Tanzania Economic Update

Managing Water Wisely

The Urgent Need to Improve Water Resources Management in Tanzania

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Foreword

The **Tenth Edition of the Tanzania Economic Update** contains the World Bank's regular review of Tanzania's economy and near term outlook, and a special focus chapter on the pressing issue of water resource management. The report comes at a critical juncture in the country's development history: the Fifth Phase Government has outlined an ambitious vision for the country, in which it envisages Tanzania becoming a semi-industrialized nation by 2025. Eighteen months on from the plan's inception, this report provides an update on the state of the economy and aims to make a positive contribution to the challenges encountered.

Part One of the report identifies the three most significant challenges facing the Government and outlines a pathway to ensure growth momentum. **Firstly, the Government should continue to implement measures to ensure macroeconomic stability.** Prudent monetary and fiscal policies will form the foundation for any effort to boost growth and to create productive jobs. Reforms to control waste and corruption, such as the successful removal of thousands of ghost workers, are supporting prudent fiscal policies. Foreign investment will remain

critical to ensuring Tanzania's external balance. Prudent monetary policy continues to support the Tanzanian shilling and to maintain low and stable inflation rates.

Secondly, the Government should intensify its efforts to implement its development-oriented budget. The Five-Year Development Plan II rightly aims to facilitate an ambitious increase in investment in human and physical capital. To that end, the Government managed to increase development spending by an impressive 2.4 percentage points of GDP in 2016/17. However, the national budget was still significantly under-executed, delaying important public investments and contributing to softened growth. In the short term, the Government should prioritize the increased mobilization of external resources, especially on concessional terms, in support of debt management objectives, to implement budget plans and boost growth. Over the medium term, the Government should continue to intensify the mobilization of domestic revenue and to prioritize investment plans and win-win partnerships with the private sector.

Thirdly, the Government needs to urgently implement measures to enable

and encourage the private sector to play a more significant role in Tanzania's development. No country achieves large and sustained industrialization and poverty reduction without a flourishing private sector. Growing businesses can finance the Government's ambitious investment plans, be a source of finance and innovation, and create jobs for new entrants into the job market. However, record low levels of private sector credit growth, a decline in foreign direct investment, and an increase in non-performing loans all indicate the need to improve the environment for doing business. To that end, the Government could immediately undertake a number of measures to support businesses and to improve liquidity in the economy. In particular, the authorities should prioritize the payment of verified arrears to private sector contractors and suppliers and speed up the release of VAT refunds. Over the medium term, the Government should continue to implement reforms to address structural constraints on private investment, such as the high cost of regulatory compliance and deficiencies in infrastructure services and skills. By doing so, the Government could harness the potential of the private sector as a partner in development to create employment and accelerate poverty reduction.

If used effectively, Tanzania's natural resources will also play a vital role in its development trajectory. Tanzania has a rich and diverse endowment of natural resources, but their use needs to be managed effectively. One natural resource

that is critical to Tanzania's economic transformation is water. As **Part Two** of this report shows, water management can impact sector growth, resilience to economic shocks, and human development. While recent quality data is scarce, all indications suggest that sub-optimal water management is already having a negative impact on Tanzania's economy.

Tanzania's per capita water resources have declined to the extent that it has crossed the threshold that defines water stressed countries. There is now a compelling need for the Government and all stakeholders to manage this finite resource better. The good news is that water does not have to be a constraint on growth and poverty reduction in Tanzania. There are many countries, including African countries, that are developing successfully, despite having far less water per capita than Tanzania does. Lessons from global experience suggest Tanzania could immediately implement four main measures to better manage its water.

Firstly, the Government needs to ensure stronger coordination across sectors and better prioritization of investments. Since water is a finite good, trade-offs in its use must be made. Better coordination among policy makers will lead to smarter investments. Improving the prioritization of investments will require increased harmonization and coordination between ministries, sector plans, and budget allocations, and the political will to make trade-offs.

Secondly, Tanzania needs to value and price water appropriately to incentivize its sustainable use, while also recognizing its social and environmental value.

This means setting prices that reflect water's growing scarcity, creating disincentives for wasting water, and recognizing its differing values to farmers, municipalities, and industrialists. However, this will also have to be backed by measures to raise awareness and to encourage collaboration between water users. In addition, there is a need to build institutional capacities and the political will to enforce a fair system of water management.

Thirdly, Tanzania's water management bodies need better information as a basis for decision-making.

This means greater investments in the collection of data related to water resources and usage, including through the use of advanced technology. Without this information, it will remain extremely difficult to ensure the appropriate management of this vital resource. Although basic information is available in parts of Tanzania, the quality of this information is insufficient to inform the decision-making processes that Tanzania must undertake.

Finally, the Government should clarify the mandates of the institutions responsible for water-resource management, ensure these institutions are properly resourced, and ensure that enforcement systems are effective. Because of the finite nature of water resources, decisions regarding their

use cannot be made in one area or sector without considering the trade-offs with other sectors. There needs to be clarity regarding the mandates of relevant ministries and governmental bodies, supported by the appropriate intergovernmental structures to determine coordinated action. Furthermore, these entities need to be appropriately resourced to implement their water-management functions.

The overall message of this report is that Tanzania needs to optimally use its existing resources, including its diverse and growing private sector and its rich natural resources, if it is to achieve its ambitious development goal of becoming a semi-industrial, middle income nation.

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Abbreviations and Acronyms

ASDP	Agricultural Sector Development Programme
BoT	Bank of Tanzania
CIA	Central Intelligence Agency
DSA	Debt Sustainability Analysis
EAC	East African Community
EU	European Union
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
FYDP	Five-Year Development Plan
GDP	Gross Domestic Product
IM	Industry & Mining
IMF	International Monetary Fund
IT	Information Technology
LGA	Local Government Authority
MDA	Ministries, Departments and Agencies
MFI	Multilateral Financial Institutions
MITI	Ministry of Industry, Trade and Investment
MOFP	Ministry of Finance and Planning
MSME	Micro, Small and Medium Enterprises
NBS	National Bureau of Statistics
NFA	Net Foreign Assets
NPL	Non-Performing Loans
PPP	Public Private Partnership
SAGCOT	Southern Agriculture Growth Corridor of Tanzania
TNBC	Tanzania National Business Council
TANESCO	Tanzania Electric Supply Company Limited
TASAF	Tanzania Social Action Fund
TAZARA	Tanzania-Zambia Railway Authority
TDV	Tanzania Development Vision
TFP	Total Factor Productivity
TZS	Tanzanian Shillings
UN	United Nations
US	United States
USAID	United States Agency for International Development
VAT	Value Added Tax
WBG	World Bank Group

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Executive Summary

The tenth edition of the Tanzania Economic Update covers the state of the economy and includes a near term outlook, with a special focus chapter on one of the most cross-cutting determinants of development outcomes, water resource management. Part One presents a discussion and analysis of Tanzania's recent macroeconomic and fiscal performance, with an updated outlook for the near term. Part Two presents an analysis of Tanzania's management of its water resources, showing that the management of these resources has massive implications for Tanzania's people, its economy and its environment, and that there is an urgent need for improvements.

Part One. State of the Economy

Tanzania's economic growth has softened, with the rate declining to 6.8 percent in the first half of 2017, compared to the figure of 7.7 percent recorded in the same period in 2016. The decline in the growth rate recorded in the final quarter of 2016 (5.6 percent) persisted into the first quarter of 2017 (5.7 percent). The rate increased in the second quarter of 2017, with growth in the transportation services, construction and agriculture

sectors driving overall growth to 7.8 percent for the quarter. Despite the softening, at these levels, Tanzania was amongst the strongest performers in the region. The inflation rate has remained low and stable. The slight decline in exports in the first half of 2017 was more than offset by the decline in imports, leading to a narrowing of the current account deficit. By mid-2017, foreign exchange reserves increased to more than five months of import cover, while the value of the shilling remained stable.

The economy is facing two important and related challenges, specifically the under-execution of the national budget and the decline in private sector sentiment. The Government has reoriented the national budget towards development, with development expenditure increasing by 2.4 percentage points of GDP in 2016/17. However, the budget execution rate remains low, creating concerns regarding the credibility of the budget and constraining the Government's ability to achieve its ambitious development targets. Another factor undermining the credibility of the budget relates to the persistently high level of Government payment arrears to contractors and suppliers. These arrears not only negatively impact the profitability of

affected businesses and their ability to invest and grow, they also reduce liquidity. Combined, these two factors are constraining Tanzania's potential to achieve higher levels of private sector-led growth.

Tanzania is going through a period of policy transition, which has created uncertainties. The Magufuli administration has prioritized efforts to improve public administration, to clamp down on corruption, and to strengthen the tax administration. While these efforts are well intended, the transition has caused uncertainty within the private sector. There appears to have been an overall deterioration in business sentiment due to the perceived risks resulting from the unpredictability of policy actions related to the Government's intensified efforts to collect revenue and to its anticorruption drive, which has delayed payment of Government arrears to suppliers and contractors and VAT refunds. If the policy transition in these key areas is prolonged, a further weakening of private sector sentiment could lead to lower levels of private investment and reduced growth, which in turn would impact on future revenue flows. On the other hand, the business sector has also acknowledged the positive impact of a number of the Government's recent actions, including in the transportation services and coffee sectors.

The Government could implement immediate measures to significantly boost economic growth in the near term. In particular, measures to improve budget implementation and the business environment could facilitate the achievement of the Government's growth targets. Specifically, these measures could include:

- i). **Clearing verified Government payment arrears to private sector contractors and suppliers:** To be effective, this would require the allocation of significant resources and the implementation of strengthened controls to prevent the further accumulation of arrears. The clearance of current arrears and the prevention of their future accumulation would directly improve the cash and borrowing positions of many small- and medium-sized domestic firms and reduce the high level of non-performing loans in the financial sector. It could also improve the credibility of the budget and reduce the risk premium applied by contractors involved in Government projects.
- ii). **Speeding up VAT refunds:** The authorities could further increase liquidity and directly improve the cash positions of private sector enterprises by clearing the backlog of VAT refunds. It could also implement measures to ensure a faster repayment process and to conduct risk-based auditing. These measures would support business investments, including by exporting firms.
- iii). **Securing external financing to fund on-going and planned capital expenditures:** Adequate financing is required both to complete on-going projects and to implement new ones effectively. While the Government should continue to implement reforms to increase domestic resources, in the short term, it will need to mobilize additional external financing, particularly on concessional terms, to ensure debt sustainability.

Over the medium term, while the growth outlook is favorable, it faces significant downside risks.

On a positive note, Tanzania's economy has been resilient to external shocks, with key risks being both mostly domestic and under the Government's control. The more effective implementation of the budget, increased policy predictability to encourage private investment, and policies to support more affordable access to credit and to reduce the costs to business of regulatory compliance, will be the key determining factors for Tanzania's near-term outlook. Over the medium term, as the FYDP II rightly emphasizes, increased investment to develop human and physical capital, particularly to address Tanzania's infrastructure and skills gaps and thereby to support the emergence of a more competitive economy, will facilitate the achievement of Tanzania's goals of becoming semi-industrialized, middle income country by 2025.

Part Two. Managing Water Wisely: The Urgent Need to Improve Water Resources Management in Tanzania

With Tanzania's rapidly expanding economy and population, its water resources have recently declined to below 1,700 cubic meters per capita, the threshold level below which a country is considered to be water stressed. Furthermore, this average figure masks significant seasonal and geographic variations. In particular, in the dry seasons, the ratio between Tanzania's national demand for water and available supply stands at 150 percent.

The situation is compounded by droughts, floods, and degraded water quality, all of which are already having significant impacts on the economy.

The availability of water resources impacts the economy through three main pathways:

it enables or constrains sector growth; it exacerbates or mitigates economic shocks resulting from droughts and floods; and it impacts human productivity through public health and welfare:

- i). **The water requirements of different economic sectors vary, with agriculture currently using the vast majority of Tanzania's utilized water resources.** Agriculture is highly dependent on water resources and is the primary user, accounting for 89 percent of the total use in Tanzania (against a global average of 70 percent). In Tanzania, manufacturing is dominated by agro-processing, which is also highly dependent on water, as is mining, tourism and energy generation. Thus, a key challenge is to reduce the large quantity of water consumed by agriculture, while also increasing food production. This will ensure that water is available to facilitate the achievement of development goals related to industrialization, energy production and water supply.
- ii). **Droughts and floods have a major economic impact on Tanzania, with the extent of this damage likely**

to increase with ongoing climate change.

The agricultural sector suffers an estimated US\$ 200 million in average annual losses because of weather-related incidents, particularly from drought. Earlier this year, aggregate food prices increased by 12 percent due to drought-related food shortages. Hydropower production, which accounts for around 42 percent of energy generation in Tanzania, also declines during droughts, creating major additional generation costs. Economic models show that in neighboring Zambia, a severe drought event is likely to result in a 7.5 percent increase in the national poverty rate. Given their similar economic structures, Tanzania is likely to be similarly impacted.

iii). Water plays a critical role in reducing poverty, improving health and increasing human productivity.

Tanzania is making progress towards increasing household access to water supplies, with 63 percent of the population currently having access to basic and improved water supply services. On the other hand, only 27 percent of the population has access to basic and improved sanitation. Improved access to water supplies and sanitation services are an essential component of Tanzania's sustainable economic growth strategy.

Given that water is a finite resource, its use needs to be prioritized to facilitate the achievement of Tanzania's social, economic, and environmental goals.

Trade-offs in water use, such as between the often-conflicting needs of agriculture and hydropower production, are already occurring. The Government's challenge is to ensure that the necessary information is available and the appropriate institutional framework is in place to effectively manage trade-offs between different uses.

The implementation of an effective water resource management policy and the establishment of the appropriate supporting legal framework is a cross-cutting issue that must be prioritized.

Tanzania has already established broadly appropriate water resource policies, legal frameworks and institutional arrangements. However, the resources allocated have been insufficient to address the challenges, which undermines implementation and enforcement. In addition, establishing a pricing system for water would involve significant challenges.

Specifically, improving Tanzania's management of its water resources will require;

- i). Strengthened coordination across sectors and the appropriate prioritization of investments:** The Ministry of Water and Irrigation, the National Water Board and Basin Water

Board should be equipped with the necessary information, capacities, resources and authority to fulfil their mandates. In particular, a key part of their role is to ensure that the main consumers of water (agriculture, energy, industry, tourism, etc.) are able to make better informed decisions regarding its use. All stakeholders should understand the issues and be involved in water management. Strengthening investment prioritization will require the harmonization of budgetary allocations and multi-sectoral plans and a willingness to make tradeoffs at the highest levels.

ii). Valuing and pricing water appropriately: Tanzania needs to value and price water in ways that reflect its increasing scarcity and that recognize its differing values to all users, including households, farmers, and industries. In particular, it needs to create disincentives to discourage wasting water. For example, in the Wami-Ruvu Basin, at present bulk raw water prices are so low that running a tap for an entire year would cost around US\$ 2.60.

iii). Information to improve decision-making: Sufficient resources should be invested in data collection and analysis to better enable water management bodies to make sound decisions. At present, data on water quality and groundwater is very limited. Water management institutions could better

utilize satellite data and advanced technology to improve the quality of data and to make it available across Government and to end-users to inform their water use decisions.

iv). Clarify the mandates of the institutions responsible for water-resource management and ensure they are properly resourced: It is critical to ensure that the water management and development mandates of the relevant ministries and governmental bodies are clear and complementary. Improved capacity to carry out water-management functions, including permitting, monitoring and enforcement, is required at all levels.

1 The State of the Economy

Part One: The State of the Economy

Key Messages

- Tanzania's economic growth has softened, with the rate declining to 6.8 percent in the first half of 2017, compared to the figure of 7.7 percent recorded in the same period in 2016. However, Tanzania was still amongst the strongest performers in the region. The inflation rate has remained low and stable. The slight decline in exports in the first half of 2017 was more than offset by the decline in imports, leading to a narrowing of the current account deficit. By mid-2017, foreign exchange reserves increased to more than five months of import cover, while the value of the shilling remained stable.
- Fiscal and monetary policy challenges remain. Persistently high domestic payment arrears (at around 6 percent of GDP at the end of 2016/17) and the low execution rate of the development budget (62 percent in 2016/17) threaten the credibility of the budget. A looser monetary policy has yet to translate into a reduced cost of borrowing for the private sector or into increased private investment, partly because of the continued uncertainty. The financial sector remains stable, though the Government's arrears have contributed to the high ratio of non-performing loans (about 11 percent at the end of June 2017).
- Over the short to medium term, the growth outlook is favorable, with key risks being both mostly domestic and under the Government's control. The growth rate is projected to reach 6.6 percent in 2017, slightly below the Government forecast of 6.9 percent, mainly due to the under execution of the development budget and the weak business environment. In the medium term, the main risks relate to a further deterioration in business sentiment as a result of increased policy uncertainty and to a decline in the execution rate of the development budget. The most significant external risks relate to a potential rebound in oil prices, volatile global financial conditions, and a decline in demand from Tanzania's main export partners.
- Near-term policy priorities should focus on improving the implementation of the budget and the business environment. Clearing verified payment arrears to private sector contractors and suppliers; speeding up delinquent VAT refunds; and securing external financing to increase the execution of planned capital expenditures are required to boost the economy in the near term. Over the medium term, the Government should implement structural reforms to increase private investment, including reforms to reduce the costs to business of regulatory compliance and to improve infrastructure services and skills. These reforms are vital to achieve higher economic growth and to create a greater number of productive jobs.

1.1 Recent Economic Developments

The Global Economic Recovery is Strengthening

The global economic recovery is strengthening.

In 2017, advanced economies have been gaining momentum, with recovery driven by increased domestic demand and exports. Rising investment has helped to stimulate growth in global trade. These more favorable global trends have been supporting a recovery in Sub-Saharan Africa, with the regional growth rate projected to increase to 2.6 percent over the year, up from a low 1.3 percent in 2016.¹ In particular, the region is benefitting from a modest recovery in commodity prices, increased demand for exports, and more benign financial conditions.

A modest increase in commodity prices has been supporting the growth in commodity-exporting African economies. The substantial decline in commodity prices since 2014 has had a particularly negative impact on Sub-Saharan

African oil exporters, which on average experienced negative growth in 2016. The moderate increase in oil prices is supporting growth in the region, though the recovery remains vulnerable to further price volatility. There is continuing uncertainty regarding commodity markets, with the prices of non-oil commodities expected to continue to recover, while the prospects for oil are dampened by potential developments involving US shale.²

Tanzania has continued to experience relative stability, helped by favorable terms of trade.

Tanzania continues to benefit from historically low oil prices and stable gold prices. Although moderately higher than in 2016, oil prices remain low by historical standards, with the price of Brent Crude averaging US\$ 52.2 per barrel over the first nine months of 2017. As a net oil importer, the low oil prices have reduced Tanzania's import bill. At the same time, Tanzania's gold exports, which represent around 30 percent of its total exports, have benefited from stable prices (see Figure 1), effectively improving the country's terms of

Figure 1: Global Prices of Key Trade Commodities

Source: World Bank, World Commodity Prices

¹ World Bank, *Global Economic Prospects, 'A Fragile Recovery'*, June 2017

² *Ibid.*

trade. However, Tanzania is vulnerable to a potential rise in oil prices and to a slowdown in demand from its major export partners in the medium term. For example, during the first quarter of 2017, there was only weak growth in the demand from Tanzania's major export partners, India, Kenya and South Africa, with the latter only recently moving out of recession.

Tanzania's Economic Growth has Softened

Tanzania's real GDP growth rate remains one of the highest in the region, although this growth softened during the last quarter of 2016. At 7.0 percent, in 2016, Tanzania's rate of economic expansion exceeded that of any other EAC countries (see Figure 2a). Across Africa, this rate was

exceeded only by Cote D'Ivoire (7.9 percent) and Ethiopia (7.5 percent). However, the rate declined to 5.6 percent in the final quarter of 2016, significantly lower than the 8.0 percent recorded during the same quarter in 2015.³ The economy continued to be constrained by a weak business environment, record low levels of private sector credit growth, and weak development budget implementation, especially in the case of capital projects.

On the supply side, the economic slowdown has persisted into the first half of 2017, driven in particular by a deceleration in the growth of the services sector. During the first half of 2017, the real GDP growth rate was 6.8 percent, which is lower than the 7.7 percent recorded during the same period in 2016 (see Figure 2b). Except for services, the growth of all economic sectors, including

Figure 2: Tanzania's Growth Continues to Outpace EAC Peers

Source: World Bank and Tanzania National Bureau of Statistics

³ Quarterly GDP data from the National Bureau of Statistics (NBS) exhibit significant volatility related to seasonality and provisional estimates are subject to significant revision. For example, the data on GDP growth for the first three quarters of 2016 was significantly revised upward upon release of the fourth quarter data. The NBS is receiving capacity building support on national accounts from the IMF.

the agriculture, manufacturing and non-manufacturing sectors, recorded higher rates during the first half of 2017 than in the same period in 2016.

The rate of expansion of the services sector declined significantly during the first half of 2017. This sector expanded at a rate of 6 percent during the first half of 2017, more than 30 percent lower than over the same period in 2016 (see Figure 3a). This decline has been driven by the continued slowdown to the expansion of activities in the transport, education, real estate and financial subsectors. Public administration contracted by about 3.8 percent during the first half of 2017. This contraction follows a period of significant expansion, especially during the first half of 2016, when the growth rate reached 20.6 percent. The contraction of public administration activities has been

at least partially driven by the removal of unqualified public servants.⁴

In the first half of 2017, the growth rate of the manufacturing sector remained at almost the same level as that recorded in the same period in 2016. The sector expanded by 8.5 percent during the first half of 2017, which is slightly higher than the rate of 8.2 percent recorded in the same period in 2016 (see Figure 3b). The slight increase can be largely attributed to the slight increase in the production of beverages. On the other hand, the non-manufacturing industrial subsector expanded by 11.7 percent in the first half of 2017, which is 2.4 percentage points higher than the figure for the same period in 2016. This can be largely attributed to the significant expansion of the mining and quarrying subsector⁵ (26.1 percent) and the water subsector (4.6 percent).

Figure 3: Sectoral Growth Rates in 2016 and 2017

Source: Tanzania National Bureau of Statistics

⁴ In early 2017 the Government conducted an audit of public civil servants to identify those without required qualification and ghost workers. This exercise resulted in the removal of about 10,000 civil servants from the government payroll.

While the agriculture sector recovered slightly, its rate of expansion remained relatively low. During the first half of 2017,

the agricultural sector expanded by 3.1 percent, slightly higher than the rate of 2.7 percent recorded during the same period in 2016 (see Figure 3). The increased growth was largely due to increased crop production, which was attributable to favorable rainfall, especially during the rainy season. The growth rates for major crops such as maize, paddy, beans, round potato and sweet potatoes were impressive, ranging from between 7-11 percent. However, the growth of the forestry subsector decelerated, with a rate of 1.5 percent during the first half of 2017, compared to 4.3 percent during the same period in 2016. This deceleration is largely due to increased efforts by the Government to conserve forests.

On the demand side, the Government scale-up of public investment has increased its contribution to economic growth. According to Government data, gross fixed capital formation has contributed significantly to GDP growth over the past few years.⁵ During 2014-2015, this was supported by major inflows of FDI in the natural resources sectors. More recently, Government has rebalanced public expenditure toward development projects, and thus increased the share of public contribution to total investment. To sustain

future growth, efforts should be directed at measures that attract and sustain private investments in Tanzania.

Concerns Regarding the Business Environment Persist

Recent Government actions have had a mixed impact on the business climate and on investor confidence. Many in the business community have noted an overall deterioration in business sentiment due to perceived risks resulting from unpredictable policy actions and aggressive revenue collection efforts. The Government's policy objectives of improving public administration, clamping down on corruption, and strengthening tax administration are positive. However, the transition has caused uncertainty, which has impacted private sector investment decisions. In addition, a survey of 100 medium-size firms conducted in June 2017 points to an improved but still relatively low business sentiment (see Annex 16).⁷ About half of the survey respondents expressed the opinion that the economy had declined since the previous year, while less than one third expressed the opinion that it had remained the same. Looking forward, about 40 percent of the managers were pessimistic about the prospects for the economy, and 36 percent were pessimistic regarding their own businesses, a significant increase to the proportion that expressed the same opinion in December in 2016. Only

⁵ Mining includes gold, limestone, natural gas, and coal.

⁶ Data on the composition of aggregate demand between the domestic private sector, government and net trade is only available on an annual basis from NBS. Thus, the demand-side analysis presented here covers through calendar 2016.

⁷ The views of business managers of the top 100 mid-sized companies in Tanzania have been collected every six months since April 2013. However, in December 2016, it was collected after 12 months. This data is collected by KPMG through electronic questionnaires, with anonymous responses.

about 30 percent of survey respondents were optimistic regarding the prospects for the economy and their own businesses.

The private sector has cited several specific areas of concern, including the following:

- **Overzealousness in tax collection:** A number of private sector operators have reported incidences of inflated tax bills, threats of business closure or imprisonment, and the solicitation of bribes by tax officials;
- **Delays in VAT refunds and payments to contractors and other suppliers:** Delays in VAT refunds are partly attributable to the lengthy verification process for refund claims, conducted as part of the anti-corruption drive. However, when VAT refunds and payments to contractors and suppliers are delayed, businesses suffer from cash flow shortages and are less incentivized to be compliant; and
- **Proliferation of regulatory authorities, licenses, taxes and charges:** Tanzania's private sector activities are burdened by the need to comply with a multiplicity of laws and regulations, involving payments for licenses, taxes and other charges, with many regulatory bodies with overlapping mandates. Many of the associated regulatory compliance procedures lack transparency and create excessive burdens for businesses. These burdens are disproportionately intense for MSMEs, which often lack the necessary resources to understand and comply with the cumbersome rules and procedures.

The Government has recognized these concerns and begun to take actions to address them, thus aiming to improve the overall business environment and investment climate. In particular, the Government has placed renewed emphasis on engaging with the private sector by conducting high-level dialogue meetings. Three important meetings of this sort have been held in 2017, as follows: (i) the first high-level consultative dialogue between representatives of the private sector; the Ministry of Industry, Trade and Investment (MITI); and the Ministry of Finance and Planning (MoFP), held in April 2017; (ii) the Tanzania National Business Council (TNBC) meeting, chaired by the President of Tanzania and held in May 2017; (iii) and the second private sector-MoFP/MITI consultative dialogue meeting, held in October 2017. The Government has committed to ensuring that going forward, it will consistently engage in thematic and sectoral dialogue with the private sector on critical issues, including to take stock of progress in the implementation of agreed upon actions.

Other positive actions by the Government to boost the private sector include the following:

- **The removal of the 18 percent VAT on ancillary transportation services:** In July 2017, with the promulgation of the Finance Act 2017, the Government eliminated the VAT on transit cargo to neighboring land locked countries. This measure was implemented after consultations with the private sector indicated that the introduction of VAT had negatively impacted trade

volumes at the port of Dar es Salaam. In a subsequent dialogue meeting, the private sector representatives reported that the measure has had a positive impact, with an increase in the volume of transit cargo through the Dar es Salaam port;

- **Reduction of agricultural cess:** For a long time, the private sector in agriculture has expressed concerns regarding the high rate of agricultural cess, which it claims constrains investments in the agriculture sector. Responding to these concerns, in July 2017, the Government reduced the agricultural cess from a maximum of 5 percent to a maximum of 3 percent, although measures are still necessary to ensure that this decision is implemented consistently; and
- **Completion of the 'Blueprint to Reform the Business Environment':** Through a consultative process with the private sector, the Government has recently

completed a comprehensive analysis of the current regulatory environment, with an inventory of identified constraints and with recommendations on how to address them. The full implementation of these recommendations is expected to have a significant positive impact on the business environment, although consistent monitoring and verification will be required to ensure that the measures have their intended impact.

Inflation has Remained Low and the Exchange Rate Stable

The inflation rate has remained low and close to the authorities' medium term target of 5 percent. The headline inflation rate declined to 5.3 percent in September 2017 (see Figure 4), down from a high of 6.4 percent in March and April 2017, with the decline driven by lower food and energy prices. Food inflation went down from 11.8 percent to 9.8 percent over the same

Figure 4: Headline Inflation has Remained Low

Source: Tanzania National Bureau of Statistics

period, largely due to improvements in food production following good rains in April and May of 2017. By contrast, the rate for energy increased from 7.4 percent to 10.9 percent, largely due to the increase in global oil prices (from around US\$ 51 per barrel in March and April to US\$ 53 in September 2017). The non-food inflation rate has remained low, standing at 3.1 percent in September 2017.

After remaining relatively stable throughout 2016, the value of the Tanzanian shilling depreciated slightly against a number of major currencies in 2017 (see Figure 5). The shilling depreciated slightly in recent months. For example, the Tanzanian shilling depreciated against the Euro by about 9 percent over the period from January-March, after remaining relatively stable throughout 2016. Similarly, the shilling depreciated against the Indian rupee

by about six percent and against the US dollar by about two percent over the same period. The real effective exchange rate⁸ appreciated slightly during the period from January-March but has stabilized since April. The depreciation of the Tanzanian shilling against the Euro and Indian rupee was more pronounced than against the US dollar, Chinese yuan and the Kenyan shilling. Since April 2017, the value of the shilling has remained stable against all major currencies except for the Euro and Chinese yuan. By September 2017, the shilling has depreciated further against the Euro by about 13 percent since March 2017. The recent interventions by the Bank of Tanzania in the interbank foreign exchange market, especially by purchasing foreign currency, have helped to prevent a substantial appreciation in the value of the shilling.

Figure 5: The Shilling Depreciated Slightly in Recent Months

Source: World Bank

⁸ The real effective exchange rate is calculated as the weighted average of bilateral real exchange rates with Tanzania's top five trading partners.

The Current Account Deficit has Narrowed

In 2017, a decline in imports has led to a narrowing of the current account deficit.

The current account deficit, excluding grants, declined to 3.1 percent of GDP in May 2017, from a figure of more than 9 percent of GDP as recently as 2015 (see Figure 6). Export values declined by 6.2 percent over a one-year period ending in May 2017, while import values declined by 16.7 percent (see Figure 7 a and b). All major categories of imports (oil, transport, capital equipment, services) declined except for food, which increased by 13.8 percent over the period. The decline was pronounced in transport and capital equipment as well as services. The decline in imports is largely attributable to the slow implementation of public investment projects and the scaling down of exploration activities in the natural gas sectors.

The value of exports fell by 6.2 percent in the year ending May 2017, with manufacturing exports declining to an even greater extent (about 46 percent) (see Figure 7a and Box 1). Over the period, mineral commodity exports increased by

25.5 percent while agricultural commodities increased by 11.7 percent. However, export in manufacturing and other goods fell by 46.5 percent and 18.7 percent respectively, while the export of services increased by a mere 2.5 percent.

Despite declining capital inflows, international reserves have increased due to the narrowing current account deficit (see Figure 8). Both FDI and non-concessional loans declined in the first half of 2017. By June 2017, inflows of FDI had reached a value of US\$ 1.5 billion, while the disbursement of non-concessional loans stood at about US\$ 400 million, which was far lower than the projected figure of US\$ 800 million budgeted for the 2016/17 financial year. The decline in FDI inflows is attributable to the decline in exploration activities, especially in the natural gas sector, while the low disbursement of non-concessional loans is explained by the Government's cautious approach to borrowing from foreign lenders due to the high cost of those loans. By May 2017, the level of reserves remained high, standing at about US\$ 5.3 billion, equivalent to about 5.2 months of import cover.

Figure 6: Current Account Continues to Narrow

Source: Bank of Tanzania

Figure 7: Decline in both Exports and Imports, May 2017, Year on Year Changes

Note: "Other consumer goods" exports include edible vegetables, oil seeds, cocoa, cereals, raw hides and skins, and wood.

Source: Bank of Tanzania

Figure 8: Capital Inflows and FDI Fell

Source: World Bank and Bank of Tanzania

Box 1: Performance of Tanzania's Manufactured Exports

The Bank of Tanzania (BoT) has reported a large decrease in Tanzania's manufactured exports in 2017, noting that some of the decrease is due to classification changes from the adoption of the EAC's Single Customs Territory. International data also suggests the decline coincides with softening of demand. Global manufacturing imports declined by more than 6 percent in both 2015 and 2016. In the sub-Saharan African region, to which Tanzania exports around 74 percent of its manufactures, manufacturing imports fell by more than a quarter in both years (see Figure 2). Imports of Tanzania's four largest export manufactures (yarns, textiles, dyes and lime cement) collectively fell by 15 percent globally and by 46.8 percent in sub-Saharan Africa.

Demand for Tanzania's manufactured exports could improve as growth in sub-Saharan Africa is forecast to increase to 2.6 percent in 2017 and to 3.2 percent in 2018, as the terms of trade shock in commodity-exporters wanes.* However, Tanzania could still take steps to improve the performance of its manufacturing exports. The trade sector is particularly investment-intensive, meaning that improvements to the business climate that result in increased investment could have a disproportionate impact on traded manufactures, and help to increase the diversity and complexity of Tanzania's exports. In this area, Tanzania showed a strong performance until 2013, when the complexity of its exports increased, though data for the last three years suggests a decline (see Figure 3).

Finally, Nurturing regional trade will also support Tanzania's goal of industrialization by increasing the manufactured content of its exports. Intra-African trade tends to be more industrial, with fewer regulations and smaller existing production bases.** Furthermore, 80 percent of Tanzania's manufactured exports within sub-Saharan Africa go to the eight countries with which it shares a border. This points to the need to continue to invest in trade infrastructure and to improve Tanzania's connectivity.

* World Bank, *Global Economic Prospects, 'A Fragile Recovery'*, June 2017

**Mufurki, A. et al. *Tanzania's Industrialization Journey*, 2017.

Fiscal Policy has Remained Tight but Payment Arrears are High⁹

The fiscal deficit stood at 1.7 percent of GDP in 2016/17, its lowest level in seven years (see Figure 9). Domestic revenue collection increased to 15.3 percent of GDP over the year, about one percentage point of GDP higher than in 2015/16, with the increase supported by Government measures to control tax exemptions and to prevent tax evasion and corruption (see Figure 10 a).¹⁰ On the expenditure side,

recurrent expenditures were reduced to about 11 percent of GDP, down from the figure of 14-15 percent recorded in the previous year. This reduced expenditure was achieved through measures including the removal of ghost workers from the civil service payroll and limitations placed on foreign trips and allowances (see Figure 11 a). In addition, the under-execution of the development budget contributed to the lower than planned fiscal deficit. The deficit was largely financed through non-concessional borrowing.

Figure 9: Fiscal Deficit has Remained Below 4 Percent of GDP

Source: Ministry of Finance and Planning, and World Bank estimates

Figure 10: Domestic Revenue has Increased while Mobilization of Non-concessional Loans Remained Significantly Low

Source: Ministry of Finance and Planning

⁹ The fiscal data for 2016/17 are based on preliminary actuals.

¹⁰ Due to data limitations, the noted increase in domestic revenue does not take into account the low repayments of VAT refunds. Accounting for this factor would be expected to significantly reduce the reported increase.

Development expenditure increased to 6.8 percent of GDP in 2016/17, up from the figure of 4.4 percent recorded in the previous fiscal year, with the execution rate remaining at around 62 percent (see Figure 11 a). Development expenditure constituted 37.5 percent of total public expenditure in 2016/17, up from an average of around 25 percent over recent fiscal years. Key capital projects supported in last fiscal year's budget included the Kinyerezi power plants, the Julius Nyerere International Airport expansion, the Dar es Salaam

Port expansion, and the TAZARA flyover. Despite this increase, the rate of execution remained at a low 62 percent. The shortfall in disbursement of non-concessional and concessional lending, due in part to slower than anticipated project preparation, contributed to the low development budget execution rate (see Figure 11 b). The value of non-concessional loans stood at only 1.1 percent of GDP, about 0.7 percent of GDP lower than the projected amount for the year.

Figure 11: Recurrent Spending has been Controlled in Favor of Development Spending

Source: Ministry of Finance and Planning

In 2016/17, the tightening of recurrent expenditures negatively affected important categories of non-salary expenditure by local government authorities (LGAs) and line ministries (MDAs). The amount of non-salary funds transferred to LGAs was extremely low, at 56 percent of the budgeted amount for the year (see Figure 11 c). The LGAs are charged with the delivery of social services, such as education and health, for which they largely use funds transferred from the central government. The non-salary component of the recurrent budget at various MDAs, particularly the Ministry of Education and Ministry of Health, was also reduced to less than half the amount budgeted for the fiscal year. Consequently, these and other line ministries faced challenges in ensuring the adequate availability of vital supplies such as drugs and teaching and learning materials.

Domestic payment arrears remain unsustainably high, standing at around 6 percent of GDP at the end of June 2017.

This includes three categories of arrears,

toward: (i) suppliers to central government; (ii) suppliers to TANESCO; and (iii) pension funds (see Figure 12). The Government has stated its commitment to address all three categories of arrears, which will help to restore its credibility with its suppliers and to ease the tight liquidity conditions in the country. Clearance of outstanding arrears to central government suppliers and contractors would deliver significant direct benefits to the private sector, including to the cash and borrowing positions of many domestic firms. Despite the Government's effort to verify and clear central government supplier arrears, the emergence of new arrears has meant that the level has remained high, at around 2 percent of GDP. Plans to reduce pension arrears through the issuance of non-cash bonds has been announced but is currently pending implementation.¹¹ Arrears to TANESCO's suppliers remain at the same level as in previous years, pending the preparation of the Government strategy to prevent and clear arrears in this category.

In 2016/17, net domestic borrowing

Figure 12: Payment Arrears to Suppliers and Pension Funds Remain High

Source: Tanzania Authorities and World Bank estimates

¹¹ Recently, the Government has discussed an alternative option involving merger of some pension funds to strengthen the financial position of the pension sector overall.

stood at only about -0.1 percent of GDP, significantly lower than the 2.1 percent recorded in the previous fiscal year. Net foreign borrowing stood at about 1.9 percent of GDP, about 0.5 percent of GDP higher than in this year. The significantly reduced borrowing from the domestic market is a welcome development, since it helps to reduce the crowding out of credit to the private sector.

The level of public debt has increased by more than 30 percent over the last five years, although this debt remains sustainable at around 40 percent of GDP by June 2017 (see Figure 13). The increased level of public debt in recent years has been driven by increased non-concessional borrowing from both the domestic and foreign markets. In recent years, Tanzania has borrowed significantly from the market to accelerate investment in badly needed public infrastructure. Domestic debt constituted 20 percent of total public debt in 2016/17.

In 2016/17, the cost of public debt service consumed about 12 percent of domestic revenues (see Figure 13).¹² The increased cost of debt service is explained by the higher cost of borrowing and the short-term nature of loans contracted from both domestic and foreign markets. Despite the increased public debt stock and cost of debt service, Tanzania's public debt appears to remain sustainable.¹³ However, additional short-term borrowing could increase liquidity vulnerabilities, especially if a significant portion of new loans is contracted on the domestic market. Thus, the debt portfolio needs to be monitored closely, as the growth of domestic debt could exacerbate tight liquidity conditions, while increased debt service costs could reduce the fiscal space for development spending. Also, an increase in borrowing will require additional effort to access concessional loans, including from the multilateral financial institutions (MFIs).

Figure 13: Both Public Debt Stock and Service have Increased Significantly in Recent Years

Source: International Monetary Fund, and Ministry of Finance and Planning

¹² However, including rolling over of the matured TBs, the debt service to domestic revenue ratio stood at about 40 percent in 2017/18.

¹³ The latest joint World Bank / IMF debt sustainability analysis was completed in June 2016. An updated DSA is planned by the end of calendar 2017.

The 2017/18 budget targets an overall fiscal deficit of 3.8 percent of GDP, about 0.8 higher than in the previous fiscal year's budget, to accommodate higher levels of development expenditures. The Government has set an optimistic target for collected domestic revenue of 16.6 percent of GDP, 1.3 percentage points of GDP higher than in the previous fiscal year. Recurrent expenditures will continue to be controlled and limited to around 11 percent of GDP. Development expenditures are projected to increase to around 10 percent of GDP, with a large share directed to the development of transport infrastructure (railway, port and power) and education programs. This increased development expenditure is intended to support the implementation of the FYDP II and to facilitate the achievement the goals of industrialization and human development. The challenge for the Government will be three-fold: (i) meeting the ambitious revenue mobilization target; (ii) improving the capital budget execution rate; and (iii) ensuring that new arrears do not emerge.

Monetary Policy Easing has not yet Translated into Better Credit Conditions

To stimulate lending and investment, the Bank of Tanzania has reduced the discount rate twice in the space of six months.¹⁴ However, the impact of this easing has yet to be realized. In March 2017, the Bank of Tanzania reduced the discount rate from 16 percent to 12 percent, the first time it has lowered borrowing costs since 2013. In August 2017, it again reduced the discount rate, to 9 percent, to boost the supply of credit to the private sector. Despite these measures, the growth of credit to the private sector has remained low, at a rate of 1.0 percent in July 2017. This is significantly lower than the figure of 15.2 percent recorded in July 2016 (see Figure 14). The growth of credit to the Government has also remained negative. The slow growth of credit has resulted in limited growth in the money supply (M3). By July 2017, M3 grew by 5.8 percent, slightly lower than the figure of 6.9

Figure 14: Slowdown of Credit to Both Government and Private Sector has Constrained Monetary Growth

Source: Bank of Tanzania

¹⁴ The discount rate is the interest rate at which the Central Bank lends to commercial banks.

percent recorded in July 2016. Despite the Bank of Tanzania pursuing an expansionist monetary policy, liquidity conditions have remained tight, partly due to the tight fiscal policy stance. This, together with the weak business sentiment, has contributed to a softening of growth, particularly in sectors such as real estate, where credit growth has been the weakest.

The easing of monetary policy has not yet translated into lower interest rates on loans.

The overall nominal lending interest rate increased by about 2 percentage points between July 2016 and July 2017, while the overall real lending interest rate declined by about 0.2 percent during the same period. The increase in the nominal lending interest rate partly reflects the risk associated with the declining quality of banks assets, with a higher ratio of NPLs. This points to the need for both short- and long-term reforms. In the short term, these reforms should aim mainly at tackling demand-side factors and the lack of investment opportunities in the current business climate. In the long term, reforms should aim to address the structural challenges that banks may be facing in extending credit to the private sector, including through measures to reduce the cost of risk and to reduce rates, such as through measures to enable the better selection of borrowers and through improved recovery mechanisms.

The banking system has remained stable, despite the deteriorating quality of banking sector assets. In May 2017, banks maintained capital and liquidity ratios of

17.8 percent and 37.7 percent respectively. These ratios are higher than the statutory requirement levels of 10 percent and 20 percent respectively. Overall, the banking sector has remained profitable, although profit margins have been reduced by the increased level of NPLs. The ratio of NPLs stood at about 11 percent in June 2017, up from the 8.2 percent recorded in the same month in the previous year, and well above the Bank of Tanzania's regulatory guidance limit of 5 percent. This has prompted the Bank of Tanzania to strengthen its supervision of the sector, including by directing banks to ensure that their NPL ratios remain under the 5 percent limit. The Bank of Tanzania has continued to remind banks to utilize information provided by the Credit Reference System to reduce credit risks. In addition, it should be noted that there is considerable variation across banks, with some banks recording significant losses.

The Poverty Rate has Fallen yet the Number of Poor Remains High

Tanzania has made some progress towards reducing the poverty rate, which fell from 59.9 percent in 2007 to 48.8 percent in 2012 (based on the US\$ 1.90 per capita per day global poverty line). Since 2012, the downward trend is expected to have continued, with the rate standing at an estimated 43 percent in 2016. The decline in the poverty rate has been accompanied by gains in human development outcomes and living conditions. Gains in health outcomes have been the driving force for this progress, with robust gains in education outcomes

and incomes as well. Access, completion and equity in primary education have improved, with the rate for progression to secondary level education surging from about 20 percent in 2000 to almost 60 percent in 2012. Housing conditions, ownership of assets, and access to clean drinking water and improved sanitation have on average improved for Tanzanians, including for the poor and rural populations. Despite this remarkable progress, 20.6 million Tanzanians were living below the global poverty line in 2012, the latest year for which survey data are available, with this number expected to have increased to about 21.3 million in 2016 due to population growth. Using the national poverty threshold, around 12 million people were living in poverty in 2012, earning less than US\$ 1.4 per day per capita (at 2011 PPP). Further progress will depend on the extent to which Tanzania can implement reforms that will spur more inclusive growth and to which it can build on its achievements in human development. Ensuring the full funding of LGAs will help to maintain the gains achieved in education and health outcomes.

Continued efforts are necessary to accelerate poverty reduction in Tanzania.

Poverty has become more responsive to growth during the second part of the past decade, with the absolute value of the growth elasticity of poverty increasing from 0.17 in 2001-07 to 1.02 in 2007-12. This implies a greater percentage reduction in poverty rates in association with increases in average per capita income. These improvements were associated with a shift towards non-

farm employment and a higher level of engagement in cash crops, which resulted in higher returns to household businesses and commercial agriculture and, to a lesser extent, to returns to labor in the public and private sectors. Improved ownership of communication and transportation assets, coupled with better access to roads, have also facilitated increased access to markets and earning opportunities for poor households, further contributing to better returns on their economic activities. However, these positive results are tempered by the limited gains accruing to the poor and the clustering of a large share of non-poor population right above the poverty line and thus being prone to falling back into poverty. The shift in the sectoral composition of employment driving the observed improvements has largely resulted in increased employment in traditional and mostly informal services and is not yet generating a sufficient number of additional productive jobs.

Geographic disparities and the concentration of economic activities may undermine pro-poor growth prospects.

So far, economic growth has been concentrated in predominantly capital-intensive sectors and in large urban areas, resulting in widening regional disparities and income divergences. This is due to both the expanding employment and returns opportunities in these sectors and the greater ability of households in urban regions (which are endowed with higher education and better access to services) to take advantage of opportunities generated by growth. Geographic disparities in terms

of access to basic services, coupled with the rapid expansion of the population, may further undermine inclusive growth prospects and lead to a marginal decrease in the poverty rate but an increase in the absolute number of poor. Higher and more equitable growth will require investments in infrastructure and the modernization of agriculture.

Tanzania's level of productivity in the services and agriculture sectors remains low, constraining efforts to reduce poverty. The services sector has continued to be the main contributor to annual GDP growth. Most Tanzanians continue to find employment in low-productivity and largely informal services and agriculture, rather than in manufacturing, in which higher levels of productivity growth are recorded. Moreover, the modern service industries (such as finance and IT) cannot absorb a significant share of Tanzania's largely unskilled labor force.

In addition to supporting growth and productivity in the agriculture and services sectors, the Government will need to invest in the social sectors, such as education, skills development, health and water (the latter is the subject of Part Two of this report). In addition to fully funding the development budget, the Government will also need to ensure that levels of non-salary recurrent expenditure on items such as TASAF, capitation grants and medical supplies are maintained, as these are services that directly benefit the poor.

1.2 Macroeconomic Outlook and Risks

Growth Outlook Remains Favorable but Faces Downside Risks

Tanzania's short-term growth outlook remains favorable, with the growth rate projected to increase from 6.6 percent in 2017 to 6.8 in 2018.¹⁵ However, these increases are premised on the recovery of agricultural production and non-manufacturing industrial activities, and the scaling-up of investments in public infrastructure. The performance of the agricultural sector is projected to improve as drought conditions ease and as demand for agricultural products from domestic industries and regional markets increases. The 2017/18 budget suggests an expansion of expenditure on capital projects, which if fully executed will support the growth outlook.

However, the outlook faces several domestic risks. One of the most significant domestic risks relates to the unsustainably high level of arrears, which continue to impact budget credibility and to reduce liquidity in the economy. The key risk here is that competing budget priorities could lead to an insufficient allocation of resources to clear the stock of arrears, or that controls remain insufficient to prevent their further accumulation.

¹⁵ The World Bank growth projections for 2017 and 2018, are based on various domestic and global economic indicators, including recent provisional data. The projections are subject to adjustment based on updated information as it becomes available.

Similarly, growth prospects could be weakened if there is no recovery to the growth of credit to the private sector.

Private investment will be constrained if lending to the private sector does not increase. Government efforts to curtail borrowing from the domestic market are a positive development, but without structural reforms and an improvement in business sentiment, the loosening of monetary policy alone may be insufficient to stimulate lending and investment, with negative consequences for private sector led growth.

The growth outlook assumes a scaling-up of investment in capital projects. Thus, a slowdown in the implementation of capital projects may undermine growth.

Although public investment has increased, the Government continues to face budget execution challenges, including arrears accumulation, under-performance in the collection of domestic revenues and borrowing. The impact of under-execution of the 2016/17 Budget will be to further complicate execution this fiscal year, as some projects are rolled over.

A further weakening in business sentiment could lead to lower levels of investment and growth.

Further uncertainty regarding future policy changes could compound the impact of low liquidity and weak credit conditions, deterring businesses from making investments. Moreover, the future performance of the extractive industries and tourism sectors, the largest earners of foreign exchange, may not be as impressive

as in the past due to the newly imposed restrictions on investment and trade, adding to the effect of regulation and the higher costs of doing business.

The key external risk to growth relates to continued low global commodity prices.

Low commodity prices could impact Tanzania's economy through delays to investment decisions in the extractive sectors, particularly natural gas. They could also have an adverse impact on the growth prospects of commodity-intensive countries in the region, including Tanzania's export partners. Under certain scenarios, low global commodity prices could also worsen Tanzania's balance of trade.

If global financial conditions again deteriorate, this could impact the implementation of capital projects and weaken the growth outlook.

Some of Tanzania's major infrastructure investments, including plans to develop the standard gauge railway and ports and airport infrastructure, are planned to be financed through external borrowing. Given the significant under-performance of borrowing in fiscal year 2016/17, a continued tight global financial condition could lead the Government to delay further non-concessional borrowing.

Finally, declining FDI could dampen the expansion of activities in the urban services sector.

During the past decade, the expansion of the activities in the urban service sector, such as real estate, transport, accommodation and food services, has

largely been driven by increased FDI inflows. The projected decline in FDI inflows, partly driven by the scaling down of operations in mining and natural gas sectors, could have a significant impact on private sector investment and growth in urban service sectors.

The growth outlook is expected to contribute only marginally to poverty reduction. Tanzania's poverty rate, based on the US\$ 1.90 poverty line, is projected to decline marginally from 47.2 percent in 2017 to 46.9 percent in 2019. Despite this decline, the number of poor is expected to rise, as the population continues to grow. The economic prospects for the poor—who are largely employed in the low-productivity farming or urban informal service sectors—remain limited, with growth continuing to be largely concentrated in capital-intensive sectors and in large urban areas. Although agriculture is projected to grow modestly, this growth may disproportionately benefit commercially-oriented farmers who are well connected to either domestic or regional markets.

Sustaining High Growth in Tanzania Requires Deeper Reforms

Tanzania will need to accelerate its rate of economic growth if it is to fulfil the economic and development ambitions expressed in the Vision 2025 and FYDP II. The country's twin development strategies aim to achieve middle-income country

status through industrialization and human development. To achieve an average per capita income of about US\$ 1,200 by 2025, Tanzania will require a sustained average annual real GDP growth rate of more than 7 percent over the next eight years.¹⁶

With the current projected growth of 6.6 percent in 2017 and 6.8 percent in 2018, the achievement of middle-income status is thus an ambitious goal that would require aggressive reforms to increase growth significantly from 2018.

To meet the ambitious goals, the authorities should focus on both immediate policy levers and longer-term reforms. Over the short to medium term, the main enablers of growth in Tanzania related to three key factors: (i) the maintenance of macroeconomic stability; (ii) the implementation of policies to support private sector investment and growth; and (iii) the effective implementation of public investments. In all three areas, there are measures that the Government could undertake relatively quickly, in addition to reforms that will support growth over the medium term.

First, the maintenance of macroeconomic stability is vital. Tanzania will need to maintain domestic and external balances at least at current levels. Domestically, maintaining the fiscal deficit the targeted level of around 3-4 percent of GDP will ensure the sustainability of the fiscal account and debt. The Government should continue efforts to control recurrent

¹⁶ It is estimated that Tanzania will need annual per capita growth of around 4.6 percent to achieve a per capita income of around USD 1,200 in 2025.

expenditures and to mobilize domestic revenue to create additional fiscal space for public investments and the clearance of arrears. Moreover, prices and exchange rate stability should be maintained to incentivize firms and households to engage in productive activity. Prudent monetary policies, including maintaining the recent monetary easing, together with supportive fiscal policies, will be required to facilitate the achievement of increased credit growth and reduced costs of borrowing for the private sector. In terms of external balances, a recovery and further growth in the value of exports would support the achievement of a sustainable current account deficit that should continue to be financed by financial flows, including declining FDI.

Second, the private sector will play an essential role in maintaining high growth. Thus, measures such as the clearing of suppliers' arrears and payment of VAT refunds could help to promote growth by addressing current concerns that negatively impact the business climate. The FYDP II foresees a substantial role for the private sector, including providing a large proportion of the required funding. The private sector will need to participate fully to drive the achievement of the Government's industrial agenda, including by providing finance, if the Government is to realize its central goal of ensuring that Tanzania becomes a semi-industrial economy by 2025. Short-term actions can help improve the current cautious business environment. The Government could improve liquidity in the economy by prioritizing and clearing

arrears to its suppliers. This would also increase the credibility of the Government's budget and reduce the risk premium applied by contractors for Government projects. Further, the authorities could clear the backlog of VAT refunds and ensure a faster repayment process, which would support investment and exporting firms.

At the structural level, greater policy predictability and advancing deeper reforms will help crowd in private investment. The implementation of prudent monetary and supportive fiscal policies would help to ensure the private sector can access affordable credit to expand its investments. The consistency and predictability of private sector-related policies is vital to ensure long-term private sector investment and growth. The further elimination of levies and permits, including through the implementation of the Government Business Streamlining Blueprint,¹⁷ together with other measures to streamline taxes and administration, will be required. The Government should establish a clear and transparent legal framework for private sector participation in the implementation of the FYDP II, including by reviewing the existing PPP Act.

Third, Tanzania should accelerate its investment in physical and human capital to support both economic growth and poverty reduction. There is an immediate need to expedite the Government's development plans, including infrastructure projects, which would play a significant role in accelerating growth. Tanzania needs

17 Business Environment Streamlining Blue Print

to maintain the recent increase in public investments and to catch up after the investment rates of 0.5 percent recorded during the 2000-2015 period. However, there remains a significant gap between domestic revenues and the resources needed to finance the investments envisaged by the FYDP II, without which the transition to an industrial economy by 2025 will be difficult to achieve. The Government will need to maximize the use of concessional financing to scale up investment while maintaining a sustainable level of debt.

Tanzania continues to lag behind its peers in terms of infrastructure stock and skills, which poses serious challenges to the country's industrialization agenda. For example, Tanzania's average road density per square kilometer is just half of the figure for sub-Saharan Africa while it is a third of the figure for Uganda and one fifth of the figure for Ghana (see Figure 15). The picture is similar for energy production and consumption. Tanzania's average electricity production per capita stands at 100 kwh, which is almost half of the figure for sub-

Saharan Africa, less than a third of the figure for Ghana, and one seventh of the average figure for low middle-income countries. Tanzania's skills gaps are also massive (see Figure 16) with 80 percent of Tanzania's workforce of 26 million people being unskilled (UNIDO) and with 30-40 percent of the jobs for skilled positions advertised in Tanzania being unable to attract appropriately skilled applicants (according to a study by the Association of Tanzania Employers, ATE).

While it is necessary for Tanzania to accelerate investment in public infrastructure and human capital, it is also necessary for it to strengthen the management of these investments. Public expenditures have been reprioritized towards development spending, particularly in the transport, energy and human development sectors. However, projects will need to be appropriately prioritized to ensure that they are fully funded and completed on time to drive future growth. A lack of adequate funding for these

Figure 15: Road Density and Electricity Production in Tanzania and its Comparators

Source: World Bank - World Development Indicators and African Development Indicators

infrastructure projects could result in cost and time overruns. Moreover, maintenance of the planned infrastructure should be budgeted for or its positive impact on the economy will be significantly reduced. The Government will also need to prioritize skills development to support industrial development. Tanzania will need to replace aging engineers, technicians and doctors. Moreover, improved skills in education, languages, IT, communication, technical and work ethics will require massive improvements to education and training systems to support future growth through increased industrialization and services.

1.3 Water Resource Use and Growth in Tanzania: Why It Matters

Tanzania's natural resources will play a vital role in its progress toward poverty reduction and shared prosperity. While Tanzania has a rich and diverse endowment of natural resources, some of these resources are used unsustainably while others remain largely underutilized. Tanzania's economic

transformation will require both increases to the levels of agricultural productivity and increased diversification away from agriculture and towards tradable and modern manufacturing and services sectors. Both transformations will need to be underpinned by the better management of resources. One natural resource that is critical to the achievement of this transformation is water.

Water resources impact the economy through three main pathways. These include: enabling or constraining sector growth; economic shocks brought about by droughts and floods; and human productivity through public health and welfare. Each of these pathways are currently a risk to economic growth in Tanzania. Addressing the risks requires concerted efforts by Government and other stakeholders:

- **Tanzania's poor water resources management threatens to constrain growth and development.** Renewable freshwater resources per person

Figure 16: Lack of Skills is a Major Constraint to Both Low-skill and High-skill Firms in Tanzania

Source: World Bank

recently have dropped below the global water stress threshold of 1,700 cubic meters per capita, with these resources projected to decline to about 1,400 cubic meters per capita by 2025. Water is essential to the Government's industrialization plans, which require increased electricity. While hydropower is the most obvious user of water for this purpose, gas and oil also require significant amounts of water for extraction and cooling purposes. Industries such as mining, construction, beverages, textiles and food processing are all water-dependent, and often sensitive to both the quality and quantity of available water. Of course, agriculture is the sector that is most dependent on water and its biggest user. Agricultural modernization will require the increased use of irrigation, especially as the crops targeted for expansion use water intensively.

- **In the past 15 years, there have been seven significant droughts in Tanzania.** Tanzania's agricultural productivity suffers an estimated average of US\$ 200 million in annual losses because of weather-related risks, especially drought. Floods are also a significant risk in Tanzania, both to human life and economic assets. Building disaster resilience is therefore another necessity, involving significant economic challenges.
- **Water supply and sanitation services are vital for human development in Tanzania.** Water is essential to

almost all Tanzanians livelihoods, while sanitation services are vital for public health. Global research shows that poor sanitation can significantly increase child stunting, while adequate water supply both improves public health and reduces the amount of time that is spent fetching and treating water.

Water is a finite resource and needs to be more carefully managed. Water use in public investments should be prioritized and coordinated appropriately. The growing demand for water in cities and industries needs to be better understood and planned for; the agricultural sector needs to make the better management of water resources central to its modernization strategy; and the critical needs of the environment for water must be quantified and safeguarded. Part Two of this report focuses on an analysis of the importance of better water resources management for Tanzania's long-term growth and for the achievement of poverty reduction, with recommendations to suggest what the Government could do to reduce water stress and to encourage its effective use.

2

Managing Water Wisely: The Urgent Need to Improve Water Resources Management in Tanzania

Part Two: Managing Water Wisely: The Urgent Need to Improve Water Resources Management in Tanzania

Key Messages

Tanzania is already water stressed, which negatively impacts the economy, society and the environment.

- Over the last 25 years the Tanzanian population has doubled, the size of the economy has more than tripled, but the amount of water has remained the same. Water is a finite resource (unlike electricity, roads, food, housing, healthcare and most other inputs to the economy), so as need and demand for water doubles or triples, the result is growing water stress. The consequence is that Tanzania's water resources recently dropped below 1,700 cubic meters per capita, meaning that **Tanzania has joined the ranks of the world's water stressed countries.**
- While this 'average' level of water stress is significant, real-world water stress is significantly higher during dry seasons and in drier parts of the country. Most rain falls in 2-3 months of the year, and after accounting for environmental flow requirements, **national demand in Tanzania is already 150 percent of accessible water during dry periods.** Since water and development is also unevenly distributed across Tanzania's nine river basins, water stress also differs geographically.
- In addition to water stress brought about by too little water, floods – or too much water – can also have severe economic impacts, as can degrading water quality, the changing distribution of water across seasons and locations, and the effectiveness of water supply and sanitation services.

Water resources management requires trade-offs and prioritization, which will require tough decisions and action at all levels of government.

- Water is, most importantly, a social good: people drink it every day, wash with it, and cook food with it. Access to sufficient water to meet basic needs is, quite literally, a matter of life and death. As an environmental good, water keeps alive the ecosystems on which the environment, people and the economy depend. And as an economic good, water is a critical factor of production and productivity. Given that water is a finite resource, the challenge is to purposefully and carefully manage the trade-offs between the social, environmental, and economic uses of water.

- Tanzania is making progress in increasing access to water supply, where 63 percent of the population has access to basic and improved water supply services.¹⁸ Sanitation services, on the other hand, have a long way to go where only 27 percent of the population has access to basic and improved facilities. Improving access to sustainable services is vitally important to poverty reduction but also, through influencing public health and human productivity, the economy more broadly. Ensuring the sustainability of water sources for urban and rural water supply is critical, and while cities can be large water users at the local scale, the absolute quantities of water required for domestic use are relatively small (roughly 10 percent of water needs globally).
- At present, around 89 percent of Tanzania's water is used for agriculture (compared to a global average of 70 percent), around 10 percent for domestic consumption (like global averages), and about 1 percent for industry (very low by global standards). *A key water resource management challenge for Tanzania is reducing the large quantity of water consumed by agriculture to ensure that water is available to meet development goals on industrialization, energy production and water supply.*

Implementation of the water resources policy and legal framework is a cross-cutting issue that must be taken seriously, capacitated and resourced.

- Tanzania's water resource policies, legal framework and institutional arrangements are broadly appropriate. Water Boards, representing some of the key stakeholders, are in place for each river basin, and most have developed medium-term water resource development and management plans. However, the number of staff and level of resources will need to be scaled up to be proportionate with the scale of the challenge. Similarly, strong political leadership will be needed to reconcile the range of formal and informal activities across all sectors with a sustainable level of water resource use.
- Pricing water is a key implementation challenge and is important in three ways: to help make water services more sustainable; to create disincentives for wasting water; and to help allocate water towards more economically productive activities. While pricing water needs to be carefully managed to meet social, environmental and economic objectives, there is considerable scope for progress on pricing in Tanzania: water services are a long way from cost-recovery and **bulk water costs are so low that running a tap for an entire year would cost around US\$2.60.**¹⁹
- Improving enforcement of current plans and regulations is the other key implementation challenge. This requires investing in improved monitoring systems, supporting the growth of water user groups, increasing resources for field-work, and strong political support for enforcement activities.

¹⁸ 2015 WHO/UNICEF Joint Monitoring Programme. *Washdata.org*

¹⁹ The Wamu-Ruvi basin authority – which covers Dar es Salaam, Dodoma and Morogoro -- charges 1 Tanzanian Shilling per cubic meters of bulk water supply. The final price charged to households would be set by the final service provider, and would include the costs of treatment, pipes, etc.

2.1 Water Resources in Tanzania

Tanzania's development ambitions are dependent on water. There are, of course, many other factors that will influence Tanzania's development trajectory – education, health, transportation, energy, finance, etc. – but unless Tanzania improves its approach to managing its water resources, water will become a brake on progress. The reasons for this are straightforward:

1. Water is a key ingredient for development – the Tanzanian people, its economy, and the environment all need water to survive and prosper;
2. As the Tanzanian population and economy expands, the demand for water increases;
3. Water is a finite and local resource – water cannot be economically created or moved to different parts of the country.

Tanzania is now officially water stressed, a consequence of growing demand on a finite resource (see Figure 17). Over the last quarter century, Tanzania's renewable per capita freshwater resources have declined from more than 3,000 cubic meters to around 1,600 in 2014. This figure will continue to decline, reaching around 1,400 by 2025 (see Figure 17). This is still well in excess of the 1,000 cubic meters per person that is internationally considered to be the threshold for absolute scarcity, but it is below the 1,700-cubic meter level that the United Nations considers countries to be water stressed. The experience of many other countries shows that as the quantity of water becomes stressed, the quality of water also deteriorates more rapidly as multiple users compete to extract the most from the water they have. Crossing this symbolic "water stress" threshold is a warning signal for the Tanzanian economy and people: action on water resources is needed, and it is needed now.

Figure 17: Tanzania has Become a Water Stressed Country

Source: World Bank Open Data

Note that Tanzania's total renewable water resources are estimated at 96.27 million m³/yr, a value that does not change appreciably with time. The major shift in total water available per capita is largely a result of rapid population growth rates

Water in Tanzania is not well distributed geographically or temporally - this means that water is not always available when and where people, businesses and the environment need it.

Rainfall in Tanzania has a high-degree of seasonal and inter-annual variation, which complicated the already water-stressed context. For example, in the south, most annual rainfall is received in two to three months of the year, which means that surface water becomes extremely scarce during the remaining nine months of the year causing people and businesses to rely on difficult-to-access groundwater or the small amounts they can store for their livelihoods. The annual rainfall variation from one year to the next can be as much as 400 percent,²⁰ so Tanzania is constantly bouncing between flood and drought. In the past 15 years, there have been seven significant droughts, leaving the country in a constant state of drought-recovery (See Box 2 on how drought impacts the economy.) Without well-planned systems, capable of storing water to curb the excesses of flood periods and provide regulated quantities of water during drought, Tanzania will suffer increasingly from water stress. Increasingly, the impacts will be felt in the economy and in people's lives and livelihoods.

Climate change is exacerbating Tanzania's water stress. Climate change is increasing spatial and temporal variations in rainfall, while rising temperatures (projected to increase 2-4 degrees by 2050). This is likely to result in increasing aridity, which could increase water scarcity. Future trends

in rainfall are highly uncertain, as model projections do not agree on whether it will increase or decrease in Tanzania. However, even now, climate change is aggravating water scarcity and further degrading water quality as the rise in temperature increases aridity and is likely to increase the prevalence of prolonged drought and flood events. Water borne pollutants are also intensified by the rise in temperature. With climate change, Tanzania will have to deal with increasing challenges of scarcity, variability, and quality.

Water does not have to become a significant constraint to growth and prosperity, even though pressure on Tanzania's water resources are growing.

Tanzania still has a reasonable per capita water resource endowment compared to some of its neighbors, however values are rapidly declining due to the high population growth rate (see Figure 18). The challenge is how to manage water better, and in particular, to allocate water to uses that maximize the economic, social and environmental benefits for the country. This challenge of allocation is at the heart of the water resource management challenge facing Tanzania, but is far from the only one: the remainder of this chapter discusses the role of water in the economy, key water resources challenges facing Tanzania, Government's plans and approach to addressing them, and concludes with recommendations for making water management work in Tanzania.

²⁰ Mahongo, S.B. and Francis, J. 2012. Analysis of Rainfall Variations and Trends in Coastal Tanzania. *Western Indian Ocean Journal of Marine Science*, Vol. 11, No. 2.

Figure 18: Tanzania Still has a Reasonable Fresh Water Endowment Compared to Some of its Neighbors, Though Values are Declining.

World Bank Open Data

2.2 The Role of Water in Tanzania's Economy

Water requirements of economic sectors vary, with agriculture currently using the lion's share of water in Tanzania.

Agriculture is highly dependent on water and is the primary user, withdrawing 89 percent of water in Tanzania (see Figure 19). Manufacturing in Tanzania is dominated by agro-processing, which is highly dependent

on water, and other light manufacturing, which also require water. Mining also directly depends on water availability. For tourism and services, the dependence on water is often indirect; animals and landscapes that tourists pay to see depend on water and perish without sufficient water in the river and wetland systems. Furthermore, energy production directly relies on water, which indirectly links manufacturing,

mining, tourism and service industries to water resources as well. Because of the many direct and indirect linkages between water and the economy, the various water challenges Tanzania faces all result in economic consequences, as summarized in the table below.

Figure 19: Agriculture Dominates Water Use²¹

Source: World Bank Open Data

The link between water resources and the sectors that drive the economy becomes challenging when the existing or planned use of water is greater than supply, a not uncommon occurrence in Tanzania. The many water-dependent sectors must work together to meet Vision 2025 economic goals based on “transformation of the

economy towards competitiveness”²² where agricultural expansion is slated to underpin food security and sustain the population, industrialization is dependent on agricultural expansion and energy production, and hydropower production is required to meet energy requirements – all of these are required for competitiveness. In many of the river basins across Tanzania, the planned use of water is more ambitious than what can actually be supported by available water resources. After accounting for environmental flow requirements, national demand in Tanzania is already 150 percent of accessible water during dry periods. This figure is on pace to balloon to 216 percent by 2035.²³ Even today, water used in each of the basins exceeds available water in the dry season – this means that rivers run dry and water-users don’t have the water they need for productive uses (see Figure 20 for months over-allocated during a dry year). This also means that difficult decisions lie ahead in Tanzania to ensure that water is used for the optimal benefit of society, the economy and the environment (see tradeoffs section below).

Scarcity	Lost economic opportunity and activity due to insufficient water
Floods	Destruction of assets, disruption of services, etc.
Quality	Reduced economically available water / greater cost to use water; impacts on human health and productivity; degrading ecosystems
Seasonal or temporal variation	Water not available when needed; reduced productivity; droughts bring particularly severe human, economic and environmental consequences.
Geographic distribution	Growing scarcity in some parts of the country with surpluses in others; impacts on spatial distribution of economic opportunity
Water supply and sanitation services	Improved or reduced health and productivity

²¹ Data derived from World Bank open data based on FAO AQUASTAT tool. Note that the latest available data FAO AQUASTAT for Tanzania is dated from 2002.

²² The United Republic of Tanzania Planning Commission. 1999. *The Tanzania Development Vision 2025*. <http://www.mof.go.tz/mofdocs/overarch/vision2025.htm>.

²³ 2030 Water Resources Group. 2014. *Tanzania: Hydro-Economic Overview – An Initial Analysis*.

This link between economic growth and water is particularly strong in Tanzania.

In a 2008 assessment, the Total Factor Productivity of Tanzania (TFP), a measure of efficiency and competitiveness which serves as the key determinant of economic growth, was found to be 40 percent dependent on water infrastructure.²⁴ The water input to TFP in Tanzania is higher than in many other Sub-Saharan African countries. Taking a global view, some regions of the world could see their growth rates decline by as much as 6 percent of GDP by 2050 because of water-related losses in agriculture, health, income, and property—sending them into sustained negative growth. In those same regions, the study showed that economic growth could increase by 6 percent if appropriate water management policy measures and infrastructure are in place.²⁵

In neighboring countries, advanced economic modeling has shown significant economic vulnerabilities due to water resources. For example, in Zambia, a one-year severe drought is projected to reduce GDP growth rate by 6.6 percent; a severe flood would cause a 2.3 percent reduction. These growth impacts were expanded to estimate their effects on poverty, showing that a 7.5 percent increase in the national poverty rate would be the likely consequence of a severe drought event. With its similar economic structure, it might be expected

that Tanzania could expect a similar level of economic vulnerability to water resources (see Box 4 on drought impacts on the economy).

The dependency on water is not just a “here and now” challenge for meeting day-to-day energy and agricultural production requirements. Water needs will inevitably increase as the market demand and growing population require even more consumer goods and services (see Figure 20).

24 Escribano, Alvaro, J. Luis Guasch, and Jorge Pena. 2010. *Assessing the Impact of Infrastructure Quality on Firm Productivity in Africa: Cross-Country Comparisons Based on Investment Climate Surveys from 1999 to 2005*. Policy Research Working Paper 5191, Africa Infrastructure Sector Diagnostic. World Bank. Washington, DC. January 2010. P. 63.

25 WBG (World Bank Group), 2016. *High and Dry: Climate Change, Water and the Economy*. P. vi.

Figure 20: Water Stress Varies by River Basin.²⁶

Over Allocation of Water Occurs Across Tanzania

Farmers, industries, cities and hydropower facilities all plan their operations based on the assumption that a steady volume of water is available

- During a dry year or a drought, planned water use is often more than the amount of water that comes down the rainfall
- When demand for water exceeds rainfall, a water deficit occurs; during a deficit period, one or more sectors or stakeholders doesn't get the water it needs
- Data shown here is for a dry year and the whole country experienced a deficit of six months or more
- As the economy and population grow, this deficit will become the norm even during normal years

Source: Climate Research Unit Data

²⁶ The number of deficit months by basin during a dry year was derived using demand figures from 2008 and four available water from the Climate Research Unit Dataset during 2003. When demand exceeded available water supply in any given month, that month was considered a deficit months.

Box 2: Drought Impacts the Economy

Droughts are already a frequent occurrence in Tanzania, and their force is often severe. Tanzania has suffered numerous significant droughts over the past 20 years (eight years out of twenty in the Pangani Basin alone), with a resulting loss of productivity in the food, energy, and industrial sectors that threatens future growth (see Figure 21).

In sub-Saharan African countries, growth in the agricultural sector is reduced by an average of 3.5 percent as a result of each drought.²⁷ In Tanzania, the agricultural sector suffers an estimated US\$ 200 million in average annual losses because of weather-related occurrences, largely due to drought.²⁸ As recently as April 2017, a drought led to food shortages and to an increase in aggregate food prices of 12.0 percent, with repercussions throughout the region.²⁹ In another example, a significant drought in 2009 resulted in the mortality of 80 percent of livestock in northern Tanzania, undermining the achievement of local and national food security and longer-term development.³⁰

Hydroelectric energy production also declines as a result of droughts. In 2009-2011, upstream withdrawals for agriculture and a prolonged drought reduced surface water flows and reservoir levels in the Rufiji and Pangani rivers, the main sources of hydropower production in Tanzania. The reduced flows significantly decreased hydropower production.³¹ TANESCO, the national power utility, had to employ a costly emergency power generation program that involved imported diesel and the production of power at a substantial variable cost, whereas the variable cost for hydropower is quite low.³² The emergency power generation program employed to address the 2010/2011 drought resulted in huge additional costs for Tanzania.

- 27 Examination of agriculture value-added growth in relation to droughts over the decade 2003 to 2013. From: FAO (Food and Agriculture Organization of the United Nations). 2015. *The impact of disasters on agriculture and food security*. November 2015. P. 46
- 28 Arce, C. and J. Caballero. 2013. *Tanzania Agricultural Sector Risk Assessment*. World Bank Agriculture Global Practice Note. Washington, DC. P. 3.
- 29 IMF (International Monetary Fund). African Dept. 2017. *United Republic of Tanzania IMF Country Report No. 17/180. Sixth Review Under the Policy Support Instrument and Request for a Six-Month Extension of the Policy Support Instrument*. July 2017. P. 4
- 30 Melewas, J. and R. Allport. 2010. *Assessment of the Impact of the 2009 Drought on Pastoralist Livelihoods in Northern Tanzania*. FAO.
- 31 2030 Water Resources Group. 2014. *Tanzania: Hydro-Economic Overview – An Initial Analysis*.
- 32 Peng, D. and R. Poudineh. 2016. *Sustainable electricity pricing for Tanzania*. University of Oxford Institute for Energy Studies. OIES Paper: EL 20. July 2016. P.58

Box 2 Continued

Figure 21: Slow-down in GDP Growth is Correlated with Severe Droughts in Tanzania's Major Productive Basins.³³

Slow-down in GDP growth is correlated with severe drought in Tanzania

- Downturns in the economic growth rate are often concurrent with drought
- The drought index shown here is a measure of how severe the drought is, assessed through soil moisture and surface water availability
- Because of regional and global weather patterns, drought may occur in one part of Tanzania while another area (another basin) may be unaffected.
- This graphic shows droughts occurring in three economically important basins, and highlights the concurrence of severe drought and downturns in economic growth

Source: Preston Africa Drought Monitor Data

³³ This plot shows the GDP growth rate (%) in Tanzania and displays the drought index quantiles from the Princeton Africa Drought monitor data. These data are based off established categories of the Palmer Drought Index. The thresholds for Drought Severity are 35% for mild drought, 30% for moderate drought, and 20% for severe drought. The GDP growth rate data is from the World Bank. This plot includes boxes around years where growth rate has decreased.

Water and Agriculture

The agriculture sector withdraws around 89 percent of water in Tanzania, however this figure must decrease to meet the country's growing municipal demand and industrialization goals.

Agriculture is by far the biggest user of water around the world, accounting for an average of 70 percent of water use globally. As countries develop it is usual to see this percentage drop significantly, both because agriculture's share in the economy drops over time as the industrial and manufacturing sectors grow, and because the agriculture sector tends to become more efficient and productive with water as it modernizes.

Agriculture is essential to the Tanzanian economy and society, however the need for a shift in agricultural approach is well understood.

In Tanzania, agriculture currently contributes to around 31 percent of the country's GDP,³⁴ with agricultural commodities constituting 85 percent of exports,³⁵ and with the sector employing 68 percent of the country's workforce.³⁶ At the same time, it accounts for 80 percent of water use (see Figure 3). As temperatures rise due to climate change, crops will need even more water and evaporation and transpiration will only increase –

driving consumption in agriculture even higher. Tanzania's national development goals emphasize the need to move from a “predominantly agricultural economy with low productivity to a diversified and semi-industrialized economy with a modern rural sector and high productivity in agricultural production which generates reasonably high incomes and ensures food security and food self-sufficiency.”³⁷ In spite of this higher-order goal, Tanzania's massive plans for irrigation expansion have not fully factored in the current water stress or the major needs of other sectors and uses, including the environment, urban supply, hydropower generation and planned industrialization

Thus, Tanzania's agricultural sector must undergo a transformation that enables it both to reduce its use of water resources and to increase its level of productivity.

Global experience demonstrates two somewhat counterintuitive trends related to the transformation of the agricultural sector as it becomes more productive. Firstly, it consumes (as opposed to uses)³⁸ a greater amount of water to produce a given output. Secondly, since increased productivity drives higher economic returns, areas under agriculture tend to expand – sometimes leading to an increase in the total amount of water used. Reductions in the use of water

34 2016 Agriculture, Value Added (% GDP) data from World Bank Open Data, <http://data.worldbank.org/>.

35 CIA (Central Intelligence Agency). 2017. *The World Factbook*. <https://www.cia.gov/library/publications/the-world-factbook/geos/tz.html>.

36 2014 Employment in Agriculture (Total % of Employment) data from World Bank Open Data, <http://data.worldbank.org/>.

37 The United Republic of Tanzania Planning Commission. 1999. *The Tanzania Development Vision 2025*. <http://www.mof.go.tz/mofdocs/overarch/vision2025.htm>.

38 The distinction between water use and consumption is important for maximizing the economic value of water. Some activities, such as hydropower, use water and then release it largely unchanged for other downstream uses; others, such as agriculture, consume water, removing it from the immediate water cycle through evapotranspiration.

resources while increasing agricultural productivity are achieved by concurrently modernizing irrigation and improving water management.

Improving water resource management in Tanzania is therefore primarily about improving the way that water for agriculture is managed. There are several dimensions to achieving a significant shift in agricultural water use in Tanzania: the area of land under cultivation; the water-intensity of the crops being produced; the efficiency or productivity of the water use; the extent to which crops are either rain fed or irrigated; and an understanding of the relationship between agricultural water use and the local water cycle (for example, is much of the water ‘lost’ through evapotranspiration, or is much of the water returned to the local cycle through runoff?). A good starting point is a reasonably accurate baseline study to define the current situation, including both planned irrigation schemes (formal irrigation) and unplanned, unregistered irrigation (informal irrigation).

Encouraging the development of a prosperous agricultural sector and expanded agro-industry is a sensible economic strategy, but needs careful planning from a water-resource management point of view. Food crops such as maize, rice, cassava and beans as well as three of the most important cash crops by export value (coffee, cashew, and cotton), are all targeted for expansion.³⁹

However, each of these are relatively water-intensive crops which will both create greater trade-offs with other users of water and increase the vulnerability of these crops to water variability. Shifting away from thirsty crops in dry areas decreases vulnerability: when a drought hits there is less water for everyone and water sensitive crops suffer disproportionately.

Availability and more effective use of water are also important to small-scale or subsistence farmers who need to balance the nutritional value of their crops with the amount of water and other inputs required to grow them. In Tanzania, small scale use can become a very large scale use in the aggregate, as is the case in the Ruaha basin as described below in the Box on modernizing agricultural water management. Establishing accurate data on water use by small-holder or subsistence farmers – which is often unregulated and unmeasured – is difficult but important. Improving water management will mean intensively working with poor farmers to help them optimize their use of water and reduce their vulnerability, whether driven by temporary phenomena such as droughts, or long-term reductions in water availability. Without support, small-holder farmers exacerbate the problem with informal and inefficient irrigation schemes and / or expand agriculture further into sub-optimal land or precious natural habitats.

39 The United Republic of Tanzania. 2006. *Agricultural Sector Development Programme (ASDP); Support Through Basket Fund. United Republic of Tanzania Government Programme Document.*

Box 3: Modernizing Agricultural Water Use

There is a strong need to expand irrigated agriculture to meet food security goals, with only 1.5 percent of irrigable land currently being irrigated.⁴⁰ There is an equally strong need to modernize irrigation practices in Tanzania to enable farmers to shift towards higher-value crops and to waste less water. More than 80 percent of irrigated land in Tanzania is farmed using traditional irrigation practices with rates of water use efficiency as low as 15 percent. This compares very unfavorably to other countries that have applied modern water use systems, and recorded rates in excess of 90 percent as a result of proper distribution, conveyance and field application systems being in place.⁴¹

Crop-yield is also particularly low in unregulated irrigation systems in Tanzania, where a combination of poor structural design and the overuse of water due to inadequate pricing can result in water logging, reduce crop-yield, increase prevalence of aquatic weeds and diseased crops, and restrict crop type to paddy rice rather than cash crops or more nutrient-dense crops. Without an incentive to save water, farmers are not motivated to modernize farming practices to reduce water loss and to improve the productivity of their farms. When water is given an explicit value, and is regarded as a quantifiable input for agriculture, there is an incentive to use only the water that is needed. Farming and irrigation practices improve, and cropping patterns better reflect the reality of the environmental constraints. The result is higher crop yields, a shift towards higher value crops, and less wasted water. By better valuing their water, several neighboring countries have outperformed Tanzania in attaining higher country-wide aggregate irrigation efficiencies, demonstrating that Tanzania is capable of improvement (see Table 1).

There is also a major water management gap in the area of allocations, monitoring and enforcement for small-holder farmers. In some areas, informal irrigated systems are larger than formal systems and expand when wet-season rains are more plentiful. This expansion of irrigation has dramatically increased the water requirements in several basins, to the point that water requirements now exceed water availability. For example, in the Great Ruaha River sub-basin, extensive informal irrigation (see Figure 22) is one of the major reasons that the perennial river now runs dry for between two and four months every year, creating hardships for down-stream uses, including subsistence agriculture, livestock, the Ruaha National Park, and hydropower production in the Mtera/Kidatu System.⁴² The large proportion of unregulated water users makes it challenging for government to track, monitor and plan water allocations.

Table 1: Tanzania Trails Many African Countries in Irrigation Efficiency. ⁴³

Country	Year	Water Requirement Ratio (%)
Egypt	2002	76
Algeria	2001	72
Uganda	2010	52
Senegal	2002	46
Burundi	2000	44
Botswana	2002	34
Niger	2005	31
Ethiopia	2001	28
Malawi	2002	27
South Africa	2000	27
Rwanda	2000	25
Kenya	2003	22
Tanzania	2002	22

Since the late 1990's, informal irrigation has accounted for the vast majority of irrigated area in the Upper Great Ruaha River Sub-Basin.

Source: 2030 Water Resource Group

⁴⁰ (=450,392 ha/29.4 million ha). Data from: FAO (Food and Agriculture Organization of the United Nations). 2014. *Tanzania National Investment Profile: Water for Agriculture and Energy*. Pp. 4-5.

⁴¹ 2030 Water Resources Group. 2014. *Tanzania: Hydro-Economic Overview – An Initial Analysis*. P. 5.

⁴² 2030 Water Resources Group. 2014. *Tanzania: Hydro-Economic Overview – An Initial Analysis*. P. 34..

⁴³ The Water Requirement Ratio, a measure of irrigation efficiency, was calculated by dividing the irrigation water requirement per year (cubic meters) by the irrigation water withdrawal per year (cubic meters). Data from: Frenken, K. and V. Gillet. 2012. *Irrigation Water Requirement and Water Withdrawal by Country*. FAO (Food and Agriculture Organization of the United Nations). Rome, Italy... November 2012.

Water and Energy

Expanding electricity generation and access is a key priority for Tanzania's development – and is dependent on water availability in key basins. More than 67 percent of Tanzanians, and 83 percent of the rural population, are still without access to electricity, and shortages of electricity are cited as a major constraint to economic activities in business surveys⁴⁴

In fact, Tanzanian companies are more likely to cite availability of electricity as a major constraint to their growth and operations than companies in eleven comparator countries in the region (Botswana, Ethiopia, Ghana, Gabon, Kenya, Malawi, Mozambique, Senegal, Uganda, and Zambia).⁴⁵

In total, 42 percent of Tanzania's electric power is derived from hydropower. The two other main energy sources are gas (42 percent) and oil (15 percent).⁴⁶

Both of these also require significant volumes of freshwater for fuel extraction, processing, and electricity generation.⁴⁷ International experience shows that as countries' economies become more energy intensive, demands on water resources can increase significantly. In the United States, for example, the biggest single use for water is for power generation.

Tanzania has the potential to boost hydropower production, with a number of plans in the pipeline to manifest this potential.

However, currently existing hydropower systems in the country often underperform due to the limited availability of water resources. Current power development plans include those related to the expansion of hydropower facilities in a number of locations across the country, particularly in the Rufiji, Nyasa, Rukwa and Lake Victoria basins (see Figure 22). However, in several of these basins, the demand for water already exceeds supply. Depending on whether the planned hydropower projects are upstream or downstream of other major users, this may challenge the economic viability of some of these planned projects unless careful well-planned water management systems are implemented.

Even at present, a number of current hydropower schemes, particularly those located in the Rufiji and Pangani basins, are not being operated at their full potential because of water shortages (See the section on tradeoffs below). Since energy generation is a long-term, capital intensive business, the predictability of water supply is a vital precondition for investment decisions, being critical to the viability of the plant's operations and maintenance.

44 World Bank internal calculations based on the Government's report titled *Energy Access Situation Report 2016 -Tanzania Mainland*

45 United Republic of Tanzania and the United States of America. 2011. *The Tanzania Growth Diagnostic: Partnership for Growth (2011)*, a joint analysis for the Governments of the United Republic of Tanzania and the USA. p. 103.

46 2014 electricity production data from World Bank Open Data, <http://data.worldbank.org/>.

47 Sprang, E. S., W.R. Moomaw, K.S. Gallagher, P.H. Kirshen, and D.H. Marks. 2014. *The water consumption of energy production: an international comparison*. 2014 *Environmental Research Letters*. Vol.9.

Figure 22: Tanzania has Significant Hydropower Potential, if Water Availability is not a Constraint⁴⁸

Source: Ministry of Energy and Minerals, Power Sector Master Plan (2016) and Ministry of Water and Irrigation, Basin Water Boards IWRMD Plans

Water for Industry and Cities

Water is also a key input to a wide range of industries, where reliable quantity and quality of water makes a big difference to investment and expansion plans.

Industries important to Tanzania such as mining, construction, beverages, textiles and food processing are all water-dependent, and often sensitive to the quality of water as well as its quantity. These industries often do not require a huge proportion of total water allocation, but it does require a predictable and guaranteed quantity at high quality to allow for the continuous nature of industrial processing. In some regions in Tanzania, a secure water supply, particularly in the dry season, is becoming challenging for industrial expansion. For example, beer production is one of the largest industries in

Tanzania and there is a growing market for beer. But in 2015, an inadequate supply of water stopped efforts of Tanzania Breweries, one of the largest breweries in the country, to expand in Mbeya. The company indefinitely shelved plans to install a second production line due to concerns and lack of confidence about available water sources.⁴⁹

As countries industrialize, focusing on water-intensive products or crops for export can disproportionately stress the resource base. In Tanzania, overly water-intensive exports are not responsible for the current water stress.⁵⁰ However, national and regional planners and trade entities must be sensitized to the need to carefully consider the sustainability of the resource base as they develop plans for expanding industry to fuel growth.

⁴⁸ Hydropower plans derived from basin-level Integrated Water Management and Development Plans, regional planning documents and the Power Sector Master Plan.

⁴⁹ WREM International Inc. 2015. Lake Rukwa Basin IWRMD (Integrated Water Resources Management and Development) Plan: Final Report; Volume I: Basin Plan. Technical Report prepared for the United Republic of Tanzania, Ministry of Water. Atlanta, Georgia, USA. Pp. 41-42.

⁵⁰ <http://waterfootprint.org/en/water-footprint/national-water-footprint/virtual-water-trade/>

Box 4: Water Quality Challenges are Growing

The troubling water scarcity issues in Tanzania are compounded by water pollution, which is steadily impacting water quality across the country, with the concentrations of sediment, salinity, fecal matter and chemicals increasing in rivers and aquifers. When water quality is degraded, it has significant negative impacts on human health, damages ecosystems and reduces the life-span and effectiveness of investments in irrigation and hydropower infrastructure.

For example, in Dar es Salaam, less than half of the inhabitants have access to the main water network and instead use private and unlicensed boreholes. Overuse of the shallow aquifers under the city has led to drinking water contamination from sea water. Residents of Dar es Salaam also face health risks resulting from the poor disposal of industrial effluents and unimproved sanitation.⁵¹

Unfortunately, most of the evidence on declining water quality is anecdotal. There are huge knowledge gaps regarding water quality in Tanzania because there is not a sufficient monitoring network and there is limited industrial regulation. Improved information on water quality will help the Government make informed decisions about water resources to keep the Tanzanian people healthy and the economy running.

Concurrent to industrial growth, rapid urbanization is increasing the demand for urban municipal water supply at a pace that outstrips supply. Major cities like Dar es Salaam, Arusha and Morogoro take their water from stressed rivers that do not have adequate source protection measures in place, and aquifers that are not adequately mapped. Dodoma, the rapidly expanding capital city, relies almost entirely on groundwater for its supply. Most aquifers in Tanzania are not sufficiently mapped or understood, so planners don't know if they are withdrawing groundwater at a sustainable pace or if they are following the path of so many cities worldwide towards over-abstraction, ground-subsidence and water insecurity. Anecdotal evidence suggests that groundwater levels are declining significantly in some areas.

Like energy, the predictability of future water supplies – including the quality of the water – is a key consideration

for industry and cities. Predictability of water supply is partly about information about water availability, sustainable yield and source protection. Predictable water supplies are also largely about clear policies for managing trade-offs in the use of water, partly about the ability to enforce those policies, and partly about the ability to store and manage water in the face of increasing variability.

Water, the Environment, and Tourism

Tanzania's rich and diverse natural resources, especially wildlife, are the basis for its thriving tourism sector – which is in turn the basis for GDP growth, foreign exchange and employment. About a third of the country's total land mass is under protection; one of the world's highest ratios. Tanzania's 16 national parks and 17 game reserves, three marine parks, 15 marine reserves, and multiple forest reserves are host to world renowned biodiversity,

51 2030 Water Resources Group. 2014. *Tanzania: Hydro-Economic Overview – An Initial Analysis*. P. 4.

wildlife, and unique ecosystems, making the country a prime global tourism destination. The tourism sector contributed around 13 percent of GDP in 2016 and provides a stable source of revenue and foreign exchange for the government, as well as well-remunerated jobs for more than 400,000 people directly employed by the industry.⁵² Tourism also has significant cross-sectoral spillover effects and linkages to other sectors of the economy. A decline in tourism revenue would have an impact on the exchange rate and the consequences would reverberate throughout the economy.

In addition to their tourism value, Tanzania's natural ecosystems also play an especially important role in sustaining life and livelihoods in rural, poor communities.

Wetlands, forests and grass-lands play central roles in maintaining freshwater supply and groundwater recharge, which are important for rural drinking water supplies. They also modulate surface water flow, reduce erosion and sedimentation, provide flood control assistance and more, all of which help to secure villages and farms against weather extremes. Perhaps most importantly, they can provide alternative sources of food during drought or hardship.

The needs of the environment are often underestimated or deprioritized during dry periods. Tanzania's National Water Law (2009) places environmental requirements as the second prioritized usage, just after societal/domestic supply. However, the environment cannot advocate for itself, and when water is oversubscribed, environmental systems are often compromised. Even in

Australia, often considered one of the most sophisticated countries in the world for managing water scarcity, their flagship water reform program in the Murray-Darling basin underestimated environmental water needs. As a result, the Australian government needed to purchase back a large amount of water entitlements to maintain sufficient environmental flows.

In Tanzania, when environmental needs are considered, demand for water can be 150 percent of available water.

This high demand leaves virtually no water flowing to maintain the river ecosystem and wildlife that depend on water. For example, the Ruaha river, a river that naturally flows year-round (a perennial river) has not had any flow for more than 100 days for several decades, with wet season flows now under threat. This situation endangers wildlife in Ruaha National Park and is compromising the viability of highly water-dependent species such as the buffalo and the hippo.⁵³

The water scarcity challenges in the Ruaha are becoming increasingly likely in the Northern regions. The gap in water demand and availability is growing in the Pangani, Internal Drainage and Lake Victoria basins. The high demand and overallocation in those basins threaten wildlife and environmental systems in the north and will become a risk for the more famous tourism destinations the country's economy relies on.

Water Resources Trade-offs

Where demand for water outstrips availability, trade-offs between uses

⁵² WBG (World Bank Group). 2015. *Tanzania's Tourism Futures: Harnessing Natural Assets*. WBG Report No. 96150-TZ. September 2015. P. 4.

⁵³ 2030 Water Resources Group. 2014. *Tanzania: Hydro-Economic Overview – An Initial Analysis*. Pp. 25 and 34.

and users are inevitable. The important question is whether the trade-offs are deliberate, informed, and guided by policy, or whether trade-offs are simply driven by the capabilities of different actors to take the water first.

Evaluating tradeoffs between energy needs and agricultural consumption is a challenge across Tanzania. Simulations of more than 1 million ha of additional irrigated areas in the basins of the Rufiji River, Lake Tanganyika, Lake Nyasa, and the Pangani River show that irrigation development in river basins that already support or will support hydropower would decrease future hydropower production by 8 percent on average or 1,300 GWh/year even if irrigation efficiency were to improve. If efficiency were to remain at its current level however, hydropower production could decrease by 24 percent or 3,900 GWh/year. This would likely require TANESCO to spend approximately US\$360 million per year on

operating and fuel expenses associated with alternative generation sources.⁵⁴

The Rufiji basin typifies the tradeoffs between agriculture and energy because expanding irrigation occurs upstream of existing and planned hydropower. As one of the largest of Tanzania's nine water basins, encompassing 25 percent of national river flow and 33 percent of national rainfall, the Rufiji basin is particularly targeted for increasing development in both agriculture and hydro-electric power. A proposed US\$3 billion investment under the Southern Agricultural Growth Corridor of Tanzania (SAGCOT) program, aims to expand commercial farming by 350,000 hectares, including increases in irrigated area by as much as 721 percent in some clusters.⁵⁵ Plans for expanding irrigation often occur adjacent to and upstream of hydropower schemes and current irrigation schemes are all placed upstream of existing hydropower schemes (see Figure 23).

Figure 23: Planned Irrigation Schemes will Impact Hydropower Production in the Rufiji Basin.

Source: Rufiji IWRMP, 2030 Water Resources Group, and SAGCOT Blueprint

⁵⁴ WBG (World Bank Group). Internal Calculations.

⁵⁵ SAGCOT (Southern Agricultural Growth Corridor of Tanzania). 2011. Southern Agricultural Growth Corridor of Tanzania: Investment Blueprint. January 2011.

Figure 24: Irrigated Agriculture, Urban and Industrial Water Supply Rely on the Same Water Sources in Ruvu Sub-basin

Source: Wami-Ruvu basin data, 2030 Water Resources Group and SAGCOT Blueprint

Plans to expand irrigated agriculture are vast in spite of the fact that irrigation is already causing seriously depleted water flows in the Ruaha sub-basins of the Rufiji, particularly during the extensive dry periods. Unless water is managed well – including water permitting and pricing, monitoring, enforcement, increased irrigation efficiency, and new storage reservoirs – the new irrigation schemes planned for the Mpanga and Udagaji catchments in the Kilombero Valley will lead to zero river flow in the dry season and major impacts on planned hydropower schemes. Other plans to store water and regulate flow in the basin must be carefully planned and include stringent water management measures

to ensure that new measures achieve the desired purpose and don't simply lead to increased agricultural abstractions.

Plans for the expansion of irrigated land must be reconciled with the competing needs of other water users downstream, including plans for the development of hydropower generation facilities in the Rufiji basin. Hydropower potential in the Rufiji alone is five to ten times current levels of generation, with corresponding increases in revenues from US\$172 million to \$800 million, providing energy output two and a half times the current national electricity use.⁵⁶ And both irrigation and hydropower development need to be reconciled with

⁵⁶ 2030 Water Resources Group. 2014. *Tanzania: Hydro-Economic Overview – An Initial Analysis*. P. 4.

other water users, including sufficient flows (in quantity, quality, and seasonality) for the world the environment (including the famous Selous Game Reserve, the Ruaha National Park and the heritage areas in the Rufiji delta). When considered independently each investment plan might make good sense, but considered together it is clear that greater coordination is needed to consider downstream consequences and to provide for a balance in water use that meets the needs of everyone.

Illustrating the same point, in the Pangani Basin, farmers and the power authority are currently suffering from the impacts from the lack of coordination in the context of ever-increasing water scarcity. The New Pangani Falls hydropower scheme cannot be operated as designed because current water flows are insufficient to allow full operation. In the same basin, the Lower Moshi Irrigation scheme was envisioned to be built in three phases, but expansion beyond phase 1 is no longer feasible because of water shortages caused by uncontrolled water abstractions by upstream farmers.

Table 2: Descriptions of the peculiarities of valuing and pricing water

	Valuing water: the realm of public policy and social values	Pricing water: the realm of revenues and incentives
Social purposes	Clean water for basic human consumption is highly valuable, and generally recognized as the highest priority use. Access to clean water is recognized as a human right by the UN convention. However, the value of water for less basic needs – from washing clothes to lush gardens – is much less clear.	Many countries subsidize a limited amount of water for basic household needs, and increase pricing for greater quantities. Price is useful for making services more sustainable, and to discourage wasting water.
E c o n o m i c purposes	The value of water depends on the economic benefits that can be extracted from it. Water for manufacturing tends to be more valuable than water for agriculture, etc. Similarly, a guaranteed year-round supply of clean water is much more valuable than water of varying quantity and quality.	Price is a key tool for encouraging economically optimized trade-offs across water uses: put simply, people who will extract greater financial returns from water will be prepared to pay more for it. Price is also a key part of creating incentives for greater water productivity, efficiency, and reduced wastage.
Environmental purposes	The value of water for the environment – often called environmental flows – is driven mostly by the value of the ecosystem services that it enables. While many see an intrinsic value to the environment, it is simple to understand it in relation to the sectors that it enables – such as tourism in Tanzania – and the services it provides, such as maintaining landscapes or protecting urban areas. Tourism also has a major economic role, propping up the exchange rate, providing a major contribution to GDP and employment.	Pricing environmental water is only meaningful where there is a buyer, which would generally be a public entity.

Decision makers in the Wami-Ruvu River are facing similar challenges through tradeoffs between irrigation and urban water supply.

The water supply plant at Mtoni – intended to supply the major population and industrial center of Dar es Salaam – has operated at only 50 percent of its design capacity since rehabilitation due to the diversion of water by farmers upstream.⁵⁷ These tradeoffs are shown on the map of the Ruvu sub-Basin shown in Figure 24, where irrigated agriculture is planned upstream of the water supply intakes for both Morogoro and Dar es Salaam; both irrigated agriculture and city water supply rely on the same water source as industries in the industrial corridor which is expanding between Morogoro and Dar es Salaam.

Valuing and Pricing Water

A key part of encouraging more deliberative trade-offs in water use is to value and price water appropriately.

This requires understanding water's social, economic and environmental value at a particular time and place (the value of water in the dry and wet season differs, as it does in water scarce and water rich basins), while to price water requires assigning a specific financial cost to it. Pricing water is often controversial because it is seen as a natural resource belonging to everyone, because crude pricing approaches may reduce access for the poor, and because no-one wants to pay for something that they have received previously for free or very cheaply. Because of its controversial nature, it is

worth describing some of the peculiarities of valuing and pricing water in Table 2.

Global experience shows that while pricing water can be a critically important part of water allocation and managing trade-offs around water, it needs to be complemented by a strong regulatory approach.

This is not only to ensure that social and environmental objectives are also met, but also to establish absolute use and consumption limits because water is a finite resource. In the agricultural sector, in particular, numerous countries have experienced situations where investments in water efficiency and productivity have led to increasing marginal returns, expanded agriculture, and ultimately increased water consumption. In water, price is important, but not a substitute for regulation.

Embracing the proper value of water is also dependent on industry and government working together to properly plan and manage water use to encourage industrial growth and secure municipal supplies.

This means overcoming the current status quo in Tanzania, where many industries in urban areas have developed their own water sources to avoid the constraints of working within the current system. Thus, the quantity of water they use is often not accounted for and the wastewater volumes discharged into receiving waters is of questionable quality and is often not disclosed. Even where water permits have been issued, tariffs paid are generally not aligned with the actual quantity of usage due to the lack of monitoring.⁵⁸

⁵⁷ WBG (World Bank Group). Internal Calculations.

⁵⁸ 2030 Water Resources Group. 2014. Tanzania: Hydro-Economic Overview – An Initial Analysis. P. 20.

2.3 Options for Improving the Management of Water

This chapter has presented and summarized some of the available evidence to make four key points:

1. Tanzania is already a water stressed country. Current trends suggest that the problem is getting worse. While the greatest challenge is water scarcity, Tanzania also has significant challenges with floods, declining water quality, and growing variability in rainfall and run-off.
2. Tanzania's economy is significantly dependent on water at both the macro and micro levels. Drought impacts on overall economic growth numbers, while water is a critical ingredient for agriculture, tourism, energy, and industry, which collectively account for a large proportion of the Tanzanian economy.
3. Water is a finite resource. The government must focus on how to manage it better. Trade-offs in water use are already happening, but not in ways that maximize economic, social and environmental returns. This is partly because effective allocation institutions and enforcement mechanisms are lacking, but also because water is not valued or priced in ways that shape incentives for economic efficiency. Given that almost 90 percent of Tanzania's water is used for agriculture, developing mechanisms for better managing water for agriculture is a key priority.

4. While managing trade-offs around the use of water is a core economic challenge for Tanzania, in practice this needs to be built around a strengthened system of information, institutions and infrastructure, as described in more detail below.

Improved government planning, management and monitoring of water resources, which is built on a firm understanding by the government of the country's available water resources, will credibly and convincingly reassure industry that water needed for expansion is available. Sound and dependable regulation will not just ease concerns about water needs for current operations, but will embolden needed future private sector investment. When water is prioritized and allocated based on a system that assigns real worth to it, and coordinated efforts are in place to meet the needs of all stakeholders as well as the environment, then a clear signal will be sent that Tanzania is not taking water for granted.

The reality is that meeting the water needs of Tanzania today and tomorrow is dependent on the decisions and actions of users throughout the value chain. This includes how farmers will irrigate their fields, where corporate executives will build a plant, and how everyday households will carry out day-to-day activities. It's decision-making that is not just the purview of policymakers and government officials, although they are certainly on the front line when it comes to setting the water agenda in Tanzania.

Government officials and policymakers can lead the way to help people in Tanzania face the tough choices and tradeoffs when it comes to allocating water. Setting the example and encouraging everyone to rise to the challenge of addressing a sustainable water future for Tanzania begins with institutional reforms and better coordination within government, which can lead to smarter investments.

Specifically, making water work in Tanzania is dependent on four factors:

- 1 Multi-sectoral Coordination and Investment Prioritization:** Clearer criteria and a higher level of accountability for the management of water resources and associated investment planning and prioritization is essential. This will require the strengthening of the authority mandated to make decisions related to water allocation.
 - **The current institutional structure is broadly appropriate, where the Ministry of Water and Irrigation that has the legal mandate for many of the core water resources management tasks;** Authority for planning, monitoring and enforcement is devolved to the nine Basin Water Boards, which are meant to be multi-sectoral bodies. The National Water Board, also meant to be multi-sectoral, has the authority to take up water management issues of national importance. Six of Tanzania's nine basins has an integrated water management and development

plan, and the others have the basic information needed to develop their plans.

- **Strengthened coordination and better prioritization means equipping the Ministry of Water and Irrigation, the National Water Board and Basin Water Boards with information, capacity, resources and authority.** These bodies must carry out the planning, awareness raising, monitoring and enforcement measures that will ensure that the government's long-term vision is achievable. Taking a close look at the makeup of these Boards and the decision points put before them will ensure that relevant inter-governmental stakeholders who are taking action that impact water resources are at the table and understand the importance of implementing resource management actions. More effectively using the existing structures that facilitate dialogue between the levels of government and regularizing public dialogue platforms should be used to raise awareness and ensure that all stakeholders are involved in and understand water management priorities and are prepared to implement related actions.
- **Strengthening investment prioritization will also require a higher-order harmonization of effort through budgetary allocations and multi-sectoral planning, as well as a willingness to**

face down difficult tradeoffs at the highest levels. While these tradeoffs will largely be driven by development policy, new analytical tools such as Freshwater Resilience by Design⁵⁹ can lay the groundwork for informed choices to ensure resource allocation priorities align with development priorities.

2 Strongly Enforced Water Pricing Reflective of Scarcity Challenges.

Pricing bulk water appropriately aids in covering operational expenses of water management and source protection and it provides an economic incentive for more efficient use. A strong awareness raising, compliance and enforcement system is required to complement the pricing structure to ensure that there are no free rides – including no free rides for government users and industries. In Tanzania, this is one of the more urgent and important water management needs – currently, systems for valuing, permitting, monitoring, and enforcement are weak. The Basin Water Boards and Ministry of Water and Irrigation officials have the de jure mandate for carrying these tasks out, but lack capacity and de facto mandate to fully implement needed measures. Strengthening these bodies as well as collaborative mechanisms and awareness raising from the community level to the district and regional level all the way to cities, government agencies and actors is key to smoothly ramping up pricing and enforcement measures. Where collaborative approaches

fail, enhanced capacity and political traction for implementing enforcement measures is essential.

3 Information for Decision-making.

Decision-making bodies must have the information required to make and transparently justify robust and balanced decisions regarding water resource allocation, water quality issues and sectoral growth needs. Investing in data collection methods that equip water management bodies to characterize the vast and remote portions of Tanzania must be scaled up. Harnessing satellite data and advanced technology is an imperative that must be implemented with full view of the ability of authorities to operate, maintain and sustain use of those advanced systems. In Tanzania, basic surface-water hydrology and water abstraction information is in place for many locations, but bringing this information system to scale in a way that can inform actual decision making is an urgent need. This will require more resources and expanded staff, but can benefit from advanced technology (already in pilot in Tanzania) where solar power and remotely transmitted data can reduce staff-time requirements

- **Synthesizing information with targeted end-users in view will ensure that stakeholders users at multiple levels and sectors can inform their water-related decisions.** Tanzania's plans to launch a center of excellence for water resources decision making will go

⁵⁹ *Freshwater Resilience by Design is an approach that combines stakeholder engagement and collaborative objective setting with a multi-criteria optimization analysis to help decision makers prioritize infrastructure, policy and operational actions while accounting for uncertainties in future climate and development changes.*

Box 5: Saving the Great Ruaha Requires Improved Water Management

In many ways, the water resources situation in the Great Ruaha exemplifies many of the management challenges that are occurring throughout Tanzania. In this sub-basin of the Rufiji Basin, irrigated agriculture is situated upstream of the Ruaha National Park, which is in turn upstream of the Mtera-Kidatu hydropower cascade. These upstream regulated and unregulated irrigation schemes withdraw significant quantities of water – in fact, they withdraw so much water, that this perennial river no longer flows for more than 100 days during the annual dry season. The lack of water creates extreme stress for the wildlife in the park as it reduces food and shelter for many animals. Reducing the river to puddles in the dry season also increases the wildlife disease burden as animals are far more crowded than they are used to and increases human-wildlife conflict as the animals are forced to forage further and further from the river bed. The uncontrolled upstream water withdrawals also impact the hydroelectric power production in the basin, where hydropower plants are operated sub-optimally because of a lack of available water. The situation is broadly known in Tanzania and the government is taking serious steps toward addressing the overarching water management challenges.

The four factors needed for making water work will also make water work in The Great Ruaha.

Rufiji Basin Requires Enhanced Multi-Sectoral Coordination, Investment Prioritization and Information for Decision-making. Information on water usage and sectoral plans must be synthesized and shared with decision makers at all levels. Taking a hard look at future investment choices and coordination among all effected sectors is essential to reversing the damage in the Ruaha, as well as planning resources in the remainder of the Rufiji basin.

Strongly Enforced Water Pricing Reflective of Scarcity and Drought in the Rufiji Basin. Valuing water for all uses, including environmental needs, is currently lacking in the Ruaha. The current system of “first-access” by upstream irrigators reduces the regional or national ability to allocate water to its highest socio-economic use. Enforcement of water permitting is also a gap that must be addressed, both to reverse damage in the Ruaha and to avoid similar situations across the country. Efficiency improvement in the use of water for agriculture is a priority, together with investments in drainage infrastructure to ensure water used for irrigation can return to the environment. Imposing a freeze in the use of any new agricultural land for irrigation until efficiency is increased and pricing methods are implemented is recommended.

Clarity, Capacity and Resources to Carry out Institutional Mandates. The insufficient capacity in the Ministry of Water and Rufiji Basin Water Board hampers their ability to address the issues in the Ruaha basin. Enhanced de facto authority and capacity to increase coordination and awareness raising at the regional and district levels – both within the Ruaha sub-basin and in other sub-basins – are much needed to reduce over-extraction in the Great Ruaha River.

a long way toward addressing this gap. However, the new body must be properly staffed, resourced and have appropriate access to multi-sectoral data and stakeholder dialogue to effectively close this gap.

- **At present, Tanzania's groundwater resources and water quality has been understood only to have very limited extent.** Measures to address this must be undertaken to ensure the appropriate management of this important resource. A closer look at gaps and opportunities is required to address this challenge.

4 **Clarity, Capacity and Resources to Carry out Institutional Mandates.**

Given the cross-cutting nature of water, it is critical to ensure that water management and development mandates of relevant ministries and governmental bodies are clear and complimentary. Where overlap exists or where close coordination is needed, such as in water source protection, watershed management and wastewater discharge permitting and monitoring, intergovernmental structures are needed to ensure coordinated action maximizes human and financial resources. Capacity to carry out water-management functions is required at all levels, including standard measures such as permitting, monitoring, and enforcement measures. With this increased clarity and capacity, decision-making in Tanzania will be more robust and informed, and will have more of a long-term lens that considers the needs of the many stakeholders.

Water management must be part of the country's framework for assessing its strengths and shortcomings as framed in the Development Vision which was crafted based on an evaluation of "where we came from, where we are now, and where we want to go."⁶⁰

Clean and adequate water supplies are at the heart of making the economy and society in Tanzania work. The alarming increases in scarcity and water pollution, left unaddressed, will surely compromise a successful way forward.

Getting to the future, Tanzania's needs can be as simple as re-thinking the worth and value of water, strengthening its institutional structures and putting the right investments in place to manage it properly. A new appreciation for water must acknowledge its finite nature and make sure every drop is accounted for and fairly allocated so that the needs of all sectors and the environment are considered. Doing so will help Tanzania see the real power of water as an asset that can help the country realize returns from investments made in agriculture, energy, tourism, mining and industry.

Tough decisions will shape water's future in Tanzania. And government reforms are needed to encourage this change, as well as better coordination among policy makers that can lead to smarter investments. In Tanzania, water is everyone's business. And everyone must play a role to ensure its viability and sustainability.

⁶⁰ The United Republic of Tanzania Planning Commission. 1999. *The Tanzania Development Vision 2025*. <http://www.mof.go.tz/mofdocs/overarch/vision2025.htm>.

Box 6: WRM Institutions Demonstrating Multi-Sectoral Coordination: Mexico and Brazil

Improved water resources management for sustainable development requires a well-established national institution with executive function that leads strong coordination, involves stakeholder participation and supports multi-level governance. Experiences from other countries can inspire how water resources management in Tanzania could be improved.

Mexico - The National Water Commission, CONAGUA, is a federal institution created in 1989. The mandate of CONAGUA is to manage and preserve national waters to achieve sustainable use, with joint responsibility of the three tiers of government (federal, state, and municipal), thus requiring co-ordination initiatives. This is the highest institution in Mexico for water resource management, encompassing water policy, water rights and planning, and many other water related services. Its Technical Council is an inter-ministerial body in charge of evaluating and approving CONAGUA's programs, projects, budget and operations, as well as coordinating water policies across departments and public administration agencies. The council is composed of the highest representatives from eight ministries and national institutes. Mexico's water sector has undergone more than three decades of serious and far reaching reforms. Over the years, capacity has been built within CONAGUA to enable it to undertake information-based planning and decision-making.

Brazil – The National Water Agency, ANA, is a federal agency under the Ministry of the Environment, as part of the national water resource management system. With administrative and financial autonomy, ANA is responsible for implementing the national water resources policies, granting and providing funds, regulating access to water, promoting its sustainable use and arbitrating conflicts among users. ANA acts as an executive-regulatory agency to manage water with three mechanisms: the granting of rights to the use of water resources, the commitment to inspections that ensure licenses are effectively respected, and the charging for water use. It plays management and coordination roles. Water sector reforms in Brazil started about two decades ago, leading to the establishment of ANA in 2000. The reform process fostered the development of water information, knowledge, and capacity that enables ANA to carry out strategic planning and sound decision making for water resources management. Being the authority to implement and co-ordinate the National Water Law, ANA Brazil has brought a general improvement of water resource management in Brazil.

Annexes

Annex 1: Key Macroeconomic Indicators

Indicator	Unit	2010	2011	2012	2013	2014	2015	2016
Population (Mainland)/2	Millions	43.6	44.8	44.9	46.1	47.4	48.8	51.2
Per capita Income/2	US\$	726	765	870	969	1028.8	968.8	932.0
GDP Growth/2	%	6.4	7.9	5.1	7.3	7.0	7.0	7.0
Inflation/2 (period average)	%	7.2	12.7	16.0	7.9	6.0	5.6	5.2
Exchange Rate/2 (period average)	TZS/US\$	1,432.3	1,579.5	1,571.7	1,597.6	1658.1	2002.8	2179.1

External Sector								
Exports - Goods & Services (f.o.b)/2	Mil. US\$	6,370.0	7,398.2	8,675.6	8,459.8	8,726.8	8,921.9	9,381.6
Imports - Goods & Services (f.o.b)/2	Mil. US\$	-9,054.4	-12,035.6	-12,678.0	-13,517.6	-13,583.2	-12,513.0	-10,797.4
Current Account Balance/2	Mil. US\$	-2,684.4	-4,637.3	-4,002.4	-5,057.9	-4,856.4	-4,011.6	-2,054.8
Balance of Payments (Overall balance)/2	Mil. US\$	369.8	-202.0	326.2	495.7	-233.8	-199.1	305.5
Foreign Reserves/2	Mil. US\$	3,948.0	3,761.0	4,068.1	4,678.0	4,388.0	4,093.7	4,325.6
External Debt/2	(as a % of GDP)	28.0	26.3	27.0	29.0	29.0	30.0	29.0
Foreign Direct Investment/2	Mil. US\$	991.1	1,009.0	1,799.6	2,087.3	1,672.6	1,604.6	1,365.4

Monetary Sector								
Average Deposit Rate/2	%	9.1	7.3	9.6	11.4	8.3	8.3	10.8
Average Lending Rate/2	%	13.8	13.9	13.9	14.1	13.9	13.9	14.2
Growth in Money Supply (M3)/2	%	25.4	18.2	12.5	10.0	15.6	18.0	9.2

Government Finance								
Total Domestic Revenue/1	(as a % of GDP)	11.8	12.2	12.6	13.1	13.3	14.1	14.4
Tax Revenue/1	(as a % of GDP)	11.1	11.2	11.6	12.0	12.1	12.5	12.8
Non-Tax Revenue/1	(as a % of GDP)	0.6	0.9	1.0	1.0	1.1	1.3	1.5
Total Expenditure/1	(as a % of GDP)	20.0	19.1	19.1	18.8	18.0	19.2	18.3
Recurrent Expenditure/1	(as a % of GDP)	13.9	12.9	13.0	13.4	13.2	13.7	13.9
Development Expenditure/1	(as a % of GDP)	6.1	6.2	6.1	5.4	4.8	5.4	4.5
Grants/1	(as a % of GDP)	3.5	3.0	2.3	2.1	1.6	1.3	0.5
Fiscal Balance (after grants)/1	(as a % of GDP)	-4.8	-4.0	-4.1	-3.6	-2.9	-3.6	-3.5

Note

/1 Fiscal year is used, and it ends June 30th of the mentioned year /2 Calendar year is used, and it ends in mentioned year December 31st.

Source: IMF and Tanzania Authorities (MoF, BoT, NBS).

Annex 2: Annual Real GDP Growth Rates

Economic Activity	2009	2010	2011	2012	2013	2014	2015	2016
Agriculture and Fishing	5.1	2.7	3.5	3.2	3.2	3.4	2.3	2.0
Crops	5.5	3.7	4.8	4.2	3.5	4.0	2.2	1.1
Livestock	5.3	1.4	1.6	1.8	2.0	2.2	2.4	2.6
Forestry and Hunting	5.1	3.4	3.3	3.5	4.7	5.1	2.6	4.5
Fishing	0.5	0.9	2.6	2.9	5.5	2.0	2.5	3.4

Industry and construction	3.3	9.1	12.0	4.0	9.5	10.3	11.3	10.7
Mining and quarrying	18.7	7.3	6.3	6.7	3.9	9.4	9.1	15.6
Manufacturing	4.7	8.9	6.9	4.1	6.5	6.8	6.5	7.0
Electricity	4.3	13.4	-4.3	3.3	13.0	9.3	5.8	8.3
Water	4.6	2.2	-1.2	2.8	2.7	3.7	0.1	5.5
Construction	-3.8	10.3	22.9	3.2	14.6	14.1	16.8	6.7

Services	5.8	7.8	8.4	7.2	7.1	7.2	6.9	7.6
Wholesale and Retail Trade, Repairs	2.7	10.0	11.3	3.8	4.5	10.0	7.8	6.7
Transport and storage	6.9	10.7	4.4	4.2	12.2	12.5	7.9	11.8
Accommodation and Food Services	1.0	3.7	4.1	6.7	2.8	2.2	2.3	3.7
Information and communication	26.6	24.4	8.6	22.2	13.3	8.0	12.1	13.0
Financial and insurance activities	18.4	12.6	14.8	5.1	6.2	10.8	11.8	10.7
Real estate	1.8	1.8	1.9	2.0	2.1	2.2	2.2	2.4
Professional, scientific and technical activities	15.8	29.9	4.8	-5.8	5.4	0.5	6.8	6.3
Administrative and support service activities	0.4	8.6	5.1	23.8	12.2	6.0	4.7	2.1
Public administration and Defence	-0.7	-5.0	15.9	9.1	7.8	3.9	4.6	6.7
Education	9.2	6.4	5.6	7.4	4.3	4.8	6.3	8.1
Human Health and social work activities	7.4	3.3	5.3	11.4	8.8	8.1	4.7	5.2
Arts, entertainment and recreation	3.0	7.3	7.7	11.0	5.7	5.7	6.2	8.8

Other social and personal services	5.9	6.0	6.2	6.4	6.5	6.7	6.9	7.2
Activities of households as employers	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.0
FISIM	20.0	7.9	22.6	1.2	0.1	9.7	11.7	16.3
Net taxes	12.8	3.8	12.1	0.4	14.2	7.7	9.6	7.8
Total GDP	5.4	6.4	7.9	5.1	7.3	7.0	7.0	7.0

Source: National Bureau of Statistics

Annex 3: Shares of economic activity in GDP (current market prices)

Economic Activity	2008	2009	2010	2011	2012	2013	2014	2015	2016
Electricity and water	1.7	1.6	1.5	1.0	1.3	1.2	1.6	1.4	1.3
Electricity	0.9	0.9	0.9	0.6	0.9	0.8	1.1	1.0	0.9
Water	0.8	0.7	0.6	0.5	0.4	0.5	0.5	0.4	0.4
Construction	8.8	7.2	7.8	9.0	8.1	10.8	12.4	13.6	14.0

Services	45.10	45.45	44.23	42.73	41.85	41.02	40.90	40.00	39.07
Wholesale and Retail Trade,Repairs	9.7	9.9	10.1	10.6	10.4	10.2	10.5	10.7	10.7
Transport and storage	6.0	6.2	5.8	5.2	4.4	4.2	4.3	4.3	4.3
Accommodation and Food Services	1.7	1.8	1.6	1.4	1.4	1.3	1.1	1.1	1.0
Information and communication	2.2	2.4	2.6	2.4	2.4	2.3	2.1	2.0	2.0
Financial and insurance activities	2.9	3.1	3.2	3.4	3.4	3.3	3.4	3.6	3.6
Real estate	5.2	5.1	4.6	4.3	4.3	3.8	3.7	3.2	3.0
Professional,scientific and technical activities	1.4	1.5	1.7	1.5	1.3	1.3	1.3	1.2	1.2
Administrative and support service activities	2.6	2.4	2.2	2.1	2.3	2.4	2.5	2.4	2.2
Public administration and Defence	7.0	6.7	6.1	6.3	6.5	7.0	6.6	6.4	6.3
Education	3.1	3.2	3.1	2.8	2.6	2.7	2.7	2.5	2.3
Human Health and social work activities	1.6	1.8	1.7	1.6	1.5	1.4	1.4	1.4	1.4
Arts, entertainment and recreation	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Other social and personal services	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7
Activities of households as employers	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2

FISIM	-0.9	-0.9	-0.9	-1.1	-1.0	-1.2	-1.0	-1.1	-1.0
Net taxes	6.6	6.6	6.4	6.2	6.3	6.3	8.1	7.8	7.8
Total GDP	100.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Bureau of Statistics (NBS)

Annex 4: Quarterly Real GDP Growth Rates

Year	Quarter	Agriculture	Mining and quarrying	Manufacturing	Electricity	Water	Construction	Trade and Repair	Accommodation & restaurant	Transport and storage	Information and communication	Financial & insurance	Public administration	Professional, scientific & technical activities	Administrative & support services	Real estate	Education	Health	Other services	FISIM	All industry at basic prices	Taxes on products	GDP at market prices
2010	1	3.2	6.2	11.4	7.3	-0.8	-2.2	7.8	3.0	11.8	20.8	6.8	-151	109.8	-16.9	1.8	6.1	4.3	5.4	-0.2	4.5	12.6	5.0
	2	3.1	22.2	10.1	13.9	3.9	36.3	12.6	4.8	4.5	14.3	12.7	-24.4	98.1	-6.1	1.8	6.1	2.9	5.8	7.3	7.3	8.5	7.4
	3	1.6	0.5	8.7	18.8	3.2	10.3	7.7	4.0	12.6	16.6	14.7	2.0	26.9	-9.5	1.9	6.6	2.6	5.7	8.9	5.8	-3.3	5.1
	4	2.6	3.0	5.9	13.3	2.4	3.3	11.9	3.0	13.6	46.2	15.9	17.7	-25.2	78.0	1.9	6.6	3.6	5.5	15.6	8.7	-0.7	8.0
2011	1	3.1	10.6	6.0	4.6	-1.2	33.5	9.7	3.7	10.5	-0.7	20.1	27.7	-7.1	5.2	1.9	6.2	4.2	5.8	24.8	8.4	1.9	8.0
	2	3.0	3.7	10.2	0.0	-2.3	21.3	12.6	4.6	9.0	11.1	18.1	51.7	5.2	19.7	1.9	6.2	4.3	6.1	25.3	10.1	12.1	10.3
	3	4.4	9.6	4.6	-14.4	-2.7	22.3	12.7	3.9	13.3	16.9	13.9	3.1	16.4	20.5	1.9	5.1	5.4	5.7	24.6	8.5	19.1	9.3
	4	3.6	1.7	7.3	-5.8	1.2	17.0	10.2	4.4	-12.6	7.2	8.2	-4.6	5.9	-12.0	2.0	5.1	7.3	5.8	16.4	3.6	15.2	4.4
2012	1	3.5	7.5	3.6	-6.3	2.6	7.5	9.2	4.3	4.3	34.6	5.7	10.6	1.0	36.9	2.0	5.7	9.9	6.0	5.6	7.0	6.6	7.0
	2	3.4	7.8	3.6	-1.5	2.8	-6.9	3.8	3.8	4.2	21.5	2.9	0.4	2.5	24.2	2.0	5.7	12.1	5.9	0.7	3.8	-1.7	3.4
	3	3.0	4.3	3.7	12.5	5.6	3.7	1.4	9.7	-0.3	23.5	4.5	15.3	5.5	35.1	2.0	9.0	12.4	7.5	-1.5	6.3	-2.8	5.5
	4	3.0	7.2	5.5	8.7	0.3	8.1	1.1	8.6	9.2	12.5	7.5	10.6	-31.9	4.3	2.0	9.0	11.0	7.2	0.5	5.0	0.3	4.7
2013	1	3.6	-6.3	4.5	16.0	1.1	7.8	1.9	6.6	12.4	2.6	5.9	10.0	24.3	25.0	2.0	5.1	9.6	6.7	-3.1	6.0	18.1	6.8
	2	2.8	3.4	6.0	14.2	0.9	13.0	4.3	3.6	-3.0	17.9	4.0	7.6	-8.0	23.5	2.1	5.1	8.9	6.0	-2.3	5.5	17.8	6.3
	3	1.9	3.3	10.4	10.3	-6.9	16.3	6.7	-0.4	19.3	8.4	6.8	3.8	-10.5	4.2	2.1	3.5	8.5	4.7	2.0	6.4	17.7	7.2
	4	4.3	14.6	4.9	12.1	15.7	19.9	5.1	1.9	19.1	23.7	7.9	10.1	27.5	-0.2	2.1	3.5	8.4	5.3	3.4	9.1	4.2	8.7
2014	1	3.6	19.7	8.2	17.5	0.7	21.4	10.6	3.4	14.7	17.1	11.2	-2.1	-0.3	12.7	2.1	5.4	8.4	6.1	9.4	8.3	2.4	7.8
	2	4.4	6.4	10.1	-1.4	5.1	37.5	12.3	3.0	9.6	18.4	14.2	4.9	7.2	13.3	2.1	5.4	8.3	6.0	11.6	10.2	4.4	9.8
	3	4.0	5.2	6.3	13.2	12.7	-0.7	12.6	0.2	13.2	12.9	10.1	10.3	-10.6	-17.1	2.2	4.1	8.1	5.0	9.0	5.5	8.8	5.7
	4	0.8	7.6	3.0	8.6	-2.3	5.2	4.6	2.5	11.7	-11.4	8.0	2.5	5.6	17.3	2.2	4.1	7.8	6.0	8.8	3.6	15.1	4.4
2015	1	1.4	0.6	9.9	10.6	7.6	23.2	7.1	-1.0	14.5	12.8	11.5	-0.9	3.3	5.6	2.2	7.4	5.8	5.1	13.0	6.9	1.2	6.5
	2	0.7	11.2	5.2	18.9	-3.9	13.2	10.0	1.0	9.4	11.8	10.1	0.2	11.9	8.3	2.2	7.4	4.9	5.7	4.1	6.2	10.2	6.5
	3	3.3	8.0	2.1	-1.1	0.1	17.6	5.3	6.2	6.7	13.4	12.9	4.2	4.1	4.4	2.2	5.3	4.3	7.1	7.4	6.4	11.6	6.8
	4	5.3	15.7	9.5	-2.5	-2.7	13.8	8.7	2.6	1.4	10.2	12.7	14.4	7.3	0.5	2.3	5.3	3.8	6.1	21.9	7.6	14.8	8.2
2016	1	2.7	6.5	7.4	4.4	-2.5	8.9	6.0	-1.3	7.9	13.3	13.5	23.5	6.0	-2.6	2.3	8.6	5.3	6.3	18.8	6.6	10.6	6.9
	2	2.6	13.4	9.1	5.0	4.3	11.1	4.7	2.5	30.6	11.6	12.4	17.7	5.9	3.2	2.4	8.6	5.7	6.4	28.0	8.2	12.0	8.5
	3	1.9	10.4	4.5	9.5	14.5	20.6	6.1	5.5	10.2	13.8	7.4	-1.8	4.4	8.3	2.4	7.5	5.4	6.9	19.8	6.8	8.5	7.0
	4	0.9	14.8	10.2	15.3	0.6	12.0	9.9	7.6	2.3	13.3	9.7	-7.7	8.9	1.5	2.4	7.5	4.5	7.7	1.8	5.9	1.2	5.6
2017	1	2.6	35.3	7.8	4.4	2.0	8.4	6.8	3.0	4.1	13.8	8.1	-4.2	1.9	1.1	2.3	5.2	6.4	6.4	-1.8	5.8	4.5	5.7
	2	3.7	18.0	9.3	0.2	7.0	8.8	5.4	3.7	19.8	12.3	8.2	-3.4	5.4	5.0	2.3	5.2	8.4	7.0	-5.2	7.1	17.0	7.8

Source: National Bureau of Statistics

Annex 5: Fiscal framework (Percent of GDP)

	2011/12		2012/13		2013/14		2014/15		2015/16		2016/17	2016/17	2017/18
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
Total domestic revenue	12.2	12.7	13.8	12.9	15.6	13.8	13.3	13.0	14.5	14.4	15.8	15.3	16.5
Total expenditure	22.2	18.9	20.9	20.6	22.7	18.9	18.6	17.3	18.7	18.3	21.8	18.4	21.2
Overall deficit before grants	-10.0	-6.2	-7.1	-7.8	-7.0	-5.1	5.3	-4.3	-4.2	-4.0	-5.9	-3.1	-4.6
Grants	4.8	3.3	3.1	2.6	3.2	2.2	1.3	1.2	1.0	0.5	1.3	0.9	0.8
Overall deficit after grants	-5.2	-3.6	-4.0	-5.0	-3.8	-3.4	4.0	-3.3	-3.3	-3.5	-4.6	-2.2	-3.8
Overall primary balance	-5.2	-3.6	-4.0	-5.0	-3.8	-3.4	4.0	-3.3	-3.3	-3.5	-4.6	-1.7	-3.8
Financing	5.2	3.6	4.0	5.0	3.8	3.4	4.3	3.1	-3.3	-3.5	-4.6	1.7	3.8
Foreign (net)	4.2	3.0	5.5	3.9	3.8	3.1	4.3	3.1	1.9	1.5	3.7	1.8	2.8
Domestic (net)	0.7	0.6	-1.4	1.1	0.0	0.3	-0.3	0.2	1.3	2.1	0.9	-0.1	1.0

Source: Ministry of Finance and Planning

Annex 6: Balance of Payments (Percent of GDP, except where noted otherwise)

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
1. CA balance (including transfers)	-8.4	-8.5	-16.6	-9.6	-11.2	-10.0	-8.0	-4.6
Exports of Goods	15.3	18.7	21.2	15.1	11.8	10.8	11.6	11.9
o/w Gold	5.7	6.6	9.2	5.4	3.7	2.7	2.6	3.0
Import of Goods	-27.0	-31.0	-40.8	-26.4	-24.8	-22.6	-21.5	-17.8
Services (net)	0.6	0.7	0.4	1.1	1.6	1.5	1.6	2.9
Trade balance	-11.1	-11.6	-19.2	-10.2	-11.4	-10.4	-8.3	-3.0
Income (net)	-1.4	-1.4	-1.1	-1.5	-1.6	-0.7	-0.8	-2.3
Current transfers (net)	4.1	4.5	3.7	2.1	1.7	1.0	1.0	0.8
2. Capital and financial account	11.2	15.6	16.7	11.9	12.8	7.9	7.3	5.5
Capital account	2.0	2.3	2.5	2.0	1.5	1.1	0.8	0.9
Financial account	9.2	13.3	14.2	9.9	11.3	6.8	6.5	4.7
o/w Direct investment	4.4	7.8	5.1	4.6	4.7	3.0	3.6	2.9
3. Net errors and omission	-1.2	-5.5	-1.0	-1.5	-0.4	1.6	0.3	-0.3
4. Overall balance	1.7	1.6	-0.8	0.8	1.1	-0.5	-0.4	0.6
5. Reserves and related items	-1.7	-1.6	0.8	0.8	1.1	-0.5	-0.4	0.6
Reserves assets	-3.1	-1.7	0.9	0.8	1.4	-0.6	-0.6	0.5
Use of Fund credit and loans	1.4	0.1	0.0	0.0	-0.3	0.1	0.2	0.2
Memo items								
Gross international reserves (Mil USD)	3,552.5	3,948.0	3,744.6	4,068.1	4,689.7	4,377.2	4,093.7	4,325.6
In months of imports (current year)	5.6	5.2	3.7	3.8	4.1	4.7	5.1	5.3

Source: Bank of Tanzania, IMF and World Bank

Annex 7: Monthly Imports of Goods and Services (Million US\$)

	2015												2016												2017					
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Total Imports of Goods and Services	1106	1081	1136	979	1019	1217	1229	1040	970	1004	852	880	980	889	895	894	903	1059	817	926	893	848	845	825	749	717	738	672	756	705
Imports of goods (f.o.b.)	874	858	918	789	813	987	976	786	751	778	644	670	776	705	696	713	739	856	664	767	710	671	688	649	600	566	580	526	599	545
Capital goods	361	381	357	352	346	313	325	297	289	315	239	238	254	230	219	218	214	231	224	267	259	241	245	248	229	225	243	208	222	210
Transport equipment	105	98	108	90	102	106	108	78	71	106	67	57	71	56	65	65	60	61	50	78	87	48	70	87	53	41	44	41	72	51
Building and construction	96	81	91	71	67	62	67	78	76	75	75	69	60	52	44	52	53	45	56	64	61	51	55	49	51	44	62	48	41	43
Machinery	159	203	159	190	176	145	150	141	143	135	97	112	123	121	110	101	101	125	117	125	111	142	119	112	125	141	137	118	109	116
Intermediate goods	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196
Oil imports	212	270	281	172	211	323	290	261	191	204	164	183	248	246	244	243	247	282	170	201	195	187	184	177	139	145	120	101	85	95
Fertilizers	6	2	1	6	9	9	37	11	25	19	11	8	14	12	4	10	3	12	11	14	3	11	15	11	7	13	7	5	9	19
Industrial raw materials	73	66	65	53	49	129	70	46	61	61	54	63	85	69	77	83	89	117	65	76	89	69	57	61	50	56	45	45	63	62
Consumer goods	223	138	214	205	199	213	252	171	185	178	177	178	175	149	151	158	186	213	194	208	164	164	187	152	175	126	164	168	219	158
Food and foodstuffs	63	34	72	62	64	54	20	40	38	31	37	27	42	22	34	32	45	67	42	41	33	27	40	20	40	26	39	42	63	46
All other consumer goods	160	105	142	144	135	158	233	132	147	147	140	151	133	127	118	126	142	146	152	167	131	137	147	133	135	101	125	127	156	113

Imports of services	232	223	218	190	206	230	254	254	219	226	208	210	204	184	199	182	164	203	153	159	182	177	157	176	149	151	158	146	157	161
Transportation	97	95	97	84	94	107	107	88	83	84	68	73	81	72	70	85	73	82	74	83	84	79	81	78	63	65	65	60	66	52
Passenger	13	13	9	8	16	10	14	14	12	10	7	8	6	6	7	5	6	5	6	5	10	10	11	11	10	10	9	9	8	10
Freight	84	82	88	76	78	95	94	73	70	73	60	64	74	66	62	79	67	78	68	78	73	69	70	67	53	54	56	50	57	42
Other	0	0	0	0	0	2	0	0	1	1	1	0	1	0	1	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1
Travel	99	99	86	80	79	93	117	134	100	106	102	100	95	85	78	70	65	74	56	53	68	67	53	69	61	54	69	58	58	62
Communications services	4	2	3	5	5	3	4	6	6	4	6	6	4	3	4	3	3	2	2	3	5	2	1	2	1	2	1	1	1	1
Construction services	4	0	0	0	0	2	0	0	2	2	2	1	1	2	2	2	1	1	2	2	3	2	2	2	2	4	2	3	2	3
Insurance services	4	3	3	3	3	3	6	5	5	6	5	4	1	1	2	2	1	2	2	1	1	3	3	4	2	3	3	3	3	7
Financial services	1	0	0	1	0	0	1	0	1	1	1	0	0	1	1	1	1	0	0	0	1	1	1	2	1	1	1	1	1	1
Computer and information services	2	3	2	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Royalties and license fees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1
Other business services	14	16	20	11	17	14	12	14	16	17	18	21	16	12	37	17	15	33	12	13	11	15	12	13	13	14	13	14	20	27
Personal, cultural, and recreational services	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Government services, n.i.e.	7	4	6	5	6	6	5	6	6	7	4	5	5	7	5	2	5	8	3	3	8	5	3	5	3	5	2	4	5	6

Source: Bank of Tanzania and IMF

Annex 8 Monthly Exports of Goods and Services (Million US\$)

	2015												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Manufactured goods	110	163	95	57	74	128	85	142	82	148	153	127	
Cotton Yarn	0	1	0	1	1	1	1	1	0	2	2	1	
Manufactured Coffee	0	0	0	0	0	0	0	0	0	0	0	0	
Manufactured Tobacco	2	2	2	1	3	3	3	3	2	4	4	3	
Sisal Products	1	3	1	3	1	2	1	1	1	1	1	1	
Other manufactured goods	106	157	92	51	69	122	79	137	78	141	146	122	
Fish and Fish Products	17	16	18	13	15	14	16	11	12	19	11	10	
Horticultural Products	2	3	2	2	2	2	2	2	1	2	2	2	
Other Export Products	46	35	58	48	116	90	62	84	107	43	109	86	
Re-Exports	28	45	30	51	31	37	25	20	26	26	35	33	
Services receipts	305	285	265	244	264	273	287	379	304	276	307	328	
Transportation	82	85	84	82	80	77	89	86	88	81	90	88	
Passenger	3	2	1	1	1	0	3	1	1	1	3	2	
Freight	59	62	61	59	58	56	67	65	66	61	64	65	
Other	20	22	22	22	22	21	19	20	21	18	24	21	
Travel	174	157	137	119	144	159	162	252	178	148	171	204	
Communications services	4	4	6	5	4	3	5	6	5	7	5	5	
Construction services	0	0	0	0	0	0	0	0	0	0	0	0	
Insurance services	4	3	4	4	4	4	4	4	3	2	4	3	
Financial services	1	1	1	1	1	2	1	2	1	2	1	1	
Computer and information services	1	0	0	0	0	1	0	0	1	1	0	0	
Royalties and license fees	0	0	0	0	0	0	0	0	0	0	0	0	
Other business services	35	31	29	29	27	24	24	24	24	29	30	24	
Personal, cultural, and recreational services	1	1	1	1	0	1	0	1	0	1	0	0	
Government services, n.i.e.	3	2	3	3	4	4	1	4	3	4	5	2	
Re-Exports	28	45	30	51	31	37	25	20	26	26	35	33	
Services receipts	305	285	265	244	264	273	287	379	304	276	307	328	
Transportation	82	85	84	82	80	77	89	86	88	81	90	88	
Passenger	3	2	1	1	1	0	3	1	1	1	3	2	
Freight	59	62	61	59	58	56	67	65	66	61	64	65	
Other	20	22	22	22	22	21	19	20	21	18	24	21	
Travel	174	157	137	119	144	159	162	252	178	148	171	204	
Communications services	4	4	6	5	4	3	5	6	5	7	5	5	
Construction services	0	0	0	0	0	0	0	0	0	0	0	0	
Insurance services	4	3	4	4	4	4	4	4	3	2	4	3	
Financial services	1	1	1	1	1	2	1	2	1	2	1	1	
Computer and information services	1	0	0	0	0	1	0	0	1	1	0	0	
Royalties and license fees	0	0	0	0	0	0	0	0	0	0	0	0	
Other business services	35	31	29	29	27	24	24	24	24	29	30	24	
Personal, cultural, and recreational services	1	1	1	1	0	1	0	1	0	1	0	0	
Government services, n.i.e.	3	2	3	3	4	4	1	4	3	4	5	2	

Source: Bank of Tanzania and IMF

2016													2017					
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
	66	162	184	142	97	75	71	61	55	64	56	58	45	96	59	61	80	65
	0	0	2	1	1	0	1	1	1	0	1	2	3	7	0	7	1	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	3	3	4	3	3	3	3	2	0	0	0	0	0	0	0	0	0
	1	2	3	2	2	2	2	2	2	2	3	3	3	2	3	1	3	3
	64	156	176	136	92	70	65	55	50	62	53	54	40	88	55	52	77	62
	12	15	16	13	15	13	9	13	9	7	10	10	20	14	13	13	20	19
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2
	58	99	93	106	94	108	69	79	113	72	62	21	66	55	22	62	54	152
	83	31	56	44	15	25	16	10	10	9	9	173	34	23	11	12	13	41
	302	293	291	260	248	283	279	400	336	351	332	351	277	267	291	256	265	281
	78	79	78	79	75	93	82	103	99	98	96	94	87	90	92	91	89	85
	1	1	1	2	1	2	2	3	3	3	4	4	4	3	4	3	1	2
	56	58	56	56	56	71	59	80	76	75	74	80	73	77	79	78	78	73
	21	20	21	21	18	20	21	20	20	20	19	10	10	10	10	10	10	10
	190	181	172	142	136	156	164	260	201	222	201	224	155	139	136	135	134	158
	5	4	5	5	3	2	2	3	3	2	2	2	2	1	2	1	1	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	2	6	4	3	3	4	4	4	4	4	4	3	3	3	2	3	3
	3	2	3	2	3	1	1	1	1	0	2	2	3	3	2	2	3	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	23	22	26	25	28	27	25	27	24	22	24	24	27	29	52	22	31	30
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	2	3	1	2	1	2	4	2	2	2	1	1	3	1	3	1
	83	31	56	44	15	25	16	10	10	9	9	173	34	23	11	12	13	41
	302	293	291	260	248	283	279	400	336	351	332	351	277	267	291	256	265	281
	78	79	78	79	75	93	82	103	99	98	96	94	87	90	92	91	89	85
	1	1	1	2	1	2	2	3	3	3	4	4	4	3	4	3	1	2
	56	58	56	56	56	71	59	80	76	75	74	80	73	77	79	78	78	73
	21	20	21	21	18	20	21	20	20	20	19	10	10	10	10	10	10	10
	190	181	172	142	136	156	164	260	201	222	201	224	155	139	136	135	134	158
	5	4	5	5	3	2	2	3	3	2	2	2	2	1	2	1	1	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	2	6	4	3	3	4	4	4	4	4	4	3	3	3	2	3	3
	3	2	3	2	3	1	1	1	1	0	2	2	3	3	2	2	3	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	23	22	26	25	28	27	25	27	24	22	24	24	27	29	52	22	31	30
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	2	3	1	2	1	2	4	2	2	2	1	1	3	1	3	1

Annex 9: Inflation Rates

Month	Headline Overall Index	Food & Non Alcoholic Beverages (Exclude Food consumed at Restaurants)	Transport	Housing, Water, Electricity, Gas & Other Fuel	Furnishing, Housing Equipment & Routine Maintenance of House	Clothing & Footwear	Restaurants and Hotels	Miscel. Goods and Services	Alcoholic and Tobacco	Communi- cation & Entertainment	Education	Recreation & Culture	Health
Jan 2015	4.0	4.9	0.0	4.9	1.5	3.1	3.6	5.3	5.4	0.5	1.2	0.6	4.7
Feb 2015	4.2	4.9	-1.4	6.6	1.5	3.4	5.2	5.2	5.4	0.7	2.2	0.7	4.4
Mar 2015	4.3	5.9	-2.4	3.6	1.0	3.7	5.1	4.8	5.4	0.6	2.2	0.3	3.2
Apr 2015	4.5	7.1	-2.3	0.6	0.3	3.6	5.3	1.6	5.3	0.6	3.3	0.3	2.1
May 2015	5.3	8.5	5.0	2.0	0.9	4.1	4.8	1.4	5.2	0.9	3.5	0.9	2.3
Jun 2015	6.1	10.1	-1.3	1.0	0.9	4.5	4.3	1.1	5.9	-0.1	3.3	1.5	1.9
Jul 2015	6.4	10.6	-0.5	0.2	1.6	4.5	5.6	1.6	3.4	-0.2	3.3	1.3	2.8
Aug 2015	6.4	10.2	0.9	0.2	1.9	5.3	5.2	1.8	2.6	-0.4	3.3	1.5	3.0
Sep 2015	6.1	9.6	0.7	1.3	2.2	4.6	3.7	2.5	2.0	0.0	3.3	3.3	2.4
Oct 2015	6.3	10.2	-0.1	1.3	2.0	4.5	3.9	3.0	1.2	0.2	3.3	3.3	2.9
Nov 2015	6.6	11.2	-0.2	-1.7	2.4	4.5	4.4	3.3	1.1	0.2	3.3	3.2	3.3
Dec 2015	6.8	11.1	1.0	-0.3	3.0	4.1	3.9	3.4	1.2	0.4	3.3	3.2	4.0
Jan 2016	6.5	10.7	1.3	1.1	3.5	4.8	4.3	4.0	1.7	0.5	3.4	3.6	4.4
Feb 2016	5.6	9.5	2.0	0.8	3.1	4.5	2.8	3.9	1.8	0.4	3.6	3.3	6.0
Mar 2016	5.4	8.3	2.6	5.5	3.8	4.2	2.8	3.6	2.1	-1.0	2.6	4.1	6.2
Apr 2016	5.1	7.1	2.0	7.0	4.9	4.3	4.8	3.9	4.1	-1.0	2.6	4.1	6.4
May 2016	5.2	7.0	1.6	8.8	4.4	4.5	4.9	3.9	4.9	-0.6	2.7	3.9	6.6
Jun 2016	5.5	8.1	1.3	7.6	4.2	4.6	5.3	3.7	4.9	-0.6	2.7	3.4	6.8
Jul 2016	5.1	7.6	0.4	7.4	3.4	4.2	4.3	4.0	5.5	-0.4	2.8	3.3	6.0
Aug 2016	4.9	6.9	-0.4	6.8	3.6	3.7	5.2	3.9	5.2	-0.2	3.0	3.5	5.9
Sep 2016	4.5	6.0	-0.8	6.5	3.5	4.2	5.2	3.3	5.3	-0.4	2.9	1.2	6.0
Oct 2016	4.5	6.0	0.1	7.2	3.6	3.8	4.3	3.2	5.3	-0.7	2.9	1.5	5.8
Nov 2016	4.8	6.2	0.7	10.9	4.3	3.9	4.4	3.1	5.6	-0.6	2.9	1.8	5.5
Dec 2016	5.0	7.0	0.3	9.9	4.0	3.7	4.2	2.9	5.1	-0.9	2.6	1.8	4.7
Jan 2017	5.2	7.6	0.6	9.5	3.3	3.4	3.9	2.3	5.0	-0.9	1.8	0.7	4.8
Feb 2017	5.5	8.7	0.6	8.7	3.8	3.2	3.9	1.9	5.2	-1.5	0.8	1.4	3.3
Mar 2017	6.4	11.0	1.6	6.8	3.9	3.4	3.6	3.6	5.2	-0.1	0.8	1.2	3.0
Apr 2017	6.4	11.8	1.9	5.8	3.1	3.9	0.8	4.3	3.5	-0.5	0.8	1.3	2.5
May 2017	6.1	11.6	1.3	4.6	3.2	3.7	0.9	4.0	3.0	-0.8	0.7	1.2	2.9
Jun 2017	5.4	9.6	0.4	7.1	3.2	3.8	0.7	3.7	3.0	-1.0	0.8	0.8	2.2
Jul 2017	5.2	8.9	0.1	7.1	3.3	3.8	0.8	4.0	2.4	-1.0	0.9	1.0	2.4
Aug 2017	5.0	8.6	-0.6	8.9	2.7	3.4	-0.3	3.7	2.5	-1.1	0.8	1.3	2.0
Sep 2017	5.3	9.3	-0.3	8.8	2.6	3.4	-0.3	3.4	2.5	-1.0	0.8	1.9	1.9

Source: National Bureau of Statistics

Annex 10: Food Crops Prices (Regional Averages, TZS per 100Kg.)

Month Year	Maize			Rice			Wheat			Beans			Sorghum		
	Arusha	Dares Salaam	Mbeya	Arusha	Dares Salaam	Mbeya	Arusha	Dares Salaam	Mbeya	Arusha	Dares Salaam	Mbeya	Arusha	Dares Salaam	Mbeya
Jan 2014	50,250	54,792	44,625	130,000	143,958	114,167	80,688	108,750	105,000	132,625	156,458	132,708	62,333	69,167	-
Feb 2014	50,773	53,864	45,364	127,727	128,182	114,318	79,318	109,091	107,000	139,545	157,727	135,000	60,773	70,364	-
Mar 2014	49,750	57,750	47,458	130,000	148,042	128,750	78,667	98,542	110,000	146,875	167,708	135,000	56,417	70,364	-
Apr 2014	50,400	56,000	41,850	130,000	143,625	139,000	77,900	115,625	113,500	136,500	164,250	135,100	57,000	72,375	-
May 2014	53,654	57,789	39,923	133,846	146,931	139,038	82,500	130,673	115,000	144,615	171,298	134,654	59,462	72,572	-
Jun 2014	49,192	54,692	44,077	129,231	134,923	121,731	81,423	129,808	111,923	132,500	174,872	132,500	54,808	73,395	-
Jul 2014	45,227	49,700	40,364	135,000	131,492	117,591	77,318	123,045	106,591	127,955	157,007	125,000	52,227	68,583	-
Aug 2014	40,458	42,398	34,958	127,083	123,750	107,292	73,375	121,389	97,500	127,917	146,250	115,000	52,500	66,181	-
Sep 2014	38,577	34,212	36,615	128,846	123,173	104,423	75,577	120,193	102,308	137,885	159,423	116,538	54,346	66,539	-
Oct 2014	36,250	35,107	39,714	131,071	131,126	116,786	78,036	118,956	111,429	136,786	165,119	118,571	54,893	66,742	-
Nov 2014	35,125	37,334	34,375	140,000	145,729	128,750	76,792	121,875	112,500	152,083	168,646	123,125	50,667	66,771	-
Dec 2014	35,712	39,452	33,538	143,846	151,538	134,731	76,923	122,116	115,000	149,423	165,866	123,462	46,808	59,308	-
Jan 2015	36,521	36,136	32,727	150,625	155,682	126,818	77,500	130,000	115,000	162,083	167,500	127,273	53,792	57,273	-
Feb 2015	35,500	37,444	32,625	150,000	162,778	139,375	77,000	146,111	115,000	161,250	178,333	161,250	49,250	58,889	-
Mar 2015	40,167	41,850	32,000	156,250	179,500	143,333	83,833	140,750	115,000	151,458	181,250	122,500	47,958	59,500	-
Apr 2015	52,909	52,636	39,955	159,455	180,909	154,182	83,955	122,727	115,000	157,955	174,818	122,500	50,955	64,545	-
May 2015	52,563	51,333	44,667	175,000	178,333	141,667	78,875	120,417	117,083	171,875	188,333	122,500	53,750	68,958	-
Jun 2015	55,083	53,813	44,667	171,667	170,000	139,833	78,833	110,000	127,500	174,167	205,625	122,500	55,333	80,000	-
Jul 2015	58,964	58,730	42,238	169,345	175,411	134,792	77,500	120,833	101,539	138,897	175,411	117,024	59,940	76,486	-
Aug 2015	71,455	59,115	46,676	159,470	166,563	136,167	77,848	117,090	97,611	130,540	175,000	113,259	69,500	75,146	-
Sep 2015	67,402	58,872	49,667	162,803	162,969	133,954	77,273	113,250	98,796	136,800	171,042	127,500	75,515	67,663	-
Oct 2015	60,883	62,457	51,100	170,333	170,313	149,200	77,389	111,200	97,500	145,063	164,563	133,500	78,944	80,825	-
Nov 2015	66,731	67,325	57,208	182,212	183,194	151,125	77,500	118,120	102,500	170,128	186,768	142,500	80,000	73,029	-
Dec 2015	69,600	65,027	61,091	174,000	190,581	161,909	77,861	121,364	104,773	161,000	194,773	142,500	78,500	76,742	-
Jan 2016	70,515	64,942	68,000	158,859	193,322	162,500	83,364	129,195	116,818	168,208	201,097	143,182	83,542	88,276	-
Feb 2016	66,269	66,122	64,455	183,942	194,093	162,500	78,917	134,880	122,273	145,756	194,802	145,000	71,109	106,756	-
Mar 2016	59,908	64,428	60,400	185,250	191,493	171,000	75,967	124,484	125,000	131,617	183,556	157,000	74,733	109,673	-
Apr 2016	54,612	63,417	53,875	168,846	187,139	163,333	73,000	120,833	131,875	124,833	177,618	152,500	68,038	117,167	-
May 2016	47,955	58,881	53,400	161,515	173,144	154,250	88,894	109,630	119,500	131,970	176,486	137,500	63,773	111,074	-
Jun 2016	50,972	59,974	50,923	158,194	162,884	136,346	77,806	115,019	110,385	122,472	177,866	135,192	68,042	99,103	80,000
Jul 2016	52,188	60,000	48,708	163,146	164,730	135,375	77,667	119,286	113,750	133,035	178,585	135,000	62,542	99,405	-
Aug 2016	49,625	58,840	49,038	164,167	163,770	138,846	75,104	117,708	110,000	137,660	185,470	135,000	55,389	95,833	-
Sep 2016	51,514	59,702	49,833	160,451	161,635	136,250	74,986	116,667	114,792	151,354	179,110	135,000	71,264	96,167	-
Oct 2016	59,674	65,310	53,364	159,410	163,929	140,000	77,625	119,643	116,818	153,299	188,095	135,000	69,208	102,500	-
Nov 2016	67,389	74,566	59,583	162,708	162,866	140,000	77,764	114,848	117,500	152,882	188,923	135,000	65,215	101,852	-
Dec 2016	77,381	92,193	62,800	156,845	163,115	140,000	77,500	115,167	118,500	155,952	188,079	136,400	65,262	99,071	-
Jan 2017	97,833	98,298	79,031	165,000	172,443	146,500	76,667	117,413	116,241	176,875	194,732	140,583	73,500	106,424	-
Feb 2017	118,286	104,402	95,263	173,155	181,770	153,000	75,834	119,660	113,981	197,798	201,385	144,767	81,738	113,777	-
Mar 2017	99,136	107,325	90,769	162,955	188,293	174,885	80,200	124,741	118,800	186,250	207,774	162,692	81,750	125,833	-
Apr 2017	117,500	124,854	84,542	195,000	185,868	179,375	77,500	136,111	117,188	213,333	209,826	156,800	87,500	142,458	-
May 2017	93,833	103,190	81,556	182,000	191,025	178,889	78,500	138,182	118,958	165,500	203,121	155,000	78,083	137,587	-
Jun 2017	89,125	82,530	75,583	178,269	183,198	170,000	76,458	126,573	107,179	168,056	200,042	154,042	78,250	139,042	-
Jul 2017	62,500	73,429	72,214	188,333	183,750	174,286	72,167	118,643	105,833	158,333	205,357	155,286	74,167	122,500	-
Aug 2017	52,286	52,880	66,313	183,571	177,220	157,100	64,500	124,065	98,611	162,500	197,494	154,444	66,333	98,042	-
Sep 2017	54,100	53,491	64,000	180,111	182,180	181,375	68,450	129,583	133,333	161,071	200,835	181,464	57,389	98,393	-

Source: Ministry of Industry, Trade, and Marketing

Annex 11: Interest Rates Structure (Percent)

Item (Percent)	2015												2016												2017											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul					
A: Domestic Currency																																				
1. Interbank Cash Market Rates																																				
Overnight	10.1	6.9	6.4	9.7	6.1	18.0	30.0	9.8	6.3	12.3	10.5	7.1	11.9	13.3	10.1	11.1	12.3	12.8	14.4	16.3	16.2	15.5	13.2	13.7	10.1	7.9	7.4	7.2	6.8	4.1	4.4					
2 to 7 days	10.7	7.6	6.4	8.9	7.1	21.1	29.4	9.8	7.3	12.8	12.1	14.4	12.5	13.4	11.1	11.6	12.6	13.2	14.6	16.5	16.5	15.9	13.5	13.2	11.7	9.3	8.7	7.0	7.5	5.7	5.1					
8 to 14 days	9.8	5.4	7.7	9.4	7.9	23.3	33.6	14.7	9.1	9.1	12.4	12.4	15.0	13.7	11.1	6.8	12.5	12.6	15.0	16.7	16.5	15.0	13.5	13.6	10.6	9.3	10.6	10.1	7.0	5.6	5.8					
15 to 30 days	14.5	8.1	4.3	10.3	10.3	30.0	18.5	18.5	18.5	18.5	18.5	18.5	12.2	18.0	11.5	11.5	11.5	10.5	13.0	14.6	14.5	16.3	16.3	13.0	12.0	9.8	10.0	11.0	9.8	6.1	6.2					
31 to 60 days	10.0	9.5	9.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	16.0	16.0	16.0	16.5	16.5	12.9	12.5	12.5	9.0	9.0	9.0	9.0	9.0					
61 to 90 days	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	14.6	14.6	14.6	15.8	16.8	16.8	16.8	16.8					
91 to 180 days	14.0	25.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0					
181 and above	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9					
Overall Interbank cash market rate	10.3	7.1	6.4	9.5	6.4	18.7	29.7	9.8	6.6	12.4	10.7	7.3	12.0	13.3	10.4	11.2	12.3	12.8	14.5	16.4	16.2	15.6	13.4	13.5	10.5	8.7	8.2	7.4	7.2	4.9	4.9					
2. Lombard Rate	12.2	9.0	7.7	11.7	9.1	27.0	45.0	17.7	10.6	18.5	15.7	11.1	17.8	19.9	15.2	16.6	18.4	19.1	21.6	24.5	24.2	23.3	19.9	20.5	15.1	11.9	11.1	10.8	10.2	8.0	7.2					
3. REPO Rate	4.2	4.2	4.2	6.0	6.0	6.0	22.4	11.8	6.1	6.1	6.3	5.4	5.4	5.4	5.4	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	6.9	6.9	6.9	3.8	2.9	2.2	2.2					
4. Treasury Bills Rates																																				
35 days	8.1	7.5	2.7	2.4	2.6	5.5	6.3	6.8	7.1	7.4	7.4	7.4	7.4	7.4	7.4	7.3	7.4	7.3	7.4	7.3	7.3	7.3	7.0	6.8	6.8	6.5	6.5	6.8	6.5	5.4	4.8					
91 days	13.9	9.9	7.1	6.9	7.3	7.4	8.0	8.1	8.3	9.5	10.0	9.3	9.0	8.8	8.6	8.2	8.0	7.3	7.6	7.5	7.5	7.5	7.3	7.1	7.1	7.1	7.2	7.1	6.8	5.5	4.9					
182 days	14.4	12.4	9.1	9.8	10.7	11.5	12.9	13.6	13.8	14.8	16.5	17.2	17.7	17.8	17.1	15.8	14.9	15.1	15.7	15.7	15.5	14.9	14.5	14.5	14.5	14.3	13.8	13.0	10.0	7.1	8.5					
364 days	14.6	12.7	10.0	10.3	11.4	12.8	13.9	14.5	14.5	15.5	18.3	18.7	18.8	19.0	17.8	16.6	15.5	15.4	15.9	15.9	15.9	16.2	15.9	15.8	15.8	15.5	15.1	14.0	11.0	8.7	9.8					
Overall Treasury bills rate	14.4	12.5	9.0	9.1	10.6	10.0	11.2	13.8	13.9	14.4	17.8	18.3	18.6	18.5	17.4	16.2	15.1	15.0	15.8	15.8	15.7	15.7	15.3	15.1	15.3	15.0	14.5	13.5	10.4	7.6	9.1					
5. Treasury Bonds Rates																																				
2-years	15.3	15.3	12.3	12.3	14.0	14.0	14.0	15.0	15.0	16.8	16.8	16.8	17.3	17.3	17.5	17.5	17.3	17.3	17.3	17.4	17.4	17.7	17.7	17.7	17.7	17.7	17.6	17.6	16.2	16.2	12.5					
5-years	16.0	15.3	15.3	11.4	11.4	11.4	16.5	16.5	16.9	16.9	16.9	17.5	17.5	18.8	18.8	17.1	17.1	17.1	17.8	17.8	17.9	17.9	18.0	18.0	18.0	18.0	17.7	17.7	17.9	17.9	13.1					
7-years	16.3	16.3	16.3	15.6	15.6	16.6	16.6	16.6	16.9	16.9	17.6	17.6	16.2	16.2	18.2	18.2	18.2	17.5	17.5	17.9	17.9	17.9	18.3	18.3	18.4	18.4	18.4	18.4	16.5	16.5	16.5					
10-years	16.5	16.9	16.9	16.7	16.7	17.0	17.0	17.0	17.6	17.6	18.1	17.6	17.6	18.8	18.8	18.9	18.9	18.0	18.0	18.0	17.6	17.6	17.6	17.6	18.6	18.6	18.6	18.6	14.8	14.8	14.8					
15-years	17.9	17.9	17.5	17.5	17.5	17.5	17.5	17.5	18.0	18.0	18.0	18.0	18.0	18.0	19.8	19.8	18.8	18.8	18.9	18.9	18.9	18.9	18.9	18.7	18.7	18.8	18.8	18.9	18.9	16.2	16.2					
6. Discount Rate or Bank Rate	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	12.0	12.0	12.0	12.0	12.0					
7. Savings Deposit Rate	3.2	3.5	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.1

8. Overall Time Deposits Rate	9.0	7.6	9.3	8.1	8.7	9.0	9.2	9.1	9.1	9.2	9.2	9.3	9.1	9.1	8.6	9.0	9.9	10.2	10.0	8.8	9.0	9.2	8.6	8.8	9.0	10.3	10.9	10.3	10.1	10.3	10.6
1 month	9.6	6.6	10.8	9.5	9.2	10.1	10.5	10.2	9.8	10.1	10.1	10.2	10.4	10.0	10.5	10.9	11.5	10.6	11.3	10.3	9.8	10.0	7.7	7.8	9.6	12.1	11.1	11.5	12.0	11.1	11.2
2 months	9.5	7.0	10.1	7.4	9.8	9.3	10.5	10.5	10.8	10.7	10.6	10.4	10.0	10.3	7.5	8.6	10.7	11.6	11.2	10.2	9.3	10.4	9.7	9.1	9.9	11.6	12.8	12.4	11.5	11.1	11.8
3 months	10.8	8.7	10.9	8.4	9.4	9.7	10.2	9.9	9.7	10.6	10.4	10.2	9.8	11.1	10.2	9.9	10.7	11.0	10.6	9.5	11.0	10.4	10.2	11.4	11.4	10.8	12.4	11.4	11.4	12.0	11.3
6 months	10.6	10.5	10.5	9.8	10.1	10.6	10.2	9.8	9.9	9.6	10.0	10.3	10.1	9.8	9.8	9.6	10.6	10.7	9.7	9.2	10.0	10.5	10.1	10.0	9.6	10.1	11.6	11.6	11.1	11.5	11.5
12 months	10.8	10.7	11.0	10.5	10.7	10.9	10.5	10.6	11.0	10.9	11.0	11.2	11.0	11.0	11.3	11.6	11.8	12.4	12.4	11.5	11.5	11.4	10.9	11.0	10.8	12.1	12.0	12.1	12.0	12.1	11.9
24 months	9.0	6.5	8.7	8.4	9.3	9.4	9.7	9.9	9.8	9.9	9.7	9.9	9.4	9.2	8.6	9.6	11.6	12.7	12.0	8.1	8.6	8.8	8.3	9.4	8.8	12.2	13.0	9.8	9.8	11.0	12.8
9. Negotiated Deposit Rate	10.0	9.7	9.4	9.5	9.4	8.6	11.3	11.4	11.7	10.9	10.4	11.2	11.3	11.2	11.0	10.9	11.4	11.2	11.9	11.8	12.0	11.7	12.0	11.3	10.9	12.0	12.8	12.6	12.8	12.6	12.5
10. Overall Lending rate	15.7	16.1	16.1	16.2	16.1	16.1	16.1	16.1	16.2	16.1	16.1	16.4	16.3	16.4	16.3	16.3	16.0	16.0	15.8	15.8	15.8	15.7	15.7	15.7	16.0	17.7	17.4	17.9	17.6	17.4	17.6
Short-term (up to 1 year)	14.2	14.4	14.3	13.7	14.3	14.7	14.3	14.4	14.3	14.1	14.1	14.2	14.3	14.2	14.6	14.0	14.2	13.7	13.3	13.4	13.2	13.4	12.8	12.9	14.2	18.4	18.1	17.7	19.1	18.2	18.9
Medium-term (1-2 years)	16.3	16.8	16.3	16.3	16.8	16.6	16.9	17.2	17.2	17.2	17.3	17.7	17.8	17.8	17.6	17.6	16.1	17.1	16.6	16.6	16.9	16.5	16.4	16.7	16.7	18.5	18.5	19.1	19.0	18.9	18.9
Medium-term (2-3 years)	15.3	16.9	16.9	17.3	16.5	16.5	16.5	16.4	16.6	16.5	16.6	16.5	16.5	16.5	16.0	15.9	16.3	16.1	15.9	15.9	15.7	15.9	15.7	16.2	16.0	17.9	17.3	19.0	17.4	17.0	17.2
Long-term (3-5 years)	15.3	15.0	15.5	15.9	15.4	15.1	15.5	15.4	15.2	15.1	15.1	15.9	15.8	15.7	15.6	15.7	15.7	15.6	15.6	15.7	15.8	15.4	15.6	15.2	15.4	17.7	17.2	18.9	17.6	17.5	17.8
Term Loans (over 5 years)	17.3	17.6	17.6	18.0	17.4	17.5	17.2	17.3	17.7	17.5	17.7	17.7	17.1	17.9	17.7	17.5	17.5	17.6	17.4	17.5	17.5	17.6	17.8	17.4	17.7	15.7	15.7	15.5	14.9	15.3	15.4
11. Negotiated Lending Rate	12.6	12.3	12.0	12.5	12.7	12.3	12.9	11.8	13.8	13.8	13.7	14.4	12.2	12.0	11.3	12.2	11.8	12.1	12.0	11.9	12.3	12.3	13.1	12.5	13.4	17.1	17.3	15.3	16.9	17.3	17.3

B: Foreign Currency

Savings Deposits Rate	0.8	1.0	1.0	0.9	1.2	1.2	0.7	2.0	1.8	1.1	0.9	0.8	1.0	1.2	1.0	1.8	1.6	1.6	1.4	1.4	1.4	1.4	1.5	1.7	1.3	1.0	0.8	0.7	0.8	0.3	0.3
Overall Time Deposits Rate	3.5	3.6	3.7	3.5	3.3	3.3	2.7	2.9	3.0	2.6	2.7	2.8	2.5	2.7	3.3	2.7	2.8	2.3	2.7	2.3	2.5	2.4	2.5	2.9	2.1	4.0	3.4	3.7	3.1	4.0	3.7
1-months	3.2	3.3	3.7	3.6	4.2	4.2	2.5	2.9	3.4	2.2	2.4	2.6	1.7	2.7	2.9	2.4	2.9	3.0	1.8	1.7	2.1	2.6	2.8	3.1	2.2	3.5	2.7	3.3	3.6	3.2	4.1
2-months	3.2	3.7	3.7	3.1	3.8	3.8	2.7	2.6	2.6	2.4	2.7	2.5	2.5	2.8	3.4	2.8	3.4	2.3	3.5	2.2	3.1	2.9	2.8	3.4	1.8	4.5	3.3	4.3	2.7	4.9	3.6
3-months	3.5	3.5	2.9	3.7	2.6	2.6	2.5	2.9	3.2	2.7	2.8	2.6	2.7	2.3	3.3	2.9	3.3	1.7	2.6	3.1	2.9	2.7	3.0	3.9	2.1	3.6	3.2	3.6	0.7	4.3	3.6
6-months	3.4	4.1	4.2	3.6	2.9	2.9	2.6	3.1	2.9	2.7	2.8	3.0	2.8	2.8	3.5	2.5	2.6	2.3	2.7	2.8	2.5	2.2	2.2	1.7	2.1	4.5	3.2	4.1	4.8	4.0	3.7
12-months	4.4	3.4	4.0	3.3	2.9	2.9	3.0	3.1	2.8	3.1	3.1	3.4	2.9	3.1	3.3	3.0	1.8	2.2	3.0	1.8	1.7	1.7	1.8	2.5	2.2	3.7	4.4	3.4	3.7	3.7	3.7
Overall Lending Rate	6.1	6.0	5.8	5.5	5.4	5.4	6.6	5.8	5.4	5.9	6.4	6.7	6.5	6.8	4.8	6.8	6.9	6.9	7.4	7.4	7.4	7.4	7.5	7.1	7.3	8.5	8.6	8.5	8.3	8.5	8.4
Short-term (up to 1 year)	3.5	3.4	3.2	3.1	2.8	2.8	4.7	4.0	3.2	3.3	3.2	4.2	3.2	4.2	4.2	3.1	5.1	5.0	5.4	5.4	5.3	5.4	6.2	4.5	6.0	9.3	9.3	8.7	9.3	9.3	9.5
Medium-term (1-2 years)	6.6	6.6	6.6	6.0	6.1	6.1	8.2	7.5	6.2	6.0	7.5	7.7	7.7	7.7	7.3	8.7	7.7	7.8	7.9	8.0	7.8	7.8	7.8	7.9	7.6	7.9	8.2	7.7	7.8	7.8	8.2
Medium-term (2-3 years)	7.8	7.6	6.1	6.1	6.1	6.2	7.3	8.4	7.6	8.2	8.1	8.1	8.1	8.1	7.4	3.5	7.2	7.4	8.1	8.1	8.1	8.1	7.5	7.4	7.3	8.3	8.6	8.3	8.4	8.9	8.3
Long-term (3-5 years)	6.3	6.3	6.1	6.2	7.0	7.1	8.0	4.1	5.1	7.0	7.0	7.6	7.5	8.1	5.7	7.0	6.6	6.6	6.8	6.7	6.8	6.8	7.0	6.7	6.7	8.3	8.3	8.4	8.2	8.2	8.2
Term Loans (over 5 years)	6.1	6.1	7.1	6.2	5.1	5.1	5.1	5.1	5.1	5.1	6.1	6.1	6.1	6.1	6.5	3.2	7.8	7.4	7.5	8.9	8.8	8.9	9.0	8.9	8.9	8.8	8.8	8.9	7.8	8.3	7.7

Source: Bank of Tanzania

Annex 12: Food Crops Prices (National Averages, TZS per 100Kg.)

Month-Year	Beans	Maize	Rice	Round Potatoes	Sorghum
Jan-14	137,264.5	56,152.2	124,104.1	72,145.3	75,424.5
Feb-14	137,264.5	56,152.2	124,104.1	72,145.3	75,424.5
Mar-14	141,476.6	50,631.8	128,952.7	69,177.7	70,264.0
Apr-14	138,796.2	49,970.1	135,418.1	67,985.9	68,285.4
May-14	141,766.7	48,110.6	134,265.6	69,550.7	74,421.2
Jun-14	139,048.5	48,098.8	123,059.6	62,664.0	69,972.3
Jul-14	130,471.5	44,931.7	116,644.3	63,838.5	64,965.8
Aug-14	130,655.8	41,414.1	113,291.4	68,420.5	55,512.1
Sep-14	133,969.9	40,551.8	115,674.8	67,112.0	56,082.5
Oct-14	142,283.3	39,020.0	123,561.7	68,639.3	62,631.2
Nov-14	146,785.5	38,189.5	135,062.1	69,846.3	58,266.1
Dec-14	148,541.0	38,781.3	141,923.1	73,360.5	66,382.6
Jan-15	153,210.0	37,929.0	144,929.0	73,316.0	63,886.0
Feb-15	150,431.0	37,205.0	149,765.0	69,975.0	62,227.0
Mar-15	149,534.0	39,940.0	161,422.0	68,249.0	63,548.0
Apr-15	151,733.2	48,628.0	166,901.5	71,221.0	65,778.7
May-15	156,789.3	47,163.3	162,701.7	77,508.5	69,222.2
Jun-15	163,722.7	47,428.9	155,359.9	77,753.4	69,381.4
Jul-15	158,313.3	52,153.8	153,401.8	71,723.0	67,396.6
Aug-15	158,477.3	56,310.0	158,170.5	73,095.8	78,477.5
Sep-15	158,241.3	56,839.9	161,727.1	70,011.2	69,547.8
Oct-15	164,536.8	58,009.3	170,588.5	79,483.4	76,586.1
Nov-15	174,852.7	63,403.9	176,644.3	87,658.8	73,399.1
Dec-15	172,852.5	65,103.5	176,237.1	82,790.7	81,638.1
Jan-16	173,501.3	67,044.9	178,803.4	78,980.5	85,906.5
Feb-16	171,919.0	67,316.0	184,137.0	77,635.0	92,338.0
Mar-16	158,487.4	64,206.9	178,886.3	77,352.7	91,720.6
Apr-16	151,563.0	57,944.7	174,746.3	86,147.2	90,966.1
May-16	150,429.7	54,992.3	158,951.0	91,921.1	93,853.6
Jun-16	149,124.8	53,987.4	148,128.8	89,686.5	97,810.8
Jul-16	149,624.0	55,803.0	144,652.1	84,006.7	89,777.2
Aug-16	149,699.1	55,855.5	139,595.8	82,074.3	89,885.7
Sep-16	151,356.5	56,984.0	138,550.5	77,548.2	84,896.4
Oct-16	164,655.8	64,054.5	145,466.1	81,764.0	96,777.5
Nov-16	169,725.8	72,620.2	147,787.4	81,385.9	102,690.8
Dec-16	171,742.9	85,159.8	152,274.2	79,426.4	104,545.1
Jan-17	175,602.4	93,356.3	162,745.3	83,467.5	94,899.7
Feb-17	179,461.8	101,552.9	173,216.4	87,508.7	85,254.4
Mar-17	180,705.0	103,143.0	171,760.0	78,960.0	117,288.0
Apr-17	182,930.0	106,077.0	177,932.0	81,556.0	133,440.0
May-17	176,695.0	94,915.0	177,830.0	84,572.0	123,913.0
Jun-17	171,701.0	81,938.0	175,283.0	82,145.0	117,939.0
Jul-17	165,057.0	69,693.0	170,895.0	77,478.0	101,856.0
Aug-17	168,027.0	57,629.0	170,855.0	70,653.0	95,879.0
Sep-17	172,795.0	56,401.0	179,845.0	68,494.0	88,864.0

Source: Ministry of Industry, Trade, and Marketing

Annex 13: National Debt Developments (Million US\$)

USD mn		2016/17												2015/16		
Item		July	Aug	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July
1. Overall Total Debt Committed/2	Disbursed outstanding debt	20,624.9	20,633.6	23,780.7	24,501.9	24,480.2	24,360.8	24,230.1	24,007.7	24,884.3	24,875.7	25,375.1	25,518.3	25,628.6	26,153.2	26,340.2
	Undisbursed debt	6,678.9	6,620.0	7,681.1	8,273.8	8,255.3	8,284.9	8,197.8	8,029.6	8,773.3	8,684.8	9,021.2	9,026.8	8,992.6	8,941.7	8,871.7
	2. Disbursed Debt by Creditor Category/2	13,946.0	14,013.6	16,099.5	16,228.0	16,225.0	16,075.9	16,032.3	15,978.1	16,111.1	16,190.9	16,354.0	16,491.5	16,636.0	17,211.5	17,468.5
Bilateral debt		927.2	929.5	1,109.8	1,119.1	1,127.3	1,106.5	1,076.0	1,104.5	1,113.5	1,121.4	1,142.3	1,142.2	1,146.2	1,147.3	1,159.1
	Multilateral debt	7,134.0	7,153.6	8,090.6	8,193.3	8,258.6	8,141.5	8,101.1	8,056.4	8,071.5	8,150.9	8,320.0	8,468.3	8,578.3	8,700.8	8,909.0
	Commercial debt	4,841.2	4,863.2	5,449.4	5,460.3	5,382.1	5,373.1	5,403.8	5,358.8	5,419.3	5,410.8	5,378.5	5,379.9	5,412.0	5,859.3	5,890.2
Export credits	1,043.6	1,067.3	1,449.9	1,455.3	1,456.9	1,454.8	1,454.8	1,451.4	1,458.3	1,506.8	1,507.8	1,513.2	1,501.1	1,499.6	1,504.2	1,510.2
3. Disbursed Debt by Borrower Category/2		13,946.0	14,013.6	16,099.5	16,228.0	16,225.0	16,075.9	16,032.3	15,978.1	16,111.1	16,190.9	16,354.0	16,491.5	16,636.0	17,211.5	17,468.5
Central Government		11,461.1	11,501.8	12,981.4	13,086.1	13,071.1	12,918.0	12,851.5	12,812.7	12,911.7	13,010.9	13,163.1	13,211.0	13,330.9	13,887.6	14,143.8
Parastatal Companies		463.5	431.7	334.1	341.2	341.6	345.7	341.1	312.7	293.5	271.0	275.3	276.3	278.4	278.4	278.4
Private Sector		2,021.4	2,080.1	2,784.1	2,800.7	2,812.3	2,812.2	2,839.7	2,852.8	2,905.9	2,909.0	2,915.6	3,004.2	3,026.7	3,045.5	3,046.2
4. Disbursed Debt by Use of Funds/2		2,267.5	2,278.0	16,099.5	16,228.0	16,225.0	16,075.9	16,032.3	15,978.1	16,111.1	16,190.9	16,354.0	16,491.5	16,636.0	17,211.5	17,468.5
BOP & Budget Support		3,213.6	3,222.6	2,721.7	2,665.9	2,680.1	2,669.1	2,615.8	2,441.0	2,456.4	2,458.9	2,466.1	2,502.7	2,516.1	2,914.2	2,962.5
Transport & Telecommunication		575.0	577.3	3,622.2	3,669.4	3,669.0	3,651.5	3,614.5	3,657.6	3,820.8	3,810.4	3,868.7	3,890.6	3,890.5	3,918.9	3,957.2
Agriculture		2,226.9	2,236.2	618.7	621.1	621.8	619.0	607.2	1,037.3	1,075.7	1,079.8	1,093.4	1,097.1	1,099.3	1,126.8	1,177.4
Energy & Mining		329.4	333.4	2,708.2	2,770.2	3,546.7	3,548.2	3,508.1	2,640.4	2,696.4	2,694.4	2,719.3	2,773.2	2,770.9	2,804.6	2,863.8
Industries		2,143.9	2,153.3	407.1	409.6	403.4	402.0	395.7	400.1	410.7	435.0	440.1	438.1	435.7	438.0	444.4
Social Welfare & Education		605.8	615.6	2,322.4	2,300.0	1,568.8	1,561.4	1,716.4	2,263.9	2,326.1	2,397.0	2,419.9	2,449.6	2,476.7	2,530.1	2,576.5
Finance and Insurance		92.8	94.0	771.0	793.0	762.3	759.4	745.4	739.3	749.2	752.0	758.8	787.9	881.5	901.4	903.0
Tourism		536.6	539.6	44.8	48.2	54.1	53.8	52.9	64.7	70.8	68.1	68.8	67.6	67.5	67.8	67.4
Others		2,491.1	2,503.2	2,883.3	2,950.6	2,918.7	2,811.5	2,776.3	2,733.9	2,505.0	2,495.3	2,518.9	2,484.9	2,497.7	2,509.6	2,516.4
5. Total Amount of Loan Contracted/1		14.8	2.0	6.7	126.2	4.9	25.1	146.4	22.8	35.5	2.4	259.7	116.6	10.7	406.0	0.5
Government		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Parastatal Companies		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Private		14.8	2.0	6.7	126.2	4.9	25.1	146.4	22.8	35.5	2.4	259.7	116.6	10.7	6.0	0.5
6. Disbursements/1		43.9	55.1	92.1	115.9	73.5	37.8	154.5	150.5	25.7	88.9	223.2	129.0	81.7	553.6	125.8
Government		40.6	47.5	55.2	83.1	51.8	18.3	122.5	130.9	19.5	84.7	205.0	30.1	62.4	534.6	124.1
Parastatal Companies		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Private		3.3	7.6	36.9	32.8	21.7	19.5	32.0	19.6	6.2	4.2	18.2	98.9	19.3	19.0	0.7
7. Actual Debt Service/1		22.5	18.4	59.5	32.9	156.0	42.4	14.7	129.0	39.5	32.6	153.9	106.6	32.0	55.3	1.0
Principal		4.7	13.5	41.1	21.4	100.2	31.7	8.8	104.6	11.8	27.0	102.1	25.5	26.1	44.5	0.0
Interest		17.8	4.9	18.4	11.5	55.8	10.7	5.9	24.4	27.7	5.6	51.8	81.1	5.9	10.8	0.0
Others		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
8. Net Transfers/1		21.4	36.7	32.6	83.0	-82.4	-4.7	139.9	21.5	-13.8	56.3	69.4	22.5	49.7	498.3	124.8
9. Total Arrears by Creditors Category/2		3,142.7	3,068.3	2,519.3	2,524.5	2,498.4	2,503.6	2,511.1	2,748.3	2,871.6	2,855.8	2,974.3	3,046.5	2,987.8	3,142.9	2,461.6
Principal		1,814.4	1,719.5	1,236.0	1,233.2	1,189.7	1,191.8	1,191.5	1,369.0	1,481.8	1,464.6	1,563.2	1,613.9	1,614.2	1,742.9	1,011.8
Bilateral		429.1	308.2	327.3	327.4	329.1	327.5	327.6	335.9	339.8	338.5	337.5	338.8	339.8	346.8	348.1
Multilateral		33.7	38.9	32.9	32.2	36.0	35.6	35.1	34.0	59.1	36.8	39.9	43.3	38.3	72.0	15.0
Commercial		755.1	782.1	479.5	495.4	455.1	458.6	458.3	525.2	613.4	615.7	642.0	681.3	684.2	730.9	398.4
Export Credits		596.5	590.3	396.3	378.2	369.5	370.1	370.5	473.9	469.5	473.6	543.8	550.5	551.9	593.2	250.3
Interest		1,328.3	1,348.8	1,283.3	1,291.3	1,308.7	1,311.8	1,319.6	1,379.3	1,389.8	1,391.2	1,411.1	1,432.6	1,373.6	1,400.0	1,449.8
Bilateral		673.0	683.8	730.4	735.2	738.4	734.7	733.3	759.4	765.8	767.9	770.6	776.1	781.5	784.8	791.7
Multilateral		12.8	13.2	7.6	7.6	8.6	11.4	11.5	11.7	13.1	13.1	14.5	16.1	13.9	14.9	15.0
Commercial		440.1	437.2	317.4	319.4	327.3	328.5	332.5	339.3	345.5	341.7	350.6	363.2	367.6	365.7	401.2
Export Credits		202.4	214.6	227.9	229.1	234.4	237.2	242.3	268.9	265.4	268.5	275.4	277.2	210.6	234.6	241.9
10. External Debt Stock		15,274.3	15,362.4	17,382.9	17,519.3	17,533.7	17,387.8	17,351.9	17,357.5	17,500.8	17,582.2	17,765.1	17,924.1	18,009.7	18,611.5	18,918.3
11. Domestic Debt Stock		3,590.9	3,643.3	4,597.1	4,598.1	4,599.1	4,600.1	4,601.1	4,602.1	4,717.5	4,783.7	4,935.8	4,973.9	5,092.6	5,285.2	5,596.5
12. Total Debt Stock		18,865.2	19,005.7	21,980.0	22,117.4	22,132.8	21,987.9	21,953.0	21,959.6	22,218.3	22,365.9	22,700.9	22,898.0	23,102.3	23,896.7	24,514.8
End Period Exchange Rate		2,086.4	2,136.3	2,178.9	2,176.6	2,171.9	2,175.1	2,171.0	2,172.6	2,222.0	2,226.3	2,223.9	2,227.3	2,229.5	2,230.1	2,231.6

Note: 1) During the period

2) Position as at the end of period.

Source: Ministry of Finance and Bank of Tanzania

Annex 14: Monetary Aggregates (Percent of GDP, Except where noted otherwise)

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Monetary aggregates									
M3 as % of GDP	22.3	29.6	24.0	23.2	23.2	23.1	21.8	22.7	20.9
M2 as % of GDP	16.3	16.4	17.9	18.0	17.2	17.0	17.6	16.3	17.9
M3 growth rate (%)	18.1	18.5	25.4	18.2	12.5	10.0	15.6	18.8	2.9
M2 growth rate (%)	26.5	19.5	21.8	15.0	16.0	10.9	17.0	13.4	1.9
Domestic credit									
Total Domestic credit (% of GDP)	11.4	13.7	15.3	17.6	17.0	17.8	21.3	23.9	23.8
Total domestic credit growth (%)	21.1	42.5	29.2	36.0	14.8	21.1	25.4	26.8	13.1
Private Sector credit (% of GDP)	10.8	11.6	13.5	14.2	14.2	14.4	16.5	18.2	18.5
Private Sector credit growth (%)	38.6	32.8	17.6	24.3	18.6	17.1	21.4	21.0	6.9
Interest rates structure									
Overall T-bills rate (period average, %)	9.7	10.0	3.9	4.5	10.6	11.9	12.7	10.3	16.2
Average lending rate (%)	15.4	15.1	14.7	14.8	15.1	15.8	16.2	16.0	16.0
Average deposit rate (%)	7.8	6.6	6.3	5.8	7.2	8.8	8.7	8.4	9.1

Source: Bank of Tanzania and IMF

Annex 15: Poverty by Geographic Regions

	Poverty Headcount	Distribution of the Poor	Distribution of the Population
	HBS 2011/12	HBS 2011/12	HBS 2011/12
Basic Needs Poverty Line¹ = TSh 36,482			
Urban	15.5	15.9	28.8
Rural	33.3	84.1	71.2
Regions			
Urban	21.7	14.4	18.7
Rural	33.3	84.1	71.2
Dar es Salaam	4.1	1.5	10.1
Total	28.2	100.0	100.0
Food Poverty Line¹ = TSh 26,085			
Urban	6.0	17.7	28.8
Rural	11.3	82.3	71.2
Regions			
Urban	8.7	16.7	18.7
Rural	11.3	82.3	71.2
Dar es Salaam	1.0	1.0	10.1
Total	9.7	100.0	100.0

¹ Monthly expenditure per adult

Source: National Bureau of Statistics

Annex 16: Business sentiment survey

The views of business managers of the top 100 mid-sized companies in Tanzania have been collected every six months since April 2013. However, in December 2016, it was collected after 12 months. This data is collected by KPMG through electronic questionnaires, with anonymous responses. In June 2017, about half of responding managers assessed the performance of the economy to be worse than in the previous year, while less than one third reported that it had remained the same. Looking forward, 40 percent of the managers were pessimistic about the economy and 36 percent about their own businesses, which is significantly lower compared to the position expressed in December in 2016. Only about 30 percent of the responding managers are optimistic about the economy and their business.

How do you believe the Tanzanian economy is performing compared to last year?

How do you expect the Tanzanian economy to perform in the coming year?

How do you think that your own business will perform during the next 12 months compared to its current level of performance?

Source: World Bank and KPMG