

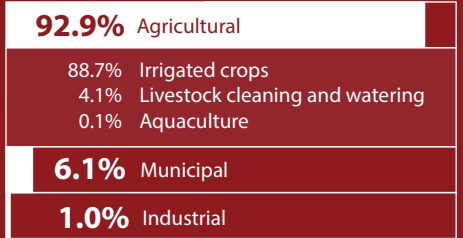
		year
Total population (UN Population Division)	<b>47.66</b> million inhabitants	<b>2012</b>
Total area	<b>947 300</b> km <sup>2</sup>	
Population density	<b>50</b> inhabitants/km <sup>2</sup>	<b>2012</b>
Human Development Index (UNDP) (between 0 and 1; 1 is highest)	<b>0.476</b>	
Country rank (total 186 countries; 1 is highest)	<b>152</b>	<b>2012</b>
Gender Inequality Index (0 is equality between women and men; 1 is least equality)	<b>0.556</b>	
Water, sanitation and hygiene-related deaths % of total deaths (WHO)	<b>12.1</b> %	<b>2004</b>
Long-term average annual precipitation (CRU CL 2.0)	<b>1 071</b> mm/year	
Long-term average actual renewable water resources (FAO AQUASTAT)	<b>96 270</b> million m <sup>3</sup> /year	
Actual annual renewable water resources per capita (FAO AQUASTAT)	<b>2 020</b> m <sup>3</sup> /inhabitant	<b>2012</b>
% of total actual renewable freshwater resources withdrawn (MDG Water Indicator) (FAO AQUASTAT)	<b>5.2</b> %	<b>2012</b>
Total area equipped for irrigation (FAO FAOSTAT and AQUASTAT)	<b>184 300</b> ha	<b>2002</b>
% of the cultivated area equipped for irrigation (FAO FAOSTAT and FAO AQUASTAT)	<b>1.8</b> %	<b>2002</b>
% of irrigation potential equipped for irrigation (FAO AQUASTAT)	<b>8.6</b> %	<b>2002</b>
Ramsar sites (Ramsar)	– number – total area	<b>2013</b>
	<b>4</b> sites <b>4 868 424</b> hectares	

# UN WATER

## United Republic of TANZANIA

### UN-Water Country Brief

Water withdrawals by sector  
(total 4 975 million m<sup>3</sup> in 2012)



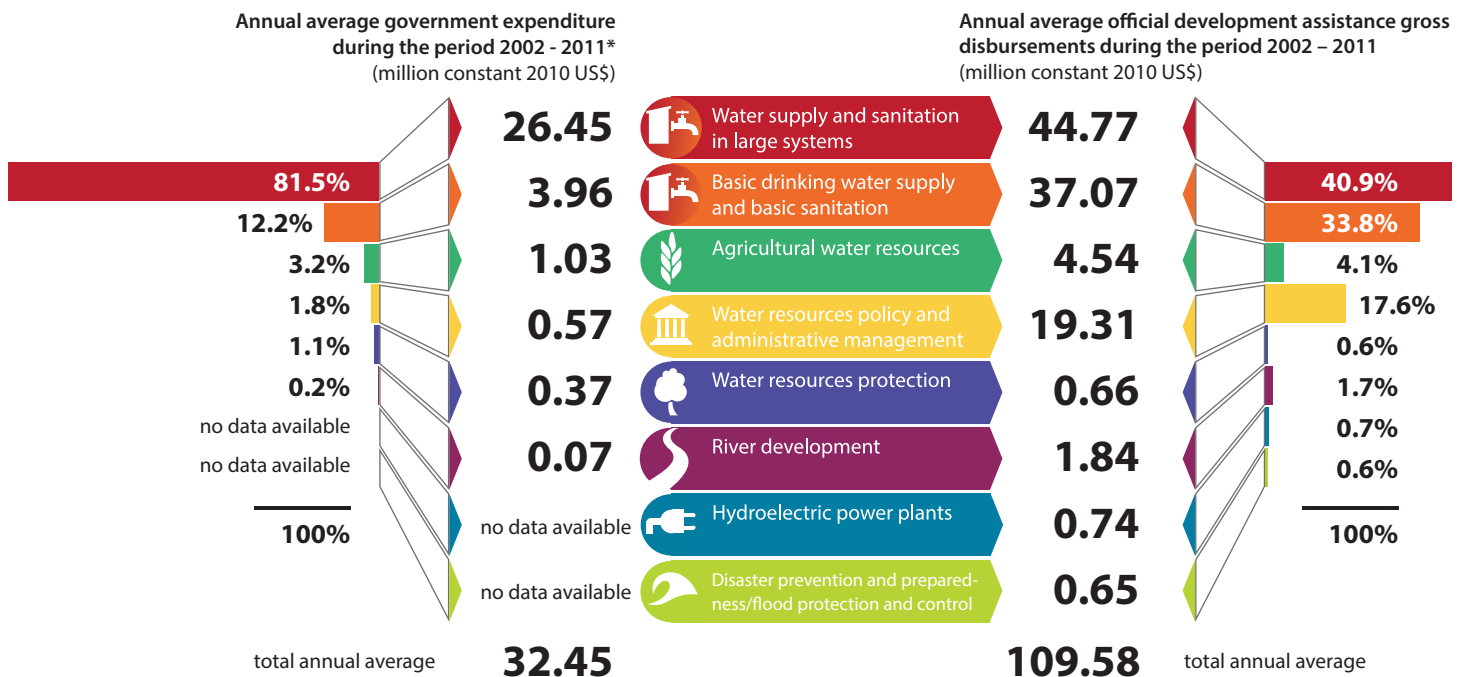
## The Money Stream

From 2002 to 2011, the government has expended US\$ 32.45 million (in constant 2010 US\$) on average per year on water-related infrastructure and programmes. Over 90 percent of the government's expenditures were channeled into water supply and sanitation (81.5 percent for large systems and 12.2 percent for basic drinking water supply and basic sanitation).\*

During the same period, official development assistance (ODA) gross disbursements accounted for more than three times the government expenditures, amounting to US\$ 109.58 million on average per year. Three quarters of ODA disbursements were channeled also into water supply and sanitation on large systems (40.9 percent) and basic drinking water supply and basic sanitation (33.8 percent).

Over the period 2002 to 2011, the United Republic of Tanzania's water-related expenditure accounted for an estimated 0.96 percent of total government expenditures.

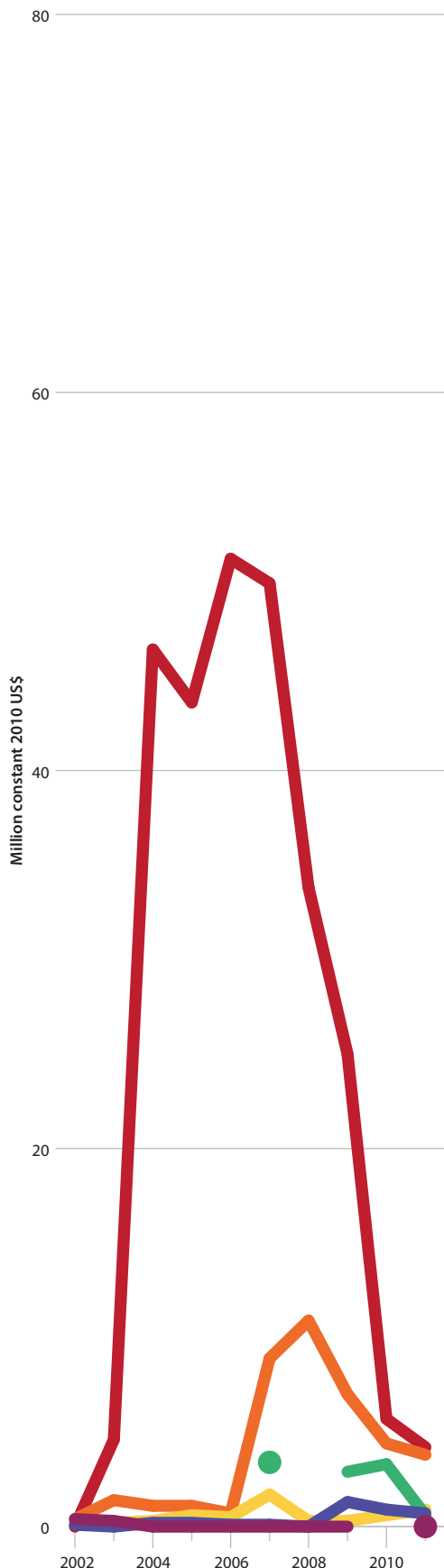
Estimated % of water-related expenditure to total government expenditure (2002 to 2011)



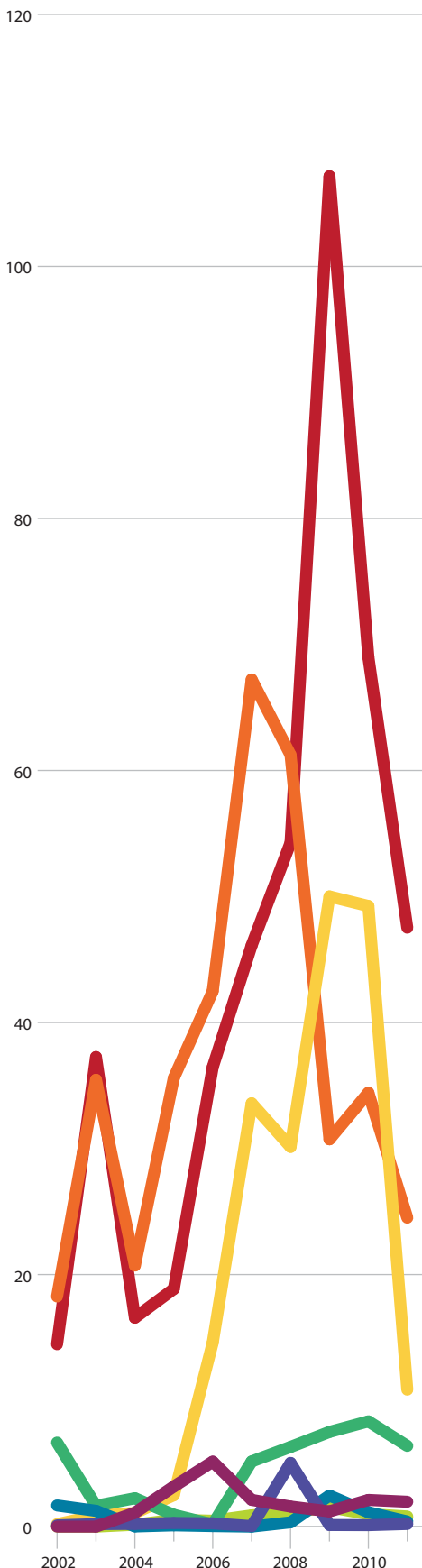
\* Data for government expenditure in hydroelectric power plants, flood prevention/control as well as disaster prevention and preparedness could not be obtained. Government expenditures for river development are partly included in the category water resources protection.

# Status and Trends

**Government expenditure during the period 2002 - 2011\***  
(million constant 2010 US\$)



**Official development assistance gross disbursements during the period 2002 - 2011**  
(million constant 2010 US\$)



## Water-related government expenditure during the period 2002 to 2011:

- From 2003, water supply and sanitation - large systems received in all years the highest amount of the government's water-related investments, with a peak occurring in 2006, when it received 51.2 million constant 2010 US\$.
- Overall, water-related government investments increased more than sevenfold from 2003 to 2004. In 2010 and 2011, these investments decreased again to a sixth of their 2007 peak.
- There are years for which data is not available for agricultural water resources and river development. Data could not be obtained for government expenditures in hydroelectric power plants, as well as for disaster prevention and preparedness and flood prevention and control.

## Water-related official development assistance during the period 2002 to 2011:

- Overall water-related ODA disbursements increased steadily from 2002 - 2009 with a contraction in 2010, which continued in 2011.
- Water supply and sanitation large systems received their largest share of ODA disbursements in 2009 (53.4 percent of disbursements that year), and basic drinking water supply and sanitation in 2005 (with 57.4 percent).
- ODA support to water resources policy and administrative management was particularly high in 2009 and 2010. In these two years, this amounts annually to some 50 million constant 2010 US\$.

Actual expenditure refers to the amount spent by the government during a given year. The OECD Creditor Reporting System categories were chosen for the collection of these water-related investments and the data was obtained by the WCB project through in-country research in cooperation with the government (during 2012), while ODA data stems from the OECD Creditor Reporting System (collected December 2012).



**Water supply and sanitation in large systems:** Water desalination plants; intakes, storage, treatment, pumping stations, conveyance and distribution systems; sewerage; domestic and industrial wastewater treatment plants.

**Basic drinking water supply and basic sanitation:** Water supply and sanitation through low-cost technologies such as hand-pumps, spring catchment, gravity-fed systems, rainwater collection, storage tanks, small distribution systems; latrines, small-bore sewers, on-site disposal (septic tanks).

**Water resources policy and administrative management:** Water sector policy, planning and programmes; water legislation and management; institution capacity building and advice; water supply assessments and studies; groundwater, water quality and watershed studies; hydrogeology. Excluding agricultural water resources.

**Disaster prevention and preparedness/Flood protection and control:** Disaster risk reduction activities such as developing knowledge, natural risks cartography, legal norms for construction; early warning systems; emergency contingency stocks and contingency planning including preparations for forced displacement. Floods from rivers or the sea; including sea water intrusion control and sea level rise related activities.

**Agricultural water resources:** Irrigation, reservoirs, hydraulic structures, groundwater exploitation for agricultural use.

**Hydroelectric power plants:** Including power-generating river barrages.

**Water resources protection:** Inland surface waters (rivers, lakes, etc.); conservation and rehabilitation of groundwater; prevention of water contamination from agrochemicals, industrial effluents.

**River development:** Integrated river basin projects; river flow control; dams and reservoirs. Excluding dams primarily for irrigation and hydropower and activities related to river transport.

\* Data for government expenditure in hydroelectric power plants, flood prevention/control as well as disaster prevention and preparedness could not be obtained. Government expenditures for river development are partly included in the category water resources protection.



## Water Intensity in Industry

### Impact for development

The United Republic of Tanzania has developed policies, enacted laws and established regulatory bodies to address industrial discharges through a number of pollution-related legislation. Though industrial effluent pollution rates have improved in recent years, the country is still far from controlling the industrial effluent discharges and contamination of the environment. Most industries lack the infrastructure for adequate industrial wastewater collection and treatment. As a result, untreated or partially treated wastewater is discharged into surface water bodies threatening marine life and the environment, with subsequent risk to health.



## Water - related Disasters\*

### Impact for development

The United Republic of Tanzania is vulnerable to natural disasters, notably floods. Though there is a significant lack of data of the hydro-meteorological events that have occurred in the country and of their socio-economic consequences, records show that between 1989 and 2011, over 5.4 million people were affected. For this period, there are only two data points of reported economic damage, namely: US\$ 300 000 worth economic damages in 1990 and US\$ 400 000 in 2006.

Year**	Number of Events	Deaths	Affected	Economic Damage (million current US\$)
2011	-	37	1 060 000	-
2009	2	21	3 000	-
2008	1	0	800	-
2007	1	-	14 000	-
2006	1	1	60 000	0.4
2005	1	1	300	-
2004	2	4	2 600	-
2003	1	0	2 000	-
2001	2	20	120	-
2000	1	3 600	0	-
1998	1	5	4 600	-
1997	3	99	107 400	-
1995	2	4	22 000	-
1994	1	31	7 000	-
1990	1	100	4 100 000	0.3
1989	1	1	0	-

\*'Water-related disasters' within the scope of this WCB study do not include droughts.

\*\* Only years for which data is available are listed.

- means no data available

(Dartmouth Flood Observatory)



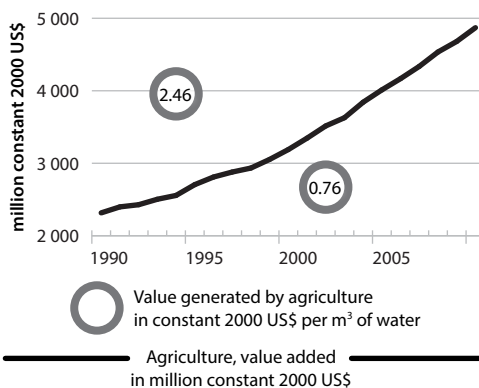
## Irrigated Agriculture

### Impact for development

In the United Republic of Tanzania, agriculture provides work for approximately 79 percent of the total economically active population. In 2012, women accounted for 55 percent of the economically active population in agriculture. Irrigation is a predominant method and effective means of increasing and stabilizing food and cash crop production and productivity in the country. Nonetheless, this practice is characterized as being inefficient due to, i) inappropriate management to improve infrastructural design and or construction, aggravated by lack of vital data for planning purposes and poor government resources, ii) reduced maintenance and operation related to water availability and iii) poor organizational aspects for communal irrigation schemes, which account for about 80 percent of the area equipped for irrigation, iv) lack of national coordination of irrigation development, despite available funding from donors.

### Value generated by agriculture per m<sup>3</sup> of water

(FAO AQUASTAT, World Bank)

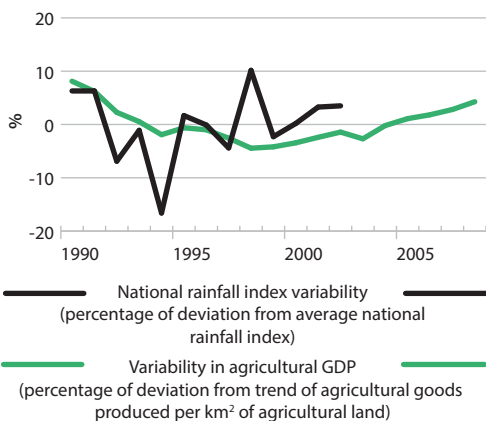


Rice is the main irrigated crop, covering about 40 percent of the harvested irrigated crop area, followed by maize (25 percent) and vegetables (20 percent). Private irrigation schemes produce cash crops, such as coffee, tea, cashew and sugarcane. Increasing government investment and creating an enabling environment for private sector investment are necessary to modernize the existing traditional irrigation schemes and to expand irrigation in the already identified irrigation potential areas. Introduction of simple techniques of harvesting rainwater especially in semi-arid regions, storage facilities and wide use of appropriate technologies are prerequisites for improved agricultural productivity in the United Republic of Tanzania.

During 1994 to 2002, the value generated by agriculture per m<sup>3</sup> of water decreased by 6 percent annually.

### Rainfall variability and agricultural GDP

(FAO AQUASTAT, World Bank)

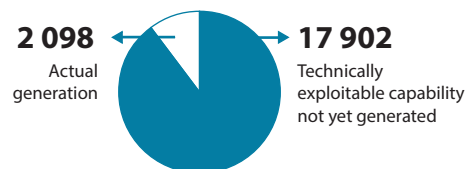


## Energy for Water, Water for Energy

### Impact for development

With an installed capacity of 561 MW, the United Republic of Tanzania generated 2 098 GWh in 2008, which represents around 10.5 percent of the nation's hydropower technically exploitable capability. There are plans to increment by more than three times the current installed capacity.

### Hydropower capacity and generation, 2008, in GWh/year (World Energy Council)



## Environment and Ecosystem Health

### Impact for development

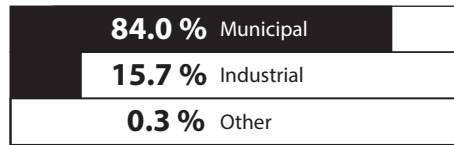
Only 25 percent of the wastewater produced daily is collected and disposed of through sewerage systems. The main challenges of treatment and discharge of wastewater are, among others: i) coordination and institutional arrangements across the sectors; ii) appropriate infrastructure capable of handling high volumes of effluents; iii) awareness among the communities and authorities on wastewater disposal; iv) high costs of treatment plants operation; v) reform of the legal and regulatory framework and, vi) appropriate technological capacity of stakeholders.

### Water quality index 2010 (UNEP-GEMS/Water)



A score of 100 indicates that water quality targets are met for all five parameters (DO, pH, conductivity, total nitrogen, and total phosphorus).

### Wastewater production, 2007 (total: 300 million m<sup>3</sup> per year)



National and zonal water laboratories and water sampling stations have been established to undertake monitoring and assessment of water quality, which is combined with effective pollution control and application of the polluter pays. From the 2009 sampling records, conformity to national and international quality standards was confirmed, and water pollution rates had significantly been reduced compared to 2008. Industrial effluent pollution rates had also decreased in 2007 and 2008, a significant improvement from the 2003 rates. The quality of effluents from all oxidation stabilization ponds in Dar es Salaam still however do not meet standards in compliance with the BOD and COD requirements.

The United Republic of Tanzania faces serious constraints to meet the challenge of providing water and sanitation for rural and urban residents. Sanitation is particularly serious, as there is still a very big gap to fill with only 7 percent of rural residents and 20 percent of urban residents with improved sanitation facilities in 2010. As for drinking water, there has been a decrease since 1990, with 56 percent of the rural population and 21 percent of the urban population without the use of an improved drinking water source in 2010.

## Drinking Water Supply and Sanitation

### Impact for development

According to a 2012 Water and Sanitation Program study, poor sanitation costs the United Republic of Tanzania US\$206\* million each year. This sum is the equivalent of US\$5 per person per year or 1 percent of the national GDP. A 2012 UNICEF/WHO analysis of data from 25 countries in sub-Saharan Africa, representing 48 percent of the region's population, revealed that women and girls bear primary responsibility for water collection, at considerable cost in terms of their time. In these 25 countries, it is estimated that women spend a combined total of at least 16 million hours each day collecting drinking water; men spend 6 million hours; and children, 4 million hours.

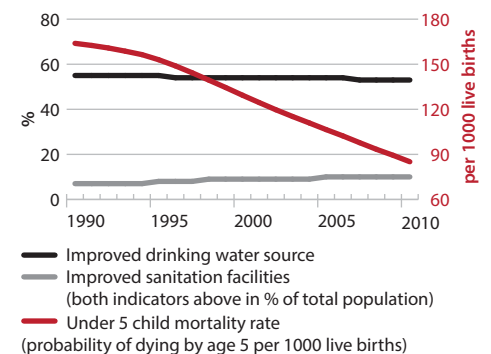
\* US\$1 = TZS1461.381 (2010 Average)

Accession of the International Covenant on Economic, Social and Cultural Rights (ICESCR): 11 June 1976

(The right to water is implicit within the right to an adequate standard of living and inextricably related to the right to the highest attainable standard of health outlined in the ICESCR.)

### Access to drinking water and sanitation & under-5 child mortality

(UN Inter-agency Group for Child Mortality Estimation (IGME) and WHO/UNICEF Joint Monitoring Programme)



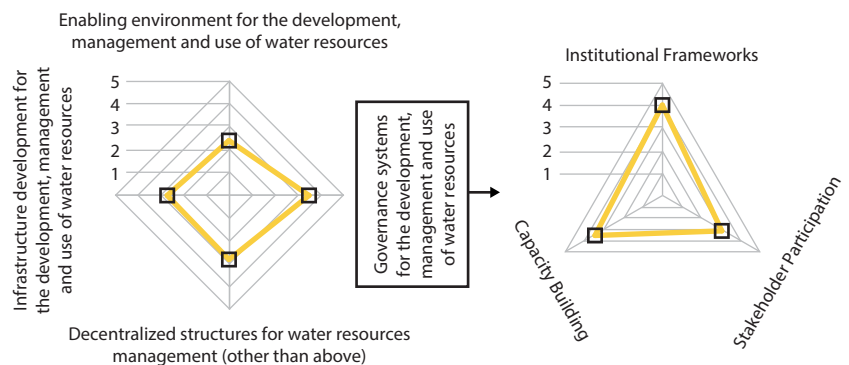
## Tracking Water Governance

### Impact for development

The United Republic of Tanzania has made major strides in establishing water resources management institutions at the national, regional, district to village levels. In addition, executive agencies, institutes and water laboratories have all been established to build capacity and support service delivery. ODA support to water resources policy and administrative management was particularly high in 2009 and 2010. In these two years, this amounted to some 50 million constant 2010 US\$ annually.

The Ministry of Water oversees the management of water resources and it is governed by two laws, namely, the Water Resources Management Act No 11 of 2009 and the Water Supply and Sanitation Act No 12 of 2009. Other government institutions involved in water-related management are the Prime Minister's Office (Regional Administration and Local Government), Ministry of Finance and Economic Affairs and the Ministry of Health and Social Welfare.

### UN-Water survey on integrated approaches in the development, management and use of water resources governance, 2012 (UN-Water)



- 1 Under development
- 2 Developed but implementation not yet started
- 3 Implementation started

- 4 Implementation advanced
- 5 Fully implemented

Urban water supply and sanitation authorities (WSSAs) are responsible for managing water supply and sanitation services while in rural areas, community owned water supply organizations (COWSOs) are entrusted with that responsibility. WSSAs and COWSOs performance are regulated by the Energy and Water Regulatory Authority (EWURA) and local government authorities respectively.

# Rapid Assessment

## Overall








### Pressures on water

Although the United Republic of Tanzania has institutions, policies and regulations in place to promote proper water management, the country still faces a water stress situation related to, among others: (i) water scarcity in certain regions and river basins, which is felt in all economic sectors, thus causing problems in terms of economic output especially during drought; (ii) water governance at all levels; (iii) community participation; (iv) decentralized management and adoption of appropriate technologies; (v) inadequate legal and institutional frameworks with more emphasis on water supply than water resources management; (vi) growing degradation of water resources (surface water and groundwater) and (vii) inadequate hydrological data and information.

### Investments

Overall, the government in the United Republic of Tanzania has made relatively low water-related investments as a percentage of total government expenditures. Government investments have been allocated mainly to water supply and sanitation (large systems) and basic drinking water supply and basic sanitation facilities.

## Assessments

- 
**Irrigated agriculture** ●●○○○○  
 Even though a high percentage of the country depends exclusively on agriculture, inefficiencies on farming systems and the lack of investment in this sector have slowed poverty reduction.
- 
**Drinking water supply and sanitation** ●○○○○○  
 Low percentage of both urban and rural populations with improved drinking water sources and sanitation facilities.
- 
**Water intensity in industry** ●●●○○○  
 Industrial effluent quality guidelines are in place to protect the water bodies' quality. In spite of the monitoring, most industries lack infrastructure for adequate industrial wastewater collection and treatment and thus do not meet the regulatory requirements.
- 
**Water-related disasters** ●●○○○○  
 Floods are one of the primary hazards affecting the country. There is insufficient data for analysis.
- 
**Water for energy, energy for water** ●○○○○○  
 All the existing hydroelectric power plants were constructed in the 1970s and 1980s. After this period, this sector has not received investments for development and the performance of these hydroelectric power plants has been significantly reduced.
- 
**Environment and ecosystem health** ●○○○○○  
 The United Republic of Tanzania faces important challenges related to groundwater and surface water contamination due to the lack of awareness among industries and households on wastewater disposal and to the volume of effluent discharges.
- 
**Tracking governance** ●●●○○○  
 The United Republic of Tanzania has established institutions, policies and regulations for the sustainable use of water. However, the country still faces water quality and management issues.

## Data Quality

- ★★☆☆☆☆  
 No recent data is available on irrigation areas.
- ★★☆☆☆☆  
 Limited data on drinking water quality is available.
- ★★☆☆☆☆  
 Data is not readily available.
- ★★☆☆☆☆  
 A detailed disaster database is not available.
- ★★☆☆☆☆  
 Data is not readily available, especially on the energy requirements of providing water and treating wastewater.
- ★★☆☆☆☆  
 A national network of monitoring and assessment of water quality exists.
- ★★☆☆☆☆  
 The country has participated in the UN-Water questionnaire on Integrated Approaches in the Development, Management and Use of Water Resources. There is no data available on the equity and human rights on sanitation and drinking water within the UN-Water GLAAS Report 2012.

### Legend:

The rapid assessment of the situation above, based on available data, was established in conjunction with in-country experts and officials. It provides an overview of trends according to the following:

- trends are of significant concern
- trends are of concern
- trends are stable or, progressing on certain issues but not on others
- trends show some measure of improvement in all relevant indicators assessed
- trends show significant improvement and there is no concern
- insufficient data

Accurate assessments of progress require relevant, accurate and timely data. The above data quality assessment ranges from:

- ★☆☆☆☆ → ★★★★★
- very poor → very good

# Data Concerns

Data is a vital input to water management and investment in water related infrastructure and projects. Data and available research for the United Republic of Tanzania is relatively good when compared to many developing nations.

Investments in coordinated data collection, collation, analysis and dissemination is vital to demonstrate the benefits of water-related investments to governments, donors and ultimately private capital investors.

It is to be noted that it is virtually impossible to find national-level gender-disaggregated data for almost all themes contained in the UN-Water Country Briefs.

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Additional information on the project, data and methodologies can be accessed at:

<http://www.unwater.org/WaterCountryBriefs.html>



FAO - AQUASTAT, 2005

UNITED REPUBLIC OF TANZANIA

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# Disclaimers

- The most recent and updated information can be found in the original databases cited throughout.
- The rapid assessment methodology presented here is an advocacy tool designed to generate debate and attention to the issues, and is developed in conjunction with national government focal points.
- Data presented herein stems either from existing databases or was collected from national reports, experts and institutions, and in some cases raw data underwent various manipulations to categorize the information for this presentation.
- Due to data limitations, the investment-related estimates may not include water-related investments that are counted under other categories of investments, and some investment categories (ie: disaster prevention and preparedness) may include some investments that are not directly water-related. Moreover, water being a crosscutting issue, investments in other parts of the government (not calculated here) may also benefit water management.
- The words investments / invested / funded for ODA refer to gross disbursements of ODA according to the OECD definitions. The words investments / invested / funded for government refer to government expenditure (2002 - 2011). In addition, investment data and analysis do not include any other forms of investment (such as, private sector investments).