinea Savannah found in the northern and northwestern parts around Subriso and Yamfo where cattle rearing is predominant.

2.1.3 TOPOGRAPHY

The topography of the municipality is undulating, rising gently from a height of about 270 m in the north-west to a peak of about 760 m in the south-east. The area is well drained by the Tano River and its numerous tributaries including Subri, Kwasu and Mankran, all of which generally flow from the north-east to the south–west.

2.1.4 GEOLOGY AND MINERAL DEPOSIT

The geology of the municipality is basically of the Middle Precambrian formation characterized by Metamorphosed Precambrian rocks. There are also vast deposits of gold in the areas around Yamfo, Tanoso, Terchire and Adrobaa. The dominant soil type of the area is sandy loam and is generally considered to be fertile and suitable for the cultivation of a wide range of arable crops such as cocoa, coffee, oil palm, plantain, maize, citrus fruit and vegetables.

2.1.5 WATER RESOURCE MANAGEMENT

There is only one irrigation facility in the municipality which is at Tanokrom. However, there are several rivers and streams such as the Tano, Bema, Twatano, Susuan, Anikoko, Adinkra, Mpoasua, Mankran and Twewaa which support crop production with irrigation.

Key environmental challenges that affect water resources management which are relevant in the municipality include:

- Land degradation and water quality deterioration from poor agricultural practices. The increasing urbanisation due to rapid population growth has further put pressure on water and forest resources.
- Climate change also poses a threat to water resources management in the municipality because of lack of integrated flood management in development planning, inadequate coping mechanisms for climate change, and inadequate financing of water resources development and management.
- Illegal felling of trees has become rampant in the municipality which has significantly affected agricultural activities and resulted in some flooding in the area.

2.2 DEMOGRAPHIC CHARACTERISTICS

According to 2021 Population and Housing Census of Ghana (GSS 2022), the municipality has a population of 93,608 (GSS, 2021) which is projected to reach 100,347 by 2026 and through to 106,085 by 2030 (see Table 1). The urban areas constitute 51% whilst rural areas constitute 49% of the population of the municipality.

However, as census population data per community was not available at the time of the master plan development, a list of communities with population data was compiled by the municipality.

Table 1 Population projections for Tano North from 2022 - 2030

Year	Based on census data
2022	94,919
2023	96,247
2024	97,595
2025	98,961
2026	100,347
2027	101,751
2028	103,176
2029	104,620
2030	106,085

Duayaw Nkwanta is the most populated town in the municipality, with an estimated 20,830 people. There are three additional towns with an estimated population exceeding 5000 people: Bomaa, Tanaso and Terchere. Furthermore, there are some six (6) towns with a population between 2000 and 5000 (Subompang, Susuanso, Adrobaa, Adongo, Mankranho, Afrisipakrom), and are therefore also considered urban. Abodiem is expected to pass the urban threshold of 2000 people in 2025, adding to the urban population.

The proportion of growth of the rural and urban population will have implications for facility provision and service levels, especially in the urban areas where rapid urbanisation is taking place.

2.3 POLITICAL ADMINISTRATION

Citizen's participation in the development process in the municipality is enhanced by various institutional structures that include state institutions, traditional governance structures, the private sector and non-governmental organisations. The Assembly is the local authority and responsible for development of the whole municipality. Under the Local Governance Act, 2016 (Act 936) the Assembly has deliberative, legislative and executive functions.

The Assembly is supposed to have 15 departments. However, 13 of them have been established as of 2021. These departments include Works, Agriculture, Social Welfare & Community Development, Physical Planning, Trade and Industry, Education, Youth and Sports, Disaster Prevention and Management, Natural Resource Conservation, game and wildlife, Health, Urban Roads, Human Resource and Central Administration. The municipality has 25 Electoral Areas and one Constituency (Tano North). The elected assembly members are twenty-five (25) and twelve (12) government appointees. To support the work of the Assembly's Executive Committee, nine subcommittees have been established.

There are two Town Councils, namely Duayaw-Nkwanta and Yamfo, and three Area Councils which are Bomaa, Terchire and Tanoso. The Town and Area Councils are responsible for sub-district level planning, programming, implementation and evaluation of development activities. The effective operation of the Zonal Councils has been hampered by inadequate office, personnel and logistical support.

2.4 TRADITIONAL AUTHORITY

The Tano North Municipality has two (2) traditional areas namely: Duayaw Nkwanta and Yamfo who pay allegiance to the Asantehene while Bomaa also pays homage to the Dormaahene.

2.5 EDUCATION

The municipality has 204 public and 38 private Basic Schools, five (5) Senior High Schools and one (1) Vocational/ Technical School.

2.6 HEALTH CARE DELIVERY

The Tano North Municipality has two (2) hospitals, six (6) health centres, 10 functional CHPS compounds and 25 functional CHPS zones. One of the hospitals is a mission hospital owned by the Catholic Church and a member of the Christian Health Association of Ghana. The municipality has four (4) health training schools.

The top 10 causes of outpatient morbidity in Tano North Municipality are listed in Table 2 below.

Table 2 Top ten OPD diagnosis in 2022

	Condition	# Cases
1	Malaria	31,400
2	Upper Resp. Tract Infections	22,364
3	Rheumatism & Other Joint Pains	11,093
4	Diarrhoeal Diseases	10,674
5	Skin Diseases	6,951
6	Intestinal Worms	4,518
7	Anaemia	5,003
8	Acute Urinary Tract Infection	2,686
9	Acute Eye Infection	7,426
10	Gynaecological conditions	2,278

Source: TNMA 2022

2.7 ECONOMIC CONTEXT

Agriculture remains the backbone of the economy and employs majority of the total active force in the Municipality. The Municipality predominantly relies on agriculture for its major sources of income, employment, and food supply to other parts of the country. Other thriving sectors in the Municipality include the services, industrial and commercial activities.

2.7.1 REVENUE MOBILISATION AND EXPENDITURE MANAGEMENT

The main sources of revenue for the Municipal Assembly are central government transfers (GoG), Internally Generated Funds (IGFs), District Assemblies' Common Fund (DACF), District Development Facility (DDF), GOG/G&S, donors etc. Table 3 below presents the Tano North revenue projections from 2023 – 2025.

Table 3 Tano North revenue projections from 2023 – 2025 (in GHC)[2]

SOURCE	2023	2024	2025
IGF	1,031,422.77	1,078,249.36	1,127,201.88
GOG/CFE	3,203,040.856	3,348,458.912	3,500,478.952
GOG/G&S	67,298.392	70,353.736	73,547.800
DACF	3,867,757.168	4,043,353.344	4,226,921.592
DDF	1,562,824.352	1,633,776.576	1,707,950.032
DONOR	109,433.000	114,401.256	119,595.072
TOTAL	**9,841,776.538**	**10,288,593.184**	**10,755,695.328**

Source: TNMA, MPCU Projections, 2022

2 The exchange rate used throughout the document is the Bank of Ghana's rate: USD 1 is GHC 11.0230, as of September 5, 2023 https://www.bog.gov.gh/treasury-and-the-markets/daily-interbank-fx-rates/

The Tano North Municipal Assembly has projected to increase its revenue target from 9.8 million GHC in 2023 to 10.75 million GHC in 2025. A breakdown of Internally Generated Funds expected to be generated by the municipality from 2023-2025 is provided in Table 4.

Table 4 IGF projection (2023-2025)

IGF	2023	2024	2025
Rates	271,685.28	284,019.80	296,914.30
Fees	134,279.85	140,376.16	146,749.23
Fines	15,627.91	16,337.42	17,079.14
Licenses	115,045.49	120,268.56	125,728.75
Land	472,717.10	494,178.45	516,614.16
Rent	19,835.43	20,735.96	21,677.37
Investment	-	-	-
Miscellaneous	2,231.70	2,333.02	2,438.94
Total	**1,031,422.77**	**1,078,249.36**	**1,127,201.88**

Source: TNMA, MPCU Projections, 2022

2.8 DEVELOPMENT PRIORITIES AND WASH SECTOR IN THE MTDP (2022-2025)

The Tano North Municipal Assembly has highlighted in its Medium-Term Development Plan (MDTPs) key development issues with regards to the WASH sector, which are relevant for the WASH master plan. Some of the key issues identified are shown in Table 5 below. Water, sanitation, and hygiene are among the high priority areas for the municipality. Closing the water access gap exacerbated by the influx of people into the municipality has been a major priority.

Table 5 Key development priorities for the Tano North Municipality

Sector	Key Development Issues/Priorities
Social Services	
Water	1. Low access to basic water services in the municipality 2. 61% of population not paying for water services 3. 5.7% of the household population depending on surface water
Sanitation	1. Improper disposal of solid and liquid waste 2. Lack of engineered landfill sites and wastewater treatment plants 3. Improper management of E-waste 4. Increasing demand for household water supply 5. Poor sanitation and waste management 6. High open defecation rate
Hygiene	1. Poor hygiene practices 2. Poor quality of hygiene services for children and families 3. Poor drainage system 4. Silting and choking of drains 5. Uncovered drains
Education (WASH in Schools)	1. Low access to basic water services in schools 2. Low access to basic sanitation services in schools
WASH in Health Care Facilities	1. Low access to basic water services in HCFs 2. Low access to basic sanitation services in HCFs

Source: Tano North Municipal Assembly, (MTDP) 2022 – 2025

3 ANALYSIS OF CURRENT WASH ISSUES

This section provides an analysis of the water, sanitation, and hygiene (WASH) challenges in the Tano North Municipality. It discusses findings from the WASH service monitoring data collection to assess the state of water services, sanitation services, and WASH in institutions (schools and health care facilities). The challenges and gaps associated with these subsectors in the municipality, which need to be addressed to achieve the vision, are also presented.

3.1 WATER SERVICE LEVELS (URBAN AND RURAL)

Figure 4 presents the water service levels for the population in the municipality. It shows that less than a quarter of the urban population has access to potentially safely managed water services, as they have access to piped water supply on premises. As water quality and availability have not been taken into account here, this indicates potential, rather than actual safely managed water services.

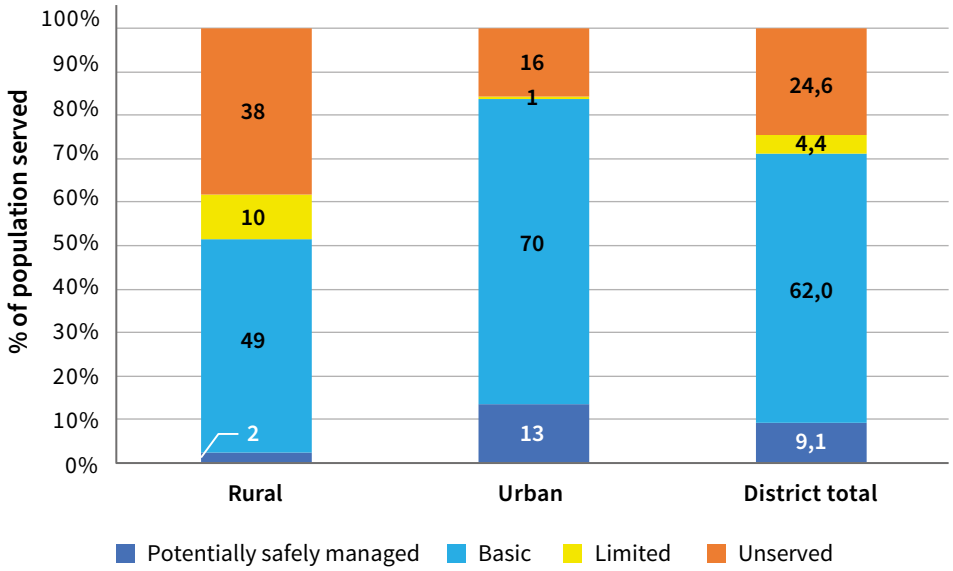

Figure 4 Water service levels per asset data

The proportion of people with limited water services (improved, but not within a 30 min round trip) is not very big. The household survey found that the majority of people with access to improved water services had so within a 30 min round trip (69% of households using boreholes with handpumps as their main source of water supply had access within 30 min round trip).

The figure shows a considerable part (38%) of the rural population does not have access to (communal) improved water services. A total of 15 rural communities were found to not have any water supply assets at all. In addition, seven (7) communities were found to have broken down or abandoned water supply assets. Of the urban towns, Tanaso, Adongo and Mankranho are not fully served yet.

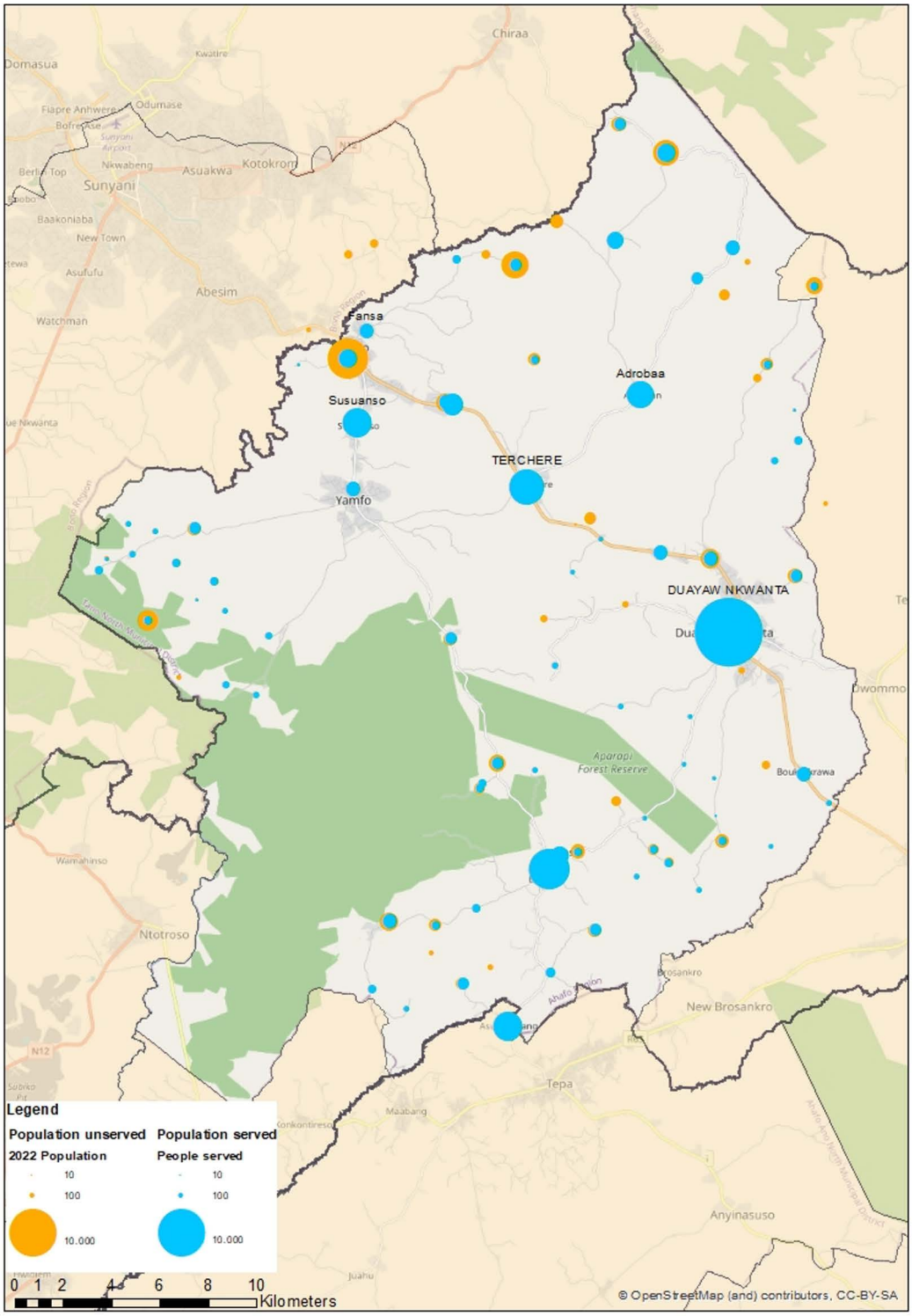

Figure 5 Served and unserved communities

3.1.1 WATER SERVICE DELIVERY MODELS

Water supply services in Tano North Municipality are provided through the following main service delivery models:

- One WSMT-managed small town scheme, with a mix of household connections and public standpipes: Duayaw Nkwanta STWS
- A safe water network station in Bomaa
- Standpipes connected to the GWCL scheme (5)
- Limited mechanised boreholes (63)
- Boreholes and hand dug wells with handpumps (127)

As shown in Figure 6 below, about half of the district's population is estimated to have water services from public standpipes connected to the GWCL Abasim scheme (1%) located in Tanoso and Susuanso, standpipes connected to the small town scheme in Duayaw Nkwanta or Bomaa (17%), or standpipes connected to LMBs (32%). About 9% of households are served with household connections, mainly connected to the Duayaw Nkwanta piped scheme. Only about 15% of the population is served by handpumps.

In addition to these service delivery models, people use hand dug wells without handpumps and surface water (indicated as "unserved" in Figure 6)

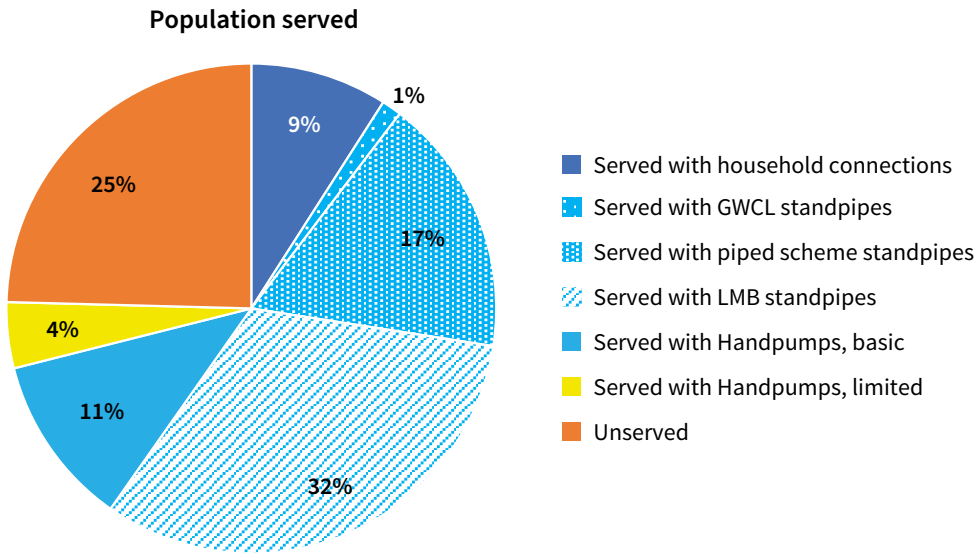

Figure 6 Population served

3.1.2 WATER SUPPLY INFRASTRUCTURE AND MANAGEMENT

Figure 7 below presents an overview of the water supply assets in the district, including handpumps, piped schemes and limited mechanised boreholes, and standpipes connected to piped schemes.

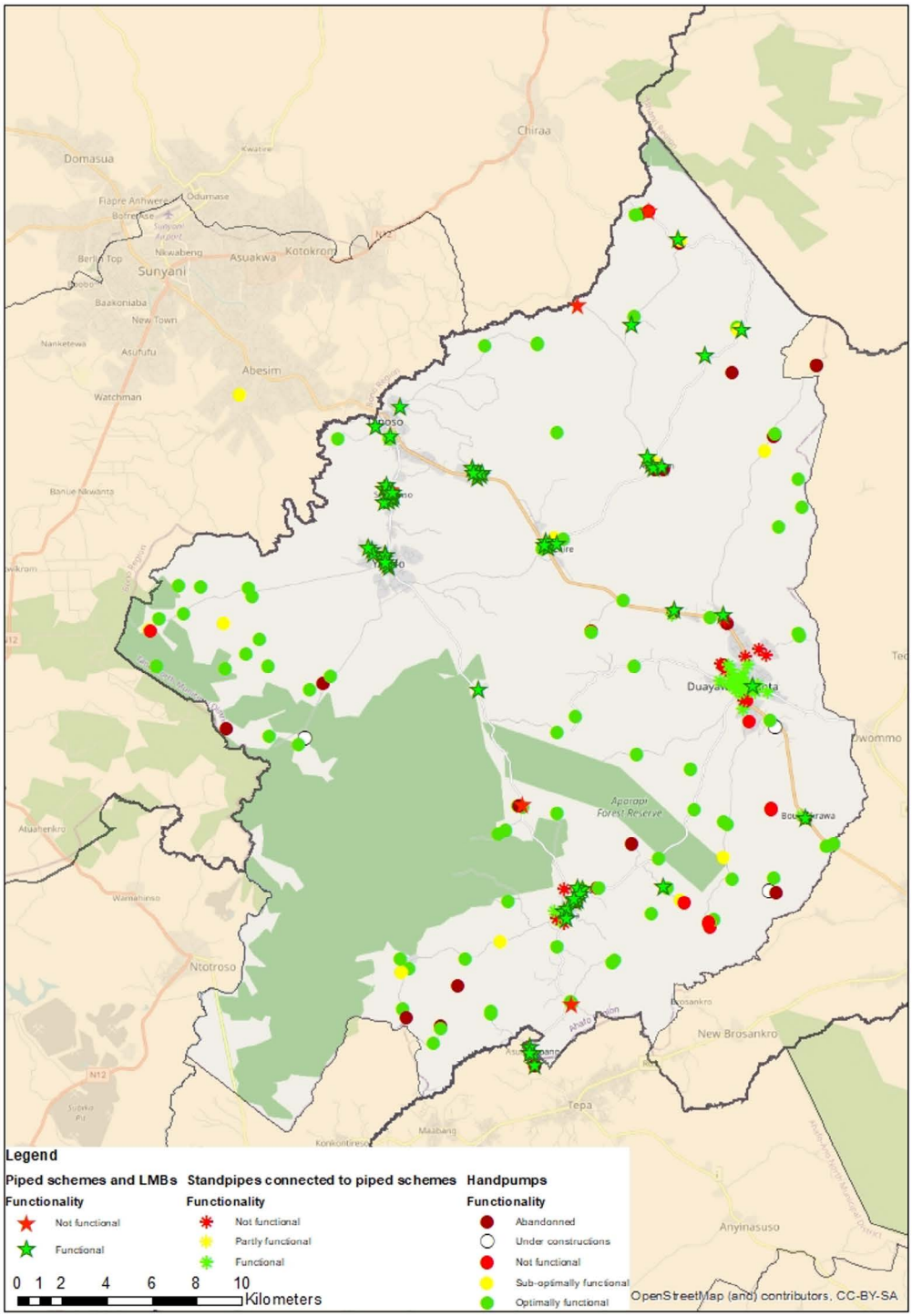

Figure 7 Map of water supply assets

Piped schemes

Table 6 below presents the main infrastructural characteristics of the two piped schemes in the district. The Duayaw Nkwanta STWS is more than 20 years old. The Bomaa scheme was implemented around 2012.

Table 6 Piped scheme characteristics

	Duayaw Nkwanta STWS	Bomaa scheme
Number of sources	6	1
Number of functional sources	33	1
Number of household connections	1,654	10
Number of standpipes	33	10
Number of standpipes assessed	31	10
% of assessed standpipes functioning at time of visit	81%	70%
Number of standpipe spouts	66	30
Service area population	50,000	

As shown in Table 7, data remains patchy for several schemes on key performance indicators, including non-revenue water and operating cost recovery. The amount of water consumed per person in the Duayaw Nkwanta service area is far below 20 lpcd. Continuity of water supply was reported as a problem. Up-to-date water quality data showing compliance with water quality standards was reported to be available. Proportion of female staff, especially in management positions, is very low.

Table 7 Piped scheme key performance indicators

	Duayaw Nkwanta STWS	Bomaa scheme
Total amount produced in m3/year (and lpcd)	No data	No data
Total amount sold in m3/year (and lpcd)	94,138 (5 lpcd)	No data
Non-Revenue Water (NRW)	No data	No data
Continuity (average hours per day with supply)	7	No data
Water quality compliance	100	No data
Bill-Revenue collection efficiency (%)	90%	No data
Operating Cost Coverage (OCC)	No data	No data
Tariff for household connections (GHC/m3)	4	No data
Number of staff members per 1000 connections	17	No data
Share of women from total staff	21%	No data
Share of women in management position	0%	No data

In addition to these piped schemes, part of the population of Tanoso and Susuanso is served with standpipes connected to the GWCL-managed Abesim scheme.

Limited mechanised boreholes

There are some 63 limited mechanised boreholes in the municipality. The majority of these have been implemented relatively recently, with almost half (27 of 63 LMBs) constructed since 2020. Most limited mechanised boreholes have a single standpipe. They are commonly connected to the electricity grid (with the exception of three LMBs which have a generator and one that has solar panels). Of the 63 LMBs, 58 (92%) are functional.

A total of 18 LMBs were reported to be managed by WSMTs, while only one was reported not to have a management structure in place. Some 24 were reported to be managed by private person and 12 by community members. The remaining eight (8) LMBs were managed by religious bodies.

Users contribute to the operational costs for 61 of the 63 LMBs (97%). Amounts paid range from 0.10 to 0.20 GHC per bucket (amounting from 5.56 GHC to 11.11 GHC per m3, which is more or less in line with household connection tariffs for piped schemes).

Handpumps

There are some 128 handpumps in the district. As shown in Figure 8, the majority of handpumps in the district are of the Afridev type. Only about 17% of handpumps have been constructed relatively recently, since 2020.

The majority of handpumps were reported to have been constructed with financial support from local (24) or national (74) government. Three (3) handpumps were constructed by ChinaAid and seven (7) by AFD.

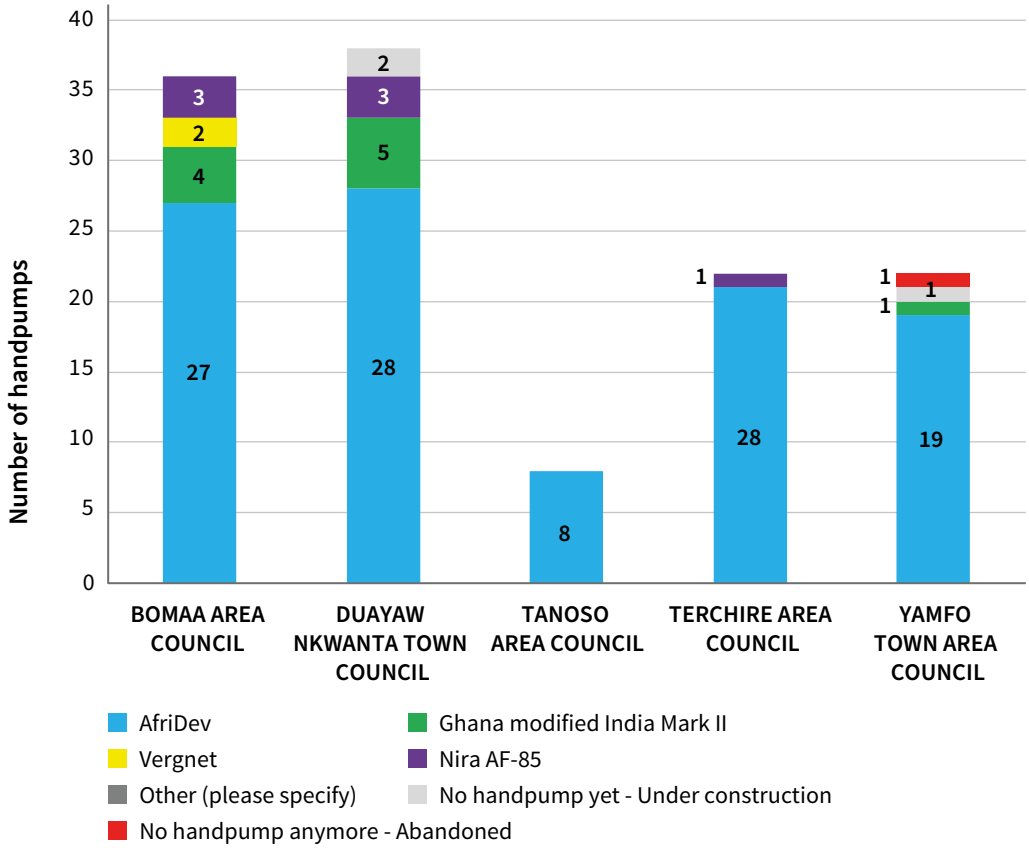

Figure 8 Handpump types

About 61% of handpumps were found to be optimally functioning, providing water within five (5) strokes. About 11% of handpumps provided water, but it took more than five (5) strokes. About 8% of handpumps were not functioning at the time of the visit, and about 20% had not been functioning for over one (1) year (considered as “abandoned”). (See Figure 9)

Of the non-abandoned handpumps, some 72% were functioning for at least 95% of the year (so with breakdowns of less than 18 days over the last year).

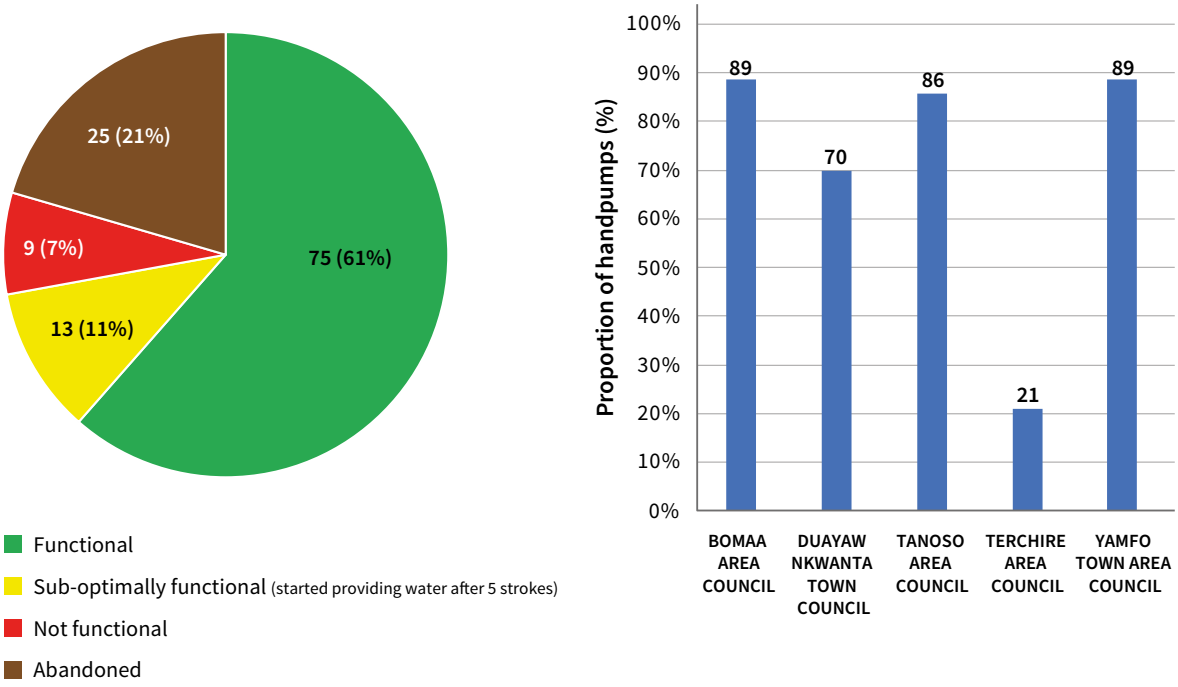

Figure 9 Handpump functionality (right) and reliability (left)

About two-thirds of non-abandoned handpumps have management structures (mainly WSMTs) in place.

Table 8 Handpump management

	Bomaa Area Council	Duayaw Nkwanta Town Council	Tanoso Area Council	Terchire Area Council	Yamfo Town Area Council	Total
Small community WSMT (WATSAN)		24	6	15	16	61
Other	1	3			2	6
No management structure	27	3	1			31
Summary	28	30	7	15	18	98

For only 33 handpumps, users were reported to contribute to operational costs. For nine (9) handpumps, this was only done at time of breakdown and for eight (8) handpumps users were reported to contribute on a monthly basis (paying 1 to 10 GHC per month). For the remaining handpumps, tariffs ranged from 0.10 to 0.20 GHC per bucket (amounting from 5.56 GHC to 11.11 GHC per m3, which is slightly more than the household connection tariff for piped schemes).

Only a few of the 38 WSMTs which were found to be in place and assessed, met the benchmarks of the handpump service provider indicators, as shown in Table 9. The lack of management structures, their poor performance, and the lack of mechanisms in place to ensure financial sustainability of water supply by handpumps, pose major potential sustainability challenges and are likely to have contributed to the relatively low handpump functionality rate in the district.

Table 9 Handpump service provider performance

Number of WSMTs	**38**
Average number of handpumps managed per WSMT	1.89
G1: Composition of WSMT (BM: WSMT, composed in line with the CWSA guidelines, and has received initial training)	5%
G2: Record Keeping and Accountability (BM: All records are kept and up to date)	47%
G3: Freedom from Political Interference (BM: Any change that had occurred in the WSMT was not due to political or chieftaincy interference)	100%
O1a: Spare Parts Supply (BM: supply within 3 days)	53%
O1b: Area Mechanic Services (BM: Available within 3 days)	66%
O2a: Breakdown repair (BM: Generally done within 3 days)	32%
O2b: Routine Maintenance (BM: Carried out)	45%
O3: Water Quality Testing (BM: Carried out, by certified institution)	5%
FM1: Revenue and Expenditure Balance (BM: R/E ratio >1)	21%
FM2: There is sound financial management (BM: Bank account and up-to-date account records in place)	26%
FM 3: Tariff setting (BM: Tariff in place)	34%
FM4: Facility Management Plans (BM: Facility management plan that spells out the rules for the WSMT in place)	29%

3.1.3 OVERVIEW OF MAIN WATER SERVICE CHALLENGES

Main water challenges as identified include:

- Low coverage of at least basic services in rural areas, with a considerable proportion of the rural population (38%) depending on surface water and unimproved water sources.
- Only 13% of the urban population has access to potentially safely managed services, with 1,654 household connections in place. People in rural areas currently do not have access to water services on premises.
- Challenges with water availability (continuity) in the Duayaw Nkwanta water supply scheme, which could prevent households from accessing safely managed water supply.
- Lack of data required for performance monitoring of the Duayaw Nkwanta piped scheme.
- Functionality challenges, especially for community-managed handpumps, with only 61% of handpumps being fully functional and an additional 11% being sub-optimally functional.
- Sustainability challenges related to handpump water service provision, with almost one-third of handpumps having no management structures in place and almost two-thirds of handpumps not having mechanisms in place for collecting user contributions for operational cost recovery.
- Low capacity and performance of handpump WSMTs.

3.2 SANITATION SERVICES

3.2.1 SANITATION SERVICE LEVELS

As shown in Figure 10 below, open defecation is still being practised by a considerable part of the urban (19%) as well as the rural (19%) population. In both urban and rural areas, a considerable part of households mainly accesses limited sanitation facilities, shared with other households.

At least basic sanitation coverage is lowest in Tanoso, Terchire and Bomaa area councils. In the urban areas of the district, some 14% of the population access at least basic services with onsite treatment (pit latrines) and 22% access at least basic services with offsite treatment (pour flush latrines). A considerable part of the urban (31%) and especially the rural (37%) population has access to limited sanitation services (improved, shared). Furthermore, about 30% of the rural population accesses unimproved sanitation services, while this proportion is lower in the urban area, where about 15% of the population access unimproved sanitation services.

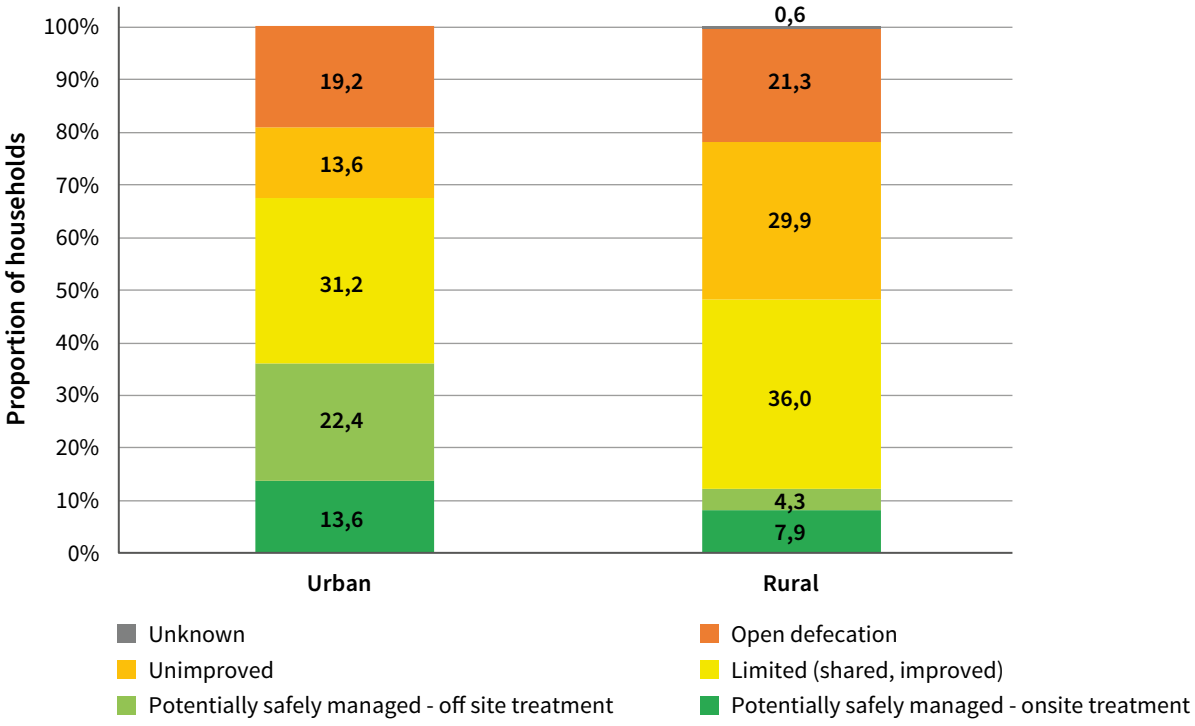

Figure 10 Urban and rural sanitation coverage

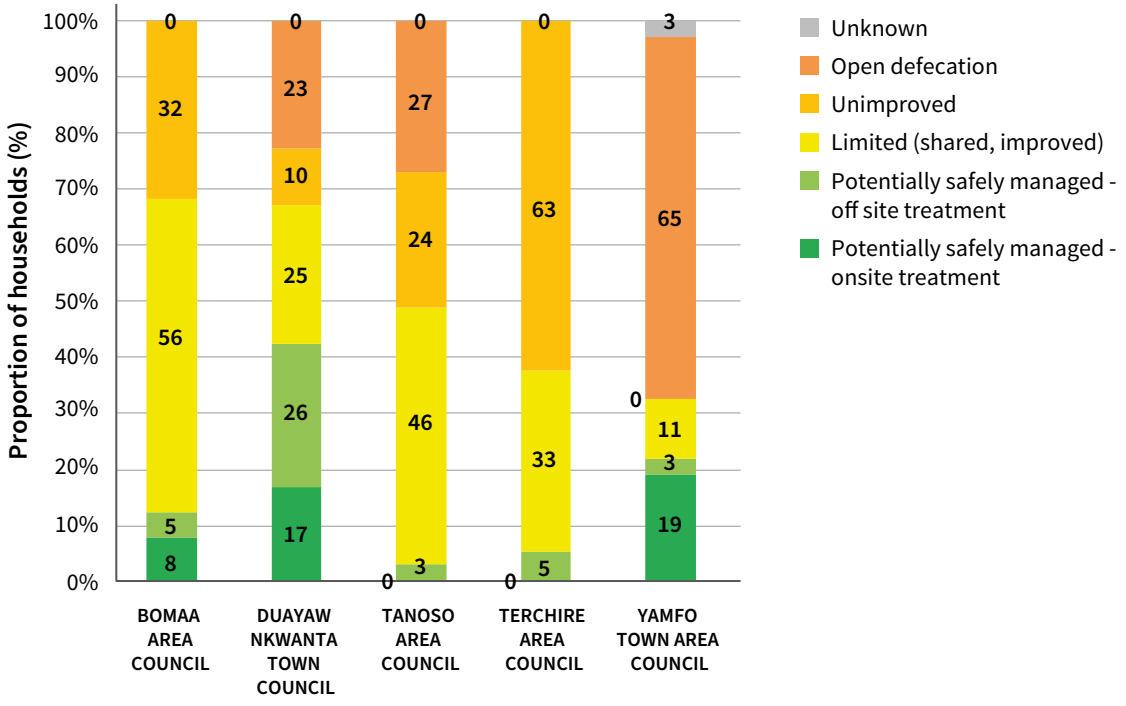

Figure 11 Sanitation coverage per area council

3.2.2 SANITATION SERVICE DELIVERY MODELS

Service delivery models:

- Latrines with onsite treatment, which are either private (potentially safely managed), shared (limited), or public (limited);
- Latrines with offsite treatment, which are either private (potentially safely managed), shared (limited), or public (limited);
- Unimproved latrines, which are either private, shared, or public (unimproved);
- Open defecation.

About 22% of the urban population uses private latrines with offsite treatment. In addition, about 5% uses shared latrines with offsite treatment. Human waste is collected in septic tanks or pits which need emptying. However, pit emptying services are poorly developed in the district.

A considerable part of the rural (some 35%) and urban (20%) population uses improved shared or public sanitation facilities with onsite treatment (pit latrines). (See Table 10)

Table 10 Proportion of households with access to sanitation facilities

	Total district				Urban				Rural			
	Private	Shared	Public	OD	Private	Shared	Public	OD	Private	Shared	Public	OD
Improved, onsite treatment	10.4%	9.7%	19.4%		14%	6%	14%		7.9%	12.2%	23.2%	
Improved, offsite treatment	12.1%	2.1%	0.3%		22%	4%	1%		4.3%	0.6%	0%	
Unimproved	5.2%	5.9%	11.8%		2%	2%	10%		7.9%	8.5%	13.4%	
Unknown	0.3%	0%	2.4%		0%	0%	6%		0.6%	0%	0%	
OD				20.4%				19%				31.3%

3.2.3 SANITATION INFRASTRUCTURE ALONG THE SANITATION CHAIN

This section outlines the sanitation infrastructure in the district along the sanitation chain, going from capture and containment, emptying and transport, to treatment and disposal.

Capture and containment of faecal sludge takes place at latrines and toilets in the district, including private, shared and public facilities with onsite treatment and disposal, and with emptying and transport and offside treatment and disposal.

Based on the 2022 household survey, and assuming shared facilities are on average used by 10 households, we estimate there are about 1047 (private and shared) facilities with onsite treatment and 1724 (private and shared) facilities with offsite treatment. This is considerably higher than the number of latrine facilities as presented in the Municipal Environmental Sanitation Strategy and Action Plan (MESSAP) (see Table 11).

Table 11 Household toilet facilities

Area council	WC	KVIP	VIP	Pit latrine
D/Nkwanta	144	6	288	100
Yamfo	16	2	166	27
Bomaa	7	4	104	4
Terchire / Adrobaa	3	-	89	-
Tanoso	27	3	132	30
TOTAL	**197**	**15**	**779**	**161**

Source: Rams consult, 2021

In addition, the household survey found a considerable number of households using public facilities. Table 12 presents the number of public latrines in the district as per the district's MESSAP.

Table 12 Public toilet facilities

Area council	Toilet	Septic tank latrine / aqua privy
D/Nkwanta	2	5
Yamfo	1	4
Bomaa	0	4
Terchire / Adrobaa	0	6
Tanaso	0	7
Total	**3**	**26**

Source: Rams consult, 2021

As more than 10% of both rural and urban households indicated to use unimproved public facilities, there are an unknown number of unimproved public latrines in the district.

There is a need for safe transport, treatment and disposal of faecal sludge from facilities with offsite treatment. However, the municipality has no cesspool emptier or sludge drying bed or treatment plant.

The 2022 household survey found that only three of 19 (16%) urban households with private latrine facilities reported to have their pits or septic tanks emptied by cesspool emptiers.

3.2.4 OVERVIEW OF MAIN SANITATION CHALLENGES

Sanitation challenges include:

- Prevailing high levels of open defecation in both rural and urban areas of the district, with almost one (1) in five (5) households practising open defecation.
- High proportion of rural households (30%) and urban households (19%) using unimproved, mostly shared, sanitation facilities.
- High proportion of urban (26%) and rural (37%) households using improved shared facilities.
- Lack of collection, treatment and safe disposal of human waste from sanitation facilities which are supposed to have offsite treatment.

3.2.5 SOLID WASTE MANAGEMENT

The collection, transport and management of solid waste in the municipality is by the Environmental Health Unit and Zoomlion, a private solid waste management company. Solid waste from private companies is managed by the individual companies. Majority of the population resort to crude dumping due to the unavailability of adequate container sites. Door-to-door services and communal containers are only available to residents in towns such as Douyaw Nkwanta, Terchire, and Yamfo. The transport is managed by the private sector using skip trucks.

The final disposal sites are un-engineered and pose health hazards including the risk of contamination of surface water bodies.

3.3 INSTITUTIONAL WASH SERVICES

3.3.1 SCHOOL WASH

Of the 249 schools, a total of 81 (33%) schools have been assessed, including 20 primary schools, 10 JHSs, 46 combined primary and JHS schools and 3 SHS (in Duayaw Nkwanta, Terchire and Bomaa), the Presbyterian Midwifery Training College in Duayaw Nkwanta, and the Community Health Nursing and Midwifery training college in Tanoso.

To have basic water services, schools should have drinking water from an improved source available at the school. As shown in Figure 12 below, 32% of schools have basic water and 58% of schools are without water services. The remaining 10% of schools had limited water services, with an improved water source, but with water not available at the time of data collection.

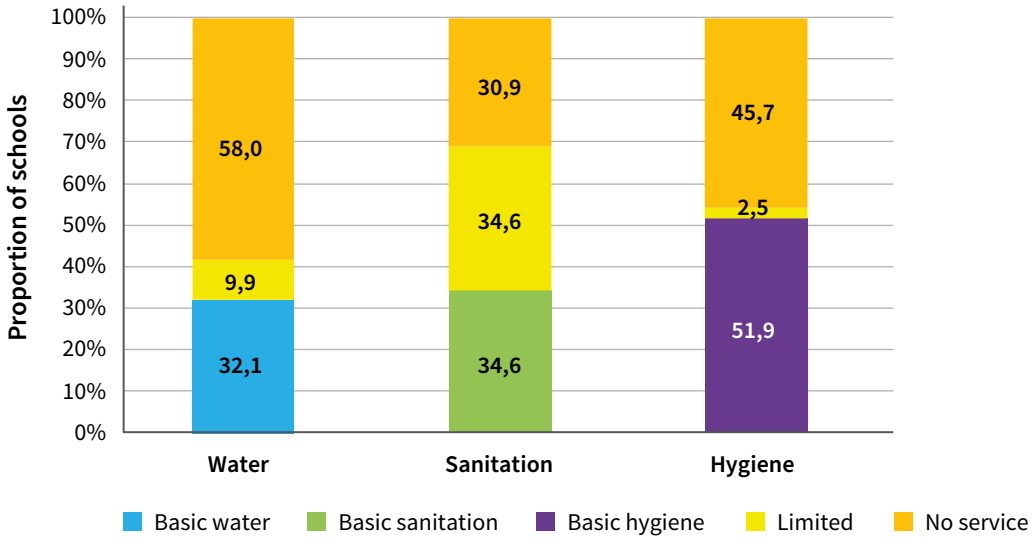

Figure 12 WASH in schools

In order to have basic sanitation, schools should have improved sanitation facilities for students that are usable (accessible, functional, private) and sex separated. Overall, 34.6% of the assessed schools were found to have basic sanitation services as shown in Figure 13. Some 30.9% of schools were without improved sanitation facilities (21% without any facility and 10% with unimproved facilities). Of the remaining 34.6% of schools with limited sanitation services, the majority did not meet the basic sanitation benchmark because of lack of privacy (which means there were no closable doors that lock from the inside or there were large gaps in the structure).

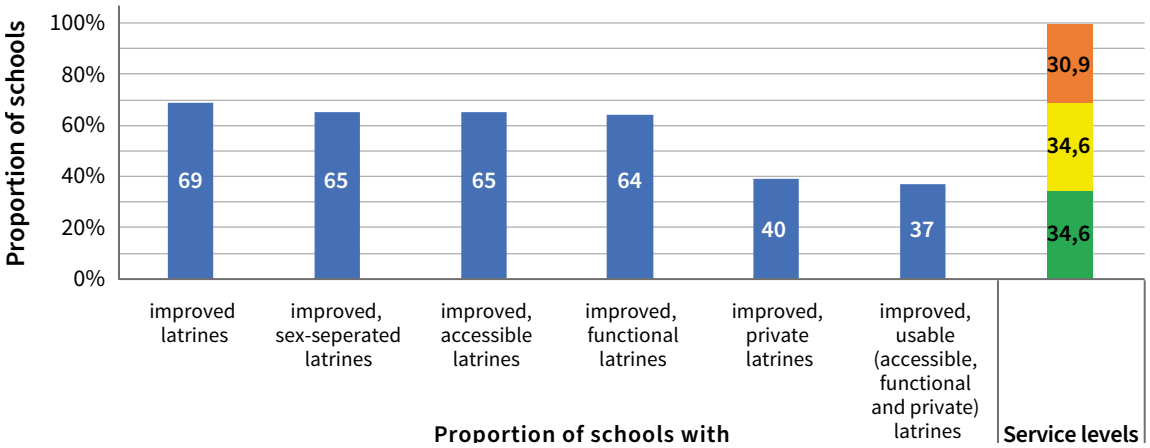

Figure 13 School sanitation services

To have basic hygiene services, schools should have handwashing facilities with water and soap. This was the case for 52% of the assessed schools. Some 46% had no handwashing facilities with water in place at all. The remaining schools did have handwashing facilities with water, but no soap.

3.3.2 HEALTH CARE FACILITY WASH

All 18 health care facilities in the municipality have been assessed. Figure 14 shows the number of HCFs with different levels of water, sanitation, hygiene and solid waste management services.

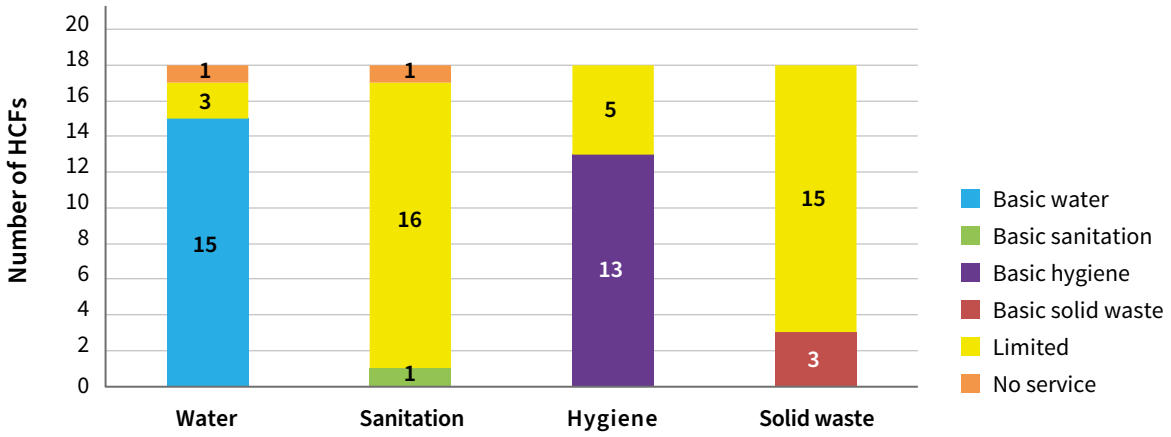

Figure 14 WASH in health care facilities (HCFs)

HCFs should have access to water onsite from a better source in order to provide basic water services. Two HCFs were reported to have limited water services. The Yamfo Health Centre reportedly lacked an improved source on its premises (within 500 m), and the Victoria Anane Maternity Home reportedly did not have water available from its borehole on the day of data collection. The Atudrobesa CHPS compound was the only HCF which was found not to take water from an improved source within 500 m.

HCFs are expected to have improved sanitation facilities that are functional, including at least one toilet designated for staff, one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for people with limited mobility in order to provide basic sanitation services. With the exception of one HCF (the Tanoano CHIPS Compound), all HCFs have improved sanitation facilities in place. However, only 15 HCFs had usable toilets, 10 had toilets for staff, six (6) had sex-separated toilets, two (2) had toilets accessible to people with limited mobility, and only one (1) had toilets with menstrual hygiene management facilities.

A HCF should have functional hand hygiene facilities (with water and soap and/or alcohol-based hand rub) available at points of care, and within 5 metres of toilets. All HCFs were reported to have hand hygiene stations available at the points of care, but only 13 of the 18 HCFs had handwashing facilities with soap and water near the toilets.

HCFs must safely separate waste into at least three bins and treat and safely dispose of infectious waste to qualify as having basic solid waste management services available. In addition to the three (3) HCFs that have basic solid waste management services in place, the other 15 HCFs were reported to have limited solid waste management services in place, with limited separation and/or treatment and disposal of sharps and infectious waste without satisfying all requirements for basic services.

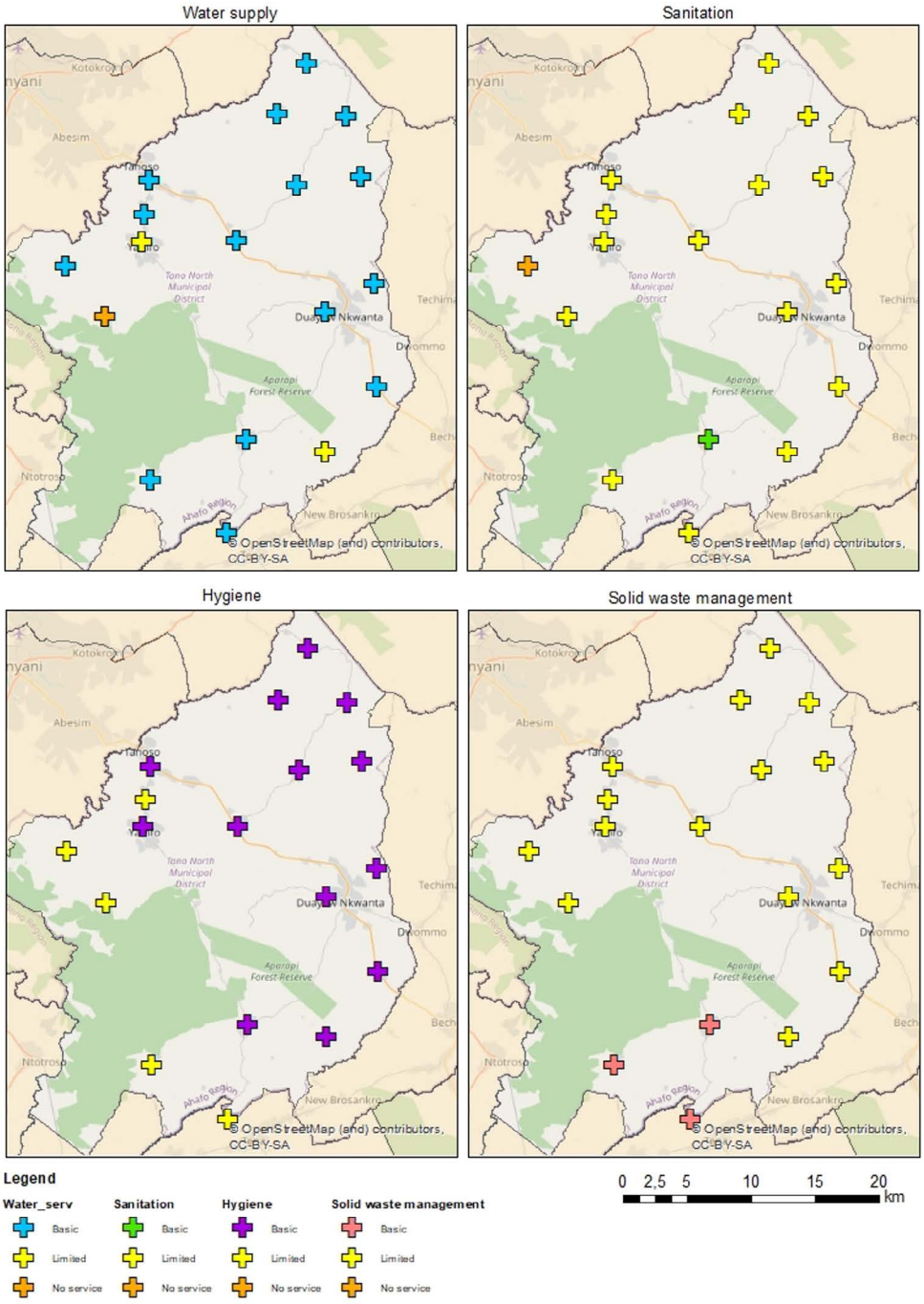

Figure 15 HCF WASH

3.3.3 OVERVIEW OF MAIN INSTITUTIONAL WASH CHALLENGES

School WASH service levels are low:

- More than two-thirds of schools do not have water from an improved source available at the time of the assessment.
- More than two-thirds of schools did not have improved, usable, sex-separated latrines.
- More than half of schools did not have handwashing facilities with water and soap.

Health care facility WASH services are low, especially related to sanitation, hygiene and solid waste:

- Three (3) health care facilities lacked functional water supply on premises at the time of the assessment.
- Only one HCF has menstrual hygiene facilities, and there are only two HCFs with disability-friendly sanitation facilities.
- Five (5) HCFs lacked handwashing facilities with water and soap near the toilets.
- The majority, 15 out of 18 HCFs did not have basic solid waste management services in place.

3.4 KEY INTRACTABLE CHALLENGES IN THE DISTRICT

The key challenges that will affect the accomplishment of the WASH master plan targets in the municipality include:

1. Inadequate, unpredictable, and delays in the release of, statutory and performance-based grants from central government to finance development projects at the local level.
2. Low water tables in some communities affect the drilling and development of high yielding boreholes.
3. Poor attitudes of communities towards safe sanitation practices and payments for water services.
4. Lack of engineered landfill sites for the proper disposal of liquid and solid waste.
5. Pressure on existing WASH facilities following the expansion of Newmont Gold Corp mining operations in the municipality.

3.5 KEY OPPORTUNITIES IN THE DISTRICT

Key opportunities exist in the Tano North Municipality which can be leveraged to support the delivery of WASH services. These include the following:

- The expansion of Newmont Gold Corp Limited mining operations in the municipality presents an opportunity for additional funding through mineral royalties and direct investments in the provision of WASH services.
- The municipality has shown demonstrable political and financial commitment towards provision of WASH services through different partnerships with NGOs and private sector to construct new WASH infrastructure and rehabilitate existing ones.
- The largely urbanised municipality comes with increased demand for high WASH service levels.

4 MASTER PLAN VISION, TARGETS AND IMPLICATIONS

This chapter presents the WASH master plan vision, and targets derived from the current baseline (2021) to the medium (2025) and long term (2030) according to the thematic WASH areas. It also presents how the strategies and actions at the municipal level will respond to national targets and priorities. The risks and mitigation measures are assessed and presented.

4.1 VISION

The Tano North Municipal WASH Master Plan envisions that "By 2030, all people in the Tano North Municipality have access to sustainable safe water, sanitation and hygiene services in households, schools and other institutions."

4.2 MEDIUM- AND LONG-TERM WASH TARGETS

4.2.1 WATER SERVICE TARGETS

The policy objective is to improve access to safe and reliable water supply services for all. Table 13 presents the targets for water within the medium to long term.

Table 13 Water service coverage (%) and projections

Service Level	2022 baseline (%)			2026 Midterm Targets (%)			2030 Target (%)		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Safely managed	2%	13%	**9%**	2%	27%	**18%**	2%	40%	**26%**
Basic	49%	70%	**62%**	87%	69%	**76%**	98%	60%	**74%**
Limited	10%	1%	**4%**	10%	1%	**4%**	0%	0%	**0%**
Unserved	38%	16%	**25%**	0%	2%	**2%**	0%	0%	**0%**

The Municipal Assembly targets to increase the proportion of population with access to safely managed water sources from 9% in 2022 to 18% in 2026 and to 26% by 2030. Furthermore, the Municipal Assembly intends to increase the proportion of the population with access to at least basic water services from 62% to 76% in the medium term (2026).

4.2.2 SANITATION AND HYGIENE TARGETS

The policy objective of the Municipal Assembly is to improve sanitation as an essential social service and major determinant for improving health and quality of life in the municipality. Table 14 provides and overview of the coverage and projections by 2030.

Table 14 Sanitation service coverage (%) and projections

Service Level	2022 Baseline (%)			2026 Midterm Targets (%)			2030 Target (%)		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Potentially safely managed	13%	36%	**29%**	32%	78%	**63%**	100%	100%	**100%**
Limited (shared)	37%	26%	**29%**	37%	22%	**27%**	0%	0%	**0%**
Unimproved	30%	19%	**23%**	30%	0%	**10%**	0%	0%	**0%**
Open defecation	19%	19%	**19%**	0%	0%	**0%**	0%	0%	**0%**

The municipal midterm target is to increase the proportion of rural population with access to potentially safely managed sanitation from 13% to 32% by 2026. Also, increase urban population access to potentially safely managed sanitation from 36% in 2022 to 78% in 2026 and further to 100% for both urban and rural by 2030. It also intends to eliminate open defecation from 19% to 0% in the medium term.

4.2.3 WATER, SANITATION, AND HYGIENE IN SCHOOLS

The medium- and long-term targets, as shown in Table 15, are to increase the number of schools with access to basic WASH services:

- Supply from an improved water source on school premises.
- Improved facilities, which are single sex and usable at the school.
- Handwashing facilities, which have water and soap available.

Table 15 WASH service coverage (%) and projections in schools

Service Level	2022 Baseline (%)			2026 Midterm Targets (%)			2030 Target (%)		
	Water	Sanitation	Hygiene	Water	Sanitation	Hygiene	Water	Sanitation	Hygiene
Basic	31	26	29	70	80	70	100	100	100
Limited	16	28	43				0	0	0
No service	53	46	28	30	20	30	0	0	0

4.2.4 WATER, SANITATION, AND HYGIENE IN HEALTH CARE FACILITIES

The medium- and long-term targets, as shown in Table 16, are to increase the number of HCFs with access to basic WASH services:

- Supply from an improved water source on premises.
- Improved sanitation facilities which are usable with at least one toilet for staff, at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible to people with limited mobility.
- Functional hand hygiene facilities (with water and soap and/or alcohol-based hand rub) are available at points of care, and within 5 metres of toilets.

Table 16 WASH service coverage (%) and projections in health care facilities

Service Level	2021 Baseline (%)			2026 Midterm Targets (%)			2030 Target (%)		
	Water	Sanitation	Hygiene	Water	Sanitation	Hygiene	Water	Sanitation	Hygiene
Basic	15	1	13	18	7	18	18	18	18
Limited	2	16	5	0	11	0	0	0	0
No service	1	1	0	0	0	0	0	0	0

5 STRATEGIC DIRECTIONS AND ACTIONS

The Tano North strategic directions and principles for WASH will guide progress towards achieving the WASH vision, objectives and targets set for the key results areas: water, sanitation, WASH in schools and WASH in health care facilities (HCFs). The strategic directions and principles express how the Tano North partners will work to achieve the shared vision of ensuring that "By 2030, all people in the Tano Municipality have access to sustainable safe water, sanitation and hygiene services in households, schools and other institutions."

Figure 16 below outlines the strategic directions and cross-cutting principles guiding progress to the adopted objectives and shared vision.

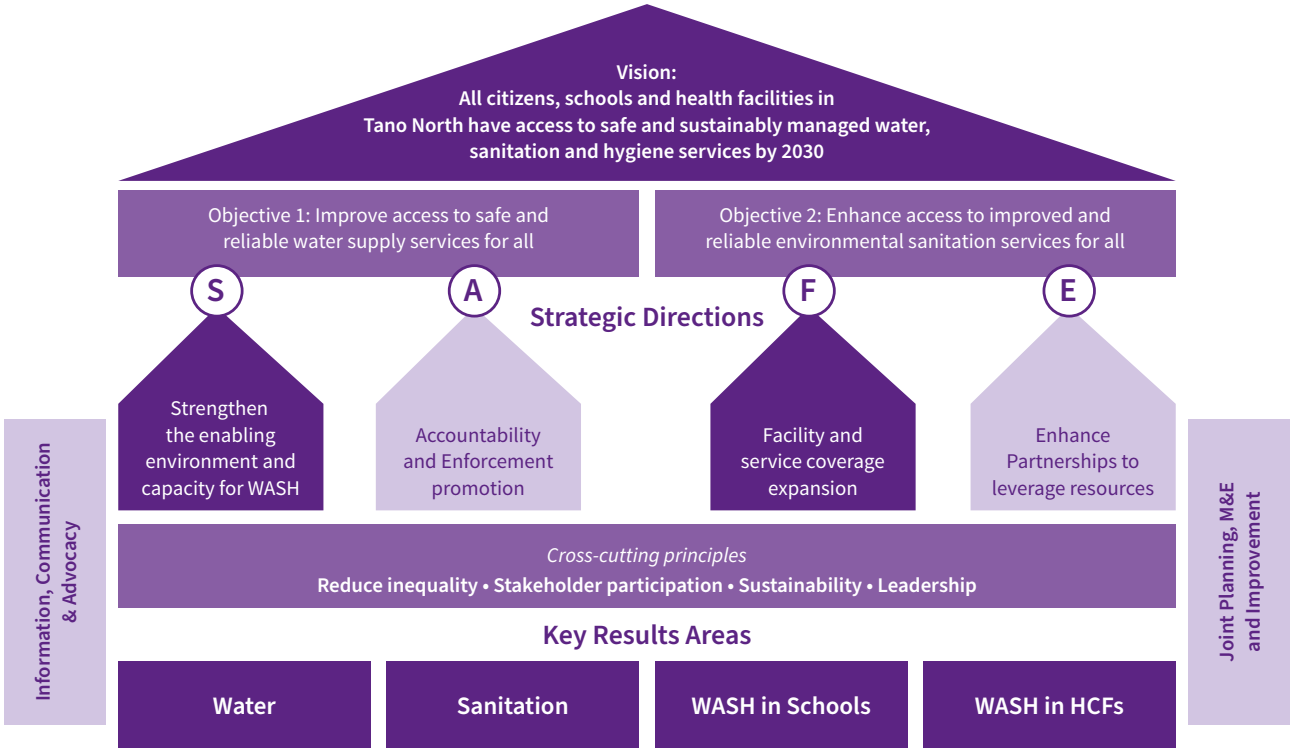

Figure 16 TANO NORTH strategic framework indicating vision, objectives and strategic directions

Source: Author's concept based on strategic actions negotiated by WASH stakeholders

The strategic directions to guide the Tano North WASH Master Plan initiative, summarised as SAFE, are elaborated below.

5.1 STRENGTHENING THE ENABLING ENVIRONMENT AND CAPACITY FOR WASH

Within the decentralised framework of governance as defined by the Local Governance Act, 2016 (Act 936), the Tano North Municipal Assembly is the highest political, administrative and planning authority at the municipal level and responsible for the overall governance and development of the municipality, including WASH. The key departments involved in the delivery of WASH are listed in Table 17.

Table 17 Relevant municipal departments and role in WASH

DEPARTMENT	KEY ROLES
District Works Department	Responsible for WASH delivery as well as design, construction and monitors water supply systems
Environmental Health Department	Promote environmental health issues and ensure compliance with the provision of the WASH bye-laws
District Health Directorate	Responsible for sensitisation and adherence to public health issues under the WASH project
Social Welfare and Community Development Department	In charge of community animation and sensitisation
Education, Youth and Sport Department (SHEP)	Coordinates the activities of WASH in schools
District Planning and Coordinating unit	Coordinates and ensures inclusion of WASH activities in the MTDP and Annual Action Plans
Finance Department	Financial management and reporting on funds for WASH activities
Internal Audit	Ensure compliance to all financial regulations
Budget and Rating Department	Review and include WASH activities into the composite budget

Staff required to perform key roles in the delivery of WASH services are in place and have the requisite qualifications. However, staff do not have adequate skills and the right systems and tools to collect and manage WASH data to inform decision making. Platforms for learning to promote knowledge transfer to improve WASH delivery are lacking. Additionally, staff have limited skills and knowledge in exercising their supervisory mandate over service providers in infrastructure management and development.

To achieve the shared vision and adopted objectives, the Tano North partners will contribute to strengthening the WASH-enabling environment at all levels (local, regional and national), targeting relevant institutions and actors in the public and private sectors. Relevant capacities will be strengthened in the public and private sectors and communities empowered to improve the enabling environment to facilitate the achievement of Tano North objectives and targets. The key actions relating to this strategic direction are provided in Table 18.

Table 18 Actions to strengthen the enabling environment and capacity for WASH

Result Areas	Key Actions
Water	• Build capacity of Municipal Assembly staff in service monitoring and reporting and other WASH-relevant areas • Build capacity of district staff in the understanding and interpretation and application of sector policies, laws, guidelines • Intensify public sensitisation drive on planning schemes, development control and service connection regulations and guidelines • Constitute and revamp WSMTs • Build capacity of WSMTs in handpump management • Build capacity of WSMTs in tariffs setting, revenue mobilisation, facility management planning, repairs and maintenance, water quality testing • Build capacity of managers of limited and piped schemes in financial management, and water quality testing • Train area mechanics in repairs, maintenance, and water quality testing • Identify, train and certify local plumbers to undertake extension in urban areas
Sanitation	• Build capacity of Municipal Assembly staff in environmental and sanitation legislations and service monitoring and reporting • Train local artisans in the construction of basic household toilets • Undertake sensitisation drives on sanitation regulations, bye-laws and behavioural change
WASH in Schools	• Undertake sensitisation drives on WASH in schools • Strengthen the capacity of school based SHEP coordinators on operation and maintenance of onsite WASH in health facilities • Engage PTA/SMCs in the district to allocate funds for operations and minor maintenance of WASH facilities
WASH in HCFs	• Undertake sensitisation drives on WASH in HCFs • Increase advocacy on funding for improved water facilities in health service delivery centres • Strengthen the capacity of the district health management team to monitor the performance of health WASH operators • Provide a clear and effective policy on sanitation infrastructure in health care centres
Communications, advocacy and networks	• Build local capacity to undertake sensitisation and advocacy for WASH to sustain investments (e.g., at the Client Services Unit and the Information Services Department, WASH Desk) • Provide logistics such as toll-free numbers for receiving customer feedback and connecting people to resources to address common problems
Cross-cutting issues	• Enhance the capacity, skills, logistics and knowledge of the Works Department, DEHU and DPCU to provide technical leadership and coordination of WASH activities and ensure equitable financing • Undertake regular capacity needs assessments to determine gaps for remedial actions • Develop annual action plans with clear budgets to roll out WASH master plan • Organise annual planning and review meetings to take stock of progress • Undertake annual service monitoring including sanitation and water resource management to update baseline data • Carry out annual financial tracking of the district and other partner contribution to the WASH master plan implementation • Undertake external marketing of the WASH master plan to attract additional funding • Improve coordination and harmonisation in WASH to improve efficiency and policies through regular stakeholder dialogues • Generate annual reports and share with all relevant stakeholders

5.2 ACCOUNTABILITY AND ENFORCEMENT PROMOTION

The Tano North initiative will operate within a robust accountability framework that clearly outlines the roles, responsibilities, and interrelationships of all key stakeholders as a prerequisite for progress towards the shared vision and long-term sustainability of WASH services. In addition to enforcing existing legislation and bye-laws relating to WASH, the initiative will support relevant state actors and institutions, including the Municipal Assembly and sub-structures and service providers (public and private), to become more responsive to the voices of citizens, particularly the marginalised. Equally, the initiative will support communities and rights holders to claim their rights and demand accountability from duty bearers and WASH service providers (public and private). Through the Tano North mutual accountability framework, the key stakeholders will commit to demonstrating leadership in pursuing their assigned duties and be responsible for their actions and inactions. The robust accountability framework will facilitate predictability, transparency, stakeholder participation and good governance in WASH service delivery. The key actions relating to this strategic direction are provided in Table 19.

Table 19 Actions to promote accountability and enforcement

Result Areas	Key Actions
Water	• Enforce planning schemes and development control regulations
Sanitation	• Enforce sanitation and building regulations and bye-laws
WASH in Schools	• Enforce guidelines for WASH delivery in schools
WASH in HCFs	• Enforcement of guidelines for WASH delivery in health institutions • Enforce hygiene policy at health care facilities
Cross-cutting	• Promote and enforce compliance with the Tano North mutual accountability framework evident in signed Memorandum of Understanding (MoU) etc. • Enforce stakeholder participation and the use of participatory approaches ensuring that state actors, private sector, service providers, communities and civil society actors are involved in WASH implementation • Establish platforms for coordinating external support for WASH plan implementation (MoUs, joint partner meetings etc.) • Strengthen CSOs' use of existing platforms for citizen engagement on WASH and IWRM • Establish learning alliance platforms to promote learning and uptake of innovations on WASH • Enhance the transparency and social accountability for WASH service delivery and IWRM • Establish platforms for coordinating external support for WASH plan implementation (MoUs, joint partner meetings etc.)

5.3 FACILITY AND SERVICE COVERAGE EXPANSION

The Tano North initiative will work with the public and private sectors, civil society, and communities to directly expand WASH facilities and service coverage in the municipality. The provision of WASH facilities will target unserved and underserved rural and urban communities, schools, and health care facilities, to reduce inequality in WASH access while addressing increasing demand. The Tano North initiative will also support the local private sector, including plumbers, spare parts dealers, and borehole drillers, to meet demand sustainably and at affordable costs to service users. The key actions relating to this strategic direction are provided in Table 20.

Table 20 Facility and service coverage expansion

Result Areas	Challenges	Key Actions
Water	1. Low coverage of at least basic services, with a considerable proportion of the rural population (38%) depending on surface water and unimproved water sources.	1a. Repairs, replacement and rehabilitation of a total of 37 broken down hand pumps. 1b. Construction of 16 additional boreholes with handpumps. 1c. Construction of 27 additional LMBs with 49 public standpipes. 1d. Construction of 2 additional small town and 1 small community scheme- and a total of 29 additional public standpipes.
	2. Functionality challenges, especially for community-managed handpumps.	2a. Attract spare parts dealers and maintenance services, especially in rural communities. 2b. Setting up and capacity building of handpump WSMTs (see above).
	3. Low household connections coverage (only 135 of the urban population).	3a. Construction of new small town and small community piped schemes (see 1d) and extension of existing schemes. 3b. Stimulation and facilitation of an additional 3,976 household connections, connecting to small town and small community piped schemes.
	4. Challenges with water availability (continuity) in the Duayaw Nkwanta water supply scheme, which could prevent households from accessing safely managed water supply.	4a. Build capacity of the management of the Duayaw Nkwanta managing piped scheme (see above).
Sanitation	1. About a fifth of households in urban and rural areas practise open defecation.	1a. Promotion of household toilet facilities through CLTS. 1b. Sensitisation drive on sanitation regulations, bye-laws and behavioural change. 1c. Enforcement of sanitation and building regulations and bye-laws. 1d. Implement the sanitation marketing model in urban areas.
	2. High proportion of **rural** households (30%) using unimproved, mostly shared, sanitation facilities, or improved shared facilities (37%).	2a. Stimulate and facilitate construction of 5,975 improved toilet facilities with onsite treatment and 1,339 with offsite treatment in rural areas.
	3. High proportion of **urban** households (19%) using unimproved or improved shared (26%) facilities.	3a. Stimulate and facilitate construction of 5,210 improved toilet facilities with offsite treatment and 6,558 with onsite treatment in urban areas.
	4. Lack of collection, treatment and safe disposal of human waste from sanitation facilities which are supposed to have offsite treatment.	4a. Explore opportunities for improving collection, treatment and safe disposal of faecal sludge from latrines with offsite treatment.
	5. Lack of collection, treatment, and recycling of solid waste.	5a. Encourage citizens to sign up for door-to-door waste collection. 5b. Procure trucks for transportation of solid waste to final disposal sites. 5c. Construction of waste treatment and recycling plant.

Result Areas	Challenges	Key Actions
WASH in Schools	1. An estimated 146 schools are without improved water source.	1a. Stimulate and facilitate connection of schools without water supply which are within service area of piped scheme to piped scheme. 1b. Construction of boreholes and limited mechanised borehole systems at schools without improved water sources.
	2. An estimated 78 schools do not have improved sanitation facilities.	2a. Construction of improved, sex-separated and usable toilet facilities in schools without toilet facilities.
	3. An estimated 75 schools have latrines which do not provide privacy.	3a. Stimulate schools to ensure that latrines provide privacy and can be locked from the inside.
	4. An estimated 115 schools do not have handwashing facilities.	4a. Construction of handwashing facilities in schools without handwashing facilities.
WASH in HCFs	1. 1 HCF without improved water supply within 500 m and 2 without improved water supply on premises.	1a. Construction of boreholes and limited mechanised borehole systems at HCFs without water supply, prioritising the HCFs without water from an improved source within 500 m.
	2. 5 HCFs without sanitation facilities, only 1 HCF has MHM.	2a. Construction of sex-separated latrines, with MHM facilities and access for people with disability. 2b. Ensure availability of MHM facilities in at least 1 latrine per HCF through MHM promotion and education of HCF staff. 2c. Ensure accessibility of at least one latrine for people with a disability through adjustment of existing facilities or construction of new appropriate one.
	3. 5 HCFs without water or soap at point of care or within 5 m of latrine.	3a. Ensure availability of water and soap at point of care and within 5 m of latrine through training and education of HCF staff and management.
	4. 15 HCFs with some, but not all three required separate bins (for sharp, infectious, non-infectious waste).	4a. Ensure procurement and use of solid waste management facilities (for sharp, infectious and non- infectious waste) in HCFs. 4b. Facilitate collection and transportation of other waste from health institutions to final disposal site by private sector.
Cross-cutting issues	1. Reduce inequalities and exclusion in WASH delivery.	1a. Provide WASH facilities to unserved and underserved communities and institutions (schools and HCFs) to reduce inequality in access. 1b. Identify options for the provision of water facilities to hard-to-reach areas and provide or facilitate provision of water facilities.
	2. Improve systems/enabling environment for WASH.	2a. Undertake action research studies to generate new insights to inform WASH service delivery at all levels.

5.4 ENHANCING PARTNERSHIPS TO LEVERAGE RESOURCES

The Tano North initiative is a partnership-based innovative model that seeks to leverage resources, including funds, knowledge, expertise, and technology from diverse sectors, to address pertinent WASH issues and facilitate sustainable service delivery. The Tano North initiative will therefore enhance partnerships with national, regional and local government institutions, the private sector, civil society and development partners, traditional authorities, communities, service providers and other stakeholders working in WASH-related areas. The initiative will leverage the capacity of key partners in networking, fundraising, communication, policy advocacy, and evidence-based monitoring and evaluation (M&E), among others, to advance the WASH objectives.

5.5 RISKS AND MITIGATION

To ensure successful implementation of the WASH master plan, likely risks with the potential of minimising the outcomes of the plan have been identified and appropriate mitigation measures put in place to reduce the risks. Table 21 presents the risks and mitigation measures.

Table 21 Anticipated risks and mitigations

SN	Nature of Risk	Levels of Risk	Mitigation Measures
	Inadequate political commitment for the implementation of the WASH Master Plan	Medium	The WASH master plan development process involved both the political and technical leaders in the Municipal Assembly to determine the priorities, strategies, and interventions. Continue to maintain engagement with the leaders and citizens to ensure the issues are prioritised for implementation.
	Inadequate financial commitment for the implementation of the WASH Master Plan	Medium	As indicated in the MTDP, the Revenue Improvement Action Plan (RIAP) will be prepared and implemented to improve its revenue mobilisation in the municipality. The Assembly will continue to engage with other development partners and NGOs to jointly implement the WASH master plan.
	Degrading quality of water resources because of illegal mining activities	Medium – High	Engage with the relevant government institutions (Water Resources Commission, Ghana Water Company Limited and the Minerals Commission etc.) to implement the actions and plans for managing water resources in the municipality
	Limited capacity and staff to implement the WASH Master Plan	Medium	Assess staff capacity and organise capacity building programmes for the relevant staff (Municipal Assembly, Municipal Health Directorate, SHEP-GES, etc.) in the implementation of the WASH master plan.

6 PARTNERSHIPS AND IMPLEMENTATION

This chapter describes the roles of the various actors for the delivery of the WASH master plan. It also presents the required structures that will enable the most effective and efficient approach to ensuring the best alignment of WASH interventions.

6.1 MUNICIPAL ASSEMBLY ACTORS

The technical working group has provided inputs, strategic direction, and technical support for the overall development of the plan. The technical working group comprised representatives from the Municipal Assembly (Planning, District Works Department, Finance Officer, Community Development, Environmental Health Assistant, Statistical Service), the Municipal Health Directorate (Director, Disease Control Officers), the School Health Education Programme (SHEP) coordinators of the Ghana Education Service in the Municipality, Ghana Water Company Limited, Rural Relief Services and IRC Ghana. Meetings with wider stakeholders in the Municipal Assembly have provided the platform for building consensus, clarifying the roles and responsibilities and for providing updates. The Municipal Assembly and the Municipal Health Directorate will lead the drive towards mobilising resources and partnerships for the implementation of the master plan.

6.2 REGIONAL AND NATIONAL GOVERNMENT ACTORS

The key national and regional institutions that will be relevant to the implementation include the following:

1. Ahafo Regional Coordinating Council – to coordinate implementation of activities of the Assembly, provide technical backstopping, monitoring, training and harmonising of reports.
2. Community Water and Sanitation Agency (Ahafo Region) – to collaborate with the Municipal Assembly to provide water infrastructure and services, offer technical services for the management of water facilities and provide guidelines for WASH operations.
3. Environmental Protection Agency (Ahafo regional office) – to ensure that environmental standards are adhered to for all development interventions, provide technical support and enforce policy and legislative guidelines.
4. Ghana Health Service (Ahafo regional office) - to provide technical support to the Municipal Assembly, facilitate the School Health Programme and establish linkages with WASH.
5. School Health Education Programme (SHEP), Ghana Education Service (Ahafo regional office).
6. Water Resources Commission (Ahafo regional office) - to support the Municipal Assembly to plan, enforce regulations in the management of water resources.
7. National Development Planning Commission - to guide in aligning priorities and improving reporting, monitoring and evaluation, set medium-term development priorities, planning guidelines and report on progress of medium-term plan, set medium-term development priorities, planning guidelines and report on progress of medium-term plan.
8. Office of the Head of Local Government Service - responsible for District Assemblies' human resource management and capacity support.
9. Ministry of Sanitation and Water Resources – to formulate WASH policies and strategies and uphold WASH standards at all levels.
10. Ministry of Local Government, Decentralisation and Rural Development - provide decentralisation policy guidelines and directives, capacity building and technical backstopping to the Municipal Assembly.
11. Ghana Health Service – to facilitate health linkage with WASH.
12. Ministry of Education – to facilitate School Health Programme

6.3 DEVELOPMENT PARTNERS AND NGOS

Over the past five years, these development partners and NGOs have been active in the Municipality, namely:

- Rotary Club
- Safe Water Network
- Plan Ghana
- Solidaridad Ghana
- Newmont Mining Company

Other Anticipated Partnerships

1. IRC, an international think-and-do tank that works with governments, NGOs, and businesses, will provide WASH system strengthening and hub support to the Assembly focusing on partnerships, planning, learning, coordination, capacity building, resource mobilisation, and monitoring.
2. Safe Water Network (SWN) will work with the Assembly and communities to develop locally owned and managed safe water stations through their small water enterprises (SWEs).
3. World Vision International is a global Christian relief, development and advocacy organisation seeking to work with the Assembly to provide water and sanitation using the CLTS approach.
4. Aquaya Institute, a non-profit research and consulting organisation seeks to work with the Municipal Assembly to promote water quality monitoring for rural water systems with the goal of contributing to sustainable water safety management practices in rural settings.
5. Netcentric Campaigns, a non-profit organisation, will work with the District Assembly to train district staff in relevant departments, design public awareness campaigns and build WASH networks of citizens to advance the delivery of WASH services.
6. SAHA Global, a non-profit organisation, will work with the Municipal Assembly to provide simplified water treatment solutions for last mile communities.
7. Latter-day Saint Charities, a nonprofit organisation, an arm of the Church of Jesus Christ of Latter-day Saints humanitarian efforts to relieve suffering for families of all nationalities and religions and offer hope with the potential for a better life for millions of people around the world. Latter-day Saint Charities working through IRC will collaborate with the district assembly to provide WASH services in schools and health care facilities in deprived communities.

6.4 CROSS-CUTTING PRINCIPLES FOR EFFECTIVE WASH SERVICE DELIVERY

The strategic directions and actions shown in Table 22 are intended to contribute to make WASH service delivery inclusive and enhance knowledge management and learning.

Table 22 Cross cutting principles for effective WASH implementation

National Medium-Term Policy Objectives	Principles	Intervention Areas
Ensure accessible and quality Universal Health Coverage (UHC) for all. **Promote full participation of Persons with disabilities (PWDs) in social and economic development of the country.**	• Minority and marginalised populations identified and prioritised in the application of interventions. • Reduce inequalities and exclusion in the delivery of WASH services.	• Ensure that endemic and marginalised communities are prioritised in the intervention required i.e., adequate water facility, good sanitation facility as a matter of priority. • Provide boreholes with handpumps for unserved communities in remote and poor communities. • Introduce inclusive designs of WASH facilities to cater for the needs of PWDs.
Promote sustainable water resources development and management.	• Monitor mining and logging activities to ensure they are undertaken in an environmentally sustainable manner.	• Education and awareness creation of the impact of illegal mining on water resources to enhance self-regulation. • Strengthen involvement of local communities in the management of water resources, forests and wetlands.
Ensure responsive governance and citizen participation in the development dialogue.	• Promote effective stakeholder involvement in planning, monitoring, and accountability.	• Strengthen the sub-municipal assembly structures such as the assembly members, zonal councils, to enhance citizen participation and support for effective WASH delivery. • Organise radio discussions on the master plan and the related projects and programmes. • Utilise all communications channels available within the district to engage constituents in WASH activities and create feedback mechanisms between the government and citizens. • Organise town hall meetings and community durbars to engage communities in the master plan and the related projects and programmes.
Strengthen plan preparation, implementation, and coordination at all levels. **Integrate WASH into health programming at all levels**	• Strengthen monitoring and evaluation systems. • Reinforce the institutional arrangements with adequate capacity to support and sustain effective monitoring and evaluation. • Enhance efficiency and performance at all levels.	• Organise routine monitoring and evaluation of the plan, related Assembly projects and programmes. • Enhance the capacity, skills, logistics and knowledge of the staff to provide technical leadership, education and coordination of WASH activities. • Harmonise institutional mandates and responsibilities for WASH activities in the municipality.

7 COMMUNICATION, ADVOCACY AND NETWORKS

This chapter sets out a communication and advocacy strategy for the master plan. Communication and advocacy are central to the plan and focus on social learning, multi-level interactions using existing platforms, evidence-based approaches, and advocacy for change. The Tano North Municipal Assembly has put in place measures to disseminate its plans and development strategies to the public to promote their participation and perspectives.

7.1 MASTER PLAN COMMUNICATIONS

The purpose of the communication, advocacy and networks plan is to document and share planned achievements, lessons learnt, and best practices to inform policy review and replication.

The dissemination of the master plan will be through the MDTP communication plan and processes. As indicated in the municipal medium-term plan, the outreach in communities will involve public hearings, meetings with political leadership, popular participation (via community durbars and town hall meetings) etc.

The social and behaviour change communications will aim to stimulate social transformation and change in behaviour and attitudes towards WASH. The communication aspect of the plan will focus on building awareness, targeting advocacy activities, and engaging local actors in improved WASH-related behaviours and attitudes. The key activities that will be undertaken to achieve the communication objectives include:

1. Raise awareness on the WASH master plan to create the needed critical mass for support and to build synergies with key stakeholders. The outreach in communities will involve awareness campaigns, public meetings, community durbars and town hall meetings.
2. Promote institutional partnerships for managing the implementation of the master plan.
3. Publicise the master plan strategic activities and events through the local media and share it with wider sector stakeholders.
4. Undertake stakeholder engagements to influence behaviour change towards WASH in the municipality.
5. Enhance and support the development of the capacity of civil society partners to advance all aspects of the WASH master plan.
6. Engage in and demand through advocacy, key reforms and accountability practices within the municipality.

7.1.1 TARGET AUDIENCES

The primary audiences are at the core of the communication plan while secondary audiences help bridge certain gaps and extend the outreach scale as is shown in Table 23.

Table 23 Audience analysis for communication

Primary audiences	Secondary audiences
Municipal Chief Executive	Ghana Health Service
Heads of Department and Agencies in the Municipal Assembly	Ahafo Regional Coordinating Council
Assembly Members	School Health and Education Programme of the Ghana Education Service (SHEP-GES)
Traditional Leaders	Water Resources Commission
Community members	Community Water and Sanitation Agency
Representatives of Zonal Councils and other Opinion Leaders	National Development Planning Commission
Market Queens and Business Associations	Ministry of Local Government and Rural Development
Artisans, Mechanics	Ministry of Sanitation and Water Resources
Ghana Private Road Transport Union (GPRTU) etc.	
Faith-Based Organisations (FBOs)	
Civil Society Organisations	Local NGOs within the municipality
Development Partners (NGOs)	
Local Media	Local FM Stations
	Agriculture sector especially farmers and cooperatives

The WASH master plan implementation process will make use of a variety of channels to ensure engagement with all relevant audiences. The dissemination techniques include:

1. Announcements, discussions, and broadcasts in the local news media, e.g., local FM and TV stations, local newspapers, and Assembly's website, WhatsApp groups, other social media channels, and newsletters.
2. Use of the District Assembly's information van to deliver campaigns to hard-to-reach areas.
3. Use District Assembly's communication with constituents to regularly promote WASH (e.g. bills generated by the Assembly or permits and inspections for buildings and health check-ups).
4. Disseminate information, campaigns and recruit WASH network members through the District's Community Information Centres.
5. Meetings with traditional authorities, representatives of Zonal Councils and other opinion leaders and tasking them to take the messages back to their communities.
6. Holding community meetings at central locations throughout the municipality.

The dissemination channels that will be used throughout the implementation of the master plan include:

1. Face-to-face meetings
2. Radio
3. Website
4. Social media (Facebook, Twitter, WhatsApp groups, etc.)
5. Video and television (TV) newspapers
6. Community durbars
7. Town Hall meetings
8. National government WASH awareness campaigns
9. Public Relations and Complaints Committee
10. Client Services, Public Information, Education, Environmental Health, Planning, Public Works, Social Welfare and Community Development departments and others as appropriate

It will be important to develop effective feedback mechanisms for providing feedback to the Assembly so that lessons learnt can be applied to planning and decision-making.

7.2 WASH ADVOCACY AND NETWORKS

This section sets out a communication, network building and advocacy strategy necessary for the success of the WASH master plan. Communication and advocacy are essential to advance the culture shift necessary and improve public participation and management for the broader WASH systems planned by the master plan to run well and achieve the social, health and economic benefits.

The social and behaviour change communications will aim to stimulate social transformation and change in behaviour and attitudes towards WASH, including financial and other related accountability issues. Organising and building networks will engage the public and others in the working relationships needed to support success.

Activities will be based on key advocacy themes related to WASH (water, sanitation, and hygiene). These themes are:

- Equity and inclusion in WASH delivery: This theme emphasises the importance of ensuring that WASH services are accessible to all individuals, regardless of their socio-economic status, gender, age, ethnicity, or other factors. It aims to promote equity and inclusion in the delivery of WASH services and address inequalities that may exist in accessing these services.
- Payment of tariffs for WASH services: This theme highlights the need for individuals and communities to pay for WASH services in order to ensure their sustainability and effectiveness. It aims to address issues related to non-payment or underpayment for WASH services, which can lead to a lack of investment in these services and ultimately their failure.
- Individual responsibility and accountability of citizens: This theme emphasises the role that citizens need to engage in to keep water and WASH infrastructure functional, report leaks, stop indiscriminate dumping of waste, monitor poor environmental sanitation (stagnant water, pollution, runoffs, etc.). Emphasise the responsibility of citizens to monitor and report aberrations to keep the WASH systems in good order.
- Funding and prioritisation of WASH service delivery by local and national government: This theme emphasises the importance of government investment in WASH services, particularly at the local and national levels. It aims to promote the prioritisation of WASH service delivery in government budgets and the allocation of sufficient funding to ensure the provision of high-quality WASH services.
- Business opportunities in WASH and active private sector participation: This theme focuses on the potential for the private sector to play a significant role in the delivery of WASH services, particularly in terms of innovation, financing, and service provision. It aims to encourage private sector engagement and investment in the WASH sector, while also ensuring that these efforts are aligned with public sector priorities and goals.
- Behaviours and attitudes towards WASH: This theme addresses the need to promote positive attitudes and behaviours related to WASH, particularly in terms of hygiene practices and water conservation. It aims to increase awareness and understanding of the importance of WASH and encourage individuals and communities to adopt behaviours that promote WASH sustainability.
- Financial accountability of duty bearers and rights holders: This theme emphasises the importance of financial accountability and transparency in the delivery of WASH services. It aims to ensure that duty bearers (e.g., governments, service providers) and rights holders (e.g., communities, individuals) are held accountable for their financial contributions and that funds are used effectively and efficiently to deliver high-quality WASH services.

The key activities that will be undertaken to achieve the communication objectives include:

- Engage with stakeholders to influence behaviour change towards WASH across the district.
- Engage and support the development of the capacity of civil society partners to advance all aspects of the WASH master plan.
- Engage in and demand through advocacy, key reforms and accountability practices within the municipality.
- Build direct and long-term regular engagement with local stakeholders such as community leaders, civil society organisations, and government agencies.
- Create offers of value for participants, such as opportunities to learn best practices, capacity, building, learning and sharing of new ideas, becoming agents of change, enhanced information sharing, problem-solving skills, employment credentials, teambuilding skills, enhanced decision-making skills, knowledge acquisition, confidence building, as well as offering participants joint ownership of the best results and prestige for being part of the efforts.
- Coordinate and create a two-way dialogue between the users of the WASH services and the administration. Promote transparent and accountable governance to build public trust and confidence in the government's commitment to improving WASH services.
- Collect feedback from stakeholders on the effectiveness of the communication, communications channels and tools used. Improve public awareness and involvement in the WASH initiative.

7.2.1 TARGET AUDIENCES

The primary audiences are at the core of the WASH advocacy and networking efforts while secondary audiences will help to bridge certain gaps and extend the outreach scale, as shown in Table 24 below.

Table 24 Audience analysis for advocacy

Primary audiences	Secondary audiences
Beneficiary committees	Contractors
Assembly Members	School Health and Education Programme of the Ghana Education Service (SHEP-GES)
Traditional Leaders	Heads of Department and Agencies in the Municipal Assembly – Focus on Client Services, Public Information and Environmental Health Officers
Community members	Community Water and Sanitation Agency
Representatives of Zonal Councils and other Opinion Leaders	Gaming and Betting Enablers
Market Queens	Business Associations
Artisans, Mechanics	Ministry of Sanitation and Water Resources
Ghana Private Road Transport Union (GPRTU) etc.	Faith-Based Organisations (FBOs)
Public Relations and Complaints Committee of the Assembly	Owners of Community Information Centres
Civil Society Organisations	Local NGOs within the municipality
Development Partners (NGOs)	
Local Media	Local FM Stations
Former legislative leaders	Political organisations
Cocoa Growers Association	Security agencies
Farmers Association	Prison inmates
Faith Leaders	

The implementation process will make use of a variety of channels to ensure engagement with all relevant audiences. The dissemination techniques include:

1. Announcements, discussions, and broadcasts in local news media, e.g., local FM station, local newspapers, and Assembly's website, social media, WhatsApp groups, and newsletters.
2. Meeting with traditional leaders, representatives of Zonal Councils and other opinion leaders and tasking them to take the messages back to their communities.
3. Holding community meetings at central locations throughout the municipality.

The dissemination channels that will be used throughout the implementation of the master plan include:

1. Face-to-face meetings
2. Radio
3. Websites
4. District and other WhatsApp groups
5. Routine SMSs
6. Toll free number
7. Community Information Centres
8. District Assembly Meetings
9. Social media (Facebook, Twitter etc.)
10. Video and television (TV) newspapers
11. Community durbars
12. Town Hall meetings
13. District information vans

7.3 KEY MESSAGES AND THEMES

There will be specific messages tailored to each target audience. For the stakeholders in the Tano North Municipal Assembly, the messages developed will aim to promote active participation, accountability and to garner support from stakeholders for the local development interventions. The intervention areas and the focus of the messages are listed in Table 25 below.

Table 25 Social Behaviour Change Communication (SBCC) messages for WASH

Intervention Area	Key Behaviour Change Messages
Personal Hygiene (Handwashing with soap under running water)	Always wash hands with soap and clean water, at least for 20 seconds frequently, specially at critical times: 1. Before preparing, serving food and before eating. 2. Before feeding babies/before breastfeeding, before feeding little children. 3. After latrine use, also after disposing of little children's faeces. 4. After handling animals or animal waste (i.e., slaughtering a chicken): be sure to wash your hands before and after dealing with raw meat. 5. Wash your dishes with clean water and soap.
Safe Handling and Storing of Drinking Water	***Keep drinking water safe:*** 1. Keep all water sources free from contamination. 2. Collect water in a clean and safe container. 3. Wash your hands after having collected water once you reach home. 4. Keep water drawing and storage containers clean and covered. 5. Use a clean glass/ cup when drinking water. ***If the water is dirty, there are some options to clean this water:*** 1. Pour the settled water carefully through a filter (for example, a clean cloth) into the clean container. Make sure the settled dirt does not pour out. 2. After pouring the water through the cloth, boil or treat it. 3. Drinking water can also be made safe by purifying it with chlorine tablets. Follow instructions on the packet by putting the purifying tablet into the water and then it will be safe for drinking.

Intervention Area	Key Behaviour Change Messages
Ensure Safe and Hygienic Environment	*Keep your home and surrounding environment clean:* 1. All faeces, including those of babies and young children, should be disposed of in a latrine. Where there are no latrines, faeces should be buried. 2. Always cover your pit latrine after use. 3. Properly dispose of the rubbish in a pit /designated disposal site. 4. Avoid keeping animals in the house. Provide separate accommodation for animals. 5. Manage drains and toilets, including leakages of septic tanks to minimise the risk of a continuously contaminated environment. 6. Manage environmental situations such as uncovered water containers, open drains and septic tanks, water puddles or solid waste – which leads to an increase mosquito breeding (STH, SCH). 7. Encourage larvae control, including insecticide treatment of larvae breeding sites (oncho).
ODF	1. Always use a latrine. 2. Always cover your pit latrine after use. 3. Throw all faeces including baby's faeces into a pit latrine. 4. Do not defecate in the open at any time.
Menstrual Hygiene	1. Do not throw away used pads in the open. 2. Put any used pads into a refuse container.
Hygiene in School	1. All school children, need to wash their hands thoroughly with soap or ash and clean water after any contact with faeces, before touching, preparing or serving food, and before eating food. 2. Washing the face and hands with soap and clean water every day helps to prevent eye infections which can lead to trachoma, which can cause blindness. 3. Keep and maintain a safe and clean environment throughout the school.

8 MONITORING, EVALUATION AND LEARNING

This chapter presents the framework for monitoring, evaluation, and learning. It is based on the projections, strategic actions, and targets mentioned in the plan and how they will be measured.

8.1 MONITORING FRAMEWORK

Monitoring of the master plan will be a continuous and integral part of the Municipal Assembly's functions and the plan implementation. Monitoring will facilitate the tracking of progress in implementation and effectiveness, as well as identifying bottlenecks for timely resolution. It is expected that the monitoring findings will feed into the meetings of stakeholders and partners organised by the municipality to take stock of progress and to help in re-planning for maximum result. It will also provide information for preparing the annual progress report to the NDPC. Two levels of evaluation will be conducted. A midterm evaluation will be conducted in 2026 to assess whether the resources invested in project interventions have produced or are producing the desired results in terms of outputs and benefits and whether the benefits are reaching the intended target population/community.

The monitoring framework for the WASH master plan has been aligned with national policy objectives and indicators. Additional indicators have been included to provide further details to ensure effective monitoring of programmes and projects. Table 26 below shows the policy objectives, indicators, monitoring frequency and who is responsible, focusing on key thematic areas.

Table 26 Monitoring and evaluation framework

Focus Area	National policy objective	Indicators for measurement	Monitoring Frequency	Responsibility
Water services	Improve access to safe and reliable water supply services for all	• Proportion of population with access to safely managed drinking water • Proportion of population with access to basic drinking water • Percentage of distribution losses (urban & rural)	Annually	Municipal Planning and Coordination Unit / Municipal Environmental Health Unit
Sanitation and hygiene services	Enhance access to improved and reliable environmental sanitation services	• Proportion of population with access to basic sanitation services • Proportion of population practising open defecation- (number of communities achieving open defecation-free (ODF) status) • Proportion of population with access to handwashing facility with soap and water • Proportion of solid waste properly disposed of (major towns/cities) • Proportion of population whose liquid waste (faecal matter) is safely managed	Annually	Municipal Planning and Coordination Unit / Municipal Environmental Health Unit

WASH in Schools	Enhance inclusive and equitable access to, and participation in quality education at all levels	• Proportion of schools with access to basic WASH services	Annually	Municipal Planning and Coordination Unit/ School Health Education Programme- Ghana Education Service
WASH in Health Care Facilities	Ensure accessible and quality Universal Health Coverage (UHC) for all	• Proportion of health care facilities with access to basic WASH services	Annually Municipal	Health Directorate/ Municipal Planning and Coordination Unit

8.2 REPORTING

It is expected that the monitoring findings will feed into the meetings of stakeholders and partners organised by the municipality to take stock of progress and to help in re-planning for maximum result. It will also provide information for preparing the annual progress report to the NDPC, Regional Coordinating Council and the Ministry of Sanitation and Water Resources (MSWR) highlighting progress in the implementation of the WASH master plan to be shared with, development partners, NGOs and other stakeholders.

8.3 EVALUATION

Evaluation will be carried out purposely to assess whether the resources invested in a particular project have produced or are producing the desired results in terms of outputs and benefits and whether the benefits are reaching the intended target population/community within the municipality. Scheduled mid-term evaluations will be carried out at the end of each planning cycle of four (4) years, which is in line with the duration of the medium-term plan of the municipality. The feedback will be used to inform the planning for the next four (4) years. The endline evaluation will examine the overall impact of the master plan in contributing to the WASH goals and SDG 6.

8.4 KNOWLEDGE MANAGEMENT AND LEARNING

Learning will be part of the implementation phase of the master plan. This will involve the documentation and sharing of lessons, best practices, and new insights. The sharing will be done using existing platforms:

a. Stakeholder meetings to coordinate and review the implementation of the WASH master plan.
b. Town Hall meetings to discuss and generate feedback on performance of the implementation of the WASH master plan.
c. Other regional and sector events.
d. Print and electronic media: Municipal Assembly's website and social media.

9 COSTING OF THE MASTER PLAN AND SOURCES OF FUNDING

This chapter focuses on the cost estimates required to cover the infrastructure and recurrent costs to provide universal access to WASH services in the municipality. The cost estimates presented here are intended to support more detailed prioritisation and budgeting.

The costing approach considers the existing and projected population, technology, strategies, and interventions for WASH service delivery and the costs for sustaining these services. The cost estimates are based on inputs from the Municipal Assembly. The estimates include elements of the life cycle costs approach, including:

- Capital expenditure (CapEx) - the cost for providing the WASH infrastructure.
- Capital maintenance expenditure (CapManEx) - the cost of replacing assets or asset renewal. This covers major maintenance activities.
- Operational and maintenance expenditure (OpEx) - the cost of routine operations and minor maintenance.
- Expenditure on direct support (ExpDS) - the cost for supporting service delivery, which includes monitoring and evaluation, technical support, backstopping, capacity building, communications, public education and awareness campaigns etc.

This section presents the expected sources of funding for the different cost components, based on the three Ts: Taxes, from government, Transfers from development partners and philanthropists, and Tariffs from water and sanitation service users. It also presents actions that need to be taken in order to ensure that costs are sufficiently covered by these sources of funding.

This section focuses on the costs related to the ensuring sustainable water and sanitation service provision to all by 2030, in line with the set vision. It does not include costing and sources of funding for WASH in schools and health care facilities.

The costing presented in this section focuses on the costing of the strategic directions related to “facility and service coverage expansion” and related to ensuring sustainable water and sanitation service provision. It does not cover the costs required to strengthen local and district level systems (which are considered indirect support costs), accountability and enforcement promotion and enhancing partnerships to leverage resources. It also does not cover costs for strengthening of the enabling environment and capacity for WASH.

9.1 WATER SERVICES

9.1.1 COSTING

To estimate the life-cycle costs related to water service provision in line with the master plan, assumptions were made on unit costs per facility as presented in Table 27.

Table 27 Costing assumptions (in USD)

	CapEx (UDS)	Expected lifespan	Expected number of people served	CapManEx (one-off)	CapManEx (USD per year)	OpEx (USD per Year)
Costs of construction of additional facilities						
Town piped scheme	500,000	20			25,000	50,000
Small community piped scheme	100,000	20			5,000	10,000
Household connection	1,000	20	5		50	
Additional Piped Scheme standpipe	1,000	20	300		50	
Limited Mechanised Boreholes	20,000	20			1,000	500
Additional Limited Mechanised Borehole Standpipes	1,000	20	300		50	
Borehole with handpumps	7,000	20	300		350	120
Costs of handpump repairs (for currently broken-down boreholes)						
Handpump installation on existing borehole				500		
Handpump repair				100		
Complete rehabilitation				1200		

Table 28 presents the number of facilities that are to be constructed and rehabilitated as per the master plan.

Table 28 Number of facilities to be constructed and currently broken-down facilities to be rehabilitated

	2023	2024	2025	2026	2027	2028	2029	2030	Total facilities
Additional facilities to be constructed									
Additional Town piped schemes	2	0	0	0	0	0	0	0	**2**
Additional Small community piped schemes	1	0	0	0	0	0	0	0	**1**
Additional number of household connections	497	497	497	497	497	497	497	497	**3976**
Additional Piped Scheme standpipes	29	0	0	0	0	0	0	0	**29**
Additional Limited Mechanised Boreholes	12	6	7	2	0	0	0	0	**27**
Additional Limited Mechanised Boreholes Standpipe	26	12	8	2	0	0	0	1	**49**
Additional Handpumps to be constructed	12	0	0	0	4	0	0	0	**16**
Currently broken-down facilities to be rehabilitated									
Handpump installation on existing borehole	0	0	4						**4**
Handpump repair	1	1	10						**12**
Complete rehabilitation	2	4	15						**21**

Table 29 provides the total life-cycle costs related to provision of universal sustainable water services in line with the master plan (100% of the population with at least basic services) by 2030. The costs have been estimated considering the current service coverage, the targeted coverage, and the unit cost of the technologies to be used to achieve the target.

Table 29 Cost estimates for water service delivery

	2023	2024	2025	2026	2027	2028	2029	2030	Total (2023-2030)	Average per person per year (2022-2030)
CapEx	1,528,700	181,700	197,700	91,700	77,700	49,700	49,700	50,700	**2,227,600**	**2.67**
CapManEx	230,450	236,800	251,600	250,600	252,000	252,000	252,000	252,000	**1,977,450**	**2.29**
OpEx	264,920	268,040	273,220	274,220	274,700	274,700	274,700	274,700	**2,179,200**	**2.52**
Direct support costs	102,835	104,268	105,725	107,205	108,703	110,225	111,768	113,327	**864,056**	**1.00**
Total	**2,126,905**	**790,808**	**828,245**	**723,725**	**713,103**	**686,625**	**688,168**	**690,727**	**7,248,306**	**8.49**

Figure 17 gives an overview of the required life-cycle costs and the resulting changes in service levels over the master plan period.

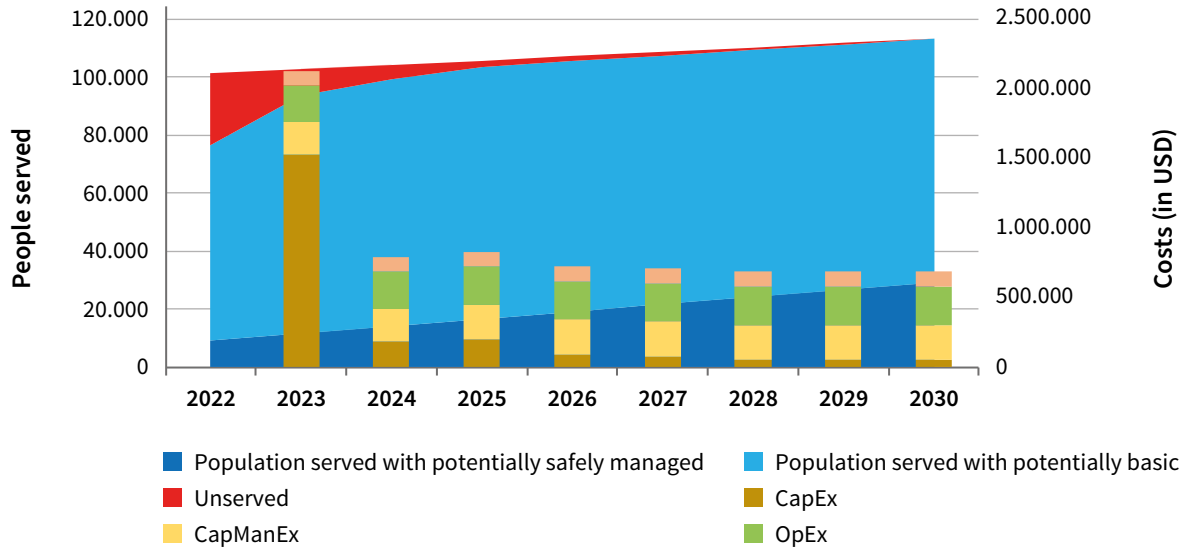

Figure 17 Costs and water service level projections

9.1.2 SOURCES OF FUNDING AND FINANCING

CapEx is mainly covered by (local) government and its partners through taxes and transfers. Ensuring these funds are made available will require the development of funding proposals by local (or regional) government for consideration by development partners and government programmes.

Water users themselves contribute through connection fees and contributions to capital investments. Household connection fees paid by water users are assumed to cover the costs of additional CapEx related to construction of household connections. Management of piped schemes (WSMTs, CWSA, GWCL) need to promote and facilitate household connections and payment of household connection fees.

The operation and minor maintenance costs related to water service provision will need to be funded by water users themselves, through payment of water tariffs. Revenues are collected for both the Bomaa and Duayaw Nkwanta piped scheme. The Duayaw Nkwanta scheme reported revenues to amount to 637,000 GHC and expenditure to 638,000 GHC (data on Bomaa were not collected). Part of the revenues are supposed to be set aside to cover capital expenditure related to capital maintenance and expansion. However, as shown by the negative revenue/expenditure ratio, revenues are insufficient to cover future costs of expansion (CapEx) and major repairs, rehabilitation and renewal (CapManEx). Therefore, CapManEx related to piped schemes will likely need to be covered to a considerable extent by (local) government and its partners through taxes and transfers.

Of the 10 handpump WSMTs that were able to provide data on annual revenues, the reported revenues varied widely, from 50 GHC to 5000 GHC per year, with an average of 1158 GHC per year, which was more or less in line with the 120 USD required for OpEx (using exchange rates at the time of data collection). However, currently, only a third (33%) of the 97 (unabandoned) handpumps have payment structures from users in place. To ensure coverage of the required expenditure on operation and minor maintenance, there is thus a need for strengthening local systems for setting up handpump tariff and revenue collection.

As asset holder of handpumps on boreholes, local government is responsible for CapManEx of handpumps. In order to take up this role, it needs to have asset management systems in place, to plan for and ensure funding for asset repairs, rehabilitation and replacement over time.

Table 30 below presents an overview of the expected sources of funding. It shows that overall, taxes and transfers are expected to cover most costs, but that also a considerable part of the costs (35%) are to be paid for by users through tariffs.

Table 30 Sources of funding

Sources of funding	Expected amount covered (USD)	% of total
Taxes and transfers	3,807,450	53%
Taxes	864,056	12%
Tariffs (household connection fees)	397,600	5%
Tariffs (payment for water services)	2,179,200	30%

Figure 18 below presents the total costs for ensuring sustainable water service provision for all by 2030, with the expected sources of funding.

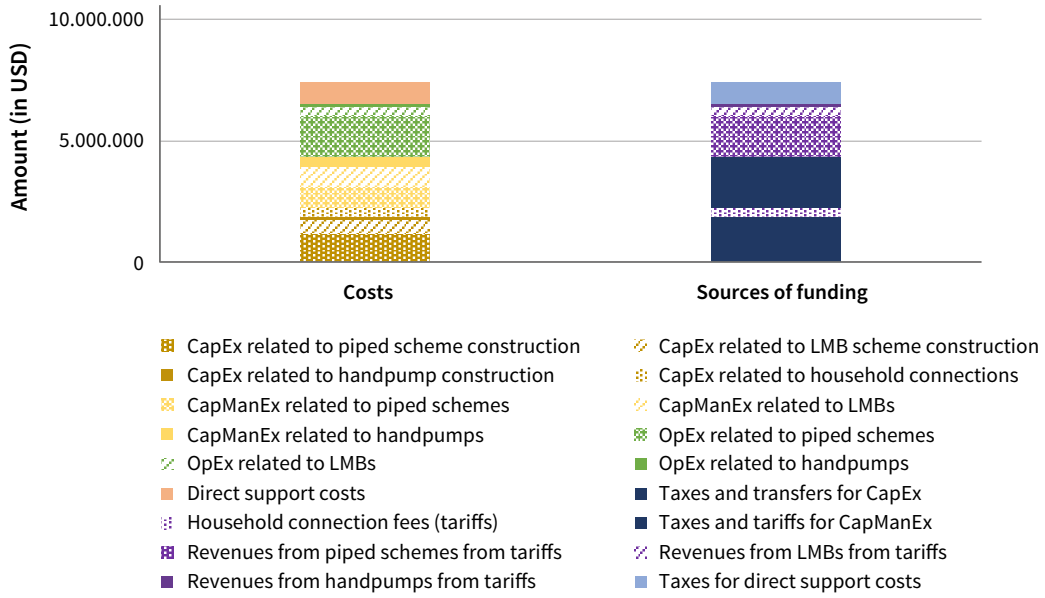

Figure 18 Total costs and sources of funding for water services

9.2 SANITATION SERVICES

9.2.1 COSTING

Regarding sanitation financing, onsite toilet systems, such as septic tanks, soakaways, pits etc., the investment costs (CapEx) are commonly paid for by households themselves. Any routine operation and maintenance, including major repairs (OpEx and CapManEx) are also borne by the households. The collection, transport and faecal treatment services (offsite), which are associated with OpEx and CapManEx, are undertaken by the private sector and/ or in partnership with the public sector and the costs are recovered through user fees from households.

Support costs for activities, such as awareness creation, promotion, inspections, technical assistance etc. by the Environmental Health and Sanitation Department, especially for households or sanitation service users, are financed by the Municipal Assembly. However, information on actual levels of expenditure for these costs are not readily available and may need more data collection and analysis. The major funding sources available to the Municipal Assembly include DACF, DDF, private sector, and other NGOs support.

Table 31 provides the cost estimates to increase the population with access to at least basic sanitation by 2030. It also aims to intensify the campaigns in the remaining communities to reduce the practice of open defecation in the municipality.

Table 31 Cost estimates for sanitation service delivery

Year	2023	2024	2025	2026	2027	2028	2029	2030	Total (2023-2030)	Total per person per year
CapEx	301,420	310,040	318,540	326,790	452,420	464,620	477,090	490,290	**3,141,210**	**4**
CapManEx and OpEx	665,400	793,050	924,200	1,058,750	1,242,200	1,430,600	1,624,050	1,822,850	**9,561,100**	**12**
ExpDS	94,278	95,598	96,937	98,294	99,670	101,065	102,480	103,915	**792,237**	**1**
Total	**1,061,098**	**1,198,688**	**1,339,677**	**1,483,834**	**1,794,290**	**1,996,285**	**2,203,620**	**2,417,055**	**13,494,547**	**17**

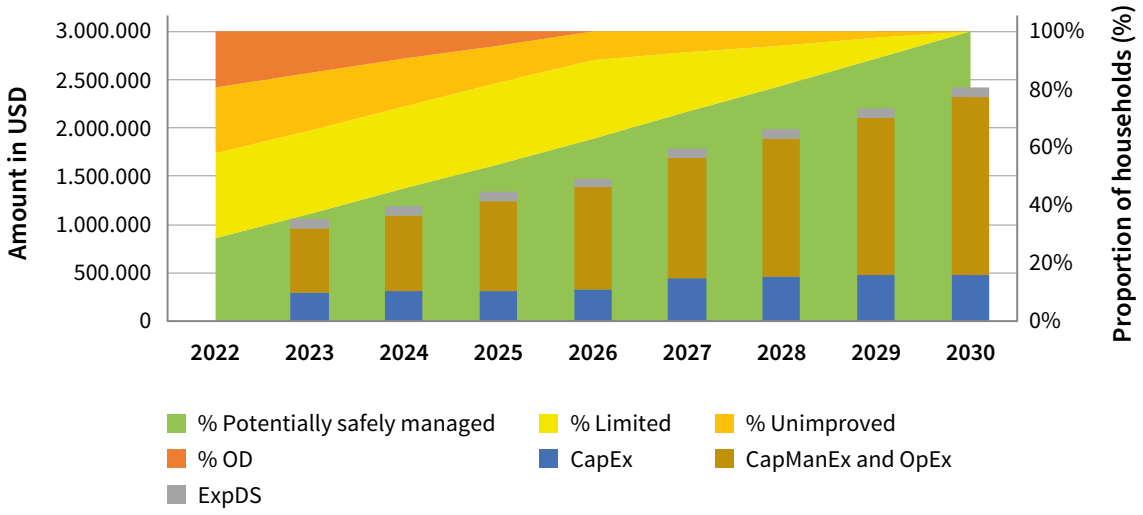

Figure 19 Costs and sanitation service level projections

9.2.2 SOURCES OF FUNDING

The CapEx consists of a hardware part, which should be covered by households themselves (“tariffs”) and a software part, related activities of local government and its partners to stimulate demand for latrine facilities and facilitate construction of facilities by households. These software activities need to be covered by local government and its partners through taxes and transfers.

CapManEx and OpEx are to be paid for by households, either through their expenditure on CapManEx and OpEx on their own facilities, or through payment of tariffs for use of public toilets.

Direct support costs (ExpDS) are to be covered by local government through taxes.

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