

TANZANIA



ECONOMIC UPDATE

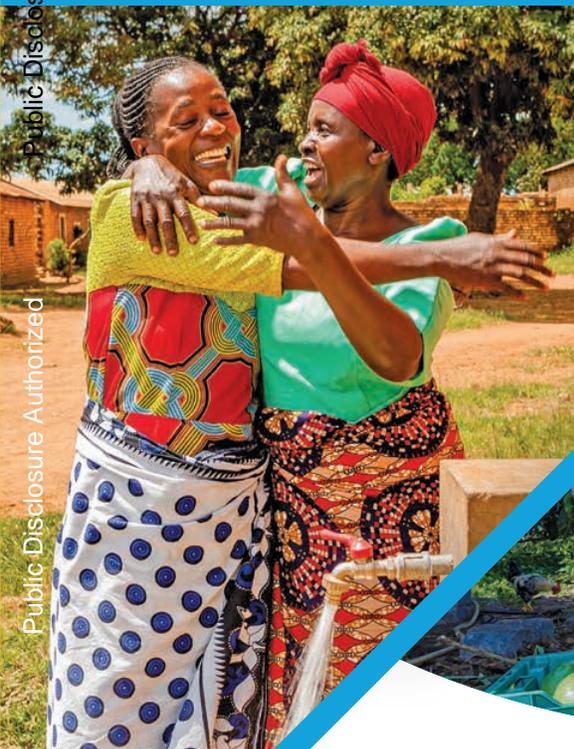
Clean Water, Bright Future:
The Transformative Impact
of Investing in WASH

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Issue 18
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WORLD BANK GROUP

Tanzania Economic Update

Clean Water, Bright Future:
The Transformative Impact of Investing in WASH

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ACRONYMS AND ABBREVIATIONS

BoT	Bank of Tanzania	PPG	Public and Publicly Guaranteed
COVID-19	Coronavirus Disease 2019	R.H.S.	Right-hand Side
CO ₂	Carbon Dioxide	SDG	Sustainable Development Goals
CPI	Consumer Price Index	SMEs	Small and Medium Enterprises
CY	Calendar Year	SMR	Statutory Minimum Reserve Requirement
DHS	Domestic and Health Survey	SRWSSP	Sustainable Rural Water Supply & Sanitation Program
EAC	East African Community	SSA	Sub-Saharan Africa
EMDEs	Emerging Markets and Developing Economies	STH	Soil-Transmitted Helminths
FDI	Foreign Direct Investment	SWIFT	Survey of Well-being via Instant and Frequent Tracking
FY	Fiscal Year	TEU	Tanzania Economic Update
GDP	Gross Domestic Product	Tsh	Tanzania Shilling
HBS	Household Budget Survey	UNICEF	United Nations International Children's Emergency Fund
HCI	Human Capital Index	UNPD	United Nations Population Division
HP	Hodrick-Prescott	US	United States
IMF	International Monetary Fund	US\$	US Dollars
JMP	Joint Monitoring Programme	VAT	Value Added Tax
L.H.S.	Left-hand Side	WASH	Water Supply, Sanitation and Hygiene
M3	Extended Broad Money Supply	WATSAN	Water and Sanitation
MHM	Menstrual Hygiene	WHO	World Health Organization
MoFP	Ministry of Finance and Planning	WRM	Water Resources Management
MSMEs	Micro, Small and Medium Enterprises	WSDP-1/2/3	Water Sector Development Program - First/Second/Third Phase
NBS	National Bureau of Statistics	WSS	Water Supply & Sanitation
NPLs	Non-performing Loans	y/y	Year-over-Year
NSMIS	The National Sanitation Management Information System	2/9M	The First Two/Nine Months
OCGS	Office of the Chief Government Statistician		
PEM	Protein Energy Malnutrition		
PforR	Program for Results		



PREFACE

The Tanzania Economic Update (TEU) is a biannual report describing the recent evolution of Tanzania's economy, and each edition highlights a subject of critical interest to policymakers. The TEU series is also designed to reach a broader audience of stakeholders that includes the private sector, the government's development partners, and the public. To ensure that the TEU is accessible to as wide a readership as possible, each edition is presented in a relatively nontechnical style.

This eighteenth edition of the TEU was prepared by a joint World Bank team that included members of the Macroeconomics, Trade, and Investment (MTI), Poverty and Equity (POV), Finance, Competition, and Innovation (FCI), and Water (WAT) Global practices. The overall effort has been led by Saadia Refaqt TTL (Senior Economist, MTI) and Emmanuel Mungunasi Co-TTL (Senior Economist, MTI). Analyses were contributed by Saadia Refaqt (Senior Economist, EAEM1) who wrote real, monetary, inflation, fiscal, and external sections of the report. Emmanuel Mungunasi (Senior Economist, EAEM1) wrote the debt and outlook sections of the report. Zanzibar macro assessment was co-authored by Xu Dong (Consultant, EAEM1) and Saadia Refaqt (Senior Economist, EAEM1) while Rob Swinkels (Senior Economist, EAEPV) provided discussions on poverty. Sergiy Kasyanenko (Economist, EPGDR) wrote the global environment part for the outlook section. Content on the private sector in the

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Asad Alam (Regional Director, EAEDR), Vivek Suri (Practice Manager for MTI, EAEM1), Nathan M. Belete (Country Director, AECE1) and Preeti Arora (Operations Manager, AECE1) provided guidance and leadership throughout the preparation of the report.

Rehema Mercy Mashayo, Lydie Ahodehou, and Karima Ladjo managed the printing process for this edition of the TEU, with support from Loy Nabeta, who assisted with external communications. The pictures used in the report were procured for this report unless otherwise acknowledged.

The findings, interpretations, and conclusions expressed in this publication do not necessarily reflect

the views of the World Bank's Executive Directors or the countries they represent. The report is based on information current as of November 15, 2022.

The World Bank team welcomes stakeholder feedback on the content of the TEU. Please direct all correspondence to Saadia Refaat (srefaat@worldbank.org) and Emmanuel Mungunasi (emungunasi@worldbank.org).





EXECUTIVE SUMMARY

Recent Economic Developments

Strong macroeconomic fundamentals allowed Tanzania to emerge from the pandemic in good shape, but its recovery has been relatively moderate due to the strong headwinds created by the Russian invasion of Ukraine. While Sub-Saharan Africa (SSA) experienced an aggregate contraction of 2 percent in 2020, GDP growth in Tanzania remained positive at 2 percent before rising to 4.3 percent in 2021, just above the SSA average of 4.2 percent. In 2022, Tanzania's quarterly growth rate decreased from 5.5 percent in Q1 to 4.8 percent in Q2, an average improvement of 0.8 percentage points over the same period in 2021. Aggregate demand increased during the first nine months of 2022, bolstered by the growth of credit to the private sector, trade volumes, and government consumption. A sharp rebound in tourism arrivals bolstered growth as domestic vaccination rates increased rapidly and global travel restrictions were lifted in most regions. Sound monetary and fiscal policies mitigated the adverse impact of the pandemic, including direct cash transfers to shore up consumption and accommodative monetary policies to maintain liquidity.

While the pandemic had only a modest impact on growth in Tanzania, its social consequences were deeply negative, halting the country's progress toward eradicating poverty.

The pandemic caused the poverty rate to rise from 26.2 percent in 2019 to 27 percent in 2021, and only a minor reduction in the overall poverty rate - based on the national basic-needs poverty line - is anticipated in 2022. However, rapid population growth and the economic shock of the pandemic have greatly increased the number of Tanzanians living in poverty, which could worsen the country's already-low productivity growth rates, public spending levels, and social indicators for years to come.

Inflation in Tanzania has been relatively modest by regional standards, but elevated food and fuel prices are undermining consumption among lower-income households. A relatively stable exchange rate, coupled with fuel subsidies, helped contain consumer price inflation to just 4.8 percent in September 2022, well below the regional average of 10 percent. Global food prices have risen sharply since the start of the year, and a severe drought damaged domestic food production, pushing cumulative food-price inflation to 6.6 percent during the first nine months of 2022. Transportation accounts for 14 percent of the consumer price basket, and mounting fuel costs increased transportation prices by 7.9 percent (y/y) in September 2022. Food and fuel account for a combined 42 percent of the consumer price basket, and rising prices are eroding the purchasing power of Tanzanian households.

Price increases have intensified pressure to raise fiscal spending, but the government has remained committed to fiscal consolidation.

Tax and customs revenues have steadily increased and are now approaching their pre-pandemic levels. While recurrent expenditures have remained broadly unchanged relative to GDP, the implementation of major investment projects in energy and transportation has driven a steady increase in development spending. Over FY21/22, revenue growth outpaced rising development spending, narrowing the overall fiscal deficit by 0.4 percent of GDP. Foreign and domestic sources financed the deficit in almost equal measure. Project lending accounted for 80 percent of foreign borrowing, while bank borrowing represented 65 percent of net domestic borrowing.

Tanzania's public and publicly guaranteed debt remains relatively low as a share of GDP.

According to the latest joint IMF-World Bank Debt Sustainability Analysis, public and publicly guaranteed debt is projected to rise from 39.7 percent of GDP in FY21/22 to 42.4 percent in FY22/23. The financing needs of large development projects have pushed the domestic debt stock to US\$10.9 billion, of which government bonds account for 80 percent, and the external debt public debt stock reached US\$21.5 billion in August 2022. The composition of external borrowing has shifted, with multilateral and bilateral loans and export credits increasing while commercial loans declined. About 69 percent of Tanzania's external debt, both public and private, is held in US dollars. The latest joint IMF-World Bank Debt Sustainability Analysis found that Tanzania was at moderate risk of external debt distress and at moderate risk of overall public debt distress, with some space to absorb shocks.

Low deficit levels and a manageable debt profile mask a large backlog of outstanding expenditure and VAT arrears.

These arrears reflect low budgetary credibility, poor cash management, and weak commitment controls. At end-June 2021, government arrears were equal to just under 3 percent of GDP, and almost 90 percent were unverified. The previous arrears-management strategy was unevenly implemented, and the timely implementation of the new strategy will be critical as the authorities strive

to reduce the stock of arrears by about 75 percent over the next five years. Strengthening public financial management will be crucial to address Tanzania's development challenges while maintaining debt sustainability.

Recent external headwinds have increased pressure on the external sector.

Monetary tightening in advanced economies, the steep appreciation of the US dollar, and the disproportionate impact of the Russian invasion of Ukraine on commodity-importing emerging economies, including Tanzania, have worsened the outlook for the external sector. During the pandemic, low oil prices and high gold prices improved Tanzania's terms of trade, but the recent rise in fuel and food prices eroded these gains. Despite the central bank's relatively accommodative policy stance, a surging dollar and tighter global financial conditions slowed the growth of monetary aggregates. In recent quarters, rising import prices have more than offset a double-digit recovery of exports and widened the current-account deficit. An increasing current-account deficit, combined with weak private and official inflows and limited exchange-rate flexibility, has diminished the central bank's foreign-exchange reserves.

Zanzibar is especially sensitive to developments in the tourism sector, and the normalization of tourism flows dramatically accelerated the archipelago's recovery during 2021 and 2022.

Zanzibar's economic growth rate rose from 1.3 percent in 2020 to 5.1 percent in 2021. Growth remained steady at 5.1 percent in Q1 2022 before accelerating to 6.6 percent in Q2. The services sector, which contributes half of Zanzibar's GDP, grew by 8.2 percent in 2021. However, a burgeoning trade surplus in services was more than offset by a widening trade deficit in goods, driven by rising food and fuel prices, widening the overall external deficit. While growth is accelerating, its effect on poverty has weakened over the past decade. Nevertheless, social indicators have improved substantially, and renewed growth is likely to yield further gains in monetary and nonmonetary poverty reduction.

While the recovery is projected to continue, a deteriorating external environment poses serious risks to the macroeconomic outlook. The GDP growth rate is projected to reach 5.3 percent in 2023 as

investment increases and the terms of trade improve, but actual growth will remain well below Tanzania's estimated long-run potential growth rate of about 6

percent. Further increases in food and fuel prices, faltering global demand growth, additional interest-rate hikes in advanced economies, and/or local climate-

BOX 1: THE STATE OF TANZANIA'S ECONOMY IN SIX CHARTS

FIGURE B1.A • After a Mild Slowdown during the Pandemic, Tanzania's Economic Recovery Has Outpaced the SSA Average

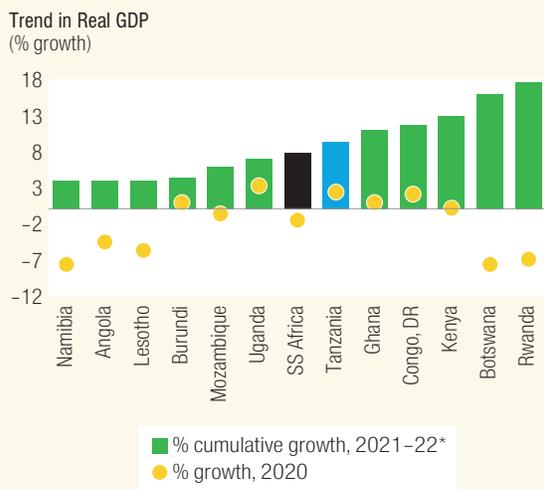


FIGURE B1.B • Earlier Favorable Changes in the Terms of Trade Have Disappeared Due to Rising International Commodity Prices

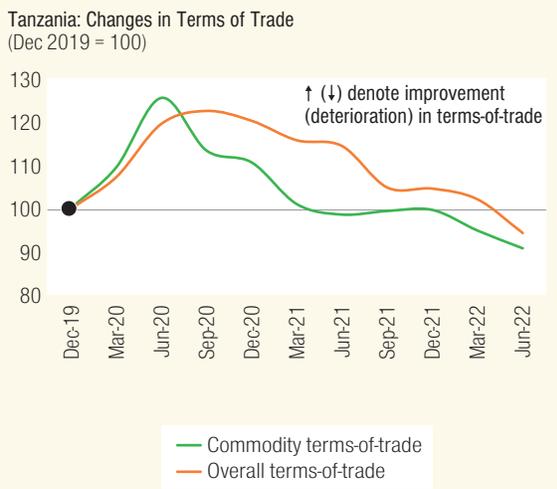


FIGURE B1.C • In Addition to Worsening the Terms of Trade, the Conflict's Disruption of the Global Wheat Supply Poses Serious Risks to Tanzania and its Regional Neighbors

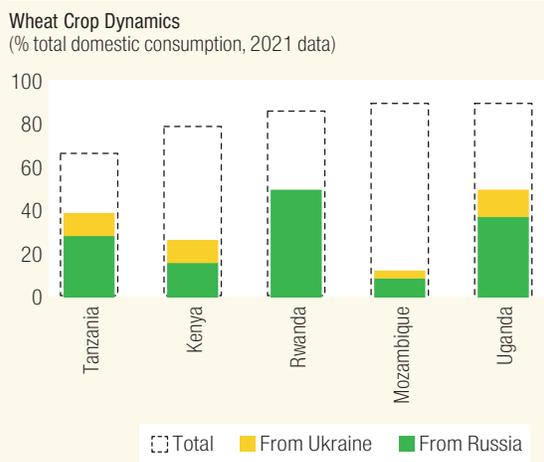
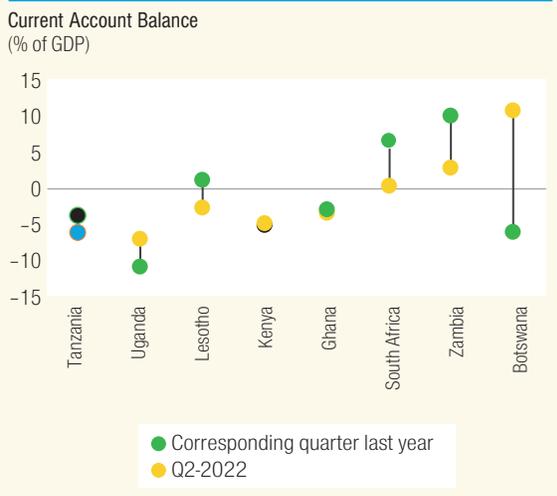


FIGURE B1.D • Rising Import Prices Have More than Offset the Recovery of Exports, Keeping the Current Account in Deficit



(continued on next page)

BOX 1: THE STATE OF TANZANIA'S ECONOMY IN SIX CHARTS (continued)

FIGURE B1.E • Despite these External Shocks, Average Consumer Prices in Tanzania Are Still Trending Lower than in Most Regional Comparator Countries

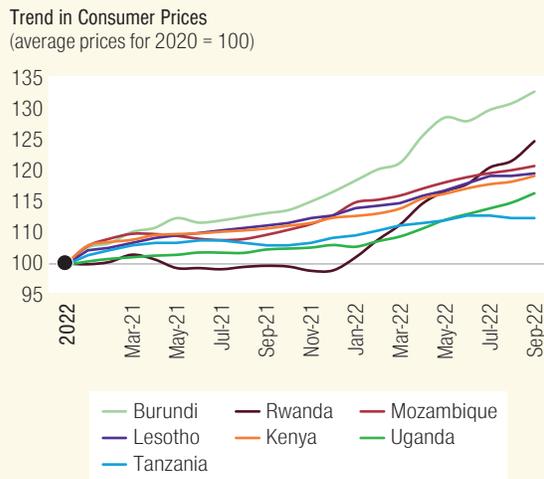
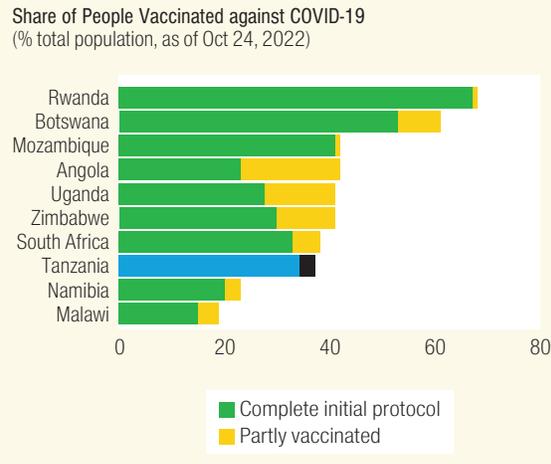


FIGURE B1.F • The Tourism Sector Has Rebounded, Supported by Rising Vaccination Rates, but the Emergence of New COVID-19 Variants or other External Shocks Could Derail the Recovery



Source: Global Economic Prospect, June 2022, Bank of Tanzania, IMF-IFS, U.S. Department of Agriculture, ITC, National Bureau of Statistics, ourworldindata.org, and World Bank staff calculations.

related shocks such as floods and droughts could derail Tanzania's recovery.

Implementing a series of short-, medium-, and long-term measures could strengthen Tanzania's resilience and unlock opportunities for productivity-enhancing growth while protecting poor and vulnerable households. New challenges threaten the country's development momentum. Over the medium term, boosting private investment and private-sector activity will be vital to continued growth and development. However, recent growth has yielded only a modest impact on poverty rates, and the international experience highlights the importance of a well-designed development agenda to promote shared prosperity. Climate-change risks are increasing, and traditional sectors like agriculture and tourism, which employ a large share of the country's labor force, are highly sensitive to changes in temperature and precipitation. In addition, inadequate WASH access—the subject of this report's special focus section—has deeply negative effects on workforce productivity, which threaten the government's

objectives for growth and poverty reduction. Finally, while the authorities have established a track record of sound macroeconomic management, further structural reforms will be needed to revitalize the economy and promote sustainable and inclusive growth.

Transforming a Generation through Water Supply, Sanitation and Hygiene

Improving the quality of water supply, sanitation, and hygiene (WASH) services could have a transformative impact on Tanzania's social and economic development. While such investments can be expensive to undertake, their costs are dwarfed by the enormous toll of inadequate WASH services. Without access to clean drinking water, sanitary facilities, and waste-management systems, preventable diseases spread unchecked. WASH-related illnesses consume the working hours of adults, lessen the educational attainment of students, impair the cogni-

tive development of children, and end the lives of young and old alike. Inadequate WASH services are responsible for over 10 percent of premature deaths in Tanzania and cost the economy more than US\$2.4 billion each year in excess medical costs and lost productivity, but even these estimates do not fully capture the scope of the damage done.

Despite significant progress in recent years, much of Tanzania's population lacks access to adequate WASH services. Just over 64 percent of households have access to the basic water-supply system, 32 percent have access to basic sanitation services and 48 percent have access to basic hygiene, according to SDG definitions. More than 9 percent of the population continues to practice open defecation, which entails serious health risks. Rural areas lag urban centers in all dimensions of WASH, and in most rural areas all basic coverage indicators are below 50 percent (note coverage of improved water in rural areas is 54 percent). These estimates compare with official estimates provided by the Tanzanian Government from the NSMIS which estimate higher rates of basic sanitation (56 percent), lower rates of open defecation (1.4 percent) and lower rates of basic hand washing facilities (41.3 percent). The National Poverty Survey (NPS) (2020/2021), whose results were published in January 2023, show much higher rates of basic sanitation (90 percent).^{1, 2} Access to clean drinking water also showed notable improvement in both the rainy and dry season between the NPS 2014/15 and NPS 2020/21 (from 57.3 percent to 64.6 percent in the dry season, and from 46.0 percent to 49.5 percent in the rainy season).²

Death and disease are the most immediate consequences of inadequate WASH access, and their burden falls most heavily on women, children, and the poor and vulnerable. Of the estimated 31,000 WASH-related deaths each year, most are due to diarrheal diseases, respiratory infections, malnutrition, soil-transmitted helminths, environmental enteropathy, hepatitis A, and hepatitis E. Children who suffer from these conditions face cognitive deficits, learning losses, stunting, and a permanent reduction in lifetime income. Among adults, hauling water for domestic purposes increases the incidence of musculoskeletal disorders, physical injuries, exhaustion, and dehydration. These

costs are often borne by women, and the risks they pose to pregnant women are especially severe.

Some costs are less obvious than others. For example, WHO/UNICEF Joint Monitoring Programme data indicates that just 5 percent of health facilities have access to basic sanitation. Inadequate sanitation greatly increases the rate of hospital-acquired infections, the impact of which can be observed and measured, but the risk of such infections also discourages patients from seeking care, and the resulting increase in morbidity and mortality from non-WASH-related causes is much harder to quantify. Similarly, low rates of sanitation and hygiene access in schools increase the rate of WASH-related illness, but they also discourage school attendance and undermine learning outcomes in ways that are more subtle but no less damaging. The lack of sanitary infrastructure, and especially menstrual hygiene facilities, has a disproportionately negative impact on health, safety, and educational attainment among girls.

Deficiencies in WASH have especially severe consequences for education. Inadequate WASH access affects educational WASH-related conditions and causes cognitive deficits among children that permanently impair their capacity to learn. Tanzanian school children lose an estimated 33 million school days each year due to illness, or 3 days per child, of which WASH-related diseases are a key cause. Moreover, many children who are physically present in school suffer from WASH-related sickness and hunger, which undermines their ability to learn. These factors systematically reduce the effectiveness of investments in education, yet education policymakers have a limited capacity to address them.

Inadequate WASH access also has deeply negative effects on workforce productivity, which threaten the government's objectives for growth and poverty reduction. Each year, at least 50 million working days are lost due to WASH-related illnesses,

¹ Notable improvements were also shown for Sanitation between NPS 2014/14 and NPS 2020/21 using the Millennium Development Goal definition of improved sanitation facilities.

² National Panel Survey, WAVE 5, 2020-2021. National Bureau of Statistics, Ministry of Finance and Planning, Dodoma, Tanzania. November 2022.

while the time required to reach distant water and sanitation services costs adults another 1.1 billion hours, for a total of over US\$1.4 billion in foregone income each year, or 1.9 percent of GDP. Lost labor hours and diminished productivity continually impinge on the government's efforts to attract investment, encourage entrepreneurship, and raise living standards.

Insufficient WASH services worsen multiple forms of socioeconomic inequality, hindering progress on a wide range of policy goals. Access to WASH is not evenly distributed across regions, communities, or demographic groups. Instead, the social, economic, and health costs fall most heavily on women, children, the elderly, people with disabilities, and poor and vulnerable households. Rural communities, which are already poorer on average than their urban counterparts, face far higher per capita costs due to the additional time and effort needed to reach rural WASH infrastructure. Rural communities are also especially vulnerable to the environmental consequences of mismanaging water resources, and climate change is compounding water-related risks by increasing the frequency and severity of droughts and floods across East Africa.

Providing universal WASH access in Tanzania will require a considerable upfront investment, but the devastating consequences of inadequate WASH access make such investment highly cost-effective. In 2006, Tanzania launched its ambitious Water Sector Development Program (WSDP) for 2006–2025, which it has operationalized in three phases. More than US\$1.4 billion was committed under the WSDP-1, followed by another US\$1.53 billion under the WSDP-2. The current phase, WSDP-3 (2022–2026), is by far the most ambitious, and its financing requirements are estimated at US\$6.5 billion. The Plan targets close to universal access to WASH services in both rural and urban areas, and includes service levels above the basic WASH standard defined by the WHO/UNICEF Joint Monitoring Programme. Yet achieving universal access to basic WASH could reduce Tanzania's economic losses by US\$1.9 billion per year by 2030. Within five years, these savings would enable the government to generate benefits equal to its initial investment of US\$4.1 billion. Expressed another way, implementing the WSDP-3 strategy would

cost the government just US\$16 per capita per year, less than half the US\$38 per capita that inadequate WASH services cost Tanzania each year.

In addition, achieving the goals of the WSDP-3 would create thousands of sustainable jobs and contribute to the livelihood of millions of the population whose livelihoods depend on a reliable water supply. Achieving universal access to adequate water supply and sanitation services would require an estimated 24,000 skilled professionals. In addition to initial construction work, many of these jobs would be permanent positions necessary for the operations and maintenance of WASH infrastructure and services. Tanzania does not adequately protect the health, safety and dignity of its existing informal sanitation workers, and specific policy protections must be put in place as WASH systems are expanded.

Implementing the WSDP-3 strategy and later achieving universal WASH for all, will require a combination of policy measures, institutional capacity building, and new financial arrangements at the national, subnational, and community levels. Universal WASH access will be crucial to achieve Tanzania's objectives for education, economic growth, social development, gender equality, poverty reduction, and environmental resilience. Recognizing the cross-cutting impact of WASH on the government's larger policy agenda, policymakers across sectors can advocate for WASH investment and develop collaborative solutions to address their shared challenges. The Ministry of Finance will need to collaborate closely with multiple ministries responsible for WASH and with development partners, who play a key role in the sector. Multisectoral strategic planning beyond the WSDP horizon must account for population growth, urbanization, and climate change. Robust data-collection will be necessary to gauge progress and inform future policies. Investment decisions should incorporate operations and maintenance costs as well as initial outlays. A strong regulatory framework, well-designed incentives for private-sector participation, sound management across the investment cycle, and reliable mechanisms for ensuring financial transparency and accountability will be crucial to achieve and sustain universal WASH access in Tanzania.

RECENT ECONOMIC DEVELOPMENTS

Economic Activity and Poverty Trends

The global economy continues to slow while facing multiple challenges. The effects of the ongoing Russian invasion of Ukraine, elevated inflationary pressures, tightening global financial conditions, slowing growth in China, and the adverse effects of climate change continue to shape the global economic outlook. Global growth is forecast to slow from 6.0 percent in 2021 to 3.2 percent in 2022 and reach 2.7 percent in 2023—0.2 percentage points lower than the July 2022 forecast.³ More than one-third of the global economy is expected to contract this or next year, while growth in the three largest economies—the United States, the European Union, and China—will remain modest.⁴ This is the third-weakest growth outlook since 2001, with the other two occurring during the global financial crisis and the initial phase of the COVID-19 pandemic.

The Tanzanian economy has continued its steady recovery from the COVID crisis, and the GDP growth rate rose from 2.0 percent in 2020 to 4.3 percent in 2021.⁵ Industry and construction led

a broad-based acceleration in economic activity, contributing an average of 2.6 percentage points to GDP growth (Figure 1). However, the agriculture sector contributed less than 1 percentage point to growth, largely due to more-frequent floods and prolonged droughts caused by climate change.⁶ Inadequate rainfall during the long-rains season continued to weaken agricultural output. Meanwhile, sound monetary policy, fiscal stimulus measures, and support from development partners helped mitigate the shock of the pandemic while boosting recovery. During 2021, the authorities launched a direct cash-transfer program, issued large value-added tax (VAT) refunds, reduced the central bank's discount rate from 7 percent to 5 percent, and

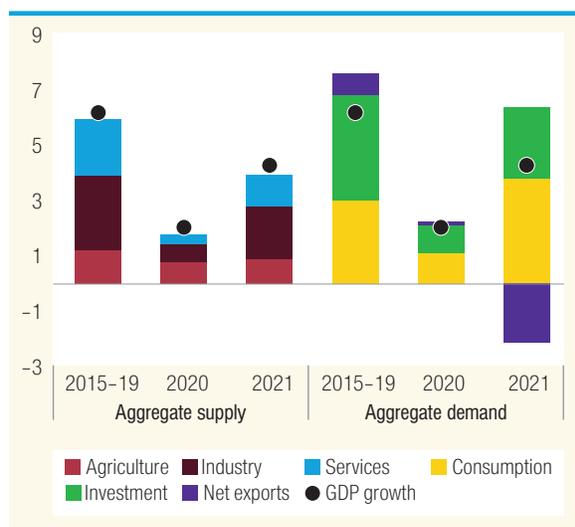
³ For details, see *Countering the cost-of-living crisis*. World Economic Outlook October 2022. IMF.

⁴ Ibid.

⁵ World Bank staff estimates. The GDP growth rate for 2020 and 2021 published by the National Bureau of Statistics are 4.8 and 4.9 percent, respectively.

⁶ In a 2022 phone survey, more than three-fourths of respondents expect to suffer from droughts in the near future, while almost one-quarter anticipate major floods.

FIGURE 1 • Real GDP Growth (% change, y/y)

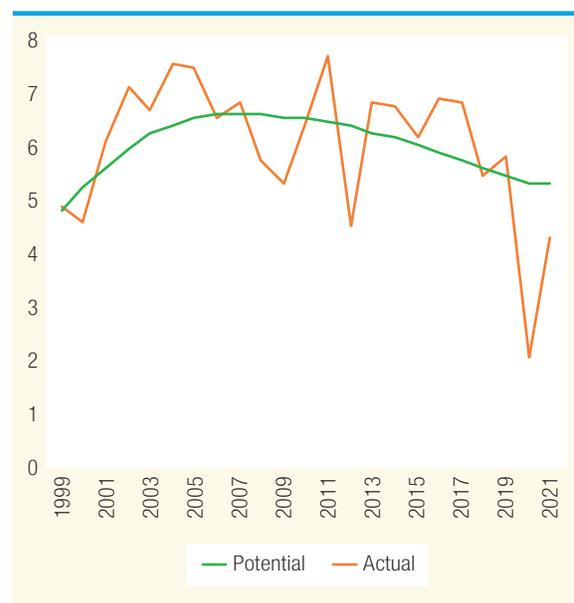


Source: National Bureau of Statistics, World Bank staff estimates.
 Note: GDP estimates between 2015 and 2017 are based on NBS and since 2018 onwards are based on World bank staff estimates. Some measurement errors may influence the aggregation of percentage points contribution.

cut the minimum reserve requirement for commercial banks from 7 percent to 6 percent. The central bank also encouraged financial institutions to restructure loans for severely affect borrowers, especially small and medium enterprises (SMEs).⁷

Supported by accommodative fiscal and monetary policies, domestic demand rose sharply during 2021. Led by household consumption, which contributes about three-fifths of Tanzania’s GDP, domestic demand growth accelerated from just over 2 percent in 2020 to 4.3 percent in 2021.⁸ Exports experienced a modest recovery, but high prices for imports—especially oil—kept net exports negative. The slow recovery of travel and transportation-related service exports weighed on export growth in 2021, while rising public capital investment and renewed private-sector activity boosted imports. Despite the robust recovery in demand, economic growth remained below its estimated potential in 2021 (Figure 2).⁹ A “missing middle” pattern in the distribution of firms is inhibiting employment growth and productivity. Tanzania’s private sector remains dominated by a few large firms operating alongside a huge number of microenterprises amid high levels of informality. In addition, achieving the goals of the water-sector

FIGURE 2 • Actual & Potential Growth (% change, y/y)



Source: National Bureau of Statistics, World Bank staff estimates.

development plan can help support job growth while mitigating the damage that waterborne diseases inflict on educational attainment and workforce productivity, which persistently undermine the government’s objectives for growth and poverty reduction (see the special focus section for details).

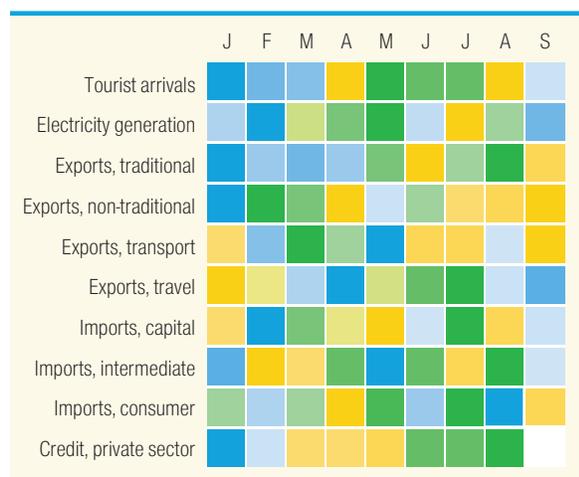
The latest data show economic activity accelerating relative to the same period last year. According to the National Bureau of Statistics, the real GDP growth rate rose from 3.8 percent in Q2 2021 to 4.8 percent in Q2 2022. Accommodations and food service, finance and insurance, and information and communication technology continued to support growth during Q2. The number of tourist arrivals increased by 66 percent during the first nine months of

⁷ For details, see The Economic Survey 2021, Tanzania, pg. 110, Ministry of Finance and Planning, August 2022.

⁸ Domestic demand is defined as total consumption plus gross fixed capital formation. These numbers are estimated by World Bank staff.

⁹ The potential GDP growth rate is estimated using the Hodrick Prescott (HP) trend estimation filter based on data from 1988 to 2021. Furthermore, as highlighted in Hamilton, J.D. (2018), we used linear growth projections for the medium-term to avoid end-point bias.

FIGURE 3 • Heat Map
(% change, y/y)



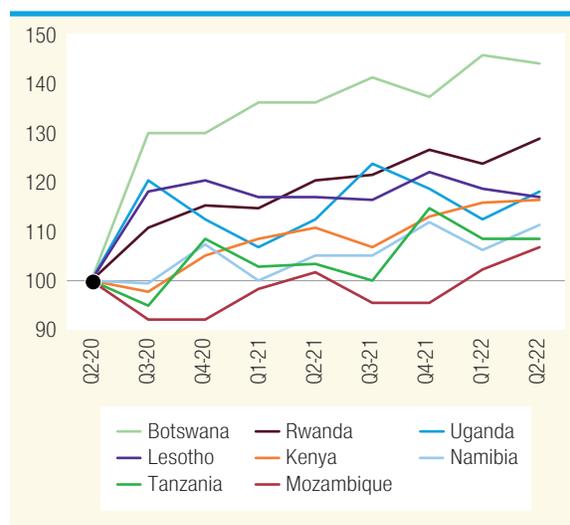
Source: Bank of Tanzania, Electric Co., Immigration Services Dept., National Bureau of Statistics.

Note: Blue (Green/yellow) shades denote the figure is below (above) average in the last 12 months. The darker the color, the larger the difference from the average. J denotes January, F denotes February and so on.

2022 (9M-2022) and is now approaching 95 percent of pre-pandemic levels. The increase in tourism arrivals appears to be driven by four countries: Kenya, (11 percent of total arrivals during 9M-2022), Burundi (7.4 percent), the United States (7.1 percent), and France (6.8 percent). Together, these four countries account for almost one-third of total arrivals. The recovery in the tourism and hospitality sector has been supported by the relaxation of travel restrictions across much of the world and by a sharp increase in domestic COVID-19 vaccination rates since the beginning of the year. The latest data indicate that about 94.7 percent of Tanzania's eligible population has been vaccinated.¹⁰

High-frequency indicators also show relative improvements in domestic economic activity in recent months. Electricity generation increased by 13.5 percent in 9M-2022, up from 8.1 percent during 9M-2021. Trends in credit to the private sector, trade volumes, tax revenues, and government consumption are all consistent with rising domestic demand (Figure 3). Moreover, the latest Google mobility data indicate a 43 percent increase in workplace activity compared to the pre-pandemic baseline.¹¹ Nevertheless, evolving global economic and financial conditions, especially the impact of the Russian invasion of Ukraine and the global trend toward monetary tightening, pose serious risks to

FIGURE 4 • Recent Economic Growth in the Region
(Q2-2020 = 100)



Source: Bank of Tanzania, Haver, National Bureau of Statistics and World Bank staff estimates.

Tanzania's outlook. The latest data for September 2022 show the initial effect of global headwinds, and the deterioration of forward-looking indicators such as the TCI Travel Sentiment Score might signal a slowdown in the recovery of tourism over the coming months.¹²

Several regional peers have outpaced Tanzania's recent growth, but this pattern largely reflects the pandemic's milder initial impact on economic activity in Tanzania. While Tanzania's economy grew by 2 percent in 2020,¹³ the weighted average growth rate for the East African Community was just 0.8 percent, and Sub-Saharan Africa (SSA) as a whole experienced an aggregate contraction

¹⁰ Official Government of Tanzania estimates as of Dec. 2, 2022. This number differs from earlier quoted numbers in Box 1 due to the difference in information source as well as the definition.

¹¹ Data sourced from <https://www.google.com/covid19/mobility/>, or https://www.gstatic.com/covid19/mobility/2022-10-15_TZ_Mobility_Report_en-GB.pdf. The latest data is by 15th October 2022, after which Google stops updating the information.

¹² Tourism Watch – Quarterly Report (Issue 3); World Bank Group.

¹³ This number is estimated by World Bank staff, while the growth rate for 2020 published by NBS is 4.8 percent.

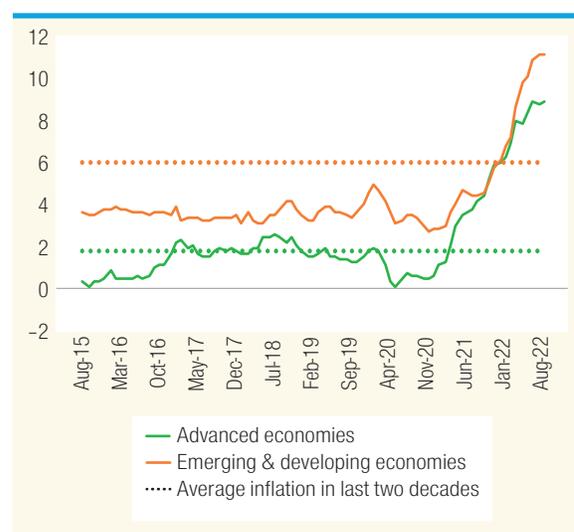
of 2 percent (Figure 4).¹⁴ In addition, the delayed recovery of global tourism depressed growth during 2021.¹⁵ Although most economic indicators are now close to or above pre-pandemic levels, estimates of potential GDP growth over the medium term indicate adverse impacts of the pandemic.

Only a minor reduction in the overall poverty rate—based on the national basic-needs poverty line—is anticipated in 2022. The poverty rate for mainland Tanzania is projected to drop from 27.0 in 2021 to 26.8 percent in 2022, about 0.7 percentage points above pre-pandemic levels. But population growth (Box 2) is expected to increase the number of people living in poverty by about 450,000. In 2022, the urban poverty rate is expected to drop by 0.4 percent or 0.1 percentage points due to the per capita growth rates of 2.1 percent and 1.8 percent in the services and industrial sector, respectively, and an estimated growth elasticity of urban poverty of 0.2. The rural poverty rate is also expected to drop by 0.1 percentage points, recording 31.0 percent in 2022. Accelerating rural poverty reduction will require investing in human capital and bolstering the resilience and productivity of smallholder farmers. Improving the aggregation of produce by private agribusinesses, increasing market competition in remote areas, and strengthening linkages to input and output markets.

Monetary Policy and Inflation

Global financial conditions have tightened substantially since the beginning of the year. Following almost five decades of generally low and stable inflation across much of the world, a sharp and sustained increase in prices both in advanced and emerging economies has prompted central banks to raise interest rates in an effort to slow the growth of the money supply (Figure 5). Multiple factors have contributed to intensifying price pressures.¹⁶ Supply-chain disruptions during the pandemic caused global commodity prices to gradually escalate, substantial monetary and fiscal stimulus increased demand, and lockdown policies redirected demand from services to goods, further straining global supply chains. The Russian invasion of Ukraine in early 2022 sent shocks through global commodity markets, driving prices for many energy

FIGURE 5 • Global Headline Inflation Rates (% change, y/y)



Source: IMF.

and food items to historic highs. Faced with mounting inflationary pressures, many central banks, including the US Federal Reserve and the European Central Bank, began raising their key policy rates in mid-2021. Additional rate increases followed, and sustained tightening of US monetary policy pushed the dollar to a two-decade high. Together, these events have created significant economic challenges for developing economies.

Rising global prices, the burgeoning value of the dollar, and a recent drought, which adversely impacted the domestic agricultural sector are increasing inflation in Tanzania. Cumulative headline inflation rose from 3.5 percent in 9M-2021 to 4.2 percent in 9M-2022. Higher food prices have accounted for about one-third of the increase in domestic consumer prices this year (Figure 6). Food makes up about 28 percent of the consumer price basket, and cumulative food-price inflation rose from 4.2 percent during 9M-2021 to 6.6 percent during

¹⁴ Source: World Bank data and staff estimates.

¹⁵ For details, see *Transforming Tourism: Toward a Sustainable, Resilient, and Inclusive Sector*. Tanzania Economic Update July 2021. World Bank Group.

¹⁶ A similar synchronous increase in inflation rates across both advanced and emerging economies was last observed during the 1974 oil-price shock.

BOX 2: POPULATION GROWTH IN TANZANIA: EVIDENCE FROM RECENTLY RELEASED POPULATION AND HOUSING CENSUS

The initial results of the 2022 Population and Housing Census indicate that Tanzania's population stood at 61.7 million in August, just slightly below the UN Population Division (UNPD) projection for 2022. According to the census results, the population increased by 37 percent between 2012 and 2022, reflecting an average annual growth rate of 3.2 percent, the third highest population growth rate in the world. However, UNPD corrections suggest the rate may actually be closer to 2.9 percent due to a higher incidence of undercounting in 2012 (Table B1) Nevertheless, even the adjusted annual population growth rate of 2.9 percent would be the ninth highest in the world and well above the average of 2.6 percent for SSA. At this rate, Tanzania's population will reach 140 million in 2050.

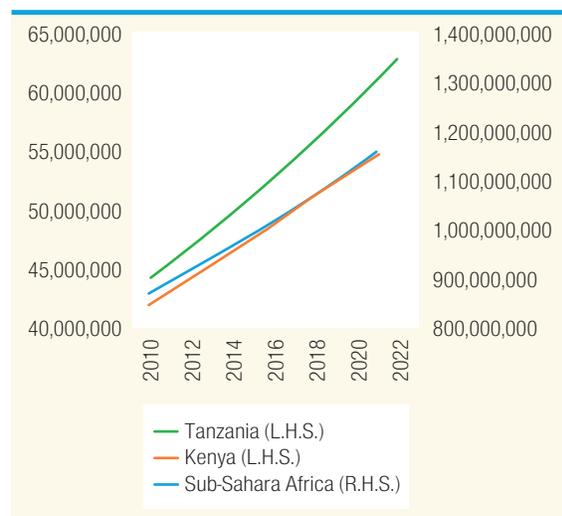
The census results indicate that the population in Zanzibar grew from 1.30 million in 2012 to 1.88 million in 2022, a staggering 45 percent total increase reflecting an average annual growth rate of 3.78 percent. This high population growth is likely influenced by high inward migration of tourism workers from Mainland Tanzania. The annual natural population growth rate (the average annual number of live births minus the number of deaths) is most probably lower.

In neighboring Kenya and across SSA, population growth slowed between 2012 and 2022, but Tanzania's population growth rate remained broadly unchanged (Figure B1). Kenya's annual population growth rate fell from 2.7 to 2.2 percent over the period, while the

SSA average dropped from 2.8 to 2.6 percent, but population growth in Tanzania remained stable at 2.9 percent. The average number of children per woman in Tanzania (based on UNPD projections) declined from 5.4 in 2010 to 4.8 in 2020, but it remained the eleventh highest in the world. By contrast, the number of children per women in Kenya fell from 4.4 to 3.4 over the period. The share of married women age 15–49 that use contraceptives is just 38 percent in Tanzania versus 60 percent in Kenya.^a

Without adequate investment in human capital and ample job opportunities, rapid population growth can perpetuate poverty. High fertility rates and a lack of family planning can strain household resources, placing an exceptionally severe burden on women. Pregnancy and birth entail serious health risks for women, who also bear the greatest cost of childcare, both in terms of domestic labor and reduced lifetime earnings. Adolescent pregnancy magnifies these risks and costs. At the national level, rapid population growth increases the cost of social services, especially education. However, public investment and robust job growth can create the conditions for demographic dividend, as income growth and falling fertility rates can create a virtuous cycle that accelerates poverty reduction.^b Investments in family planning can catalyze this process, complementing other key factors such as labor-intensive economic growth, urbanization, and female education.^c

FIGURE B2.A • Population Size in Tanzania versus Kenya and Sub-Saharan Africa (number of people)



Source: World Development Indicators (data.worldbank.org) based on UN Population Division.

TABLE B2.A • Tanzania Population Size

	Results from census population count	Corrected
2012	44,928,923	(+6.4% UNPD) 47,786,137
2022	61,741,120	(+3% WB estimate) 63,593,354
2022/2012	1.37	1.33
Growth per year	3.2%	2.9%

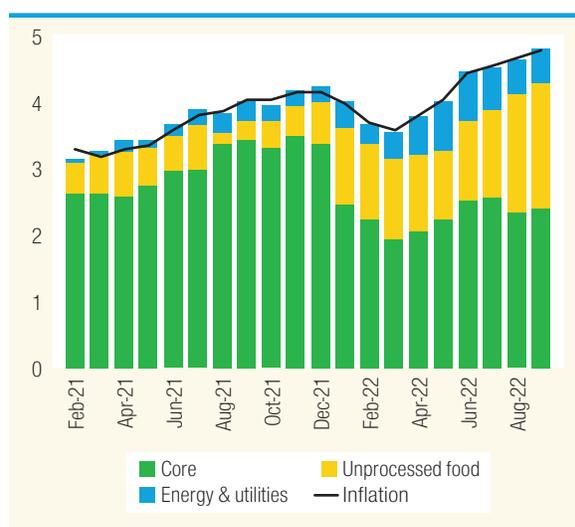
Source: World Development Indicators (data.worldbank.org) based on UN Population Division, and National Bureau of Statistics (sense.nbs.gov.tz).

^a Based on World Development Indicators (data.worldbank.org).

^b Worldwide, a 1 percent drop in the dependency ratio is associated with a 0.75 percentage point fall in headcount poverty. See: Cruz, M., & Ahmed, S. (2016). "On the impact of demographic change on growth, savings, and poverty." World Bank Policy Research Working Paper 7805.

^c Beegle, K., & Christiaensen, L. (Eds.). (2019). "Accelerating poverty reduction in Africa." World Bank.

FIGURE 6 • Headline Inflation in Tanzania
(% change, y/y)



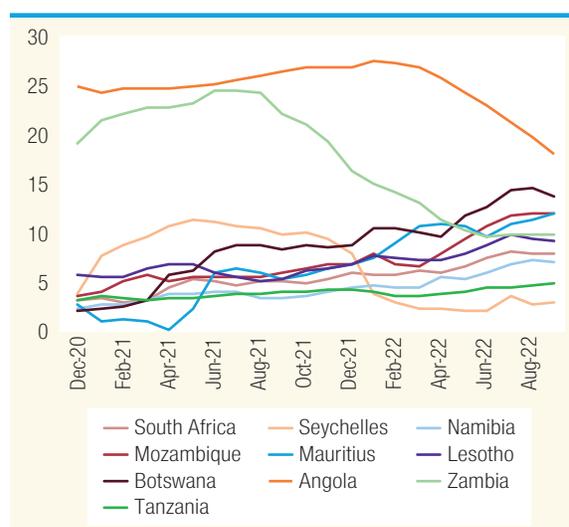
Source: Bank of Tanzania.

9M-2022, to 6.6 percent during 9M-2022.¹⁷ Meanwhile, rising fuel costs increased transportation prices, which account for 14 percent of the consumer price basket, by 7.9 percent (y/y) in September.

A slight decline in core inflation helped mitigate price pressures. Despite resurgent GDP growth, core inflation, which accounts for two-thirds of the consumer price basket, eased from 3.9 percent in 9M-2021 to 3.1 percent in 9M-2022.¹⁸ Anecdotal evidence suggests that slowing demand for consumer goods and retail services is responsible for the low rate of core inflation,¹⁹ which helped cool escalating prices down as core inflation has accounted for about three-fifths of headline inflation since the start of this year.

Inflation in Tanzania has been modest by the standards of regional peers. The latest data for the countries of the Southern African Development Community (excluding Zimbabwe) reveal that consumer prices rose by an average of 10 percent in 9M-2022, almost 2.4 times the rate in Tanzania (Figure 7). Core inflation in Tanzania also remained below the levels of most regional peers. Tanzania's relatively stable exchange rate likely mitigated the impact of unfavorable global trends on domestic inflation. Fuel subsidies also attenuated the pass-through effect of elevated oil prices.²⁰

FIGURE 7 • Trends in Headline Inflation
(% change, y/y)



Source: IMF, Haver.

To address the risks posed by rising inflation, the central bank has tightened its overall policy stance in recent months, but monetary indicators remained volatile. The growth rate of reserve money, a policy target for the central bank, rose sharply from 17.3 percent at end-December 2021

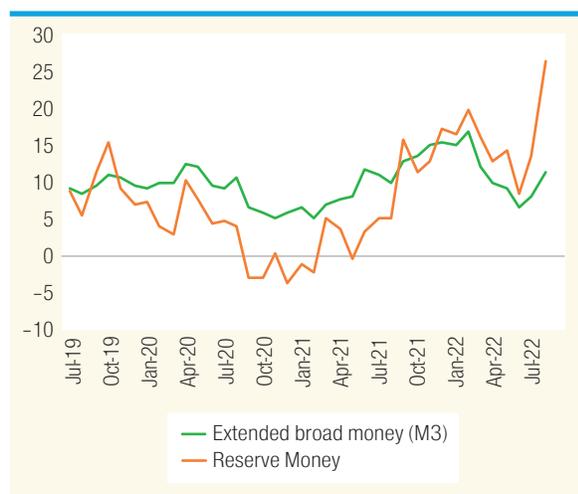
¹⁷ Rising prices prompted the government to implement a US\$65 million temporary input subsidy program to safeguard food production and reduce the fertilizer price burden for farmers this coming agriculture season. Consequently, an allocation of Tsh150 billion has been established in the agricultural budget to subsidize fertilizer prices starting in FY2022/23. Tanzania imports 70 percent of its fertilizer. In 2020, it imported 13 percent of its fertilizer from Russia and 11 percent from Ukraine.

¹⁸ The central bank's methodology for calculating core inflation excludes unprocessed food, maize flour, energy, and fuel.

¹⁹ The increase in consumer prices for clothing and footwear items (10.8 percent weight in CPI) slowed from 2.2 percent in the first nine months of 2021 to 1.3 percent in the first nine months of 2022. A similar slowdown was observed in the growth of information and communication prices.

²⁰ World Bank data as of July 2022 indicates that global energy and crude-oil prices have increased by 62 percent since the start of the year, but central bank (Tanzania) data show that the domestic pump price for petrol has risen by just 25 percent.

FIGURE 8 • Growth of the Money Supply (% change, y/y)



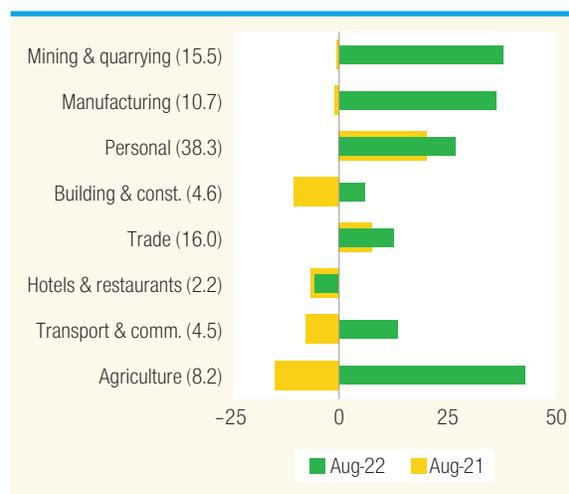
Source: Bank of Tanzania.

to 26.5 percent at end-August 2022. Meanwhile, the growth rate of the extended broad money supply (M3), another central-bank target, fell from 15.5 percent to 11.5 percent. In a context of limited exchange-rate flexibility, continuing to gradually reduce monetary accommodation could help the central bank achieve its medium-term inflation target of 5 percent while helping to shield the economy from mounting external pressures (Figure 8).

External pressures have slowed the growth of monetary aggregates. The central bank’s net foreign assets increased by 28.2 percent during 2021 but contracted by 11.2 percent in August 2022, while the banking system’s foreign-asset position also weakened. High global commodity prices caused imports to rise faster than exports, widening the external trade deficit and depleting foreign reserves. While foreign assets dwindled, the growth of net domestic assets accelerated from about 7.3 percent in December 2021 to 30 percent in August 2022, driven by strong credit demand from the public and private sectors. Growing credit demand from the public sector was driven by weak external inflows and tight global financial conditions.

Stimulus policies adopted in response to the pandemic continued to drive the rapid and broad-based expansion of private credit. The growth rate of credit to the private sector accelerated from 3.2 per-

FIGURE 9 • Growth of Private Credit (% change, y/y)



Source: Bank of Tanzania.

cent in August 2021 to 20.7 percent in August 2022. Sectoral data for the first eight months of the year reveal robust private credit growth in all areas except tourism, hotels and restaurants, electricity, gas and other sectors, which experienced a contraction (Figure 9). Reflecting underlying patterns in consumer demand, personal loans—which account for about 38 percent of total credit—grew by an average of 26 percent during the first eight months of 2022. Rising interest rates encouraged a 19.3 percent increase in deposits during the period, which boosted credit growth.²¹

Lending rates declined slightly but did not reach the level targeted by the central bank in July 2021, underscoring the need for further structural reforms.²² As the banking sector

²¹ According to central-bank data, the interest rate on time deposits stood at 7.5 percent in August 2022.

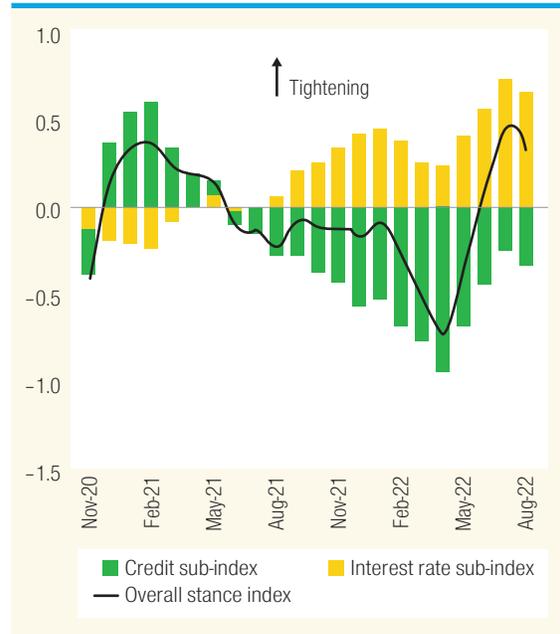
²² Policy measures adopted by the BOT to enhance liquidity for banks and lower lending rates to support credit increase to the private sector included: i) Reduction of the statutory minimum reserve requirement (SMR) to a commercial bank that extends credit to the agriculture sector at ≤10 percent rate per annum; ii) relaxation of agent banking eligibility criteria to encourage increased deposit; iii) limitation of interest rate paid on mobile money trust accounts to lower banks’ cost of funds; iv) allocation of Tsh1.0 trillion from the BOT to lend to banks at 3 percent p.a. for banks to refinance new loans in the agriculture sector at less than 10 percent p.a.;

BOX 3: THE CENTRAL BANK'S MONETARY POLICY STANCE

The Bank of Tanzania (BoT) focuses on maintaining domestic price stability by targeting the growth of the money supply and other monetary aggregates. The central bank adjusts interest rates and statutory minimum reserves requirement to manage interbank liquidity and achieve its objectives, including exchange-rate stability. These actions can be used to create a monetary policy stance index for the BoT, including both an interest rate sub-index and a credit sub-index, estimated using the principal component analysis. The first sub-index captures changes in policy rates and statutory reserve requirements, which affect market interest rates, while the second captures credit growth. The two sub-indices are calculated based on: (i) the key short-term money-market interest rate, (ii) the lending rate for loans to the private sector, (iii) changes in the required-reserve ratio, (iv) the nominal effective exchange rate, and (v) the growth rates of the money supply and bank lending to financial institutions and the private sector.

The monetary policy stance index reveals that in recent months the central bank has begun gradually reversing its earlier, more accommodative policy stance. The interest rate and credit sub-indices both show evidence of monetary tightening as the strong recovery in domestic demand and unfavorable global conditions have increased inflationary pressures (Figure B3.A). A more conservative monetary stance may also help mitigate exchange-rate volatility as a surging US\$ tightens conditions in currency markets in many emerging and developing economies.

FIGURE B3.A • Monetary Policy Stance Index



Source: BoT and World Bank staff estimates.

maintained a conservative risk approach and amid rising inflation, overall lending rates (in Tsh) fell slightly from 16.8 percent in August 2021 to 16.1 percent in August 2022, remaining far out of reach for most MSMEs. Savings and time deposit rates rose from 1.6 to 2.1 percent and 6.6 to 7.5 percent, respectively between July 2021 and July 2022, contributing to a 19 percent increase in banks' domestic deposits. Financial stability indicators for the year ending July 2021 suggest that the banking sector is sound, adequately capitalized, and profitable. Increased loan write-offs and restructuring reduced the non-performing loans (NPLs) ratio.²³ Tight supervision of banks' risk management by the BoT, improved loan provisioning, stronger financial infrastructure, the development of digital financial services, improvements in the quality of credit data for individuals and businesses, enhanced bank-resolution and dispute-settlement mechanisms, and stable macroeconomic policies will be necessary to lower lending rates. Deepening the financial sector by developing the capital market and diversifying the range of available

financial products could improve intermediation and further reduce lower lending rates.

Fiscal and Debt Developments²⁴

The central government's overall fiscal deficit narrowed from about 4 percent of GDP²⁵ in FY20/21 to 3.6 percent in FY21/22. While the

and v) reduction of risk weight on various categories of loans in computation of regulatory capital requirement of banks to release more liquidity to be on-lent.

²³ The non-performing loan (NPL) ratio decreased to 8.5 percent in July 2021 compared with 9.4 percent in the preceding year although it remains above the above the BOT desired level of ≤ 5.0 percent.

²⁴ Discussion in the fiscal section is based on FY which runs from July–June while discussion in the debt section is CY.

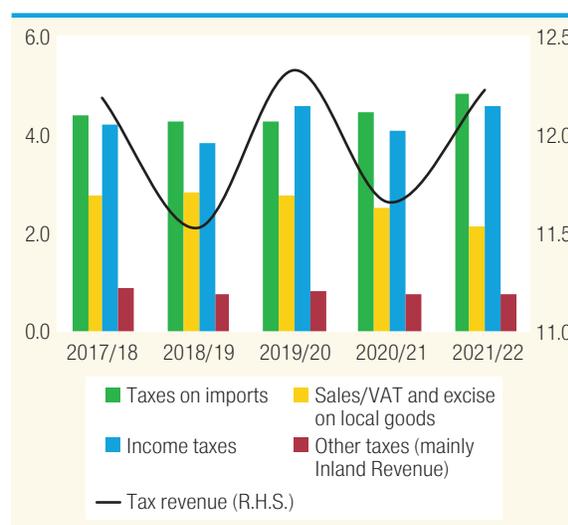
²⁵ The deficit is calculated on a cash basis using World Bank staff estimates for GDP, which have been recalculated on a quarterly basis and adjusted for seasonal factors.

deficit remained broadly stable in nominal terms at Tsh 6 trillion, it experienced a moderate consolidation in relative terms equal to 0.4 percentage points of GDP. The government contained the growth of recurrent spending, and tax revenues continued to recover. However, a sharp increase in development spending, which rose from 7.9 percent of GDP in FY20/21 to 9.2 percent in FY21/22 prevented a further reduction in the deficit.²⁶

Tax revenues rose from 11.5 percent of GDP in FY20/21 to 12.2 percent in FY21/22 and are now in line with pre-pandemic levels. Ongoing efforts to collect tax arrears, expand taxpayer registration, and rationalize tax and customs exemptions have bolstered public revenue. Import duties and income taxes rose to 4.8 and 4.6 percent of GDP, respectively, reaching their highest levels in five years (Figure 10). Nevertheless, overall tax revenue to GDP ratio remains low by the standards of comparable countries. While Tanzania formally graduated to lower-middle-income country status in 2020, its tax-to-GDP ratio has remained at about 11–12 percent of GDP over the last two decades, close to the average for low-income countries. Mobilizing more tax revenue will be necessary to create sufficient fiscal space to rebalance expenditures toward recurrent expenditures and priority social spending. Nontax revenue rose from 2.2 percent of GDP in FY20/21 to 2.7 percent in FY21/22, boosting total revenue from 13.9 percent of GDP to 14.9 percent. Finally, grants remained broadly stable at 0.4 percent of GDP, with project grants making up the largest share.²⁷

Despite mounting pressure to increase fiscal spending in response to rising prices, recurrent expenditures have remained stable as a percentage of GDP. Public sector wages and salaries compose almost 50 percent of all recurrent spending, while interest payments account for another 20 percent, resulting in significant expenditure rigidity. In FY21/22, spending on these two categories were unchanged in relative terms at 4.9 percent and 1.7 percent of GDP, respectively. The public sector wage bill is significantly below the SSA average of 7.1 percent of GDP,²⁸ reflecting the small size of the government, yet it remains large as a share of total recurrent spending. Due to the highly concessional nature of Tanzania's

FIGURE 10 • Tax Revenue by Component (% of GDP)



Source: Bank of Tanzania and World Bank staff estimates.

external borrowing, domestic debt accounts for just 30 percent of total debt but 70 percent of interest payments. Spending on goods, services, and transfers accounts for almost 30 percent of recurrent spending. Expenditures on this category fell from 3.4 percent of GDP in FY20/21 to 3.1 percent in FY21/22. This trend is cause for concern given the urgent need to focus on priority social spending.²⁹ Overall, recurrent spending by the central government totaled almost 9.8 percent of GDP in FY21/22, close to the average for the last five years. Meanwhile, capital spending, much of which is domestically financed, rose from 7.9 percent of GDP in FY20/21 to an unprecedented

²⁶ Development spending includes net lending.

²⁷ While capital grants are channeled to various general government units, Tanzania National Road Agency, Road Fund Board, and Tanzania Railway Corporation account for the majority.

²⁸ Source: World Bank World Development Indicators.

²⁹ Priority social spending refers to all spending (including wages and transfers) on education, health, social protection, and other social programs, including work on rural roads. According to the IMF's August 2022 Country Report for Tanzania (22/269), priority social spending has taken a back seat to major infrastructure programs, falling from about 6.0 percent of GDP in FY18/19 and FY19/20 to just 5.6 percent in FY20/21.

TABLE 1 • Tanzania Central Government Fiscal Operations

	Fiscal year – Jul to Jun						2M	
	2019/20 Est.		2020/21 Est.		2021/22 Est.		2020/ 21	2021/ 22
	Tsh Trilli.	% of GDP	Tsh Trilli.	% of GDP	Tsh Trilli.	% of GDP	Tsh Trilli.	Tsh Trilli.
Total Revenue	21.1	14.8	20.6	13.9	24.4	14.9	3.6	3.9
Tax revenue	17.5	12.3	17.3	11.6	20.0	12.2	2.9	1.1
Tax on imports	6.0	4.2	6.6	4.4	7.9	4.8	1.3	1.4
Sales/VAT and excise on local goods	3.8	2.7	3.7	2.5	3.4	2.1	0.6	0.7
Income taxes	6.5	4.6	6.0	4.0	7.5	4.6	0.9	0.8
Other taxes (mainly Inland Revenue)	1.1	0.8	1.0	0.7	1.2	0.7	0.2	0.2
Non-tax revenue	3.6	2.5	3.3	2.2	4.4	2.7	0.6	0.7
Total expenditure and net lending	24.1	17.0	26.6	17.9	31.3	19.0	4.7	5.0
Recurrent expenditure	14.2	10.0	14.9	10.0	16.0	9.8	2.5	2.9
Wages and salaries	7.0	4.9	7.3	4.9	8.1	4.9	1.3	1.5
Interest payments	2.3	1.6	2.5	1.7	2.8	1.7	0.4	0.4
Domestic	1.5	1.0	1.8	1.2	2.0	1.3	0.3	0.4
Foreign	0.8	0.6	0.7	0.5	0.8	0.5	0.1	0.1
Other goods, services and transfers	4.9	3.5	5.0	3.4	5.1	3.1	0.8	1.0
Development expenditure and net lending	9.9	7.0	11.7	7.9	15.1	9.2	2.2	2.1
Overall balance before grants	-3.1	-2.2	-6.0	-4.0	-6.7	-4.1	-1.2	-1.1
Grants	0.9	0.7	0.7	0.5	0.7	0.4	0.1	0.1
Adjustments to cash and other items (net)	-0.6	-0.4	-0.7	-0.5	0.0	0.0	0.2	-0.7
Overall balance (cash basis)	-2.7	-1.9	-6.0	-4.0	-6.0	-3.6	-0.9	-1.7
Financing	2.7	1.9	6.0	4.0	6.0	3.6	0.9	1.7
Foreign Financing (net)	2.4	1.7	2.7	1.8	3.1	1.9	1.2	0.6
Domestic (net)	0.4	0.3	3.4	2.3	2.9	1.7	-0.3	1.1

Source: Ministry of Finance and Planning and Bank of Tanzania.

Note: Trilli. is short for Trillion. The data for FY GDP is estimated from the seasonal adjusted quarterly GDP for CY 2018/19 onwards and is based on World Bank staff estimates).

9.2 percent in FY21/22. As a result, total spending reached almost 19 percent of GDP, well above the 17 percent average for the past four years.

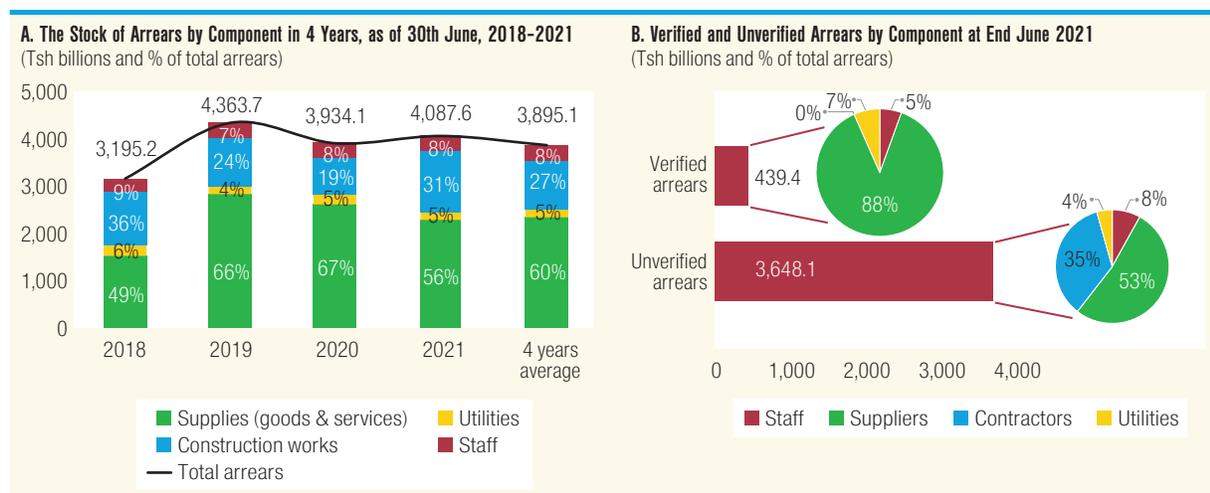
The composition of public expenditures has gradually shifted toward development spending. In FY17/18, recurrent and development spending accounted for 61 percent and 39 percent of total spending, respectively. By FY21/22, they were almost evenly split, with recurrent spending at 52 percent and development spending at 48 percent.³⁰ This shift toward development

expenditures reflects the priorities of the government's second Five-Year Development Plan,³¹ which aims to accelerate the economy's structural transformation by addressing the infrastructure gap and building human capital. Most development expenditures are infrastruc-

³⁰ These figures are based on the central bank's classification system. See: Bank of Tanzania "Government Budgetary Operations on Cheque Issued."

³¹ <https://mof.go.tz/docs/news/FYDP%20III%20English.pdf>.

FIGURE 11 • Government Arrears, Tanzania



Source: Ministry of Finance and Planning, World Bank staff calculations.

ture investments such as Standard Gauge Railway, the Rufiji hydroelectric power plant, and other transportation and electrification projects.

While investments in physical capital are important, increased investment in human capital will be vital to support economic growth, reduce poverty, and achieve the goals of Tanzania’s Development Vision 2025. Tanzania scored just 0.40 on the World Bank’s Human Capital Index (HCI),³² indicating that a child born in Tanzania in 2017 (the year in which the HCI data were collected) would be expected to reach just 40 percent of what her productive potential would have been had she enjoyed a complete education and full health. Tanzania’s HCI score places it in the bottom 35 countries worldwide, underscoring the urgent need to boost spending on social sectors.

In FY21/22, deficit financing remained almost equally divided between foreign and domestic sources. Program loans composed one-fifth of net foreign financing, while project lending accounted for the rest. Bank borrowing represented 65 percent of net domestic borrowing, and nonbank borrowing made up the remainder.

Low deficit levels, however, continue to mask a large and persistent backlog of outstanding expenditure and VAT refund arrears.³³ Unaddressed weaknesses in budgetary credibility, cash management, and commitment control are undermining gains in other areas of public financial management.

Moreover, outstanding government arrears are likely to be generating serious cashflows issues for the private sector. The stock of expenditure arrears stood at Tsh 4 trillion in end-June 2021, representing 12 percent of total spending or just under 3 percent of GDP. Almost half of these arrears were owed to suppliers, while close to 30 percent were owed to contractors (Figure 11). Verification is proceeding slowly, and as of end-June 2021 almost 90 percent of arrears remained unverified (Figure 11). The VAT refund backlog in August 2022 stood at Tsh 604 billion compared to Tsh 921 billion in June 2021. The relatively high level of VAT refund arrears is due to limited funds released by the MoFP to pay refunds and Tanzania Revenue Authority conducting verification for all VAT refund claims. The previous arrears-management strategy has been unevenly implemented.³⁴ Timely implementation of

³² Source: World Bank, 2019. “Tanzania Economic Update, July 2019: Human Capital – The Real Wealth of Nations”.

³³ High levels of expenditure arrears and weaknesses in arrears monitoring are longstanding challenges in Tanzania. See Central Government Public Financial Management Assessments (PEFA) for 2010, 2013, and 2017.

³⁴ The March 2022 edition of the Tanzania Economic Update reported that the authorities had cleared Tsh 701 billion in FY19/20 and Tsh 754 billion in FY20/21. However, the latest data from September 2022 indicate that arrears declined by just Tsh 430 billion in FY19/20 and then rose by Tsh 153 billion in FY20/21.

the new strategy remains critical as authorities aim to reduce the stock of domestic arrears by about Tsh 3 trillion over the next five years.³⁵

Between August 2021 and August 2022, Tanzania’s debt stock increased by 13.5 percent, rising from US\$33.8 billion to US\$38.5 billion.

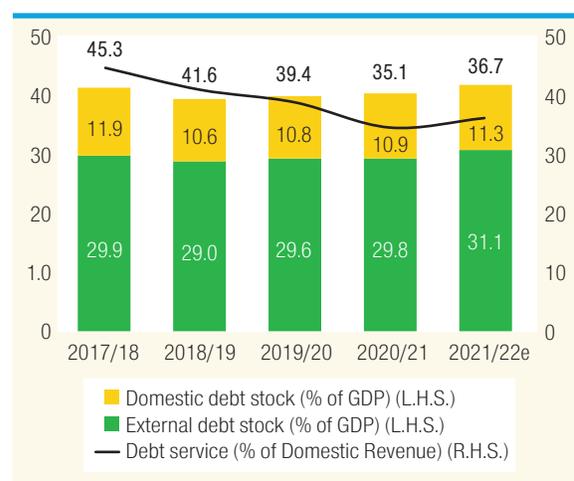
The debt stock includes US\$27.5 billion from external creditors and US\$10.9 billion from domestic creditors. The disbursement of new domestic and external loans led to the increase in the debt stock, while external debt arrears declined. In the 12 months leading up to August 2022, external debt increased by US\$3.0 billion, while domestic debt rose by US\$1.5 billion. The financing needs of flagship capital projects such as the Standard Gauge Railway and the Mwalimu Nyerere Hydropower Project pushed up the share of external commercial debt, though concessional loans—primarily from multilateral and official bilateral creditors—make up about 68 percent of the external debt stock.

Tanzania’s external debt is largely public, concessional, and denominated in US dollars.

Between August 2021 and August 2022, the public external debt stock rose by 0.6 percent to US\$21.5 billion, while the private external debt stock rose by 30.6 percent to US\$6.0 billion (Figure 12). Multilateral creditors, bilateral creditors, and export credits compose almost 70 percent of the external debt, while commercial loans account for the remaining 29 percent. Between August 2021 and August 2022, debt from multilateral creditors increased by 6.4 percent, the bilateral debt stock declined by 6.8 percent, and export credits spiked by 78.0 percent. Meanwhile, commercial loans fell by 12.0 percent. About 69 percent of Tanzania’s external debt is held in a single currency, US dollars, while 15 percent is in euros, 6 percent in renminbi, and the rest in other currencies. About 67 percent of public external loans target energy, transportation, social services, or direct budget support.

Between August 2021 and August 2022, domestic debt increased by US\$1.5 million to US\$10.9 billion, but the domestic debt stock remains modest at 29 percent of total public debt and mostly consists of government bonds. The financing needs of large development projects drove

FIGURE 12 • Public Debt Stock (% of GDP)



Source: Ministry of Finance and Planning.

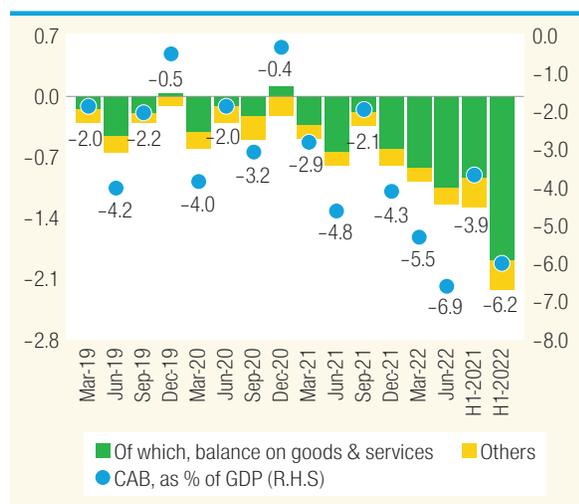
the recent increase in domestic debt. Government bonds account for 80 percent of the domestic debt stock, and most are owned by pension funds and commercial banks. Treasury bills account for about 7 percent of total domestic debt, while government overdrafts from the central bank made up about 12 percent of domestic debt in August 2022.

Although the stock of public and publicly guaranteed (PPG) debt has grown in recent years, it remains low, with only moderate debt vulnerabilities. By end-August 2022, PPG debt stood at 42.4 percent of GDP. Despite the relatively low level of the debt stock, debt service consumed almost 37 percent of domestic revenue in 2021/22, with interest payments alone equal to almost 2 percent of GDP. The latest joint IMF-World Bank Debt Sustainability Analysis, conducted in July 2022, concluded that Tanzania’s risk of external debt distress remains moderate and recommended that the authorities strive to maximize concessional financing while also boosting domestic revenue mobilization and prioritizing projects that deliver high socioeconomic returns.³⁶

³⁵ United Republic of Tanzania, 2022. "Draft of Arrears Management Strategy." Ministry of Finance and Planning. August.

³⁶ The pandemic-induced collapse of export earnings, especially from tourism, reduced Tanzania’s capacity to service its external debt.

FIGURE 13 • The Current-Account Balance (% of GDP)



Source: Bank of Tanzania.

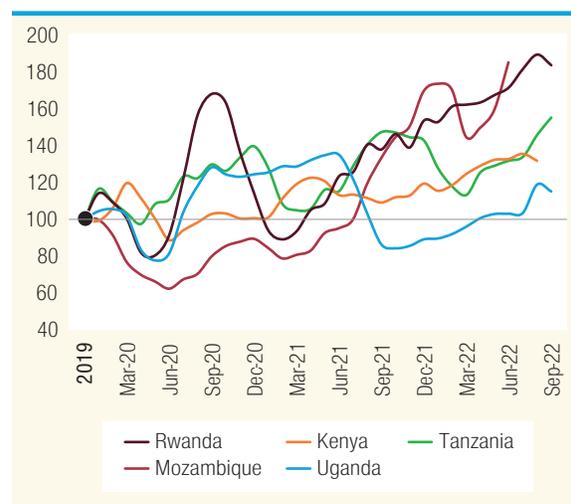
Balance-of-Payments Position

Increasingly unfavorable global economic conditions are creating considerable headwinds for Tanzania's import-dependent economy. Amid lingering pandemic-related economic fatigue, Tanzania now faces the disruptive effect of the Russian invasion of Ukraine, combined with multiple adverse external trends. Despite a double-digit recovery in exports, rapid import growth has continued to widen the current-account deficit, which expanded from US\$1.3 billion (3.7 percent of GDP) in the first half of 2021 to US\$2.3 billion (5.9 percent of GDP) in the first half of 2022 (Figure 13). As the domestic economy recovered from the shock of the pandemic, Tanzania's terms of trade fell by 34 percent from their April 2020 peak, putting pressure on the external accounts.³⁷

Export growth remained strong during 9M-2022, with goods and services exports increasing by 26 percent (y/y). Manufactured goods, which represent about 20 percent of total exports, have led the recovery, rising by 36 percent (y/y) in 9M-2022 after expanding by 31 percent during 9M-2021 (Figure 14). The growth of minerals exports, which account for roughly half of total goods exports, turned slightly positive during 9M-2022 after contracting during the same period last year. Traditional exports, which represent about 10 percent of goods

exports, also showed signs of a sustained recovery. Overall, favorable prices for major export items drove an 8.8 percent (y/y) increase in goods exports in 9M-2022, up from 6.7 percent in the same period last year. Rebounding external demand in the wake of the pandemic has supported the recovery of Tanzanian exports, which has been somewhat slower than the recoveries observed in some comparable countries but is still broadly consistent with regional trends.

FIGURE 14 • Exports of Goods (US\$ 2019 Avg. = 100)



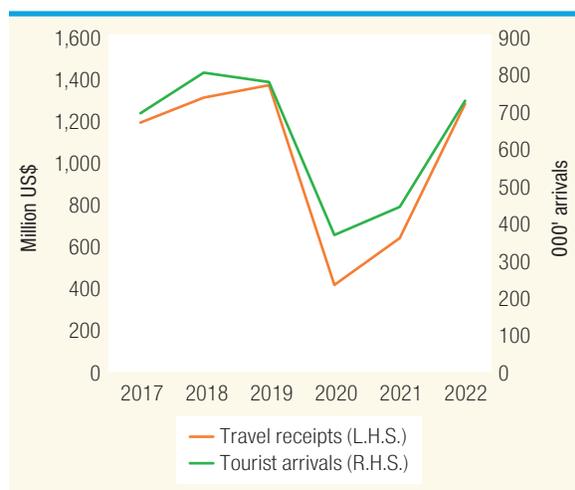
Source: Bank of Tanzania, Haver.

exports, also showed signs of a sustained recovery. Overall, favorable prices for major export items drove an 8.8 percent (y/y) increase in goods exports in 9M-2022, up from 6.7 percent in the same period last year. Rebounding external demand in the wake of the pandemic has supported the recovery of Tanzanian exports, which has been somewhat slower than the recoveries observed in some comparable countries but is still broadly consistent with regional trends.

The dramatic recovery of services exports drove the growth of overall exports. Services export expanded by 63 percent (y/y) during 9M-2022 to almost US\$3.5 billion, up sharply from US\$2.1 billion recorded during the same period last year. Services represented about two-thirds of the total increase in exports over the period, led by travel and transportation-related services. At about US\$1.8 billion, travel receipts approached their pre-pandemic average over 9M-2022, supported by a 66 percent (y/y) increase in tourism arrivals (Figure 15). Thus far, most tourists have arrived from other East African countries. In 2021, Russia was the second-largest source of tourist arrivals after Kenya, but the Russian invasion of Ukraine caused arrivals from Russia to plunge by 93 percent (y/y) during 9M-2022. Mean-

³⁷ For further details, see the IMF Commodity Terms-of-Trade Database.

FIGURE 15 • Tourism Receipts and Arrivals
(first nine months of the year)



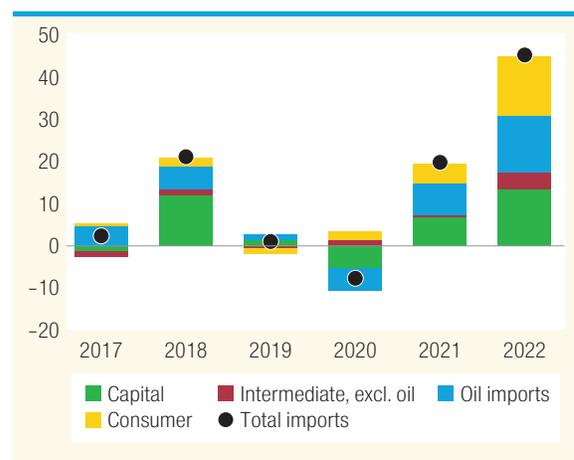
Source: Bank of Tanzania, Immigration Services Department.

while, freight transport and related services expanded by 33 percent (y/y) to reach US\$1.4 billion, up from US\$1.1 billion during 9M-2021. Amid the ongoing Russian invasion of Ukraine, surging European demand for coal to compensate for the loss of Russian oil and gas has greatly increased port activity in Tanzania.

While exports recovered, a combination of domestic and external factors caused import growth to accelerate sharply in 2022. Following a 20 percent increase in 9M-2021, goods and services imports rose by 51.2 percent during 9M-2022. Goods imports rose by 50.3 percent over the period, contributing about 80 percent to total import growth. Intermediate imports accounted for 40 percent of the growth of goods imports, while capital and consumer goods each represented about 30 percent (Figure 16). Oil makes up about one-fifth of goods imports, and oil imports rose by 86.3 percent (y/y) during 9M-2022, up from 47 percent during the same period in 2021. As of July 2022, rising oil prices had accounted for almost the entire increase in imports observed in the first seven months of the year, as the volume of oil imports had increased by just 1.4 percent. Meanwhile, the growth of nonoil imports also remained robust at 41.1 percent (y/y), reflecting elevated commodity prices and the post-pandemic recovery of domestic demand.

Private and official financing flows both remained weak as global financial conditions dete-

FIGURE 16 • Good Imports
(% change, y/y, first nine months of the year)



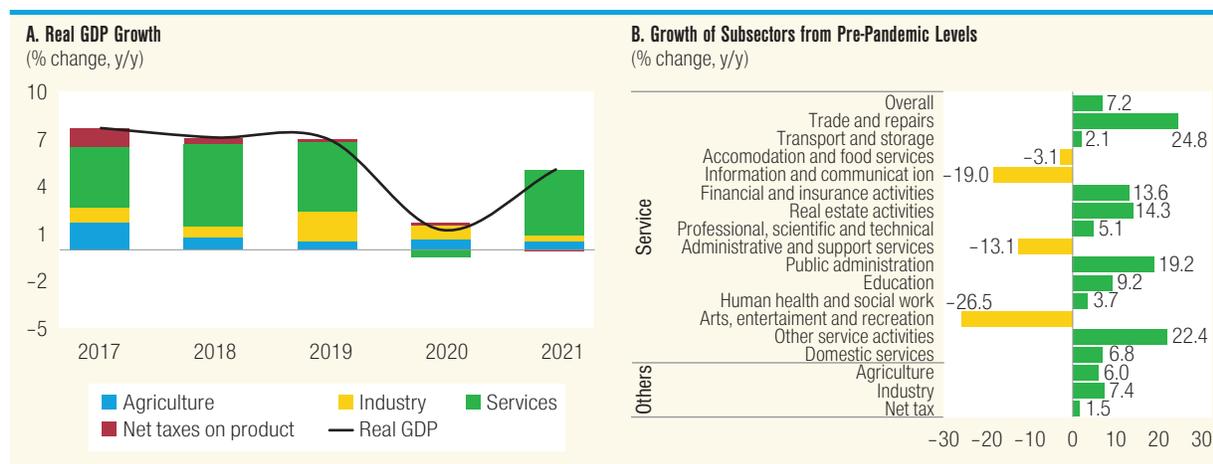
Source: Bank of Tanzania.

riorated, intensifying pressure on foreign reserves.

The financial-account surplus shrank from US\$1.9 billion (5.6 percent of GDP) in the first half of 2021 to just US\$850 million (2.2 percent of GDP) in the first half of 2022. Meanwhile, net foreign direct investment slipped from 1.5 percent of GDP to 1.4 percent. Private inflows exhibited a similar trend, as global financial conditions in advanced and emerging economies tightened in response to mounting inflationary pressures. Moreover, net official inflows plunged from US\$1.3 billion in the first half of 2021 to just US\$0.34 billion in the first half of 2022, further weakening Tanzania's external-account position. A widening current-account deficit and dwindling financial inflows in a context of limited exchange-rate flexibility reduced the country's gross official foreign-exchange reserves from US\$6.4 billion (6 months of imports) at end-December 2021 to US\$5.1 billion (4.6 months of imports) at end-August 2022.³⁸ However, the ongoing US\$1 billion IMF Extended Credit Facility Arrangement remains critical for addressing the balance of payments needs as well as for catalyzing support for additional external financing.

³⁸ The Tanzanian shilling depreciated slightly by 0.4 percent vis-à-vis the US dollar in the first nine months of 2022, while the Ugandan shilling, Kenyan shilling, Burundian franc and Rwandan franc depreciated by 8.0 percent, 6.3 percent, 2.9 percent, and 3.1 percent, respectively.

FIGURE 17 • Real GDP Growth Decomposition, Zanzibar



Source: Bank of Tanzania, OCGS and World Bank staff estimates.

Macroeconomic and Poverty Developments in Zanzibar

Macroeconomic Assessment³⁹

Zanzibar is a semi-autonomously governed part of the United Republic of Tanzania. The archipelago consists of two main islands, Pemba and Unguja, which are administratively divided into 5 regions and 11 districts. Zanzibar's estimated population of 1.7 million represents about 3.1 percent of the total population of the United Republic of Tanzania.⁴⁰ Zanzibar accounts for about 8.6 percent of mainland's trade balance for goods and services, and around 2.5 percent of mainland GDP. Zanzibar economy remains heavily dependent on tourism, which contributes almost half of the archipelago's total GDP.

Zanzibar's economy began recovering from the shock of the pandemic in 2021, and its expansion accelerated in the first half of 2022. The archipelago's GDP growth rate rose from 1.3 percent in 2020 to 5.1 percent in 2021, remained at 5.1 percent in Q1 2022, then increased to 6.6 percent in Q2 2022.⁴¹ Services remained the most important sector for propelling the growth as this sector contributes to half of GDP (Figure 17A). The services sector accounts for almost half of GDP, and after contracting in 2020 services expanded by 8.2 percent in 2021, contributing almost 4.2 percent-

age points to overall growth (Figure 17A). The return of tourists both to the mainland and Zanzibar drove the recovery of the services sector. Accommodations and related services account for almost 30 percent of value added in the services sector, followed by trade and repairs (15 percent), public administration (14 percent), and real estate (11 percent). During 2021, the accommodations subsector approached its 2019 level, while the other three subsectors all exceeded their pre-pandemic levels (Figure 17B). Agriculture and industry, which each account for one-fourth of value added, contributed just 0.5 and 0.4 percentage points to overall growth, respectively (Figure 17A).

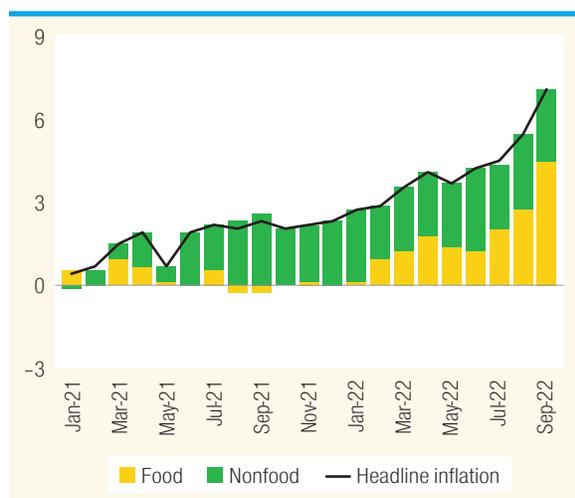
Zanzibar's headline CPI inflation rate has been rising steadily since the beginning of 2021. Headline inflation rose from an average of 1.6 percent in 9M-2021 to an average of 4.2 percent in 9M-2022 and reached 7 percent in September (Figure 18). During 9M-2022, non-food inflation contributed 57 percent to headline inflation while food inflation contributed 43 percent.

³⁹ Zanzibar inflation, external sector and fiscal data are part of the mainland coverage.

⁴⁰ Figures are based on population projections from the National Bureau of Statistics of Tanzania since data from the 2022 census are not yet available.

⁴¹ Based on most recent data shared by OCGS.

FIGURE 18 • Annual Inflation Rates, Zanzibar (% change, y/y)



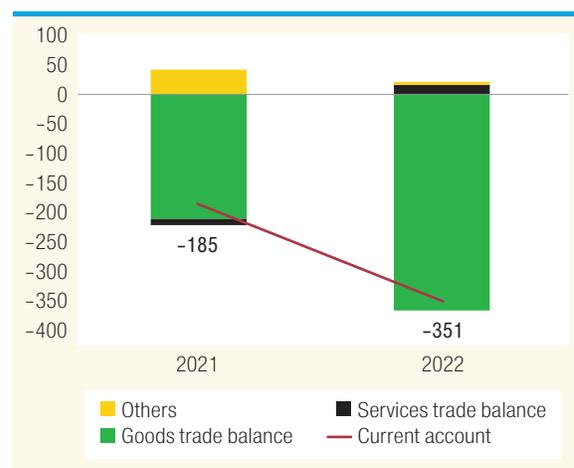
Source: Bank of Tanzania, OCGS and World Bank staff estimates.

Food inflation in Zanzibar appears to be driven by rising prices for green cooking banana, wheat flour, maize flour, and Mbeya rice, while elevated prices for petroleum products (kerosene, petrol and diesel) are largely responsible for the increase in non-food inflation.

Zanzibar’s fiscal deficit widened between 9M-FY20/21 and 9M-FY21/22.⁴² A combination of declining revenues and rising expenditures caused the overall deficit (including grants) to nearly double from of 2.2 percent of GDP to 4.1 percent of GDP (Table 2). Non-tax revenue rose by a half percentage point of GDP over this period, but tax revenues dropped by almost 2.0 percent of GDP over the same period. As a result, domestic revenues collection edged slightly downward, from 19.5 percent of GDP in 9M-FY20/21 to 18.1 percent of GDP a year later. Total spending on the other hand, rose by 0.6 percent of GDP over this period, despite almost 2 percent of GDP decline in the recurrent spending as development spending rose from 5.0 percent of GDP in 9M-FY20/21 to 8.1 percent of GDP in 9M-FY21/22, leading to a rise in the overall balance.

Despite the reversal of the services trade balance, Zanzibar’s current-account deficit (including grants) continued to widen. In the year ending September 2022, current-account deficit widened to US\$351 million from US\$185 million a year

FIGURE 19 • Current-Account Balance, Year Ending September, Zanzibar (US\$ millions)



Source: Bank of Tanzania.

earlier, an increase of over 90 percent over the period (Figure 19). Exports of goods contracted by almost 2 percent to reach US\$65 million during this period while imports registered an astronomical growth of 55 percent over this period—reaching US\$433 million over the same period. As a result, the trade deficit for goods rose by 73 percent to reach US\$368 million for the year ending September 2022 compared to US\$214 million for the same period last year. Although rising tourism receipts pushed the services balance to register a surplus of US\$15.3 million during the period, this was not enough to offset the widening trade deficit, as imports of petroleum products, food, and industrial supplies all increased sharply.

Poverty

Zanzibar’s three most recent household budget surveys indicate that the poverty rate fell by 9 percentage points during the decade before the COVID-19 pandemic. While the poverty dropped from 34.9 percent in 2009 to 25.7 percent in 2019 (Figure 20), due to population growth the number of people living below the poverty line fell by just 27,000 over the period (Figure 20). The poverty rate

⁴² As in Mainland Tanzania, fiscal data are based on the fiscal year. Zanzibar’s fiscal year runs from July to June.

TABLE 2 • Fiscal Trends (% of GDP), Actual Value, Zanzibar

Billions of Tsh	Fiscal year – July to June			Fiscal year – 9M	
	2018/19	2019/2020	2020/21	2020/21	2021/22
Domestic revenue	19.0	19.5	16.0	19.5	18.1
Tax revenue	17.0	16.3	13.5	16.5	14.6
Non-tax revenue	2.0	3.2	2.5	3.0	3.5
Total expenditure	28.7	24.7	20.6	22.3	23.2
Recurrent expenditure	17.9	17.4	16.0	17.3	15.1
Wages and salaries	5.8	6.1	6.1	8.1	8.3
Other expenditure	12.0	11.3	9.9	9.2	6.9
Development expenditure	10.8	7.3	4.6	5.0	8.1
Domestically financed	2.6	3.4	1.8	2.4	2.9
Foreign financed	8.2	3.9	2.8	2.6	5.1
Grants	1.1	1.1	0.7	0.6	1.0
Overall balance (incl. grants)	-8.6	-4.2	-4.0	-2.2	-4.1

Source: OCGS, Bank of Tanzania

Note: Data in the first three columns are from Zanzibar Statistical Abstract and data in the remaining two columns are from Bank of Tanzania.

fell fastest in urban areas, where poverty levels were already lower, and the gap between rural and urban areas widened. This disparity is driven by differences in poverty rates between the islands of Unguja and Pemba (Figure 21). During 2020–2021, the urban poverty rate likely increased by 1.8 percentage points, as the COVID-19 crisis severely depressed activity in the urban service sector.⁴³

Economic growth had a limited effect on poverty reduction between 2009 and 2019. During the period, a large share of workers transitioned from low-productivity agriculture into services, with women exhibiting a 10-percentage-point shift across sectors. However, a decomposition analysis shows that this transition had little impact on poverty rates. New jobs in the services sector were likely subject to similarly low productivity levels, and few high-quality formal jobs were created during the period, while the informality rate increased.

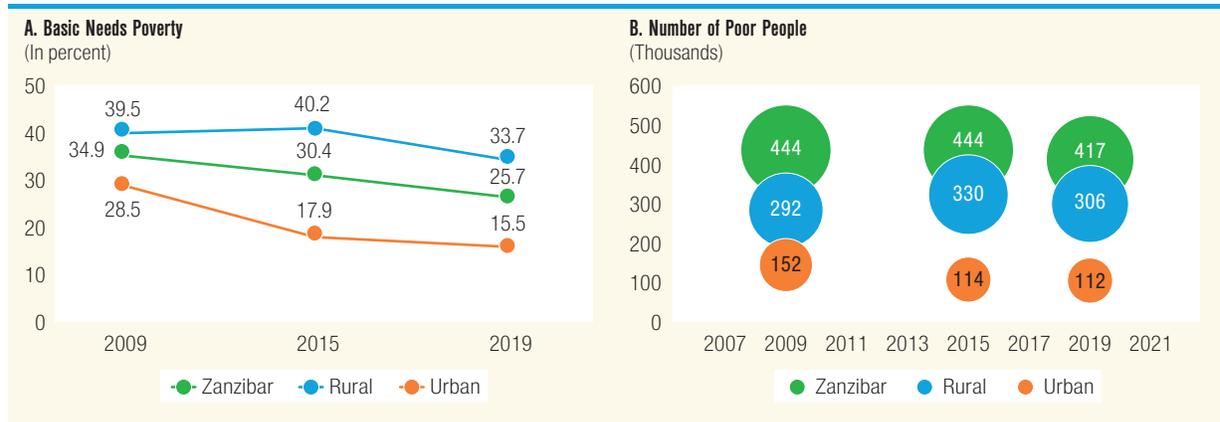
Nevertheless, substantial gains were observed across a range of nonmonetary poverty indicators, especially access to electricity, education, and other basic services. Between 2009 and 2019, the share of the population with access to the electric grid increased from 38 to 57 percent, and

between 2015 and 2019 the gross enrollment rate for lower secondary school rose from 68 to 90 percent. However, significant gaps in service access persist, especially among poor rural households in Pemba. A multi-dimensional poverty index based on three dimensions of welfare and data on 13 indicators from 2019–20 reveals that Zanzibar’s multidimensional poverty rate was 36.6 percent, as they were found to be deprived in at least one-third of the indicators used.

A combination of policies will be necessary to accelerate poverty reduction in Zanzibar. First, tourism, the primary engine of the local economy, must be made more inclusive by diversifying tourism products and services. Second, better skills training and apprenticeship programs are needed to improve labor-market outcomes among women and young people. Third, the distribution of public spending

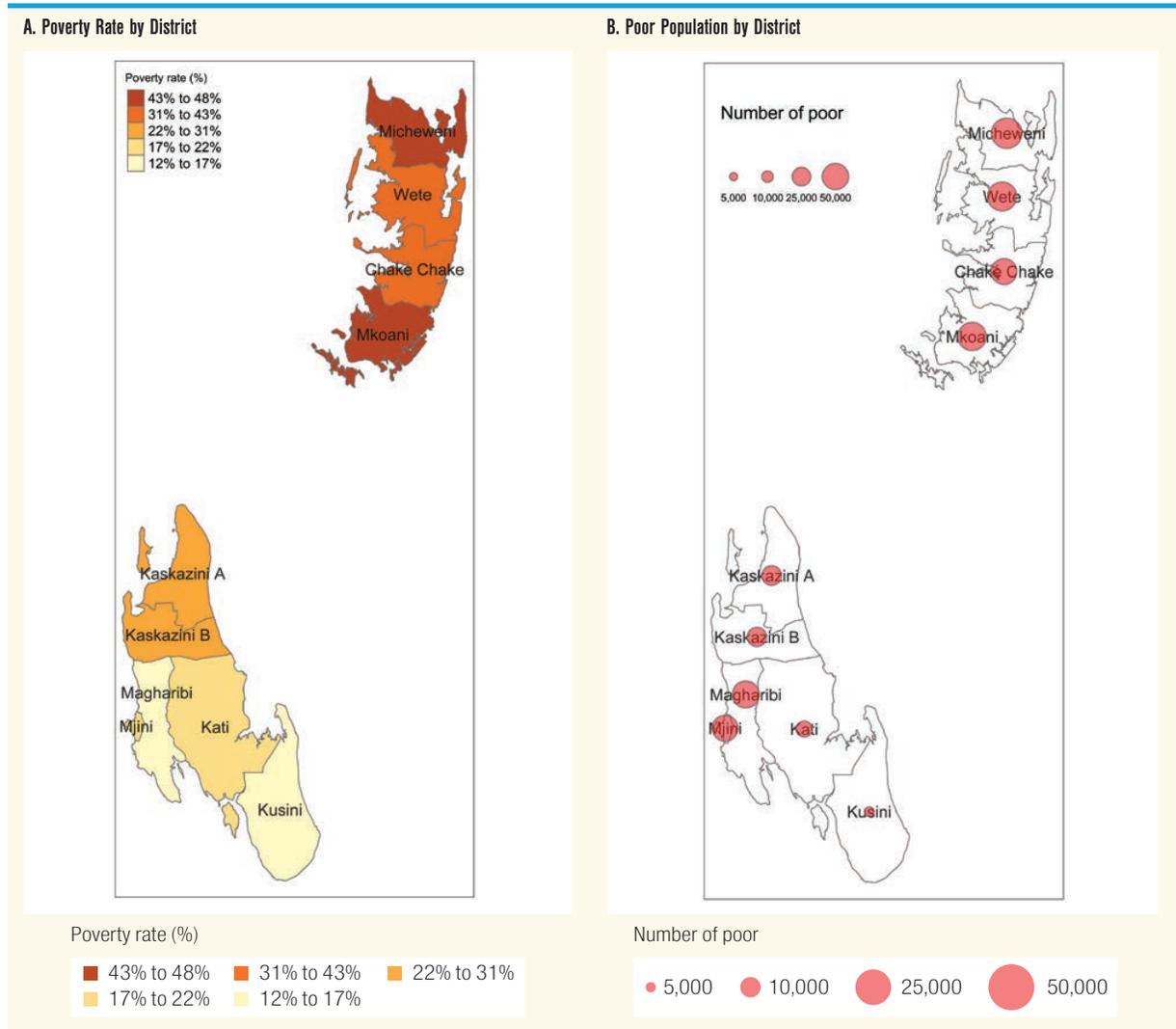
⁴³ These imputations are based on a consumption model estimated from the HBS 2019/20 and then used in the Integrated Labor Force Survey (2020/21) to impute household consumption using SWIFT techniques (See <https://openknowledge.worldbank.org/handle/10986/38095>).

FIGURE 20 • Poverty Rate and Number of Poor People by Location, 2009, 2015, and 2019



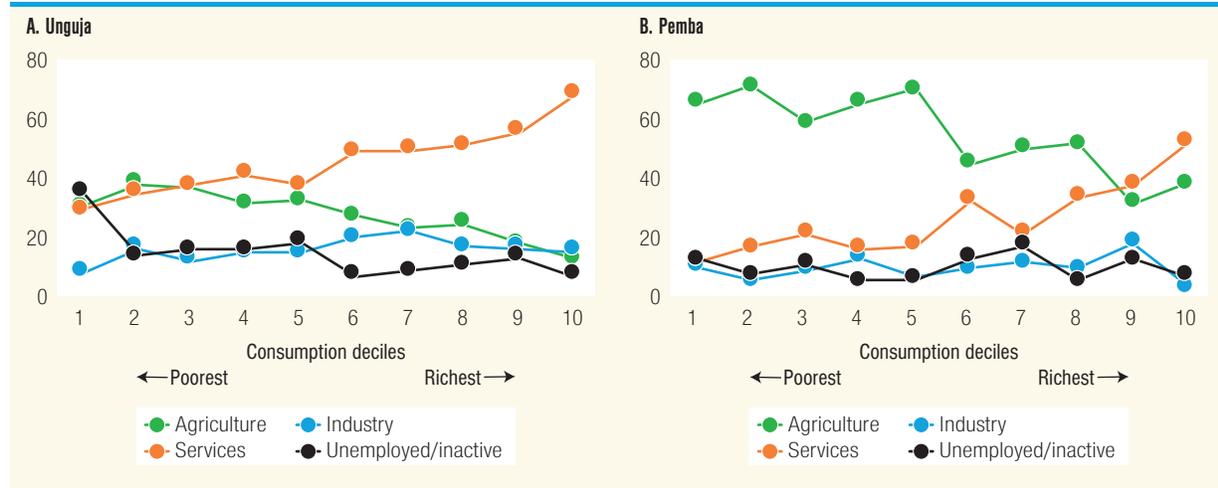
Source: Based on OCGS HBS 2009/10, 2014/15, and 2019/20. The HBS 2009/10 fell mostly in 2009, the HBS 2014/15 fell mostly in 2015, and the HBS 2019/20 fell mostly in 2019. We therefore refer to 2009, 2015 and 2019 in the report to simplify notation.

FIGURE 21 • The Geographical Distribution of Poverty in Zanzibar



Source: Based on OCGS HBS 2019/20.

FIGURE 22 • Sectoral Employment Patterns for Main Job Types by Welfare Decile, Unguja and Pemba



Source: Based on OCGS HBS 2019/20.
 Note: The average age of the women in the poorest decile in Unguja is much lower than the rest of the population.

on education and health should be made more pro-poor. Fourth, improving the business environment for SMEs and strengthening connections between

smallholder farmers and high-value markets could enhance value addition, job creation, and poverty reduction.

MACROECONOMIC OUTLOOK AND RISKS

Global Conditions

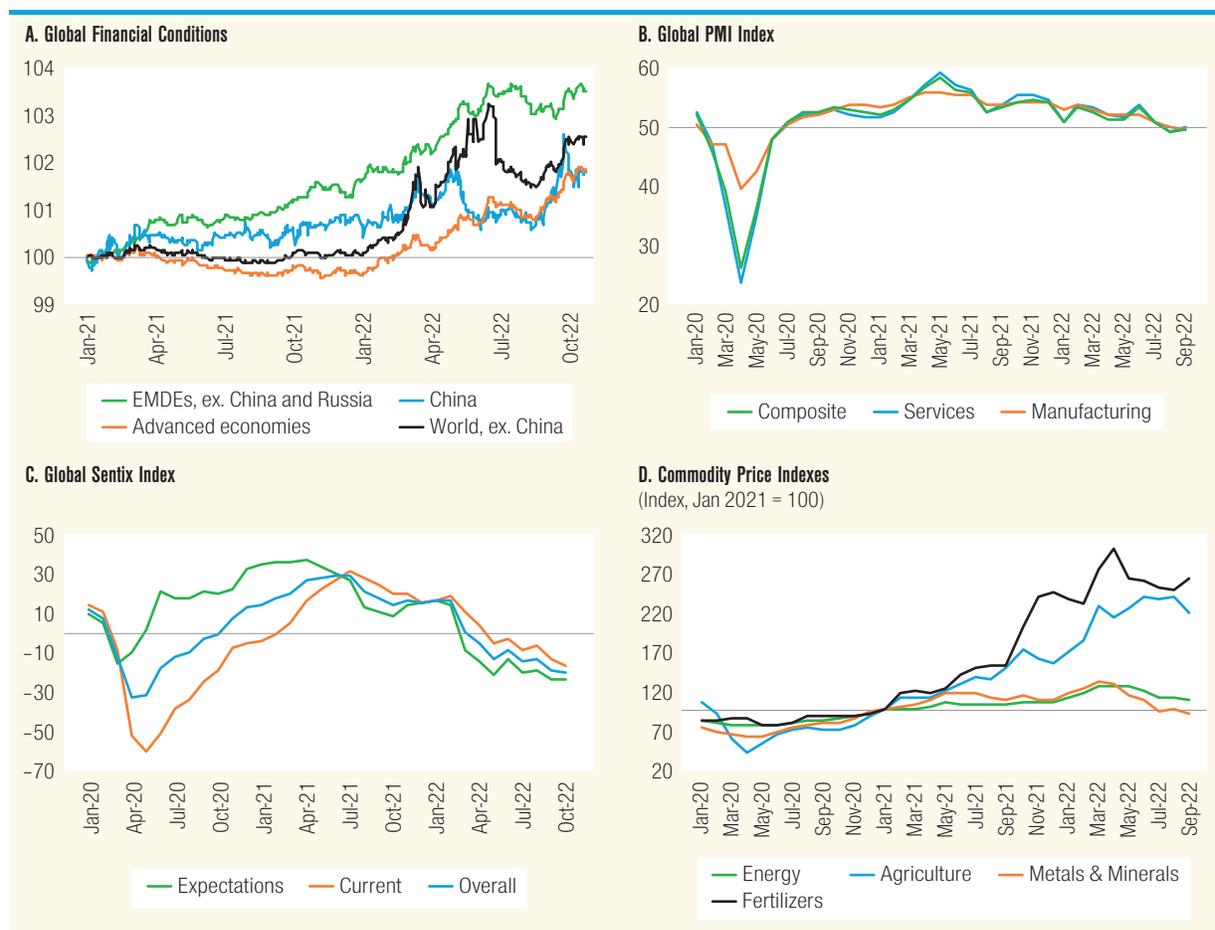
Soaring inflation rates have prompted the rapid and synchronous tightening of global monetary policy, darkening global growth prospects. Deteriorating global financial conditions—compounded by the disruption of energy and other commodity markets triggered by the Russian invasion of Ukraine—have slowed economic activity (Figure 23A and B). Global sentiments have worsened sharply amid rising concerns that the global economy, having barely started to rebound from the COVID-19 downturn, could soon enter another recession (Figure 23C). A combination of tighter financing conditions, weaker external demand, and rising prices have already slowed post-pandemic recoveries in many emerging markets and developing economies (EMDEs). Additional negative shocks, such as continued policy tightening and/or extended fuel shortages, could further slow global growth, increase borrowing costs, and intensify political pressure to mitigate the rising cost of living. The combination of mounting fiscal obligations amid weak demand threatens to undermine debt dynamics, especially among countries that already have high debt burdens.

The global outlook varies substantially across countries, and commodity importers will face soaring import bills. Commodity importers are reeling from the negative impact of high food and energy prices, which have dampened domestic demand and are pushing millions of people into extreme poverty and acute food insecurity. Meanwhile, agricultural exporters are also struggling with rising prices for key inputs, such as fuel and fertilizer, coupled with unfavorable weather conditions in some countries. High oil prices have benefitted energy exporters, but metal exporters face weakening demand, especially from China, and global metal prices are softening (Figure 23D).

Output growth in SSA is expected to reach just 3.3 percent in 2022 before ticking up slightly to 3.5 percent in 2023, well below its pre-pandemic trend.⁴⁴ Sharp cost-of-living increases are pushing inflation and food insecurity to record levels across the region, depressing domestic demand and compounding the negative effect of a deteriorating external

⁴⁴ World Bank. 2022. *Africa's Pulse, No. 26, October 2022: Food System Opportunities in a Turbulent Time*. Washington, DC.: World Bank.

FIGURE 23 • Leading Global Economic Indicators



Source: Bloomberg, Haver, World Bank staff estimates.

Notes:

A. Based on Goldman Sachs Financial condition indices. Sample includes 10 advanced economies (including euro area) and 11 EMDEs (excluding China and \bar{u}). Aggregates are calculated using GDP weights at average 2010-19 prices and market exchange rates. Higher value indicates tighter financial conditions. Last observation is October 21, 2022.

B. JP Morgan Global Purchasing Manager's Indexes, seasonally adjusted. A value above 50 indicates expansion. Last observation is September 2022.

C. A positive value indicates improving sentiment. Last observation is October 2022.

D. Pink Sheet data for oil, metals, and agricultural prices indexed to January 2021=100. Last observation is October 2022.

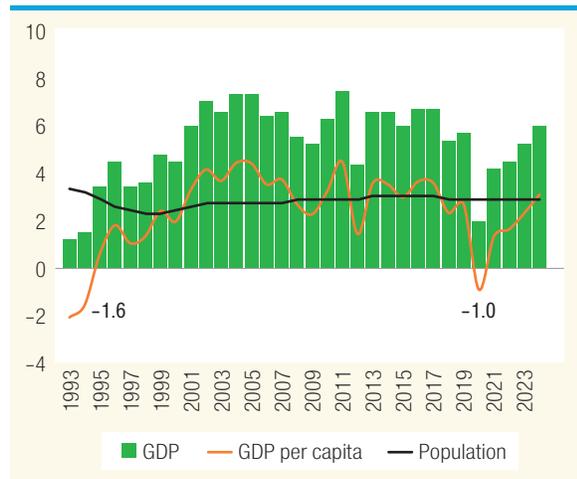
environment. In multiple countries, escalating conflict, worsening fragility, and the increasing frequency of floods, droughts, and other climate-related extreme weather events are amplifying the negative impact of inflation. Fiscal and debt-sustainability pressures have intensified across the region, and limited fiscal space has constrained the ability of many governments to shield poor households from cost-of-living shocks.

Outlook and Risks for Tanzania

Tanzania's economy continues to recover from the shock of the pandemic, but significant slack

remains. The GDP growth rate is expected to accelerate marginally from 4.6 percent in 2022 to 5.3 percent in 2023. Despite a strong initial rebound in 2021, the recovery remains timid compared to the pre-pandemic trajectory (Figure 24). Private and public consumption continue to drive growth in 2022, supported by resilient investment. Since February 2022, the Russian invasion of Ukraine has contributed to rising commodity prices and de-risking in global financial markets, which have weighed heavily on the Tanzanian economy. Estimates suggest that economic activity remains below its potential (see Figure 2), but GDP growth is projected to modestly accelerate to 5.3 percent in 2023 as investment increases and the

FIGURE 24 • GDP and Population Growth Rates, Tanzania
(% change, y/y)



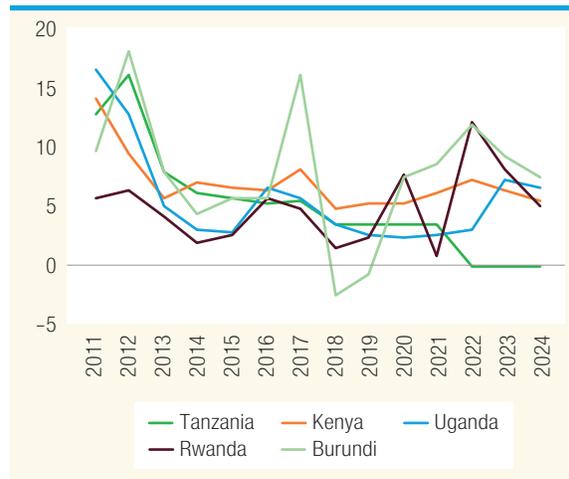
Source: National Bureau of Statistics and World Bank staff estimates.

terms of trade improve. If government consumption and investment in flagship capital projects deepen and if the authorities successfully implement policies to strengthen the business environment, Tanzania's GDP should reach its potential over the medium term. Faster growth should attract greater private investment, spurring a virtuous cycle.

Price pressures are expected to moderate over the medium term. The headline inflation rate is expected to rise to 5.2 percent in 2022, only slightly above the official target of 5 percent (Figure 25). While Tanzania's headline inflation rate has increased in recent years, it remains the lowest among EAC member states. Going forward, inflation is expected to taper gradually as global commodity prices moderate.

A swelling trade deficit is projected to widen the current-account deficit from 3.1 percent of GDP in 2021 to 4.4 percent in 2022. While exports are expected to expand, led by services, manufacturing, and gold, a rapidly rising import bill is expected to outpace export growth. Tourism is expected to drive the continued recovery of services exports, while exports of manufactured goods to regional neighbors should continue to increase. Gold prices have declined by about 9 percent in 2022 but remain close to 2020 levels. However, resurgent domestic demand, high oil prices, and the continu-

FIGURE 25 • Annual Inflation Rates, Tanzania and Comparators
(% change, y/y)



Source: National Bureau of Statistics and World Bank staff estimates.

ing implementation of major capital projects are expected to cause import growth to exceed export growth, widening the trade deficit. The average global oil price rose from US\$70.5 per barrel in 2021 to about US\$103.7 per barrel in 9M-2022.⁴⁵ While global oil prices have declined in recent months, they are expected to remain elevated over the medium term due to the continued uncertainty surrounding the Russian invasion of Ukraine coupled with secular trends in global energy markets. Nevertheless, robust export growth, the recovery of the tourism sector, moderating global commodity prices, and the easing of public investment should keep the current-account deficit relatively modest, and the gradual recovery of FDI inflows, IMF financing, and continued access to multilateral and bilateral concessional financing should cover the current-account deficit and keep international reserves at an adequate level.

As the ongoing recovery bolsters domestic revenues, the fiscal deficit is projected to narrow slightly to 2.9 percent of GDP in 2022. While the government's pandemic-response measures are winding down, the ongoing fuel and fertilizer subsidy program and increased hiring in the education and health sectors are expected to keep recurrent

⁴⁵ These prices for Brent crude were taken from the World Bank Commodity Markets Database in September.

TABLE 3 • Medium-Term Outlook, 2020-2024
(annual % change unless otherwise indicated)

	2020	2021	2022	2023	2024
	Est.	Est.	Fcst.	Fcst.	Fcst.
Real GDP Growth (at constant market prices)	2.0	4.3	4.6	5.3	6.1
Private Consumption	1.0	4.3	3.6	3.4	3.0
Government Consumption	7.4	14.9	9.0	2.6	2.9
Gross Fixed Capital Investment	2.4	6.8	8.4	8.6	9.0
Exports, Goods and Services	-8.6	8.7	8.3	10.6	11.8
Imports, Goods and Services	-7.6	20.3	15.3	9.6	7.2
Inflation (consumer price index)	3.4	3.4	5.2	4.5	4.0
Current Account Balance (% of GDP)	-1.6	-3.1	-4.4	-4.2	-3.3
Net Foreign Direct Investment (% of GDP)	1.1	1.6	1.8	2.1	2.6
Fiscal Balance (% of GDP in FY)	-2.0	-3.4	-2.9	-2.9	-2.6
Gross Nominal Debt (% of GDP in FY) ^a	38.0	39.7	42.2	42.1	41.9

Source: World Bank staff estimates.

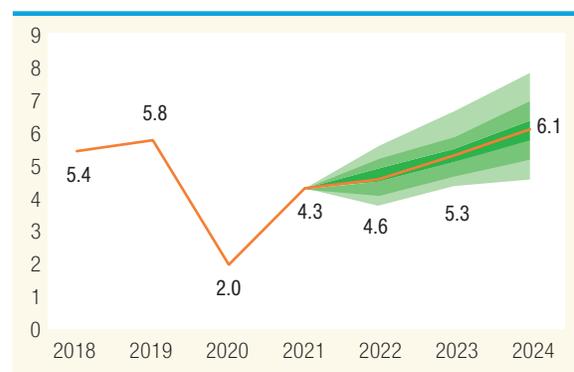
Note: Est. stands for Estimates and Fcst. stands for Forecasts. All variables are based on calendar year unless otherwise specified. Fiscal Year (FY) runs from 1st July to 30th June.

^a As is the same in the published WB-IMF Joint Debt Sustainability Analysis in August 2022. For details, see United Republic of Tanzania: Request for a 40-Month Arrangement under the Extended Credit Facility – Press Release; Staff Report; and Statement by the Executive Director for the United Republic of Tanzania, August 2022.

expenditures high at about 11 percent of GDP in 2022 (Table 3). The accelerated implementation of capital projects in the energy and transportation sectors, combined with new investments in irrigation infrastructure, is expected to push development spending to 7.2 percent of GDP in 2022. Meanwhile, rebounding economic activity will continue to boost tax revenue. The fiscal deficit is expected to be financed by a combination of domestic and foreign loans, with the later contributing a larger share. The public debt stock is projected to rise to 40.8 percent of GDP in 2022, but debt vulnerabilities remain moderate.

Tanzania’s economic outlook hinges both on an uncertain external environment and on the implementation of domestic policies. Risks to the macroeconomic outlook remain high, with real GDP growth projections for 2022 ranging from 3.5–5.5 percent under alternative scenarios, well below the estimated long-run potential growth rate of about 6 percent (Figure 26). External risks include a protracted Russian invasion of Ukraine that exacerbates supply shocks and intensifies commodity-price pressures, a slow recovery of global demand coupled with further increases in interest rates and rising borrowing costs, and the emergence of new COVID-19 strains that compel renewed lockdowns or

FIGURE 26 • Real GDP Growth Forecasts under Alternative Scenarios
(% change, y/y)



Source: National Bureau of Statistics and World Bank staff estimates.

cause other large-scale economic disruptions. Domestic risks stem primarily from the slow or incomplete implementation of policies to reduce regulatory compliance costs and support private investment.

Priority Reforms

To sustain rapid growth and achieve its development aspirations, Tanzania must accelerate

TABLE 4 • Priority Policy Actions to Support a Resilient and Inclusive Recovery

• Increase expenditure efficiency and strengthen public investment management to create fiscal space for social spending and infrastructure investment.	Continuous	↗
• Accelerate the clearance of domestic payment and VAT-refund arrears and prevent the accumulation of new arrears.	Continuous	→
• Enhance public debt transparency by expanding the coverage of debt reporting to include comprehensive information on contingent liabilities.	Continuous	●
• Streamline licensing processes and other business regulations, implement a single window for payments, and review the requirements and procedures for issuing work permits.	Short-to-medium term	↗
• Develop regulations for the new investment law anchored on principles of non-discrimination and create regulations governing investment guarantees.	Short-to-medium term	●
• Expand the coverage of the Productive Social Safety Nets (PSSN) program, including a unified social registry that covers rural and urban poor, and establish a medium-term financing strategy for social protection.	Short to medium term	→
• Establish a national farm enterprise registry to bolster the resilience of farmers against climate shocks.	Medium-term	●
• Expand access to public health services with the goal of achieving universal health coverage.	Medium-to-long-term	↗
Water and Sanitation for ALL 		
• Incentivize private-sector participation in the expansion of WASH services by creating supportive regulatory environment.	Short-to-medium term	→
• Renew the government's commitment to the WSDP-3 targets, and increase funding, especially through results-based financing mechanisms, to the level necessary to achieve universal WASH access by 2030.	Medium-term	↗
• Ring-fence the budget for operations and maintenance and the budgets for programs that extend WASH access to poor and marginalized communities.	Medium-term	↗

Note: ● represents Initiate; ↗ represents Strengthen; → represents Sustain.

structural reforms. While the country's economic performance has been impressive historically, Tanzania faces new challenges that threaten its development momentum. Slow progress on reforms during previous administrations weakened private investment, which was gradually being replaced by public investment. Over the medium term, boosting private investment and private-sector activity will be vital to Tanzania's growth and development. However, recent growth has had a limited effect on reducing poverty rates, and international experience highlights the importance of a well-designed development agenda to promote shared prosperity.

Climate-change risks are increasing, and traditional sectors like agriculture and tourism, which employ a large share of the country's labor force, are highly sensitive to changes in temperature and precipitation. In addition, inadequate WASH access—the subject of this report's special focus section—has deeply negative effects on workforce productivity, which threaten the government's objectives for growth and poverty reduction. Finally, while the authorities have established a track record of sound macroeconomic management, further structural reforms will be needed to revitalize the economy and promote sustainable and inclusive growth.

SPECIAL FOCUS: TRANSFORMING A GENERATION THROUGH WATER SUPPLY, SANITATION AND HYGIENE (WASH)

Synopsis

Water, sanitation and hygiene (WASH) services play a vital role in poverty reduction and economic growth. By undermining health, education, and welfare indicators, inadequate WASH access costs Tanzania an estimated US\$2.4 billion each year, or 3.2 percent of its 2022 GDP. Providing basic WASH services to every household could reduce these losses, saving the country US\$1.9 billion per year by 2030. Expanding the WASH sector will also generate employment opportunities while yielding a diverse range of social and environmental benefits. Investing in WASH is a highly cost-effective use of public resources, as the government could provide near universal access to basic WASH by implementing the WSDP-3 strategy for the equivalent of just US\$16 per person per year, less than half the economic cost incurred by inadequate WASH services.

WASH in Tanzania

Water and sanitation are fundamental human rights, and hygiene is essential for a healthy and dignified life, yet much of Tanzania's population lacks access to adequate WASH services. Despite significant progress in recent years, insufficient WASH access continues to undermine living standards and slow economic growth. Recent estimates show that inadequate WASH services cost Tanzania over US\$2.4 billion (Tsh 5.6 trillion) each year, equal to 3.2 percent of Tanzania's 2022 GDP. Women, children, the elderly, persons with disabilities, members of other marginalized groups, and poor households nationwide bear a disproportionate share of the social and economic costs incurred by inadequate WASH services.

Improving WASH access is a matter of life and death. An estimated 31,000 Tanzanians die

BOX 4: TARGETS UNDER SUSTAINABLE DEVELOPMENT GOAL 6

- 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all.
- 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.
- 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping, and minimizing the release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- 6.4 By 2030, substantially increase water use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
- 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.
- 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes.

each year due to poor WASH services, representing about 10 percent of all preventable deaths. Most of these deaths are from diarrheal diseases (including cholera), respiratory infections, malnutrition, soil-transmitted helminths, environmental enteropathy, hepatitis A, and hepatitis E. Children who suffer from WASH-related medical conditions face cognitive deficits, learning losses, stunting, and a permanent reduction in lifetime earnings. Poor WASH services in health facilities cause deadly infections that discourage future patients from seeking care, and nonfatal illnesses cost adult workers countless productive hours. Moreover, hauling water for domestic purposes incurs health costs of its own, including musculoskeletal disorders, physical injuries, exhaustion, and dehydration. These costs are often borne by women, and the risks they pose to pregnant women are especially severe.

Tanzania's adoption of the Sustainable Development Goals greatly increased the ambition and scope of its commitment to WASH. The government's stated policy goals now encompass broader improvements in water resources as well as universal access to WASH services (Box 4). In 2006, Tanzania launched the Water Sector Development Program (WSDP) for 2006–2025, which encompasses the entire water sector, from water resources management to urban and rural water supply and sanitation. The WSDP is being implemented in three phases. WSDP-1 received more than US\$1.4 billion in funding, of which the government provided US\$367 million (26 percent), while development partners contributed US\$1.03 billion (74 percent). By contrast, the US\$225

million WSDP-2 was financed primarily by the government. The current phase, WSDP-3 (2022–2026), is by far the most ambitious, and its financing requirements are estimated at US\$6.5 billion. The WSDP (current phase and previous phase 2) has put emphasis on the critical role of behaviour change and enhanced operation and maintenance to achieve and sustain WASH services. There is a renewed commitment to WASH and specifically the role of behaviour change, through the proposed relaunch of the Mtu Ni Afya Campaign in 2023 (Box 5).

Due to the enormous costs involved in coping with the consequences of inadequate WASH access, investments in the sector are highly cost-effective. Implementing the WSDP-3 strategy and achieving near universal access to basic WASH could reduce Tanzania's economic losses from US\$2.4 billion in 2022 to just US\$500 million in 2030.⁴⁶ Providing near universal access to basic WASH through WSDP-3 implementation would cost the government just US\$16 per capita per year, less than half the US\$38 per capita in annual losses due to inadequate WASH services. The economic savings would enable the government to generate benefits equal to its initial investment of US\$4.1 billion within five years. However, implementing the WSDP-3 will require robust oversight and active engagement with the private sector. Updated development plans

⁴⁶ The Plan targets close to universal access to WASH services in both rural and urban areas, and includes service levels above the basic WASH standard defined by the WHO/UNICEF Joint Monitoring Programme.

BOX 5: THE MTU NI AFYA I AND II CAMPAIGNS IN TANZANIA

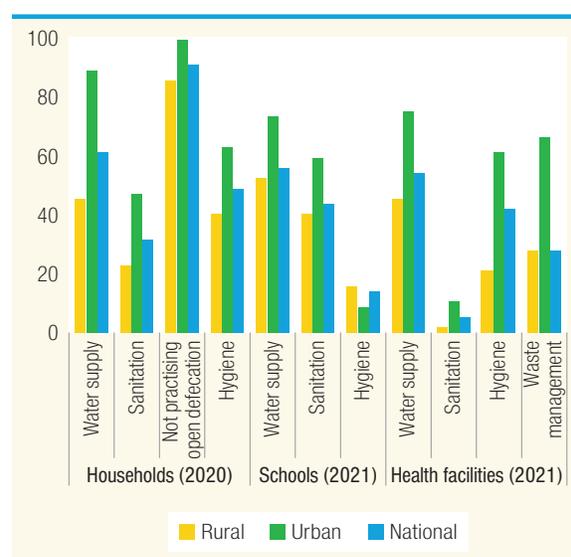
Between 1973 and 1978, the late Mwalimu Julius Kambarage Nyerere, implemented the Mtu ni Afya campaign. The campaign aimed to increase people's awareness on how to make their lives healthier, to improve literacy, to maintain their skills and to take appropriate actions. The campaign instigated a remarkable increase in the coverage of sanitation facilities from 20 to 80 percent and in reducing the prevalence of infectious diseases. In an effort to address gaps in sanitation and hygiene, the Ministry of Health plans to launch "Mtu ni Afya II campaign" to mark 50 years' anniversary of the original campaign. Mtu ni Afya II campaign will emphasize a behaviour change approach with the use of more effective communication tools that trigger positive behaviour change to improve environmental sanitation, eliminate open defecation, achieve universal access to basic sanitation, and improve hand washing practices.

for WASH infrastructure must account for population growth, rural-urban migration, and climate risks.

Current estimates from the WHO/UNICEF Joint Monitoring Programme (JMP) show Tanzania will take several decades to reach universal access to basic WASH services in households, schools, and healthcare settings.⁴⁷ Figure 27 shows the latest estimates sourced from government surveys and routine monitoring systems for basic WASH using global SDG definitions. National household coverage is 60.7 percent for basic water supply, 31.8 percent for basic sanitation, 10.9 percent for open defecation and 48.4 percent for basic hygiene. These estimates compare with official estimates provided by the Tanzanian Government from the NSMIS which estimate higher rates of basic sanitation (56 percent), lower rates of open defecation (1.4 percent) and lower rates of basic hand washing facilities (41.3 percent).⁴⁸ The National Poverty Survey (NPS) (2020/2021), whose results were published in January 2023, show much higher rates of basic sanitation (90 percent).^{49, 50} Access to clean drinking water also showed to notably improve in both the rainy and dry season between the NPS 2014/15 and NPS 2020/21 (from 57.3 percent to 64.6 percent in the dry season, and from 46.0 percent to 49.5 percent in the rainy season).⁵⁰

Rural areas clearly lag urban areas, with basic coverage in rural areas below 50 percent for most indicators. Also, sanitation is lagging behind water supply and hygiene across most contexts. Drawing on national monitoring systems, JMP estimates that basic sanitation and basic hygiene coverage in schools is 44 percent and 15 percent, respectively; and in health facilities, 5 percent and 42 percent, respectively.⁵¹ Annex 3 shows the progress over time for basic WASH, and Annex 4 shows the breakdown by income status.

FIGURE 27 • National WASH Coverage in Tanzania in Households, Schools and Health Facilities, by Rural and Urban Areas - Basic WASH Standard (in percent)



Source: WHO/UNICEF Joint Monitoring Programme <https://washdata.org/>.

⁴⁷ <https://washdata.org/>.

⁴⁸ Differences are due to different definitions of service levels and different data sources.

⁴⁹ Notable improvements were also shown for Sanitation between NPS 2014/14 and NPS 2020/21 using the Millennium Development Goal definition of improved sanitation facilities.

⁵⁰ National Panel Survey, WAVE 5, 2020-2021. National Bureau of Statistics, Ministry of Finance and Planning, Dodoma, Tanzania. November 2022.

⁵¹ JMP estimates are lower than government estimates due to the criteria applied by JMP. For example, having toilets with access for disabled people reduces the access to 5 percent for basic sanitation in healthcare facilities, compared to the government estimate of 55 percent.

Zanzibar has higher basic WASH access rates than mainland Tanzania, though with some service gaps, most notably for sanitation.⁵² In Zanzibar, access to an improved water supply is at 98 percent.⁵³ 58.7 percent of the population has an improved household sanitation facility, 13.5 percent use an improved facility that is shared, 10.8 percent use an unimproved toilet and 16.6 percent have no facility. 3 percent of the Zanzibar population access their sanitation outside their own home or land.

According to current estimates by WHO/UNICEF Joint Monitoring Programme, the trendline indicates Tanzania will not meet even the basic WASH standard for any service location or coverage type by 2030, except for urban water supply (see Annex 3). Under projections based on the trendline, in 2030 household rural water supply will have reached approximately 60 percent basic coverage, household urban sanitation 60 percent basic coverage and household rural sanitation 30 percent basic coverage. In rural areas, the reduction in rates of open defecation has not made any marked progress since the year 2000. Data are insufficient to project 2030 coverage for WASH in schools and health facilities, but indications are that progress is slow in these settings.

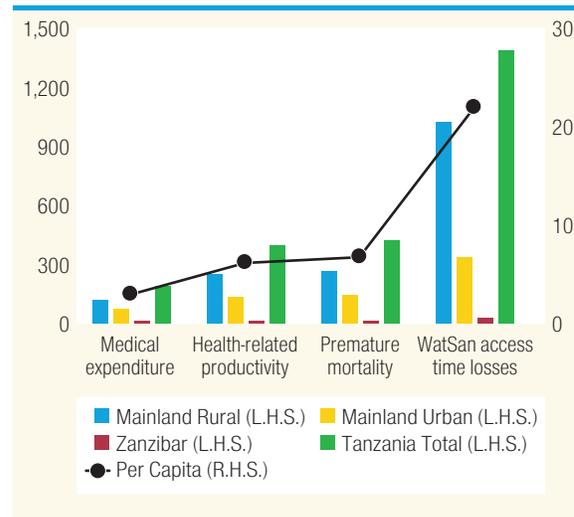
The Consequences of Inadequate WASH Access

Poor WASH services impose a wide array of tangible and intangible costs on the Tanzanian population, undermining living standards, individual welfare, and economic growth. These negative effects are felt more strongly by women, children, the elderly, persons with disabilities, other members of vulnerable groups, and poor households nationwide. Some impacts can be more easily quantified and expressed in monetary terms, while others are harder to quantify or lack data at the national level, including effects on health, human capital, social development, and environmental quality.

Economic Costs

Inadequate WASH access costs Tanzania over US\$2.4 billion (Tsh 5.6 trillion) each year, equal

FIGURE 28 • Economic, Health, and Time Costs of Inadequate WASH Access (US\$, right axis; US\$ millions, left axis)



Source: World Bank staff estimates (see Annex 5).

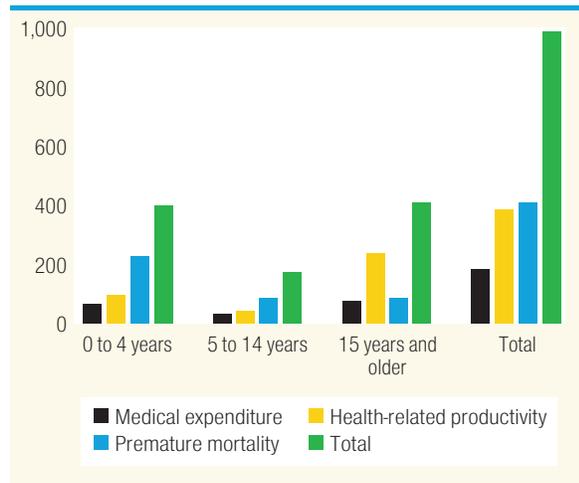
to 3.2 percent of 2022 GDP or about US\$38 (Tsh 88,000) per person.⁵⁴ Moreover, these costs are almost certainly underestimated, as they include only those impacts that can be measured at the national level. Time losses (US\$22 per capita) account for 58 percent of the losses compared to 42 percent for health costs (US\$16 per capita) (Figure 28). Most of these losses occur in mainland rural areas (69.2 percent, US\$41 per capita), followed by mainland urban areas (28.7 percent, US\$39 per capita) and Zanzibar (2.1 percent, or US\$28 per capita). Rural areas have higher per capita costs due to the additional access time needed and the lower WASH coverage numbers for rural areas.

⁵² As WHO/UNICEF does not report coverage for Zanzibar separately, these estimates draw on DHS 2015/16.

⁵³ However, 13.5 percent of these households require >30 minutes to access the source, which means they do not meet the basic water supply standard according to the WHO/UNICEF Joint Monitoring Programme.

⁵⁴ Based on World Bank staff estimates for GDP. These estimated values do not directly impact on GDP in the year of estimation. However, the impacts have been valued at market rates and will have a short- and long-term impact on people's incomes and eventually GDP. Annex 5 details the methodology and data sources.

FIGURE 29 • Total Health Costs Due to Poor WASH, by Age Group (US\$ millions)



Source: World Bank staff estimates (see Annex 5).

About 40 percent of these health costs are borne by women and children under five (Figure 29). Young children face an especially high risk of death from waterborne disease and other WASH-related causes. In addition, women shoulder a disproportionate share of the burden, as women are the main carriers of water and the primary caregivers for sick children.

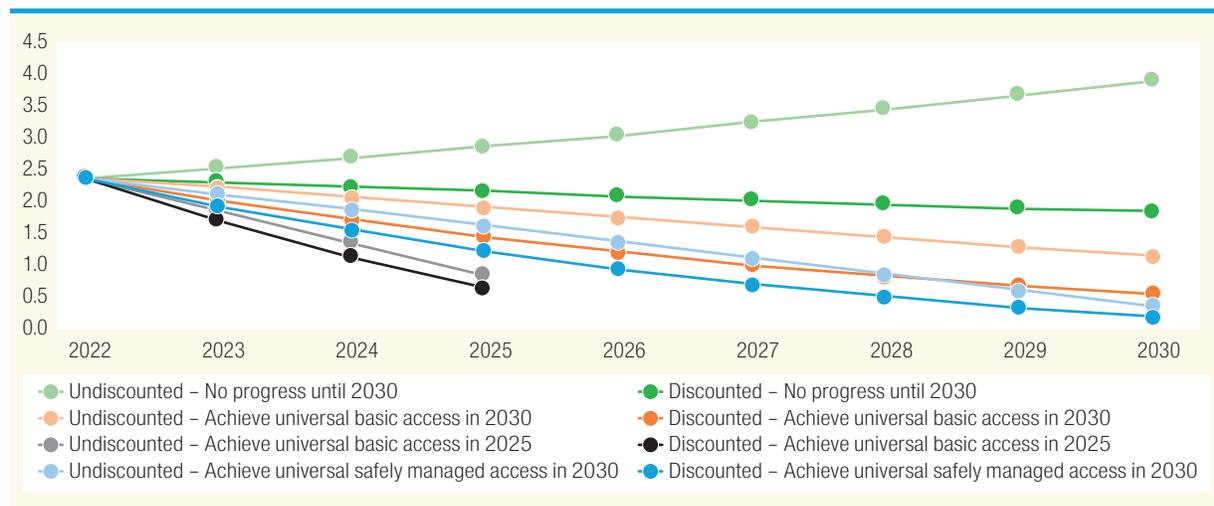
Poor households also bear a disproportionate share of the costs of poor WASH access. While the calculations were not conducted by wealth quintile, the patterns of coverage for rich versus poor households is a clear indication of the impact that falls on poorer households. According to WHO and UNICEF, the richest 20 percent of the Tanzanian population had between 3 and 4 times the WASH coverage rates as the poorest 20 percent (see Annex 4).

These economic losses will continue to accrue each year until the population has access to adequate WASH services. Scenario analysis can estimate future costs under alternative assumptions (Figure 30).⁵⁵ The first scenario assumes no change in WASH coverage until 2030. This scenario leads to a reduction from US\$2.4 billion in 2022 to US\$1.85 billion in 2030, because of discounting future values at 10 percent (refer to Annex 5). However, if future costs are not discounted, it would lead to an increase in economic costs to US\$4 billion in 2030, accounted for by the combined effects of population growth and economic growth.

Other scenarios see the economic costs of poor WASH declining significantly as Tanzania progresses towards its WASH goals. The second

⁵⁵ Refer to Annex 5.

FIGURE 30 • Projected Economic Costs Until the Year 2030 under Four Different Scenarios (US\$ billions)



Source: WHO/UNICEF Joint Monitoring Programme <https://washdata.org/>.

scenario sees Tanzania meeting universal access to basic household WASH by 2030, with reductions in economic losses from US\$2.4 billion in 2022 to US\$1.1 billion (undiscounted) and US\$500 million (discounted) in 2030. These gains result from a reduction in disease rates and deaths from WASH by 50 percent, a reduction in households accessing water sources beyond 30 minutes, and a reduction to zero in accessing shared sanitation and the incidence of open defecation.

The third scenario sees a faster achievement—of meeting universal access to basic household WASH by 2025—with reductions from US\$2.4 billion in 2022 to US\$820 million (undiscounted) and US\$620 million (discounted) in 2025. In the fourth scenario, with on-plot and higher quality water supply and sanitation, the economic costs are reduced from US\$2.4 billion in 2022 to US\$330 million (undiscounted) and US\$155 million (discounted) in 2030. These gains result from reducing access time for water supply to zero and an 80 percent reduction in disease rates and deaths from safely managed water and sanitation.

Health Impacts

The Tanzanian population faces health risks from inadequate WASH in many settings: in communities where people live, in schools where children learn, in health facilities where people seek care, and in work and public spaces. While Tanzania has seen an 89 percent reduction in under-five mortality between 1980 and 2015, death and disease remain the most direct and quantifiable impacts of inadequate WASH, especially for children.

The most recent global burden of disease study from the World Health Organization estimates 31,000 Tanzanians die each year due to poor WASH, and an additional 17,000 die due to poor water resource management.⁵⁶ These deaths account for 10.3 percent of the total 482,454 estimated premature deaths in Tanzania in 2022.⁵⁷ Diarrheal diseases are estimated to account for most WASH-related deaths, followed by respiratory infections from poor handwashing practices and malnutrition⁵⁸ (Table 5). National studies corroborate the importance of diarrhea in overall population disease rates.⁵⁹

TABLE 5 • Annual Deaths Attributed to Poor WASH or Poor WRM in Tanzania

Disease	Number of Deaths
Diarrheal diseases	22,714
Respiratory infections	6,197
Malnutrition (only PEM)	1,254
Soil-transmitted helminth infections	217
Schistosomiasis	434
Subtotal drinking-water, sanitation and hygiene	30,816
Malaria	16,967
Subtotal water resource management	16,967
Total: WASH and WRM-related deaths	47,784

Source: Prüss-Üstün, A., Wolf, J., Bartram, J., Clasen, T. et al. Burden of disease from inadequate water, sanitation and hygiene for selected adverse health outcomes: An updated analysis with a focus on low- and middle-income countries. 2019. *Int J Hyg Environ Health* 222(5):765–777.

Note: PEM: Protein Energy Malnutrition. Figures adjusted from 2016 to 2022 using population growth.

There are several, lesser-known or area-specific diseases associated with poor WASH that have a considerable impact on the Tanzanian population. These diseases were not included in the economic costs presented earlier. Cholera is endemic to Tanzania, with outbreaks reported in 2015, 2019 and 2022.⁶⁰ The

⁵⁶ The figures presented in this reference have been adjusted from 2016 to 2022 to reflect population growth in Tanzania: Prüss-Üstün, A., Wolf, J., Bartram, J., Clasen, T. et al. Burden of disease from inadequate water, sanitation and hygiene for selected adverse health outcomes: An updated analysis with a focus on low- and middle-income countries. 2019. *Int J Hyg Environ Health* 222(5):765–777.

⁵⁷ <https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/ghle-leading-causes-of-death>.

⁵⁸ Caulfield, L., Onis, M., Blössner, M. and Black, R. Undernutrition as an underlying cause of child deaths associated with diarrhea, pneumonia, malaria, and measles. 2004. *The American journal of clinical nutrition* 80: 193–8.

⁵⁹ Edwin, P. and Azage, M.. Geographical Variations and Factors Associated with Childhood Diarrhea in Tanzania: A National Population Based Survey 2015–16. 2017. *Ethiop J Health Sci.*: 29(4): 513.

⁶⁰ <https://reliefweb.int/report/united-republic-tanzania/tanzania-cholera-outbreak-emergency-plan-action-epoa-dref-ndeg-mdrtz031>.

risk of cholera is especially high among refugee populations, in unplanned settlements along the lake shores and densely populated urban settlements. Adequate WASH is the mainstay for the long-term eradication of cholera, given the fecal-oral transmission route which can only be prevented through isolating the untreated fecal waste from the human environment.⁶¹ Soil-transmitted helminths (STH) are responsible for malnutrition, especially in children. In northwest Tanzania in 2018, the combined prevalence of *A. lumbricoides* and *T. trichiura* infections was found to be 39 percent, with one-fifth of these children having both infections.⁶² Environmental enteropathy is a largely hidden disease caused by the malfunctioning of the small intestine causing inflammation and reduced surface area of intestinal villi and thus compromised ability to absorb nutrients. It primarily affects young children. Hepatitis A and E are strongly associated with inadequate WASH, and while few studies have been conducted, it is estimated that Tanzania has a 0.25 percent prevalence of Hepatitis E⁶³ and 2,683 infections and 1.9 deaths per 100,000 population.⁶⁴

There are several gender consequences of hauling water for domestic purposes.⁶⁵ Indeed, insufficient attention has been given to women's health status or quality of life due to the burden of carrying water. The effect is especially strong in pregnant women. Water loading can lead to musculoskeletal disorders, physical injuries, exhaustion, and dehydration.⁶⁶ Heavy physical work such as carrying water is associated with pelvic floor dysfunction, urinary incontinence, and fecal incontinence. A study from Tanzania revealed a high incidence of lower back and neck pain, and the odds of having lower back pain increased by 10 percent with every additional 1kg load increase.⁶⁷ Water insecurity causes psychosocial distress and can lead to women economizing on water used for hand washing and other domestic purposes.⁶⁸

When Tanzanians seek health care, it is vital that they experience good service and do not leave the facility sicker than when they arrived. The quality of water, sanitation, hygiene, and waste management are key aspects of quality of care and patient satisfaction. The quality of care will influence future health-seeking behavior. WASH investment in healthcare facilities improves health outcomes in patients, reduces health care acquired infections, and

increases health worker satisfaction and patient trust. Delays in seeking care (after, instead of within, 24 hours) have a 1.6 higher chance of death in children under five in Tanzania.⁶⁹

Some jobs put workers at significantly higher risk of disease than the general population. In Tanzania, sanitation workers who do not follow safety procedures or wear personal protective equipment face among the highest health risks and occupational hazards. Manual pit or septic tank emptying practices persist.⁷⁰ For sewer maintenance,

⁶¹ <https://www.gtfcc.org/about-cholera/roadmap-2030/>.

⁶² Makata, K., Ensink, J., Ayieko, P. et al. Hand hygiene intervention to optimise soil-transmitted helminth infection control among primary school children: the Mikono Safi cluster randomised controlled trial in North-Western Tanzania. 2021. *BMC Medicine* 19: 125.

⁶³ Li, P., Liu, J., Li, Y. et al. The global epidemiology of hepatitis E virus infection: A systematic review and meta-analysis. 2020. *Liver International* 40: 1516–28.

⁶⁴ Cao, G., Jing, W., Liu, J. and Liu L. The global trends and regional differences in incidence and mortality of hepatitis A from 1990 to 2019: sanitati and implications for its prevention. 2021. *Hepatology International* 15: 1068–82.

⁶⁵ Ho, E. W., Strohmeier-Breuning, S., Rossanese, M. et al. Diverse Health, Gender and Economic Impacts from Domestic Transport of Water and Solid Fuel: A Systematic Review. 2021. *Int J Environ Res Public Health* 18(19): 10355.

⁶⁶ Jalali, R. The Role of Water, Sanitation, Hygiene, and Gender Norms on Women's Health: A Conceptual Framework. 2021. *Gendered Perspectives on International Development* 1.

⁶⁷ Kadota J. L., McCoy, S.I., Bates, M.N. et al. The Impact of Heavy Load Carrying on Musculoskeletal Pain and Disability among Women in Shinyanga Region, Tanzania. 2020. *Ann. Glob. Health* 86:17.

⁶⁸ Jalali, R. The Role of Water, Sanitation, Hygiene, and Gender Norms on Women's Health: A Conceptual Framework. 2021. *Gendered Perspectives on International Development* 1.

⁶⁹ Lugangira, K., Kazaura, M. and Kalokola, F. Morbidity and mortality of children aged 2–59 months admitted in the Tanzania Lake Zone's public hospitals: a cross-sectional study. 2017. *BMC Research Notes* 10: 502.

⁷⁰ Njee, R.M., Allute, S., Joseph, B. et al. Assessment of the Health, Safety and Dignity of Sanitation Workers in Dar es Salaam, Dodoma and Arusha, Tanzania. February 2022. WaterAid.

in most cities workers must dive into the drains to clear them. Generally, personal protective equipment is not adequate for the tasks that sanitation workers perform and many health problems are reported for these workers.

Impacts on Human Capital, Productivity, and Livelihoods

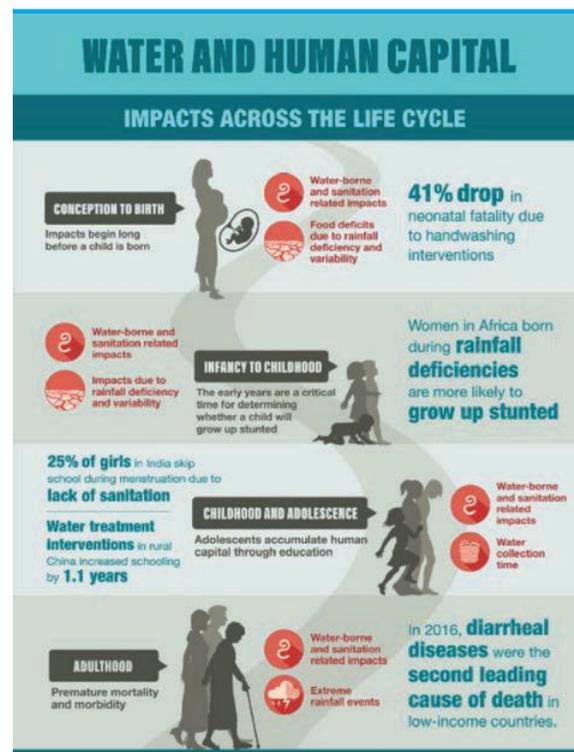
Deficiencies in WASH services hamper human capital accumulation, with multiple pathways of impact. Some of these were captured in the monetary estimates (health and time) and described in the previous section on health. Figure 31 provides an overview of some of the key statistics on how WASH affects the human lifecycle.

Poor WASH impacts the health and cognitive development of millions of Tanzanian children before they are even born. A ‘shock’ or deprivation experienced at this stage, however small, may have devastating long-term impacts. The stillbirth rate for Tanzania is estimated at 19 per 1,000 births and the neonatal mortality rate is 20 per 1,000 live births,⁷¹ giving approximately 4 deaths per 100 pregnancies (until 6 weeks after birth). Maternal health and nutritional status are affected by diarrheal disease and soil-transmitted helminths, and these in turn will affect the birthweight of their children.^{72, 73} Approximately 10 percent of new-born infants have low birthweight in Tanzania.⁷⁴

WASH in health facilities is a basic requisite for quality health services. Poor WASH and sanitary environments will discourage the population from seeking care when they need it and consequently can lead to worse health outcomes. Also, proper management of medical waste is vital to reduce further health risks in the community.

Sanitary environments in the home and health facility are vital to maternal health, and by implication, the health of the newborn baby. In Tanzania between 2005 and 2010 it was found that 24 percent of facility delivery rooms were “WATSAN-safe”, while 1.5 percent of home deliveries were “WATSAN safe.”⁷⁵ Maternal sepsis results from unclean and prolonged delivery, and significantly affects the health of the newborn baby. Maternal sepsis caused 17 percent

FIGURE 31 • Key Impacts of WASH on the Four Lifecycle Stages



Source: World Bank, 2018 (unpublished)⁹.

⁹ Andres, L.A., Chase, C., Chen, Y. et al. Water and Human Capital: Impacts across the lifecycle. November 2018. Water Global Practice Brief. World Bank.

of almost 2,000 maternal deaths recorded in Tanzania over the period 2006–15.⁷⁶ Neonatal health is affected by the sanitary environment—a study in Dar es Salaam found that 6 percent of new-born infants developed

⁷¹ <https://childmortality.org>.

⁷² Ramakrishnan, U. Nutrition and low birth weight: from research to practice. 2004. Am J Clin Nutr: 79(1): 17-21.

⁷³ Kind, K. L., Moore, V. M. and Davies, M. J. Diet around conception and during pregnancy—effects on fetal and neonatal outcomes. 2006. Reprod Biomed Online 12(5): 532-41.

⁷⁴ <https://data.worldbank.org/indicator/SH.STA.BRTW.ZS?locations=TZ>.

⁷⁵ Benova, L., Cumming, O., Gordon, B. A. et al. Where There Is No Toilet: Water and Sanitation Environments of Domestic and Facility Births in Tanzania. 2014. PLoS One: 9(9).

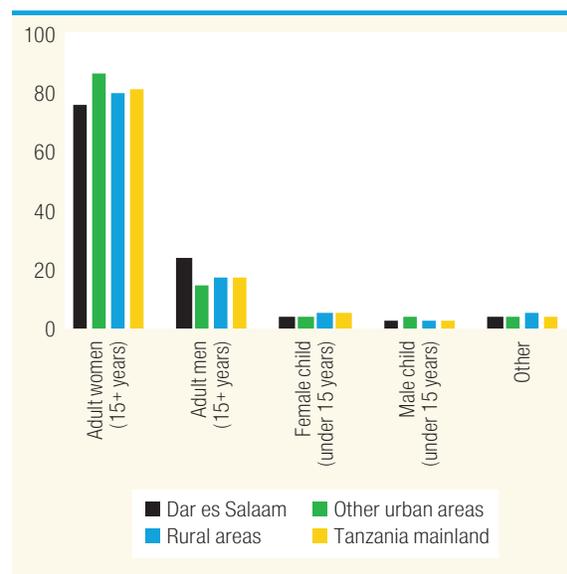
⁷⁶ Bwana, V. M., Rumisha, S. F., Mremi, I. R. et al. Patterns and causes of hospital maternal mortality in Tanzania: A 10-year retrospective analysis. 2019. PLoS One 14(4): e0214807.

an infection.⁷⁷ In Muhimbili National Hospital, a case fatality rate of 45 percent was recorded from neonates that had sepsis.⁷⁸

WASH plays a key role in childhood nutrition. The probability of survival to age 5 in Tanzania is 95 percent. A nutritious and balanced diet is required to ensure the proper development of a child's cognitive skills. While stunting rates have come down considerably over recent decades, roughly one in three children are stunted in Tanzania.^{79, 80} UNICEF estimates that, in 2015, more than 2.7 million Tanzanian children under 5 years of age were stunted and more than 600,000 were suffering from acute malnutrition, of which 100,000 were severe cases.⁸¹ The role of improved WASH is vital in reducing these numbers, as it is critical not just how much a child eats, but how well the nutrition is absorbed by the gut—which will be influenced by the presence of enteropathy,⁸² intestinal helminths and repeated bouts of diarrhea. This requires a multi-pronged approach to address risk factors ranging from inadequate food and illness to poor access to WASH.

Physical health, brain development and schooling have an enormous impact on the lifetime health and productivity of children. The probability of dying between the ages of 5 and 14 in Tanzania is 11.9 per 1,000 children.⁸³ Inadequate nutrition will mean the essential minerals and nutrients for brain development will not be provided. Studies also show that school-age children who are hungry may have difficulty thinking and learning. The combined impact of poor health and lack of access to water and sanitation facilities will mean many children will lose time spent at school (either absenteeism or non-enrolment). At least 33 million school days each year are estimated to be lost from sickness in children of school age, or 2 days for every Tanzanian school child (see Economic Costs part). Water collection duties are often performed by children, especially girls (Figure 32). Lack of toilet facilities in schools will mean either pupil's time is lost going outside, facing the indignity of open urination or defecation, or not going to the toilet when needed, thus causing considerable discomfort. Lack of handwashing facilities or clean water in schools will lead to higher disease rates and contribute to community transmission.

FIGURE 32 • Percentage of Household Members Responsible for Fetching Water by Category and Area (in percent)



Source: Household Budget Survey 2017/18.

Evidence from Tanzania shows the significant impact of inadequate WASH facilities in schools on school attendance. A study released in March 2022 indicated that access to school WASH

⁷⁷ Woodd, S.L., Kabanyanyi, A.M., Rehman, A.M. et al. Postnatal infection surveillance by telephone in Dar es Salaam, Tanzania: An observational cohort study. 2021. PLoS ONE 16(7): 1.

⁷⁸ Abdallah Ba-alwi, N., Ogooluwa Aremu, J., Ntim, M. et al. Bacteriological Profile and Predictors of Death Among Neonates With Blood Culture-Proven Sepsis in a National Hospital in Tanzania—A Retrospective Cohort Study 2022. *Pediatr*: 10:797208.

⁷⁹ Sunguya, B. F., Zhu, S., Mpembeni, R. and Huang, J. Trends in prevalence and determinants of stunting in Tanzania: an analysis of Tanzania demographic health surveys (1991–2016). 2019. *Nutrition Journal* 18:85.

⁸⁰ The Tanzania National Nutrition Survey reported in 2018 that 31.8 percent of children under five were stunted or had chronic malnutrition; and 10 percent had severe stunting.

⁸¹ <https://www.unicef.org/tanzania/what-we-do/nutrition>

⁸² Kelly, P. The contribution of environmental enteropathy to the global problem of micronutrient deficiency. 2021. *Proceedings of the Nutrition Society* 80: 303–310.

⁸³ <https://childmortality.org>.

infrastructure plays a significant role in keeping children in school for longer.⁸⁴ It is estimated that if a standard⁸⁵ WASH package were implemented in all schools, rural school children might stay in school for 1.1 years longer than they do otherwise whereas urban children might stay in school for 1.4 years longer. The study also shows that access to the standard package of school WASH infrastructure could lead to a 2.5 per cent increase in average lifetime earnings in rural areas and over a 4 percent increase in urban areas.

The lack of menstrual hygiene (MHM) facilities at schools prevents the full participation of Tanzanian girls in education.⁸⁶ Girls with poor menstrual hygiene are more prone to abdominal pain, urinary tract infections and other diseases. Moreover, girls with health problems are less likely to be able to concentrate on their studies and do well in school. While primary schools' enrolment among girls and boys is nearly equal in Tanzania, the enrolment changes dramatically in secondary schools as girls reach puberty. On average, girls could miss two to four school days during each monthly cycle, equaling approximately 30–40 missed school days per Tanzanian schoolgirl per year.⁸⁷ In Tanzania, about 17 percent reported that their periods keep them out of school.⁸⁸

Diseases related to poor WASH are important contributors to premature death. In Tanzania 78 percent of 15-year-old children will survive until age 60;⁸⁹ in other words, 22 out of every one hundred 15-year-old Tanzanian children will not live to experience their 60th birthday. This is more than twice the rate for the USA and five times the rate for Sweden. Indeed, quality WASH services including menstrual hygiene management are key concerns for a large share of the Tanzanian population—covering women, the elderly, and the physically disabled (MHM is further covered in Social and Personal Costs part).

People with disabilities tend to have especially limited WASH access. Few low-cost WASH solutions have been provided to accommodate different needs. This is especially true in the workplace or in public spaces. Also, poor people are less likely to have WASH, making them more vulnerable to the economic impacts of poor sanitation covered earlier.⁹⁰

The lack of MHM facilities in workplaces prevents the full participation of Tanzanian women in employment.⁹¹ In Dar es Salaam, women working in markets pay up to 18 times more for their daily use of the market toilets than they pay as market tax.⁹² High toilet fees have a differential and adverse impact on women, who require toilets more frequently than men, and have fewer alternatives at marketplaces.

A person's most valuable asset is time, yet over a billion days per year are lost in Tanzania from sickness and access associated with poor WASH. At least 50 million working days are lost per year from adult sickness resulting from poor WASH, at least 640 million days are lost per year from lack of access to sanitation services and at least 370 million days are lost per year due to lack of access to water service (Figure 33 and Figure 34). There is a marked difference between water access in different seasons, when the proportion of households traveling

⁸⁴ Silva-Leander, S., Burr, P., and Medardi, D. A Costed Plan of Action and Investment Case for implementation of School Water, Sanitation and Hygiene (SWASH) services. March 2022. Oxford Policy Management.

⁸⁵ 20 girls and 25 boys per toilet, 2 toilets for disabled pupils and 2 toilets for teachers, tap water and a water tank per school.

⁸⁶ World Bank. Tanzania Gender Assessment. March 2022.

⁸⁷ Kara, N., Cavi, E., Delasco, J. et al. Advancing Menstrual Health, Education and Economic Progress: A Comparative Study. 2022. Days for Girls International and New Perimeter.

⁸⁸ Njee, R.M., Imeda, C.P., Ali, S.M. et al. Menstrual Health and Hygiene Among School Girls in Tanzania: Research Report. June 2021. UNICEF and Tanzania National Institute for Medical Research.

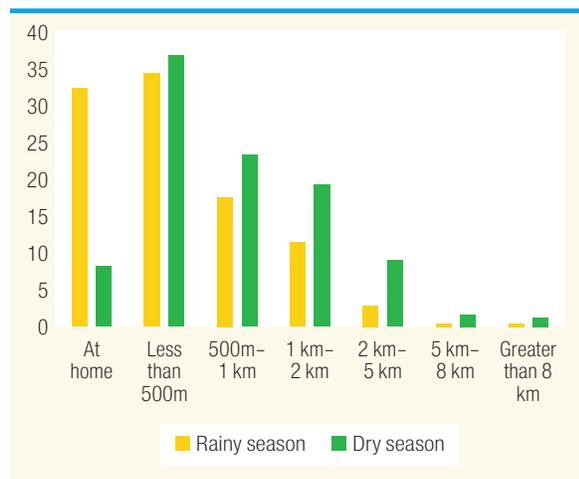
⁸⁹ [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/adult-mortality-rate-\(probability-of-dying-between-15-and-60-years-per-1000-population\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/adult-mortality-rate-(probability-of-dying-between-15-and-60-years-per-1000-population))

⁹⁰ Joseph, G., Haque, S. and Ayling, S. Reaching for the SDGs. The Untapped Potential of Tanzania's Water Supply, Sanitation, and Hygiene Sector. WASH Poverty Diagnostics. 2018. World Bank.

⁹¹ World Bank. Tanzania Gender Assessment. March 2022.

⁹² Siebert, M. and Mbise, A. Toilets Not Taxes: Gender Inequity in Dar es Salaam's City Markets. November 2018 International Center for Tax and Development (ICTD). Working Paper 89.

FIGURE 33 • Percentage of Household by Distance from Home to Water Source for Rural Areas, by Season (in percent)



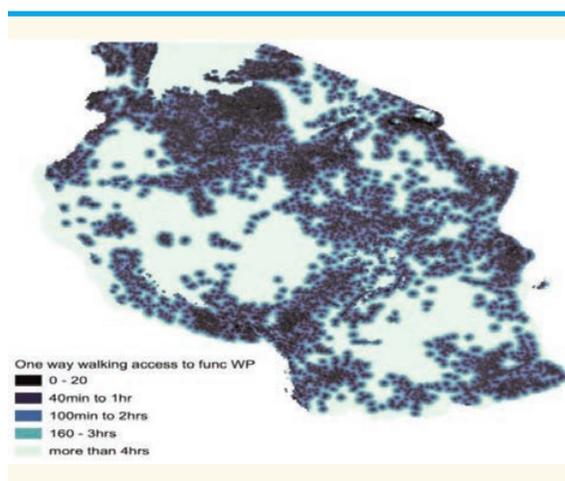
Source: Household Budget Survey 2017/18.

more than 1 km increases from 15 percent in the rainy season to 31 percent in the dry season.

When time losses are valued in financial terms the cost is over a billion dollars of loss of income annually, or 1.9 percent of GDP (see Economic Costs part), though it is difficult to put a true value on this lost time. Outside Dar es Salaam, women are at least six times more likely to be the primary water collector than men (Figure 32). The time spent collecting water from distant sources significantly impacts women's employment opportunities, other home-based income-generating activities, and the health and care of children.⁹³

Tens of thousands of sustainable jobs would be created if Tanzania were to meet its WASH targets and contribute to the livelihood of millions of the population whose livelihoods depend on a reliable water supply. A study from 2014 estimated that 24,000 professionally qualified personnel would be needed to achieve universal access to water supply and sanitation.⁹⁴ Not only are jobs created through initial construction, but many of these jobs are also kept through operations and maintenance of WASH services and the supply of market goods and products. A global review of the health, safety and dignity of sanitation workers highlights the multiple difficulties faced by these vulnerable work-

FIGURE 34 • Round-trip Journey Time to Functional Water Points



Source: Household Budget Survey 2017/18.

ers and emphasizes the importance of policies and measures to protect them.⁹⁵ In Tanzania, Health and Safety guidance for formal sanitation workers exists, however, enforcement of this guidance and the safety of informal workers are not guaranteed.

Social and Personal Costs

A safe, appropriately designed and conveniently located toilet facility is perceived as one of the main benefits of sanitation, especially by women, the elderly and people living with disabilities.

Access to a private, safe sanitation facility and a clean home environment are central to people's dignity and social standing. This converts to pride in being able to offer guests a clean toilet to use in the host's home. Key to the sanitation service, including proper menstrual hygiene management, is a reliable and clean water supply and a handwashing facility close to the toilet.

⁹³ Jalali, R. The Role of Water, Sanitation, Hygiene, and Gender Norms on Women's Health: A Conceptual Framework. 2021. Gendered Perspectives on International Development 1.

⁹⁴ WASH Human Resource Capacity Gaps in 15 Developing Economies. 2014. The International Water Association.

⁹⁵ Health, Safety and Dignity of Sanitation Workers. An Initial Assessment. 2019. World Bank, WHO, ILO, WaterAid.

However, proper menstrual hygiene management is a significant challenge in Tanzania, especially for rural women where 91 percent of shops in rural areas do not sell disposable menstrual pads.⁹⁶ This leaves many millions of rural Tanzanian women without a convenient supply of menstrual pads. When sold in retail, the price of disposable pads is often prohibitive, and most respondents report that the cost far exceeds what they can pay.⁹⁷ As a result, girls and women have no choice but to use unsafe alternatives such as rags, leaves, or pieces of mattress filling to manage menstruation. These unhygienic materials are not only uncomfortable and prone to leakage, but they also leave users susceptible to urinary tract infections and other reproductive health issues.

In addition to access issues, girls and women must also contend with deeply entrenched cultural beliefs and social taboos. Menstruation is a taboo subject rarely discussed publicly in many Tanzanian communities because it is perceived as a shameful, private and dirty event that must be kept secret as a female issue. Menstrual blood is also associated with beliefs about impurity and contamination.

A clean nearby and well-lit toilet facility—especially after night fall—contributes to the security and safety of vulnerable populations. In many communities, there remains the risk of sexual and gender-based violence and other dangers such as snakes or wild animals.⁹⁸ In a Kenyan slum, women expressed feeling vulnerable when using public toilets that are far from their homes and that do not have locks on doors or proper lighting at night.⁹⁹ Most of the sexual violence in slums occurs in the context of using a toilet, bathing, and/or menstrual hygiene, and in addition to the physical assault, it also leads to increased anxiety, a sense of powerlessness, marginalization, and stigmatization. Fear of rape, especially at night, can lead to women not drinking fluids, chronic constipation, and using a bucket in their home as a toilet.

Environmental Impacts

A whole range of environmental issues are related to water supply and sanitation which Tanzania will

need to address as the economy grows and as climate change alters the availability of water.

Overextraction of water for agriculture and other productive uses will limit the availability and affect the price of water used for domestic purposes, including drinking. Droughts driven by climate change are exacerbating the situation. In Mvumi Ward, Dodoma, one-half of households collect water from over 3km away.¹⁰⁰ In Chamwino and Mwanga districts in central and Northern Tanzania, drought periods lasted 5 to 7 months thus causing food insecurity, and villagers had a distance of 2 to 11km to collect water for domestic purposes. In Dar es Salaam in 2022, because of a long dry spell and a drop in the River Ruvu's levels, piped water became available only on alternate days until the water levels improved.¹⁰¹

Many municipal water systems waste a significant share of their water. Non-revenue water for regional and national water utilities averaged 37 percent¹⁰² and for district and township water utilities averaged 40 percent in 2020/21.¹⁰³ Increasingly, groundwater and surface water bodies in Tanzania are

⁹⁶ Kara, N., Cavi, E., Delasco, J. et al. Advancing Menstrual Health, Education and Economic Progress: A Comparative Study. 2022. Days for Girls International and New Perimeter.

⁹⁷ Gabriellsson, S. Towards Sustainable Menstrual Health Management in Tanzania. Policy Brief. 2018. Lund University, Center for Sustainable Studies, Sweden.

⁹⁸ Pommells, M., Schuster-Wallace, C., Watt, W. and Mulawa, Z. Gender Violence as a Water, Sanitation, and Hygiene Risk: Uncovering Violence Against Women and Girls as It Pertains to Poor WaSH Access. *Violence Against Women* 24(15): 1851–62.

⁹⁹ Corburn, J. and Hildebrand, C. Slum Sanitation and the Social Determinants of Women's Health in Nairobi. 2015. Kenya. *J Environ Public Health* 2015: 209505.

¹⁰⁰ Mkonda, M.Y. Assessment of Water Shortage and its Implications to Gender Role in Semi-arid Areas in Mvumi Ward, Dodoma in Tanzania. 2015. *Arts and Social Sciences Journal* 6:5.

¹⁰¹ <https://dailynews.co.tz/dar-coast-regions-water-taps-to-run-dry/>.

¹⁰² Energy and Utilities Regulatory Authority (EWURA). Water Utilities Performance Review Report 2020/21. Regional and National Project Water Utilities. Ministry of Energy. United Republic of Tanzania.

¹⁰³ Ibid.

becoming heavily polluted. The presence of toxic and chemical waste from agricultural practices and industries makes the water too expensive to treat for domestic use. Municipal wastewater and non-point run-off from poor sanitation practices are increasingly contributing to water pollution. Run-off from pits and septic tanks means brown and black water collect around inhabited areas, breeding disease and causing unpleasant smells.

New analyses are now showing how sanitation systems can contribute to greenhouse gas emissions. An analysis in Kampala, Uganda, shows how unimproved sanitation systems can contribute up to 120 kg of CO₂ equivalent per capita per year, especially pit latrines that are unlined or that are below the groundwater table.¹⁰⁴ Emissions are also produced during wastewater and fecal sludge treatment processes.

Cost-Benefit Analysis of Improving WASH

In aggregate, combining these different impacts, inadequate WASH services and practices are causing a demonstrated major loss and hindrance to socio-economic development in Tanzania. Conversely, if WASH is improved, the economic benefits can be very significant—not only through avoiding the losses covered above, but also through generating employment, supporting livelihoods that depend on a reliable water supply, and creating demand for products and services thereby increasing the value of the supply chain. The economic multiplier¹⁰⁵ of direct goods and services in WASH means additional knock-on economic activity to the wider economy of 50 to 70 percent.¹⁰⁶

WASH services have been shown to be central to socioeconomic development in many more advanced economies. Time savings, reduced burden on women and employment opportunities have all been clearly demonstrated, and health benefits have been shown through many studies globally. Compared to unimproved WASH, an improved water supply reduces the risk of diarrhea by 52 percent, improved sanitation by 24 percent, sewer connection by 47 percent and promotion of handwashing by 30 percent.¹⁰⁷

Health benefits of WASH have been demonstrated in Tanzania. DHS 2015/16 data found the odds of diarrhea were 1.25 times higher among

children with unsafe stool disposal compared to those with safe disposal.¹⁰⁸ Universal coverage of direct diarrhea, nutrition and WASH interventions has the potential to reduce the diarrhea-specific mortality rate by 90 percent (or 11,285 deaths in 2030), with key contributions from WASH.¹⁰⁹ Also, over 90 percent reductions in schistosomiasis and soil-transmitted helminths were achieved through a control program on Kome Island in Lake Victoria.¹¹⁰

Furthermore, WASH has been shown to deliver value for money—with expected returns of at least 4 Tanzanian Shillings for every Shilling invested.¹¹¹ This number omits many of the costs that would be averted by improving WASH, due to the challenges of quantifying all the impacts (many covered above).

¹⁰⁴ Johnson, J., Zakaria, F., Nkurunziza, A.G. et al. Whole-system analysis reveals high greenhouse-gas emissions from citywide sanitation in Kampala, Uganda. 2022. *Communications Earth & Environment* 3: 80.

¹⁰⁵ The multiplier effect of demand in one sector over outputs of all sectors through both backward and forward linkages.

¹⁰⁶ Multiplier for Tanzania is estimated at 1.7 for manufacturing and 1.5 for other services. In: Kweka, J., Morrissey, O. and Blake, A. *The Economic Potential of Tourism in Tanzania*. 2003. *Journal of International Development* 15: 335–351.

¹⁰⁷ Wolf, J., Hubbard, S., Brauer, M. et al. Effectiveness of interventions to improve drinking water, sanitation, and handwashing with soap on risk of diarrhoeal disease in children in low-income and middle-income settings: a systematic review and meta-analysis. 2022. *Lancet* 400: 48–59.

¹⁰⁸ Edwin, P. and Azage, M.. Geographical Variations and Factors Associated with Childhood Diarrhea in Tanzania: A National Population Based Survey 2015–16. 2017. *Ethiop J Health Sci.*: 29(4): 513.

¹⁰⁹ Masanja, H., Mongi, P., Baraka, J. et al. Factors associated with the decline in under five diarrhea mortality in Tanzania from 1980–2015. 2019. *Journal of Global Health* 9(2): 020806.

¹¹⁰ Kaatano, G.M., Siza, J.E., Mwangi, J.R. et al. Integrated Schistosomiasis and Soil-Transmitted Helminthiasis Control over Five Years on Kome Island, Tanzania. 2015. *Korean J Parasitol* 53(5): 535–543.

¹¹¹ Hutton, G. Global costs and benefits of drinking-water supply and sanitation interventions to reach the MDG target and universal coverage. 2012. WHO/HSE/WSH/12.01. World Health Organization.

TABLE 6 • Financial Requirements of Water Sector Development Programme 3 (2022/23-2025/26), US\$

Component	Total cost	Per capita	Annual per capita
Water Supply Projects	2,601,417,108	39.7	9.9
Sanitation and Hygiene Projects	1,226,935,985	18.7	4.7
Programme Coordination and Delivery Support ^a	313,294,602	4.8	1.2
Total (WASH)	4,141,647,695	63.1	15.8

Source: Water Sector Development Programme 3.

Note: ^aAllocated as proportion of direct WASH costs to overall direct costs of WSDP.

Raising the resources to implement universal WASH access is achievable. Indeed, when converted to annual, per capita costs, the financing required to achieve near universal WASH access is under US\$16 per capita per year in Tanzania. The Water Sector Development Programme 3, running from 2022 to 2026, estimates US\$2.6 billion is required for increasing access to near universal coverage of adequate, clean and safe water, and US\$1.23 billion for increasing access to adequate sanitation and hygiene services. These requirements may seem unattainable based on current budget allocations, but when spread out over the entire Tanzania population, they are US\$63 per capita over 4 years or US\$16 per capita per year (Table 6). Together with its development partners, the Government of Tanzania needs to explore opportunities to raise public budgets, concessional and commercial finance (loans) needed to achieve universal access to adequate WASH.

Similarly, universal access to WASH in schools and health facilities is also potentially affordable to the Tanzania people. Recent estimates show that the standard package of school WASH services in Tanzania would cost up to Tsh 370 billion, or US\$159 million, which is equal to US\$ 2.4 per capita (per Tanzanian) over five years, or US\$0.42 per capita per year.¹¹² In health facilities, it is estimated that the capital costs are US\$0.24–0.40 per capita per year (per person in the 46 countries included) and the recurrent cost are US\$0.51 per capita per year, to achieve full coverage of WASH and waste services in public health facilities (averaged across 46 least-developed countries).¹¹³

When comparing the costs of achieving near universal access to basic WASH through WSDP-3 implementation with the economic costs saved,

there is potentially a considerable saving for the Tanzanian people. When estimated for the entire Tanzanian population, the WSDP-3 average annual per capita cost of US\$16 compares with the average annual per capita losses of US\$38. Given the upfront investment needs, the WSDP-3 cost of US\$4.1 billion is recovered (in terms of economic savings to the Tanzanian population and economy) in four to five years if the WSDP-3 achieved linear growth. This comparison needs to be interpreted with caution, as on the one hand it will cost more to successfully achieve WSDP-3 targets and later universal WASH access in Tanzania, while on the other hand the benefits themselves are underestimated in the base year. Furthermore, the benefits will continue for many years into the future. In conclusion, there is likely to be a very favorable benefit-cost ratio of achieving universal WASH access in Tanzania.

Policy Recommendations and Conclusions

Deep and sustained improvements in WASH will be vital to achieve the SDG targets for health, educa-

¹¹² Silva-Leander, S., Burr, P., and Medardi, D. A Costed Plan of Action and Investment Case for implementation of School Water, Sanitation and Hygiene (SWASH) services. March 2022. Oxford Policy Management.

¹¹³ Chaitkin, M., McCormick, S., Alvarez-Sala, J. et al. Estimating the cost of achieving basic water, sanitation, hygiene, and waste management services in public health-care facilities in the 46 UN designated least-developed countries: a modelling study. 2022. *Lancet Global Health* 10(6): e840-e849.

BOX 6: SUCCESSFUL USE OF RESULTS BASED FINANCING IN THE RURAL WASH SECTOR

The Tanzania Sustainable Rural Water Supply & Sanitation Program (SRWSSP) is a US\$350 million Program for Results (PforR) started in 2018, which aims to increase access to rural water supply and sanitation services in the 86 districts and strengthen the capacity of select sector institutions to sustain service delivery. By July 2022, it has succeeded its target for water supply and sanitation access by providing 4.67 million beneficiaries with sanitation and 3.37 million beneficiaries with water supply. In addition, it has provided 637 schools and 1,534 health care facilities with improved sanitation and hygiene facilities. An additional financing of US\$300 million was approved in December 2022, expanding the program countrywide and extending the targeted beneficiaries for WSS to a further 6 million each. From 2014–2022, access to clean water and improved sanitation was successfully increased for up to 2.1 million people for water supply, and over 280,000 people for sanitation through a UK financed £150 million (approximately US\$170 million) Performance based Results (PbR) project. By the time of its closing, the PbR had reached all rural districts in the country, and the functionality of water points reportedly improved from 30 percent to 52 percent.

tion, gender equality, nutrition, poverty reduction, and sustainable cities. Inadequate WASH has important equity dimensions, cutting across these SDGs, with poor people, women, children, the elderly, and the disabled being most affected by the lack of WASH services. Therefore, investment in WASH can change communities and families lives for the better.

Put another way, improved WASH should be understood as a pre-condition for development, and not only resulting from development. Hence, acting sooner will ensure greater benefits.

In executing the WSDP-3, it is important to have robust planning processes to identify WASH services that deliver value-for-money and are sustainable. Planning must consider population growth, especially in urban areas where there is migration from rural areas. Planning should be informed by real-time data and information on different service standards, including basic and safely managed services. Given that safely managed WASH cannot be achieved immediately, upgrade decisions need to adapt services and accommodate increased demand and willingness to pay. When choosing between technologies, the financing of both the investment costs and the operations and maintenance needs to be considered, and planned for. Climate resilience needs to be factored into the planning of WASH services, drawing on risk assessments to understand what climate-smart investments are needed for different contexts and the investment funds targeted to communities in need.

In implementation, WASH interventions should not be delivered in isolation, and should address multiple development outcomes, by

using “nutrition-sensitive” and gender lens, as well as integrating WASH into multi-sectoral strategies addressing education and health outcomes.¹¹⁴ Improved collaboration at all levels (e.g., government and donor) across sectors is critical to achieving the WASH targets. Maintenance services need to be strengthened through a strong supply chain of parts, materials, and expertise. Efficiency in water used for all purposes and water conservation are important, and greater attention should be given to reducing non-revenue water, especially in water-scarce areas. Financing instruments should increasingly be based on what results are achieved, thereby strengthening accountability for results. This requires indicator standardization and improved monitoring systems. The lessons learned from the results-based financing (Box 6), have helped illustrate the feasibility and potential impact of results-based financing to improve WASH access and sustainability.¹¹⁵

WASH projects that focus on infrastructure development will not be impactful and sustainable without the strengthening of Tanzania’s institutions, policy, and financing environment,

¹¹⁴ Joseph, G., Haque, S. and Ayling, S. Reaching for the SDGs. The Untapped Potential of Tanzania’s Water Supply, Sanitation, and Hygiene Sector. WASH Poverty Diagnostics. 2018. World Bank.

¹¹⁵ Development Impact Evaluation Department (DIME). Improving the sustainability of communal water infrastructure in Tanzania: Adaptive learning within Tanzania’s Payment-by-Results Program (2015–2022). 2022. World Bank and WSDP-2 evaluation report 2022.

from national down to community levels. This includes strong sector leadership by the Government of Tanzania, good communication between ministries responsible for WASH and the Ministry of Finance, improved coordination of development partners (internally and with and between key implementing ministries), financial instruments with low transaction costs, a strengthened regulatory function, incentives for private sector participation, and instruments for accountability, planning, monitoring and review. A

more transparent, rapid, and simple flow of funds and data between all levels of government would ensure more efficient service provision to the end user. These financial flows would be aided by clarity of institutional roles on the ground.¹¹⁶

¹¹⁶ Joseph, G., Haque, S. and Ayling, S. Reaching for the SDGs. The Untapped Potential of Tanzania's Water Supply, Sanitation, and Hygiene Sector. WASH Poverty Diagnostics. 2018. World Bank.

ANNEX 1

CORE MACROECONOMIC DATA SOURCES FOR THE REPORT

Sector	Series	Latest Data Point	Source	Measurement Year
Tanzania Mainland				
Real	GDP at constant 2015 prices by activity and by demand, tourist arrivals at Tanzania Mainland, electricity production, mobility indexes for workplaces, transit stations, and retail employment rate	GDP data: June 2022 High frequency data: September 2022	National Bureau of Statistics, World Bank staff estimates, High Frequency Data, Haver, Google, Integrated Labor Force Survey, High-Frequency data, Welfare Monitoring Survey	Calendar Year
Inflation	Inflation (headline, food, non-food, core, energy), annual growth of credit to selected economic activities.	September 2022	National Bureau of Statistics, Bank of Tanzania	Calendar Year
Monetary	M3, reserve money, broad money and private sector credit	August 2022	Bank of Tanzania	Calendar Year
Fiscal	Revenues, expenditures, grants, financing, arrears	FY 2021/22 and 2MFY 2022/23	Ministry of Finance and Planning, Bank of Tanzania	Fiscal Year
Debt	PPG total, external and domestic	August 2022	Bank of Tanzania	Calendar Year
External	BoP and exports and imports of goods and services.	BoP: Q2-2022 and trade data: 9M-2022	Bank of Tanzania and National Bureau of Statistics.	Calendar Year
Outlook	Global PMI Index, Global Sentix Index, Commodity Price Indexes,	September 2022	World Bank staff estimates, Bloomberg, Haver, Goldman Sachs Financial condition indices, JP Morgan Global Purchasing Manger's Indexes, World Bank Data	Calendar Year

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Sector	Series	Latest Data Point	Source	Measurement Year
Zanzibar				
Real	GDP at constant 2015 prices by activity	2021	Bank of Tanzania and Office of the Chief Government Statistician (OCGS) – Zanzibar	Calendar Year
Inflation	Inflation (headline, food, non-food)	September, 2022	(OCGS) – Zanzibar	Calendar Year
Current account	Exports and imports of goods and services	September, 2022	Bank of Tanzania	Calendar Year
Fiscal	Revenues, expenditures, grants, annual budget	FY 2021/22	Bank of Tanzania and Office of the Chief Government Statistician – Zanzibar	Fiscal Year



ANNEX 2

SUMMARY OF SPECIAL FOCUSES FROM THE LATEST TANZANIA ECONOMIC UPDATES

Spring 2022 TEU – 17: “Accelerating Growth by Expanding Women’s Economic Opportunities and Ensuring Equitable Access to Assets”

Over the last two decades, a growing share of Tanzanian women have entered salaried employment, and an increase in the female labor-force participation rate (LFPR) has accelerated Tanzania’s transition to lower-middle-income country. However, women still face multiple challenges, including persistent gender gaps in wage rates and agricultural productivity. Despite recent progress, women are less likely to own a home, exercise secure land rights, hold a bank account, or have access to finance. These gender disparities prevent women from maximizing their contribution to Tanzania’s economic development.

Fall 2021 TEU – 16: “The Recovery Resilience, and Transformation of Tanzania’s Tourism Sector”

Tanzania’s abundant nature and rich cultural resources present a considerable economic opportunity. The tourism sector can support the government’s broader development objectives by: (i) creating jobs, both directly and through backward linkages to other sectors; (ii) generating foreign-exchange earnings;

(iii) providing revenue to support the preservation and maintenance of natural and cultural heritage; and (iv) expanding the tax base to finance development expenditures and poverty-reduction efforts. However, the COVID-19 crisis severely impacted Tanzania’s tourism sector as the disruption of global travel and tourism activity resulted in job losses and business closures. This prompted policymakers, investors, firms, and development practitioners to reconsider tourism’s underlying sustainability and value proposition.

Spring 2021 TEU – 15: “Raising the Bar: Achieving Tanzania’s Development Vision”

Following two decades of sustained growth, Tanzania reached an important milestone in July 2020, when it formally graduated from low-income country (LIC) to lower-middle-income country (LMIC) status. While reaching LMIC status is a laudable achievement, Tanzania’s larger development agenda remains unfinished. The Tanzania Development Vision (TDV) 2025 envisages Tanzania as a middle-income country with well-developed human capital, an ample supply of high-quality livelihood opportunities, and broad-based

gains in living standards. Achieving this will require an annual GDP growth rate of 8 percent, the creation of 8 million jobs, and sustained improvements in social indicators. While Tanzania aspires to middle-income status, in the near term it will need to maintain its LMIC status in a context of deep and lasting external shocks. This special focus further frames three pillars that reflect both the lessons of the international experience and Tanzania's unique circumstances and form the basis for an actionable policy agenda to achieve the goals of the TDV 2025.

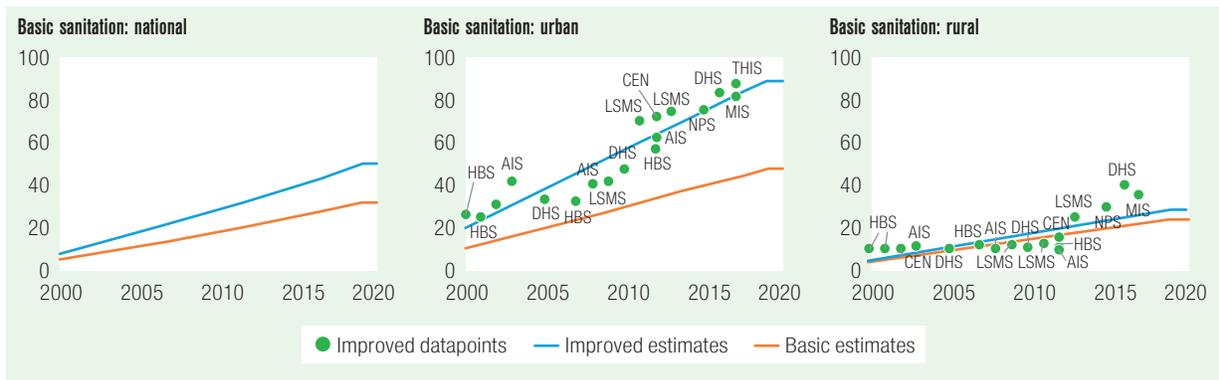
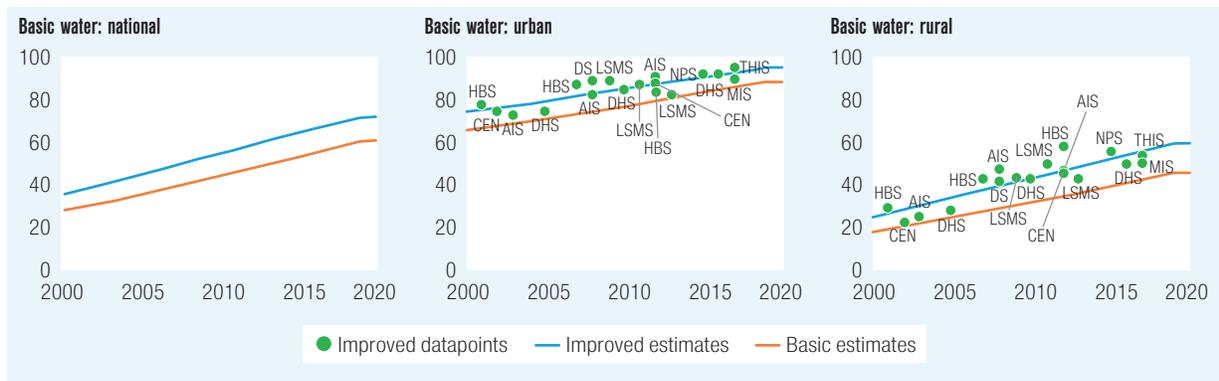
Fall 2020 TEU – 14: “The Potential of the Digital Economy”

The digital economy is growing quickly globally, and it can support the delivery of stronger policy responses and help contain the spread of the COVID-19 virus. However, expanding the digital economy depends both on the interaction of digital platforms and on legislation. Both governments and firms should contribute to driving trust and transparency online. This Special Focus gives a number of recommendations as well as interventions that the Government of Tanzania could consider if the digital economy is to rapidly expand, and to respond effectively to the COVID-19 pandemic.

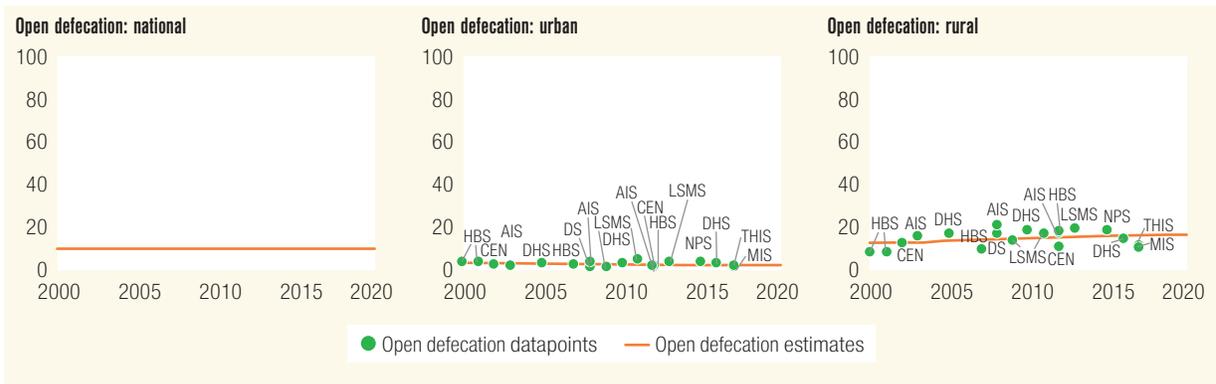
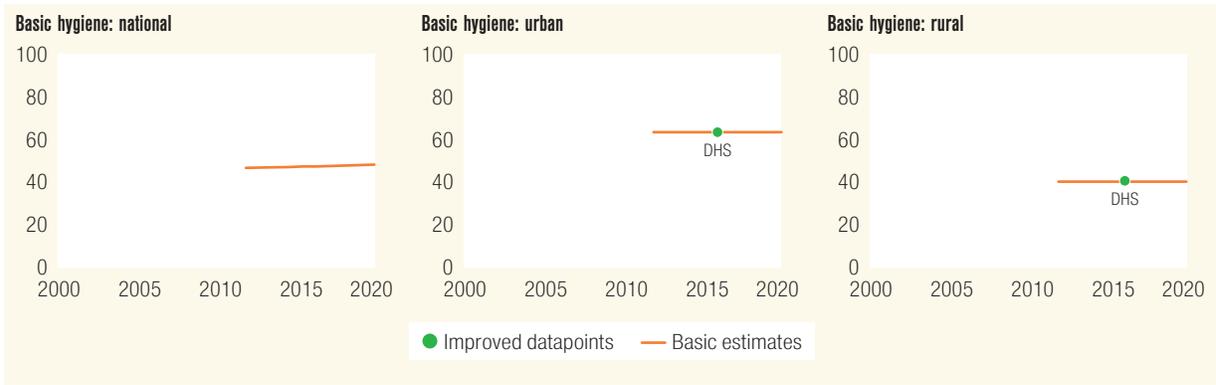
ANNEX 3

WASH ACCESS IN TANZANIA

Annex 3.1: Access to Basic WASH in Households

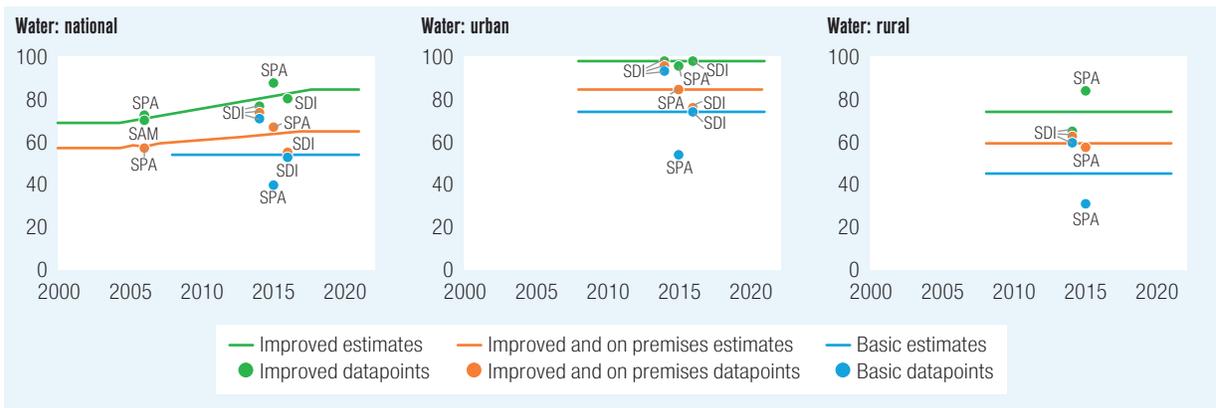


Source: WHO/UNICEF Joint Monitoring Programme <https://washdata.org/>.

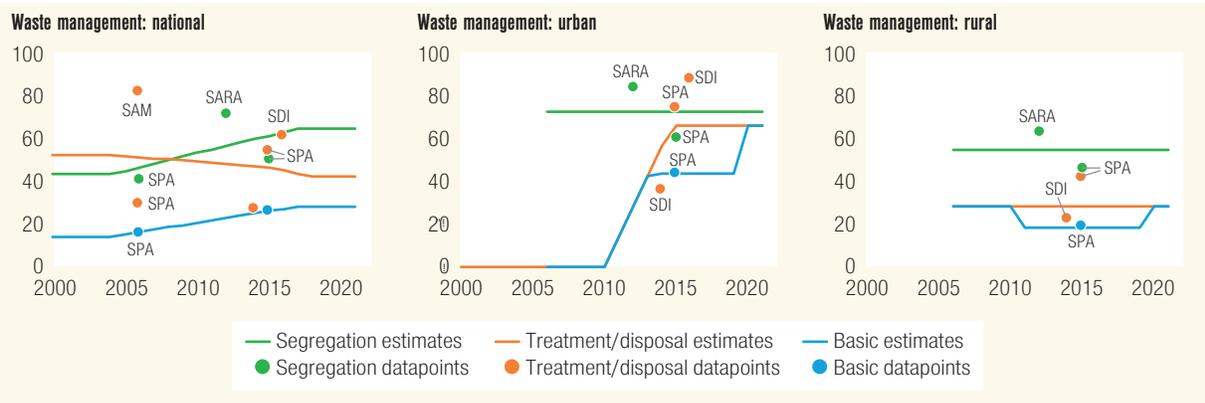
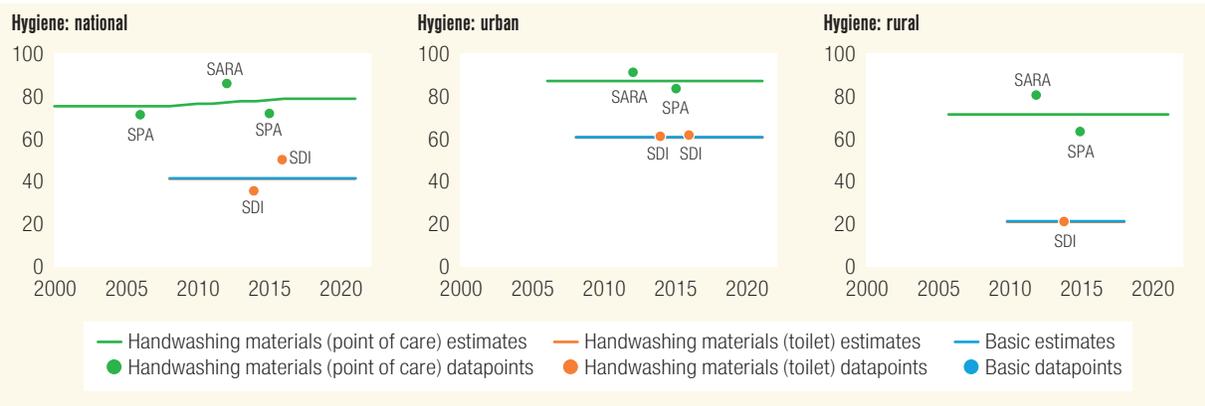
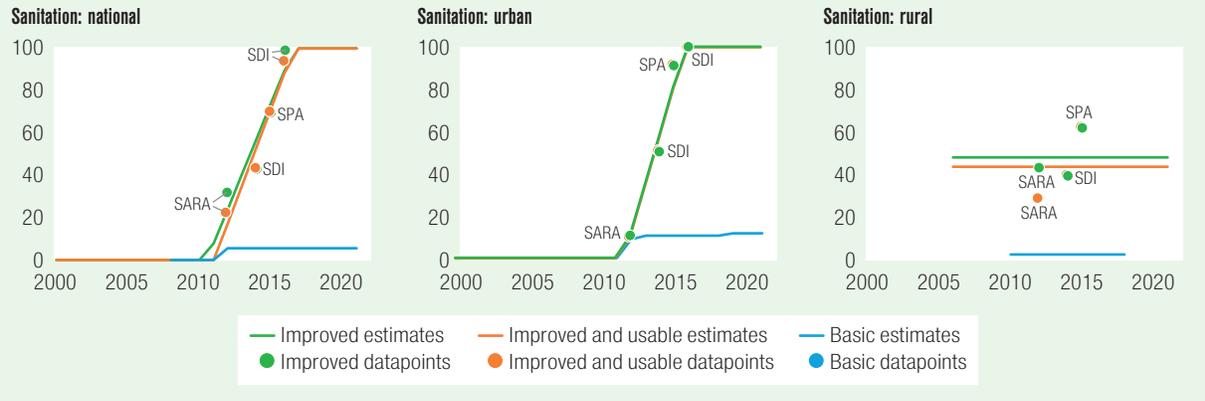


Source: WHO/UNICEF Joint Monitoring Programme <https://washdata.org/>.

Annex 3.2: Access to Basic WASH in Health Facilities

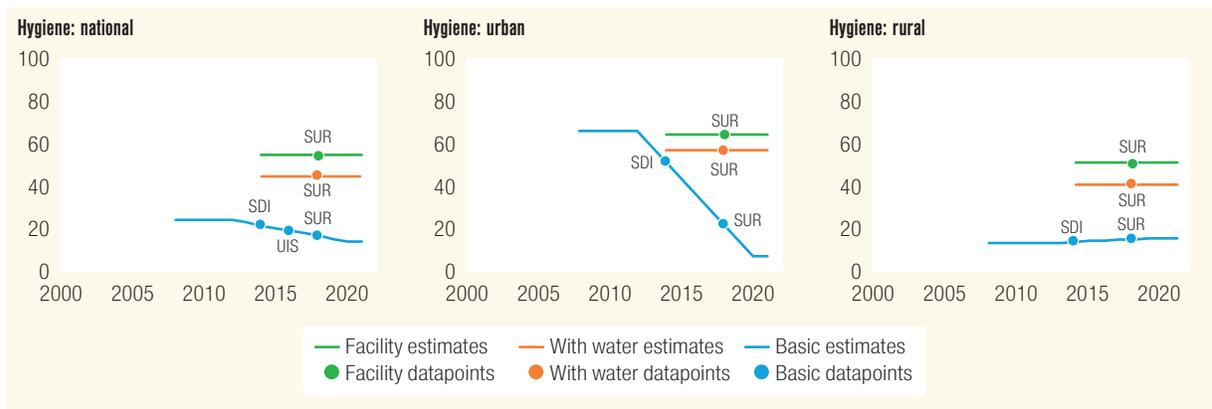
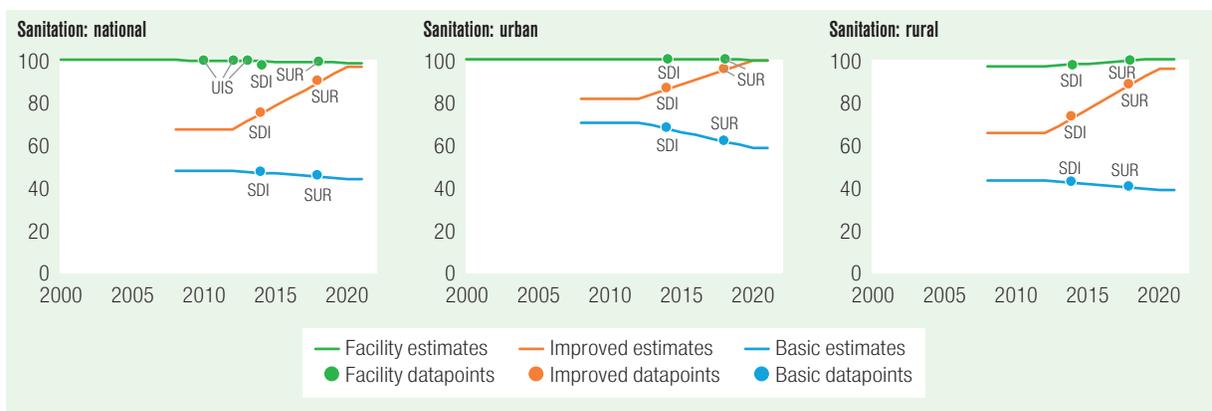
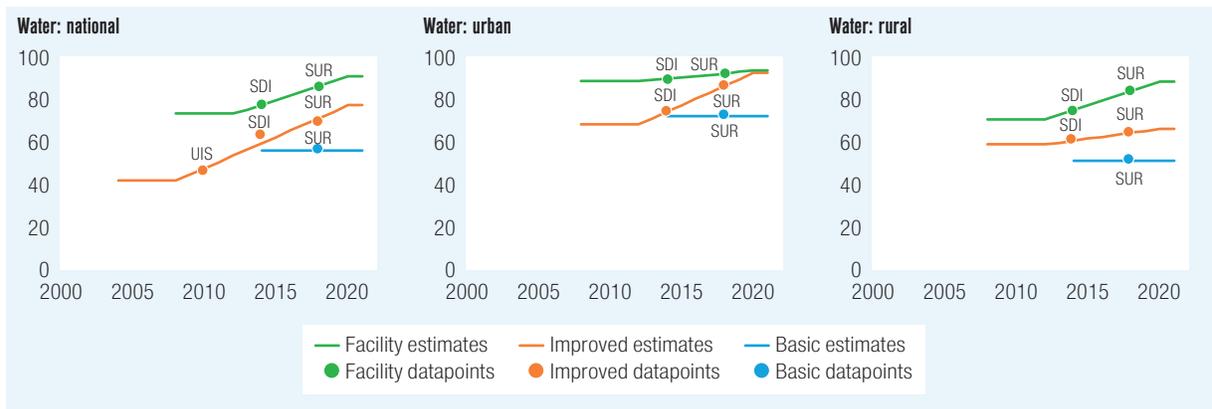


Source: WHO/UNICEF Joint Monitoring Programme <https://washdata.org/>.



Source: WHO/UNICEF Joint Monitoring Programme <https://washdata.org/>.

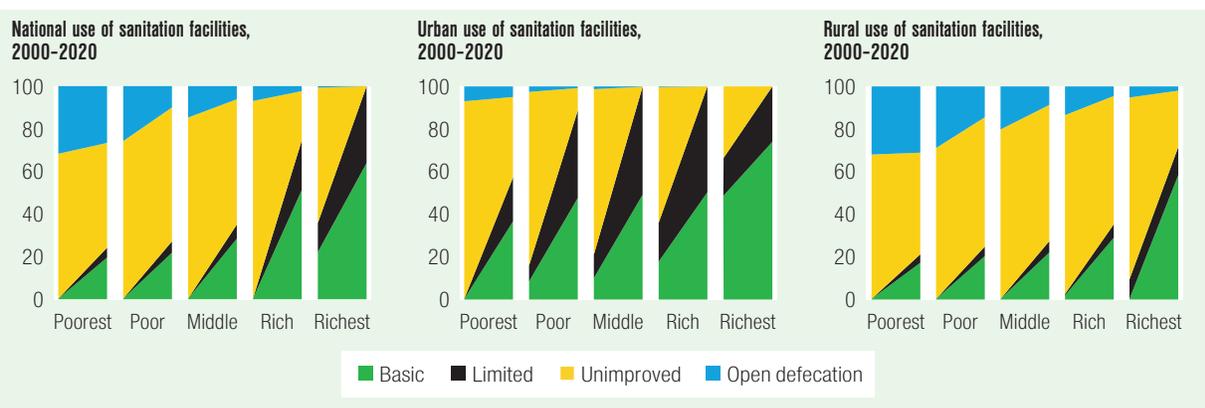
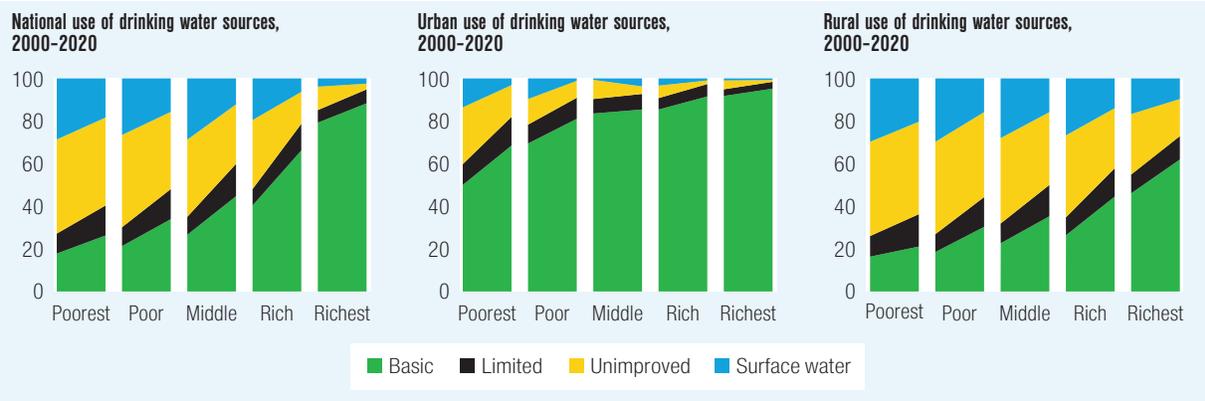
Annex 3.3: Access to Basic WASH in Schools



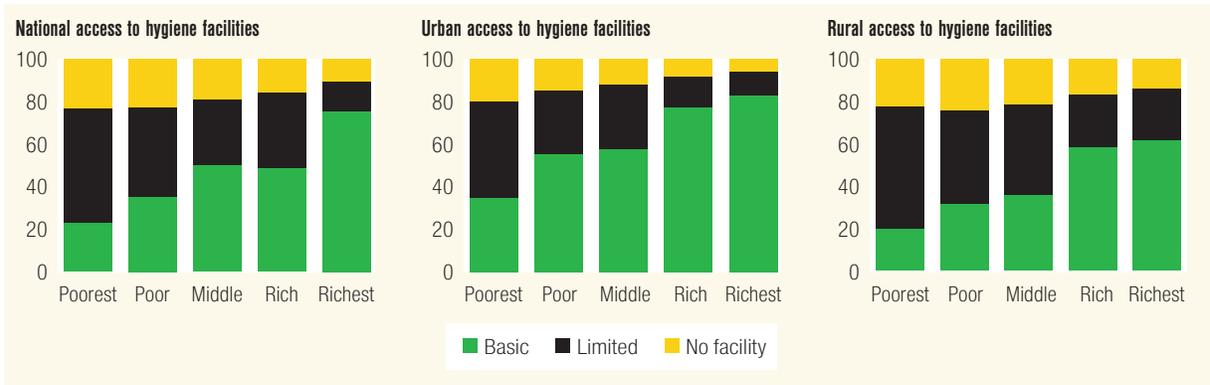
Source: WHO/UNICEF Joint Monitoring Programme <https://washdata.org/>.

ANNEX 4

ACCESS TO WASH FACILITIES BY WEALTH QUINTILE (PERCENT) IN THE UNITED REPUBLIC OF TANZANIA, 2020



Source: WHO/UNICEF Joint Monitoring Programme <https://washdata.org/>.



Source: WHO/UNICEF Joint Monitoring Programme <https://washdata.org/>.

ANNEX 5

METHODS, DATA AND ASSUMPTIONS USED TO GENERATE ESTIMATES IN THE QUANTITATIVE ANALYSIS FOR ECONOMIC COSTS DUE TO INADEQUATE WASH

The quantitative analysis includes four main components, of which three are health-related:

- Health care expenditure on WASH-related diseases
- Lost productivity (or productive time) from WASH-related diseases
- Premature mortality from WASH-related diseases
- Loss of productive time due to accessing off-plot water supply and sanitation

The values used for the described variables were based on available evidence. Expert opinion and assumptions were used to fill any gaps. The values are shown and referenced in the Annex Table.

Health Care Expenditure

Treatment seeking from formal health providers and the costs of oral rehydration salts were estimated, covering diarrheal disease and respiratory infection.

For broader water resources management, malaria was included. The number of disease cases were estimated from Tanzania and global studies, and attributed disease cases to poor WASH and WRM were taken from the global burden of disease study.¹¹⁷ A proportion of cases sought care from a formal health facility. The unit cost of outpatient care and patient travel costs were applied to the number of cases seeking treatment. A proportion of cases were assumed to be admitted to hospital for treatment, with the respective unit costs of care and patient travel costs.

Lost Productivity (or productive time) from WASH-related Diseases

The number of disease cases were estimated from Tanzania and global studies, and attributed disease cases to poor WASH and WRM were taken from the global burden

¹¹⁷ Prüss-Ustün, A., Wolf, J., Bartram, J., Clasen, T. et al. Burden of disease from inadequate water, sanitation and hygiene for selected adverse health outcomes: An updated analysis with a focus on low- and middle-income countries. 2019. *Int J Hyg Environ Health* 222(5):765–777.

of disease study. These were multiplied by the estimated number of days those productive activities could not be conducted, per age group, and multiplied by the average daily value (opportunity cost of time – proportion as a percent of GDP per capita converted to daily value).

Premature Mortality from WASH-related Diseases

The number of premature deaths in Tanzania were obtained from global studies, including those attributed to poor WASH and WRM. These were multiplied by the value of life, using the human capital approach to valuing life.

Loss of Productive Time Due to Accessing Off-plot Water Supply and Sanitation

The proportion of households accessing water and sanitation services outside their household or plot were obtained for Tanzania, by type of service cover-

age. This is multiplied by the average time per trip and the number of trips per day for each service level, and converted to monetary units using the same proxy for value of time as the loss of time from sickness (GDP per capita converted to daily value). For water, access is recorded as either on-plot, 30 minutes round trip or >30 minutes round trip. For the latter two, average estimates are made. For off-plot sanitation, shared and open defecation options are assigned an estimated time per trip (travel plus waiting time) and an average number of trips per day, separately for men and women.

Costs Averted under Different WASH Improvement Scenarios

The model assumes that 50 percent of the health impacts can be averted for basic WASH and 80 percent for safely managed WASH. A reduction in water access time is estimated if WSDP-3 objectives are achieved. For basic sanitation access time drops to zero. Under safely managed water scenario, access time reduces to zero.

DATA AND ASSUMPTIONS USED IN THE QUANTITATIVE ANALYSIS

Variable	Value	Note
Economic data		
GDP per capita in 2021 (US\$)	1,135	1
Annual GDP per capita growth (percent)	3.50	1
GDP per capita in 2022 (US\$) (estimated)	1,175	1
Daily value of time, using GDP per capita (US\$)	4.9	1
Exchange Rate (Tsh per US\$)	2,330	2
Demographics		
Population (no.)	62,975,942	3
Rural population (percent)	64	1
Urban population (percent)	36	1
Rural population (no.)	40,852,675	3
Urban population (no.)	22,979,630	3
Zanzibar population (no.)	1,763,000	3
Population growth (percent)	2.9	3
Average household size (no.)	4.85	3
Population distribution by age - percent 0–4 years - R/U/Z (percent)	19/15/16	3
Population distribution by age - percent 5–14 years - R/U/Z (percent)	25/25/29	3
Population distribution by age - percent 15+ years - R/U/Z (percent)	56/60/55	3
Health		
Diarrhea prevalence in children under five years (percent)	14.20	4
Average number of cases per year of children over five years and adult (no.)	1.0	5
Diarrhea attributable to poor WASH (percent)	67.00	6
Respiratory infection prevalence in children under five years (percent)	3.20	4
Respiratory infections attributable to poor WASH (percent)	13	6
Diarrhea treatment at formal facility (R/U/Z) (percent)	39/50/57	4
Respiratory infection treatment at formal facility (R/U/Z) (percent)	35/47/53	4
Reduction in WASH-attributed diarrheal disease and respiratory infections under basic WASH and safely managed WASH (percent)	50/80	7
Reduction in malaria under proper water resource management (percent)	100	6
Health costs		
Unit cost outpatient (US\$)	2.6	8
Unit cost inpatient/day (US\$)	9.2	8
Unit cost patient travel (R/U/Z) (US\$)	0.6/0.9/0.9	9
Assumptions		
Discount rate (percent)	10	1

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DATA AND ASSUMPTIONS USED IN THE QUANTITATIVE ANALYSIS *(continued)*

Variable	Value	Note
Working days per year (days)	240	10
Value of time (adults) as percent of GDP per capita (percent)	30	10
Value of time (children) as percent of GDP per capita (percent)	30	10
Value of time (children U5) as percent of GDP per capita (percent)	15	10
Time loss from activities when sickness case – 0–4/5–14/15+ years (days)	3/3/2	10
Diarrhea inpatient average length of stay (days)	3	10
Respiratory infection inpatient average length of stay (days)	3	10
Percent outpatients admitted as inpatient – diarrhea and respiratory infection (percent)	10	10
Percent outpatients admitted as inpatient – malaria (percent)	33	11
Time to access site of open defecation per visit (minutes)	30	12
Time to access off-plot shared toilet per visit (minutes)	10	12
Time to access on-plot shared toilet per visit (minutes)	5	12
Visits per person to site of open defecation per day (men visits/women visits)	1/2	12
Visits per person to site of shared sanitation per day (men visits/women visits)	1/2	12
Average time for household to access water per trip (those with off-plot access <30 minutes, minutes)	15	12
Average time for household to access water per trip (those with off-plot access >30 minutes, minutes)	45	12
Reduction in average time for household to access water per trip from WSDP-3 (those starting with off-plot access <30 minutes, minutes)	5	12
Reduction in average time for household to access water per trip from WSDP-3 (those starting with off-plot access >30 minutes, minutes)	35	12
Average trips per day for households stating source is >0 and <30 minutes away, per trip (trips)	2	12
Average trips per day for households stating source is >30 minutes away, per trip (trips)	1.5	12
Value of life - Human Capital Approach - 0–4/5–14/15+ years (US\$)	11,895/16,497/16,791	13
Value of life - value of statistical life (US\$)	31,251	13

Key: R/U/Z - mainland rural, mainland urban, Zanzibar

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- 1 World Bank, 2022 (accessed 9 Nov. 2022): <https://data.worldbank.org/country/tanzania>.
- 2 xe.com currency conversion.
- 3 Tanzania Population and Housing Census, 2022, and UN Population Division, adjusted to 2022.
- 4 Tanzania DHS 2015/16.
- 5 Fischer Walk and Black, 2010: <https://pubmed.ncbi.nlm.nih.gov/20307341/>.
- 6 Prüss-Üstün et al, 2019: <https://pubmed.ncbi.nlm.nih.gov/31088724/>.
- 7 Wolf et al, 2022: <https://pubmed.ncbi.nlm.nih.gov/35780792/>.
- 8 WHO CHOICE model, adjusted from 2008 to 2022 prices using GDP deflator.
- 9 Binyaruka and Borghi, 2022: <https://pubmed.ncbi.nlm.nih.gov/35802268/>.
- 10 Hutton et al, 2007: <https://pubmed.ncbi.nlm.nih.gov/17878562/>.
- 11 Camponovo et al, 2017: <https://pubmed.ncbi.nlm.nih.gov/28049519/>.
- 12 Estimate accounting for Tanzania specificity, drawing on Tanzania studies available.
- 13 World Bank staff estimates.



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