

DODOMA URBAN WATER SUPPLY AND SANITATION AUTHORITY (DUWASA)



OVERVIEW OF WATER SUPPLY SEWERAGE DISPOSAL SERVICES FOR THE CAPITAL CITY - DODOMA

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PRESENTATION OUTLINE

- Introduction
- Provision of Water Supply and Sewerage Disposal Service – current situation
- Challenges
- Way Forward and future Projects



1.0 INTRODUCTION

DODOMA

- Dodoma, the designated Capital City of Tanzania is located 450km West of Dar Es Salaam, in the central plateau of the country with altitude ranging between 1,030 and 1,320m.
- Basing on the 2012 National Population Census and growth rate of 4%, the population of Dodoma urban is estimated to be 500,000 people.

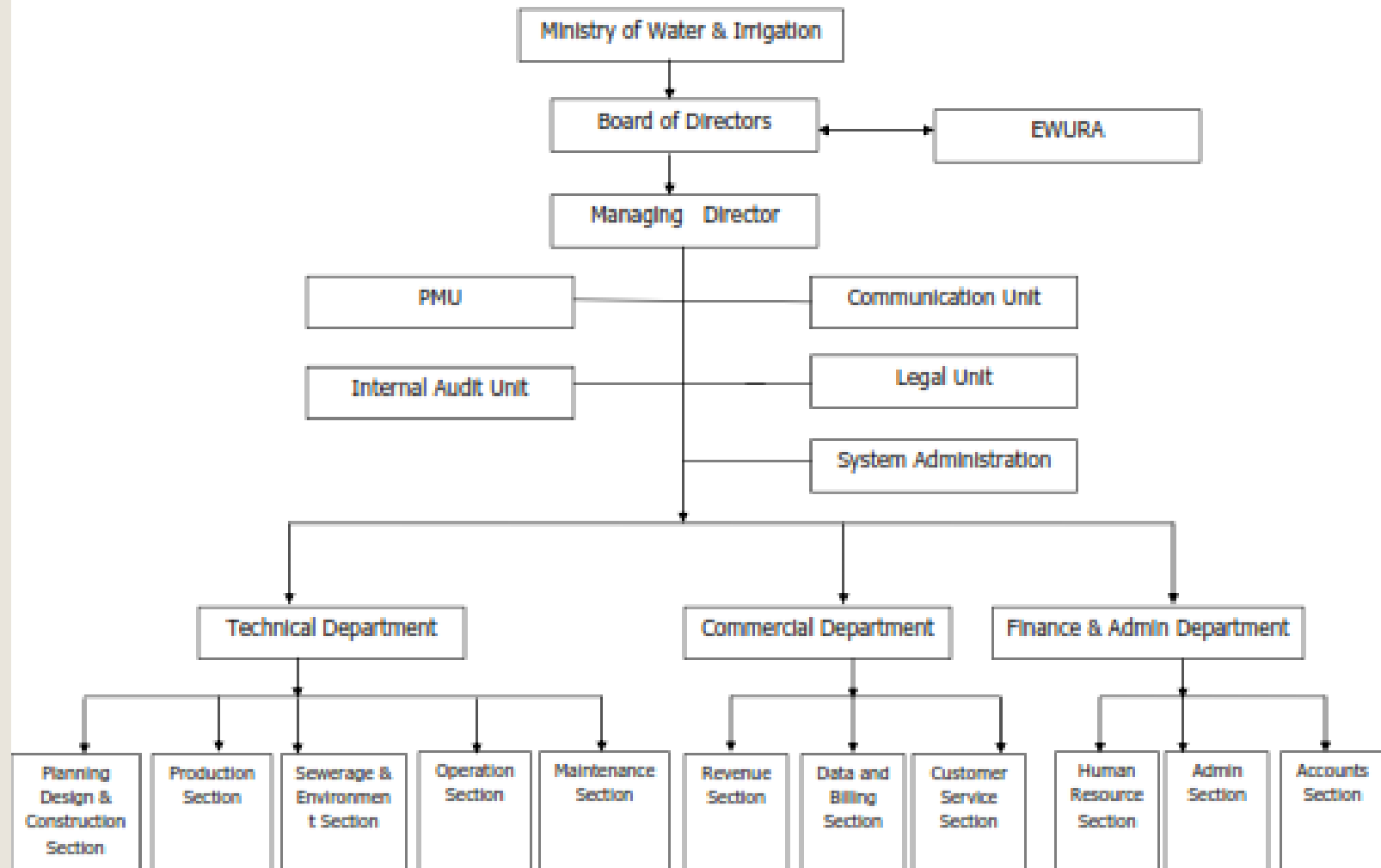
DUWASA

- DUWASA) is a public entity established in 1998 under section 3(I), Cap. 272 of 1997 as repealed by Act No. 12 of 2009.
- It is responsible for provision of Water Supply and Sewerage Disposal Services within Dodoma Urban.
- DUWASA is a category “A” water supply and sanitation Authority which is required to meet all of its operations and maintenance (O & M) costs and part of investment costs.
- Operates under ten (10) members Board of director representing various groups of society



1.0 INTRODUCTION

DUWASA ORGANIZATION CHART

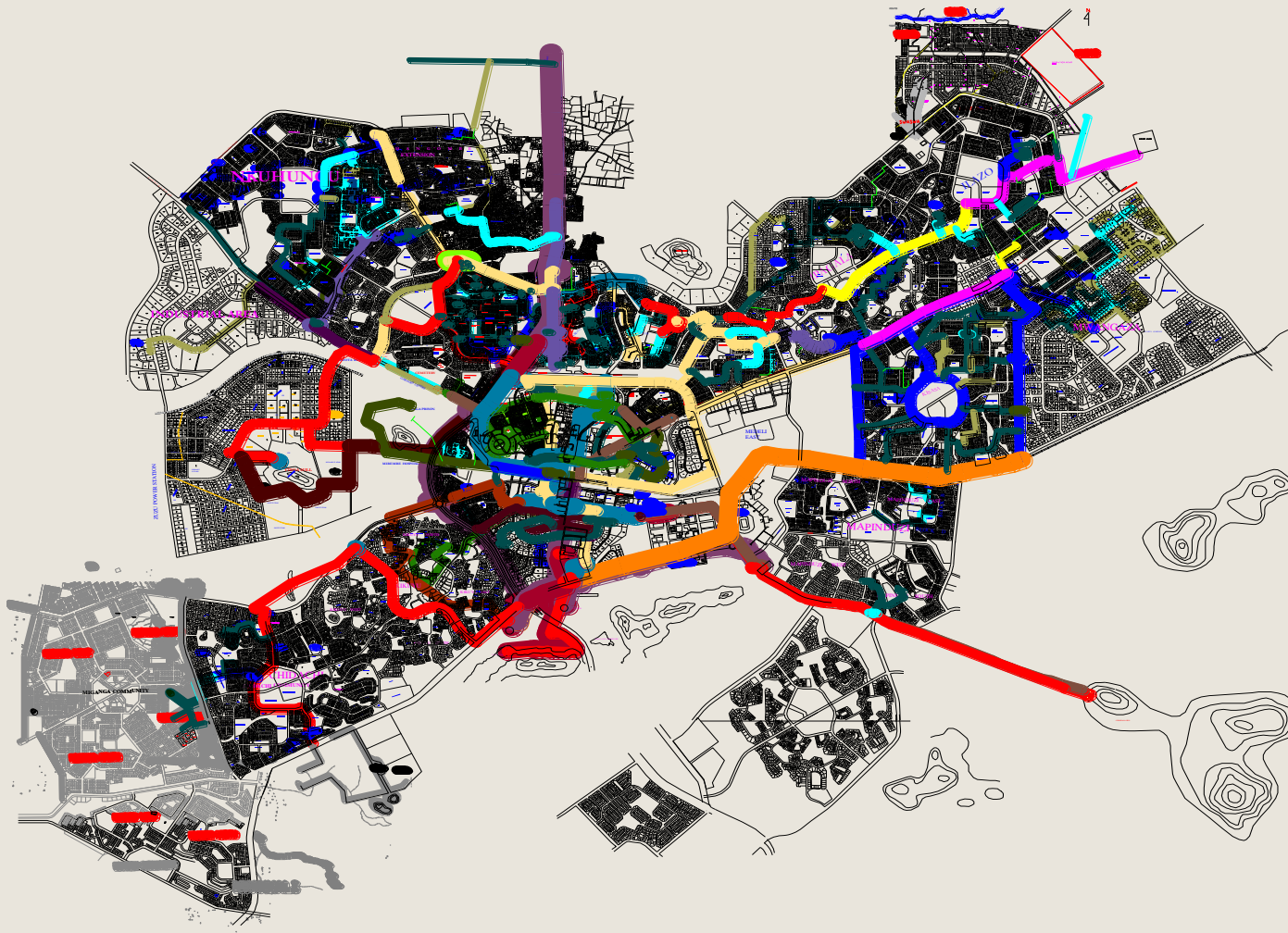


2.0 PROVISION OF WATER SUPPLY AND SEWERAGE DISPOSAL SERVICE – CURRENT SITUATION

2.1 WATER SUPPLY SERVICES

- The current source of water supply for Dodoma town is 100% ground water from Makutupora well field, located about 30km North of the town center.
- The Infrastructure consists of 24 deep boreholes with a capacity of producing 61,500m³/day.
- Currently the water production meets the demand but due to lack of adequate distribution network, only about 80% of urban population get water from DUWASA.
- Demand is expected to rapidly increase following decision by the Government to shift to Dodoma.
- The distribution coverage consists of 416km of pipeline, 92m³ of storages, and three (3) main pumping stations
- Water supply customer base stands at 36,000 connections.

2.0 PROVISION OF WATER SUPPLY AND SEWERAGE DISPOSAL SERVICE – CURRENT SITUATION

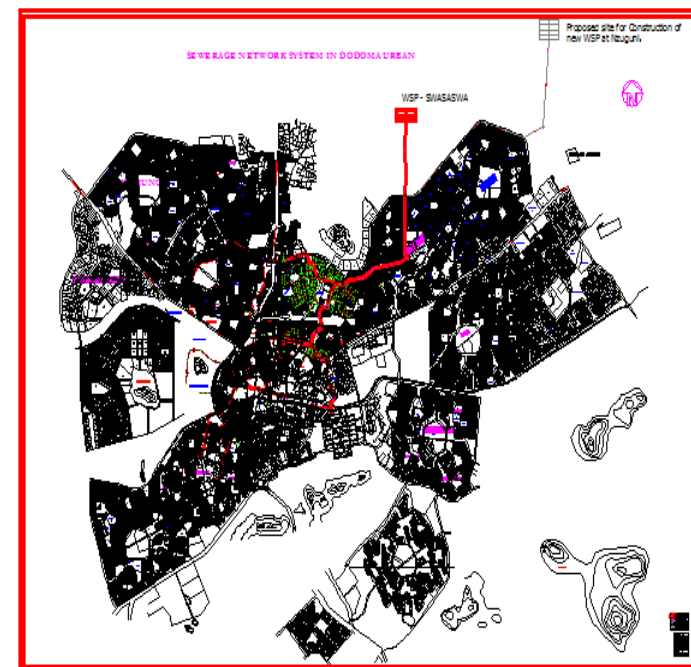


2.0 PROVISION OF WATER SUPPLY AND SEWERAGE DISPOSAL SERVICE – CURRENT SITUATION

2.2 SEWERAGE DISPOSAL SERVICES

- Two types of Sanitation systems are Used in Dodoma
 - On-site sanitation – Septic/soak pits and pit latrines
 - Off- site sanitation - WSP (by DUWASA)
- DUWASA is responsible for provision of off-site sewerage disposal services.
- The existing sewerage system for Dodoma town is characterized by the following features:

	Description	Diameter (mm)	Length (km)
1	Trunk Sewer (Trans. Main)	600 - 1100	24.3
2	Lateral Sewers (Collection)	150 - 400	58.7
	TOTAL		83.0



2.0 PROVISION OF WATER SUPPLY AND SEWERAGE DISPOSAL SERVICE – CURRENT SITUATION

- The system is separate, designed to convey sanitary flow (excluding storm water)
- The customer base stands at 6,000 connections, covering only 20% of population.
- The existing sewage treatment system comprises of 4 (Temporary) (WSPs) each with 200m x 200m and an average depth of 1.5m.
- WSPs was designed to serve population of 68,000.
- Cesspit emptier (exhausters) are used in uncovered areas (DUWASA, Municipality and Private Sector).



3.0 CHALLENGES FACING PROVISION OF WATER AND SEWERAGE DISPOSAL SERVICE IN DODOMA TOWN

- Inadequate water distribution network (50%).
- Rapid increase in Water Demand which calls for development of new water source.
- Inadequate sewer reticulation system (area coverage is about 20%).
- Old and worn out part of water and waste water system
- Underperforming waste water treatment ponds (Effluent does not meet the required National and International Standards).
- High level of NRW (30%)



Item	Parameter	Effluent	Standard (Tanzania)
1	BOD	142	30
2	COD	220	60
3	NO3	87	20
4	P	5.7	6

4.0 WAY FORWARD AND FUTURE PROJECTS

The following project have been planned to be implemented to overcome the mentioned challenges:

4.1 CONSTRUCTION OF WATER DAM

- DUWASA and The Ministry of Water and Irrigation of Tanzania are looking at developing a complementary water supply for the Dodoma Municipality
- According to the conducted feasibility study, construction of water Dam at Farkwa area was identified as feasible project for reliable source of water supply to the Dodoma Municipality.

Project features:

- Reservoir /dam of acapacity of 470 Mm³
- The designed Area = 68km²
- Main Dam, composite RCC and earthfill dam, maximum 32 m high above foundation, 1,185 m long.

4.0 WAY FORWARD AND FUTURE PROJECTS

- Saddle Dam, earthfill embankment, maximum 15m above foundation, 1500m long.
- Construction of Water treatment plant with capacity of more than 128,000m³/day
- Construction of 1200 – 1100mm diameter and 115Km length of conveyance system from Dam site to Town.
- Construction of pumping station
- Construction of clear water reservoirs

4.2 IMPROVEMENT OF WATER SUPPLY AND WASTE WATER SYSTEM IN DODOMA TOWN

DUWASA and The Ministry of Water and Irrigation of Tanzania is in the process of hiring a consultant who will conduct feasibility study for improvement of the two services

Project features

- Construction of water supply distribution system to uncovered area about 250km.

4.0 WAY FORWARD AND FUTURE PROJECTS

- Construction of Pumping stations.
- Construction of storage tanks - 12,500m³
- Construction of waste water collection system to uncovered area of the town about 200km.
- Construction of waste water treatment ponds (Waste Stabilization Ponds) with a capacity of about 26,000m³/day

**THANK YOU FOR YOUR
ATTENTION**