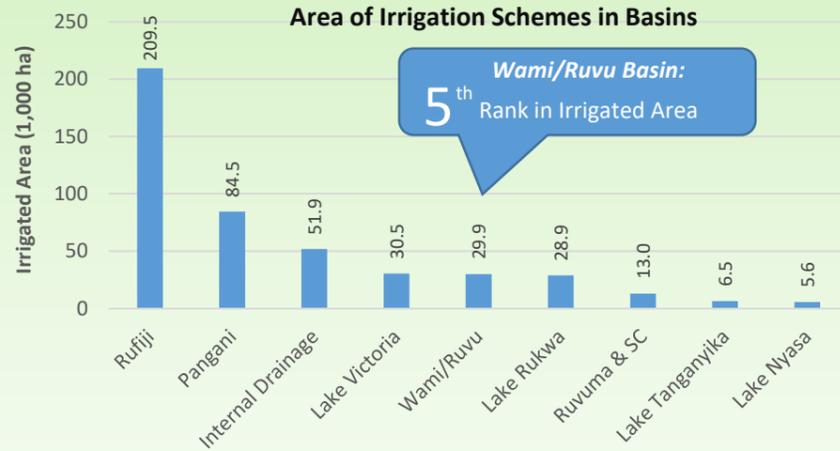
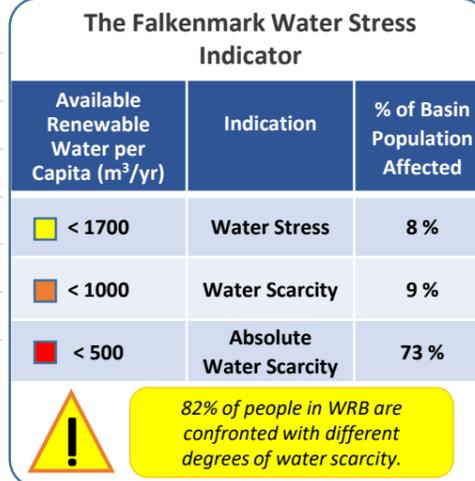
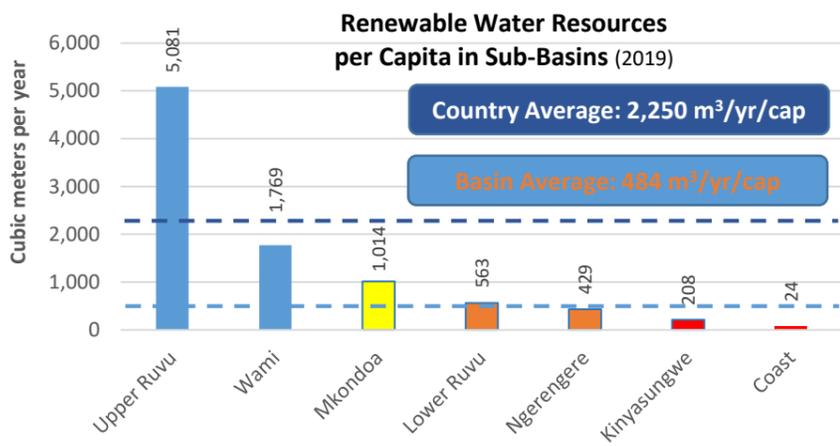
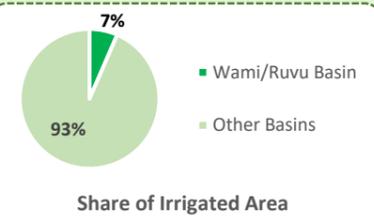


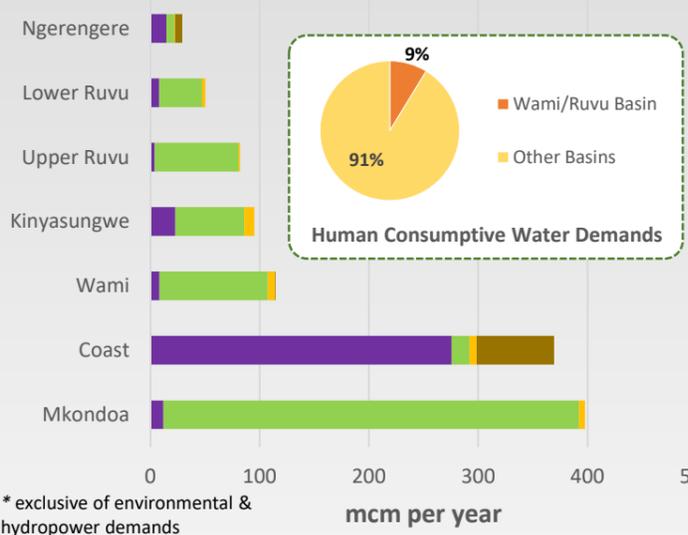
## Wami/Ruvu Basin Water Demands Key Figures



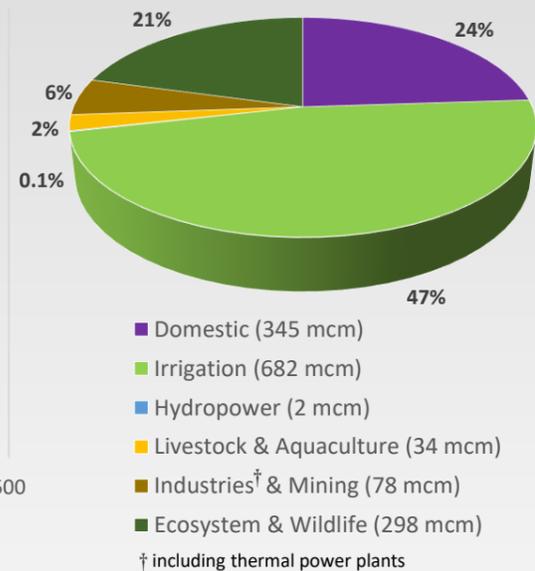
Tanzania's Total Irrigated Area: 460,300 ha



### Water Demands in Sub-Basins\* (human consumptive demands)



### Water Demands by Sector (%) Wami/Ruvu Basin



Irrigation is the largest water user in Wami/Ruvu Basin. About 13% of the renewable water resources in the basin is required for satisfying irrigation demands, and less than 9% is currently utilised for domestic, industries, and livestock sectors. Non-consumptive water uses include environmental flows and hydropower production that account for 11% of surface waters in the basin, making it the 3<sup>rd</sup> rank in water demands after irrigation and domestic sectors.



## THE UNITED REPUBLIC OF TANZANIA Ministry of Water Water Resources Division

### Physiographic Profile

Basin Area	67,100 km <sup>2</sup>
No. of Sub-basins	7
Protected Areas	35
No. Area	8,007 Km <sup>2</sup>
Dominant Soil Texture	Sandy Clay Loam
Dominant Productive Formation	Migmatite/Granitoides/Meta-Sediment Complexes
Mean Vegetation Index	0.35
Forest Cover Change (2000-2015)	-0.94 %/yr
Average Slope	7.5 %
Altimetry	
Highest	2,636 m.a.s.l.*
Lowest	0 m.a.s.l
Mean Elevation	656 m.a.s.l

\* m.a.s.l: meters above mean sea level

### Socio-Economic Profile (2019)

Population	10.6 million
Population Density	157 person/km <sup>2</sup>
Water per Capita	484 m <sup>3</sup> /yr

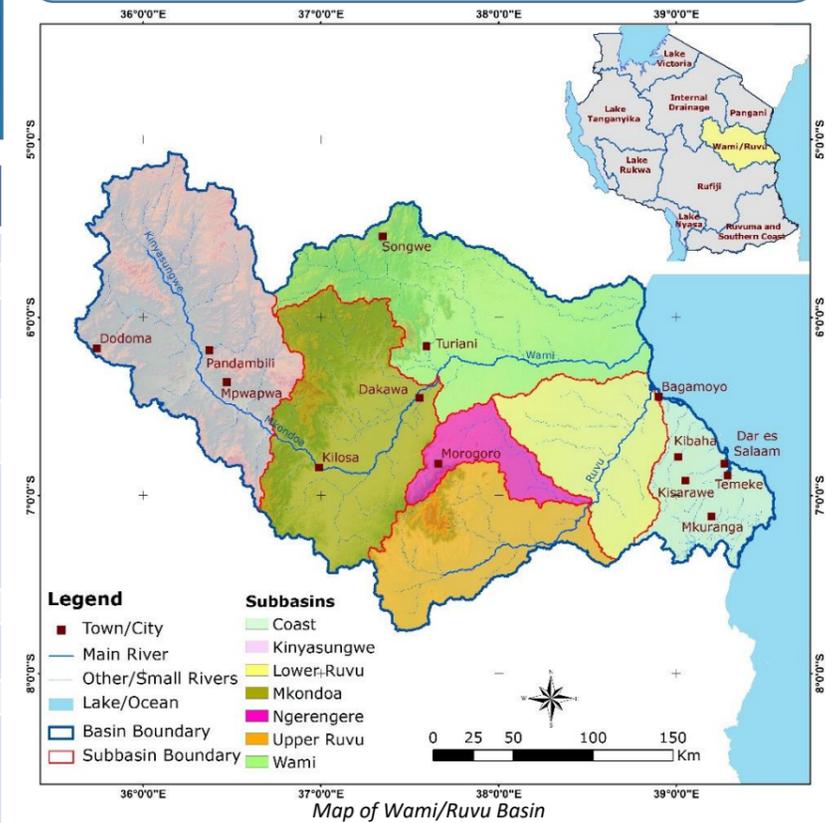
### Hydro-Climatic & Water Resources Profile\*

Average Precipitation	851 mm/yr
Average Temperature	23 °C
Average Evapotranspiration	
Potential	1,305 mm/yr
Actual	706 mm/yr
Average Renewable Water Resources	5,127 mcm/yr
Surface Water	3,988 mcm/yr
Groundwater	1,139 mcm/yr
Water Demands	
Averaged Total	1,426 mcm/yr
Human Consumptive	1,126 mcm/yr
Water Resources	22 %
Vulnerability Index	

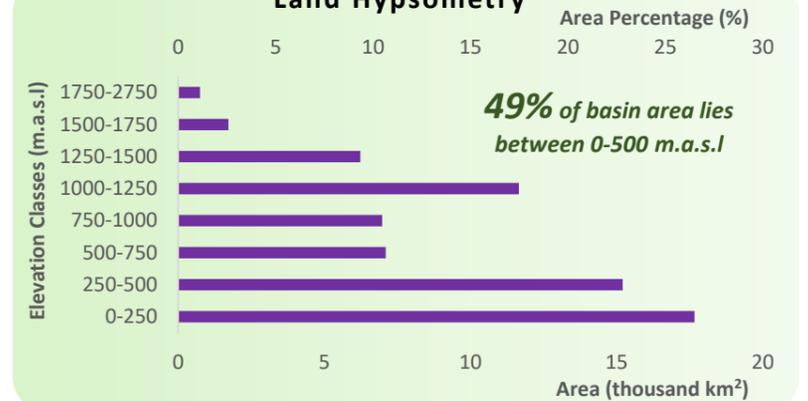
\* According to Wami/Ruvu Basin IWRMDP, 2015

Tanzania mainland is comprised of nine hydrologic basins. Wami/Ruvu Basin is the 3<sup>rd</sup> smallest basin that embraces about 7% of the area of the country. The basin is located in the midst area of eastern Tanzania, stretching in west-east direction. Waters that run from precipitation, flow eventually into Indian Ocean.

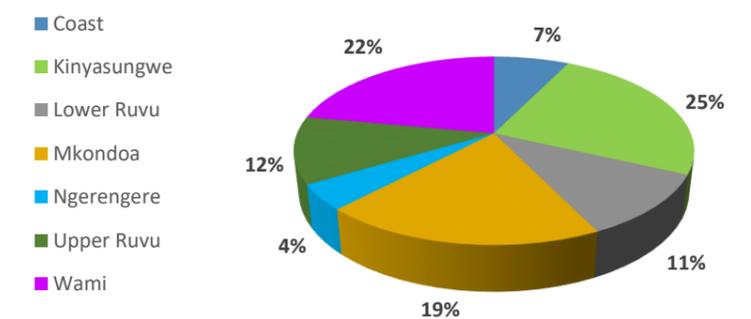
## Water Resources Fact Sheet Wami/Ruvu Basin



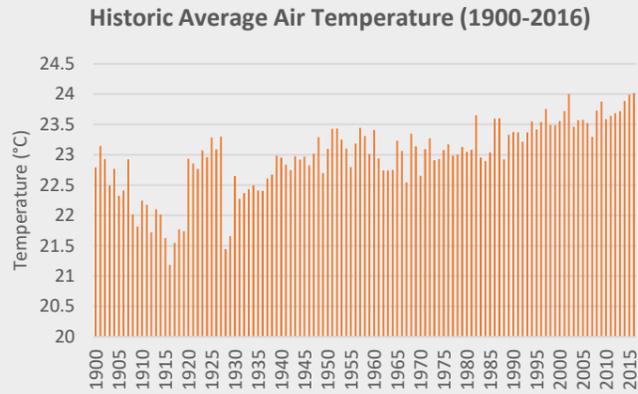
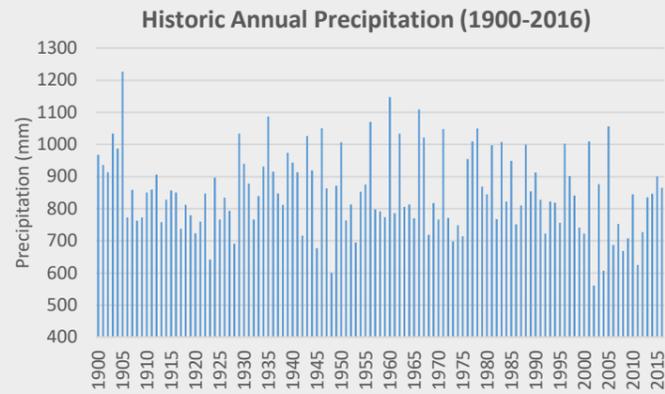
### Land Hypsometry



### Area of Subbasins (%)



## Wami/Ruvu Basin Water Resources Key Figures



Averaged for Wami/Ruvu Basin; Source: Climatic Research Unit, University of East Anglia, UK; <http://www.cru.uea.ac.uk/data>

### Long Term Rainfall Variation

Rainfall Average 1900-1930	852 mm
Rainfall Average 1985-2016	813 mm
Difference in Long-term Average	- 39 mm

Difference in Rainfall\*: - 4.6%

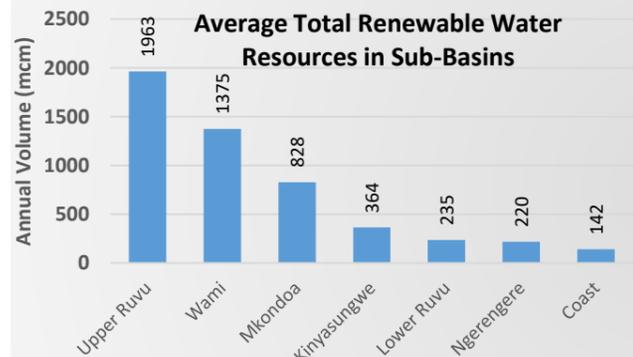
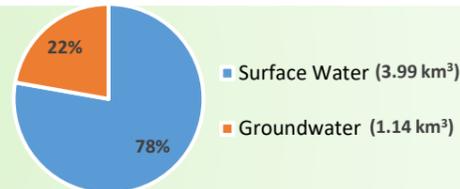
### Long Term Temperature Variation

Temperature Average 1900-1930	22.38 °C
Temperature Average 1985-2016	23.56 °C
Difference in Long-term Average	+ 1.18 °C

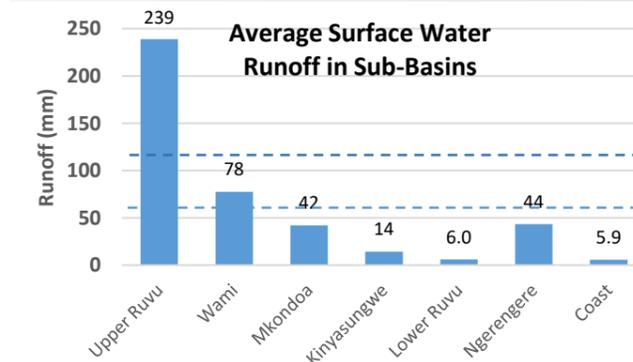
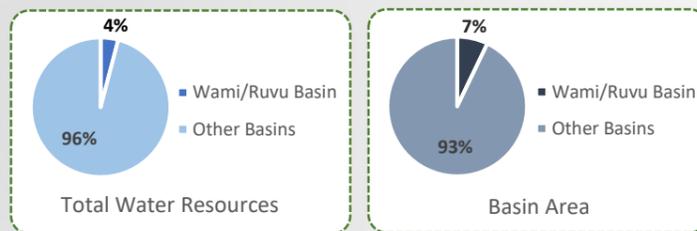
Difference in Temperature\*: + 5.3%

\* Over 85 Years (30-yr average values, centered on 1915-2000)

Annual Renewable Water Resources: **5.13 km<sup>3</sup>**



### Share of Wami/Ruvu Basin in Tanzania's Renewable Water Resources



Average Country-wide Runoff: 111 mm  
Average Wami/Ruvu Basin's Runoff: 59 mm

There is a large variation of runoff production within different sub-basins in Wami/Ruvu Basin:

- Upper Ruvu sub-basin as high as 404% of average
- Coast sub-basin as low as 10% of average

Wami/Ruvu Basin receives in average an annual precipitation of 57.3 km<sup>3</sup> out of which as much as 52.17 km<sup>3</sup> returns back to the atmosphere and 5.13 km<sup>3</sup> (about 9%) turns into surface and ground water as renewable freshwater resources.

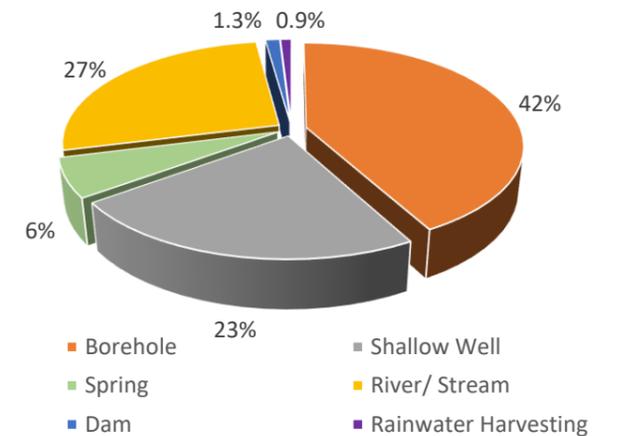
## Wami/Ruvu Basin Water Infrastructure Key Figures



### Water Infrastructure Profile

<b>Water Points</b>	
No. of Water Points	8,012
No. of Taps	11,905
<b>No. of Monitoring Stations:</b>	
Weather	11
Rainfall	46
Hydrological	43
Hydrogeological	26
<b>No. of Dams and Reservoirs</b>	<b>167</b>
<b>Reservoirs Capacity</b>	<b>52.5 mcm</b>
<b>Irrigation Schemes</b>	
No. Area	208 29,920 ha
Irrigation Efficiency	25% - 30%
Main Crops (irrigated)	Maize, legume, Cotton, Coconut

### Water Points by Sources of Water



Average Gross Area per Water Point: 8 km<sup>2</sup>

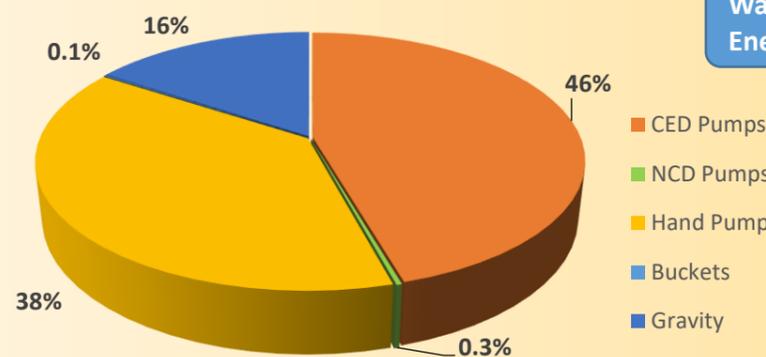
Functioning Water Taps: 8,432

71%

Water Points Supplied by Groundwater and Springs

71%

### Extraction Technologies at Water Points



Water Points that Need Energy for Extraction of Water

84%

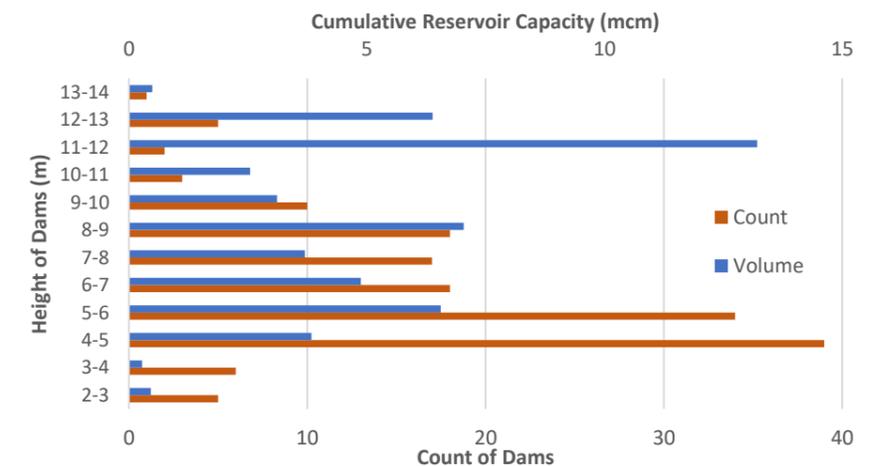
**CED Pumps:** Conventional Energy-Driven Pumps (includes Thermal Electricity, Hydroelectricity, Gasoline & Diesel)

**NCD Pumps:** Non-Conventional Energy-Driven Pumps (includes Solar Electricity, Windmill)

**Hand Pumps:** (includes Lever Pumps, Mono Pumps, Rope Pumps, Play Pumps)

### Statistics of Dams in the Basin

There are 162 man-made dams constructed in Wami/Ruvu Basin with a total reservoir capacity of about 51.8 mcm. The largest reservoir belongs to Mindu Dam with a height of 11 m and capacity of 13 mcm on Ngerengere River, Morogoro Region.



Water supply access in Tanzania – mainly in rural areas – is realised through "water points", i.e. usually a public place for people to obtain clean water. Water from water points is potable water consumed for the people or livestock. Means of access to water at the supply points are usually in form of communal standpipes. However, other shapes of access to water are present such as water kiosks, water tanks, hand pumps, developed or undeveloped springs, and cattle troughs.