Executive summary

1. Introduction

The preparation of the Mtwara Master Plan was prompted by many factors including the importance of oil and gas extraction in the southern part of the country. Recent development of the onshore gas fields at Mnazi Bay and significant new discoveries of natural gas off the coast of Tanzania indicate that this southern region of Tanzania, including Mtwara, will soon become a major producer of natural gas with global significance. This master plan therefore envisages putting in place a long-term dynamic urban development plan as a planning and managing tool to guide the growth and development of Mtwara.

Following the discovery of offshore gas and the subsequent influx of businesses and people since 2011, it was necessary to extend the Planning Area boundaries in order to accommodate the expected growth. The boundaries of the Planning area now include eighteen wards of Mtwara-Mikindani Municipality namely; Chikongola, Chuno, Likombe, Majengo, Naliendele, Rahaleo, Reli, Shangani, Ufukoni, Vigaeni, Magomeni, Mtawanya, Tandika, Jangwani, Kisungule, Magengeni, Mitengo and Mtonya, as well as an area covered by nine wards of the Mtwara District Council namely Ziwani, Naumbu, Nanguruwe, Mayanga, Mbawala, Msanga Mkuu, Mkunwa, Moma and Nalingu. For the purpose of this project, the project will hereafter be referred to as Mtwara Master Plan.

Why Mtwara Master Plan

Prior to the preparation of the master plan, there were numerous attempts to plan the areas as discussed below:

Mtwara Layout Plan 1947-1954

The layout plan was prepared hand in hand with the construction of Mtwara port. It envisaged accommodating a population of 35,000 people as a result of increased activities in Mtwara and the inauguration of railway from Masasi to Mtwara.

Mtwara Central Area Redevelopment Plan (2001)

The Mtwara Central Area Redevelopment (2001) was prepared to accommodate the continuous urbanisation process within the Mtwara Township. The primary aim of preparing the central area redevelopment plan was:

i. To ensure that the prime land in urban areas is used effectively and efficiently.
ii. To ensure that enough manageable services and infrastructure are provided within the urban centre.
iii. To promote urban economy through efficient and productive economy.

In the process of preparing the plan, the Local Authority and the communities were given the leading role in the development of the plan. The communities were in essence given ownership to the plan, while the Local Authority facilitated the participation.

The preparation of the plan was carried out in three stages namely; elaborating the existing situation, highlighting the redevelopment proposal and development of the implementation strategies. The plan focused on two major key areas that were the new proposed land use and the height of Buildings. The detailed plan of the area recommended 12 plots out of the former 87 to change from high-density residential plots to commercial, commercial residential and institutional uses. The plan recommended building heights categories to be 1-2, 2-3 and 3- 5 stories.

Mtwara-Mikindani Master Plan (2008-2028)

An attempt to prepare a Mtwara-Mikindani Master Plan (2008-2028) was made by the Ministry of Lands, Housing, and Human Settlements Development, in collaboration with the Mtwara-Mikindani Municipal Council in 2006. The draft Master plan was released in 2008. The objectives of the Mtwara-Mikindani Master Plan were:

i. To improve the standard of living and the quality of life of the inhabitants through protection and improvement in the provision of basic human needs in such areas as health, nutrition, clean and safe water, housing and environment.
ii. To promote sustainable relationships between the population, resources, and environment;
iii. To promote and strengthen proper youth upbringing and growth, including the creation of an environment that would allow optimal development of their various talents;
iv. To promote more harmonious relationships between rural and urban development as to achieve a spatial distribution of population conducive to the optimal use of the available resources.

The Mtwara-Mikindani Master Plan (2008-2028) was planned to be implemented in four stages:

i. Development Stage 1: 2008-2012
ii. Development Stage 2: 2013-2017
iii. Development Stage 3: 2018-2022
iv. Development Stage 4: 2023-2027

The draft Mtwara-Mikindani Master Plan (2008-2028) was not processed to the final stage because it didn't take into account the anticipated impacts of oil and gas that emerged in the same period.

Therefore the purpose of this assignment is to review the Mtwara-Mikindani Municipal Master Plan of 2008 with a view to incorporate new needs and envisaged developments as required by the government of the United Republic of Tanzania and other stakeholders. Furthermore, this master plan will ensure that the growth of the town and region attracts investment in support of the oil and gas industries and ensure that pragmatic, organized and guided physical development of Mtwara area is achieved.

The objectives of this Master Plan are therefore to; provide the plan that would allow optimal utilization of the resources; to enhance urban growth and sustainable development; improve the economic status of the people; designate strategic areas for social, economic, and institutional investments and ensure that the development of Mtwara do not affect the environment

Development process, Methodology

The process of preparing Mtwara Master Plan was divided into three phases namely:

i. Project inception,
ii. Data collection and analysis,
iii. Master plan report writing and maps preparation.

In phase one the idea was to obtain consent and willingness of preparing the Master Plan from Mtwara Mikindani Municipal Council and Mtwara District Council. Data collection and analysis,, stakeholders' consultation and kick-off meeting were done through the joint meeting which was held in August 2014 between Mtwara Mikindani Municipality and Mtwara District passed a resolution to prepare Mtwara Master Plan and formed a Joint Steering Committee with the responsibility of overseeing the preparation of the plan.

The formulated Joint Steering Committee had seventeen (17) members from the Regional Office, District Commissioner's Office, Mtwara Mikindani Municipal Council (MMMC) and

Mtwara District Council (MDC). Due to the fact that the boundary of the planning area covers two authorities, it was agreed that the chairman of this committee should be the Regional Commissioner.

Under the steering committee, a Technical Team with members forming the committee included Town Planners from the Municipality and Mtwara District Council was formulated and chaired by the Regional Administrative. Under the Technical Committee, several sub-technical committees were formulated. These sub-technical committees were chaired by Town planners from both Councils.

The second phase of the master plan preparation involved collection and analysis of various data, preparation of the base map, analysis of institutional framework, demographic review, socio-economic survey (Household survey involving 1192 households) and land-use survey. Other activities included transportation study, infrastructure assessment and environmental analysis.

The existing situation report which was presented to the stakeholders' consultative meeting that was held on 24th January 2015. The stakeholders who participated in the meeting came from all sections of development in the region. Another stakeholder meeting was held in March 2015

The final document of the master plan was submitted to the joint councillors meeting which was held on 27th April 2016. In this meeting the final draft report was approved and was submitted to the Ministry of Lands, Housing and Human Settlements Development for endorsement. Following this endorsement, the draft master plan was advertised in Habari Leo Newspaper of 24th September 2016 as a stage for public hearing as per *section 12(1) of the Urban Planning Act No. 8 of 2007*. A series of public hearing meetings were held and completed on 22nd December 2016

2. Existing situation

Demography

The regional, district and the planning area demographic profile is analysed in order to attain a thorough understanding of the population characteristics and trends of the Planning Area. The information used to analyse the demographic profile was obtained from the 2002 and 2012 census Report of Tanzania. According to the 2012 Population Census Report, a total of 161,600 people or 42,191 households were living within the Planning area.

Migration

In the context of Mtwara Master Plan, the expected migration is attributed to the presence of untapped natural resources, such as gas, which offer an opportunity for economic growth and increased demand for services. The household survey that was conducted in the Planning Area found that 38 percent of the respondents had moved into the Planning Area within a period of three (3) years, whilst 23 percent moved into the area within the last 4 – 10 years.

Population Growth Trends

Based on the findings of the National Population Census of 2012, the average Mtwara regional growth rate is 1.8 percent per annum and expected to increase to 1.9 percent by 2035. It is assumed that the Planning Area's population will increase at a more rapid rate than the Census projections expected. This growth is directly related to the following potential economic growth drivers:

i. The expected economic opportunities related to new ventures in the oil & gas industry,
ii. The Mtwara Development Corridor, and
iii. Urban and regional migration.

In order to re-evaluate the population growth potential of the Planning Area, it is necessary to consider all influencing factors. The chapter's assessment of environmental, economic and infrastructural factors that contribute to the understanding dynamics of population migration is being done.

Economy and employment

In 2012 Mtwara Region's Gross Domestic Product (GDP) was TShs. 1,183.0 billion, which contributed to 2.65 percent of the national GDP at current market price and thus, the regional per capita income at market price was TShs. 930,862. The Mtwara Regional Socio-Economic profile sets out that the region has contributed approximately 2.65 percent towards the country's GDP. The main activities which made the most significant contributions to the GDP include:

Economy in the Planning Area

Economy in the Planning area is centred on various economic activities such as agriculture, mining, forestry, fisheries, industries etc. It is also influenced by the oil and gas activities although these activities are taking place outside the boundary of the planning area. There is also concentration of commercial activities and exchange of goods. Most of these commercial activities are located within the central area of Mtwara-Mikindani Municipality. The survey

conducted in the planning area showed that about 57.9 percent of the people were self-employed and working in the informal sector. 15 percent were unemployed and 23.2 percent employed in the formal sector. The key economic activities in the planning area included oil and gas, industrial, commercial and trade, agriculture and livestock keeping, fisheries, forestry, mining and small and medium size enterprises.

Social and Community facilities

Access to social and community facilities plays an important role in local development and enhancing the livelihood of the people. The adequate provision of social and community facilities will result in more sustainable human settlements.

i. **Educational facilities**

Nursery schools: There were 15 nursery schools in the planning area and the study revealed that 85.5 percent were owned by the government and the remaining 14.5 percent were privately owned. The survey also found that 18.7 percent children had to walk more than one kilometre to school and 17.3 percent of the buildings were in poor condition. In terms of capacity, most of the nursery schools operated under design capacity.

Pre-primary and primary education: There was a total of 58 government primary schools and 3 private schools in the Planning Area. The study conducted in the planning area revealed that 94.9 percent of the existing primary schools were owned by the government and the remaining 5.1 percent were privately owned. It was also found that 21.6 percent of the children had to walk more than one kilometre to school and 13.6 percent of the class rooms were in bad condition as compared to 39.6 percent which were in good condition.

Secondary Education There was a total of 25 secondary schools in the Planning Area, both public and private. The study further revealed that 85.5 percent of the existing secondary schools were owned by the government and the remaining 14.5 percent were privately owned. It was also found that 39.2 percent students had to walk more than one kilometre to school. In terms of buildings infrastructure, 13.7 percent of the buildings were in bad condition.

Post-secondary education Most of the tertiary educational institutions found in the planning area included Saint Augustine University. Tanzania Institute of Accountancy (TIA), Tanzania Public Service College (TPSC), Vocational Education Training Authority (VETA), Mtwara Teachers Training College, Mtwara Technical Teachers College and Clinical Officers Training College (COTC) and the Naliendele Agricultural Research

Institute located at Naliendele. Additional education and training facilities found within the planning area included the Enhancing Employability through Vocational Training (EEVT). The overall objective of the EEVT initiative has been to build the capacity local communities through training in skills related to oil and gas industry with related economic trends

ii. Health services

Dispensaries Within the Planning Area there were 30 dispensaries of which 80 percent were owned by Government and 20 percent were owned by the private sector. It was found that 32.6 percent of the people had to walk more than one kilometre to nearby dispensary. In terms of buildings infrastructure, it was found that 65 percent of the buildings were in good condition and 1.6 percent of the buildings were in poor condition.

Health Centres The inventory survey further revealed that there were four health centres of which, three were owned by the government and one was privately owned. It was also found that most of these facilities were within a walking of one kilometre. In terms of buildings infrastructure, it was found that 74.4 percent of the buildings were in good condition.

Hospital Currently, there is one referral hospital in Mtwara Region namely Ligula Hospital. The capacity of Ligula referral hospital was reported to be 120 outpatients per day and 247 inpatients.

Common diseases According to records from Ligula Regional Hospital, ten common diseases that majority of people suffered in the planning area were Malaria, Acute Respiratory Infection, Upper Respiratory Infection, Acute Diarrhoea, Surgical disease, Pneumonia, Asthma, Urinary Tract Infection ,Eye Infection and Intestinal worms.

The household survey that was conducted in the planning area showed that UTI was the most prevalent disease (accounting for 33.7 percent) followed by Typhoid (16.3 percent), Malaria and Flue (16 percent) and TB that accounted for 15.8 percent.

Public Utilities:

Public utilities included water supply, solid waste management, liquid waste management, and storm water drainage and energy supply. The discussion is based on analysis of capacities, coverage, shortcomings, and various initiatives that had been initiated to overcome the shortcomings.

i. **Water supply and distribution**

The planning area falls within the Ruvuma River and Southern Coast Basins and has two catchment area, namely; Mtawanya and Mchuchu water sources. Mtawanya catchment area is located on the south-eastern side of Mtwara-Mikindani Municipality, and serves as a major water source for the Municipality. Mtawanya Valley stretches more than 20 Kilometres direction along Makonde Plateau in Mtwara Rural District. The good field is about four kilometres long, running from Mtwara-Ziwani Road. Mchuchu catchment area is located at Mikindani area in the north-eastern part of the Mtwara–Mikindani Municipality. The catchment area is about one kilometre by road from the Mtwara-Dar es Salaam Highway.

Water services within the planning area are provided by three authorities namely Mtwara Urban Water Supply and Sewerage Authority (MTUWASA), Mtwara Mikindani Municipal council and Mtwara District Council. Areas covered by MTUWASA include Railway, Vigaeni, Shangani, Rahaleo, Majengo, Chikongola, Likombe, Magomeni and Chuno wards. Other settlements within the municipality are served by Mtwara-Mikindani Municipal Council through its water department. It was estimated that 82 percent of the total population within the municipal boundary are served by water services. The nine wards which form part of the planning area, within Mtwara District Council are served with boreholes, shallow and deep wells managed by Community Owned Water Supply Organisation (COWSOS).

Analysis has shown that the sources of water in the nine wards have the capacity to supply approximately 10,257 m3/day. This implies that all the current sources of water in the planning area have the capacity to supply a total of 15,797 m3/day of water while a total demand of water is estimated at 17,980 m^3/day. Therefore the present supply of water fall short for about 7,723 m^3/day in other Wards and the current supply capacity is only 57 percent of the requirement.

- **Water Network and Distribution**: Within the boundary of Mtwara-Mikindani Municipal Council, MTUWASA had approximately 126 kilometres of distribution mains. MTUWASA network has been developed in stages over the years. Currently, it is estimated that the network provides services to about 76 percent of the target area within the municipal boundary. MTUWASA network has two water treatment plants; one is located at Mangamba for the Mtawanya source which produces approximately 8,600,000 litres per day and the second is Mikindani water treatment plant, which had

installed capacity of 600,000 litres per day. There are five storage tanks all over Mtwara-Mikindani. Two ground circular concrete tanks (each 225) near Ligula hospital, one elevated circular concrete tank (45) at TTC (a teacher's college) and one elevated circular concrete tank (45) at Regional Commissioners' premises and Boma storage tank.

Mtwara town receives water from Mtawanya source through Mang'amba Booster Pump Station (MBPS) which pumps 12,000,000 litres per day to Mtwara airport, Naliendele Research Institute, the Army Camp and Mtwara Girls Secondary School. For the case of Mikindani Township, groundwater was being pumped directly from Mchuchu borehole to boma storage tank and then distributed to two areas of Mikindani and Mitengo.

In the part of Mtwara District Council, the water distribution network comprised of 66.5 kilometres of the water pipelines network. Out of this, 27 kilometres were located in Mbawala, 15 kilometres Mayanga, 10 kilometres Naumbu, 6 kilometres Mkunwa, 5 kilometres Nanguruwe, 3 kilometres Msanga Mkuu and 0.5 kilometres Ziwani. Moma and Nalingu had no piped network. It was estimated that the coverage of this networks served only 33 percent of the targeted population on this side of the planning area.

- **Current Water Demand and Consumption:** The demand for water in Mtwara-Mikindani in 2013/2014 was estimated to be 12,000m³/day which increased to 13,507m³ in 2014/2015. The Planning Area boundary was expected to increases from the current boundary of Mtwara-Mikindani Municipal council to include the area of the nine wards from the Mtwara District Council. It was expected that water demand would also increase due to increased human activities such as agriculture/irrigation, livestock, fisheries, wildlife, hydropower production and mining. In this situation, the demand of water in the whole planning area was estimated to be 17,981 m3/day. It was estimated that a total of 9,607 users were connected by MTUWASA. In 2010, there were 26 kiosks with the total installed capacity of serving 5,460 people each.

  For the case of 9 wards of Mtwara District Council, most of the users were getting water from water kiosks. At present, the service coverage depends on the reach of the distribution network. Currently, the coverage is only 57 percent of the total planning area.

- **Water Projects:** There were four water-related projects that were underway with the aim of improving clean water services within the planning area.

  - **Project I:** The project involved the feasibility study for the design and construction of new water supply project from Ruvuma River to Mtwara Municipality. This project aimed at producing 100,000m3/day to meet the demand of envisaged population and the new economic influx emanating from gas exploration in Mtwara region.

  - **Project II**: The World Bank funded project on Integrated Water Resources Management. This project was at the design stage and after completion it would provide a capacity of 120,000 Cubic meters per day to the Planning Area.

  - **Project III:** The project aimed at expansion of the existing water treatment plant from its current capacity of 8,500 to 21,000 Cubic meters This project was at design stage.

  - **Project IV**: The Rural Water Supply and Sanitation Project (RWSSP) was to be implemented within the Municipality. Under this project, 10 boreholes would be drilled and constructed in 10 areas within the Mtwara-Mikindani Municipality

  Plans for future water provision from the Ruvuma River Basin were underway. This project would pass through 26 villages in Mtwara District Council, these included Mayaya, Kilombero, Mgonji, Mnawene, Msakala, Majengo, Nambeleketela, Mtendachi, Namindondi, Madimba, Mitambo, Litembe, Mnaida, Mkohe, Tangazo, Magomeni, Kihimika, Kitunguli, Mahurunga, Kivava, Kihamba, mchanje, Mayembejuu, Dindwa, Kitaya and Mayembechini.

ii. Waste management

- Solid Waste Management: The main sources of waste generation within the planning area were households, marketplaces, institutions, industries and commercial premises. Waste production was approximated at 103.77 tonnes per day. Out of these 100 tonnes were generated within the boundaries of Mtwara-Mikindani Municipality and 3.77 tonnes within the boundaries of 9

wards of Mtwara District Council. It was estimated that only 67.12 percent of all solid waste generated was being collected daily.

- Waste Collection and Disposal: Within the boundary of MMMC the waste generated are not disposed on site. It is prohibited by the rules and regulations to dispose waste within the housing premises. Generally, waste was kept in containers and bags. When the bags and containers were full, wastes are taken to collection points for transportation to Mangamba dumping site. There were also individuals and local waste collectors who pick wastes from houses to communal collection points by charging fees. These collectors were not formally registered but they were well known by the people at Mtaa level.

  Only 68 percent of the daily generated waste within the boundaries of MMMC was transported to the dumping site. The limited capacity and inefficient disposal capability of solid waste was largely contributed by the inadequate number of transport facilities (both municipal and that of contractor). On the part of the 9 wards of MDC, waste was generated in small quantities is treated and disposed within the site or housing premises. Out of 3.77 tonnes that were generated, only 1.65 tonnes were collected which was equal to 43.77 percent.

- On-going Projects: Mtwara-Mikindani Municipality was implementing a Word Bank funded project namely the Strategic Cities Project for upgrading the Mangamba Dumping site. The upgrading consisted of the construction of two cells for proper management of solid wastes.

iii. Liquid Waste and Sanitation

Mtwara had no centralized sewerage system. Although MTUWASA had already started the initiatives of building new waste water treatment ponds at Mtawanya area, wastewater and excreta was handled on site. The study found that 71 percent of all the households used traditional pit latrines, 25 percent had septic tanks and soak away pits and 4 percent had VIP latrines.

Information gathered from the health departments indicated that about 95.5 percent of all the households had access to toilet facilities and 4.5 percent had no toilets. Public toilets which had been built at the central market and bus terminal but were in poor condition. The MMMC had formulated a program of rehabilitating public toilets.

iv. Storm water Drainage

The area experiences regular flooding. This situation had been caused by the nature and topographic setting of this area. Most of the flooding areas fall below sea level. The highest altitude is 40 metres above sea level at Ligula hospital. The topographical nature of the planning area has caused it to be in a position of receiving water from many rivers, streams, and valleys. Another reason for flooding is high water table for many parts of Mtwara. Variation in water table exposes the surface of several low-lying depressions to the influence of sea water. Most of the street roads had no storm water drainage.

Mtwara-Mikindani Municipality had two types of water drains namely, primary drains and secondary drains. Many of the primary and secondary drainages were not constructed and well maintained. The Zambia Ring Road and Port Road were constructed with storm water drainages (secondary) and collect run-off water to Kiangu pond which was among of the storm water collector ponds situated at Shangani. In early 1981 a Storm Water Drainage Master Plan was developed but was not fully implemented. The existing ponds of Chuno, Kiangu, Nabwada and Nandope are among of the proposal of the 1981 storm water drainage master plan.

v. Energy

Electricity, charcoal, firewood gas and kerosene constituted the main sources of energy for Mtwara. According to household interviews that were conducted in August 2016, the pattern of energy consumption by type was revealed to be 18.2 percent used electricity, 29.4 percent charcoal, 28.1 percent firewood, 6.5 percent gas and 41 percent kerosene.

The existing power generation infrastructure in Mtwara Region consists of one gas-fired power station with an installed capacity of 18 MW and an existing maximum demand of 14 MW located in the vicinity of the port area. The power plant has four feeder lines, two 11kV and two 33kV feeder lines. The loads connected to these lines do not have a secure supply as they was not connected to the transmission grid and were completely dependent on the gas generated from the Mtwara gas power station.

Future Projects

At the time of preparation of this master plan, projects that were in the making included the:

Symbion's southern electrification project would develop a power generation and transmission solution for southern Tanzania in a Public and Private Partnership with TANESCO. This project would support government priorities and objectives to develop key

economic sectors and increase the country's generation and transmission capacity using alternative and inexpensive energy resources. The Symbion Power southern electrification project was planned to utilize fuel-effective and emission-reduced gas turbine technology and superconductors on transmission lines.

Housing and residential development

Within the planning area 3 house types were identified that comprised of normal (detached, semidetached, raw houses); apartments (block of flats and Apartment) and others (Swahili type or traditional houses). The planning area was largely characterized by single storey buildings predominantly private residential houses. Studies revealed that the existing central business district was changing slowly in the same way as house types.

Housing density in the planning area varied from the centre of Mtwara Municipality CBD to the periphery suburbs of Mtwara District. This was generally a low density when compared to the need for optimal use of land and infrastructure.

The field surveys on housing condition revealed that 60.4 percent of the houses were in fair condition, 15.2 percent poor condition, 14.3 percent were in good condition and 10.2 percent of the houses were in very good condition.

Housing production in the planning area was contributed by both government, and private agencies such as Local Government Authorities who have contributed 2.1 percent, the pension Institution investments 2.4 percent, NHC have contributed 5.1 percent real estate developers 3.9 percent, central government 3.0, individuals in planned areas have contributed 13.5 percent and individuals in unplanned areas 70 percent.

House ownership was dominated by private ownership as opposed to public ownership. The privately owned houses belong to private companies and individuals, while public owned houses belonged to the government, local government and parastatal organizations. Most of the buildings to the tune of 72 percent were privately owned and occupied by the owner's themselves. The proportion of tenants was revealed to be 23 percent and other types of ownerships accounted for 5.3 percent.

Mtwara was still characterised by low levels of unplanned settlements. The land occupied by unplanned settlements was limited to 25 percent of the built up area. This provides an opportunity to upgraded or regularise unplanned settlements due to the limited coverage and

density. Housing development in planned area was observed to have advanced in building materials with permanent structures due to assured security of tenure.

Transportation and communication

The road network is governed by two authorities namely TANROADS, who oversee all national roads and the local authority namely Mtwara-Mikindani Municipality and Mtwara District Council. The two authorities are responsible for all non-regional roads within the urban area.

The total length of urban road network in the Mtwara-Mikindani Municipality was 177.5 kilometre. Tarmac road covered 20 kilometres, while unpaved roads cover 25kilometre and 132.5 kilometres. Roads within the Mtwara District Council were all unpaved. The majority (60 percent) of the rural population of the Planning Area used non-motorised modes of transport. According to the social economic survey results 66 percent of the roads in the planning area were in poor condition and only 2 percent were in very good condition.

Mtwara airport is located to the southeast and is about 10 km away. To make the airport more economically viable, there was an ongoing project to upgrade the airport to 1800 metres of runway. This upgrade would enable an ease transportation of goods, people and services for the southern regions as a whole.

Mtwara port had four (4) transit sheds with a total storage capacity of about 15,000 tons. These sheds could handle 400,000 metric tonnes of imports and exports per annum which were mainly general cargos. The depth of the port stands at 9.5metres with accommodation of vessels measuring below 175metres. The depth of the port has brought its channel expansion project in order to carter for an economic development of this region.

Existing Land Use

The planning area covered an area of about 94,600 Ha. The predominant land uses in the area were woodland, forests and natural reserves (57percent), agriculture (29percent), residential (9percent), industrial (6percent), institutional and airport (2 percent) and swamps and wet lands (1percent). Other land uses included recreational, commercial, mining, sanitary land fill and cemeteries.

The key emerging issues related to land uses included availability of land for future expansion, low level of unplanned settlements and existence of planned and surveyed

undeveloped land. This created an opportunity to flexibly plan and re-organize Mtwara into a planned urban centre. Other features that depicted the current pattern of land uses included well established CBD, designated areas for industrial development, way leaves (gas pipeline and railway alignment), sufficient land for port extension, presence of big institutional pieces of land and historical sites of Mikindani and Mgao. On the contrary presence of areas which were affected by floods during rainy seasons, lack of liquid wastes disposal sites and encroachment of water sources and wetlands issues undermined the achievement of sustainable development of Mtwara.

3. Proposal

Population

i. In projecting the anticipated population in the planning area, , three scenarios were considered:

ii. That the planning area will continue to grow at the rate projected by National Bureau of Statistics.
iii. That the growth factors as described in the previous sections and proposes a conservative growth pattern.
iv. Different projects would be implemented in the planning area, as well as the impact of urbanisation and regional migration,
v. Utilising the high growth scenario, it was estimated that the planning area could reach a population size of 799,357 people by the year 2035. If calculated in a linear method, this equated to annual growth of 6.82 percent.

Land requirement

Due to the importance of health and education facilities, more emphasis will be placed on the land requirements of these two land use types. Health facilities are regarded as important determinants for promoting the general physical and mental health and wellbeing of people. On equal footing educational facilities improve access to opportunities, particularly skilled employment.

Required Health Facilities

Dispensaries: By 2015, there were total 29 dispensaries scattered all over the planning area. An additional 67 dispensaries will be required to serve the population of the planning area.

Health Centres: There were 7 Health Centres that existed in the planning area until 2015. All seven health Centres were located within acceptable travel distance. An additional 8 health centres will be required in 2035.

Hospitals: Mtwara was being served with one government referral Hospital located at Ligula. This Hospital had the capacity to serve 1190 outpatients and 103 inpatients. Due to the anticipated population boom in Mtwara the current facilities at Ligula cannot meet the demand. Therefore, there is a need for construction of a Referral hospital with higher order facilities and capacity as compared to those provided by the Ligula Hospital. It is recommended that this hospital is built at Mbawala ward in Naguruwe cluster.

Required Educational Facilities

Pre-primary and primary schools: By the year 2015, there was adequate number of pre-primary and primary schools in the Planning Area. In 2035 an additional 45 schools will be required to serve the population of Mtwara.

Secondary Schools: Similarly, the majority of the wards had adequate number of secondary schools. The shortfalls were notable in Msangamkuu and Nalingu Wards. By 2035, additional 65 secondary schools will be required to serve the population of planning area.

University: Given the projected population for Mtwara City and taking into considering the envisaged growth within the oil and gas sector, a university will be a natural result when the production phase reaches maturity. In this instance, the master plan has proposed a University to be built at Mbwala.

Master plan

The major land uses categories that call for consideration in terms of future requirements include, residential, industrial, commercial, institutional, agricultural, conservation, forest, port facilities, open spaces and recreational sites. The key determinants for the future land use requirements are:

i. Accommodating requirements for the increased population from 161,600 in 2012 to 799,537 in 2035
ii. Setting aside adequate land for gas related and other industrial establishments
iii. Accommodating demands enunciated in the Mtwara Development Corridor Projects
iv. Setting aside adequate land for Special Economic Zone (SEZ) activities
v. Designating adequate lands for line infrastructure and corridors (Gas pipeline, railway and road reserves) nature conservation, forests, urban infrastructure and protection of

water sources.

The urban concept

The goal of Mtwara Master Plan is to become a well planned and efficient Green City. With this in mind, the following vision has been developed:

"Mtwara City: A vibrant city with a successful economy that provides sufficient work and income opportunities and that is attractive to investors; guarantees good governance, food security and a clean environment for all citizens."

In order to respond to this vision, four objectives have been identified

i. A successful Regional Economic Hub developed;
ii. Social development and shared growth promoted and realized;
iii. A strong infrastructure platform to support anticipated investments developed
iv. Focused and smart delivery of goods and environmental services realised.

To respond to rapid urbanisation Mtwara is planned to be developed in a compact manner so that land is used according to the needs and is made available for other urban activities that support urban life.

The compact structure is made of compact nodal of developments which are focal areas for development and growth. Nodes selected by this Master plan currently already have a concentration of activities and are accessible. Details of the nodes have been discussed in the proposed development structure.

Development framework

The calculation of land required in the planning area for the next twenty (20) years is based on population of 799,537 people. Land estimates have been covered under; residential, public utility and social services, recreation facilities and urban agriculture.

The Master plan proposes various wards within the Planning Area be branded as clusters with specific themes. These development clusters are considered in relation to the activities taking place in each of the wards, as well as those similarly related activities taking place in other wards. The clusters concept was further developed to include specific future development nodes and activity areas, as well as to maximise linkages between related clusters. The proposed clusters and their dedicated functions are:

1. **Central Business District (CBD)**: The CBD is designated to accommodate Regional headquarters of various organizations, National and International institutions, banks, business and trades, shopping malls, stores, port, offices, hotel and entertainments. The population of CBD as 2015 after projecting the 2012 census is 65,771. For the next 20 years the population in the CBD is expected to be 297,729. The proposed land use for the CBD Cluster will account for 2,655 Hectares.

2. **Mjimwema:** The cluster is located west of the planning area. It is planned to become Southern Region Centre for Higher Learning Services. The cluster will have nine (9) higher learning institution campuses with incubations for young professional's development. The cluster will have other mixed uses including residential, trading, health, hotels and tourism and hospitality functions. The population by 2035 is estimated to be 331,439 which were projected from 2015 base year population of 9,745 people. The proposed land use for the Mjimwema Cluster will account for 15,098 Hectares.

3. **Nanguruwe:** The cluster is located south of the planning area. It is envisaged to become an exemplary suburb that is well planned and managed. The cluster has about 17,201 by 2015 and expected to rise to about 55, 774 by 2035. Major land use in Nanguruwe Cluster will be Per-urban Farmland and Agro-processing industries. Presently the large part of the cluster is a pure farmland with small established settlements. The proposed land use for the Nanguruwe Cluster will account for 39,972 Hectares.

4. **Naumbu:** The cluster is located North West of the planning area. The cluster is planned to become an epicentre for industrial employment. The cluster has a population of about 9, 745 and is expected to rise up to 48,207 people by 2035. The proposed land use for the Naumbu Cluster will account for 17,608 Hectares.

5. **Ziwani**; Ziwani cluster is located east of the planning area. It is planned to become a logistics epicentre and is envisaged to provide transportation and logistics needs for countries like Mozambique, Malawi, Tanzania, Zambia and South Africa. The cluster will have a population of 44,118 in 2035. The cluster will host all major transportation facilities in the planning area which include Railway station, regional and city bus stand and the International Airport. Presently the Regional airport is in this cluster which is proposed to become an International Airport. The cluster will have other mixed uses such as; Residential, Trading, Health, Hotels, Tourism and hospitality.

The proposed land use for the Ziwani Cluster will account for 19,267 Hectares.

Implementation plan

This Master Plan has proposed an implementation framework which will ensure effective and smooth implementation of the planned projects. It is proposed that the implementation of the master plan to be a duty of the planning authority as per its area of jurisdiction. Each authority will form/ establish a section or unit which will be responsible for implementation of the Master Plan. The office of the Regional Commissioner will be responsible for monitoring and coordinating the implementation of the Master Plan.

Development Phasing

The Master Plan horizon year is 2035 which will sustain the future growth for 20 years. Projects are categorized in three phases which are short term (2015 – 2020), medium term (2021 – 2030) and long term (2030 -2035).

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