

Tanzania Economic Update

Harnessing the Opportunity for a Climate-Smart and Competitive Livestock Sector in Tanzania

Issue 21 2024

© 2024 International Bank for Reconstruction and Development / The World Bank 1818 H Street NW Washington DC 20433 Telephone: 202-473-1000 Internet: www.worldbank.org

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent.

The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Rights and Permissions

The material in this work is subject to copyright. Because The World Bank encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given. Any queries on rights and licenses, including subsidiary rights, should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: pubrights@worldbank.org.

Cover photos courtesy of World Bank. Further permission required for reuse.

Publication design and layout by The Word Express, Inc.

TABLE OF CONTENTS

Ac	ronyms and Abbreviations	vi
Pre	eface	ix
Exc	ecutive Summary	X
1.	Recent Economic Developments	1
	Economic Activity and Poverty Trends	1
	Monetary Policy and Inflation	6
	Fiscal and Debt Developments	10
	Balance-of-Payments Position	14
	Zanzibar Macroeconomic Assessment	17
2.	Macroeconomic Outlook and Risks	21
3.	Special Focus: Harnessing A Climate-Smart and Competitive Livestock Sector	25
	Introduction	25
	Recent Trends and Developments in Tanzania's Livestock Sector	26
	Climate Change and Other Drivers of Vulnerability	
	Barriers to Competitiveness	34
	Emerging Strengths and Opportunities	35
	Tackling Methane: Tanzania's Livestock Sector - A Solution in Climate Change Mitigation	
	Policy Recommendations	39
An	nex 1: Core Macroeconomic Data Sources for the Report	43
An	nex 2: Summary of Special Focuses from the Latest Tanzania Economic Updates	45
An	nex 3: References for the Special Section	47

List of Boxes		
Box 1	The State of Tanzania's Economy in Six Charts	xiv
Box 2	Tanzania's Government Spending Multiplier	2
Box 3	En Route to 'Privatize' Tanzania's Growth	5
Box 4	Broad Monetary Condition Index for Tanzania	9
Box 5	The Livestock Sector's Contribution to Key National Objectives	28
Box 6	The One Health Approach	33
Box 7	Boosting Private Investment in Tanzania's Livestock Sector	36
Box 8	Methane Intensity Reduction and Carbon Finance Incentives	37
ist of Figures		
Figure 1	Annual GDP Growth, Demand Side	2
Figure 2	Long-Term Growth Trends	2
Figure 3	Electricity Generation and Cement Consumption	4
Figure 4	Poverty Incidence, 2011–2024	4
Figure 5	Inflation in Tanzania and SSA Peers	6
Figure 6	CPI Inflation, January 2021-April 2024	6
Figure 7	Food and Non-Alcoholic Beverages Inflation, January 2021-April 2024	6
Figure 8	Cumulative Energy, Fuel, and Utilities Inflation	7
Figure 9	Contribution to PPI Inflation, 2020–2023	7
Figure 10	Growth of the Money Supply, January 2020-March 2024	7
Figure 11	Private Credit Growth and Its Drivers	8
Figure 12	Overall and Primary Fiscal Balance, FY17-FY24	11
Figure 13	8M Fiscal Revenues, 2019–2024	11
Figure 14	Actual vs. Budget Revenue, 8M-2023/24	11
Figure 15	Public Expenditure by Component, 8M-FY2024	11
Figure 16	External Debt Stock by Share of Creditors	13
Figure 17	Current Account Balance by Component	14
Figure 18	Merchandise Exports, by Component	14
Figure 19	Tourism Receipts and Arrivals	15
Figure 20	Merchandise Imports by Component	15
Figure 21	Trend of Financial Account Net Inflows	16
Figure 22	FDI, Tanzania and Regional Neighbors, 1990-2022	16
Figure 23	Gross Official Reserves and Exchange Rate	17
Figure 24	Real GDP Growth	17
Figure 25	Inflation, January 2021-February 2024	18
Figure 26	Fiscal Developments, FY2020/21-FY2023/24	18
Figure 27	Current-Account Balance, 2019–2023	19
Figure 28	Livestock Density in Tanzania	26
Figure 29	Livestock Population, 2010–2022	27
Figure 30	Contributions of Livestock to GDP and AgGDP in Tanzania and Neighboring Countries, 2022	27
Figure 31	Rural Household Income from Livestock Sales by Income Quintile	
Figure 32	Livestock, Crop, and Overall Agricultural Production, 2010–2021	
Figure 33	Total and Per Capita Livestock Production in Tanzania and Neighboring Countries,	20
54.0 00	2010 2021	20



Figure 34	Yields of Major Livestock Products in Tanzania, 2010–2022	
Figure 35	Consumption of Livestock Products, 2010–2021	
Figure 36	Comparative Trends in Livestock Production and Consumption	
Figure 37	Imports of Selected Livestock Products, 2010–2022	
Figure 38	Key Components of Sustainable and Climate-Smart Livestock Systems	
Figure 39	GHG and Methane Emissions by Sector, 2022	
Figure 40	Farmgate GHG Emissions and Emissions Intensity from Selected Agricultural	
	Products, 2020	
List of Tables		
Table 1	Central Government Fiscal Operations	
Table 2	Medium-Term Outlook, 2021–2026	
Table 3	Livestock Population by Species, 2022	
Table 4	Key Features of Livestock Exports, Tanzania and Ethiopia	
Table 5	Impact of Climate Change on Tanzania's Livestock Systems	



ACRONYMS AND ABBREVIATIONS

AE	Advanced Economy	IMF	International Monetary Fund
AgGDP	Agricultural GDP	LGAs	Local Government Authorities
ARDL	Autoregressive Distributed Lag	LHS	Left-hand Side
BoT	Bank of Tanzania	MoF	Ministry of Finance
CAD	Current Account Deficit	MO	Reserve Money
CBR	Central Bank Policy Rate	M3	Extended Broad Money Supply
COVID-19	Coronavirus Disease of 2019	MCI	Monetary Condition Index
CO ₂	Carbon Dioxide	MW	Megawatt
CPI	Consumer Price Index	NBS	National Bureau of Statistics
CY	Calendar Year	NDA	Net Domestic Assets
DSA	Debt Sustainability Analysis	NPL	Non-Performing Loan
DVS	Directorate of Veterinary Services	OCGS	Office of the Chief Government
EAC	East African Community		Statistician
EMDEs	Emerging Markets and Developing	PPI	Producer Price Index
	Economies	PPG	Publicly Guaranteed Debt
FAO	Food and Agriculture Organization	ppts	percentage points
FAOSTAT	Food and Agriculture Organization	Q1/3/4	The First/Third/Fourth Quarter
	(Database)	RHS	Right-hand Side
FDI	Foreign Direct Investment	SADC	Southern African Development
Forex	Foreign Exchange		Community
FY	Fiscal Year	SGR	Standard Gauge Railway
GDP	Gross Domestic Product	SMEs	Small and Medium Enterprises
GHG	Greenhouse Gas	SSA	Sub-Sharan Africa
GoT	Government of Tanzania	SVAR	Structural Vector Autoregressive
H1	The First Half	TEU	Tanzania Economic Update
IFC	International Finance Corporation	TIC	Tanzania Investment Center
IFEM	Interbank Foreign Exchange Market	TMB	Tanzania Meat Board

Tsh Tanzania Shilling WHO World Health Organization URT United Republic of Tanzania y/y Year-over-Year or Year-on-Year US (\$) United States (Dollars) 2/3/4/8M The First Two/Three/Four/Eight VAT Value Added Tax Months WB The World Bank

PREFACE

he 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 twenty-first edition of the TEU was prepared by a team from the World Bank's Macroeconomics, Trade and Investment (MTI) Global Practice, with contributions from several other Global Practices. The overall effort was led by Emmanuel Mungunasi (Senior Economist, EAEM1) and Xu Dong (Consultant, EAEM1). The analysis benefitted from advice provided by Aghassi Mkrtchyan (Program Leader, EAEDR), Ana Cristina Gomez Canales (Senior Livestock Specialist), and Amos Omore (Country Representative, ILRI).

Emmanuel Mungunasi (Senior Country Economist, EAEM1) prepared the macroeconomic outlook and risks section. Xu Dong (Consultant, EAEM1) authored the sections on recent economic activity, balance of payments developments, and Zanzibar macroeconomic assessment, while the sections on monetary policy and inflation was crafted by Kaushiki Singh (Consultant, EAEM1). Kaushiki

Singh (Consultant, EAEM1) and Hayaan Diriye Abdi Nur (ET Consultant, EAEM1) prepared the fiscal and debt dynamics section, Pedro Olinto (Senior Economist, EAEPV) and Revocatus Washington Paul (ET Consultant, EAEPV) provided input on poverty trends, and Randa Akeel (Senior Financial Sector Specialist, EAEM1) provided input on financial sector development. Box 1 (The State of Tanzania's Economy in Six Charts), Box 2 (Tanzania's Government Expenditure Multiplier), and Box 4 (Broad Monetary Condition Index for Tanzania) were prepared by Xu Dong (Consultant, EAEM1), while Box 3 (En Route to 'Privatize' Tanzania's Growth) was prepared by Sophia Muradyan (Senior Private Sector Specialist, EAEF1).

The special focus section of the report is on harnessing a climate-smart and competitive livestock sector, which was developed by Steven Were (Consultant, SAWA4) and coordinated by Ernest Ruzindaza (Senior Agriculture Economist, SAEA3) and Emma Isinika Modamba (Senior Agriculture Economist, SAEA3). The chapter is an extraction from World Bank-supported analytical work presented in the 'Roadmap for Responsible Investments Towards Sustainable Livestock in Tanzania' and 'Opportunities for Livestock Sector Mitigation by Accessing Carbon Markets'.

Nathan M. Belete (Country Director, AECE1), Hassan Zaman (Regional Director, EAEDR), Abha Prasad, (Practice Manager for MTI, EAEM1), Preeti Arora (Operations Manager, AECE1), Francisco Obreque (Senior Agriculture Economist and Acting Practice Manager, SEAE3), and Holger Kray (Practice Manager, SEAE3) provided guidance and leadership throughout the preparation of the report. Catherine Audax Mutagwa (Program Assistant, AECE1), Karima Ladjo (Senior Program Assistant, EAEM1), Faith-Lucy Matumbo (Program Assistant, AECE1), and Juma Bruno Ngomuo (Consultant, EAEM1) supported the preparation of this edition of the TEU, with assistance from Loy Nabeta (Senior External Affairs Officer, ECRAE), who assisted with external communications.

Oscar Parlback was responsible for the overall editing of the report. The pictures used 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 early May 2024.

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



EXECUTIVE SUMMARY

Recent Economic Developments

Tanzania has managed a steadily robust growth path amid multiple external shocks, with low and stable inflation by regional standards. While poverty reduction has progressed slowly, the government increased public spending on goods, services, and transfers during the first eight months (8M) of FY2023/24 to enhance the provision of priority social services. Domestic revenue observed double-digit growth, indicating the government's commitment to revenue mobilization and fiscal consolidation. The current-account deficit narrowed, driven by reduced import bills and a surge in foreign exchange earnings from the tourism sector. However, foreign exchange challenges persist, which has motivated the Bank of Tanzania (BoT) to raise the policy rate and implement other prudent monetary policies. Over the medium term, the economy is set to grow at around 6 percent, supported by escalated private investments resulting from a strengthened business environment. A positive macroeconomic outlook and an enhanced agricultural productivity have contributed to the estimated decline in poverty. Major risks to the outlook include incomplete implementation of reforms, climate change, and a deterioration of the global economy.

Tanzania has managed a steady and strong growth path relative to regional peers, but the economy's poverty-reduction potential remains underutilized. Boosted by a buoyant services sector and more favorable terms of trade. Tanzania's real GDP growth rose from 4.6 percent in 2022 to 5.2 percent in 2023, despite prolonged droughts and frequent flooding. While the country's economic performance has been strong, poverty reduction has been slower than expected. A combination of factors, including slow structural transformation, stagnant agricultural productivity, limited social safety net coverage (e.g., to mitigate shocks), and high population growth, has limited the impact of economic growth on poverty reduction. The country's poor households are heavily dependent on the agriculture (incl. livestock) sector, which employs about two thirds of Tanzanian workers, but which is particularly exposed to climate changerelated shocks and faces stagnant productivity growth. This underscores the importance of prioritizing productivity-enhancing public investment and adopting climate-smart strategies to improve the agriculture and livestock sectors (see the Special Section).

The Government of Tanzania has made efforts to improve the country's fiscal health.

Between 8M-FY2022/23 and 8M-FY2023/24, government revenues increased by 27.4 percent, supported by the promotion of IT systems to ensure accurate tax monitoring, an expansion of taxpayer and VAT registration through targeted campaigns, and efforts to combat tax evasion and smuggling. Public spending increased by 34.4 percent during this period, reducing the fiscal deficit from 4.1 percent to 3.2 percent of GDP. Almost 70 percent of the deficit is financed by foreign sources, while the remaining is financed domestically. The most recent IMF/WB Debt Sustainability Analysis (June 2024) determined that Tanzania continues to face only a moderate risk of external and public debt distress.

The government has ramped up spending on goods, services, and transfers. Public spending on goods, services, and transfers totaled 5.8 percent of GDP during 8M-FY2023/24, 0.5 percentage points (ppts) higher than the budget target and nearly 2 ppts above the actual spending during 8M-FY2022/23. Other recurrent expenditure also rose in 8M-FY2023/24, with interest payments increasing by 0.4 ppts and payments for wages and salaries rising by nearly 1 ppt of GDP. Ongoing large public investment projects, including a modern railway system, hydroelectric plants, and roads, remained a large component of the public spending and totaled 9.1 percent of GDP in the same period.

Consistent with subdued global trade in 2023, the country's merchandise exports increased at a slower pace. Merchandise export growth decelerated from 9.7 percent during the first three months (3M) of 2023 to 2.7 percent in the same period in 2024. While gold and other traditional exports (e.g., cotton, tobacco, and cashew) contributed most of the increase, lower external demand for minerals caused a contraction in mineral exports (excluding gold) and dragged growth. Meanwhile, increased tourism activity has stimulated services export earnings. Travel receipts, the largest component of the country's services exports, have soared by 27.2 percent, reaching US\$970.7 million in 3M-2024. This increase was bolstered by a surge in inbound tourist arrivals-registered at 0.52 million during 3M-2024.

Goods and services imports growth was virtually flat in 3M-2024, contracting by 0.7 per-

cent. The ongoing implementation of mega projects such as the Standard Gauge Railway project required transport, building, and construction equipment-related imports and increased the demand for capital imports by a 7.9 percent during 3M-2024. Nevertheless, the reduced value of imported oil and fertilizer, combined with a decline in insurance and freight services, prevented an escalation of the country's overall import bill.

Supported by increased export earnings and a reduced import bill, Tanzania's trade balance and current-account deficit have improved. The balance-of-trade deficit narrowed from US\$770.9 million (3.9 percent of GDP) in 3M-2023 to US\$425.7 million (2.2 percent of GDP) in 3M-2024. This sharp reduction resulted in an improved current-account position, despite a constant level of net income outflows at 0.8 percent of GDP over the same period. The country's current-account deficit declined from US\$926.0 million, or 4.7 percent of GDP, during 3M-2023 to US\$576.4 million, or 2.9 percent of GDP, during 3M-2024.

A gradual increase in foreign direct investment (FDI), foreign loans, and official reserves financed the narrowing current-account deficit. Tanzania's FDI inflows are low compared to those of regional neighbors, but a favorable business environment, plateauing interest rates in advanced economies, and positive ratings from Fitch and Moody's have helped the country attract FDI. Gross foreign exchange reserves remained adequate and rose from US\$5.0 billion by end-March 2023 to US\$5.3 billion by end-March 2024. However, the coverage of foreign reserves declined from 4.5 months to 4.4 months over the period.

Still, ongoing tensions in the foreign exchange market persists, which has required the BoT to keep tightening its monetary policy stance.

The Tanzanian shilling depreciated by 10.6 percent in one year, from an average of Tsh 2322.9/US\$ in March 2023 to Tsh 2569.7/US\$ in March 2024. However, this appears to be inadequate to mitigate domestic demand pressures on foreign exchange. In early April, the BoT decided to raise the policy rate by 50 basis points to 6 percent. In tandem, the growth rate of extended broad money (M3) dropped sharply



from 21.3 percent in July 2023 to 13.8 percent in March 2024, while private credit growth has decelerated to 16.6 percent in March 2024.

Benefiting from prudent monetary and fiscal policies, inflationary pressures have eased in Tanzania. Headline inflation remained subdued during 4M-2024, averaging 3 percent, y/y, a level not seen since 2019. Cumulative food price inflation fell from 7.3 percent in 2022 to 6.8 percent in 2023, before settling at 1.5 percent during 4M-2024. This was helped by various short-term fiscal support measures to ensure an adequate food supply to meet national and regional needs, as well as by the BoT's financing support to the agriculture sector. However, a recent pick-up in domestic energy, fuel, and utility prices due to increased global oil prices may undermine domestic consumption among Tanzanian households.

Tanzania's GDP projection for 2024 has been revised downward from 5.6 percent in the last TEU to 5.4 percent. This is due to the slower-than-expected implementation of ongoing transformative structural reforms to facilitate private sector investment, persistent barriers that hinder private sector development, and insufficient reforms to rebalance the demand and supply in the foreign exchange (forex) market. Over the medium term, growth is expected to average around its long-run potential of about 6 percent, as improvements to the business environment and the complete implementation of structural reforms are likely to attract more investment, including FDI. Headline inflation is projected to remain low and stable over the medium term as the newly adopted interest rate-based framework anchors inflation expectations. The current-account deficit is expected to narrow further, driven by an improved trade balance. Meanwhile, a combination of increased revenue collection and controlled expenditures is expected to narrow the fiscal deficit over the medium term. The poverty rate, measured by the international poverty line, is also projected to decline from 43.0 percent in 2024 to 41.7 percent in 2026, supported by a promising macroeconomic outlook and increased agriculture budget allocations.

Despite the robust and stable outlook, several risks threaten economic growth. Key risks include delayed or incomplete implementation

of structural reforms, damaging effects of climate change on the agriculture and tourism sectors, a worsening external global environment that lowers demand for the country's exports, and continued global inflationary pressures. To mitigate these risks, policymakers can continue to improve the business and investment environment, reduce the cost of regulatory compliance, strengthen Tanzania's export competitiveness, and implement other structural reforms to attract greater private investment and spur resilient and inclusive private sector-led growth.

Harnessing a Climate-Smart and Competitive Livestock Sector

Tanzania possesses considerable potential in livestock production and trade. While the country boasts a large livestock population, climate-related risks and inadequate investment from the public and private sectors impede sectoral growth and international competitiveness. Nevertheless, with increasing domestic demand and a burgeoning need for livestock products, there is an opportunity to capitalize on this internal market while simultaneously exploring avenues for expanding exports. To realize its livestock potential, Tanzania must prioritize climate-smart measures and innovations that enhance resilience and boost productivity and incomes in the face of climate change. Public investment projected at US\$546 million over five years (US\$109 million/ year) is necessary to effectively address the livestock sector's multifaceted challenges and significantly enhance its contribution to Tanzania's economy. In addition to climate change adaptation and mitigation measures, an enabling environment for private investment is critical to ensure sustained innovation and efficiency gains in the livestock sector.

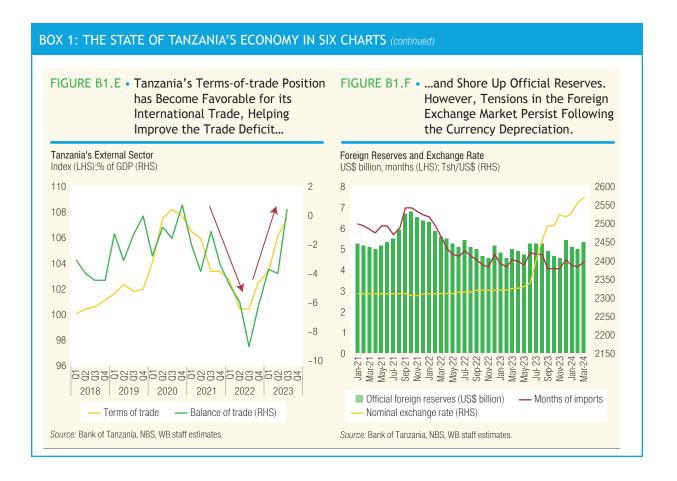
Recent Trends and Developments

Tanzania's expansive livestock sector is vital to the livelihoods of many households, with one of the largest and fastest growing livestock populations in Africa and the world. Its cattle population is immense at 36.6 million—second largest in Africa

BOX 1: THE STATE OF TANZANIA'S ECONOMY IN SIX CHARTS FIGURE B1.A • Tanzania has Weathered the FIGURE B1.B • Inflationary Pressures have Impact of Overlapping Shocks and Gradually Eased on Both the Managed a Steady and Strong Mainland and in Zanzibar since Growth Path by Regional Standards the Start of 2023... Trend in Real GDP Regional Inflation Comparison Index, Q4-2019 = 100, Seasonal Adjusted Horizontal axis (2023 inflation*); vertical axis (2022 inflation) 125 Inflation Target Band 8 120 115 110 105 2 100 95 0 90 Q4-19 Q2-20 Q4-20 Q2-21 Q4-21 Q2-22 Q4-22 Q2-23 Q4-23 Ghana Kenva — Mozambique - Headline inflation, Mainland - Core inflation, Mainland Tanzania --- Headline inflation, Zanzibar Uganda — Zambia Source: Haver Analytics, WB staff estimates. Source: NBS, BoT, WB staff estimates. FIGURE B1.C • ...Driven by the Bank of Tanzania's FIGURE B1.D • ...the Implementation of Tightening Monetary Policy Stance, Well-coordinated Short-term as Indicated by Decelerated Growth Fiscal Measures, such as Recent of Monetary Aggregates and... Subsidies on Sugar Tanzania's Fiscal Balance Moentary Aggregates % of GDP % y/y change 32 24 16 FY17 FY18 FY19 FY20 FY21 FY22 FY23 FY24e - Reserve money (M0) - Extended broad money (M3) Primary fiscal balance Overall fiscal balance Source: NBS, WB staff estimates. Source: Bank of Tanzania, WB staff estimates.

(continued on next page)





(behind Ethiopia)—and represents 1.4 percent and 11.0 percent of the global and African total cattle population, respectively. Tanzania's population of sheep, goats, chicken, and pigs is also large, with most ranking in the top ten on the continent in terms of size. Per capita, Tanzania's total livestock population is also among the largest in Africa. Between 2010 and 2022, Tanzania's cattle, goat, sheep, and poultry population surged by an average of 83 percent, with the number of cattle more than doubling.

Tanzania's livestock sector holds significant growth potential that has not yet been fully realized. Currently, it contributes less to the GDP and agricultural GDP than neighboring countries like Ethiopia and Kenya. This disparity underscores substantial opportunities for development and investment. Despite this, the sector is crucial for income generation, especially among the poorest households, and plays a vital role in employment, food security, nutrition, and the inclusion of women and youth. Over the past decade, Tanzania has experienced remark-

able growth in livestock production, outpacing crop production. However, this growth has been driven mainly by an expansion of the livestock population rather than improvements in yield. Urbanization, income growth, and changing lifestyles and diets are driving up the demand for livestock products, leading to a surge in consumption. However, domestic production struggles to meet rising demand, resulting in increased imports of key livestock products, especially processed and value-added items. The country's livestock exports are lower than potential exports, pointing to challenges in capitalizing on the sector's full economic potential.

Drivers of Vulnerability

The livestock sector faces major challenges related to climate change such as erratic rainfall and higher temperatures. These climate-driven challenges lead to fluctuating water and feed availability and intensify resource competition and land

degradation, especially in arid and semi-arid regions. They also interact with multiple socioeconomic factors and institutional constraints in rural areas, limiting access to essential resources like land, water, and fodder. Endemic livestock diseases further strain the sector, impacting animal health, productivity, and market access. Inadequate infrastructure and technical capacity for water supply services, veterinary services, and market access hinder disease management and market integration, exposing livestock producers and traders to multiple intertwined risks.

Barriers to Competitiveness

There are also various structural, institutional, and systemic challenges facing Tanzania's livestock sector that intersect with climate risks, hampering productivity and impeding competitiveness. Despite its significant contribution to GDP, the livestock sector receives disproportionately low public funding, constraining investment in essential areas such as research, extension services, and infrastructure. Livestock producers encounter difficulties in accessing inputs, technical assistance, and credit, with women and youth especially impacted. Inadequate infrastructure further compounds these challenges, leading to inefficiencies in transportation, market access, and processing, while land tenure insecurity exacerbates resource degradation. Additionally, limited skills and capacity among stakeholders, coupled with complex and inconsistent policies and regulations, undermine efforts to drive growth and attract private investment in the sector.

Emerging Strengths and Opportunities

Despite the myriad of vulnerabilities and impediments to competitiveness, Tanzania's livestock sector holds potent advantages and opportunities for growth. The country's strategic geographical location—boasting sea access and bordering seven neighboring countries—positions it to capitalize on regional and global demand for meat, dairy, and other livestock products. Its rich diversity of indigenous livestock breeds presents an opportunity to cater to diverse consumer preferences both domestically and

internationally while enabling exports of livestock genetics and biotechnology products. Moreover, increasing demand for processed and value-added livestock products offers avenues for investment and job creation in processing facilities, enhancing market competitiveness. Leveraging Tanzania's vast land resources and traditional knowledge in livestock management, along with emerging digital technological advancements, can further enhance the resilience, productivity, and efficiency of the sector. The high absorption capacity of the Ministry of Livestock and Fisheries signals the potential for increased public investment, with livestock projects demonstrating substantial viability, paving the way for transformative growth in the sector.

Tackling Methane: Tanzania's Livestock Sector. A Solution in Climate Change Mitigation.

The livestock sector globally and in Tanzania is a large emitter of greenhouse gases, particularly methane, which contributes significantly to climate change. Despite its importance, finance for methane abatement is minimal, and the sector's emissions pose challenges to efforts aimed at achieving climate goals while ensuring food security. Tanzania, with its large livestock population, is exploring strategies to mitigate emissions and access carbon finance, focusing on interventions such as improving breed quality, water management, and pasture utilization. Analysis suggests that implementing these measures could significantly reduce emissions while increasing production and generating carbon revenues. Embracing climate-smart practices in the livestock sector is crucial for Tanzania to mitigate climate change, enhance resilience, and support livelihoods.

Policy Recommendations

Between 2023/24 and 2028/29, sustainable livestock development in Tanzania would require US\$546 million (about US\$109 million annually) in public investment. This level of investment represents a fivefold increase over previous budgets and is 50 percent higher than the 2023/24 budget, and it



is deemed feasible given the underfunding and high absorption capacity of the livestock sector. With such resources, the national authorities could pursue a series of policies and investments targeting productivity, trade and value addition, climate adaptation and mitigation, and sector governance. These measures would involve sustainably improving the productivity of the sector through improved access to veterinary services, vaccinations, and disease control measures, animal feeding as well as by expanding breed improvement programs and increasing public funding for research and development. Enhancing trade and value addition entails diversifying market opportunities, improving market linkages and transportation

infrastructure, and implementing effective food safety regulations through One Health Approach. Prioritizing climate-smart practices—such as the implementation of climate change adaptation and mitigation strategies and renewable energy solutions—is essential to mitigate climate risks and reduce the sector's carbon footprint. Strengthening sector governance, improving institutional capacity, and adopting enabling policy reforms are also crucial to ensure the effective implementation of climate-smart livestock practices and foster competitiveness. Finally, an effective governance framework and appropriate incentive mechanisms are critical to ensure sustainable practices and greater private sector participation.

RECENT ECONOMIC DEVELOPMENTS

Economic Activity and Poverty Trends

Tanzania's economy has maintained a strong growth momentum amid multiple overlapping shocks. Real GDP grew by an estimated 5.2 percent, year-on-year (y/y), in 2023, up from 4.6 percent in 2022. Despite the severe impact of droughts and floods on agricultural output and households' real income, consumption remained one of the three solid pillars of economic growth, following gross fixed investment and net exports (Figure 1). Still, economic growth is below its pre-pandemic average, and the economy is expected to grow at a pace parallel to the pre-pandemic potential output, revealing the lingering effects of the COVID-19 crisis (Figure 2).1

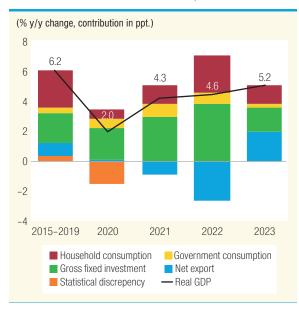
Climate-related shocks to household income and future uncertainties dampened consumer demand in 2023. Following pent-up consumer demand in 2022, household consumption growth decelerated in 2023, with its growth contribution falling to half its 2022 level. A prolonged drought and frequent flooding had a severe effect on the income sources of households in the agriculture and

livestock sectors and weighed on final consumption. Apart from building a sound social security system, unleashing the full potential of Tanzania's rapidly growing livestock sector, which employs around 33 percent of the population and generates almost one-fifth of the income for the poorest rural households through livestock sales alone, could create more jobs, increase farmers' incomes, and contribute positively to climate change mitigation (see the Special Section).

An improved trade balance and increased gross fixed investment contributed positively to aggregate output. Lower domestic demand for imported non-food consumer goods, reduced global oil and fertilizer prices, and increased transportation and travel receipts (bolstered by the sustainable growth of the tourism industry) helped improve Tanzania's net exports. As a result, the contribution of net exports turned positive in 2023, accounting for nearly 40 percent of real GDP growth. This marked the first positive contribution from net exports since 2019.

The World Bank's utilization of its GDP estimates since 2018 partly explains parallel growth between the prepandemic output trend and post-pandemic actual output.

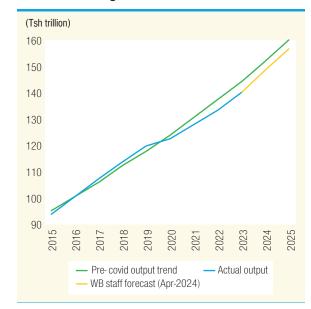
FIGURE 1 • Annual GDP Growth, Demand Side



Source: WB staff estimates.

Gross fixed investment, a usual driver of domestic demand, increased to an estimated 4.0 percent in 2023, mainly driven by public investment. According to the latest World Bank estimate, an additional Tanza-

FIGURE 2 • Long-Term Growth Trends



Source: NBS, WB staff estimates

nian shilling spent by the government could increase the output by around Tsh 0.41Tanzania shilling, underscoring the medium stimulative effect of fixed public investment (Box 2).

BOX 2: TANZANIA'S GOVERNMENT SPENDING MULTIPLIER

Expansionary fiscal policies are frequently employed to bolster aggregate demand and invigorate economic activities, particularly amid recessions characterized by anemic economic growth and elevated unemployment. It is therefore important for policymakers to identify the effectiveness of fiscal policy and quantify the effects of government spending on real GDP to determine public policy. This is especially the case for Tanzania, whose growth after the early 2010s was largely driven by public infrastructure investment (Figure B2.A).^a Existing literature, however, has mainly focused on advanced economies, and few researchers have investigated the government spending multiplier, an index measuring the effects of public spending and real GDP, in lower middle-income countries such as Tanzania.

This box presents the results of an assessment of short-run output effects of government spending in Tanzania,^b using World Bank estimated quarterly data between 2000 and 2023. The assessment used a structural vector autoregressive (SVAR) model with 7 variables—real GDP, real government expenditure, real government revenue, extended broad money (M3), GDP deflator, real private consumption, and real private investment^c—and 4 shocks—business cycle shock, monetary policy shock, government spending shock, and government revenue shock. As many researchers have pointed out, government spending multiplier estimates vary according to the status of the economy and the monetary policy stance. Therefore, the assessment followed a widely used approach developed by Mountford & Uhlig (2009) that identified an independent government spending shock unrelated to the business cycle shock and monetary policy shock by imposing sign restrictions.^d

The findings show that Tanzania's government spending multiplier is estimated at around 0.42 between 2000 and 2023. This indicates that every Tsh 1 spent by the government could increase real output by Tsh 0.42. This number is similar to a reasonably precise estimate of 0.4 in a large sample covering 102 developing countries between 1970 and 2010 done by Kraay (2014). A comparison of the estimated government spending multiplier for periods before and during/after the pandemic reveals that the estimate for 2000–2019 (pre-pandemic period) is much higher than that of 2000–2023 (Figure B2.B). The large difference in the effectiveness of government spending may be attributed to a lower spending multiplier during the pandemic (Kinda et al. 2022) when a higher level of uncertainty dampened consumer and investor confidence. The results also show that the spending multiplier crowds in real private consumption while crowding out real private investment, which is consistent with existing literature.

(continued on next page)



BOX 2: TANZANIA'S GOVERNMENT SPENDING MULTIPLIER (continued)

FIGURE B2.A • Gross Fixed Capital Formation

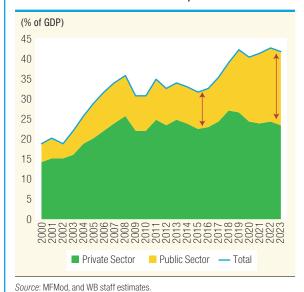
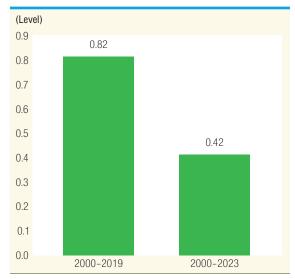


FIGURE B2.B • Fiscal Spending Multiplier



Source: WB staff estimates.

(GDP response in the fourth quarter)

(Initial spending shock * average government spending share of GDP)

The findings are quite robust. The fiscal multiplier is estimated at around 0.45 when using a subsample (2003Q4–2023Q4), and at around 0.31 when adding 3-months T-bill rate into the model using quarterly data between 2000 and 2023.

Kraay, A. 2014. "Government spending multipliers in developing countries: evidence from lending by official creditors." American Economic Journal: Macroeconomics, 6(4), 170–208.

Leading indicators suggest a vibrant services sector in the first quarter (Q1) of 2024. According to the NBS, the number of international tourist arrivals on Tanzania's mainland soared by 27 percent, y/y, to 0.52 million in Q1-2024. Burundi (representing 10.4 percent of total arrivals during 3M-2022), Kenya (8.9 percent), Italy (6.4 percent), France (5.9 percent), and the United States (5.3 percent) are the top 5 source countries and account for one-third of total tourist arrivals. Total voice traffic minutes, a proxy of the telecommunication subsector, also grew by almost 10 percent in Q1-2024, building on an already high growth of 24.3 percent, y/y, during Q1-2023.

However, the expansion of the industry sector has been relatively subdued. The industrial production index averaged 101.7 in Q1-2024, significantly below 106.3 recorded in the same period last year. While Tanzania's frequent power blackouts have ended, as an excess of electricity was generated by the Tanzania Electric Supply Company Limited, there has been no double-digit increase in electricity production. The growth of electricity in Q1-2024 remained consistent with the same period last year, at 9.6 percent. Cement consumption contracted by 9.5 percent in Q1-2024, against a contraction of merely 1 percent in Q1-2023 (Figure 3). A similar downward trend

^a World Bank. 2023. *Privatizing Growth: A Country Economic Memorandum for the United Republic of Tanzania*. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099120523172572316/p177386065705608a0894401f03243fd2c6

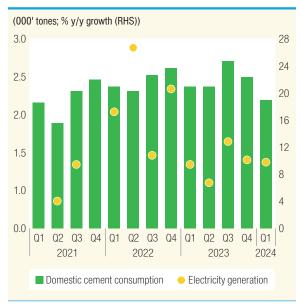
^b While recent studies have explored different values for the capital expenditure and revenue expenditure multipliers, this assessment focused only on the overall expenditure multiplier due to data limitations.

^c GDP used in this Box is estimated by WB. All variables are seasonally adjusted by applying the X-13 approach developed by the US Census Bureau. Apart from M3 and GDP deflator, other variables are interpolated from annual data using the quadratic sum method and calculated in per capita terms. The lag order of 6 is selected based on information criteria.

^d Like Mountford & Uhlig (2009), this assessment identified a business cycle shock if real GDP, real government revenue, real private consumption, and investment moved in the same direction in the following year after the shock, while a monetary policy shock was identified if M3 and GDP deflator moved in the opposite direction. Government revenue and spending shocks are orthogonal to the previous two shocks.

e The spending multiplier is the one-year impact multiplier, defined as

FIGURE 3 • Electricity Generation and Cement Consumption



Source: NBS, and WB staff estimates.

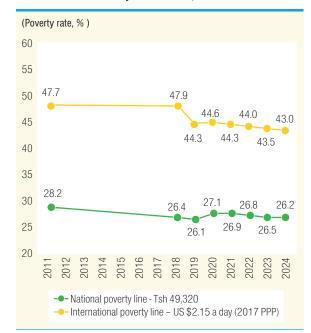
Note: Only positive electricity generation growth were represented in the red dots.

was observed in domestic cement manufacturing, an indication of slower growth in manufacturing and construction subsectors, which usually constitute 70 percent of value-added in the industry sector.

The irregular release of national account statistics and high frequency data impedes the comprehensive analysis of recent developments in real sectors. There are often significant delays in the publication of GDP and high frequency indicators. For example, new data on these statistics were not disclosed between early January and early May this year. The latest available data as of end of April are 9M-2023 for GDP and October 2023 for high frequency indicators. This highlights the importance of enhancing the timely publication of both ad hoc and routine statistics.

Tanzania continues to witness slow progress in poverty reduction. In the absence of updated official poverty data post-2018, findings from the 2020/2021 National Panel Survey indicate a notable decline in household consumption, primarily attributed to the adverse effects of the COVID-19 pandemic (Figure 4). Subsequent estimates based on the effects of GDP growth on poverty indicate a slight reduction in extreme pov-

FIGURE 4 • Poverty Incidence, 2011-2024



Source: 2011, 2018 Household Budget Survey and WB staff estimates

erty, from 44.0 percent in 2022 to 43.5 percent in 2023, largely attributed to high population growth, limited social protection, and low productivity in the agriculture and livestock sectors (which together employ almost 70 percent of Tanzanians). Tanzanians are highly vulnerable to shocks, highlighted by recent flooding events and data showing an inverse relationship between exposure to climate-related shocks and ability to cope. For example, the district of Longido in northern Tanzania ranks as the most impoverished and has one of the highest exposures to drought. Poverty-reduction strategies should focus on enhancing agricultural productivity and commercialization among smallholder farmers, improving market access, building the population's productive capacities, fostering private sector growth through an enabling business environment with less regulatory barriers (Box 3), and expanding social protection coverage. Equally important is ensuring that women have access to economic opportunities and assets, including land, enabling them to maximize their economic contributions, and invest in girls' education, which will likely lower fertility rates and further reduce poverty (see the special topic of the last TEU).



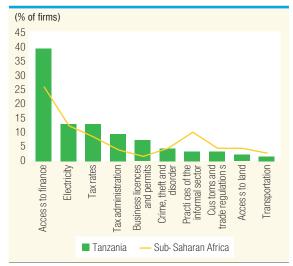
BOX 3: EN ROUTE TO 'PRIVATIZE' TANZANIA'S GROWTH

Tanzania's private sector is poised to play an important role in the country's development trajectory. As presented by the Ministry of Finance (MoF) in the Plans and Budget priorities for 2024/25, the Government of Tanzania (GoT) recognizes the importance of the private sector as the engine of economic growth. The authorities plan to prioritize the facilitation of an inclusive and competitive economy, deepening industrialization, and service provision as well as investment and trade promotion.

However, regulatory burdens remain among the most critical barriers to private sector growth. While there are ongoing efforts by the GoT to improve private sector development, the implementation of genuinely transformative reforms has been slow, and significant barriers to doing business remain when comparing Tanzania with averages for SSA and all economies in the World Bank 2023 Enterprise Survey (Table B3.A) and Figure B3.A).

Survey data^b **confirm that domestic conditions for business entry and operation remain difficult in Tanzania.** The country's excessive regulatory burden creates a significant opportunity cost to formalization for firms, which incentivizes informal business practices. Moreover, Tanzania was ranked 105th out of 132 countries on business sophistication in the Global Innovation Index 2023.° To leverage the potential of private sector-led growth, there is an urgent need to accelerate the overhaul of the business-enabling environment and strengthen firms' productivity and competitiveness. As part of ongoing reforms to improve the country's

FIGURE B3.A • Top Ten Business Environment Constraints^a for Firms in Tanzania



Source: Bank of Tanzania, WB staff estimates.

investment climate, amendments to the Tanzania Investment Act 2023 were approved by the president in March 2024. These amendments aim to enhance investor protection guarantees, ensure alignment with international good practices, and significantly strengthen the investor protection framework. In Q4-2023, the Tanzania Investment Center (TIC) reported a year-on-year increase of 178 percent in the number of approved registered projects (from 58 to 161 projects), with an increase in their total capital from around US\$770 million to US\$1400 million.d

TABLE B3.A • Regulations and Taxes in Tanzania and SSA, 2023

Indicator	Tanzania	SSA	All Economies
Senior management time spent dealing with the requirements of government regulation (%)	13.6	7.8	8.5
Percent of firms visited or required to meet with tax officials	92.5	64.4	44.1
If there were visits, average number of visits or required meetings with tax officials	2.6	2.9	2.3
Days to obtain an operating license	11.8	18.4	32.3
Days to obtain a construction-related permit	15.8	38.5	65.6
Days to obtain an import license	14.3	16.9	17.7
Percent of firms identifying tax rates as a major constraint	48.1	32.1	27.9
Percent of firms identifying tax administration as a major constraint	38.1	24.6	18.5
Percent of firms identifying business licensing and permits as a major constraint	25.4	14.4	12.8

Source: World Bank Enterprise Survey (2023).

^a The percentage of firms that consider a specific business environment obstacle as the most important one.

^a MoF. 2023. Plan and Budget Guideline for 2024/25. December 2023. https://www.mof.go.tz/uploads/documents/en-1707721385-PLAN%20AND%20BUDGET%20 GUIDELINE%20FOR%202024-25.pdf.

^b World Bank. "Enterprise Surveys." www.enterprisesurveys.org.

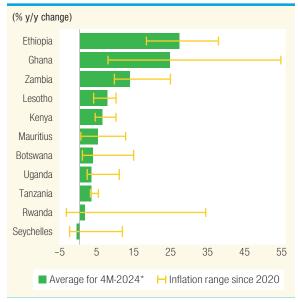
e World Intellectual Property Organization. 2023. "Global Innovation Index 2023: Innovation in the face of uncertainty." Geneva: WIPO. DOI:10.34667/tind.48220.

d Tanzania Investment Center. "Quarterly Investment Bulletin October-December 2023." https://www.tic.go.tz/uploads/documents/en-1709730086-BULLETIN%202nd%20 QUARTER-4.pdf.

Monetary Policy and Inflation

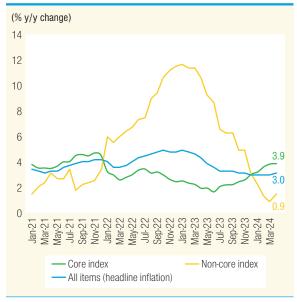
Tanzania's inflation has remained well below the SSA average. Tanzania's monthly inflation readings remain consistent with the country's inflation target band of 3 to 5 percent, despite the effects of the COVID-19 pandemic, rate hikes in advanced economies, and other external shocks. In 2023, inflation in

FIGURE 5 • Inflation in Tanzania and SSA Peers



Source: NBS, WB staff estimates. * Data for Lesotho is 3M-2024.

FIGURE 6 • CPI Inflation, January 2021-April 2024

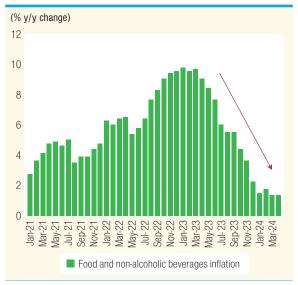


Source: NBS, WB staff estimates.

Tanzania was below the projected world average of 6.8 percent² and lower than that of peer countries such as Ghana and Ethiopia, which experienced double-digit cumulative inflation. Moreover, Tanzania's inflation rate was the least volatile among regional peers, largely due to government interventions (Figure 5).

In the first four months (4M) of 2024, head-line inflation averaged 3 percent y/y, a low level not seen since 2019 (Figure 6). Food and energy prices continued to drive the moderation in inflation. Cumulative food-price inflation fell from an average of 9.6 percent in 4M-2023 to 1.5 percent in 4M-2024 (Figure 7), while inflation for energy, fuel and utilities picked up by 2.8 percentage points over the period. The stability of the country's inflation has been due to prudent monetary policy, declining global prices for some critical imports helped by pro-active government measures to ensure adequate domestic food supply.³

FIGURE 7 • Food and Non-Alcoholic Beverages Inflation, January 2021-April 2024

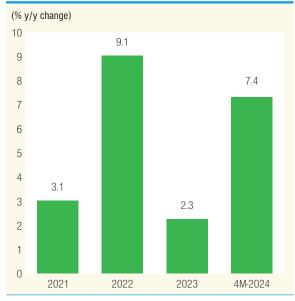


Source: NBS, WB staff estimates.

- ² Source: World Economic outlook, April 2024.
- To counteract rising inflationary pressures, the government has taken steps to ensure an adequate food supply to meet national and regional needs. The national food supply increased by 124 percent in 2023/24, up from 114 percent in 2022/23. The government has also ensured the availability of fertilizers, with 418,942 tons of fertilizer sold to farmers at subsidized prices in 26 regions in 2023 to reduce farmers' production costs (imported inflation) and increase the production of quality seeds and crops.

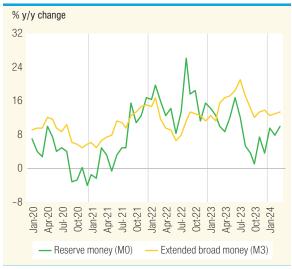


FIGURE 8 • Cumulative Energy, Fuel, and Utilities Inflation



Source: NBS, WB staff estimates.

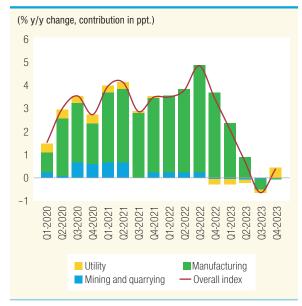
FIGURE 10 • Growth of the Money Supply, January 2020-March 2024



Source: Bank of Tanzania, WB staff estimates.

The slump in global oil prices passed through to domestic energy, fuel, and utility prices, but a recent reversal may increase inflationary pressures. The cumulative energy-related inflation fell from an average of 9.1 percent in 2022 to 2.3 percent in 2023, before increasing to 7.4 percent in 4M-2024 (Figure 8). This recent uptick in domestic fuel prices pushed transport inflation—which

FIGURE 9 • Contribution to PPI Inflation, 2020-2023



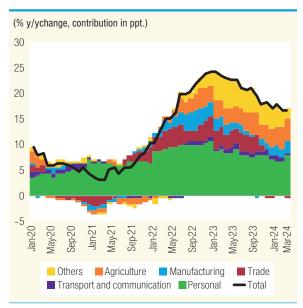
Source: NBS. WB staff estimates.

accounts for around one-fifth of core inflation—up from 2.8 percent in 2023 to 3.9 percent in 4M-2024. As a result, the core inflation index rose from an average of 2.3 percent in 2023 to 3.7 percent in 4M-2024. Non-core inflation, which fell slightly from 8.2 percent in 2022 to 8.0 percent in 2023, declined dramatically to 1.5 percent during 4M-2024.

The decline in the produce price index (PPI) has closely followed movements in the CPI. It fell from a peak of 4.9 percent y/y, in Q3-2022 to 2.1 percent in Q1-2023, before sliding even further to 0.4 percent in Q4-2023, driven by the waning contribution of manufacturing to inflation (Figure 9). While input costs for manufacturers of food, beverage, and tobacco products increased, costs for manufacturers of chemicals, basic metals, and related products fell.

The growth in monetary aggregates has moderated. The annual growth of the extended broad money supply (M3) reached a high of 21.3 percent in mid-2023, before settling at 13.8 percent in March 2024. Further, the growth rate of reserve money (M0), the most liquid measure of the money supply, decelerated from 17.0 percent in June 2023 to 3.7 percent in December 2023, before increasing to 10.3 percent in March 2024 (Figure 10). The broad monetary condition index also indicates a tightening of Tanzania's monetary conditions and BoT's monetary

FIGURE 11 • Private Credit Growth and Its Drivers



Source: Bank of Tanzania, WB staff estimates.

policy stance since mid-2023 (Box 4). These trends are consistent with the BoT's policies that aim to slow the growth of monetary aggregates against the background of the pressures on the exchange rate.

Net domestic financial assets (NDA) expanded by 8.1 percent in March 2024 and remained the primary source of Tanzania's liquidity, supported by a broad-based expansion in private credit offtake. Credit to the private sector reached an average annual growth rate of 22.9 percent in March 2023, before gradually declining to a still robust 16.6 percent in March 2024 (Figure 11). Like in the previous year, credit growth continues to be led by the agriculture sector, which benefits from government-supported programs.4 Moreover, credit growth in manufacturing jumped from 2.3 percent in August 2023 to 24 percent in March 2024, and tourism appears to be recovering, with credit growth more than doubling for hotels and restaurants in the same period.

The Bank of Tanzania (BoT) has increased the rate to reduce supply-demand mismatch in the forex market while keeping inflation low. On April 3, 2024, the BoT announced an increase in the central bank rate (CBR) from 5.5 percent to 6 percent. With limited depreciation of the Shilling, interest rates

remain elevated, partly because of the forex interventions. The rate remains within the band of ±200 basis points and is expected to have a minimal effect on the 7-day interbank lending rate, which currently stands at 7.28 percent. Pressure on lending rates from the higher CBR will invariably materialize, although the decrease in bank lending rates and improved asset quality over the last year will cushion the impact. Lending rates charged by banks averaged 15.51 percent in March 2024, down from 15.83 percent in the corresponding month of 2023, and short-term lending rates (loans up to 1 year, which are more prevalent for small and medium enterprises [SMEs]) decreased from 16.67 percent to 16.17 percent in the same period. The overall deposit rates remained relatively stable, averaging 7.55 percent, although the negotiated deposit rates increased slightly from 9.31 percent in March 2023 to 9.59 percent in March 2024. Notably, the short-term interest rate spread⁵ narrowed further, from 8.73 percentage points in March 2023 to 7.23 percentage points in March 2024.

The financial sector remains stable and resilient to short-term shocks. The banking sector is liquid, profitable, and adequately capitalized. Commensurate with the increase in economic activity and use of financial services, capital adequacy-the ratio of liquid assets to demand liabilities-remains well above regulatory requirements. Moreover, the loans/ customer deposit ratio is robust and stable. Notably, asset quality is sound, with a non-performing loan (NPL) ratio of 4.4 percent—below the regulatory ratio of 5 percent. The BoT is closely monitoring the rise in dollarization in the financial system resulting from increased demand for foreign exchange. The increase in foreign currency deposits is indicative of banks' preference to hold and transact in foreign currency, especially the US dollar.

The government has a Tsh 1 trillion fund lent by the BOT at 3 percent to banks for lending to the agriculture sector. Another program coordinated by the National Economic Empowerment Agency and managed by the Small Industries Development Organization offers loans to SMEs in the agriculture sector through AZANIA bank.

The difference between the lending rate charged to customers and the interest rate banks pay on deposits and borrowings. It is an indicator of a bank's profitability.

BOX 4: BROAD MONETARY CONDITION INDEX FOR TANZANIA

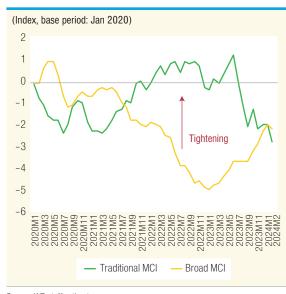
Tanzania's monetary policy framework is under transition. The authorities started in January 2024 to gradually replace the reserve money targeting regime, which had been used for almost three decades, with an interest-rate-based monetary policy regime.^a While the interest rate becomes an important intermediate target to help government achieve inflation and output objectives, the growth rates of monetary aggregates and private credit will still be used to indicate Tanzania's monetary conditions and the central bank's monetary policy stance during the transition period.

A modified popular, simple, and single monetary condition index (MCI) can be used to assess Tanzania's monetary conditions and the central bank's monetary policy stance. The MCI is used by various central banks, international organizations, and financial firms to evaluate monetary policies and environments in countries. The traditional MCI is defined as a weighted sum of changes in real interest rates and real exchange rates from their values in a selected base period. This, however, is not suitable for Tanzania because: (i) the traditional MCI puts too much emphasis on the interest rate and exchange rate channels of the monetary policy transmission mechanism but ignores the monetary and credit channels currently present in Tanzania (as researched by the IMF); and (ii) it works well for small open economies with fully flexible exchange rate regimes, such as Canada and New Zealand, but is less effective for countries such as Tanzania with a managed floating exchange rate regime. While a depreciation of the Canadian dollar contributes to loosening monetary conditions in Canada, a depreciation of the Tanzanian shilling is usually followed by a tightened monetary policy stance, as the central bank manages a relatively stable exchange rate. As a result, the following broad MCI that excludes the real exchange rate and introduces real extended broad money (M3) and real private credit (cr) may be more suitable for Tanzania:

Broad MCI =
$$r_t - r_b + \frac{\beta}{\gamma} (cr_t - cr_b) * 100$$
,

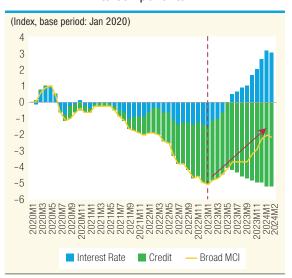
where r_{l} , r_{b} are the real interest rate at period t and base period b, cr_{l} , cr_{b} are the log of real private credit at period t and base period b, $\frac{\beta}{\gamma}$ is the relative effect of cr and r on aggregate demand.

FIGURE B4.A • Traditional MCI and Broad MCI



Source: WB staff estimates.

FIGURE B4.B • Broad MCI and Contribution of Its Components



Source: WB staff estimates.

Results show that the suggested broad MCI works better for Tanzania than the traditional MCI and indicate tighter monetary conditions since 2023. Derived from the empirical results estimated by Autoregressive Distributed Lag (ARDL) methodology, the formulas of the two MCIs are:

Traditional MCI =
$$r_t - r_b + 1.7 (rer_t - rer_b) * 100$$
, and
Broad MCI = $r_t - r_b - 0.28 (cr_t - cr_b) * 100$.

A rise in the interest rate reduces aggregate output and increases the MCI, as do an appreciation in the Tanzanian shilling (an increase in real exchange rate [rer]) and a decrease in private credit. Therefore, a rising MCI indicates tightening monetary conditions, and vice versa.

(continued on next page)

BOX 4: BROAD MONETARY CONDITION INDEX FOR TANZANIA

While the traditional and broad MCI indicate a similar trend between May 2020 and May 2021, the traditional MCI has failed to capture the movement of monetary conditions since mid-2021. Instead, it suggested a contradictory conclusion against the broad MCI (Figure B3.A), reflecting Tanzania's managed floating exchange rate regime, under which an appreciation of the Tanzanian shilling is usually followed by loosening monetary conditions to stabilize the exchange rate. By contrast, the broad MCI can better depict the central bank's monetary policy stance. It reflects tightened monetary conditions between January and March 2020 due to increased government borrowing to fund development projects, as well as more accommodative monetary policies (e.g., a credit window was introduced for the agriculture sector) during the pandemic and post-pandemic recovery. However, the general trend of loosening monetary conditions started to reverse rapidly since early 2023, when the regional US\$ drought exerted continuing pressures on the country's official reserve and forex market (Figure B3.B).

- ^a The BoT set the policy rate at 5.5 percent for the first quarter on January 19 and raised it by 50 basis points to 6.0 percent for the second quarter on April 4. Under this regime, the BoT will align the 7-day interbank cash market interest rate along the policy rate.
- ^b The definition of the traditional MCI= $(r_i r_b) + \frac{\alpha}{\gamma}(rer_i rer_b)$, where r_{r_i} bare real interest rate at period t and base period b, rer_i , rer_b are log of real exchange rate at period t and base period b, and $\frac{\alpha}{N}$ is the relative effects of r and rer on aggregate output.
- International Monetary Fund. 2023. "Reexamining the Monetary Policy Transmission Mechanism in Tanzania." https://www.elibrary.imf.org/view/journals/002/2023/154/article-A004-en.xml.
- d As real extended broad money (M3) usually follows the same pattern as credit, only credit is kept in the equation. However, adding M3 in the index calculation does not alter the general trend and results.
- The ARDL model estimated real GDP growth rate as the dependent variable and the real interest rate and 12-month changes in the logarithms of real exchange rate as independent variables, using monthly data from May 2015 to February 2024 to get the relative effects for the traditional MCI. Similarly, the model excluded 12-month changes in the logarithms of real exchange rate and added 12-month changes in the logarithms of M3 and private credit in the set of independent variables, using the same sample to calculate the relative effects for the broad MCI.

Fiscal and Debt Developments

While fiscal consolidation has progressed slowly over the past few years, the government is expected to adopt measures to improve the country's fiscal health. Supported by increased revenue collection, the overall fiscal deficit narrowed from 3.2 percent of GDP during FY2018/19 to 1.9 percent during FY2019/20. However, as widespread fiscal support was implemented in response to multiple external shocks such as the COVID-19 pandemic, government public expenditure has soared since FY2020/21, deteriorating the fiscal deficit while revenue remained stable as a share of GDP (Figure 12). The government's FY2023/24 budget envisions a narrowing of the fiscal deficit through enhanced revenue mobilization, which is already reflected in published data for the first eight months (8M) of FY2023/24.

Tanzania's primary fiscal deficit was an estimated 1.0 percent of GDP in 8M-FY2023/24, lower than 2.3 percent of GDP in the same period in FY2022/23, reflecting an improvement in the country's fiscal health (Table 1). This was well below the budget estimate of the fiscal deficit. In 8M-FY2023/24, tax revenue stood at 14.2 percent, surpassing 12 percent of GDP in the same period last fiscal year, and total expenditure stood at 22.9 percent. In the same period,

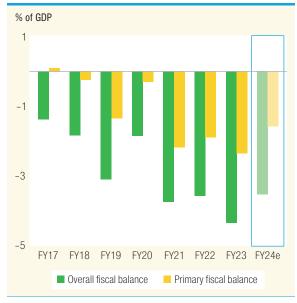
total government revenue grew by 27.4 percent, y/y, and reached Tsh 22.1 trillion, equivalent to 95.0 percent of the 8M target of Tsh 23.3 trillion. The government remains committed to enhancing internal revenue collection, which is vital for ensuring budget stability and sustainability. More than one-third of Tanzania's financing for the budget deficit is from foreign sources, with the remaining from domestic sources, which is in line with budget projections.

Revenue collections surged by an impressive 27.4 percent, y/y, during 8M-FY2023/24.

The increase was driven by the strong performance of income taxes, which witnessed a y/y increase of 36.3 percent, followed by the sales tax/value-added tax (VAT) and excise taxes (Figure 13). Import taxes increased by around 23.2 percent y/y in 8M-FY2023/24, while non-tax revenue rose by 24.3 percent y/y during the same period (Figure 14). The Government of Tanzania is implementing a range of measures to bolster revenue collection, including the promotion of IT systems for accurate tax monitoring, expanding taxpayer and VAT registration through targeted campaigns, and refining tax collection systems to make them more user-friendly. The authorities have also prioritized efforts to enhance withholding tax management for government institutions and combat tax evasion and smuggling through strengthened border security.

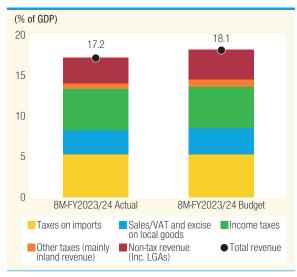


FIGURE 12 • Overall and Primary Fiscal Balance



Source: NBS, WB staff estimates.

FIGURE 14 • Actual vs. Budget Revenue, 8M-FY2023/24



Source: Bank of Tanzania, WB staff estimates.

These initiatives reflect the government's commitment to optimize revenue while ensuring transparency and compliance within the tax framework.

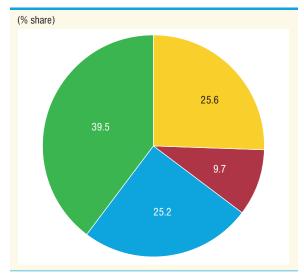
Expenditure in 8M-FY2023/24 closely mirrored the budget estimates driven by the performance of development expenditure and predominance of recurrent expenditure. Recurrent expenditure rose because of increased spending

FIGURE 13 • 8M Fiscal Revenues, 2019-2024



Source: Bank of Tanzania, WB staff estimates.

FIGURE 15 • Public Expenditure by Component, 8M-FY2023/24



Source: Bank of Tanzania, WB staff estimates.

on wages and salaries. Interest payments increased marginally from 1.8 percent of GDP in 8M-FY2022/23 to 2.2 percent of GDP during 8M-FY2023/24, while spending on goods, services, and transfers increased from 4.0 percent to 5.8 percent of GDP in the same period. At Tsh 7.4 trillion, actual spending on goods, services, and transfers during 8M-FY2023/24 was higher than the budgeted level (Figure 15).

TABLE 1 • Central Government Fiscal Operations (% of GDP)

		Fiscal Year (July to June)				Jul-Feb (8M)	
	2018/19	2019/20	2020/21	2021/22	2022/23	2022/23	2023/24
Total Revenues	13.9	14.5	13.1	14.5	14.4	14.6	17.2
Tax revenu	11.5	12.0	11.0	11.9	11.8	12.0	14.2
Taxes on imports	4.2	4.1	4.2	4.7	4.6	4.7	5.4
Sales/VAT and excise on local goods	2.8	2.6	2.4	2.0	2.3	2.4	2.9
Income taxes	3.8	4.5	3.8	4.5	4.2	4.0	5.1
Other taxes (mainly Inland Revenue)	0.7	0.8	0.7	0.7	0.8	0.8	0.9
Non-tax revenue	2.3	2.4	2.1	2.6	2.6	2.6	3.0
Total expenditure and net lending	16.7	16.6	16.9	18.5	18.2	18.5	22.9
Recurrent expenditure	10.3	9.8	9.5	9.5	10.9	10.8	13.9
Wages and salaries	5.0	4.8	4.7	4.8	5.0	5.0	5.9
Interest payments	1.8	1.6	1.6	1.7	2.0	1.8	2.2
Domestic	1.2	1.0	1.2	1.2	1.5	1.3	1.5
Foreign	0.6	0.6	0.5	0.5	0.6	0.5	0.8
Other goods, services, and transfers	3.5	3.4	3.2	3.0	3.9	4.0	5.8
Development expenditure and net lending	6.4	6.8	7.4	9.0	7.3	7.7	9.1
Overall balance before grants	-2.9	-2.1	-3.8	-4.0	-3.8	-3.8	-5.7
Grants	0.7	0.6	0.4	0.4	0.4	0.4	0.3
Adjustments to cash and other items (net)	-0.9	-0.4	-0.5	0.0	-1.0	-0.6	2.2
Overall balance (cash basis)	-3.2	-1.9	-3.8	-3.5	-4.4	-4.1	-3.2
Primary Fiscal Deficit	-1.4	-0.3	-2.2	-1.9	-2.4	-2.3	-1.0
Financing	3.2	1.9	3.8	3.5	4.4	4.1	3.2
Foreign (net)	0.9	1.6	1.7	1.8	1.9	1.4	2.3
Domestic (net)	2.3	0.3	2.1	1.7	2.5	2.7	0.9

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

Note: Calendar year GDP for 2018/19 onwards is based on World Bank staff estimates which is converted to quarterly GDP using seasonal factors, from which fiscal year GDP is estimated.

Strengthening infrastructure for the provision of social services, especially water, health, and education, was a crucial priority for the government during the previous year. The country is actively financing strategic projects, notably the construction of a modern railway (Tanzania Standard Gauge Railway project) and the Julius Nyerere hydroelectric dam.⁶ The allocation of development funds has focused on ongoing strategic projects as well as public-private partnership projects that aim to reduce the government's burden of financing development projects.

During FY2024/25, the government's strategy is grounded in the principles of economic prudence. This involves enhancing private sector engagement in investment and business activities by bolstering infrastructure. Additionally, the authorities plan to continue to mitigate the impacts of both natural and man-

Notes of Minister of Finance presenting in the Full Parliamentary Committee. The System and Limitations Proposals of the Government Budget for the year 2024– 25, March 2024.

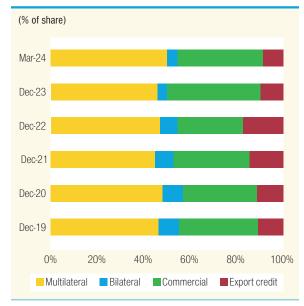
made disasters, foster stability in the global economy and market prices, improve food security, and maintain peace, security, unity, and stability within the country and in neighboring nations. The government plans to finance development projects through funds like the Road Fund, Railway Fund, Rural Electricity Fund, Rural Water Fund, and Rural Water Agency, while also enhancing the public procurement system for better efficiency.⁷

The government aims to take various measures to increase revenue collection in FY2024/25. This will involve improving the business environment, broadening the tax base, and strengthening tax law enforcement, alongside promoting the efficiency of the tax IT system, especially related to property. Additionally, the government aims to invest in productive sectors, formalize the informal sector, and improve tax evasion controls while enhancing service delivery at border centers.⁸

The most recent International Monetary Fund/World Bank Debt Sustainability Analysis (June 2024) maintained Tanzania's moderate risk rating of external and public debt distress. Tanzania is assessed as having some space to absorb shocks. While indicators for external debt solvency and liquidity remained below the policy-defined thresholds in the baseline scenario, the debt service-to-export and debt stock-to-exports ratios surpassed their respective thresholds in the export-shock stress test. Nonetheless, the present value of the public debt-to-GDP ratio is projected to remain comfortably below Tanzania's debt carrying capacity benchmark of 55 percent. By end-FY2023/24, total debt held by the public sector is expected to reach 47.6 percent of GDP (of which 45.7 percentage points are central government debt and 1 percentage point domestic arrears), up from 46.7 percent of GDP in FY2022/23. The FY2022/23 public sector debt stock equates to Tsh 84.0 trillion (approximately US\$36.1 billion) in nominal terms and increased to an estimated Tsh 96.5 trillion (approximately US\$36.5 billion) at end-FY2023/24. While both external and domestic debt grew, the share of domestic debt increased by 26 basis points in FY2022/23 before being expected to drop in FY2023/24, reflecting the financing trends observed in the fiscal accounts.

External debt maintains its dominance in the central government debt portfolio. The

FIGURE 16 • External Debt Stock by Share of Creditors



Source: Bank of Tanzania.

external debt component of total public sector debt increased from 28.9 percent to 39.6 percent of GDP in FY2022/23. As a result, the central government continues to dominate Tanzania's external borrowing, constituting 71.7 percent of all internationally outstanding debt as of end-March 2024. Borrowing from multilaterals, such as the World Bank and the IMF, now constitutes slightly more than half of external borrowing, while the role of bilateral creditors has declined since 2020. A buildup of export credit during the same period has been reversed and replaced with other commercial and concessional sources of credit (Figure 16).

Meanwhile, domestic public debt stood at Tsh 30,754 billion at end-March 2024, which represented a y/y increase of 14.5 percent. Domestic debt rose marginally from 36.5 percent of public sector debt at end-June 2022 to 36.7 percent at end-June 2023. The shares of various instruments remained broadly stable between March 2023 and March 2024, with government securities accounting for approximately 86 percent of total domestic debt,

⁷ Ibid.

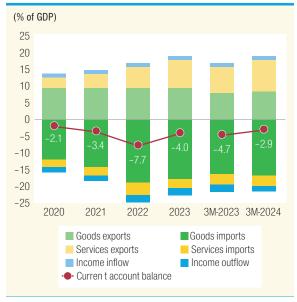
⁸ Ibid.

of which around 9 percent was made up of short-term Treasury Bills. Overdrafts continue to stand at about 14 percent of total domestic debt. The government's dependence on overdraft financing highlights continued scope to improve cash management practices. Moreover, elevated costs associated with overdrafts exacerbate pressure on the budget. One-third of domestic debt is now held by commercial banks, up from 26.8 percent a year ago. The share of pension funds in total domestic borrowings fell by 2.9 percentage points to 26.7 percent between March 2023 and March 2024. Tanzania's central bank also reduced its share from 21.4 percent of total domestic debt to 20.2 percent between March 2023 and March 2024.

Balance-of-Payments Position

Tanzania's current-account deficit (CAD) has improved gradually since 2022. It deteriorated sharply in 2022 amid escalating food and energy prices, spillovers from Russia's invasion of Ukraine, and supply chain disruptions that pushed up the import bill. As a result, the CAD more than doubled to around 7.7 percent of GDP, the highest level since 2014. However, lower global commodity prices and

FIGURE 17 • Current Account Balance by Component



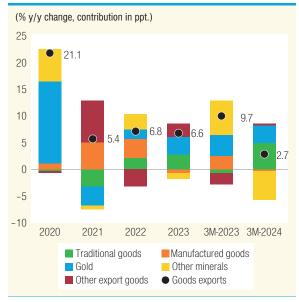
Source: Bank of Tanzania, WB staff estimates.

a recovery in tourism receipts improved Tanzania's current-account position in 2023, with the CAD narrowing to 4 percent of GDP.

This positive momentum continued in the first three months (3M) of 2024. The current account deficit declined to US\$576.4 million (equivalent to 2.9 percent of GDP) during 3M-2024, from US\$926.0 million (equivalent to 4.7 percent of GDP) during 3M-2023. Despite net income outflows remaining at 0.8 percent of GDP over the period, an improved trade balance helped narrow the CAD (Figure 17). Driven by increased earnings from gold exports and tourism sectors, as well as reduced imports bills, Tanzania's trade balance shrank from US\$770.9 million (3.9 percent of GDP) during 3M-2023 to US\$425.7 million (2.2 percent of GDP) during 3M-2024. This trend also mirrored an improved terms-of-trade position.9

Bolstered by traditional and gold exports, Tanzania's merchandise exports increased by

FIGURE 18 • Merchandise Exports, by Component



Source: Bank of Tanzania, WB staff estimates.



Terms of trade in Q3-2023 were 7.2 percent higher than in Q3-2022, suggesting that Tanzania's exports were able to buy 7.2 percent more in imports than a year ago. Terms of trade data for Q4-2023 and Q1-2024 are unavailable at the time when preparing the section.

FIGURE 19 • Tourism Receipts and Arrivals

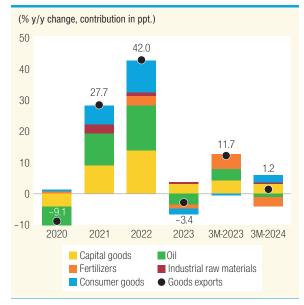


Source: Bank of Tanzania, WB staff estimates.

2.7 percent during 3M-2024, slower than 9.7 percent during 3M-2023 (Figure 18). Led by a surge in tobacco, cashew, and cotton exports—all attributed largely to volume effects, Tanzania's traditional exports drastically rebounded to US\$233.6 million by nearly 50 percent during 3M-2024, from a contraction of 4.9 percent during the same period last year. Gold exports rose by 7.2 percent during 3M-2024, building on a 7.8 percent increase in 2023, due primarily to the escalating price traded in the global market.¹⁰ In contrast to gold, exports of other minerals experienced a 43.3 percent contraction during 3M-2024, which partly reflects waning external demand for coal and tanzanite.

While growth of merchandise exports decelerated, the tourism industry stimulated export earnings. Tanzania earned US\$1768.3 million foreign exchange from services exports during 3M-2024, which is 18.6 percent higher than the same period last year. Travel receipts, the largest component of Tanzania's services exports, soared by 27.2 percent over the period, reaching US\$970.7 million. This increase was bolstered by the surging number of inbound tourist arrivals—registered at 0.52 million during 3M-2024 (Figure 19). Receipts from freight services also rose by around 6 percent and attracted US\$579.9 million foreign income during 3M-2024.

FIGURE 20 • Merchandise Imports by Component



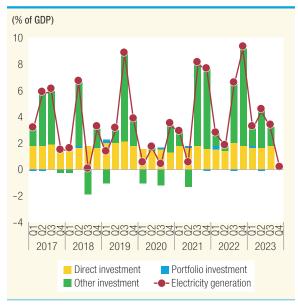
Source: Bank of Tanzania, WB staff estimates.

Imports of goods and services in Tanzania was virtually flat in 3M-2024, decreasing by 0.7 percent over the period. Growth of goods imports decelerated from 11.7 percent in 3M-2023 to merely 1.2 percent in 3M-2024, on the back of reduced oil and fertilizers imports (Figure 20). As a result of the moderation of the global commodity prices,11 the import value of oil and fertilizer dropped by a combined 16.1 percent during 3M-2024, compared to a 35.7 percent surge during 3M-2023. Capital imports, however, increased at 7.9 percent, reflecting the increasing demand for transport, building and construction equipment, and machinery from the ongoing mega projects. Meanwhile, services imports reduced by nearly 11 percent, resulting from a decline in insurance and freight services that illustrated the stagnant growth of merchandise imports as well as dropped freight prices.

Global gold prices increased by 9.7 percent from an average price of US\$1888.3/oz during 3M-2023 to US\$2071.8/oz during 3M-2024, according to the World Bank "Pink Sheet" Data.

The oil prices dipped by 2 percent during 3M-2024, while fertilizer price index declined by nearly 30 percent, according to the World Bank "Pink Sheet" Data.

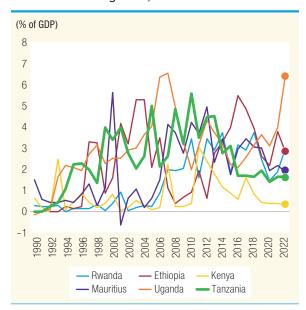
FIGURE 21 • Trend of Financial Account Net Inflows



Source: Bank of Tanzania. WB staff estimates.

The capital and financial account surplus declined to 3.8 percent of GDP in 9M-2023, from 4.1 percent during the same period last year. This reduction is mainly caused by slumped inbound capital transfers to the government, while foreign and non-foreign direct investment hovered at a constant level. Tanzania's general government received US\$88.5 million for development projects during 9M-2023, which is around one-third of the receipts during the same period a year ago, resulting in a declined capital account surplus of 0.2 percent of GDP. By contrast, financial account (excl. reserves) surplus amounted to 3.6 percent of GDP, at par with the surplus in 9M-2023 (Figure 21). Tanzania's foreign direct investment (FDI), as a percentage of GDP, is relatively low compared to regional neighbors, and experienced a downward trend over the past decade (Figure 22). Recently, a favorable environment led by pro-business policies,12 gradually improved global financing conditions, along with positive ratings from Fitch and Moody's have helped Tanzania attract investments from the international financial market.¹³ FDI picked up slightly from 1.6 percent of GDP in 9M-2022 to 1.7 percent in 9M-2023 while an increase of 178 percent in the number of approved registered projects was observed in Q4-2023. Non-FDI invest-

FIGURE 22 • FDI, Tanzania and Regional Neighbors, 1990-2022



Source: World Bank: World Bank staff estimates.

ment, comprising of portfolio investment and other investment, maintained at a combined total of 1.9 percent, the same level as 9M-2022.

Tanzania's improved balance-of-trade and current-account position partly relieved pressure on foreign-exchange reserves held by the Bank of Tanzania (BoT). Gross foreign exchange reserves remain adequate and rose from US\$5.0 billion by end-March 2023 to US\$5.3 billion by end-March 2024, while the coverage of official reserves declined from 4.5 months to 4.4 months in the same period. However, the shortage of foreign exchange (especially US dollars) has led to a further depreciation of the

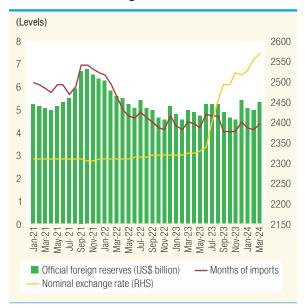


The government has approved many investment-related bills to improve business environment, such as Tanzania Investment Act (2022), Public Investment Bill (2023), amendments to Public-Private Partnership Act (2023), and newly approved amendments to Investment Act (2024).

On March 22, Moody's upgraded Tanzania's sovereign credit rating from B2 to B1 with stable outlook, surpassing its regional peers (including Kenya, Rwanda, Uganda).

While the imports coverage decreased slightly, as disclosed by the BoT, World Bank data suggest a constant level at 4 months of imports in both March 2023 and March 2024.

FIGURE 23 • Gross Official Reserves and Exchange Rate



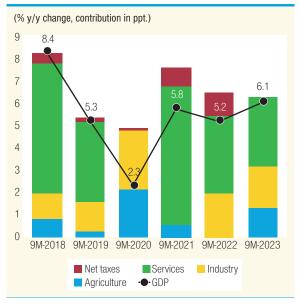
Source: Bank of Tanzania, NBS, WB staff estimates,

Tanzanian shilling since July 2023 when the government advocated for higher exchange rate flexibility. The shilling has depreciated by 10.6 percent, from an average trading rate of Tsh 2322.9/US\$ in March 2023 to Tsh 2569.7/US\$ in March 2024 (Figure 23). The BoT aims to ensure that the exchange rate aligns with economic fundamentals and is determined by the market. In Q1-2024, the BoT sold US\$133.6 million in the interbank foreign exchange market (IFEM) to inject forex liquidity in banks. Additionally, the BoT mopped up excess liquidity in financial markets, facilitated the resolution of letters of credit, and increased the value of transactions conducted outside the IFEM. The continued flexibility of the exchange rate will be crucial to restore the balance between demand and supply in the forex market and eliminate the distortive parallel foreign exchange market.

Zanzibar Macroeconomic Assessment

Zanzibar is a semi-autonomous island in the United Republic of Tanzania (URT). The URT consists of the mainland of Tanzania (Tanganyika) and the island of Zanzibar, with the latter representing around 3.1 percent of the country's total population

FIGURE 24 • Real GDP Growth



Source: National Bureau of Statistics (NBS); World Bank staff estimates.

(1.9 million people) in 2022.¹⁵ Unlike the mainland, where over two-thirds of the population lives in rural areas, only half Zanzibar's population is in rural areas. Having around 880 km length cost lines, the island is abundant in diverse marine resources. Since 2020, the Revolutionary Government of the Zanzibar has been implementing a blue economy agenda,¹⁶ which envisions a sea-based economy with a climate-resilient, carbon-friendly, and sustainable growth path. The largest source of income generation in the archipelago is tourism, followed by fisheries.¹⁷

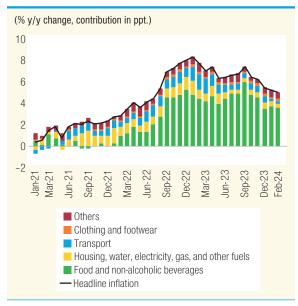
Zanzibar's economy expanded steadily during the first nine months (9M) of 2023, supported by tourism and fisheries. Real GDP growth accelerated from 5.2 percent, year-on-year (y/y), in 9M-2022 to 6.1 percent in the same period in 2023 (Figure 24). The services sector is the largest sector on the island

¹⁵ Population and Housing Census 2022.

For more details, see the Zanzibar Blue Economy Policy (Revolutionary Government of Zanzibar 2020, https://faolex.fao.org/docs/pdf/tan208265.pdf).

According to the Zanzibar Investment Promotion Authority, the fisheries sector provides a source of income to about 20 percent of Zanzibar's population. (Zanzibar Investment Promotion Authority, "Blue Economy," https://www.zipa.go.tz/sectors/blue-economy/).

FIGURE 25 • Inflation, January 2021-February 2024

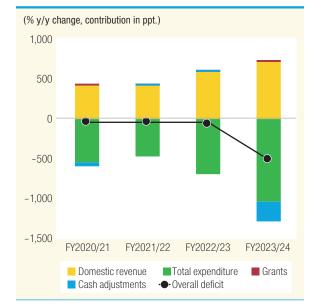


Source: NBS: World Bank staff estimates.

and remains the strongest economic growth driver. The island's stunning coastal scenery, ivory white sand beaches, and clear turquoise sea attracted around 0.64 million international visitors in 2023, up from 0.55 million in 2022. The resumption of tourism had a direct impact on the expansion of the accommodation & food services subsector (6.6 percent, y/y, in 2023) and stimulated buoyant activities in other related subsectors such as wholesale & retail trade (9.9 percent, y/y) and real estate (6.0 percent, y/y). Overall, services sector grew by 6 percent. Supported by the construction, mining, and quarrying subsectors, the industry sector expanded by 10.2 percent in 9M-2023, building on the 11.3 percent expansion recorded in 9M-2022. The agriculture sector, which contributes the least to economic growth, rebounded from contracting by 6.2 percent in 9M-2022 to expanding by 6.9 percent in 9M-2023, supported by resumed growth in crops and double-digit growth in fisheries due to the government's blue economy policy.

Inflationary pressures eased in Zanzibar in 2023 and early 2024 as food and non-alcoholic beverage prices declined. Headline consumer price index (CPI) inflation fell from a record 8.4 percent at the beginning of 2023 to 5.1 percent in February 2024. Food inflation declined from 11.6 percent to 8.7 per-

FIGURE 26 • Fiscal Developments, FY2020/21-FY2023/24



Source: Bank of Tanzania: WB staff estimates.

cent over the same period, partly due to a recovery in crop production. Government measures¹⁸ to control sugar prices during a recent sugar shortage in the URT also helped combat food inflation. A slowdown in food inflation, combined with falling prices related to transport as well as housing, water, electricity, gas, and other fuels, drove the declining trend in prices (Figure 25).

Thefiscal deficitin Zanzibar wide ned from Tsh 78.9 billion during the first half (H1) of FY2022/23 to Tsh 542 billion during H1-FY2023/24, as the increase in total expenditure outweighed that in total revenue. Domestic revenue increased by 22 percent during H1-FY2023/24, primarily supported by revenue from import, income, and value-added taxes and excise duties. However, the government ramped up public expenditure by over 50 percent, from Tsh 687.7 billion during H1-FY2022/23 to Tsh 1034 billion H1-FY2023/24 (Figure 26). Recurrent expenditure surged by 17.2 percent over the period, while development expenditures, especially those

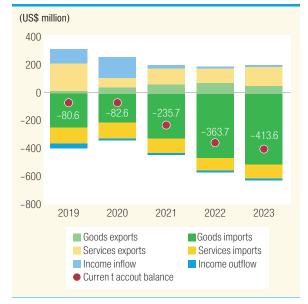


For example, Zanzibar's fair competition commission shut down over 100 shops that hoarded and sold sugar at a higher price than the government-set indicative price.

related to local capital projects aligned with Zanzibar's five-year development plan 2021–2026,¹⁹ increased by more than 150 percent, y-y. Over 90 percent of the fiscal deficit during H1-FY2023/24 was financed by domestic banks, with the remaining sourced from foreign loans (e.g., commercial loans and concessional loans from international partners).

Zanzibar's current-account position also deteriorated in 2023. The current-account deficit (CAD) rose from US\$358.8 million in 2022 to US\$388.8 million in 2023 (Figure 27). Diminishing merchandise exports and increased imports of goods and services contributed to the overall deterioration. The production of cloves, Zanzibar's most important cash crop, was more than halved between 2022 and 2023, owing to falling prices due to fierce international competition as well as erratic weather conditions triggered by climate change.²⁰ This slowdown in clove foreign earnings caused the value of goods exports to plummet by 34.7 percent (y/y) to US\$50 million, despite an increase in non-traditional exports, including seaweeds, manufactured goods, and fish products. Total merchandise imports observed a double-digit rise in 2023, with capital goods imports (transport equipment and machinery) surging by 64 percent. This

FIGURE 27 • Current-Account Balance, 2019-2023



Source: Bank of Tanzania, WB staff estimates.

trend was consistent with government-fueled expenditure on local capital projects. Nevertheless, the CAD narrowed to US\$23.8 million during 2M-2024, from US\$53.0 million during 2M-2023, mainly driven by a 330 percent increase in merchandise exports.

The strategic projects for FY2023/24 are implemented in 5 areas: (1) blue economy; (2) environment and infrastructure; (3) economic reform; (4) human resources and social services; and (5) governance strengthening. Planned projects include but is not limited to: (i) construction of the Mangapwani fishing port and the modern fish market; (ii) a clean and safe water distribution project and the Zanzibar Energy Sector Transformation and Access Project; (iii) construction of Nungwi Airport, upgrade of Pemba Airport, and improvement of 103 km of roads across the Pemba and Unguja Islands; and

⁽iv) renovation of the Mnazi Referral Hospital and construction of a referral hospital in Binguni.

While clove production depends heavily on a growth environment of moderate rainfall and temperatures, more frequent floods and droughts arising from the climate change can adversely impact production (Kabote and Tunguhole 2022). Source: Kabote, S. J., & Tunguhole, J. (2022). Determinants of clove exports in Zanzibar: Implications for policy. International Journal of Business and Economic Studies, 4(2), 127–147.

MACROECONOMIC OUTLOOK AND RISKS

anzania's real GDP is projected to grow at 5.4 percent in 2024 and average around its long-run potential of about 6 percent over the medium term (Table 2). The projection has been revised downward slightly from the 5.6 percent published in the twentieth edition of the Tanzania Economic Update. This is due to the slower-thanexpected implementation of ongoing transformative structural reforms to facilitate private sector investment, persistent barriers that hinder private sector development, and insufficient reforms to rebalance the demand and supply in the foreign exchange (forex) market. Over the medium term, growth will be supported by an improved business environment and the complete implementation of structural reforms, which are expected to crowd in both public and private investment, including foreign direct investment (FDI). Increased investment is expected to boost domestic demand and exports while helping to generate additional foreign currency. Still, the authorities should accelerate the implementation of capital projects and approved legislation such as amendments to the Public-Private Partnerships Act (2023) and Tanzania Investment Act (2023), especially through issuing of

accompanying regulations. Additionally, the government needs to pursue measures to increase access to finance by small and medium-sized enterprises (SMEs), improve the tax policy and administration, and reduce the cost of regulatory compliance and trading across the border.

Headline inflation is projected to remain low and stable over the medium term. It is set to decline to 3.3 percent in 2024 and remain around 3 percent over the medium term. Ongoing efforts to increase the productivity of agriculture and the food supply, together with tight monetary policy, are expected to support low and stable inflation over the medium term. To improve monetary policy implementation and control inflation, the Bank of Tanzania (BoT) transitioned from a monetary targeting to an interest-rate-based framework in January 2024.

Over the medium term, the current-account deficit (CAD) is anticipated to narrow further. It is projected at 3.3 percent of GDP in 2024 due to an improved trade balance, bolstered by rapid growth of gold, services, and manufactured exports. Supported by increased tourism, service exports are expected to continue its growth momentum, while an improved

business environment, including better administration of value-added tax (VAT) refunds, is likely to drive an increase in manufactured exports, especially to East African Community member states and other neighboring countries. Over the medium term, the CAD is projected to narrow further to about 3 percent of GDP as transformative reforms to improve the business climate are completed and help attract private investment (including FDI) and enhance export competitiveness. Import growth is expected to slow as major capital investment projects are completed and global commodity prices continue to moderate. An expected increase in FDI inflows will largely fund the CAD and help keep official gross reserves at an adequate level.

A combination of improved revenue collection and fiscal prudence is expected to narrow the fiscal deficit over the medium term. The fiscal deficit is projected to decline to 3.7 percent of GDP in 2024 and average near 3 percent in the medium term on account of expected higher tax revenue collection and controlled expenditures. Domestic revenues are projected to increase to 15.7 of GDP in 2024, before reaching 16.2 percent in 2026, while total expenditures are projected to stabilize at about 19 percent over the medium term. Official grants are projected to remain at 0.5 percent of GDP over the medium term, in line with the government's objective of reducing the country's aid dependency. The expected increase in domestic revenue will come from increased tax and non-tax collection generated from improvements in the business climate, private investments, and tax compliance and administration (including through the use of electronic devices). Public expenditures are projected to stabilize at around 19 percent of GDP, as an expected increase in recurrent expenditures during the upcoming elections will offset the decline in capital expenditures resulting from the completion of major capital projects. The fiscal deficit is expected to be financed by both foreign and domestic loans, with the latter continuing to play a significant role as global commercial financing costs remain high. According to the latest joint International Monetary Fund-World Bank Debt Sustainability Analysis (June 2024), Tanzania's risk of external debt distress remains moderate, and the public debt-to-GDP ratio is projected to gradually decline over the medium term.

Projections suggest a continued decrease in the poverty rate from 43.0 percent in 2024 to 41.7 percent in 2026. This downward trajectory is supported by a promising macroeconomic outlook and increased agriculture budget allocations aimed at unlocking productivity by promoting the intensification of agriculture, including livestock (see Special Focus). Given that a significant number of the poor are farmers in the drought-prone North-Western and Central regions, it is crucial to build the resilience of vulnerable populations before the onset of unanticipated shocks. Efforts should be directed to ensure access to adequate social protection. Despite the country's safety net program, which reaches over 1.3 million households, well beyond the target set in the national development plan, its coverage is insufficient given the scale of vulnerability. It is also critical to make climate-smart investments in agricultural inputs and irrigation infrastructure, especially in drought-prone and impoverished regions like Tabora, Shinyanga, Mara, and Simiyu. Equally important is funding research into improved seed varieties and livestock breeds. These proposed investments are likely to create resilient and productive agricultural and livestock systems, which will sustain livelihoods and accelerate poverty reduction.

Downside risks from both the domestic and external environment cloud the macroeconomic outlook. Risks include delayed and incomplete implementation of transformative structural reforms to support private sector development and women empowerment, as well as the impact of climate change on tourism and agriculture productivity and resilience, including livestock (see the Special Section). Despite the government's commitment to pursue structural reforms, including the implementation of major infrastructure projects and adoption of amendments to regulations related to private sector development, progress has somewhat slowed while significant barriers remain. According to the World Bank Enterprise Survey (2023),21 Tanzania lags the Sub-Saharan African (SSA) region on good economic governance in areas such as regulation, business licensing, and taxation, which are fundamental pillars

²¹ WorldBank, "EnterpriseSurveys," www.enterprisesurveys.org.

of a favorable business environment. Survey data confirm that domestic conditions for business entry and operation, including in the agriculture and livestock sectors, remain inadequate, and an excessive regulatory burden creates a significant barrier for firms to formalize. External risks include a potential slowdown in global growth due to lagged and ongoing effects of tight monetary policy, restrictive financial conditions,

weak global trade and investment, the continuing fallout from external conflicts. To mitigate these risks, the government must continue to implement policies that reinforce macroeconomic stability, improve the business environment, enhance productivity (including in the agriculture and livestock sectors), strengthen climate resilience, and build human capital and workforce skills, especially among women.

TABLE 2 • Medium-Term Outlook, 2021-2026

	2021	2022	2023	2024	2025	2026
(Annual % change unless otherwise indicated)	Est.	Est.	Est.	Fcst.	Fcst.	Fcst.
Real GDP Growth (at constant market prices)	4.3	4.6	5.2	5.4	5.8	6.2
Private Consumption	2.3	4.6	2.2	3.4	3.8	3.5
Government Consumption	9.0	8.4	3.1	7.7	10.3	5.2
Gross Fixed Capital Investment	7.8	9.6	3.8	5.1	5.9	8.5
Exports, Goods and Services	5.2	10.2	17.4	9.3	6.3	9.1
Imports, Goods and Services	9.6	23.7	2.3	4.2	4.1	6.5
Inflation (consumer price index)	3.7	4.3	3.8	3.4	3.2	3.0
Current Account Balance (% of GDP)	-3.2	-5.6	-3.8	-3.3	-3.1	-2.9
Net Foreign Direct Investment (% of GDP)	1.6	1.7	1.8	2.3	2.6	2.8
Fiscal Balance (% of GDP in FY)	-3.8	-3.9	-3.8	-3.7	-3.8	-3.3
Gross Nominal Debt (% of GDP in FY) ^a	42.6	45.4	46.7	47.6	46.9	45.7

 ${\it Source} : {\it World Bank Staff Estimates}.$

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 June 2024.

3

SPECIAL FOCUS: HARNESSING A CLIMATE-SMART AND COMPETITIVE LIVESTOCK SECTOR

Introduction

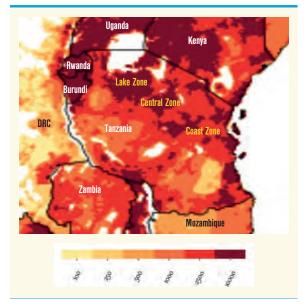
There is potential for Tanzania to leverage its strengths in livestock production and trade. Despite robust production due to a large livestock population, low productivity and stagnant yields persist in the country's livestock sector, reflecting low levels of public investment and insufficient private investment, hindering the realization of the sector's full potential. Despite the high number of livestock, exports of livestock products are low, an indication of low regional and international market integration. Meanwhile, domestic consumption is surging, driven by population growth and rising demand in urban areas, and imports of key livestock products are increasing to fill production shortfalls.

The livestock sector is susceptible to the adverse impacts of climate change and challenges that increase its vulnerability and blunt its competitiveness. Still, there is an opportunity for Tanzania to embrace climate-smart measures and other innova-

tions that not only mitigate environmental degradation but also boost productivity and enhance the livestock sector's resilience and competitiveness. These initiatives could also contribute to climate change mitigation.

Tanzania could grow its livestock sector if it pursues appropriate policy reforms, institutional innovations, and investments that overcome the complex set of biophysical, organizational, and financial challenges facing livestock producers and traders. Adequate public investment is essential. While budget allocations to the livestock sector are rising, an estimated US\$546 million in public investment is needed to ensure sustainable livestock development in Tanzania over the next 5 years (2023/24-2028/29). At about US\$109 million a year, this level of public investment represents a five-fold increase over the budgets allocated to the livestock sector prior to 2021, and it is 50 percent more than the 2023/24 budget. This high level of investment could be efficiently utilized by the sector given its current underfunding and high absorption capacity.

FIGURE 28 • Livestock Density in Tanzania



Source: Gilbert et al. 2018.

Recent Trends and Developments in Tanzania's Livestock Sector

Tanzania's livestock holdings are expansive, diverse, and multifunctional. Livestock are held across the entire country but are concentrated in the Central, Coast, and Lake zones (Figure 28). The main livestock species reared are cattle, goats, sheep, poultry, and pigs, many of which serve multiple purposes such as providing their owners with food, draft power, transport, income, and savings and contributing to cultural and traditional practices. Production systems span arid, semi-arid, sub-humid, and humid agroecologies, and 80 percent of the country's livestock population is raised in agropastoral systems, 14 percent in pastoral systems, and the remaining 6 percent on commercial ranches (Banda and Tanganyika 2021; Mottet et al. 2018).

Tanzania's livestock population is one of the largest in Africa and globally, and it is growing rapidly. Its cattle population is immense at 36.6 million—second largest in Africa (behind Ethiopia)—and represents 1.4 percent and 11.0 percent of the global and African total cattle population, respectively. Tanzania's population of sheep, goats, chicken, and pigs is also large, with most ranking in the top ten on the continent in terms of size (Table 3). Per capita,

TABLE 3 • Livestock Population by Species, 2022

		Total livestock population		a livestock lation
Livestock species	Heads (million)	Rank in Africa	Heads/ person	Rank in Africa
Cattle	36.6	2	0.56	5
Sheep	9.1	11	0.14	11
Goats	26.6	7	0.41	7
Chicken	98	7	1.50	8
Pigs	3.7	3	0.06	2

Source: FAOSTAT.

Tanzania's total livestock population is also among the largest in Africa. Between 2010 and 2022, Tanzania's cattle, goat, sheep, and poultry population surged by an average of 83 percent, with the number of cattle more than doubling (Figure 29).

Compared to other countries in the region with large livestock populations, Tanzania's large and growing livestock holdings make a relatively small contribution to GDP and agricultural GDP (AgGDP). In 2022, the country's livestock sector accounted for 7.4 percent of GDP and 26.1 percent of AgGDP, lower than Ethiopia's 19 percent and 45 percent, respectively, and Kenya's 12 percent and 40 percent, respectively (Figure 30).

The livestock sector is an important source of employment and income in Tanzania, especially for the poorest rural households. The sector is an important source of income, offering opportunities throughout the value chain, from production to processing and marketing. It employs 33 percent of the population, or 4.6 million households (NBS 2021). Livestock sales account for 13.8 percent of household income in rural areas, with the poorest rural households deriving almost one-fifth of their income from such sales (Figure 31). In addition to its important role in employment and income generation (and thus poverty reduction), the livestock sector makes significant contributions to other major national objectives such as food and nutrition security as well as gender equality (Box 5).

Between 2010 and 2021, livestock production grew faster than crop production, driving an



FIGURE 29 • Livestock Population, 2010-2022

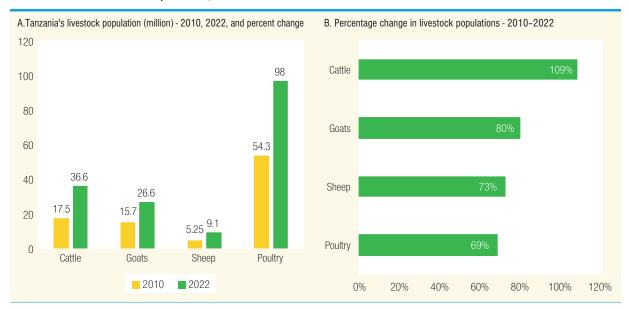
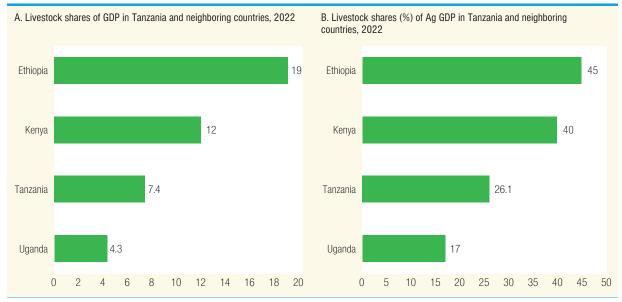


FIGURE 30 • Contributions of Livestock to GDP and AgGDP in Tanzania and Neighboring Countries, 2022



Source: FAOSTAT.

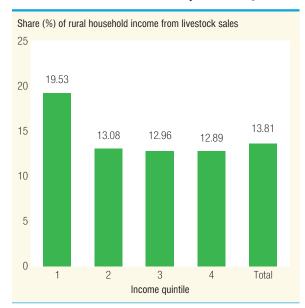
overall increase in agricultural production. Over this period, livestock production growth averaged 4.9 percent per year, much higher than an average of 2.4 percent for crops and 3.0 percent for the agriculture sector as a whole (Figure 32).

From 2010 to 2021, the growth performance of Tanzania's livestock sector dwarfed that of neighboring Ethiopia, Kenya, and Uganda

(Panel A in Figure 33). Among these countries, only Tanzania registered sustained growth in per capita livestock production over the period (Panel B in Figure 33).

However, livestock production growth in Tanzania has been driven by expansion of the livestock population rather than sustained yield increases. In recent years, livestock yields in

FIGURE 31 • Rural Household Income from Livestock Sales by Income Quintile



Source: Ntwalle 2019.

Tanzania have registered mixed performance, with most being well below global and regional averages. Among cattle meat and milk, goat meat, sheep meat, and chicken, yields only increased for cattle meat and milk and goat meat between 2010 and 2022, growing by an annual average of 3.5 percent, 6.4 percent, and 1.7 percent, respectively (Figure 34). Yields of goat and sheep meat generally exceeded global and regional averages, but only goat meat yields showed a clear upward trend. Yields of cattle meat and milk and chicken meat were well below global and regional averages.

The consumption of livestock products has been surging in Tanzania, driven by population growth, rising incomes, changing diets, and urbanization. While the country's population increased by an average of 3 percent per year between 2018 and 2022, its urban population expanded by an annual average of 5.8 percent—higher than Tanzania's average per capita GDP growth of 4.2 percent per year. As more Tanzanians move to cities and adopt urban lifestyles, demand grows for convenient, processed, and value-added livestock products such as packaged meats, dairy products, and ready-toeat meals. For example, per capita consumption of meat, milk, and eggs has been rising steadily (Baker

BOX 5: THE LIVESTOCK SECTOR'S CONTRIBUTION TO KEY NATIONAL OBJECTIVES

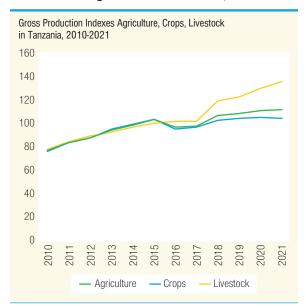
Food and nutrition security. A total of 14.9 million Tanzanians are undernourished, representing 23.5 percent of the population (higher than the African and global average of 19.3 percent and 9.3 percent, respectively) (FAOSTAT). Boosting food and nutrition security is therefore a major national objective. The livestock sector plays a vital role in enhancing nutrition and food security in Tanzania by: (i) contributing to dietary diversification through improved access to protein and essential nutrients such as iron, zinc, and vitamin B12, all of which are crucial to human health and can be attained through the consumption of meat, dairy products, and eggs; and (ii) expanding livelihoods and income generation through the sale of livestock and livestock products, thereby improving access to nutritious food. For instance, in Tanzania's semi-arid Singida region, households with more livestock integrated into production systems have higher levels of food and nutrition security (Mdoe et al. 2022).

Gender equality and women's empowerment. Tanzania's National Development Vision 2025 prioritizes the attainment of gender equality and women's socioeconomic and political empowerment. Women in Tanzania are avid adopters of livestock-based livelihood activities when gender-based obstacles are removed or overcome. Conversely, low adoption rates among women are linked to norm-based socialization and limitations on women's rights in male-dominated power hierarchies and resource ownership and control arrangements in households and communities. Livestock-derived livelihood activities in Tanzania provide opportunities for many women to generate income, become empowered, and actively participate in decision-making processes within their communities. Livestock are often the only collateral owned by women. In agro-pastoral communities in Dodoma and Morogoro, women with access to milk have greater financial independence within their households, allowing them to reduce their needs for costly loans (Galie and Kantor 2016; World Bank 2023).

Youth employment. With half of its population aged 15 and younger, youth employment is a national priority in Tanzania. Three-quarters of youth are employed in the agriculture sector under largely informal and highly vulnerable conditions, and engaging this segment of the population is a major policy objective. While more data are needed to understand which type of livestock offers pathways to more formal and stable employment for youth in rural and urban areas, there is an opportunity to leverage the livestock sector to raise the youth employment rate. For example, young people own significantly more cattle than adults in Tanzania's dairy system. The ability of youth to leverage these assets to increase their earnings and achieve more stable livelihoods depends on their access to education, adoption of improved production technologies and practices, and use of information and communication technologies tools (Bullock et al. 2023; MALF 2016; Nchanji et al. 2023).



FIGURE 32 • Livestock, Crop, and Overall
Agricultural Production, 2010-2021



Note: The production index is a measure of agricultural output changes in a given year relative to a base year. Production refers to the quantity produced and harvested for a particular product during the reference period. The livestock production index includes meat and milk from all sources, dairy products such as cheese and eggs, honey, raw silk wool and hides and skins

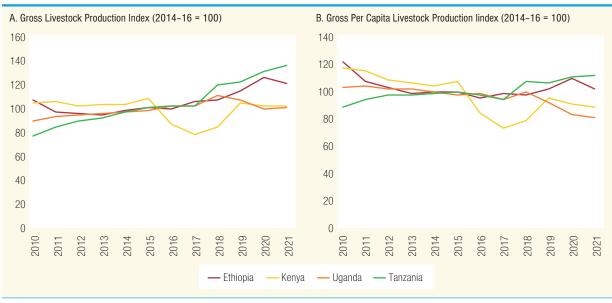
et al. 2016; Reardon et al. 2022; Wang et al. 2022). Between 2010 and 2022, the consumption of eggs, cattle, sheep, and goats more than doubled, while the

consumption of milk and poultry grew by 82 percent and 26 percent, respectively (Figure 35). Following a dip between 2016 and 2019, the consumption of poultry doubled over the next two years, with the level recorded in 2021 being 28 percent higher than that recorded in 2010.

The consumption of livestock products in Tanzania is projected to continue to increase rapidly, with consumption continuing to outstrip production across key livestock products (Panel A in Figure 36). Projections indicate a steady increase in livestock production due to improved productivity. Productivity will benefit from the adoption of modern practices, better genetics, and enhanced management techniques, all of which will contribute to higher output levels across key livestock species such as cattle, goats, sheep, and poultry (Dalberg 2019; Engida et al. 2015). However, despite these supplyside improvements, the consumption of meat and milk is expected to exceed production by 2,050 million MT and 5,400 million liters, respectively, by 2031 (Panel B in Figure 33).

Tanzania's livestock exports are low compared to those of other countries with large livestock populations. A comparison with Ethiopia is illustrative of Tanzania's underperformance as a livestock exporter. Ethiopia and Tanzania have almost

FIGURE 33 • Total and per Capita Livestock Production in Tanzania and Neighboring Countries, 2010-2021



Source: FAOSTAT.

FIGURE 34 • Yields of Major Livestock Products in Tanzania, 2010-2022

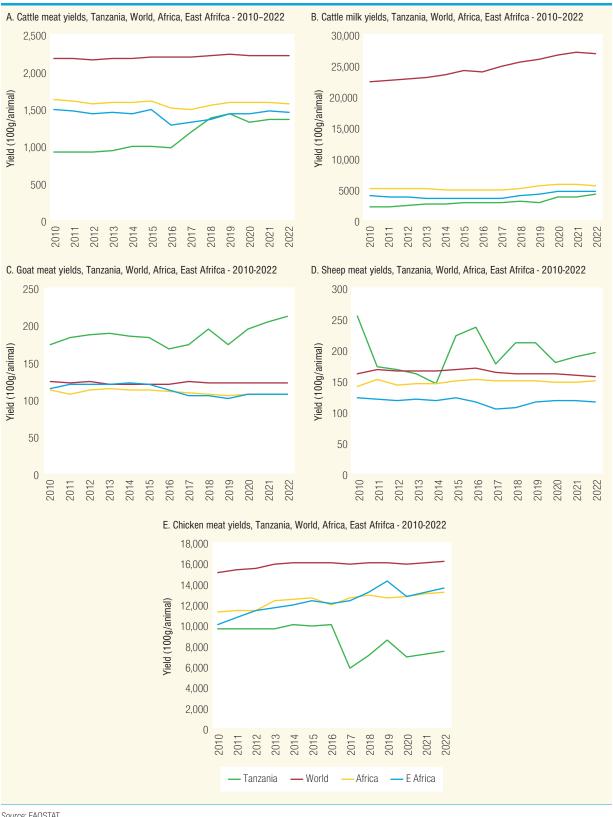




FIGURE 35 • Consumption of Livestock Products, 2010-2021

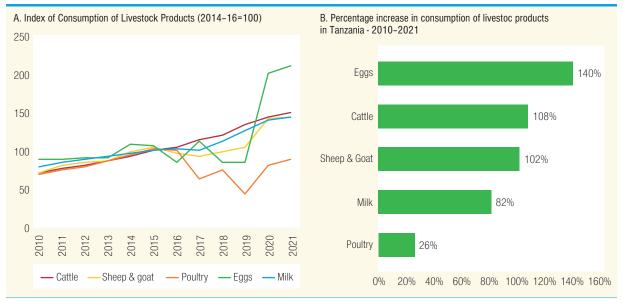
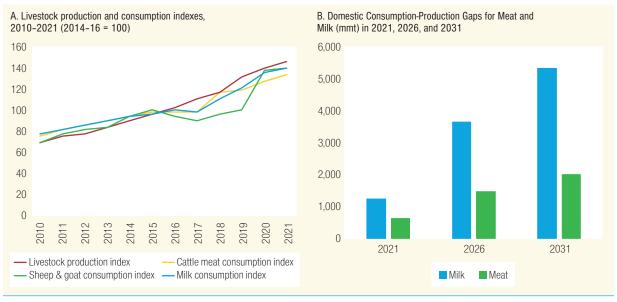


FIGURE 36 • Comparative Trends in Livestock Production and Consumption



Source: FAOSTAT. Source: URT 2017.

equal per capita livestock populations—0.55 head/person in Ethiopia compared to 0.56 head/person in Tanzania (FAOSTAT). However, Ethiopia's average annual value of total intra-African exports of live animals and meat between 2010 and 2019 was US\$150 million, much higher than Tanzania's US\$15 million (Table 4).

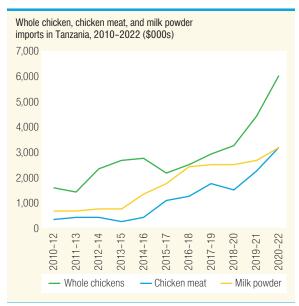
Tanzania's livestock exports are also low relative to its crop exports. Between 2016 and 2020, the combined value of Tanzania's exports of cattle meat, goat meat, and sheep meat averaged just US\$70,000, US\$1.98 million, US\$3.22 million, respectively, compared to US\$346 million over the same period for cashew nuts alone (FAOSTAT). In 2021 and

TABLE 4 • Key Features of Livestock Exports, Tanzania and Ethiopia

Key Feature of Livestock Exports	Unit	Tanzania	Ethiopia
Average annual value of total intra-African exports of live animals and meat (2010-2019)	\$US million	15	150
Average annual value of exports of live animals and meat to rest of world (2010–2019)	\$US million	5	75
Average share of intra-African exports of live cattle and other bovines (2015-2019)	percent	4.2	12.5
Average share of intra-African exports of live goats (2015-2019)	percent	0.5	2.4
Average share of intra-African exports of bovine meat carcasses and cuts (2015-2019)	percent	<0.6	2.1
Average share of intra-African exports of non-bovine meat carcasses and cuts (2015-2019)	percent	2.6	36

Source: Kurtz et al. 2021.

FIGURE 37 • Imports of Selected Livestock Products, 2010-2022



Source: FAOSTAT.

2022, the combined value of exports of cattle, goat, and sheep meat was historically high at US\$75 million due to a surge in sheep meat exports. Still, even this record level of exports of these three products corresponded to only 17.5 percent, 11.1 percent, and 18.4 percent of Tanzania's exports of cashews, horticultural products, and coffee, respectively, over the same period (FAOSTAT).

Under stagnant productivity growth and surging domestic demand, Tanzania's imports of livestock products are trending sharply upward. In 2022, imports of whole chickens, chicken meat, and milk powder were 274 percent, 11,900 percent,

and 658 percent, respectively, above their 2010 levels (Figure 37).

Climate Change and Other Drivers of Vulnerability²²

Vulnerability in Tanzania's livestock sector involves complex interactions among environmental pressures linked to climate change, socioeconomic conditions, and institutional constraints.

Climate change is exerting significant pressure on Tanzania's largely pasture-based livestock sector, with major negative impacts on production systems. Along with the rest of Eastern Africa, Tanzania is experiencing sharp changes in rainfall and temperature patterns, with huge variations in the overall level, intensity, and spatial and temporal distribution of annual rainfall (World Bank 2024). Changes in temperature and rainfall patterns are leading to physiological strain and discomfort for livestock due to heat stress, reduced feed intake, decreased milk production, impaired reproduction, and increased susceptibility to diseases and metabolic disorders. The resource constraint and disease issues are all expected to be exacerbated by climate change. These changes in climate are also leading to alterations in pasture availability, affecting the nutritional quality and quantity of forage resources

This section draws from Baltussen et al. (2019), IMF (2023), Maziku et al. (2017), Mweya et al. (2017), URT (2017), WFP (2021), and World Bank (2023).

TABLE 5 • Impact of Climate Change on Tanzania's Livestock Systems

Livestock production zone	Production system	Primary climate-related changes	Impacts
Central	Agro-pastoral and semi-arid	Prolonged dry spellsWater scarcityErratic rainfall pattern	 Heat stress Pasture shortages and degradation Longer travel to grazing land and water sources Disease outbreaks Overgrazing Lower vegetation cover Loss of biodiversity
Coast	Rainfed sub-humid and humid	Sea-level risecoastal erosionExtreme weather eventsSaltwater intrusionFloods and storms	 Destruction of livestock infrastructure Livestock losses and displacement Contamination of livestock drinking water Pasture degradation
Lake	Rainfed sub-humid and humid	Greater variability in rainfall patterns and extreme temperatures Increasing frequency and intensity of droughts and water scarcity	 Pasture loss and degradation Reduced forage quality and availability Spread and intensification of endemic livestock diseases Trade restrictions

Source: Kimaro et al. 2018; Lyimo et al. 2013; Mweya et al. 2017; WFP 2021.

for livestock and compromising animal health, growth, and reproduction. All livestock systems across Tanzania's major livestock production zones are being negatively impacted by climate change (Table 5). These trends are expected to persist and intensify in the coming decades, constraining efforts to improve stagnant and low national-level yields (BMZ/GIZ 2023).

Many livestock farmers in Tanzania have limited access to essential resources such as land, water, and fodder, particularly in arid and semi-arid regions. Large herds produced under rainfed extensive grazing systems depend on natural pasture for feed. Transhumance is a common practice to mitigate variation in feed and water availability, accentuating competition between herders and farmers for land and water. Land degradation and deforestation further exacerbate vulnerabilities in the livestock sector (Baltussen et al. 2019).

Several livestock diseases that affect animal health, productivity, and market access are endemic across Tanzania and undermine food safety. Diseases such as Rift Valley fever, East

BOX 6: THE ONE HEALTH APPROACH

The One Health approach underscores the interconnections among human, animal, and ecosystem health, recognizing their interdependence (WHO 2020). Livestock production poses various health risks, including zoonotic diseases, antimicrobial resistance, and environmental pollution. Zoonotic diseases, which transmit between animals and humans, constitute around 75 percent of emerging infectious diseases (WHO 2021). Livestock production intensifies this risk by facilitating close contact between animals and humans, fostering disease transmission. Moreover, antibiotic use in livestock contributes to antibiotic resistance, a grave human health concern (FAO 2019).

Coast fever, foot-and-mouth disease, peste des petit ruminants, Newcastle disease, Marek's disease, and contagious bovine pleuropneumonia raise mortality reduce fertility, and restrict trade, leading to economic losses for livestock farmers. In 2015 alone, 329 animal disease outbreaks were reported involving 32 animal disease conditions, causing over 5,800 deaths (Maziku et al. 2017).

Infrastructure and technical capacity for water supply, veterinary services, market access,

and transportation are inadequate. Limited access to veterinary care, vaccines, and diagnostic facilities impairs disease management and control efforts, while poor market infrastructure limits opportunities for value addition and market integration. Limited access to water also hampers animal productivity (Kitalyi et al. 2022). In 2015, only 20 percent of livestock keepers had access to veterinary professionals (Caudell et al. 2022).

Livestock market risks are widespread and persistent, especially those linked to food-borne diseases. Despite the presence of urban abattoirs and some rural slaughterhouses, many livestock destined for slaughter and for the commercial sale of meat are killed at small and rural concrete slaughter slabs, usually owned by local butchers, where they are slaughtered using simple tools (Waldman et al. 2020). Tanzania is therefore a hotspot for bacterial zoonoses that cause diarrhea and blood-stream infection (sepsis), both of which are major preventable causes of death (LLH 2024).

Tanzania's livestock sector faces numerous economic risks and governance challenges. There are significant fluctuations in input costs, changes in consumer preferences, and disruptions in supply chains across the sector. Limited access to trade credit, market information, and risk management tools further exposes farmers to economic uncertainties and livelihood risks (Baltussen et al. 2019). Moreover, weak governance, inadequate policy frameworks, and limited institutional capacity undermine efforts to address vulnerabilities facing farmers and other stakeholders in the livestock sector. Finally, inconsistent and incomplete implementation of policies, lack of coordination among stakeholders, and insufficient investment in research and extension services impede the adoption of climate-smart practices and sustainable livestock management techniques (World Bank 2023).

Barriers to Competitiveness²³

A range of structural, institutional, and systemic challenges intersect with climate risks and other drivers of vulnerability to reduce the competitiveness of Tanzania's livestock sector by limiting productivity, constraining market access, and hindering value chain development.

Relative to its contribution to the agriculture sector and overall economy, the livestock sector is grossly underfunded from public sources. Between 2017/18 and 2021/22, the sector's allocation of public expenditures was equivalent to a mere 0.03 percent of GDP, while it contributed 7.4 percent of GDP (World Bank 2022). Over this period, the livestock sector received 6.4 percent of the agricultural budget allocation and represented 10 percent of actual expenditures. Between 2017 and 2022, 9 percent of the agricultural budget depended on donor support, but none of this external aid went to the livestock sector.

Despite its major economic potential, the livestock suffers from limited access to agricultural research and extension services and inputs. Livestock farmers often suffer from inadequate equipment, limited access to inputs, including fodder, seeds, and fertilizer, and veterinary or breeding services (e.g., artificial insemination). Moreover, access to extension services is constrained, leading to suboptimal use of inputs and poor animal husbandry practices by farmers (World Bank 2023).

Livestock producers (especially women and youth), processors, and public institutions lack the necessary skills, knowledge, and capacity to drive growth in the livestock sector. Inadequate training, education, and technical skills development hinders innovation, technology adoption, and value chain upgrading, limiting productivity gains and market competitiveness (Kitalyi et al. 2022).

Many livestock producers in Tanzania face challenges in accessing inputs such as quality breeds, vaccines, feed supplements, and veterinary services. The country has slightly more than 1,000 registered veterinarians (lower than Kenya's 2,000) and over 4,100 veterinary paraprofessionals,



This section draws from Baltussen et al. (2019), CSIRO (2020 a-c), IFC (2018), Kibona et al. (2022), Maziku et al. (2017), Mweya et al. (2017), Reardon et al. (2023), and URT (2017).

most of whom are left unsupervised (Frumance et al. 2021). In 2018, only 5 percent of livestock-rearing households reported vaccinating their animals against food and mouth disease, a deadly endemic disease present in most of Tanzania (Casey-Bryars et al. 2018).

Poor access to credit constrains the adoption of modern practices and technologies, reducing productivity and competitiveness. Women and youth are especially disadvantaged, limiting their contributions to productivity growth and income generation (Baltussen et al. 2019).

The country's livestock market is widely dispersed, highly seasonal, fragmented, and characterized by informal trading practices, low standards, lack of market information, and limited value addition. Weak market linkages, unstable supply chains, and price volatility deter investments, and inadequate marketing processes discourage quality standards and hinder market competitiveness. Moreover, inadequate disease control, inefficient slaughtering practices, poor hygiene standards, and lack of product differentiation reduce consumer confidence, limit market opportunities, and constrain price premiums (Ekwem et al. 2023).

Infrastructure for transportation, market access, and processing of livestock and livestock products is inadequate. Thin and low-quality road networks, lack of cold storage facilities, and inefficient logistics raise transaction costs, increase post-slaughter losses, and restrict market opportunities for livestock producers. Tanzania's estimated cold storage capacity in abattoirs, meat processing plants, and specialized retail establishments stands at 6,700 tons of meat per day, equivalent to 39 kg per capita annually. However, much of this capacity remains underutilized, partly because poorly implemented cold chains result in post-slaughter losses and waste of approximately 100,000 metric tons of meat each year-equivalent to 15 percent of Tanzania's yearly production (Mushi 2023).

Land tenure insecurity and conflicts over grazing rights lead to land degradation, resource overuse, and reduced investment in sustainable land management practices. Insecure land tenure and unclear land use plans hamper long-term plan-

ning, land development, sustainable land use and investment in livestock production systems (IFPRI 2020; Lugoe 2011).

Finally, many policies, regulations, and administrative procedures are complex and inconsistent. Inadequate enforcement of standards and trade regulations, coupled with bureaucratic hurdles, creates uncertainties, increases compliance costs, and limits market access for livestock products. Incentives for private investment in the livestock sector are also ineffective (World Bank 2023). The inadequate business environment hampers private sector participation in the livestock sector, which is critical to drive growth and create employment opportunities (Box 7).

Emerging Strengths and Opportunities²⁴

Despite the numerous vulnerabilities and barriers facing Tanzania's livestock sector, there are advantages and opportunities with profound strategic significance.

The country's strategic geographical location, combined with its significant animal stocks and production potential, presents an opportunity to expand into regional and international export markets. With excellent sea access and 7 bordering neighboring countries, Tanzania can capitalize on growing demand for meat, dairy, and other livestock products in neighboring countries within both the East African Community (EAC) and the Southern African Development Community (SADC), as well as in global markets. Leveraging these opportunities requires strengthening compliance with relevant safety and quality standards.

Increasing demand for processed and value-added livestock products—such as packaged meat, dairy products, and ready-to-eat meals—offers opportunities for investment and

This section draws from Banda and Tanganyika (2021), FAO/NZAGRC (2019), URT (2017), URT (2022), Wang et al. (2022), and World Bank (2023).

BOX 7: BOOSTING PRIVATE INVESTMENT IN TANZANIA'S LIVESTOCK SECTOR

According to Tanzania's Livestock Sector Transformation Plan 2022/23–2026/27, the private sector has a vital role in driving the development of Tanzania's livestock sector by providing investments, technologies, and expertise and creating opportunities for innovation, value addition, and market access. This is important to enhance the productivity and profitability of farmers. However, hurdles such as poor access to finance, infrastructure limitations, and regulatory challenges need to be addressed to fully unlock the sector's potential and ensure inclusive growth for all stakeholders.

An enabling environment for private investment in the livestock sector is critical. Currently, duplications, overlaps, and unclear mandates across public agencies such as the Directorate of Veterinary Services (DVS), local government authorities (LGAs), and Tanzania Meat Board (TMB) result in high operational costs of livestock-related businesses. An average dairy company in Tanzania must comply with 31 licensing requirements, 18 of which involve overlapping mandates. Such a firm is also subject to 12 inspections, of which 10 are overlapping (IFC 2018). These overlapping mandates and inspections create inefficiencies and an unnecessary burden on the government, which is required to finance entities with duplicative mandates, and the private sector, which needs to assume the costs associated with compliance.

Rationalizing and streamlining the regulatory framework could reduce costs imposed by duplicative licensing and inspection requirements. This could reduce operational costs, increase competitiveness, and free up resources needed to finance productive processes. Key reforms to improve the business environment in the livestock sector include:

- Removing overlapping mandates related to slaughter facilities registration, slaughter permits, meat registration/inspection, and issuance
 of livestock movement permits between the DVS, LGAs, and TMB.
- Removing overlapping mandates for beef, goat, and mutton import and export permits between TMB, DVS, and the Tanzania Bureau of Standards.
- Rationalizing taxes for feed (crop by products such as soya bean cake and maize bran), milk, and milk products.
- Introducing tax incentives, subsidies, and other financial incentives to encourage private sector investment in the livestock sector. This
 could include tax breaks for agribusinesses, subsidized loans for livestock farming, and grants for research and innovation.

Source: World Bank 2023.

job creation in processing and value-addition facilities. By adding value to raw livestock products through processing, packaging, and branding, Tanzania can produce products such as canned meat, frozen cuts, cheese, leather goods, and pet treats. These types of products can meet consumer preferences for convenience, quality, and food safety while capturing higher margins and enhancing market competitiveness.

Tanzania's rich diversity of indigenous livestock breeds²⁵ presents an opportunity to meet the diverse preferences and requirements of consumers in domestic and international markets. By promoting indigenous breeds known for their unique flavor, nutritional value, and resilience, the country can cater to multiple markets and differentiate its livestock products based on quality and authenticity, tapping into the growing demand for specialty and heritage breeds. The country's diverse indigenous livestock also offer opportunities for exporting livestock genetics and biotechnology products, including semen,

embryos, and breeding stock. These products can contribute to genetic improvement programs in other countries and support sustainable livestock production systems worldwide while generating income for Tanzania's livestock producers and traders.

Tanzania's vast land resources and traditional knowledge in livestock management offer opportunities for implementing climate-smart agricultural practices. By adopting sustainable land management techniques, leveraging animal welfare-enhancing agroecological principles in its largely pasture-based production system, and promoting climate-resilient livestock breeds, the country can enhance its resilience to climate change while maximizing productivity and sustainability in the livestock sector.

The country's emerging digital technological landscape and increasing connectivity provide



For instance, the Chagga and Pare cattle breeds, the Maasai goat breed, and the red Maasai sheep breed.

opportunities for harnessing innovation in livestock production and trade. By embracing technology solutions such as mobile applications for veterinary services and biotechnology for genetic improvement, Tanzania can enhance productivity, efficiency, and competitiveness in the livestock sector, leveraging its strengths in traditional knowledge and cultural heritage.

The absorption capacity of the Ministry of Livestock and Fisheries signals its ability to increase public investment, especially for development activities. Between 2017/18 and 2020/21, the average public budget execution rate was 99 percent in the livestock sector, pointing to the huge untapped potential to use public investment to bridge investment gaps in the sector. The internal rate of return on livestock projects ranges from 15 to 86 percent, indicating the substantial viability of public investment in the sector (World Bank 2023).

Tackling Methane: Tanzania's Livestock Sector - A Solution in Climate Change Mitigation

The livestock sector is a significant contributor to global GHG emissions, accounting for 14.5 percent of total emissions, mainly due to methane production in animal digestive systems. Methane is 80 times more powerful than carbon dioxide in warming the planet, making it a major driver of climate change. Yet, it is much less understood and prioritized than carbon dioxide. Finance for methane abatement is alarmingly low, accounting for less than 2 percent of global climate finance (World Bank 2023). Globally, reducing GHG emissions from food systems is vital for achieving the objectives of the Paris Agreement. Despite the challenges post by climate change, ensuring food security remains a paramount priority in Tanzania, with domestic production—particularly in the livestock sector-playing a pivotal role in protein production. This presents an opportunity to innovate, collaborate, and implement sustainable solutions that not only mitigate emissions but also enhance food security and resilience.

In 2022, agriculture was the second highest GHG-emitting sector (after the land use, land-use

BOX 8: METHANE INTENSITY REDUCTION AND CARBON FINANCE INCENTIVES

Implementing mitigation measures in Tanzania aimed at improving breed quality, water management, pasture utilization, feed quality, and animal health, in line with Tanzania's Livestock Sector Transformation Plan (2022/23–2026/27), yields promising results. Targeting 1 percent of the beef cattle population, these interventions would result in a mere 2 percent increase in GHG emissions while boosting protein production by 52 percent compared to the business-as-usual scenario, thereby reducing emission intensity per kilogram of protein by 33 percent. At the farm level, implementation of these measures is projected to generate annual carbon revenues ranging from US\$213 to US\$1,586, contingent upon valuation (World Bank, 2023).

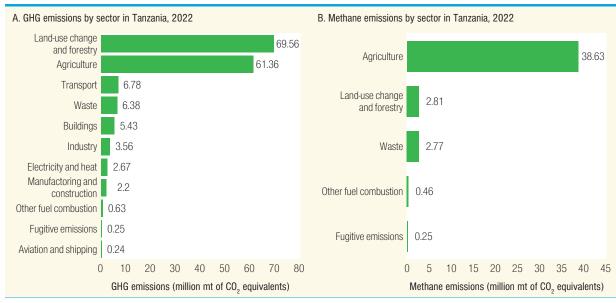
FIGURE 38 • Key Components of Sustainable and Climate-Smart Livestock Systems



change, and forestry sector) and the highest methane-emitting sector in Tanzania (Figure 39). Within agriculture, enteric fermentation from livestock is the largest category of emissions (Panel A in Figure 40).²⁶ As in other countries (Menghistu et

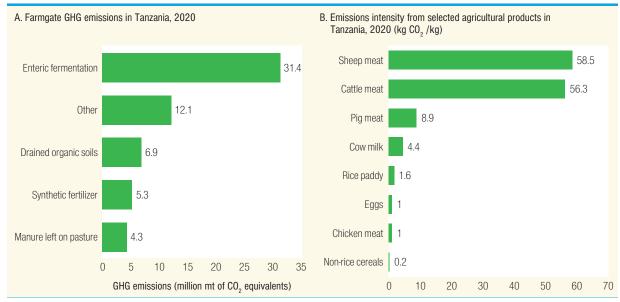
Enteric fermentation is the digestive process in ruminant animals that breaks down carbohydrates into simple, digestible molecules, resulting in the production of methane as a by-product.

FIGURE 39 • GHG and Methane Emissions by Sector, 2022



Source: Friedlingstein et al. 2022.

FIGURE 40 • Farmgate GHG Emissions and Emissions Intensity from Selected Agricultural Products, 2020



Source: FAOSTAT

al. 2021), dairy, cattle meat, and sheep production registers the greatest emissions intensity in Tanzania (Panel B in Figure 40).

The livestock sector is a leading source of GHG and methane emissions in Tanzania. A single cow emits over 80 kg of methane annually. With 36.6 million cattle in the country, this sector stands out as a notable emitter of GHG. As Tanzania's popu-

lation grows and the demand for livestock products increases, it is crucial to implement mitigation strategies, particularly for smallholder farmers that rely heavily on livestock for their livelihoods.

Tanzania is exploring potential avenues for accessing carbon finance through climate-smart livestock sector responsible investments, with the objective of complementing the country's live-

stock Transformation Plan (2022/23-2026/27).

The World Bank has provided technical assistance to the Government of Tanzania during the preparation of a roadmap for sustainable livestock investments. The objective of this study was to assess Tanzania's preparedness to access carbon markets for emission reductions resulting from the livestock sector and identify strategies and pathways to reduce methane, including: (i) implementing an absolute reduction of emissions (e.g., through the control of livestock numbers, improved manure management, or the use of renewable energy in processing); (ii) reducing emission intensity through efficiency gains (e.g., increased production per animal through optimized feeding, breeding and animal health improvements through the adoption of a one health approach); and (iii) increasing carbon stocks in rangeland soils and trees (e.g., through soil organic carbon sequestration in grasslands and better pastureland management.

Implementing mitigation interventions and controlling the animal population over the next six years could potentially reduce emissions by 13 percent while increasing production by 29 percent. Furthermore, Tanzania could generate revenues from reducing carbon emissions if it adopts appropriate policies and strengthens the institutional framework for monitoring, reporting, and verification.

Embracing climate-smart practices and methane mitigation initiatives in Tanzania's live-stock sector is important achieve the triple-win objectives. These objectives are to limit global warming in the near term, enhance resilience, and empower livelihoods of the most vulnerable. By investing in innovative technologies and sustainable practices, the country can significantly reduce methane emissions while driving economic growth, ensuring food security, and protecting the environment. This would not only position Tanzania as a pioneer in sustainable development but also set a powerful example for other nations to follow in terms of harnessing the potential of the livestock sector to create a greener future for generations to come.

Policy Recommendations

An estimated US\$546 million (Tsh 1.3 trillion) of public investment is required for sustainable

livestock development between 2023/24 and 2028/29. At about US\$109 million/year, this level of public investment in the livestock sector is ambitious but realistic. It represents a fivefold increment over the budget for the livestock sector prior to 2021 and is 50 percent higher than the 2023/24 budget. This level of investment could be justified in the livestock sector given its current underfunding and absorption capacity (World Bank 2023).

The authorities could pursue several policy and investment reforms to strengthen resilience and boost the competitiveness of the livestock sector. These focus on boosting productivity, strengthening trade and value addition, adapting to and mitigating climate change, and improving sector governance and institutions, with important roles for the private sector. Specifically, the government should consider:

Boosting Sustainable Productivity

Enhancing access to veterinary services, vaccinations, and disease control measures to reduce livestock mortality rates and improve overall herd health. This would involve helping private veterinary clinics and pharmaceutical companies expand their reach to remote areas to enable them to provide essential services such as vaccinations, disease diagnostics, and veterinary care.

Strengthening and expanding breed improvement programs to enhance the genetic quality and productivity of livestock breeds. These efforts should focus on traits such as milk yield, meat quality, and disease resistance while prioritizing adaptability to local conditions and demands. Private breeders and genetic companies can collaborate with research institutions and government agencies to introduce high-yielding, disease-resistant livestock breeds through breeding programs and artificial insemination services.

Improving rangeland and pasture management. Practices such as agroforestry, land water and land management through landscape approach can not only enhance climate resilience, improve soil fertility and reduce erosion, but also restore the quality of rangelands and increase soil carbon. Regenerative grazing (matching livestock

numbers to grassland carrying capacity, rotational grazing to allow grassland to recover after grazing) can stimulate plant growth and capture carbon in soil organic matter.

Increasing and sustaining public funding for research and development to address key challenges facing the livestock sector, such as disease management, feed efficiency, and climate resilience. This aims to foster innovation and technology transfer. Private companies can allocate resources to livestock research and development initiatives focused on addressing key challenges in the livestock sector.

Adequately funding and appropriately facilitating extension services and farmer cooperatives to provide ongoing support, training, and knowledge-sharing opportunities for livestock producers (especially women and youth). A major focus should be on facilitating the adoption of climate-smart technologies and practices, such as agroforestry, water harvesting, and pasture management, and increasing the uptake and expansion of good animal husbandry practices under a One Health approach that prevents and mitigates climate-related health threats.²⁷ Given the vastness and geographic diversity of Tanzania and the spread of livestock production, extension services would benefit from an electronic platform that supports communication among and between staff and farmers. Private agribusinesses can provide both physical and digital technical assistance, training, and advisory support to farmers, promoting the adoption of best practices and modern digital technologies.

Enhancing Trade and Value Addition

Diversifying market opportunities for Tanzania's livestock products by exploring new export markets, value-added processing, and product differentiation strategies to meet evolving consumer preferences and market demands. The country should leverage its abundant grazing lands, diverse livestock breeds, and create a more supportive policy environment to proactively position itself as a reliable supplier of high-quality livestock in several potential niche export markets. These

niche markets offer opportunities for Tanzania to differentiate its products, cater to specific consumer preferences, capture higher value in export trade, and create new jobs. Some potential export markets for its livestock products include halal products; organic and free-range products; indigenous breeds and specialty products with unique flavors and qualities; ethnic and cultural products; and health and wellness products. Private exporters and agribusinesses can explore new market opportunities for Tanzania's livestock products, diversifying export destinations and product offerings to meet the evolving demands of global consumers. Food safety, quality assurance, and relevant certifications and accreditation schemes should be implemented throughout the supply chain.

Significantly improving market linkages and transportation infrastructure, particularly in remote and underserved areas. This could be done based on the One Health approach that strengthens collaboration among stakeholders involved in human, animal, and environmental health, with the aim to enhance awareness, monitoring, and adherence to trade-related standards. This would be supported by improved marketing practices. including linking price premiums to product quality to give producers better incentives and ability to afford improved practices. This would require efforts to improve the capacity of and awareness among producers, processors, inspectors and regulators, and consumers. The private sector, including agroprocessing companies and traders, could invest in market infrastructure, cold storage facilities, and transportation networks to improve market access for livestock producers.

Promoting private sector investment and intensifying value addition and processing

One Health is an integrated, unifying approach to balance and optimize the health of people, animals, and the environment. It is particularly important to prevent, predict, detect, and respond to global health threats such as pandemics. The approach mobilizes multiple sectors, disciplines, and communities at varying levels of society to work together. One Health involves the public health, veterinary health, and environmental sectors.

activities in the livestock sector to increase the competitiveness of Tanzania's livestock products, including meat, milk, and leather. Private agroprocessing companies could invest in meat and dairy processing facilities, leather tanneries, and the development of value-added products to increase the value and marketability of Tanzania's livestock products. Concurrently, strategic investments in infrastructure, including transportation networks, market facilities, cold chain logistics, and essential agricultural inputs such as animal feeds and seeds, could be complemented by the establishment of private veterinary services and livestock pharmacies. These initiatives aim to improve the accessibility of services and broaden market access for smallholder farmers. The creation of a favorable business environment, marked by transparent and consistent policies, coupled with incentives to promote innovation and technology adoption, is pivotal for fostering growth and bolstering competitiveness. Leveraging public-private partnerships can further enhance service delivery to farmers and value-chain actors, amplifying the impact of these interventions.

Implementing and sustaining an effective and well-coordinated regulatory and institutional framework for food safety to boost private sector investment in the livestock sector. This would, among other objectives, aim to reduce overlaps and duplications in mandates across agencies. Tax incentives, targeted subsidies, and other financial incentives—such as tax breaks for agribusinesses, subsidized loans for producers, and grants for research and innovation—could also be introduced to encourage private sector investment in the livestock sector.

Implementing a One Health approach within the livestock sector is pivotal for fostering comprehensive growth, bolstering health outcomes, ensuring environmental sustainability, and enhancing competitiveness. By integrating the principles of One Health into livestock management practices, Tanzania can forge a resilient and interconnected system that optimizes productivity while safeguarding the health of animals, humans, and ecosystems alike. Through coordinated disease surveillance, vaccination programs, and antimicrobial

stewardship, the country will mitigate the risk of zoonotic diseases and antimicrobial resistance, thereby improving public health outcomes and enhancing consumer confidence in livestock products.

Strengthening Climate Change Adaptation and Mitigation

Designing and effectively implementing climatesmart adaptation strategies and risk management plans for the livestock sector. This would include early warning systems, insurance schemes, and emergency response mechanisms to mitigate the impacts of climate change on livestock production and trade. Private insurers and risk management firms could develop climate adaptation strategies and insurance products tailored to the needs of livestock farmers, providing financial protection against climate-related risks and disasters.

Mitigating Methane Emissions for Climate **Action.** This would involve prioritizing climate-smart livestock production practices to reduce GHG emissions, including methane, and lay the foundation for carbon offset projects. Potential practices include improved livestock feeding regimes and waste management systems, rotational grazing, agroforestry, manure management, and soil conservation. Private investors could support sustainable land management initiatives, such as reforestation projects and soil conservation programs, to enhance the longterm productivity and resilience of grazing lands. Establishing and implementing a robust monitoring, reporting, and verification system could provide the foundation for accessing carbon financing, serving as a significant incentive for both the government and farmers.

Scaling up renewable energy solutions to reduce the carbon footprint of livestock farming operations and provide sustainable energy sources for powering facilities and equipment. Potential solutions include solar-powered water pumps and biogas digesters. Private companies could invest in renewable energy solutions, such as solar power and biogas, to reduce energy costs and carbon emissions in livestock farming operations, contributing to environmental sustainability.

Improving Sector Governance, Institutional Capacity, and Enabling Policy Reforms

Pursuing sector governance and policy reforms and institutional strengthening to implement climate-smart livestock practices and improve competitiveness. An effective governance framework is essential to ensure that the necessary policies, regulations, and incentives are in place to support sustainable practices and ensure the participation of all stakeholders in the livestock sector.

The government should develop the right incentives mechanisms to encourage farmers to adopt good animal husbandry practices and enhance institutional capacity. By fostering partnerships between the government, research institutions, the private sector, and civil society, Tanzania can leverage collective expertise to address challenges, drive innovation, and promote inclusive growth. This holistic approach lays the foundation for a vibrant, sustainable, and competitive livestock industry that contributes to food security, economic development, and environmental sustainability.

ANNEX 1 CORE MACROECONOMIC DATA SOURCES FOR THE REPORT

Sector	Series	Latest Data Point	Source	Measurement Year
Tanzania M	ainland			
Real	GDP at constant 2015 prices by activity and by demand, MFO Spring Survey 2023, monthly tourist arrivals at Tanzania Mainland by nationality, monthly electricity and quarterly cement production data.	GDP data: 2023 High frequency data: Q1-2024	National Bureau of Statistics, Bank of Tanzania, Haver, Integrated Labor Force Survey, World Bank staff estimates.	Calendar Year
Inflation	CPI Inflation (headline, food, non-food, core, energy), PPI inflation	April 2024	National Bureau of Statistics, Bank of Tanzania, World Bank staff estimates.	Calendar Year
Monetary	M3, reserve money, broad money and private sector credit	March 2024	Bank of Tanzania	Calendar Year
Fiscal and Debt	Revenues, expenditures, grants, financing, expenditure arrears; PPG debt (total, external and domestic)	Fiscal data: 8M-FY2023/24 Debt data: FY2023/24	Ministry of Finance, Bank of Tanzania WB/IMF Debt Sustainability Analysis (June 2024)	Fiscal Year
External	Current account, balance sheet, exports and imports of goods and services, FDI, government official reserve	3M-2024	Bank of Tanzania and National Bureau of Statistics.	Calendar Year
Zanzibar				
Real	GDP at constant 2015 prices by activity, tourist arrivals	GDP data: 9M-2023 Tourist data: 2023	Bank of Tanzania and Office of the Chief Government Statistician (OCGS) – Zanzibar	Calendar Year
Inflation	Inflation (headline, food, non-food)	February 2024	Bank of Tanzania	Calendar Year
Current account	Exports and imports of goods and services, merchandise trade data	February 2024	Bank of Tanzania	Calendar Year
Fiscal	Revenues, expenditures, grants, financing	H1-FY2023/24	Bank of Tanzania and OCGS – Zanzibar	Fiscal Year

ANNEX 2 SUMMARY OF SPECIAL FOCUSES FROM THE LATEST TANZANIA ECONOMIC UPDATES

TEU – Issue 20: "Overcoming Demographic Challenges While Embracing Opportunities"

Infant and child mortality rates in Tanzania have significantly decreased over the past few decades, whereas fertility rates have only slightly decreased. Consequently, the population growth rate remains high, at three percent and the population is estimated to double every 23 years. This high growth rate is expected to cause a surge in demand for essential services such as education and health, and employment opportunities, outstripping the economy's capacity to provide them. Accelerating the demographic transition in Tanzania could bring about shifts in the age structure which would contribute to economic growth and poverty reduction, helping the country reap the potential benefits of lower fertility rate. Priorities for policy action include renew commitment on family planning, expand access and strengthen completion of secondary education for girls, and promote women's empowerment.

TEU – Issue 19: "The Efficiency and Effectiveness of Fiscal Policy in Tanzania"

Over the past decade, Tanzania has made strides in broadening its tax collection efforts, and its fiscal pol-

icy has played a vital role in supporting inclusive and sustainable growth. However, total public spending in Tanzania is below the average for Sub-Saharan Africa, low-income countries, and lower-middle-income countries, while budget execution rates in Tanzania remain low, especially for development spending. This special focus further identified policies and reforms to close the policy and compliance gaps further and increase revenue collection for improved public spending, steering towards the National Development Vision 2025, which envisages Tanzania as a middle-income country with well-developed human capital, an adequate supply of high-quality livelihoods, and rising living standards.

TEU – Issue 18: "Clean Water, Bright Future: The Transformative Impact of Investing in WASH"

The provision of near-universal access to water, sanitation and hygiene (WASH) services can drastically improve multiple facets of Tanzania's population. Although there has been progress towards increasing access to WASH services, achieving the Sustainable Development Goals of the UN will require greater prioritization. The Water Sector Development Program

(WSDP) has made significant progress; however, the current WSDP-3 stands to have the largest impact towards providing near-universal access to WASH services yet. Achieving the goals of WSDP-3 would mitigate the high volume of yearly deaths due to inadequate WASH services, would significantly reduce economic loss, and would bring substantial increases in job creation and workforce productivity. With a majority of the population without adequate WASH services, the provision of near-universal access will be crucial for the development of Tanzania.

TEU – Issue 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.

TEU – Issue 16: "The Recovery Resilience, and Transformation of Tanzania's Tourism Sector"

Tanzania's abundant nature and rich cultural resources are 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.

ANNEX 3 REFERENCES FOR THE SPECIAL SECTION

- AWF. 2024. Community Conservation: Transforming a Degraded Cattle Ranch into a Thriving Giraffe Nursery and Community-Based Cattle Operation. African Wildlife Foundation. January 18, 2024. https://www.awf.org/news/community-conservation-transforming-degraded-cattle-ran ch-thriving-giraffe-nursery-and.
- Baker, D., N. Mtimet, C.Pica, U.Ciamarra, and L. Nsiima. 2016. Consumers' preferences for animal-source foods and retail outlets: The case of Tanzania. African Journal of Agricultural and Resource Economics. 11. 197–210.
- Baltussen, W., S. van Berkum, Y. Dijkxhoorn, R. Helmes, S. Özkan Gülzari, T. Vellinga, G. Massawe, P. Galgani, D. Borniotto, F. van den Elzen, and T. Smith. 2019. Traditional livestock systems in Tanzania; An application of the TEEBAgriFood Evaluation Framework. TEEB for Agriculture and Food, UNEP. https://teebweb.org/wp-content/uploads/2020/12/TEEBAgriFood-Tanzania-Livestock-LC-Final.pdf.
- Banda, L.J., and J. Tanganyika. 2021. "Livestock provide more than food in smallholder production systems of developing countries." Anim Front. 11 (2). doi:10.1093/af/vfab001.

- BMZ/GIZ. 2022. Climate Risk Profile: Tanzania. https://www.pik-potsdam.de/en/institute /departments/climate-resilience/projects/project-pages/agrica/giz_climate-risk-profile-tanzania_en_final. Bonn, German Federal Ministry for Economic Cooperation and Development (BMZ) in close cooperation with the Deutsche Gesell-schaft für Internationale Zusammenarbeit (GIZ).
- Bullock, R., J. Auma, I. Baltenweck, M. Dione, A. Mwai, N. Ndiwa, A. Omore, E. Ouma, and M. Yami. 2023. Youth engagement in livestock production and marketing in East Africa. Outlook on Agriculture. 52. 424–433.
- Caudell, M., P. Mangesho, E. Mwakapeje, A. Dorado-García, E. Kabali, C. Price, M. OleNeselle, T. Kimani, and F. Fasina. 2022. Narratives of veterinary drug use in northern Tanzania and consequences for drug stewardship strategies in low-income and middle-income countries. BMJ Glob Health. 2022 Jan;7(1). doi: 10.1136/bmjgh-2021-006958.
- Casey-Bryars, M., R. Reeve, U. Bastola, N. Knowles, H. Auty, K. Bachanek-Bankowska, et al.. 2018. Waves of endemic foot-and-mouth disease in Eastern Africa suggest feasibility of proactive

- Casey-Bryars, M., R. Reeve, U. Bastola, N. Knowles, H. Auty, K. Bachanek-Bankowska, et al.. 2018. Waves of endemic foot-and-mouth disease in Eastern Africa suggest feasibility of proactive vaccination approaches. Nature Ecology and Evolution 2(9), 1449–1457.
- Covarrubias K, Nsiima L, Zezza A. 2012. Livestock and livelihoods in rural Tanzania: a descriptive analysis of the 2009 National Panel Survey. Joint Paper of the World Bank, FAO, AU-IBAR, ILRI and the Tanzanian Ministry of Livestock and Fisheries Development.
- CSIRO. 2020a. Tanzania Dairy Production Factsheet. https://research.csiro.au/livegaps/findings/livestock-production/dairy-production-in-tanzania/, CSIRO.
- CSIRO, 2020 b. Small ruminants' production in Tanzania https://research.csiro.au/livegaps/wp-cont ent/uploads/sites/37/2020/01/Tanzania-sma ll-ruminants-factsheet-Jan-2020.pdf.
- CSIRO, 2020 c. Poultry Production in Tanzania. https://research.csiro.au/livegaps/wp-content/uploads/sites/37/2020/04/1.-LiveGAPS-factsheet-Poultry-production-in-Tanzania-April-2020.pdf.
- Dalberg. 2019. Sector Analysis: Price, Cost, Revenue, Profitability and Human capital chains in Tanzania's Dairy Sector. A report presented to the government, Tanzania, Dodoma.
- Ekwem, D., Enright, J., Hopcraft, J.G.C. et al. Local and wide-scale livestock movement networks inform disease control strategies in East Africa. Sci Rep 13, 9666 (2023). https://doi.org/10.10 38/s41598-023-35968-x.
- Engida, E. P. Guthiga and J. Karugia. 2015. The Role of Livestock in the Tanzanian Economy: Policy Analysis Using a Dynamic Computable General Equilibrium Model for Tanzania. Paper presented at the 2015 International Conference of Agriutural Economists, Milan, August 08-14 2015.
- FAO and NZAGRC. 2019. Options for low emission development in the Tanzania dairy sector reducing enteric methane for food security and livelihoods. Food and Agriculture Organization of the UN and New Zealand Agricultural Greenhouse Gas Research Centre.

- Friedlingstein et al. 2022. Global Carbon Budget. 2022. Earth Syst. Sci. Data, 14, 4811–4900. https://doi.org/10.5194/essd-14-4811-2022.
- Frumence, G. L. Mboera, C. Sindato, A. Durrance-Bagale, A-S. Jung, S. Mshana, T. Clark, H. Legido-Quigley, and M. Matee. 2021. Practices and Challenges of Veterinary Paraprofessionals in Regards to Antimicrobial Use and Resistance in Animals in Dar Es Salaam, Tanzania. Antibiotics 2021, 10(6), 733; https://doi.org/10.3390/antibiotics10060733.
- Galiè, A. and Kantor, P. 2016. From gender analysis to transforming gender norms: Using empowerment pathways to enhance gender equity and food security in Tanzania. In: Njuki, J., Parkins, J. and Kaler, A. (eds), Transforming Gender and Food Security in the Global South. London, UK: Routledge.
- GCB. 2023. Global Carbon Budget 2023. https://ourworldindata.org/co2/country/tanzania.
- IFC. 2018. Tanzania Dairy and Poultry Sectors: Key constraints inhibiting competitiveness. International Finance Corporation: Washington DC.
- IFPRI. 2020. Improving Tenure Security for Pastoralists in East Africa. International Food Policy Research Institute, 2020. JSTOR, http://www.jstor.org/stable/resrep46686. Accessed 7 Apr. 2024.
- IMF. 2023. United Republic of Tanzania: Selected Issues. International Monetary Fund. African Dept. Volume 2023: Issue 154. International Monetary Fund. https://doi.org/10.5089/9798 400241772.002.
- Kibona CA, Yuejie Z, Tian L. 2022. Factors that influence beef meat production in Tanzania. A Cobb-Douglas production function estimation approach. PLoS ONE 17(8): e0272812. Cited on 08.06.2023 https://doi.org/10.1371/journal.pone.0272812.
- Kijazi AL, Chang'a LB, Liwenga ET, Kanemba A, Nindi SJ. 2013. The use of indigenous knowledge in weather and climate prediction in Mahenge and Ismani wards, Tanzania. http://www.tacci re.suanet.ac.tz:8080/xmlui/handle/123456789/197. Kimaro, E.G., Mor, S.M. & Toribio, JA. 2018. Climate change perception and impacts on cattle production in pastoral communities

- of northern Tanzania. Pastoralism 8, 19 (2018). https://doi.org/10.1186/s13570-018-0125-5.
- Kitalyi, A., M. Shetto, A. Omore, and T. Knight-Jones. 2022. Opportunities for improving access to animal health inputs and services in Tanzania. Report on CGIAR Workshop Initiative on Sustainable Animal Productivity. Dar es Salaam, Tanzania 4-6 October 2022. https://cgspace.cgiar.org/server/api/core/bitstreams/0b1404 a2-5fa9-423d-9e9a-08c3bdf83de3/content.
- Kurtz, J., L Mitik, and C. Zaki. 2021. African Trade in Livestock Products and Value Chains. Chapter 4 in Africa Agriculture Trade Monitor. Washington DC: International Food Policy Research Institute. DOI: https://doi.org/10.54067/9781 737916406.
- LLH. 2024. Livestock, Livelihoods, and Health. Research into Disease Risk from Meat. https://livestocklivelihoodsandhealth.org/research/meat-risks/.
- Lugoe, F. 2011. Aligning and Harmonizing the Livestock and Land Policies of Tanzania. Economic and Social Research Foundation. Discussion Paper No. 35. https://esrf.or.tz/wp-content/upl oads/2020/06/5b.pdf.
- Lyimo, J, J. Ngana, E. Liwenga, and F. Maganga (2013). Climate change, impacts and adaptations in the coastal communities in Bagamoyo District, Tanzania. Environmental Economics, 4(1). https://www.businessperspectives.org/images/pdf/applications/publishing/templates/article/assets/5032/ee_2013_01_Lyimo.pdf.
- Maziku, M., G. Gebru, and J. Stapleton. 2017. Livestock health priorities in the Tanzania livestock master plan. Tanzania Livestock Master Plan Brief 4 October 2017.
- Mdoe, N. G. Mlay, A. Isinika, G. Boniface, and C. Magomba. 2022. Livestock, Crop Commercialization and Poverty Reduction in Crop-Livestock Farming Systems in Singida Region, Tanzania. Developing Country Studies Vol.12, No.4, 2022. https://opendocs.ids.ac.uk/opendocs/bitstre am/handle/20.500.12413/17388/Livestock-cr op_Commercialization_and_Poverty_Reduction_in_Crop-livestock_Farming_Syatems_in_Si

- ngida_Region_Tanzania.pdf?sequence=1&isA llowed=v.
- Menghistu, H. A. Abraha, G. Mawcha, G. Tesfay, T. Mersha, and Y. Redda. 2021. Greenhouse gas emission and mitigation potential from livestock production in the drylands of Northern Ethiopia, Carbon Management, 12:3, 289–306, DOI: 10.1080/17583004.2021.1921620.
- MALF. 2016. National Strategy for Youth Involvement in Agriculture (NSYIA) 2016–2021; Ministry of Agriculture Livestock and Fisheries: Dar es Salaam, Tanzania, 2016.
- Mottet, A., F. Teillard, P. Boettcher, G. De Besi, and B. Besbes. 2018. "Review: Domestic herbivores and food security: current contribution, trends and challenges for a sustainable development." Food and Agriculture Organization of the United Nations (FAO). doi:doi:10.1017/S175 1731118002215.
- Mushi, D. 2023. Breaking the barrier against the purchase of cold meat in Tanzanian consumers for reduction of postharvest losses and improved investment in cold chains: A review. Multidiscip. Rev. (2023) 6 (1). https://malque.pub/ojs/index.php/mr/article/view/613.
- Mweya CN, Mboera LEG, Kimera SI. 2017. Climate Influence on Emerging Risk Areas for Rift-Valley Fever Epidemics in Tanzania. The American Journal of Tropical Medicine and Hygiene,97(1): 109–114. https://doi.org/10.4269/ajtmh.16-0444.
- NBS. 2021. National Sample Census of Agriculture, , Dodoma, Tanzania: https://www.nbs.go.tz/in dex.php/en/census-surveys/agriculture-statisti cs/661-2019-20-national-sample-census-of-agr iculture-main-report.
- Nchanji, E. K. Kamunye, and C. Ageyo. 2023. Thematic evidencing of youth-empowering interventions in livestock production systems in Sub-Sahara Africa: a systematic review. Frontiers of Sustainable Food Systems, Volume 7 2023. doi.org /10.3389/fsufs.2023.1176652.
- Nnko, L., J. Kashaigili, G. Monela, P. Munishi, and P. Lyimo. 2022. Agroforestry systems and practices and their adoption in Kilombero District, Tanzania. International Journal of Agroforestry

- and Silviculture ISSN 2375-1096, Vol. 10(1), pp. 001-010, July, 2022. https://www.internationals cholarsjournals.com/articles/agroforestry-syst ems-and-practices-and-their-adoption-in-kilomb ero-district-tanzania.pdf.
- Ntwalle, J. 2019. Determinants of Tanzania rural households' income diversification and its impact on food security. Master Thesis in Economics. Swedish University of Agricultural Sciences, Department of Economics.
- Reardon, T., S. Liverpool-Tasie, B. Belton, M. Dolislager, B. Minten, B. Popkin, and R. Vos. 2023. The rapid rise in domestic value chains of nutrient-dense foods (fruits, vegetables, and animal products) in Sub-Saharan Africa: Policy implications. Initiative Technical Paper 1. Institute for Tropical Agriculture. https://www.kismfoodmarkets.org/sites/default/files/2023-08/RFM%20 Technical%20Paper_Reardon_FINAL.pdf.
- UN-Habitat. 2023. TANZANIA 2023 Country Brief.

 A better quality of life for all in an urbanizing world. https://unhabitat.org/sites/default/fil es/2023/07/tanzania_country_brief_final_en.pdf.
- URT. 2017. Tanzania Livestock Master Plan (TLMP) (2017/2018 to 2021/2022), Dodoma.
- URT. 2022. Livestock Sector Transformation Plan (LSTP) 2022/23-2026/27, Ministry of Livestock and Fisheries, Dodoma.
- Waldman, L., T. Hrynick, C. Benschop, S. Cleaveland, J. Crump, et al. 2020. Meat Safety in Northern

- Tanzania: Inspectors' and Slaughter Workers' Risk Perceptions and Management. Frontiers in Veterinary Science. Volume 7. https://www.frontiersin.org/articles/10.3389/fvets.2020.00309.
- Wang, P., Tran, N., Enahoro, D., Chan, C. Y., Shikuku, K. M., Rich, K. M., Byrd, K., & Thilsted, S. H. (2022). Spatial and temporal patterns of consumption of animal-source foods in Tanzania. Agribusiness, 38, 328–348. https://doi.org/10.1002/agr.21729.
- WFP. 2021. WFP Critical Corporate Initiative: Climate Response Analysis for Adaptation. Tanzania. https://docs.wfp.org/api/documents/WFP-00 00138263/download/?_ga=2.50479918.640 713200.1710327208-353501094.1710327208.
- World Bank and FAO. 2022. Tanzania Agriculture Public Expenditure Review. © World Bank , Dar-es-Salaam, Tanzania: World Bank.
- World Bank. 2021. Opportunities for Climate Finance in the Livestock Sector: Removing Obstacles and Realizing Potential. World Bank, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/35495 License: CC BY 3.0 IGO.
- World Bank. 2024. Tanzania Climate Change Overview. https://climateknowledgeportal.worldbank.org/country/tanzania.
- World Bank. 2023. Tanzania: A Roadmap for Responsible Investments Towards Sustainable Livestock.

