United Republic of Tanzania
Country Overview

1. Country Context

The United Republic of Tanzania is located at the East Coast of Africa between latitudes 1º South and 12º South and between longitudes 29º East and 41º East (Figure 1). It extends from Lake Tanganyika in the West to the Indian Ocean in the East, Lake Victoria in the North, Lake Nyasa and River Ruvuma in the South. Tanzania shares the borders with Kenya and Uganda to the North, Rwanda, Burundi, Democratic Republic of Congo and Zambia to the West, Malawi and Mozambique to the South. The total area of Tanzania is 945,087 square kilometres, of which the Mainland comprises of 939,702 square kilometres and the islands of Zanzibar, in the Indian Ocean, comprise of 2,654 square kilometres.

Tanzania's has put in place a national development vision (Vision 2025) which aims at attaining high quality livelihood for its people and develops a strong and competitive economy, among other things, with strategies including ensuring food security and self-sufficiency; universal access to safe water and sanitation. To this effect, the country is implementing the third National Five-Year Development Plan (FYDP III, 2020/2021- 2026/2027) building on lessons learned from the implementation of the plan, the second FYDP 2015/16 -2020/21. The lessons learned include those from climate change adaptation and mitigation actions across sectors towards the realization of the country's national, regional, and international agenda, including climate change gender equality commitments.

Tanzania is already experiencing the negative effects of climate change and variabilities. Extreme events such as droughts, floods, abnormal rains and high temperatures are increasing, in frequency and magnitude, bringing about major economic costs including reduction of long-term growth, and disruption of livelihoods of both rural and urban communities. Climate change is impacting on agricultural production. It is affecting water resources, WASH services, public health, energy supply and demand, and ecosystems. Currently, the largest proportion (about 70%) of all types of natural disasters in Tanzania are climate change related and are linked to recurrent droughts and floods.

Furthermore, a study by DfID and GoT in 2011 on Economics of Climate Change, projected that future climate change events could be much worse, leading to significant economic costs to the country. Another study revealed that current climate change variability already costs Tanzania around 1 percent of GDP annually and it could go up to 2 percent of GDP by 2030; an additional 0.3 million to 1.6 million people will become vulnerable to sea level rising by 2030; About USD 500 million is required annually to reduce current vulnerability to climate change, and a further USD 100 to150 million per year will be required to build capacity and enhance climate resilience to address future climate change adverse impacts. Climate change related shocks may, to a large

extent, curtail Tanzania's efforts to progress towards becoming a higher middle-income country, or even maintain its lower middle-income status'

The Government and stakeholders in Tanzania have started taking various measures to tackle these challenges, including development and roll out of the new National Climate Change Response Strategy 2021-2026, which covers adaptation, mitigation and crosscutting strategies that will enable the United Republic of Tanzania to benefit from the opportunities available to developing countries in their efforts to tackle climate change. The Strategy guides the country on climate change issues and initiatives for the next five years triggering integration into sector policies and plans, giving guidance for enhancing adaptation and resilience measures as well as harnessing of mitigation opportunities for enhancing economic and development growth. Preparation of a National Action Plan for implementation of the strategy is underway.

2. Stakeholders

Summary of partners and stakeholders that the WASH sector needs to engage with to influence national climate planning processes and to invite to WASH planning processes using Table 1.

Many stakeholders in Tanzania are implementing some activities related to climate change in their areas of work. Over the past years the Government has convened several stakeholders meetings to discuss the climate crisis and contribute to national policies, strategies, guidelines and plans on CC adaptation and mitigation. The following stakeholders have been involved in the WASH, Health and Environment's sector initiatives:

Health sector CC stakeholders

Government Ministries including Ministry of Water (MOW) and the Vice President's Office Department of Environment (VPO-DOE); Regional and Local Government Authorities, Development Partners (DPs) including World Health Organisation (WHO);Government Agencies/Authorities including; the National Food and Drug Authority, Ifakara Health Institute, Tanzania Meteorological Agency (TMA), Academic and research Institutions such as the Muhimbili University of Health and Allied Sciences (MUHAS), Sokoine University of Agriculture (SUA); National Institute of Medical Research, ;

Water Sector

Government Ministries including Ministry of Water (MOW) and the Vice President's Office Department of Environment (VPO-DOE), Communities and the general public; Investors and Private Sector; LGAs; MDAs; Regional and International Organizations; Development Partners; Water Institute (WI); University of Dar es Salaam (UDSM); and Ardhi University), WASH Service Providers; politicians; Civil Society Organisations (CSOs); Water Implementing Agencies (BWB s, RUWASA, WI, NWF, WSSAs, CBWSOs);

Environment Sector

Government Ministries including Ministry of Water (MOW) and the Vice President's Office Department of Environment (VPO-DOE), Energy and water Utility regulatory Authority (EWURA), National Bureau of Statistics (NBS); Open University of Tanzania (OUT); Sokoine University of

Agriculture (SUA); NBS Tanzania National Bureau of Statistics; Tanzania Electric supply Company (TANESCO); Tanzania Wildlife Management Authority (TAWMA); Tanzania Wildlife Research Institute (TAWIRI); Tanzania Zambia Railway Authority (TAZARA); Tanzania Bureau of Standards (TBS); Tanzania Civil Aviation Authority (TCAA); and Tanzania Communication Regulatory Authority (TCRA); Local Government Authorities, (LGA), Ministries, Departments and Agencies (MDAs), Development Partners on Environment, Civil Society Organizations (CSOs) and private sector

Summary of interaction with those stakeholders as part of the country engagement process.

The Tanzania Country Overview Note has been informed by national and country sector documents developed and finalized with involvement of relevant stakeholders, namely the National Climate Change Response Strategy; the Nationally Determined Contribution to the Paris Agreement under the United Nations Forum Convention for Climate Change (UNFCCC) and the corresponding National Communication to the UNFCCC.

Secondly, Tanzania is implementing sector wide WASH-related development programmes namely the National Water Sector Development Programme, the National Health Sector Strategic Plan IV, and the Education Sector Development Programme. The main process of engagement of partners and stakeholders is through the Sector Dialogue Mechanisms which are operational in the Water, Health, Environment, Education, and other sectors. The dialogue mechanisms maintain scheduled technical level Working Group meetings (TWGs) and policy level Steering Committee Meetings (SCM). Additionally, many extraordinary meetings are convened to address special challenges and new/emerging national/global priorities. Climate change discussions are mainstreamed in these sectoral processes to various degrees. These sector discussions carried out over a number of years have constituted the SWA SMM Country Engagement Process.

In addition, as part of the WASH sector dialogue, initiated the National (Multisectoral) Climate Change Forum back in 2012, coordinated by the Vice President's Office-Department of Environment, which functioned until 2016 and addressed many climate related challenges and facilitated the development of a National Climate Change Response Strategy. Climate discussions and activities within the Water Sector are currently being mainstreamed into the Water Sector Development Programme's Water Resources Component. Discussion around climate change adaption has started to be discussed Thematic Working Group (TWG) II - Water Resources Management and Development dialogues. Through this dialogue mechanism, it is noted that the sector's capacity to deal with climate change variability needs improvement. Also, improvement is required in water monitoring network, conservation of water sources and investment in water resources management and development. More climate change related agenda needs to eb discussed through the TWG meetings

Sector stakeholders agree on steps they will take to achieve their climate commitments and contribute to economic and health recovery

The Vice President's Office is charged with the overall coordination and guidance role on environmental and climate change response efforts. The office will convene stakeholder sessions to deliberate and plan for the priority actions to implement the National Climate Change Response Strategy

Some of the sectoral components of the strategy (e.g. water resources and water quality) are being mainstreamed in the draft Water Sector Development Programme (WSDP III, 2022-2025) and will be discussed in the upcoming Thematic Working Groups and other relevant meetings before the Programme is finalized and endorsed.

Effective cross sectoral coordination is however a major challenge with one sector's engagement in another sector's dialogue process limited to representation by one individual with no properly institutionalized mechanism for providing useful inputs and for ensuring a two-way feedback.

3. CLIMATE AND WASH POLICY ANALYSIS

Summary of WASH priorities as part of NDC and NAP

The National Action Plan (NAP) has not been developed, only a health sector NAP exists. There is also a "water resources management strategic interventions and action plan for climate change adaptation (2013) that needs revision to include sector wider climate change issue and align with NDCs as well as the newly endorsed national climate change response strategy.

In the context of Tanzania Nationally Determined Contributions report (NDC), WASH Priorities for the Water Sector from the NDC are below:

- Promoting climate-smart integrated water resources management.
- Promoting sustainable waste water management and innovations.
- Promoting climate resilience investment and suitable water supply technologies and infrastructure for sanitation and hygiene services.
- Promoting efficient use of water by instituting sustainable measures to encourage Non-Revenue Water Reduction.
- Develop climate resilient water supply programmes such as the ongoing Simiyu Climate Resilient Project (SCRP)
- Developing and managing sustainable exploitation of groundwater resources.
- Promoting and supporting development, management, and equitable utilization of trans-boundary water resources.
- Establishing programmes and mechanisms for assessment, monitoring and management of water and wastewater quality
- Priorities for the Health sector in the NDC:
- Promoting climate-resilient public health system.
- Improving early warning systems for climate-sensitive disease outbreaks.

- Strengthening monitoring, climate sensitive diseases surveillance and reporting systems.
- Promoting vulnerability and risk assessment of climate change on human health

Summary of WASH priorities for adaptation and mitigation opportunities included in WASH Policies, Strategies and Plans

From the National Environmental Management Policy, National Climate Change Response Strategy; the Health Sector's National Action Plan; Ministry of Water 's Medium Term Strategic Plan, the National Water Sector Development Programme Main Document (2006-2025) and the Draft Water Sector Development Programme Phase III (WSDP III, 2022-2025), the following WASH priorities are more or less articulated either as a key challenge requiring action, or a sector priority action:

- Improve availability of water resources data and information
- Ensure development and implementation of Integrated Water Resources Management and Development Plans in all 9 basins in the country
- Improve protection and conservation of water sources and recharge areas.
- Promote public and private sector participation in water sources conservation by facilitating their integration in formal education curriculum; introduction of tree nurseries in private owned premises and public institutions; and tree planting at water sources.
- Promotion best practices on water sources and catchment management at all levels, including a pilot for best practices on water sources and wetlands management, to ensure healthy ecosystems
- Enhance dam safety management systems including preparation of standards and guidelines for dam safety management.
- Strengthen co-operation and collaboration among riparian states including capacity building to ensure governance, management, and equitable utilisation of trans-boundary water resources.
- Strengthen flood and drought early warning and forecasting systems through establishment of Flood and drought early warning system; and review/preparation of Storm water management regulations and guidelines by 2025.
- Hydrological drought monitoring and mitigation plans are prepared and implemented by 2025.
- Enhance risk-based approach to water resource management. – including development of a Climate Risk Based - management framework for water use by 2025.
- Climate change adaptation and mitigation mainstreamed in water resources at different levels by 2025
- Promote climate change adaptation measures in the water sector - facilitating and promoting the use of technologies that are resilient to climate change including alternative water storage facilities and water harvesting technologies for communities; promotion of new water saving

techniques in irrigation; promotion of recycling and reuse facilities in the industrial sector and for households

- Development of inter and intra-basin water transfer infrastructures for equitable and sustainable use of water – Starting with studies for Bulk Water Transfer (National Water Grid), environmental and social assessment, design& construction
- Ensure construction of strategic water storage infrastructures for water security such as large multi-purpose strategic dams and reservoirs
- Enhance groundwater development by preparing groundwater potential area maps at Basin level and National level and facilitating exploitation and protection by 2025
- Pilot on Managed Aquifer Recharge (MAR) conducted by 2025.
- Undertake research and promotion of effective and affordable wastewater recycling and reuse as well as desalination of saline/brackish water by 2025.
- Strengthen Systems of Ambient Water Quality Monitoring and Assessment

Assessment of the two points above outlining action needed for policy integration.

One important action needed is for the sectors and the programmes to ensure that not only the priorities are integrated across sectors, but implementation is also coordinated to avoid duplication and fragmentation and to achieve and sustain the intended results, especially on the following aspects:

- Coordinated sequencing (at all levels of implementation but especially when the interventions are taken to the lower levels
- Engagement of stakeholders, (the multi sectoral/multi-disciplinary stakeholders targeted by all sectors are more or less the same)
- Coordination consultations should not end at policy/strategy/guidelines development but should be continuous with sectors and programmes informing and supporting each other and all this informing new policies and guiding documents. Opportunities available include Annual Sector reviews; inter-ministerial meetings, Thematic Working Group meetings, etc.

4. CLIMATE RISKS TO WASH

Summary of the process put in place to conduct a WASH risk assessment.

- The health sector has a risk assessment mechanism in place (WSDP III Draft 2022)
- The water sector is planning to establish a WASH Climate Risk Assessment and early warning mechanism

Summary of climate hazards in the country

Floods due to record breaking rainfall: Have been occuring in various parts of the country every year since 2009 – 2022. Areas affected include Msimbazi valley (Dar es Salaam city); Kilosa, Kilombero and Mvomero districts (Morogoro region); Mpwapwa and Kongwa districts (Dodoma Region); Mererani (Arusha region) which included flooded artisanal mining pits, etc.

Sea Water intrusion: Water wells along the coast have been intruded by sea water due to sea level rise.As a result, the islands of Maziwe in Pangani district Tanga Region and Fungu la Nyani in Rufiji district in Pwani Region have been submerged under sea water

Temperature increases causing disappearance of snow on Mount Kilimanjaro. According to the Statement on the Status of Tanzania Climate 2017, the country's average temperature increased by more than 0.9 above long-term average (1981-2010), higher than the global average, and by the year 2050, it is likely to rise by up to 3 degrees centigrade from the 1980 average.

Rapid population growth; and increasing urbanization rate: By 2050, Tanzania's rural population is expected to have grown by more than 80 percent, which will intensify pressure on natural resources. The share of the population living in rural areas is expected to drop from 72 percent in 2010 to 47 percent in 2050, as people continue to migrate to urban areas (figure 1.2). However, due to high population growth, the absolute number of people in rural areas is expected to increase from 33 to 65 million people over the same period. This is alongside increase in the population of livestock. This will greatly increase pressure on natural resources including water resources and water and sanitation services.

A growing economy driven by the country's industrialization agenda: Tanzania's Vision 2025 (URT, 1995) aims at attaining high quality livelihood for its people and develops a strong and competitive economy, among other things. Some of the strategies toward attaining these objectives are: ensuring food security and self-sufficiency; universal access to safe water; absence of abject poverty; reduction in infant and maternal mortality rates; economic growth rate of 8% per annum or more; attainment of macroeconomic stability; and an adequate level of physical infrastructure. These objectives may not be attained if climate change adaptations concerns are not factored in the development process and mitigation opportunities in the context of sustainable development are not fully exploited. Also, SDGs have many strategies similar to those highlighted in the Tanzania Vision 2025, including the eradication of poverty and attainment of environmental sustainability. The vision 2025 is relevant in framing and formulation of Nationally Determined Contribution (NDC) and subsequent national communications under UNFCCC

Climate variability and change: According to the Second National Communication to the United Nations Framework Convention on Climate Change (URT, 2015), trend analysis results for the period 1961 – 2013 show a significantly increasing trend in mean annual maximum and minimum temperature with temperature rises of above 1°C in average maximum temperature.

Droughts: Several regions and district have experienced repeated droughts. Marked drying areas have been observed in parts of northeast and much of southern Tanzania between 1981

and 2016 with devastating effects to agriculture, water resources and energy production and demand.

Water resources sources pollution: Due to industrial activities including large- and small-scale mining

Narrative summary of WASH exposure to hazards identified.

The sustainability of Tanzania's water resources can be ensured with improved planning, management and monitoring. While the country still has a reasonable per capita water resource endowment, Tanzania recently officially became a water-stressed country. Projections suggest that the situation will get worse because of inadequate water management, increased agricultural demand, rapid population growth, and climate change impacts. It is expected that the decreasing water availability and the growing competing demands for it, will also negatively affect water quality. The substantial gaps in the knowledge of water resources—related to water quantity and quality, water use, and hydrometeorology—and the limited availability of monitoring networks prevent informed decision making.

Snapshot of the status of water resources in the country is provided in the Tanzania Water Resources Atlas, which was prepared by the Ministry of Water in December 2019. The Atlas provides a visual account of the status of water resources in the country, observed trends, vital statistics and the biophysical status in the nine water basins. Currently, the average amount of water per person continues to decline from around 7,000 cubic meters per person per year in 1960s to around 1,800 in 2018. With this declining trend, it is estimated that Tanzania will face water scarcity by the year 2035, which is below 1,500 cubic meters per person per year. In the Ministry of Water's Medium Term Strategic Plan (2019-2024), degradation of catchment and pollution of water sources has been highlighted as a key challenge affecting availability, quality and sustainability of water resources and services in the country. The following hazards have been identified:

- Severe and recurrent droughts in the past two decades have triggered a decrease in water flows in rivers where some of the perennial rivers have changed to seasonal rivers, hence shrinkage of receiving lakes, and/or decline in water levels in satellite lakes and hydropower dams.
- The scarcity and vulnerability have negative impacts on important watershed and recharge areas, as well as wetlands. Many wetlands are facing increasing challenges with increasing evapo-transpiration due to increased temperature and changed rainfall regime. Consequently they are under pressure because of degradation due to pollution, over-abstraction, and encroachment of water catchments for various land uses (e.g., agriculture, urbanization and industrial development). The water characteristics of many wetland has changed with adverse consequences to the biodiversity within, and some wetlands have completely dried up.
- On the other hand, unusual heavy rainfall coupled with flooding in 2019/2020 has led to highest increase of water levels of main water basins in the country. For instance, Lake Tanganyika has recorded highest water levels by almost 3 meters (from 772.85 m in 2006 to 776.04 m in June 2020); and Lake Victoria by 0.53 m (from 1134.27 m in 1965 to 1134.8 m in June, 2020).

- Continued adverse impacts of climate change threaten ecosystem services of the Tanzania's nine major river basins that are vital water catchment areas. Although, projected river flows will be highly influenced by non-climate factors such as changes in land use, climate projections indicate increased runoff for the Pangani and Rufiji basins, which will increase risk of flooding and sedimentation; and decreased runoff for Wami/Ruvu basin, which will increase water stress in Dar es Salaam, Morogoro, Kibaha and Dodoma (with a combined population of more than 6 million).
- Abnormal rains have led to destruction of water systems and infrastructure. Both surface and ground water sources (such as springs, wells, boreholes, dams) and systems are likely to be contaminated and/or decline. Places experiencing prolonged and severe droughts are forcing communities to move to other areas looking for clean water. On the coastal areas, the rise of sea level has led to saltwater intrusion affecting coastal communities and their livelihoods. The disrupted access to safe water is accompanied with associated health risks. The required investments are projected to be high and overwhelming on the government budgets.
- Communities and areas using pit latrines are the most vulnerable due to water contamination after heavy rains. The rural open water sources that are near farms that are using chemical fertilizers and farm wastes are affected.

Summary of WASH vulnerability and capacity gaps

The Water Sector Development Programme (2006 – 2025) emphasizes on registration and licensing of water use activities and polluting enterprises as well as monitoring of pollution, development and implementation of comprehensive water quality monitoring and pollution control programme, permanent water quality standards, and protection of important water sources as a way of enhancing water and environmental conservation. Adequate implementation of objectives of WSDP (2006 – 2025) can foster resilient water sector to climate change adverse impacts. The following capacity gaps however still exist:

- Many flow monitoring stations in other basins are inoperative and there are insufficient resources to allow regular reading of operational stations.
- Currently, the average amount of water per person continues to decline from around 7,000 cubic meters per person per year in 1960s to around 1,800 in 2018. With this declining trend, it is estimated that Tanzania will face water scarcity by the year 2035, which is below 1,500 cubic meters per person per year.
- Due to importance of water resources and the current decreasing trend, management of water resources has been given priority for which MoW adopted the Integrated Water Resources Management (IWRM) approach for efficient, equitable and sustainable development and management of the water resources. In addition, the IWRMD Plans for all 9 water basins are being developed to emphasize the importance of involving all stakeholders in the management and development of water resources.
- However, implementation of these initiatives towards achieving sustainable integrated water resources management is hampered by several challenges including rapid population growth,

expansion of agricultural and industrial activities; deterioration of water quality and quantity due to pollution and impacts of climate change

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- Groundwater monitoring is only carried out in a few selected areas while Water quality sampling and analysis is also hampered through limited funding and inadequately equipped analytical laboratories.
- The major water sources catchments, groundwater recharge areas, and wetlands) have not been properly delineated and are not monitored or protected; they face constant threats.
- The absence of systematic monitoring precludes knowledge on the severity and extent of the problem arising from adverse impacts of climate change
- Groundwater monitoring is only carried out in a few selected areas while Water quality sampling and analysis is also hampered through limited funding and inadequately equipped analytical laboratories.
- The major water sources catchments, groundwater recharge areas, and wetlands) have not been properly delineated and are not monitored or protected; they face constant threats.
- The absence of systematic monitoring precludes knowledge on the severity and extent of the problem arising from adverse impacts of climate change.
- Many wetlands are facing increasing challenges of climate change, particularly frequent droughts. With increasing evapo-transpiration due to increased temperature and changed rainfall regime, wetland water characteristics will change with adverse consequences for the biodiversity within.
- Following unusual heavy rainfall coupled with flooding in 2019/2020 has led to highest increase of water levels of main water basins in the country. For instance, Lake Tanganyika has recorded highest water levels by almost 3 meters (from 772.85 m in 2006 to 776.04 m in June 2020); and Lake Victoria by 0.53 m (from 1134.27 m in 1965 to 1134.8 m in June 2020).
- Continued adverse impacts of climate change threaten ecosystem services of the Tanzania's nine major river basins that are vital water catchment areas. Although, projected river flows will be highly influenced by non-climate factors such as changes in land use, climate projections indicate increased runoff for the Pangani and Rufiji basins, which will increase risk of flooding and sedimentation; and decreased runoff for Wami/Ruvu basin, which will increase water stress in Dar es Salaam, Morogoro, Kibaha and Dodoma (with a combined population of more than 6 million).
- Water availability will also depend on the development of rivers upstream by neighboring countries, as 13 percent of Tanzania's renewable water resources are transboundary.

- Generally, all water basins are faced with water demand stress from different uses, such as irrigation, hydroelectric power, domestic, industry, tourism, etc. Such stress creates a drastic impact to the downstream users especially the national hydropower plants of Nyumba ya Mungu constructed in early 1969 with installed capacity of 8MW, Hale with 21MW (1964), Old Pangani with 17.5 MW (1934) and New Pangani falls constructed in 1995 with installed capacity of 68 MW and Julius Nyerere Hydropower dam (under construction), with expected installed capacity of 2115MW.
- Prolonged drought, floods, coupled with human water demanding activities will further worsen the already precarious situation. This calls for harmonized and inclusive Strategy that will lead to water resilience.
- Furthermore, impacts of climate change are more projected to affect the availability and access of quality freshwater resources especially among communities. The required investments are projected to be costly and overwhelming on government budgets. Abnormal rains are projected to lead into destruction of water systems and infrastructure. Both surface and ground water sources (such as springs, wells, boreholes, dams) and systems are likely to be contaminated and/or declined. This situation has increasingly led into water access challenges accompanied with health risks.
- Communities and areas using pit latrines are the most vulnerable due to water contamination after heavy rains. The rural open water sources that are near farms that are using chemical fertilizers and farm wastes are affected. Places experiencing prolonged and severe droughts are forcing communities to move to other areas looking for clean water. On the coastal areas, the rise of sea level has led to saltwater intrusion affecting coastal communities and their livelihoods.
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- Inadequate financial resources for Environmental Management The rapid escalating and sustained complexity of the challenges facing environmental management have generated an increased level of demand for the technical expertise and coordination provided by Ministry responsible for Environment. Resources demand to cater for the coordination role as well as resource requirements for planned activities are of crucial importance to effectively respond to environmental challenges in Tanzania.

- While there have been numerous efforts towards capacity building on climate change issues, there is still a massive gap. The current capacity of climate change focal points/desks within sector ministries is inadequate, even on the scale of the limited financial resources available.

5. POTENTIAL CLIMATE RESILIENT WASH SOLUTIONS

Summary of the process put in place to identify climate resilient WASH solutions.

- Undertaking climate-change risks assessment for WASH sector
- Widely disseminated the generated knowledge of climate change risks
- Based on identified risks, identify and appraise appropriate options. This involves linking identified risks with response options for climate resilience WASH intervention
- Adapt climate risk informed interventions into policies, strategies, plans and programmes
- Strengthen inter-sectoral coordination with focus on WASH, health, environment, food security and education sectors

Summary of identified WASH climate resilient options.

- Develop and applying climate resilient standards and practices. This will ensure conformity with climate-informed standards across all actors
- Implement innovative climate smart solutions (e.g. solar-powered technologies). Locating water points away from flood-prone areas and sources of pollution risk (e.g. latrines, sewers)
- Maximize Household-level rainwater harvesting and natural springs protection. Rainwater harvesting and storage can provide vital backup or supplementary supply and help relieve pressure on drinking water sources
- Build bunds/drains to divert flow away from water point; implement wider catchment management measures to reduce flood risk
- Improve design and construction of water points to prevent ingress of contaminants
- Implement climate resilient water safety planning
- Elevate and extend radius of sanitary apron around well head
- When targeting groundwater sources, use appropriate investigation techniques to target most productive parts of aquifer aiming at increasing drilling success rates
- Dig wells in dry season to ensure adequate depth and undertake robust yield tests to guarantee sustainable water flows

6. FINANCING FOR CLIMATE RESILIENT WASH RESPONSES

Summary of how the country has benefited from climate financing schemes, including in sectors beyond WASH.

- Since the establishment of GEF in 1991 as the financial mechanism for a number of Multilateral Environmental Agreements (MEAs), the United Republic of Tanzania has received non-repayable financial support approximately worth US$1,096 million and US$7,987 million in co-financing for 108 projects, focusing on seven GEF focal areas, including 10 climate change related projects. Other GEF focal areas include biodiversity, international waters, land degradation (desertification and deforestation), chemical pollution, sustainable forest management and cross-cutting capacity development
- Moreover, the United Republic of Tanzania also participated in 73 regional and global projects funded by GEF totaling to US$ 988.3 million, with US$7,485 million allocated as co-financing, including the development of the Intended Nationally Determined Contribution to the Paris Agreement under the UNFCCC.
- United Republic of Tanzania also participates in the Small Grants Program (SGP) promoted by the GEF since 1996. The focal areas that received support under the SGP are biodiversity, chemicals, climate change mitigation, community-based adaptation, international waters and land degradation. During this period, Tanzania participated in a total of 363 projects worth US$10.71 million, with US$ 2.3 million allocated as in-kind co-financing.
- Further, Tanzania participated in four national projects funded by LDCF totaling to US$ 15.1 million, with US$ 111.7 million allocated as co-financing). The output and outcomes of the projects facilitated improvement of biodiversity conservation, alleviating adverse effects of climate change, fostering sustainable land management as well as addressing some challenges of pollutions and enhancing technical and institutional capacities to address environmental issues. Reports on success of the projects and programmes undertaken in this context are available on the GEF website.
- At local level, Tanzania has launched the Local Climate Finance Initiative (LCFI), which allows local government authorities across the country to access and use climate finance effectively for building verifiable climate-resilient local economies and communities.
- These climate initiatives contribute to ensuring climate change resilient communities and local economies by using a country-based mechanism to channel climate finance (from various sources) to local government authorities. The initiative responds to the Paris Agreement and its associated Nationally Determined Contributions (NDCs), and contributes to the achievement of climate related SDGs– with concrete action at the local level, working closely with local governments and communities to help them access the climate finance and support what they need to respond and adapt to climate change.
- Under the LCFI, it is foreseen that technical assistance is envisaged for Tanzania to gain direct access to the Green Climate Fund and for Community-led adaptation planning.

Summary of finance and resources that are required to effectively implement agreed climate resilient solutions.

- According to the National Climate Change Strategy (NCCS, 2012), costs associated with climate change impacts in the country make up about 1-2% of GDP per year. A study undertaken by the Stockholm Environment Institute in 2010 estimates that the cost of building adaptive capacity and enhancing resilience against future climate change in Tanzania is USD100 to 150 million per year. In addition, the cost of implementing Tanzania NDCs is estimated to be USD 14 billion.
- Tanzania is an eligible country for most of the available international climate funds; mostly receiving climate finance from multilateral funds including Global Environment Facility (GEF), Adaptation Fund, Least Developed Countries Fund (LDCF) and Green Climate Fund (GCF). Although global climate financing seems to have substantial increase, there is a significant gap in accessing those funds, thus lagging behind in supporting the needed programmes and projects geared to climate change adaptation and exploiting existing mitigation potentials in various sectors.
- Even though climate finance exists at global and through bilateral sources, the climate finance gap has continued to widen and coupled with increases of impacts of climate change in Tanzania. The seemingly substantial amount of climate financial resources existing in global climate funds and development partners flow through different actors and channels through both state and non-state actors. However, access to available global funding has been limited in Tanzania and these funds seem to be insufficient for the future climate change financing.
- In addition, financial flow from private sectors and other economic investments remains unnoticed in the current climate financial landscape in the country. This may be partly due to low engagement and inadequate awareness of the private sector on issues related to climate change. In addition, prioritization of climate finances from different sources has remained a big challenge and thus affecting effectiveness of received finances from both global and bilateral sources.
- Thus, there is need for enhanced coordination and tracking of all funds flowing into the country so as to effectively address climate change challenges. The National Five-Year Development Plan 2015/16 – 2020/201 envisaged for development of a national climate change financing mechanism to be able to track the flow of all climate finances in the country

Challenges with regard to climate financing include:

(1) The long-term trend shows that magnitude of funding climate change response actions in the country has grown notably and will continue growing; however, Tanzania has only managed to access limited amount of climate finance from a number of bilateral and multilateral climate funds.

(2) While there have been numerous efforts towards capacity building on climate change issues, there is still a massive gap. The current capacity of climate change focal points/desks within sector ministries is inadequate, even on the scale of the limited financial resources available.

(3) There is inadequate framework and mechanisms to finance climate change thus creating no sustainability in financing of climate change initiatives. It has been more of project rather than program based.

(4) Sector ministries have established 'desks' to coordinate and mainstream climate change in their respective sectors. However, the current capacity of these climate change desks is inadequate due to limited knowledge on climate change, compounded by the limited financial resources available.

(5) The private sector has not been adequately engaged in climate change activities in Tanzania through independent activities (such as in renewable energy and forestry activities), as well as through PPPs.

(6) Accessing climate finance particularly from international financing mechanisms is rather cumbersome and takes long which is exacerbated by inadequate capacity among stakeholders to prepare bankable proposals.

(7) Regular and predictable Local Governments' access to climate finances is limited to project-based approach or via ad hoc call for application. It is paramount to devise mechanisms and processes that enhance the effectiveness of adaptation finance, including strengthening transparency and responsiveness of donor funding, increase ownership and participation of local communities, build the capacity of local stakeholders and of local financial structures to better manage finance and deliver adaptation results, while addressing asymmetries, in particular the gender dimension, and that ultimately empower local governments in contributing towards NDC implementation

Summary of coordination action and steps taken towards financing for climate resilient WASH responses.

The coordination mechanism for climate change is outlined in the National Climate Change Response Strategy, where the Vice President's Office is responsible for overall coordination of environmental management efforts in the country. The National Climate Change Technical Committee (NCCTC) and National Climate Change Steering Committee (NCCSC) will guide the implementation of this Strategy. The NCCTC shall provide technical advice to the National Climate Change Focal Persons (NCCFP) at sector level, while the NCCSC shall provide policy guidance as well as ensuring coordinated action and participation within relevant sectors.

Moreover, implementation and stakeholders coordination of sectoral specific strategic interventions and activities will continue to be done in the respective Ministries, Departments and Agencies (MDAs); and Local Government Authorities (LGAs) according to their roles and responsibilities under the Environmental Management Act (EMA 2004). Civil Society Organizations, learning institutions, and other stakeholders are expected to participate by facilitating the implementation of specific adaptation and mitigation initiatives at the community level.

Resource mobilization, financial management and reporting shall be undertaken pursuant to the government's financial management guidelines and systems established under the Ministry of Finance. However, special arrangements will be made in collaboration with the Ministry of

Finance to enhance existing resource mobilization to cope with increasing CC finance demands, including strengthening of the Environment Trust Fund and the establishment of a National Climate Change Financing Mechanism.

The Multi-Stakeholders Forum for Water Resources Management (Water Sector):

Participatory approach in water resources management is vital to ensure efficient use and sustainable development of water resources. Achievements accrued from engagements of the sector stakeholders include increased financing and a growing awareness on water resources management and development. During the reporting period, 12 Basin Multi Stakeholders Fora for Water Resources Management for all the nine water basins were conducted

7. SUMMARY OF DISCUSSIONS AND ACTION TOWARDS WASH AND CLIMATE COUNTRY INTEGRATION

- Summary of discussions underway and action points in your country for building alliances between the WASH and climate communities and identifying potential entry points for joint action going forward.
- Summary of how the SWA Mutual Accountability Mechanism (MAM) is a vehicle for aligning climate strategies, WASH adaptation and mitigation priorities, and climate financing.
- Summary of specific steps and action points towards:
    - Integrating WASH as part of the update/ revision of the National Determined Contribution (NDC)
    - Integrating WASH as part of the update/ revision of the National Determined Contribution (NDC)
    - Integrating WASH in the formulation or implementation of the National Adaptation Plans (NAP)
    - Accelerate Integrating Climate Resilience into WASH Policies, Strategies and Plans

Summary of preparations (from a WASH perspective) for country participation in global level processes, such as COP 26, SWA high level meetings, as well as supporting efforts to access climate finance.

High-Level Water Investment Conference was held in Zanzibar in March 2022 with “Transforming the Investment Outlook for Water and Sanitation in Africa” as the main theme. The event, which was chaired by the President of Zanzibar, Dr. Hussein Mwinyi, and the former President of Tanzania, Dr. Jakaya Kikwete, focused on the Continental Africa Water Investment Programme (AIP) which aims to raise USD 30Bil in investments for the water sector in Africa and its associated AIP-PIDA Water Investment Scorecard. Participants included heads of UN agencies, such as the WHO, UNDP, FAO, and the World Bank, as well as high-level representatives of technical partners, the International Water Management Institute, Global Water Partnership, UNICEF, and WaterAid.

The SWA Secretariat reiterated the organization's support to the dissemination and application of the Scorecard, which aligns well with its strategic objectives. SWA committed to work closely with the African Union Development Agency and other stakeholders to engage representatives of ministries of finance on the deployment of the Scorecard and encouraged increased investment in water.

Climate financing webinar through Green Finance Fund(GCF) held with government officials from the Ministries of Water, Health, Environment and Education

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