

**Dar es Salaam**  
**Transport Policy and System Development**  
**Master Plan**

**Technical Report 1**  
Urban and Regional Planning

**June 2008**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

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**PACIFIC CONSULTANTS INTERNATIONAL**  
**CONSTRUCTION PROJECT CONSULTANTS**

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**Dar es Salaam City Council**  
**The United Republic of Tanzania**

**Dar es Salaam**  
**Transport Policy and System Development**  
**Master Plan**

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## Table of Contents

### Chapter 1 Current Socio-economic Conditions

1.1	Administrative Structure .....	1-1
1.1.1	Central and Local Government Administrations .....	1-1
1.1.2	Administrative Structure of Dar es Salaam .....	1-2
1.2	Population .....	1-4
1.2.1	Population Trends in Tanzania .....	1-4
1.2.2	Population Growth in Dar es Salaam .....	1-6
1.2.3	Population Density in Dar es Salaam .....	1-7
1.2.4	School Enrolments in Dar es Salaam .....	1-8
1.3	Economic Condition .....	1-9
1.3.1	Overview of Macroeconomic Performance in Tanzania .....	1-9
1.3.2	The Role of International Tourism .....	1-11
1.3.3	Regional GDP in Dar es Salaam .....	1-12
1.3.4	Labor Force Structure in Dar es Salaam .....	1-13
1.4	Land Use in Dar es Salaam .....	1-15
1.4.1	Historical Urbanization Trends .....	1-15
1.4.2	Major Characteristics of Existing Land Use Pattern .....	1-16
1.5	Major Findings .....	1-20

### Chapter 2 Review of City Planning Regulations and Practices

2.1	Review of City Planning Legislations .....	2-1
2.2	Urban Planning Practices .....	2-3
2.2.1	Dar es Salaam Master Plan of 1979 .....	2-3
2.2.2	Strategic Urban Development Plan (SUDP) .....	2-4
2.2.3	Community Infrastructure Upgrading Program (CIUP) .....	2-7
2.3	Major Findings .....	2-10

### Chapter 3 Development Framework

3.1	Review of National Development Vision and Policy .....	3-1
3.1.1	Tanzania Development Vision 2025 .....	3-1
3.1.2	National Strategy for Growth and Reduction of Poverty .....	3-2
3.1.3	Mini-Tiger Plan 2020 .....	3-5
3.2	Proposed Growth Vision for Dar es Salaam Toward 2030 .....	3-6
3.3	Socioeconomic Framework .....	3-7
3.3.1	Population Projection .....	3-7
3.3.2	Economic Projection .....	3-10

3.4	Spatial Framework .....	3-12
3.4.1	Physical Constraints for Future Urbanization .....	3-12
3.4.2	Residential Development by the MLHSD .....	3-14
3.5	Summary and Conclusion .....	3-15
<b>Chapter 4 Future Urban Structure</b>		
4.1	Alternatives of Future Urban Structure .....	4-1
4.1.1	Three Types of Future Urban Development Pattern .....	4-1
4.1.2	Proposed Urban Development Scenarios .....	4-3
4.2	Proposed Urban and Land Development Policies .....	4-4
4.2.1	Housing and Residential Development .....	4-5
4.2.2	Commercial and Business Development .....	4-6
4.2.3	Intensive Corridor Development .....	4-8
4.2.4	Revitalization of Central Business District .....	4-8
4.2.5	Industrial Development .....	4-9
4.2.6	Agriculture and Open Space Development .....	4-9
4.3	Future Allocations of Population and Economic Activities .....	4-10
4.3.1	Future Population Distribution in 2030 .....	4-10
4.3.2	Job Distribution in 2030 .....	4-13
4.4	Potential Measures in Urban Regeneration .....	4-15
4.4.1	Creating New Urban Centers .....	4-15
4.4.2	Transfer of Development Right (TDR) .....	4-17
4.4.3	Tax Increment Financing (TIF) .....	4-18
4.5	Conclusion .....	4-19
Appendix	Photos of Typical Housing Areas in Dar es Salaam and Their Population Densities .....	A-1
Reference	.....	A-6

# Chapter 1 Current Socioeconomic Conditions

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The Dar es Salaam Transport Policy and System Development Master Plan Study has as its goal a comprehensive transport development plan for Dar es Salaam to the year 2030. Transport issues in Dar es Salaam, the principal city in Tanzania, is invariably linked with macro policies of the nation. In order to overview current socioeconomic conditions in Tanzania and Dar es Salaam in particular, this chapter is divided into four parts: (i) Administrative Structure; (ii) Population Growth; (iii) Economic Condition; and (iv) Existing Land Use. The purpose of this analysis is to review the socioeconomic trends of Tanzania and, ipso fact, to provide backgrounds to understand current urban transport issues in Dar es Salaam.

## 1.1 Administrative Structure

The Government of the United Republic of Tanzania is a unitary republic formed by the union of Tanganyika and Zanzibar in 1964. All state authorities in the United Republic have been controlled by the Government of the United Republic of Tanzania (the Mainland of Tanzania) and the Revolutionary Government of Zanzibar. Each Central Government has three organs: Executive; Judiciary; and Legislature that have powers over the conduct of public affairs. The Constitution of the United Republic of Tanzania was enacted in 1977, which stated that Tanzania aimed at building a democratic society founded on the principles of freedom, justice, fraternity and concord. The Executive is accountable to a legislature composed of elected members of Parliament and representatives of the people. The Judiciary is independent and dispenses justice ensuring that all human rights are preserved and protected. The constitution hence provides for legislative supremacy of Parliament and independence of the Judiciary. It also embraces the principles of rule of law, separation of powers and pluralistic political system.

### 1.1.1 Central and Local Government Administrations

Administratively, the Mainland of the United Republic of Tanzania is divided into 21 regions<sup>1</sup>. Under the Regional Administration Act of 1997, each region has regional secretariat headed by regional commissioner as a political representative and regional administrative secretary as an administrative

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<sup>1</sup> They are: Arusha, Dare es Salaam, Dodoma, Ilinga, Kagera, Kilimanjaro, Kigoma, Lindi, Manyara, Mara, Mbeya, Mtwara, Mwanza, Morogoro, Pwani, Rukwa, Ruvuma, Singida, Shinyanga, Tabora, and Tanga.

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representative. Regional administrative secretary provides technical advices to regional commissioner, and both positions are appointed by the President. Although the regional secretariat has played an important role in regional administration, its power has shifted to local government authorities (LGA) under the recent decentralization policy of the Local Government Reform Program (LGRP) in 1999. Thus, the function of regional secretariat has become a coordination body between the central government and local government administrations.

Region is administratively divided into districts<sup>2</sup>. Each district is headed by district commissioner as a political representative and district administrative secretary as an administrative representative of the district. Both positions are also directly appointed by the President. It can be said that the regional and district administrative bodies function as branches of the central government, i.e., Prime Minister's Office – Regional Administration and Local Government (PMO-RALG).

Under the Local Government Act of 1982, local government authorities exist for the purpose of consolidating and giving more power to the people to participate in the planning and implementation of development programs within their jurisdictions. Local government authorities are classified into two categories: urban and rural authorities. Urban authorities are categorized into towns, municipalities and cities based on size of population, level of services and economic bases. Rural authorities are commonly known as districts, which are subdivided into wards and/or villages. All local government authorities are mandated to play two main functions: law and order; and economic and development planning in their jurisdiction. Each level of local government authorities, such as towns, municipalities, cities and districts, has council and councilors are elected by people living in the jurisdiction.

### **1.1.2 Administrative Structure of Dar es Salaam**

Dar es Salaam is a local government authority and has a city council headed by City Mayor, who is elected among the city councilors<sup>3</sup>. The Dar es Salaam city council has an executive city director, who is responsible for all the technical and administrative matters within the jurisdiction. The executive city director is appointed by the President. Dar es Salaam City is composed of three municipalities: Ilala, Kinondoni and Temeke Municipality. Each municipality has a municipal council headed by Municipal Mayor, who is elected among the municipal councilors. Each councilor is a representative of the people living in the jurisdiction. Municipality has an executive municipal director, who is a technical position to be responsible for provision and management of basic services, and planning and development activities within the jurisdiction. The executive municipal director is appointed by the Minister of Prime Minister's Office – Regional Administration and Local Government.

The Dar es Salaam city council and Kinondoni, Ilala and Temeke municipal councils operate in the same jurisdictional areas. Thus, the City Council performs a coordinating role of three municipalities and prepares a city-wide framework to enhance sustainable urban development. Each municipal

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<sup>2</sup> There are 123 districts in Tanzania, the National Housing and Population Census in 2002.

<sup>3</sup> There are now 20 Councilors comprising of 11 elected councilors from the three municipalities, 7 members from Parliament and 2 members nominated by Parliament under "Special Seats for women."

council provides social and economic services to their residents, including measures to improve and accelerate local economic activities and public services in health, education, infrastructure development, urban development, etc. Municipality is further divided into administrative unit of ward, where at least one councilor is elected by voting from the people living in the ward. There are 73 wards in Dar es Salaam City: 22 wards in Ilala Municipality, 27 wards in Kinondoni Municipality, and 24 wards in Temeke Municipality.

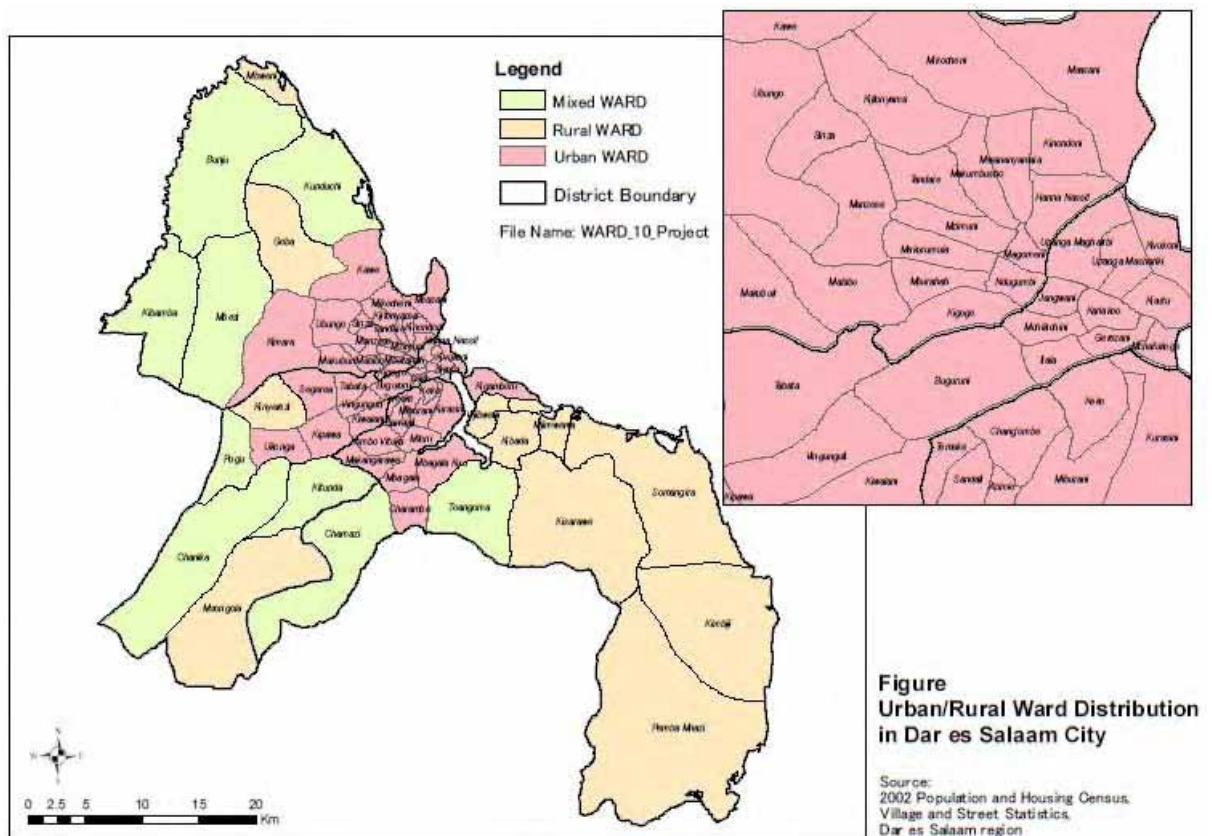


Figure 1.1.1 Administrative Boundary of Municipalities and Wards in Dar es Salaam

At the same time, Dar es Salaam has a region secretariat headed by a regional commissioner and regional administrative secretary. The major functions of regional secretariat are coordination between central and local government authorities, enforcement of policies enacted by the central government, and provide technical advices to the local authorities. Furthermore, three municipalities of Kinondoni, Ilala and Temeke are also administratively districts headed by a district commissioner and district administrative secretary. Accordingly, regional and district administrations as well as local government authorities, such as city council and municipal council, operate same jurisdictional areas in the case of Dar es Salaam. These characteristics of the central and local government administrations are illustrated in Table 1.1.1. Some point out that any political decision at a city and municipality level has been strongly affected by the central government, although decentralization policy has been undertaken since 1999.

**Table 1.1.1 The Central and Local Government Structure in Tanzania**

	Central Government Administration	Local Government Administration
National Level	Ministries, including Prime Minister's Office – Regional Administration and Local Government (PMO-RALG)	
Region/City	Regional Secretariat, Regional Commissioner, Regional Administrative Secretary	City Council, headed by City Mayor, City Director
District/Municipality	District Commissioner, District Administrative Secretary	Municipal Council, headed by Municipal Mayor, Municipal Director
Ward		Ward Development Committee headed by Councilor
Village (rural area) or Sub-ward (urban area)		Village Council

Source: The JICA Study Team

## 1.2 Population

### 1.2.1 Population Trends in Tanzania

The country has experienced continued, steady population growth over the past three decades. According to the data from National Population and Housing Census, which has been conducted four times by the National Bureau of Statistic (NBS), the population of Tanzania mainland has increased nearly triple since 1967; the population extended from 11.9 million persons in 1967 to 17.0 million persons in 1978, 22.4 million persons in 1988 and to 33.4 million persons in 2002 (Table 1.2.1). The average annual population growth rate was 3.3 percent between 1967 and 1978, 2.8 percent between 1978 and 1988 and 2.9 percent between 1988 and 2002.

Tanzania represents one of the larger African countries on a population basis. According to the World Bank population index of year 2004, Tanzania had fifth largest population size following Nigeria, Egypt, Ethiopia and South Africa. Population size is roughly comparable to Sudan and Kenya (Table 1.2.2). Population density is relatively modest at approximately 43 persons per square kilometer of land area. The share of urban populations was 36.4 percent in Tanzania, which was lower than South Africa (57.4 percent), Kenya (40.5 percent) and Sudan (39.9 percent) and much higher than Ethiopia (15.9 percent) and Uganda (12.3 percent).

**Table 1.2.1 Population Trends in Tanzania Mainland, 1967, 1978, 1988 and 2002**

Year	Tanzania Mainland	Average Annual Growth Rate (percent per annum)
1967	11,958,654	
1978	17,036,499	3.27 (1967-1978)
1988	22,455,207	2.80 (1978-1988)
2002	33,461,849	2.89 (1988-2002)

Source: The United Republic Tanzania Population and Housing Census, NBS.



**Table 1.2.2 African Population Patterns in Year 2004**

Country	Year 2004 Population	Land Area (sq km)	Population Density (Persons/sq km)	Percent Urban Population
Nigeria	128,710,000	910,770	141.3	47.5
Egypt	72,642,000	995,450	73.0	42.2
Ethiopia	69,961,000	1,000,000	70.0	15.9
South Africa	45,509,000	1,214,500	37.5	57.4
<b>Tanzania</b>	<b>37,627,000</b>	<b>883,590</b>	<b>42.6</b>	<b>36.4</b>
Sudan	35,523,000	2,376,000	15.0	39.9
Kenya	33,467,000	569,140	58.8	40.5
Algeria	32,358,000	2,381,700	13.6	59.4
Morocco	29,824,000	446,300	66.8	58.1
Uganda	27,821,000	197,100	141.2	12.3
Ghana	21,664,000	227,540	95.2	45.8
Mozambique	19,424,000	784,090	24.8	36.8
Madagascar	18,113,000	581,540	31.1	26.8
Ivory Coast	17,872,000	318,000	56.2	45.4
Cameroon	16,038,000	465,400	34.5	52.1
Angola	15,490,000	1,246,700	12.4	36.4
Niger	13,499,000	1,266,700	10.7	22.7
Mali	13,124,000	1,220,200	10.8	33.0
Zimbabwe	12,936,000	386,850	33.4	35.4
Burkina Faso	12,822,000	273,600	46.9	18.2
Malawi	12,608,000	94,080	134.0	16.7
Zambia	11,479,000	743,390	15.4	36.2
Senegal	11,386,000	192,530	59.1	50.3
Tunisia	9,932,400	155,360	63.9	64.1
Chad	9,447,900	1,259,200	7.5	25.4
Guinea	9,201,800	245,720	37.4	35.7
Rwanda	8,882,400	24,670	360.0	20.1
Benin	8,177,200	110,620	73.9	45.3
Somalia	7,964,400	627,340	12.7	35.4
Burundi	7,281,800	25,680	283.6	10.3
Togo	5,988,400	54,390	110.1	35.7
Libya	5,740,100	1,759,500	3.3	86.6
Sierra Leone	5,336,400	71,620	74.5	39.5
Eritrea	4,231,500	101,000	41.9	20.4
Central African Rep.	3,986,000	622,980	6.4	43.2
Congo, Rep.	3,882,900	341,500	11.4	53.9
Liberia	3,240,600	96,320	33.6	47.3
Mauritania	2,980,400	1,025,200	2.9	63.0
Namibia	2,009,300	823,290	2.4	33.0
LeSotho	1,798,000	30,350	59.2	18.1
Botswana	1,769,100	566,730	3.1	52.0
G. Bissau	1,539,700	28,120	54.8	34.8
The Gambia	1,477,700	10,000	147.8	26.1
Gabon	1,362,300	257,670	5.3	84.4
Mauritius	1,234,200	2,030	608.0	43.6
Swaziland	1,119,800	17,200	65.1	23.7
Djibouti	779,100	23,180	33.6	84.1
Comoros	587,940	2,230	263.7	35.6
Cape Verde	495,170	4,030	122.9	56.7
Eq. Guinea	492,230	28,050	17.5	49.0
Sao Tome & Principe	152,960	960	159.3	37.9
Seychelles	83,643	460	181.8	50.1

Source: Study Team based on World Bank data. Ranking in descending population size.

## 1.2.2 Population Growth in Dar es Salaam

Dar es Salaam has also exhibited strong population growth and it is the fastest growing region in Tanzania mainland; the population expanded from 0.85 million persons in 1978 to 1.36 million persons in 1988 and to 2.49 million persons in 2002 (Table 1.2.3). Dar es Salaam occupied about 7.4 percent of the national population in 2002. The average annual growth rate was 4.4 percent between 1988 and 2002, which was nearly 1.5 point higher than that of the national average during the same period. It is estimated that Dar es Salaam has 3.03 million persons in 2007<sup>4</sup>.

**Table 1.2.3 Population Trends in Dar es Salaam, 1978, 1988 and 2002**

Year	Tanzania Mainland Population	Dar es Salaam		
		Population	Average Annual Growth Rate	Percentage Share in Tanzania Mainland
1978	17,036,499	851,522		5.0%
1988	22,455,207	1,360,865	4.8% (1978-1988)	6.1%
2002	33,461,849	2,487,288	4.4% (1988-2002)	7.4%

Source: The United Republic Tanzania Population and Housing Census, NBS

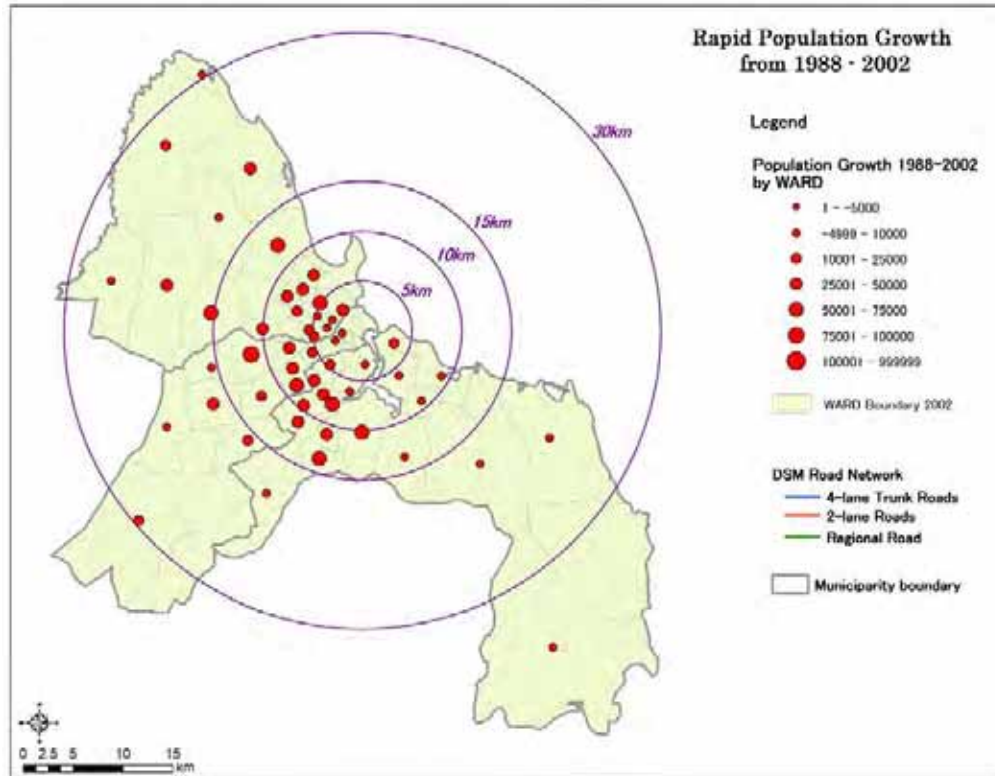
Dar es Salaam consists of administratively three Municipalities: Kinondoni, Ilala and Temeke Municipality. The Census population in 1978, 1988 and 2002 by each municipality is shown in Table 1.2.4. Kinondoni Municipality has the largest population among the three municipalities; It had 1,083,913 habitants in 2002, which occupied 44 percent of the total population of Dar es Salaam. According to the average population growth rate, Kinondoni Municipality had the highest growth rate of 5.6 percent per annum during the period between 1978 and 1988, followed by Temeke Municipality with 4.5 percent per annum and Ilala Municipality with 3.8 percent per annum. During the period between 1988 and 2002, Ilala and Temeke Municipalities had growth rate of 4.7 percent per annum, while Kinondoni Municipality dropped to 4.0 percent per annum, which was 1.6 point lower than that in the previous period between 1978 and 1988. These figures indicate that Kinondoni Municipality experienced a rapid population growth in the 1970s and 1980s and more recently the population growth has shifted to Ilala and Temeke Municipalities in the 1990s and the early 2000s.

**Table 1.2.4 Population Trends by Municipality in Dar es Salaam, 1978, 1988 and 2002**

Dae es Salaam Municipality	Population			Average Annual Growth Rate	
	1978	1988	2002	(1978-1988)	(1988-2002)
Ilala	228,235	331,663	634,924	3.8%	4.7%
Temeke	258,581	401,786	768,451	4.5%	4.7%
Kinondoni	364,706	627,416	1,083,913	5.6%	4.0%
Total	851,522	1,360,865	2,487,288	4.8%	4.4%

Source: National Population and Housing Census in 1978, 1988 and 2002, NBS.

<sup>4</sup> According to estimation by JICA study team.



**Figure 1.2.1 Population Growth from 1988 to 2002 by Ward in Dar es Salaam**

The municipality is divided into administrative sub-units called “wards”. The population data at ward level are also available in the Population and Housing Census. There are, however, big gaps between the 1988 Census and 2002 Census. These differences were mainly caused by the rapid urban growth and changes of ward boundaries under the Local Government Reform Program (LGRP) of 1999. Before 1999, Dar es Salaam was one jurisdiction of city administration and there were 52 wards. In 2000, Dar es Salaam was divided into three municipal administrations and it was divided into 73 wards. Some wards in the 1988 Census were split into several new wards, according to rapid urbanization and population growth. The ward population in 1978, 1988 and 2002 are shown in Table 1.2.5 in the end of this chapter. Figure 1.2.1 illustrates the distribution of population growth from 1988 to 2002 by ward. Although there are some limitations, large population growth can be seen in the areas of 5-15 km radius in the western part of the city.

### 1.2.3 Population Density in Dar es Salaam

The average population density in Dar es Salaam as a whole was about 15 persons/ha in 2002 and each municipality was: 21 persons/ha in Kinondoni Municipality, 18 persons/ha in Ilala Municipality and 10 persons/ha in Temeke Municipality. Looking at the population density at ward level, high population density with more than 300 persons/ha can be seen in the adjacent wards to the City Center, such as Magomeni (367 persons/ha), Makurumula (340 persons/ha), Ndugumbi (443 persons/ha) and Makumbusho (321 persons/ha) in Kinondoni Municipality; Ilala (337 persons/ha) in Ilala Municipality; and Azimio (533 persons/ha) and Tandika (361 persons/ha) in Temeke Municipality.

Ward is further divided into the unit of sub-ward. Sub-ward is not a local administrative unit, but it is characterized as a spontaneous unit of settlement called *Mtaa* (English translation is “street”) designated by local government authority. According to the 2002 Census, there are 364 sub-wards in Dar es Salaam: 143 sub-wards in Kinondoni Municipality; 92 sub-wards in Ilala Municipality and 129 sub-wards in Temeke Municipality<sup>5</sup>. Figure 1.2.2 illustrates the geographical distribution of population density by sub-ward. It shows clearly that most of the areas in Dar es Salaam are low density and sparse residential areas with less than 50 persons/ha. The areas with population density of over 100 persons/ha are concentrated in the area within 10 km radius from the City Center as well as the areas along major arterial roads, especially Nyerere and Kilwa roads.

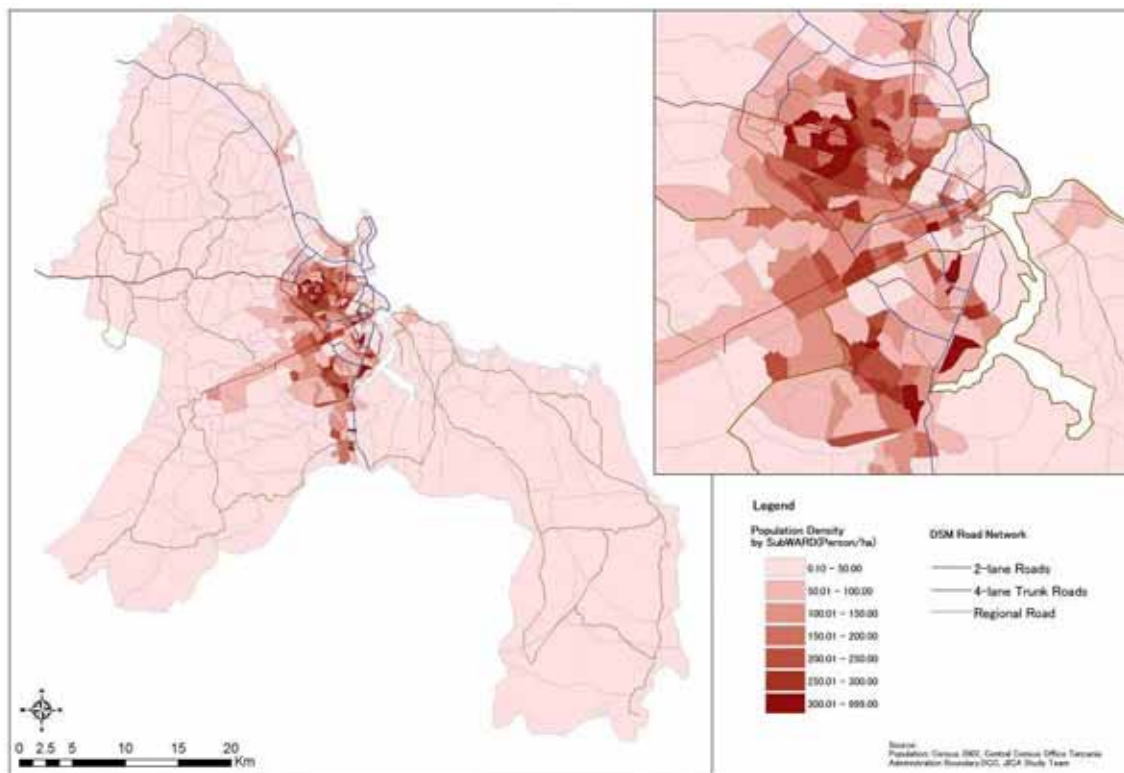


Figure 1.2.2 Population Density by Sub-ward in Dar es Salaam, 2002

#### 1.2.4 School Enrollments in Dar es Salaam

According to the data from 2002 National Population and Housing Census, there were about 532,000 students in Dar es Salaam: 225,000 students in Kinondoni Municipality; 141,000 students in Ilala Municipality and 165,000 students in Temeke Municipality (Table 1.2.5). In the 532,000 students, some 82 percent or 436,000 are primary school students, and another 14 percent or 73,000 are secondary school students. Students in higher education including training after secondary school and university are only 4 percent or 21,000 students in Dar es Salaam.

<sup>5</sup> The statistical data of the numbers of sub-ward are different between the NBS and DCC. According to the DCC profile of 2004, the total number of sub-wards is 276 in the jurisdiction.

**Table 1.2.5 Number of School Enrollments in Dar es Salaam by Municipality, 2002**

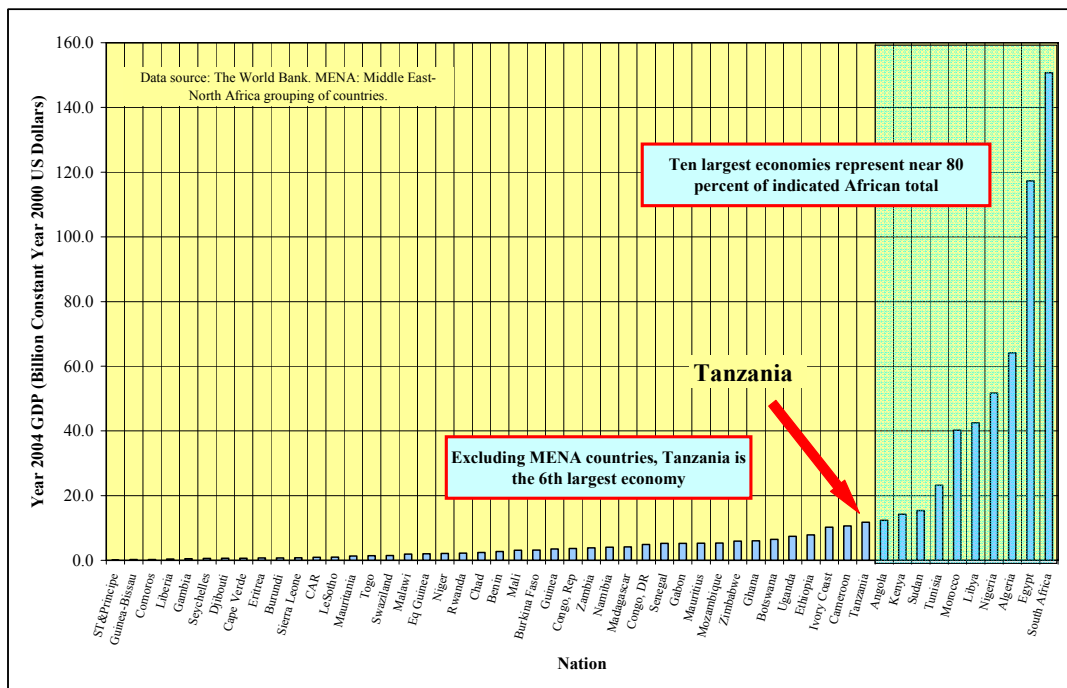
	Kinondoni	Ilala	Temeke	Dar es Salaam Total
Primary	181,343	114,130	141,012	436,485
Training after Primary	752	234	235	1,221
Pre-Secondary	109		138	247
Secondary	32,857	20,898	19,375	73,130
Training after Secondary	2,158	1,377	784	4,319
University and Others	8,200	4,451	3,706	16,357
Total School Enrollment	225,419	141,090	165,250	531,759

Source: NBS, The 2002 National Population and Housing Census

### 1.3 Economic Condition

#### 1.3.1 Overview of Macroeconomic Performance in Tanzania

According to the World Bank Index, the largest African economies, in absolute terms, are found the countries including South Africa, Egypt, Algeria, Nigeria, Libya and Morocco (Figure 1.3.1). South Africa, the largest economy in Africa, produced a national GDP of US\$150 billion in 2004 at constant 2000 price. The distribution of national income is skewed; indeed, the ten largest economies represented 80 percent of the African total. Tanzania is, within this African context, a robust performer. Tanzania produced a national GDP of US\$11.8 billion in 2004 at 2000 constant price; it is the 11th largest in Africa. When excluding countries normally more associated with the MENA (Middle East-North Africa) region, Tanzania ranks as the sixth largest economy in Africa.



**Figure 1.3.1 National GDP in African Countries, 2004 (at Constant 2000 Price)**

When look at a GDP per capita, the middle (upper) income countries<sup>6</sup> with the range of US\$3,256 - \$10,065, were Botswana, Mauritius, Seychelles, Libya, Gabon and South Africa. The largest economy, South Africa, exhibits a GDP per capita of US\$3,312 at constant 2000 price. These are no “high” income country in Africa. Tanzania is categorized as a low-income country with a GDP per capita of US\$313 in 2004 at constant 2000 price (US\$320 at current price), which was nearly one tenth of the GDP per capita in South African.

The past trend of the real GDP at constant 1992 price by economic sector in Tanzania Mainland is shown in Table 1.3.1. The real GDP increased from 1,333 billion Tshs in 1992 to 1,738 billion Tshs in 2000 and to 2,477 billion Tshs in 2006. The average annual growth rate was 3.4 percent from 1992 to 2000 and 6.1 percent from 2000 to 2006. These figures show that Tanzanian economy has improved since 2000 and performed a relatively high economic growth compare to other sub-Sahara African countries (Table 1.3.3).

**Table 1.3.1 Annual Growth Rate of Real GDP in Tanzania Mainland by Economic Sector, 1992-2006 (at 1992 Constant Price)**

	Primary		Secondary		Tertiary		Total	
	GDP (Billion Shilling)	Annual Growth Rate	GDP (Billion Shilling)	Annual Growth Rate	GDP (Billion Shilling)	Annual Growth Rate	GDP (Billion Shilling)	Annual Growth Rate
1992	612		188		533		1,333	
1995	682	3.7%	177	-2.0%	553	1.2%	1,412	1.9%
2000	797	3.2%	253	7.4%	688	4.5%	1,738	4.2%
2005	1,020	5.1%	405	9.9%	908	5.7%	2,333	6.1%
2006	1,062	4.1%	447	10.4%	968	6.6%	2,477	6.2%

**Table 1.3.2 Percentage Share of Real GDP in Tanzania Mainland by Economic Sector, 1992-2006 (at Constant 1992 Price)**

	Primary		Secondary		Tertiary		Total	
	GDP (Billion Shilling)	% Share	GDP (Billion Shilling)	% Share	GDP (Billion Shilling)	% Share	GDP (Billion Shilling)	% Share
1992	612	45.9%	188	14.1%	533	40.0%	1,333	100.0%
1995	682	48.3%	177	12.5%	553	39.2%	1,412	100.0%
2000	797	45.9%	253	14.6%	688	39.6%	1,738	100.0%
2005	1020	43.7%	405	17.4%	908	38.9%	2,333	100.0%
2006	1,062	42.9%	447	18.0%	968	39.1%	2,477	100.0%

Source: NBS, National Economy of Tanzania Mainland

According to the contribution by economic sector (Table 1.3.2), 43 percent of the national GDP in 2006 at constant 1992 price was generated by the primary sector (agriculture and fishing), another 39

<sup>6</sup> Income levels are, according to World Bank criteria, expressed in four categories based on year 2004 GNI per capita (Atlas Method): low: \$825 or less; lower middle: \$826-\$3,255; upper middle: \$3,256-\$10,065; and high: more than \$10,065.

percent was generated by the tertiary sector (commercial, trade and tourism, transport, finance, government services and other services). The secondary sector (mining, construction and manufacturing) generated 18 percent of the national GDP in 2006. These figures indicate that the Tanzanian economy is still dominant in the primary but it has gradually decreased its contribution to the national GDP over the last decade, from 48 percent in 1995 to 43 percent in 2006. The GDP generated by the secondary sector, on the other hand, has increased significantly during the same period; its contribution to the national GDP increased from 13 percent in 1995 to 18 percent in 2006. In fact, the average annual growth of the secondary sector was 7.4 percent between 1995 and 2000 and 9.9 percent between 2000 and 2005, which were much higher than those in the primary and tertiary sectors.

In summary, with the implementation of economic reforms, coupled with ongoing government and private sector initiatives, the Tanzanian economy is on the upswing and shows positive trend in recent years, especially since 2000. Sectors that contributed substantially to the recent economic growth are agriculture, manufacturing, mining, construction and trade, hotels & restaurants sectors. These sectors are main driving force in the recent economic growth of the country.

**Table 1.3.3 Annual Growth Rate of Real GDP in selected Sub-Sahara African Countries, 1989-2006**

	Average 1989-98	1999	2000	2001	2002	2003	2004	2005	2006
Burundi	-1.0	-1.0	-0.9	2.1	4.4	-1.2	4.8	0.9	5.1
Ghana	4.3	4.4	3.7	4.2	4.5	5.2	5.6	5.9	6.2
Kenya	2.3	2.4	0.6	4.7	0.3	2.8	4.5	5.8	6.0
Malawi	3.7	3.5	0.8	-4.1	2.1	3.9	5.1	2.1	8.5
Mozambique	5.0	7.5	1.9	13.1	8.2	7.9	7.5	7.8	8.5
Rwanda	-1.8	7.6	6.0	6.7	9.4	0.9	4.0	6.0	4.2
S. Africa	1.4	2.4	4.2	2.7	3.7	3.1	4.8	5.1	5.0
<b>Tanzania</b>	<b>3.1</b>	<b>3.5</b>	<b>5.1</b>	<b>6.2</b>	<b>7.2</b>	<b>5.7</b>	<b>6.7</b>	<b>6.8</b>	<b>5.9</b>
Uganda	6.1	8.3	5.3	4.8	6.9	4.4	5.7	6.7	5.4
Zambia	-1.2	2.2	3.6	4.9	3.3	5.1	5.4	5.2	6.0
Zimbabwe	2.9	-3.6	-7.3	-2.7	-4.4	-10.4	-3.8	-5.3	-4.8

Source: IMF, World Economic Outlook 2007

### 1.3.2 The Role of International Tourism

As seen in the previous section, tourism sector is strongly linked to the economic growth in some African nations. In case of Tanzania, it contributes strongly to the second largest element of national GDP. As such, it is of interest to examine the role of tourism vis-à-vis the Tanzanian economy.

South Africa experiences the highest absolute number of annual international arriving tourists for any year between 1995 and 2004: some 6.7 million arrivals. The next echelon, encompassing some 4.5 to 6 million annual arrivals, includes the MENA countries of Egypt, Morocco and Tunisia. Tanzania has

consistently accommodated some 550,000 annual international tourist arrivals over the past five years, thus placing it at the upper ranges of the African experience; more than, for example, Uganda but less than Kenya. Thus, in perspective, Tanzanian tourism may not be seen as playing a major role within Africa.

The impact of tourism can play a decisive role in national economic performance. Tourist receipts, expressed as a percent of national exports, can be substantial. Over the 1995 to 2004 period, tourism receipts have reached as high as 67 percent of exports in case of the Seychelles, and 52 percent in case of Cape Verde. For African nations falling within a more classic tourist definition (Egypt, Morocco, et. al.), tourism receipts have traditionally fallen within a substantial 20 to 30 percent range of national exports. The impact for Tanzania has always been substantial, peaking at 41 percent of exports during year 1999. Since then, the annual average has hovered near 30 percent. This confirms the importance of tourism to the national economy (Figure 1.3.2).

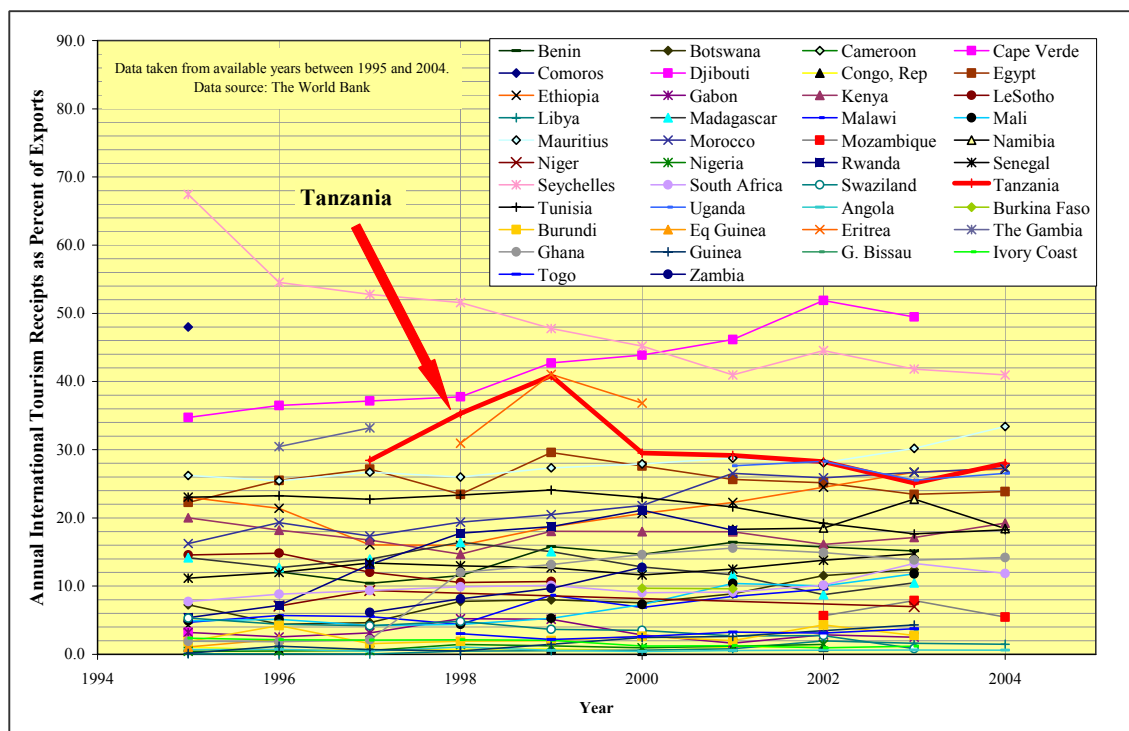


Figure 1.3.2 The Impact of Tourism Receipts Upon African Economies

### 1.3.3 Regional GDP of Dar es Salaam

Economic production varies across the regions of Tanzania. According to the regional GDP at current price<sup>7</sup> (Table 1.3.4), Dar es Salaam region generated 232 billion Tshs in 1992, 1,159 billion Tshs in 2000 and 2,324 billion Tshs in 2006. Looking at these figures compared to the national GDP at current price, Dar es Salaam generated about 18.2 percent of the national GDP in 1992, and the share of the

<sup>7</sup> There is no data available in real GRDP at constant price. The current price is a nominal GRDP including the factor of inflation.

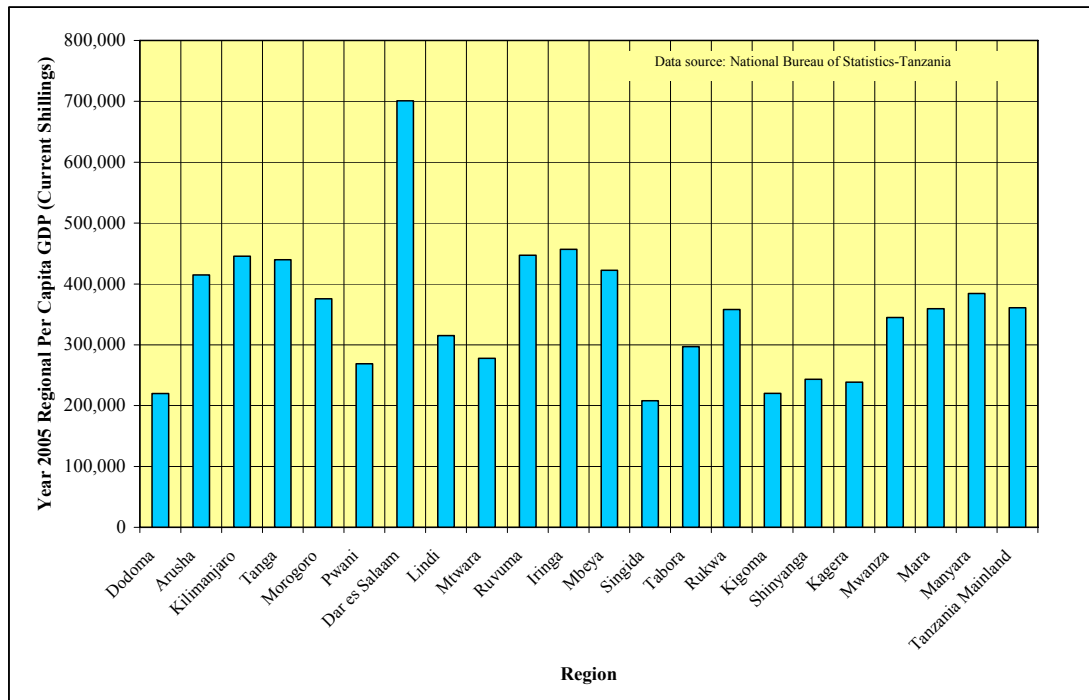


region slightly decreased to 17.3 percent in 2000 and to 15.5 percent in 2006. According to regional GDP per capita, Dar es Salaam is the highest-income region with some 700,000 Tshs, which is roughly twice of the Tanzania mainland average of near 360,000 Tshs in year 2005 (Figure 1.3.3).

**Table 1.3.4 GRDP of the Dar es Salaam Region, 1992-2006 (at Current Price)**

Year	Tanzania Mainland	Dar es Salaam Region	
	GDP (billion Tshilling)	GRDP (billion Tshilling)	Percentage Share in the National GDP
1992	1,276	232	18.2%
1995	2,797	499	17.8%
2000	6,706	1,159	17.3%
2005	13,063	1,962	15.0%
2006	14,995	2,324	15.5%

Source: NBS, National Accounts of Tanzania Mainland, 1992-2004, 2006



**Figure 1.3.3 Regional GDP Per Capita in Tanzania Mainland, 2005 (at Current Price)**

### 1.3.4 Labor Force Structure in Dar es Salaam

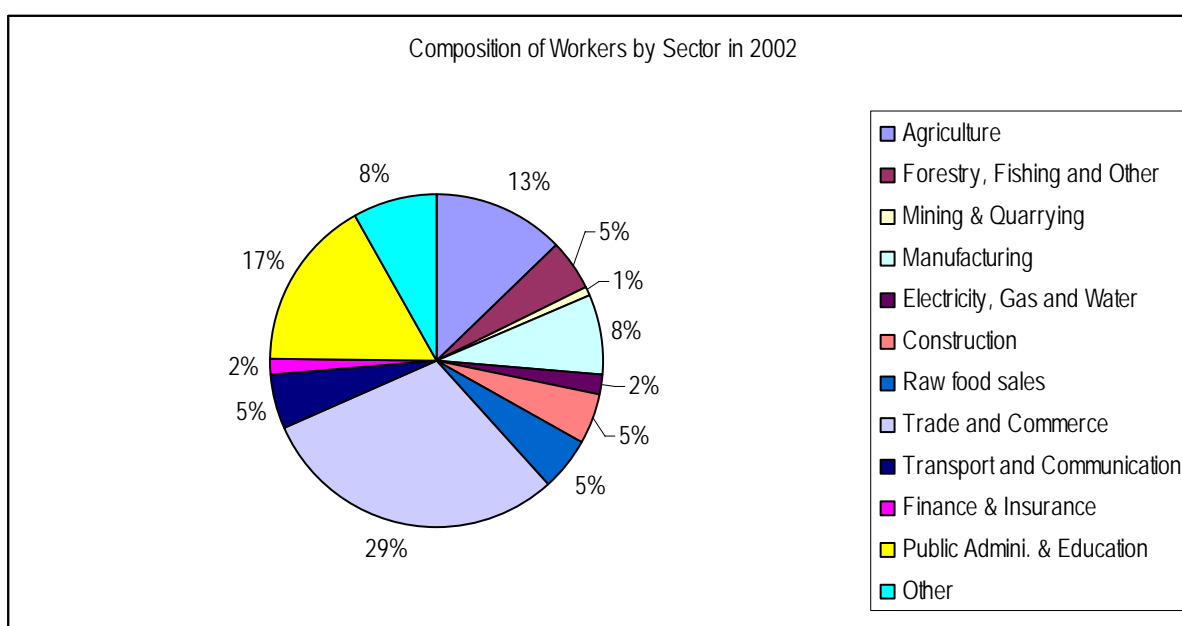
The 2002 National Housing and Population Census provided labor force structure in Dar es Salaam (Table 1.3.5). The total working population in Dar es Salaam was about 927,000 persons in 2002: 425,000 persons in Kinondoni; 223,000 persons in Ilala; and 278,000 persons in Temeke Municipality. Out of the total working population of 927,000, the primary sector (including agriculture, forestry and fishing) occupied 164,000 persons or 17.7 percent; the secondary sector (including mining,

manufacturing and construction) occupied 123,000 persons or 13.3 percent; and the tertiary sector (including electricity, sales, trade and commerce, transport, finance & insurance, and public administration & education) occupied 640,000 persons or 69.0 percent. It can be said that the Dar es Salaam economy is dominant in the tertiary sector in terms of labor force.

Figure 1.3.4 illustrates the composition of work population by economic sector in Dar es Salaam in 2002. The trade and commerce sector has the largest workers 277,800, which occupies 29 percent in the total work population of Dar es Salaam, followed by public administration and education sector with 17 percent or 155,200 workers, agriculture sector with 13 percent or 117,300 workers, and manufacturing sector with 8 percent or 70,000 workers. In the tertiary sector, financial sector is still weak and it occupies only 2 percent or 16,000 workers in the total work population of Dar es Salaam. Transportation and communication sector and raw food sales sector occupy 5 percent or 48,000 workers each. It is assumed that although the tertiary economy is dominant in Dar es Salaam, a large number of workers are involved in trade and commerce and raw food sales, much like informal sector.

**Table 1.3.5 Number of Labor Force by Economic Sector in Dar es Salaam, 2002**

	Primary		Secondary		Tertiary		Total	
	No. of Workers		No. of Workers		No. of Workers		No. of Workers	
Kinondoni	76,534	18.0%	51,704	12.2%	297,305	69.9%	425,543	100.0%
Ilala	32,511	14.6%	30,318	13.6%	160,332	71.8%	223,161	100.0%
Temeke	55,234	19.8%	40,994	14.7%	182,602	65.5%	278,830	100.0%
Total	164,279	17.7%	123,016	13.3%	640,239	69.0%	927,534	100.0%



**Figure 1.3.4 Composition of Labor Force by Economic Sector in Dar es Salaam, 2002**

## 1.4 Land Use in Dar es Salaam

### 1.4.1 Historical Urbanization Trends

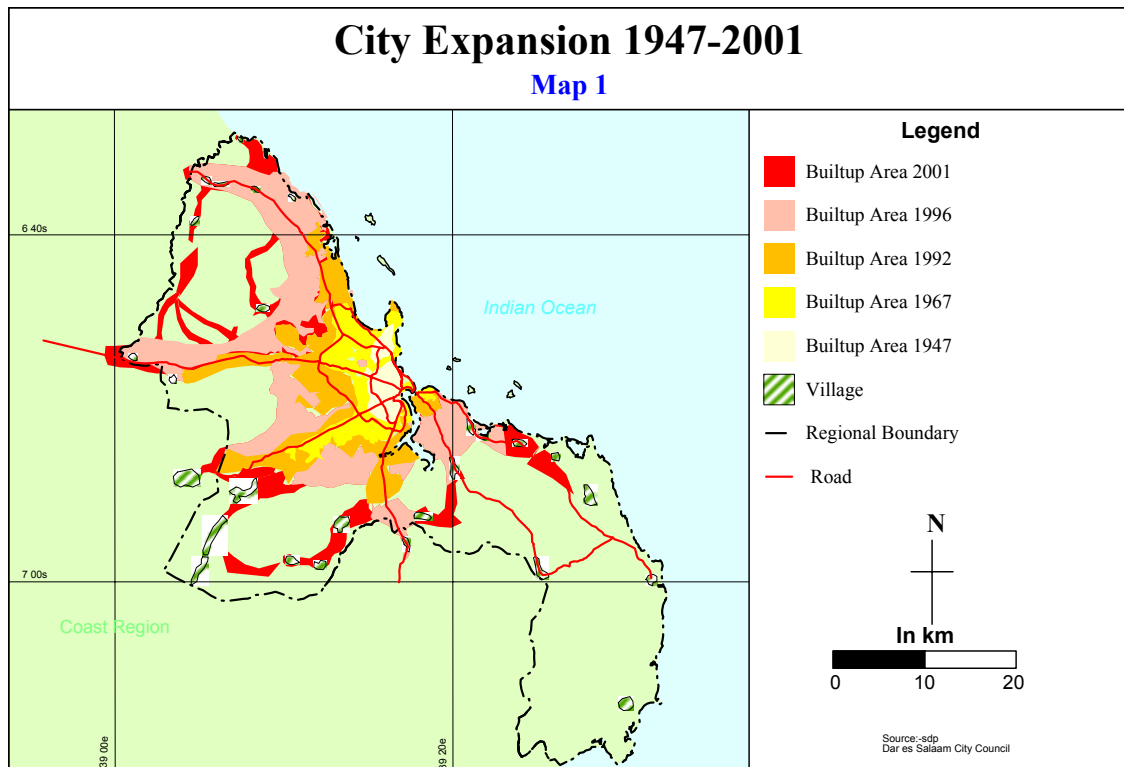
Dar es Salaam means the “*Harbor of Peace*” and it was established in the early 1860s, as a trading center by Arab merchants. Later its roles and functions have changed, and it has experienced significant growth since its foundation. Dar es Salaam declared a township in 1920 and it was designated as a municipality in the British Colonial period in 1949. When Tanzania became independent in 1961, Dar es Salaam became a city and later it became the Capital of the United Republic of Tanzania. Although the Capital moved to Dodoma in the 1970s, Dar es Salaam City has continuously served as a center of transport, business, commercial and cultural activities in the country.

Looking at the urban growth pattern since 1947 (Figure 1.4.1), urban area has expanded significantly along the coastline and the major arterial roads including Bagamoyo, Morogoro, Nyerere and Kilwa Road, resulting into a mono-centric and radial development pattern. Until the 1940s, the built-up area was only limited to the area within 5 km radius from the City Center. The major development activities were concentrated in the areas with good infrastructure services, such as City Center, Kariakoo, Upanga, Oysterbay, Msasani, Ilala, Temeke and Magomeni. Most of the central and local government administrations as well as private business and commercial functions were all concentrated in the City Center. In the 1950s and 1960s, built-up area expanded to the area with about 10 km radius from the City Center. In this period, a rapid population growth was seen in the areas of Mikocheni and Kijitonyama along Bagamoyo road, Sinza and Ubungo along Morogoro road, Tandika along Kilwa road, and Kiwarani along Nyerere road. Major industrial sites were developed along Nyerere road.

For the next two decades in the 1970s and 1980s, the city experienced a rapid urban expansion and population growth. The built-up area expanded to the areas within nearly 20 km radius from the City Center, especially along the major arterial roads. The rapid population growth was caused by a large number of migration population from rural area to the city and the migration population formed informal settlements that were concentrated in and/or around the well-serviced areas. In this period, the rapid population growth were seen in the areas of Mwananyamala and Manzese in Kinondoni Municipality, Ubungo, and Kipawa in Ilala Municipality, and Mubagala and Mtoni in Temeke Municipality.

Since the 1990s, urban expansion or sprawl accelerated in the outskirts of the city, and development activities have extended to the areas with nearly 30 km radius, especially along Babamoyo and Morogoro roads. In this period, rapid population growth can be seen in such areas as Mabibo, Kawe, Kunduchi, Kimala and Mbezi in Kinondoni Municipality, Tabata, Ukonga, Vingunguti, Kiwalani and Segerea in Ilala Municipality, and Mbagala, Yombo Vituka, Charambe, Azimino, Mbagala Kuu and Makangarawe in Temeke Municipality. The population growth was also seen in the areas of densification. In the areas of 5-10 km radius from the City Center, Makunbusho, Hanna Nassif and Buguruni experienced large population growth by densification of the existing built-up areas. New land development activities have concentrated along the major arterial roads, including ring road of Sam

Nujoma road and Nelson Mandela road. Recently, car-oriented large shopping centers have been developed in the peripheral areas along the major arterial roads.



Source: Strategic Urban Development Plan

**Figure 1.4.1 Urban Expansion in Dar es Salaam from 1947 to 2001**

#### 1.4.2 Major Characteristics of the Existing Land Use Pattern

Land use is an essential element in understanding urban activities. Figure 1.4.2 illustrates the existing land use pattern in Dar es Salaam, which was prepared by the JICA study team based on GIS analysis of various maps and sources, including the aerial photos of 2002, topographic maps, land use and other maps prepared by the SUDP and urbanization trend map prepared by the University of Dortmund. Table 1.4.1 shows the land area by municipality and Table 1.4.2 shows the land area by distance from the City Center. Major characteristics of the existing land use pattern in Dar es Salaam are summarized as follow:

##### *Overall Characteristics*

- In Dar es Salaam as a whole, there are still huge vacant and/or agricultural lands (1,324 sq. km), which occupy 78.3 percent of the total land area of the city.
- The built-up areas including residential, commercial and industrial uses and other urban use amount to 294 sq. km, which occupy 17.4 percent of the total land area of the city.
- In the area within 10 km radius from the City Center, the built-up area occupies more than 70 percent of the total land area. In the area from 10 km to 15 km radius, the built-up area

occupies about 35 percent of the total land area. In the area beyond 15 km radius, the built-up area occupies only 7 percent of the total land area and it is located along the major arterial roads.

- Urban developments along the arterial roads, so-called “ribbon development,” reach at nearly 30 km radius from the City Center, especially along Bagamoyo and Morogoro roads.
- Kigamboni area in the east from the City Center is still very limited in urbanization and land development.

### ***Residential Areas***

- Most of the residential areas are located in the north, west and south from the City Center. Kinondoni Municipality has the largest residential areas with 110 sq km, followed by 62 sq. km in Temeke Municipality and 52 sq. km in Ilala Municipality.
- According to the information from the SUDP, there are two types of residential areas in Dar es Salaam: one is “planned settlement” and the other is “unplanned settlements”. The planned settlements have basic infrastructure and services provided by the local government<sup>8</sup>. They are mainly located in the City Center and its surroundings, such as Mchafukoge, Kivukoni, Kariakoo, Upanga and Ilala in Ilala Municipality; Kinondoni, Oyster Bay, Msasani Peninsular, Mikocheni, Mwananyamala, Kijitonyama, Sinza and Mwenge in Kinondoni Municipality; and Changombe, Temeke, Tandika in Temeke Municipality.
- The unplanned settlements are mostly poor accessibility to basic infrastructure and services, such as water, sanitation, electricity and roads. The unplanned settlements are scattered all over the city and occupy more than 70 percent of the city’s population<sup>9</sup>.

### ***Commercial and Business Activities***

- Most of commercial and business activities are concentrated in the City Center. The central and local government institutions, banks and private businesses activities are concentrated in the areas of Mchafukoge and Kivukoni. Wholesale and retail commercial activities are concentrated in Kaliakoo and Mchafukoge.
- New commercial and business activities have been developed along the arterial roads, especially Bagamoyo and Morogoro roads. Recently, car-oriented large shopping centers have been developed in the outskirts of the city.
- Along with the formal activities, small-scale informal commercial and trading activities can be seen along major arterial roads as well as in the unplanned settlements.

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<sup>8</sup> In Tanzania, private housing developer is still very poor. The housing and real estate developments have been conducted mainly through National Housing Corporation (NHC) and National Social Security Fund (NSSF).

<sup>9</sup> According to the information from Community Infrastructure Up-grading Program (CIUP), there are more than 300 unplanned settlements in the city.

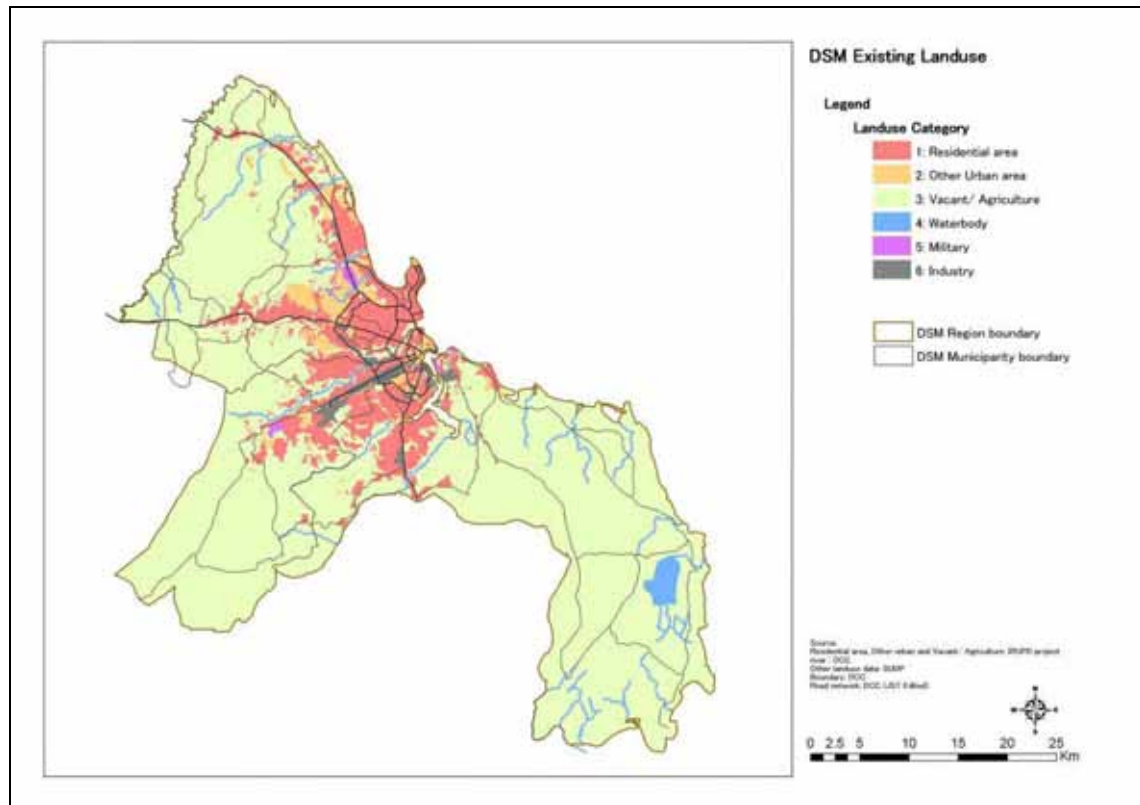


Figure 1.4.2 Present Land Use Map in Dar es Salaam, 2007

#### *Industrial Area and Seaport Facilities*

- The industrial establishments in Dar es Salaam is mainly small-scale light manufacturing industries, such as textile, chemical, food processing, beverage, plastic products, cement, etc. Small-scale industries or cottage industries are scattered throughout the city.
- Majority of industrial establishments are located in Ilala Municipality and Temeke Municipality, especially along Nyerere Roads. Seaport facilities and its related warehouses are located in Kurasini and Changombe in Temeke Municipality, respectively.
- Some of the existing industrial sites located along Bagamoyo and Nelson Mandela Roads have been recently designated as special economic zone (SEZ) or export processing zone (EPZ) to promote private investment<sup>10</sup>.

#### *Vacant and Agricultural Lands*

- The areas between the arterial roads with a radial pattern as well as river valleys are used as urban agriculture. The most of agriculture in Dar es Salaam is small-scale cultivation of crops, such as cassava, sorghum, maize, rice, bananas, legumes, etc.
- There are still huge vacant/agricultural lands in the area beyond 10 km radius from the City Center. These lands, however, have decreased due to recent rapid urbanization and urban sprawl.

- Some of these lands are located in hazardous areas like river valleys and along the coastal belt. These areas have been fast occupied by unplanned informal settlements.

**Table 1.4.1 Land Use by Municipality (Unit: sq. km)**

Land Use category	Municipalities			Dar es Salaam
	Kinondoni	Ilala	Temeke	
Residential	109.5 (20.2%)	52.1 (13.9%)	62.3 (8.0%)	223.9 (13.2%)
Industry	3.1 (0.6%)	11.5 (3.1%)	7.2 (0.9%)	22.0 (1.3%)
Other Urban Use	32.5 (6.0%)	10.1 (2.7%)	5.9 (0.8%)	48.5 (2.9%)
Military	2.6 (0.5%)	1.4 (0.4%)	0.9 (0.1%)	5.1 (0.3%)
River/Water	18.6 (3.4%)	6.2 (1.7%)	42.5 (5.5%)	67.3 (4.0%)
Vacant/Agriculture	375.3 (69.3%)	293.5 (78.3%)	655.7 (84.6%)	1,324.6 (78.3%)
Total	541.8 (100%)	375.1 (100%)	774.7 (100%)	1,691.6 (100%)

Source: JICA Study Team

**Table 1.4.2 Land Use by Distance from the City Center (Unit: sq.km)**

Land Use Category	Within 5 km	5-10 km	10-15 km	15-30 km
Residential	27.3 (48.1%)	83.9 (55.9%)	64.9 (26.8%)	46.7 (5.5%)
Industry	8.7 (15.4%)	7.0 (4.7%)	5.5 (2.3%)	0.6 (0.1%)
Other Urban Use	8.6 (15.3%)	12.0 (8.0%)	16.3 (6.8%)	11.4 (1.3%)
Military	0.9 (1.7%)	0.3 (0.2%)	1.9 (0.8%)	1.7 (0.2%)
River/Water	1.3 (2.4%)	4.4 (2.9%)	7.8 (3.2%)	25.3 (3.0%)
Vacant/Agriculture	9.7 (17.0%)	42.5 (28.3%)	145.6 (60.1%)	768.3 (89/9%)
Total	56.8 (100%)	150.3 (100%)	242.3 (100%)	854.2 (100%)

Source: JICA Study Team

<sup>10</sup> They are Mobibo SEZ (25 ha), Hifadhi EPZ (19 acres), Millennium Business Park (20 acres).

## 1.5 Major Findings

In this chapter, we overviewed current socioeconomic conditions in Tanzania and urbanization and land use pattern in Dar es Salaam. The following are major findings through the analysis:

- The administration in Dar es Salaam has a dual system in the central and local governments. In the central government administration, Dar es Salaam is headed by regional commissioner and regional administrative secretary, as the political representatives of the central government. In the local government administration, Dar es Salaam City has City Council headed by Mayor and Executive City Director. The Dar es Salaam Regional Secretariat and Dar es Salaam City Council operate in the same jurisdictional areas.
- The functions of Dar es Salaam City Council are coordinating of three municipalities and preparing of a city-wide framework to enhance sustainable development. Each municipality provides social and economic services to their residents, including measures to improve and accelerate local economic activities and public services in health, education, infrastructure development, urban development, etc. The municipalities have financial basis collecting property tax from the residents and provide the social and economic services. The actual roles and functions of Dar es Salaam is not clearly defined.
- Tanzania has performed relatively a high economic growth since 2000. Although the national economy is still dominant in primary sector, Dar es Salaam has played an important role in the economic growth of the country; it contributed nearly 20 percent to the national GDP. According to the labor force structure, Dar es Salaam is dominant in tertiary sector, which occupied nearly 70 percent of the total labor force in the city. The economic activity is one of the key indicators to define transport demand and it must be considered in the transport development master plan.
- The role of international tourism is extremely important within the national economy. A relatively modest 550,000 annual arrivals generate receipts equivalent to 30 (or more) percent of national exports. This is one of the highest relative rates in Africa. International tourism must be seen as an economic growth sector with very high potential.
- Dar es salaam has experience rapid urban growth over the last three decades. The population has grown more than three times from 0.89 million persons in 1978 to about 3 million persons in 2007. A rapid urban growth can be seen along the major arterial roads in the city, which causes heavy traffic congestions and deterioration of living environment. Urban management and land use control measures are important to achieve effective urbanization of the city. The Dar es Salaam Urban Transport Policy and System Development Master Plan must contribute to the improvement of these issues.



**Table 1.5.1 Population Trends by Ward in Dar es Salaam, 1978, 1988 and 2002  
 (Kinondoni Municipality)**

Ward	Area 2/ (sq. km)	Population			Population Density in 2002	No. of sub-ward
		1978	1988	2002		
1 Magomeni	0.61	14,256	16,944	22,526	367	5
2 Makurumula	1.57	29,422	53,991	53,568	340	8
3 Ndugumbi	0.84	24,146	32,736	37,253	443	4
4 Tandale	2.08	24,699	58,413	44,853	215	7
5 Mwananyamala	1.88	44,614	72,508	44,344	236	7
6 Misasani	12.17	25,764	51,293	43,269	35	5
7 Kinondoni	1.91	27,879	42,387	21,404	112	4
8 Mzimuni	1.59	20,153	23,985	25,142	157	4
9 Kigogo	2.28	16,343	21,222	37,798	166	3
10 Mabibo	3.97	28,187	45,963	73,639	185	5
11 Manzese	3.78	28,522	54,499	66,543	175	6
12 Ubungo	15.98	23,825	46,980	44,114	27	6
13 Kibamba	60.49	8,731	16,751	17,945	2	4
14 Goba	47.71	2,700	4,753	8,469	1	5
15 Kawe	28.06	27,404	44,085	94,166	33	11
16 Kunduchi	65.86	11,713	22,743	72,575	11	10
17 Mbweni	12.55	1,316	2,159	3,463	2	5
18 Bunju	109.88	5,032	9,977	20,652	1	5
19 Makuburi 1/	7.02			34,466	49	3
20 Mburahali 1/	1.36			21,537	158	3
21 Makumbusho 1/	1.72			55,432	321	5
22 Sinza 1/	2.37			36,323	153	5
23 Kijitonyama 1/	4.48			46,918	104	7
24 Kimara 1/	41.78			65,938	15	6
25 Mikocheni 1/	6.99			27,154	38	5
26 Mbezi 1/	80.57			32,539	4	7
27 Hanna Nassif 1/	1.83			31,883	173	3
Total	521.32	364,706	621,389	1,083,913	21	143

Note: 1/ not exist in 1978 Census and 1988 Census  
 2/ calculated by the JICA study team

(Ilala Municipality)

Ward	Area 2/ (sq. km)	Population			Population Density in 2002	No. of sub-ward (sq. km)
		1978	1988	2002		
1 Ukonga	14.22	24,860	45,203	74,706	52	7
2 Pugu	21.86	6,438	6,226	14,603	6	7
3 Msongola	93.81	2,459	13,351	7,268	1	2
4 Tabata	7.70	2,070	18,465	45,993	59	7
5 Kinyerezi	21.04	2,861	3,048	5,752	2	1
6 Ilala	0.97	30,784	35,048	32,653	337	5
7 Mchikichini	1.03	14,319	15,040	19,399	189	3
8 Vingunguti	4.69	18,899	33,690	68,657	146	4
9 Kipawa	14.12	16,277	36,910	49,283	34	6
10 Buguruni	6.23	32,679	48,247	66,806	107	4
11 Kariakoo	0.90	11,606	12,569	9,369	104	3
12 Jangwani	0.80	13,572	15,320	15,659	194	5
13 Gerezani	0.77	7,689	7,487	5,583	72	2
14 Kisutu	1.27	7,939	8,358	6,337	49	2
15 Mchafukoge	0.63	10,907	8,547	7,641	122	2
16 Upanga Mashariki	1.28	8,441	9,807	7,367	57	2
17 Upanga Magharibi	2.30	10,772	11,020	9,221	40	4
18 Kivukoni	2.82	5,663	5,372	4,807	17	3
19 Kiwalani 1/	6.52			61,753	94	4
20 Segerea 1/	14.83			75,495	50	10
21 Kitunda 1/	36.14			23,300	6	4
22 Chanika 1/	99.28			23,272	2	5
Total	353.20	228,235	333,708	634,924	18	92

Note: 1/ not exist in 1978 Census and 1988 Census  
 2/ calculated by the JICA study team

**(Temeke Municipality)**

Ward	Area 2/ (sq. km)	Population			Population Density in 2002 (person/ha)	No. of sub-ward
		1978	1988	2002		
1 Kigamboni	11.02	17,406	26,078	36,597	33	7
2 Vijibweni	9.07	1,948	2,557	5,148	5	4
3 Kibada	18.84	2,540	3,003	3,295	1	2
4 Kisarawe	112.68	1,276	2,821	4,253	1	2
5 Somangira	104.39	2,999	6,730	10,749	1	3
6 Kimbiji	106.93	3,327	6,465	3,647	1	1
7 Mbagala	8.29	11,129	40,866	70,026	84	7
8 Chamazi	73.01	3,072	5,452	8,286	1	6
9 Yombo Vituka	7.91	2,477	13,408	59,739	75	7
10 Charambe	10.76	2,719	18,624	83,098	77	11
11 Toangoma	48.99	4,110	6,652	13,596	2	5
12 Miburani	4.67	68,473	72,892	41,057	87	7
13 Temeke	1.53	72,844	91,144	27,758	181	4
14 Mtoni	6.16	13,124	39,417	47,785	77	4
15 Keko	2.51	34,762	42,868	32,151	127	7
16 Kurasini	9.79	16,375	26,776	34,370	35	6
17 Azimio 1/	1.14			60,934	533	7
18 Tandika 1/	1.16			41,827	361	6
19 Sandali 1/	1.83			38,890	212	5
20 Chang'ombe 1/	2.78			19,375	69	5
21 Mbagala Kuu 1/	15.44			69,523	45	9
22 Makangarawe 1/	9.37			42,169	44	5
23 Pemba Mnazi 1/	198.65			5,152	1	5
24 Mjimwema 1/	13.44			9,026	6	4
Total	780.37	258,581	405,753	768,451	10	129

Dar es Salaam	1654.89	851,522	1,360,850	2,487,288	15	364
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Note: 1/ not exist in 1978 Census and 1988 Census

2/ calculated by the JICA study team

## Chapter 2 Review of City Planning Regulations and Practices

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Dar es Salaam has experienced a rapid urban growth over the last three decades, which causes deterioration of living environment and traffic congestions particularly in major arterial roads. Urban planning and transportation planning are mutually related to each other. Without understanding urban development mechanism, effective transport development planning cannot be established. For this purpose, this chapter analyzes urban planning legislations and current urban planning practices, in Dar es Salaam, including Master Plan of 1979, Strategic Urban Development Plan (SUDP), and Community Infrastructure Upgrading Program (CIUP). The purpose of this analysis is to address current urban development and planning issues in Tanzania and Dar es Salaam in particular.

### 2.1 Review of City Planning Legislations

In Tanzania urban development and planning have been guided by the following legislations:

- Town and Country Planning Ordinance of 1956 (amended in 1961);
- National Land Policy of 1995 and National Human Settlements Development Policy of 2000; and
- Land Use Planning Act of 2006 and Urban Planning Act of 2006.

The Town and Country Planning Ordinance of 1956 was based on the British planning systems and it was the principal planning legislation to control and guide the development of human settlements in urban and rural areas in Tanzania. Under the Town and Country Planning Ordinance, Ministry of Lands, Housing and Urban Development (now Ministry of Lands and Human Settlements Development) has formulated “general plan or master plan” as a primary tool for guiding urban development and land use planning in the municipalities and cities. The master plan of Dar es Salaam city has been prepared three times in 1948, 1968 and 1979. The Dar es Salaam Master Plan of 1979 was the latest official master plan authorized by the Ministry of Lands and Human Settlements Development. Since then, mater plan has not been prepared for Dar es Salaam city.

The National Land Policy of 1995 and National Human Settlements Development Policy of 2000 are the overall policy statements to promote sustainable development of human settlement and to facilitate the provision of adequate lands and affordable shelters to all income groups in Tanzania. To achieve effective planning for urban development, the National Land Policy of 1995 provided the following statements:

*“Planning for urban development has been based on comprehensive Master Plan. By definition a master plan is primarily a blue-print for the physical, social and economic development of a town over a long period of usually 20 years. The planning process prescribes a fixed physical structure as a basis for social and economic activities. Master plans are therefore inflexible and cannot be easily adapted to constantly changing circumstances.”<sup>1</sup>*

In this statement, the government realized that master plan cannot be adapted to constantly changing circumstances with a rapid urban growth like Dar es Salaam. Then, the government provided more specific policy statements saying that: *“Considering the rapid urbanization now taking place and the paucity of public resources, the Government will adopt less costly methods to prepare and execute plans”<sup>2</sup>*. The government emphasized on the importance of strategic urban planning and environmental management rather than static master plan; provision of housing, infrastructure and services; mobilization of local resources for implementing urban development programs and projects; and promoting local community participation in planning.<sup>3</sup> These policy statements reflected to the implementation of Sustainable Dar es Salaam Project (SDP), Strategic Urban Development Plan (SUDP) and Community Infrastructure Upgrading Plan (CIUP) implemented in the 1990s and 2000s.

The Ministry of Lands and Human Settlements Development recognized that the Town and Country Planning Ordinance of 1956 was already obsolete and it needed to be reviewed taking into account the changes in urban planning and management issues and socioeconomic conditions. The amendment bill passed in the parliament, and “The Urban Planning Act of 2006” and “The Land Use Planning Act of 2006” were enacted. Under the Urban Planning Act of 2006, planning authorities are clearly defined with the statement that *“Every city council, municipal council, district council and township authority shall each become a planning authority in respect of its area of jurisdiction.”<sup>4</sup>* With this statement, city council and municipal council become the planning authorities to be responsible for preparation of general planning schemes in their jurisdictions.

Regarding the general planning scheme, the Urban Planning Act of 2006 defines that the purpose is *“to improve the land and provide for the proper physical development of such land, and to secure suitable provision for transportation, public purposes, utilities and services, commercial, industrial and recreational areas, including parks, open spaces, agriculture and reserves and for the making of suitable provision for the use of land for building or other purposes.”<sup>5</sup>* Based on these statements, the Dar es Salaam City Council (DCC), Kinondoni, Ilala and Temeke Municipal Councils as well as the Ministry of Lands and Human Settlements Development are now under preparation of general planning scheme for Dar es Salaam.

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<sup>1</sup> The National Land Policy of 1995, p. 31.

<sup>2</sup> The National Land Policy of 1995, p. 31-2.

<sup>3</sup> Ditto.

<sup>4</sup> The Urban Planning Act of 2006, section 7.

<sup>5</sup> The Urban Planning Act of 2006, section 9.

## 2.2 Urban Planning Practices

### 2.2.1 Dar es Salaam Master Plan of 1979

As discussed in the previous section, the Dar es Salaam Master Plan (hereinafter refer to as the Master Plan) was prepared in 1979, which aimed at directing the city's growth for the next 20 years, from 1979 to 1999. The Master Plan was prepared by a Canadian consulting firm<sup>6</sup> on behalf of the Ministry of Lands, Housing and Urban development (now the Ministry of Lands and Human Settlements Development). Under the Town and Country Planning Act of 1956, the Master Plan of 1979 was authorized by the Ministry and it became an official planning to guide urban development and land use in Dar es Salaam for the next 20 years.

The primary objective of the Master Plan of 1979 was to provide a planning and development guidelines for the urban area and the surrounding region<sup>7</sup>. The basic concepts of the Master Plan were: (i) to develop neighborhood units and "self-contained" planning districts located in outskirts of the city to accommodate increased urban population; and (ii) to develop a radial road network to be accessible to the CBD from all parts of the city. The Master Plan provided for the city's population projection over the planning period; the population would increase from 0.9 million habitants in 1979 to 1.6 million habitants in 1989 and 2.5 million habitants in 1999. Based on this population framework, the Master Plan proposed new urban planning districts such as Mbezi, Tabata, Mbagalla, Kigamboni and Kizinga. Each planning district will accommodate the population ranging from 200,000 to 300,000 habitants and provide employment opportunities for prospective residents. Theoretically, each planning district is "self-contained" with respect to the day-to-day needs for its residents.

Figure 2.2.1 illustrates the proposed land use plan to accommodate some 2.5 million habitants in 1999. The plan was based on ambitious assumptions that the road and railway crossing to the Kigamboni area would be constructed by the year 1989. The construction of the bridge was considered to be an essential factor for future urban growth of Dar es Salaam. The Master Plan also proposed a new ring road connecting from Ubungo to Kigamboni through Tabata and Mbagalla (outside of present Nelson Mandela road). Besides the ring road, additional arterial roads in a radial pattern were also proposed: from Tazara to Kizinga; and from Kurasi to Kigamboni. These proposed bridge, railway and arterial roads are, however, not realized until now.

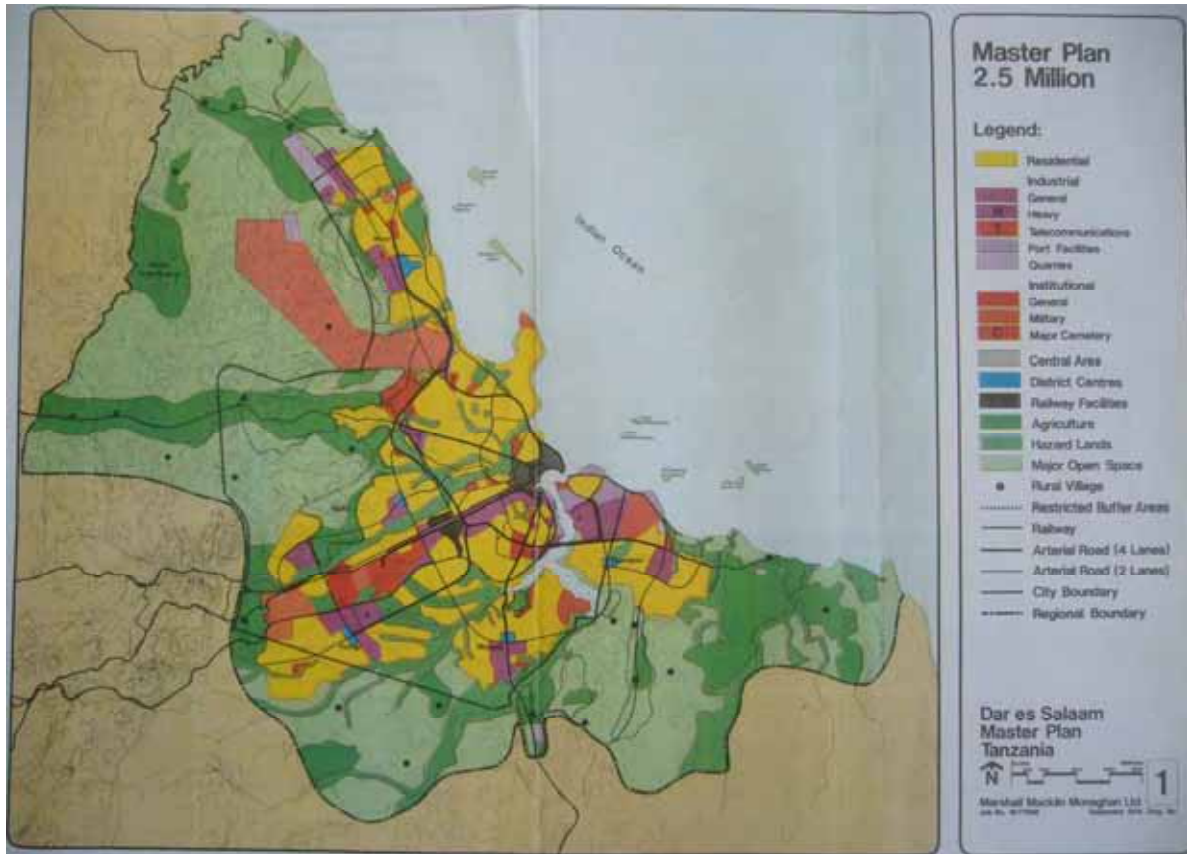
By the same token, the Master Plan proposed the city's growth mainly toward the south (i.e., Mbagalla and Kizinga) and the east (i.e., Kigamboni). The area along Morogoro Road toward the west beyond Ubungo was designated as agricultural area. However, actual urbanization in the subsequent period has been concentrated toward the west and the north; especially the areas along Morogoro road to the west and Babamoyo road to the north. Furthermore, the Master Plan proposed large industrial area in Kigamboni, but actual industrial development has been concentrated on the existing arterial roads, such as Nyerere road and Nelson Mandela road. Over the last three decades, Dar es Salaam has been

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<sup>6</sup> Marshall Macklin Monaghan Limited of Toronto

<sup>7</sup> The administrative city boundary in the Master Plan of 1979 is different from the present city boundary.

developed haphazardly without effective control measures or guidelines of land use and urban development. As a result, the present urban sprawl has extended to the 30 km radius from the City Center and it is significantly different from the original concept of the Master Plan of 1979.



Source: Dar es Salaam Master Plan, 1979, by Marshall Macklin Monaghan Limited of Toronto

**Figure 2.2.1 Dar es Salaam Master Plan of 1979**

### **2.2.2 Strategic Urban Development Plan (SUDP)**

In order to challenge the problems encountered in the master Plan of 1979, the government through the Dar es Salaam City Council introduced a new planning and management approach called the Environmental Planning and Management (EMP) process. The new planning approach was introduced through an initiative known as the Sustainable Dar es Salaam Project (SDP) supported by the UNEP and UN-HABITAT. The SDP was launched in 1992 with an overall objective of strengthening the capacity of the Dar es Salaam City Council to plan and manage urban growth and development within the jurisdiction through encouraging participation of various stakeholders, including central and local governments, private sector, NGOs, and communities.

The Strategic Urban Development Plan (SUDP) is one of the key outcomes through the implementation of the SDP and it aimed at providing a city-wide planning and issue-specific strategies for guiding and managing the growth and development of Dar es Salaam. The EMP process has paid

much attention to involvement of various stakeholders in all stages of planning process. With community's initiatives, the SUDP identified nine environmental issues and prepared intervention strategies and action plans to solve the issues. The nine priority environmental issues are: (i) improving solid waste management; (ii) upgrading un-serviced settlements; (iii) servicing city expansion; (iv) managing liquid waste and surface water; (v) air quality management and urban transportation; (vi) managing urban open spaces, recreational areas, green belts and urban agriculture potential; (vii) managing economy and integrating petty trading; (viii) managing urban renewal; and (ix) managing coastal resources.

The SUDP contains three components: (i) physical and geographical component; (ii) management and institutional component; and (iii) investment and finance component. Major outcomes of each component are summarized as follow:

- Physical and geographical component identifies environmentally sensitive areas and potential areas for future urban growth, based on the analyses of environmental risks, carrying capacity, infrastructure development cost and propensity to economic efficiency.
- Through the EPM process, the SUDP becomes a new instrument to understand urban issues and create urban planning through the participation of various stakeholders. It changes the way of planning and management by embedding the notion of "learning, doing and changing".
- The SUDP aims to infuse new perspectives and approaches that allow improving resource generation and investment performance. This aim is to be realized by maximising local resources through better co-ordination between public and private sectors. The infrastructure upgrading that was originated in the SDP has been applied to other parts of the city and led to the subsequent establishment of the Community Infrastructure Programme (CIP) and Community Infrastructure Upgrading Programme (CIUP) with community's initiative.

The SUDP prepared a series of maps containing information of land suitability to prioritize city's expansion. Figure 2.2.2 illustrates the strategic urban development planning framework to identify environmentally sensitive areas and potential areas for future urban growth. Based on the strategic urban development planning framework, the SUDP proposed city growth and development vision for the next 20 years (Figure 2.2.3). This map shows the development phase, development of satellite centers in the outskirts of the city and urban redevelopment areas. The development phase is divided into the following three phases:

- Phase I: The areas with yellow colour will be developed within immediate and short-term (0-5 years)
- Phase II: The areas with brown colour will be developed within medium term (5-10 years)
- Phase III: The encompassed areas with pink colour will be developed in a long-term (10-20 years).

In order to promote urban growth in the peripheral area, the SUDP proposed five satellite centers to be developed at Bunju, Mbezi Luisi, Pugu Kajiungeni, Mbagala Kongowe, and Mji Mwema



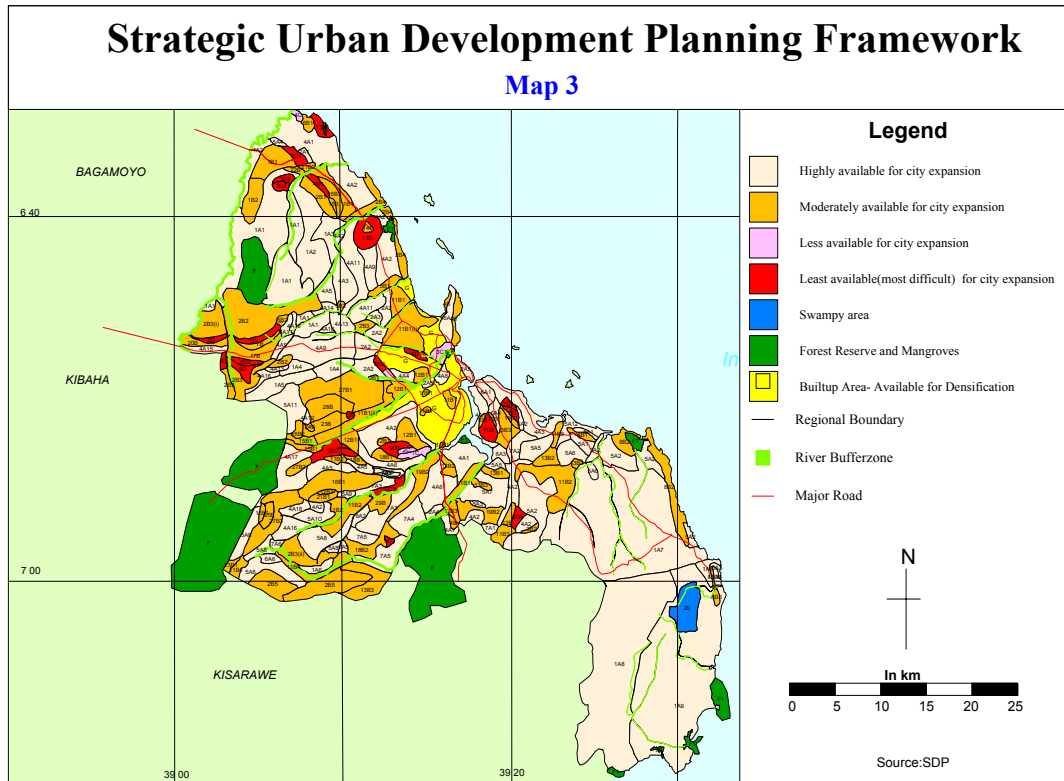


Figure 2.2.2 Strategic Urban Development Planning Framework in the SUDP

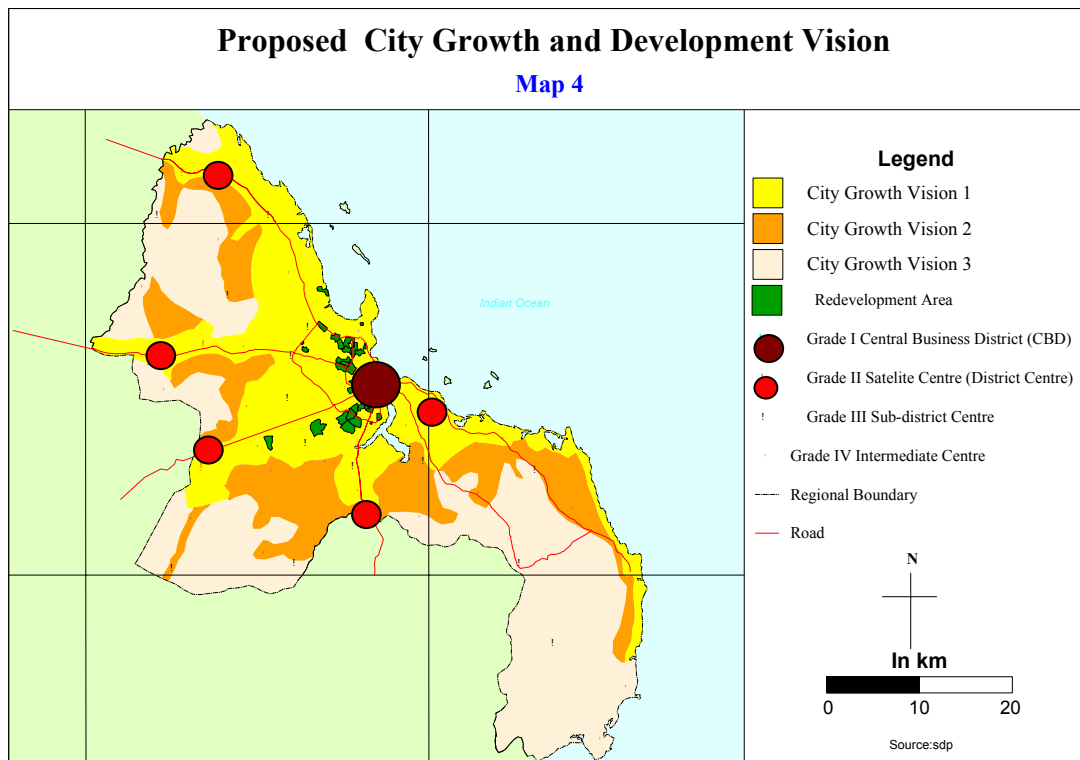


Figure 2.2.3 City's Growth and Development Vision in the SUDP

According to the city's growth and development vision (Figure 2.2.3) in the SUDP, future urbanization and development will extend to all the areas within the jurisdiction for the next 20 years. In a sense, this is the worst scenario for a future urban development pattern in Dar es Salaam. Accordingly, the SUDP contributed to the identification of environmental issues and upgrading of unplanned settlements through strong participation of various stakeholders, but it failed to deliver a long-term development vision and strategy, comprehensive urban management policies and guidelines for spatial growth, based on environmental analysis and socioeconomic framework. Furthermore, the SUDP failed to address effective control measures of land use and implementation measures of urban redevelopment.

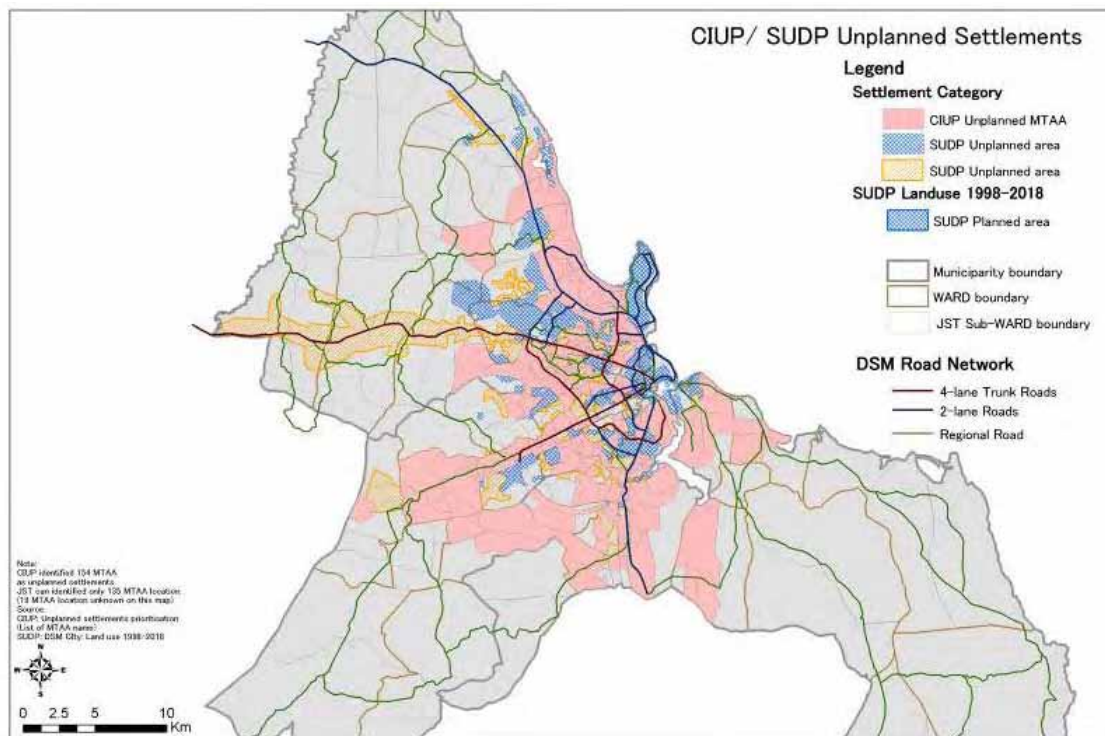
### **2.2.3 Community Infrastructure Upgrading Program (CIUP)**

The National Government recognized the importance of the provision of shelters and basic services, especially for low-income people. In this respect, the National Land Policy of 1995 states that "*the existing squatter areas will not be cleared, but will be upgraded and provided with facilities for adequate sanitation and other basic services except for unplanned housing in hazardous areas.*" As seen in this statement, improvement of living conditions in unplanned settlement is one of the most critical issues in Dar es Salaam.

According to the National Population and Housing Census, Dar es Salaam has a population of about 1,700,000 habitants living in unplanned settlements<sup>8</sup>, which amounts to nearly 70% of the total population of the City in 2002 (Figure 2.2.4). The average population density in the unplanned settlements is more than 300 persons per hectare without basic infrastructure and some of them are extremely high density over 500 persons per hectare. The unplanned settlements are characterized as social and economic isolation, insecurity of land tenure, poor environmental condition, high unemployment and population density, and poor accessibility to infrastructure and basic services.

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<sup>8</sup> CIUP identified unplanned settlements in the City at a sub-ward level.



**Figure 2.2.4 Distribution of Unplanned Settlements**

In order to provide basic services and improve access to infrastructure in unplanned settlements, Community Infrastructure Upgrading Program (CIUP)<sup>9</sup> was introduced in 2001 to Dar es Salaam. The CIUP is a sub-component of the Local Government Support Project (LGSP) supported by the World Bank. The CIUP involves the communities in all the stages, such as identification of problems, ways of solving, and prioritization of actions. It aims to address infrastructural problems by working directly with communities. The main objectives of the CIUP are:

- To facilitate capacity building with the Dar es Salaam local authorities in upgrading unplanned settlements by provision of infrastructure and services;
- To facilitate capacity building in the respective communities to participate in planning, investment and management of infrastructure and services; and
- To facilitate improvement of living condition of low-income residents living in the unplanned settlements.

Among 154 unplanned settlements in Dar es Salaam identified by the CIUP, 31 communities were selected as the priority target areas for the improvement of basic infrastructure. In the phase-1 (2005-2008), 16 communities have implemented and another 15 communities in the phase-2, as shown in Table 2.2.1. About 330,000 people will be beneficiary by the CIUP, which is approximately 20 percent of the people living in unplanned areas of Dar es Salaam.

<sup>9</sup> Prior to CIUP, two initiatives were undertaken to improve infrastructure in unplanned communities in the City. These two initiatives were part of Sustainable Dar es Salaam Project (SDP). They are Hanna Nassif infrastructure improvement project (1992-1999) and Community Infrastructure Program (CIP) in Tabata and Kijitonyama Communities (1995-2000). The CIUP is a subsequent program to these initiatives.

Major outcomes of the CIUP are two holds: (i) Infrastructure Upgrading, including improvement of roads, footpath, drainage, sanitation, and solid waste containers, street lighting and public toilets; and (ii) Water Supply, which provides public water taps and household connections through a complementary water supply improvement program funded by the Dar es Salaam Water Supply Project. In financing the CIUP, a loan from World Bank finances 90 percent of the total implementation cost and the communities and relevant Municipality will contribute 5 percent each to the cost of community roads improvement. In other trunk infrastructure, the Municipalities and Dar es Salaam City will contribute 5 percent each to the relevant costs. The contribution by the communities will encourage ownership and enhance commitment to sustain operation and maintenance of the infrastructure.

Recently the Ministry of Lands and Human Settlements Development (MLHSD) and the UN-HABITAT are committed to establish a citywide upgrading strategy for the improvement of unplanned and un-serviced settlements in Dar es Salaam<sup>10</sup>. To support this process, Cities Alliance and the MLHSD are funding an action plan called “Cities Alliance Program” to upgrade all unplanned and un-serviced settlements in Dar es Salaam by 2015. The overall objectives the Cities Alliance Program are to implement urban policy reforms and to prepare a city-wide upgrading program, working with local authorities as partners. More specifically, the Cities Alliance Program aims at developing a long-term sustainable financing mechanism for settlement upgrading, formalization of land property rights, and revenue enhancement for local authorities.

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<sup>10</sup> The consultative workshop on the Upgrading of all Unplanned and Unserviced Settlements in Dar es Salaam City was conducted on 17th-18th May 2007, with the participation of DCC, 3 Municipalities, Ministry of Lands, PMO-RA LG, NGOs, CBOs, Universities, community leaders and international donor agencies.

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**Table 2.2.1 Targeted Areas for the Implementation of the CIUP**

Municipality	Ward	Sub-Ward	
		Phase-1	Phase-2
Kinondoni	Mansese	Manzese Uzuri, Kilimani, Midizini, Mnazimmoja, Muungano, Mvukeni	
	Kigogo		Kigogo Kati, Kigogo Mbuyuni, Kigogo Mkwajuni
	Mwananyamala		Kwa Kopa
Ilala	Buguruni	Mnyamani, Malapa, Madenge	
	Vingunguti	Mtambani	Mitakuja, Miembeni, Kombo
Temeke	Chagombe	Chagombe A Chagombe B Toroli	
	Sandali	Sandali Mpogo Mwembeladu	
	Keko		Keko Mwanga A, Keko Mwanga B, Magurumbasi
	Azimio		Mtongani Azimio Kaskazini, Tambukareli, Kichangani, Azimio Kusini

Source: hearing from a CIUP officer in DCC

## 2.3 Major Findings

This chapter analyzed urban planning legislations and current urban planning practices. The major finding through the analysis summarized as follow:

- The Dar es Salaam Master Plan of 1979 was the latest official master plan authorized by the Ministry of Lands and Human Settlements Development (MLHSD). As stated in the National Land Policy of 1995, the master plan cannot be adapted to constantly changing circumstances such as rapid urban growth in Dar es Salaam. Thus, the MLHSD in association with DCC and three municipalities are now working on formulation of general planning scheme to provide a guideline of future development in Dar es Salaam.
- The SUDP is a new approach with involvement of various stakeholders in all stages of planning process. The SUDP contributed to encouraging community's initiative in identifying

specific environmental issues and upgrading infrastructure program in unplanned settlements, but it failed to deliver a long-term development vision, comprehensive urban management policies and guidelines for spatial growth.

- About 1.7 million people or nearly 70% of the population in Dar es Salaam live in unplanned and un-serviced settlements; they are mostly poor living environment and lack of access to infrastructure and basic services. The CIUP was introduced in Dar es Salaam to improve the living condition in selected unplanned settlements. The improvement of unplanned settlements is one of the most important issues to achieve sustainable development of the city. In order to extend the CIUP to a city-wide program, financing mechanism needs to be established.
- The Urban Planning Act of 2006 provides overall policy framework for the orderly and sustainable development of land in urban area. It indicates clearly that city council and municipal council shall become a planning authority and responsible for preparation of general planning scheme to provide for proper physical development in the jurisdiction. DCC and three municipal councils, however, lack of capacity in preparation of general planning scheme in their jurisdictions. It is important to provide some capacity development programs for staff in the local government authorities to learn urban planning technique and management systems.

## Chapter 3 Development Framework

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This chapter discusses a development framework as a basis for the Dar es Salaam Transport and System Development Master Plan for the target year 2030. The development framework is a basic parameter to examine future transport demand in Dar es Salaam. The chapter is divided into four parts: (i) review of national development vision and policies; (ii) proposed urban vision for Dar es Salaam toward 2030, (iii) socio-economic framework; and (iv) spatial framework. This analysis provides political, socio-economic and physical framework for transport planning in Dar es Salaam.

### 3.1 Review of National Development Vision and Policies

#### 3.1.1 Tanzania Development Vision 2025

Tanzania government has prepared three national development visions. The first one was the national vision to achieve independence in 1961, which emphasized the importance of “hard work (*Uhuru na Kazi*)” in realizing the country’s development. The second national vision was the Arusha Declaration of 1967, which emphasized the importance of fundamental moral, ethical and civil values based on socialism philosophy. These national visions achieved national unity, social cohesion, peace and stability of the country, but they did not sufficiently address the complexity of policies and dynamic character of economy. As a result, the country failed to achieve sustainable social and economic development and faced the economic crisis in the 1980s.

Since the 1990s the government had realized that the past national development policies were not adequately responding to changes in economic and technological conditions as well as to changes in the domestic socio-economic conditions. In this respect, the government identified four main issues to impede sustainable development of the country: (i) a donor dependency syndrome and a dependent and defeatist developmental mindset; (ii) a weak and low capacity for economic management; (iii) failures in good governance and in organization of production; and (iv) ineffective implementation syndrome.

Based on the recognition of these issues, Tanzania government formulated a new long-term national development vision so called “Vision 2025” aiming to develop the country with a middle-level income country by 2025. The Vision 2025 was formulated in 1999 under the administration of the President Mkapa. It has three principal objectives: (i) to achieve a high quality livelihood for the people; (ii) to attain good governance through the rule of law; and (iii) to develop a strong and competitive economy.

Each objective is divided into a set of goals to be achieved by sustainable social and economic efforts. The objectives and goals are summarized as follows:

- A high quality livelihood for the people is attained through: food self-sufficiency and food security; universal primary education and high quality human resources; gender equality and the empowerment of women; access to quality health services for all individuals; reduction in infant and maternal mortality rates; universal access to safe water; life expectancy comparable to the level attained by typical middle-income countries; and absence of abject poverty.
- Good governance is achieved through: desirable moral and cultural uprightness; strong adherence to and respect for the rule of law; absence of corruption and other vices; and learning society from its own development experience.
- A strong and competitive economy is achieved through: macro economic stability manifested by a low inflation economy and basic macroeconomic balances; an adequate level of physical infrastructure needed in all sectors; and an active and competitive player in the regional and world markets, with the capacity to adjust to regional and global market shifts.

The Vision 2025 seeks to strengthen national cohesion of all the people in society, taking into consideration current environment in the economic, political and other relevant factors. It emphasizes the importance of the development of competitive economy in the country. In this respect, the Vision 2025 states that “*there is a very close relationship between the quality of life of the society as well as individual and the capacity of the economy in which it enables an individual, society and the nation at large to live and sustain higher quality of life*”<sup>1</sup>. These concepts of the Vision 2025 reflected to the subsequent National Strategy for Growth and Reduction of Poverty (NSGRP) and national economic development strategies called Mini-Tiger Plan 2020.

### **3.1.2 National Strategy for Growth and Reduction of Poverty**

The National Strategy for Growth and Reduction of Poverty (NSGRP, commonly referred to by its Swahili acronym “MKUKUTA”) is a mid-term national development framework with a timeframe of 5-years from 2005-2010. It was prepared in 2005 by the Vice President’s Office, with a support of World Bank and IMF. The NSGRP provides comprehensive poverty reduction strategies with emphasis on private sector led growth by building a competitive economy supported by efficient governance. The NSGRP identifies three major clusters of poverty reduction outcomes: (i) growth and reduction of income poverty; (ii) Improvement of quality of life and social well-being; and (iii) governance and accountability. Each cluster contains broad outcomes and specific goals and actions as shown in Box 3.1.1.

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<sup>1</sup> The Tanzania Development Vision 2025, Section 5.0 Implementing the Vision.



### **Box 3.1.1 Summary of Broad Outcomes and Goal in the National Strategies for Growth and Reduction of Poverty**

#### **Cluster I: Growth and Reduction of Income Poverty**

Broad outcome: Broad based and equitable growth is achieved and sustained.

Goals:

- Ensuring sound economic management
- Promoting sustainable and broad-based growth
- Improving food availability and accessibility
- Reducing income poverty of both men and women in rural areas
- Reducing income poverty of both men and women in urban areas
- Provision of reliable and affordable energy to consumers

#### **Cluster II: Improvement of Quality of Life and Social Well-Being**

Broad outcomes: Quality of life and social well-being, with particular focus on the poorest and most vulnerable groups; Inequalities in outcomes (e.g., education, survival, health) across geographic, income, age, gender and other groups reduced

Goals:

- Ensuring equitable access to quality primary and secondary education for boys and girls, universal literacy among men and women and expansion of higher, technical and vocational education
- Improve survival, health and well-being of all children and women and of specially vulnerable groups
- Access to clean, affordable and safe water, sanitation, decent shelter and a safe and sustainable environment and thereby, reduce vulnerability from environmental risk.
- Adequate social protection and provision of basic needs and services for the vulnerable needy.
- Effective systems to ensure universal access to quality and affordable public services.

#### **Cluster III: Governance and Accountability**

Broad outcomes: Good governance and the rule of law; Accountability of leaders and public servants; Democracy and political and social tolerance; and Peace, political stability, national unity and social cohesion deepened.

Goals:

- Structures and systems of governance as well as the rule of law are democratic, participatory, representative, accountable and inclusive.
- Equitable allocation of public resources with corruption effectively addressed
- Effective public service framework in place to provide foundation for service delivery improvements and poverty reduction
- Rights of the poor and vulnerable groups are protected and promoted in the justice system
- Reduction of political and social exclusion and intolerance
- Improved personal and material security, reduced crime, eliminate sexual abuse and domestic violence
- National cultural identities enhanced and promoted

Source: National Strategy for Growth and Reduction of Poverty, p.35

In the first cluster, our primary attention is the relationships between poverty reduction and transport development particularly in urban areas like Dar es Salaam. Regarding the goal of urban poverty reduction, the NSGRP provides a target with a statement that “the proportion of urban poverty will be reduced from 25.8% in 2000 to 12.9% in 2010”<sup>2</sup> To achieve this target, the following strategies are proposed:

- Support SMEs and informal sector through provision of credit, improved business environment and supportive technology. Facilitate private and public investment with a view to creating jobs;
- Implement land use and management plans under Land Act 1999 and improve land revenue collection and financial management system; and
- Promote self-employment and increase employment opportunities in informal sector.

As seen in these strategies, the government intends to reduce urban poverty through the developments of SMEs and public and private investment to increase jobs and employments. Informal sector plays important roles to increase employment opportunities In addition, effective land use and management system is necessary to improve land revenue in urban areas.

In the second cluster of improvement of quality of life and social well-being, one of the goals is to increase accessibility to a safe and sustainable environment and thereby to reduce vulnerability from environmental risk. This goal is directly related to the issues of transport development policy. In order to achieve this goal, the NSGRP provides the following strategies in relation to human settlement development:

- Municipal authorities and institutions to prepare integrated urban development plans;
- Preferential treatment of vulnerable groups in public land programs such as titling and land reform;
- Regularize unplanned settlement with basic infrastructure, and ensure titles to all plots;
- Promote participation of private sector in housing, and increase availability of low cost housing and serviced plots; and
- Implement land use and management plans.

In these statements, the NSGRP emphasizes the importance of provisions of integrated urban development plan, low cost housing, and basic infrastructure particularly in unplanned settlement to increase accessibility to a safe and sustainable environment.

The NSGRP provides broad policy frameworks and strategies for economic growth and poverty reduction in the country. The development of urban transport does not directly contribute to poverty reduction but it provides social and economic benefit for all people. More specifically, improvement of

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<sup>2</sup> The National Strategy for Growth and Reduction of Poverty, p. 40.

urban transport system will increase equitable accessibility to a safe and sustainable environment as well as employments and job opportunities for urban poor. Therefore, effective urban transport planning will contribute to the goals raised in the NSGRP.

### **3.1.3 Mini-Tiger Plan 2020**

Economic development is one of the most critical issues addressed by the Tanzania Development Vision 2025 and NSGRP. In order to promote economic growth, a specific economic development strategy called “Mini-Tiger Plan 2020” was prepared by the joint efforts of Japan Development Institute and Tanzania Presidential Office for Planning and Privatization in 2004. The Mini-Tiger Plan 2020 proposes two key economic growth strategies: (i) introduce special economic zone (SEZ) to attract private investment; and (ii) stimulate “one village one product program” and “self help infrastructure program”. Based on these two key strategies, the Mini-Tiger Plan 2020 made the following recommendations:

- Encourage key economic sectors, including (i) agriculture, fishery, forestry and mining; (ii) tourism; and (iii) export oriented light industry (garment & textile and agro-processing industry), to lead the country’s economy in global market;
- Establish Special Economic Zone (SEZ) for attracting foreign and domestic investments. Some of the potential areas of SEZ are garment and shoes, Tanzanite Jewry, tourism, agro-processing, commercial forestry, import-substitution industry. These SEZ will encourage the development of export-oriented and/or import-substitution industries;
- Develop SEZ for the purpose of sales and distribution of used machinery in Dar es Salaam. It will attract buyers from neighboring countries in the East Africa;
- Develop a nation-wide program of Mini-SEZ for the development of cottage industry and small and medium enterprises (SME) with incubator and technical support program;
- Shift from a passive policy depended on heavily donors’ assistance to a more positive policy to introduce and develop new businesses and new export products; and
- Construct new docks at Mtwara or Tanga to be able to hand large ships and oil tankers.

The Mini-Tiger Plan 2020 emphasizes the development of Special Economic Zones (SEZ) to promote export-oriented industry and to attract private investment. Based on the recommendations in the Mini-Tiger Plan 2020, the government established Export Processing Zones (EPZ) program, which is similar concept to SEZ, and recently several EPZs have been developed in Dar es Salaam City. These EPZs are, however, relatively at small scale compared to the successful experiences in other countries. In addition, the EPZs in Dar es Salaam are mostly designated at individual corporate site. Thus, the concept of the Mini-Tiger Plan 2020 has not yet been fully applied to Tanzania.

## 3.2 Proposed Growth Vision for Dar es Salaam Toward 2030

As stated in the previous section, national policy emphasizes the importance of economic development to achieve higher quality of life and poverty reduction in the country. One of the great challenges of Dar es Salaam is how to get the city to become a dynamic growth pole in the national economy. Dar es Salaam indeed occupies nearly 20 percent of the national products and it has a great potential to become an economic growth pole based on its geographical advantage of the coastal city in the Central and Eastern Africa. However, there has not been paid much attention to the potential role of the city in national economic growth.

During the 20 years of the structural adjustment era, from roughly 1980 to 2000, none of Africa's urban coastal cities became a successful growth pole for their respective countries or regions. Dar es Salaam is not an exception and it has not yet fulfilled its potential as the engine of the county's economic growth, although it is a major port city and dominant urban center in Tanzania. A question is why Dar es Salaam does not perform well as the engine of the country's economic growth. Major reasons, we found, are: the city lacks effective infrastructure to attract domestic and foreign investors; the port does not have enough capacity for effective shipping operations; and urban transport systems does not provide effective mobility for the people. Accordingly, effective urbanization is the most promising aspect of economic development in Dar es Salaam.

There are three distinct policy dimensions in effective urbanization: (i) *urban planning*, (ii) *urban development strategy*, and (iii) *urban governance*.<sup>3</sup> These three dimensions are interconnections and important policy dimensions to achieve economic development of the city. Without sustainable infrastructure base, Dar es Salaam continue to perform economically far below its potential. Thus, urban planning and transport planning are the critical factors to ensure the buildup of the underlying infrastructure systems of the city. In addition, Dar es Salaam needs development strategies based on the geographical and demographic specificities. In this regard, Asian countries have been so successful in economic development. As is widely known, the many coastal cities in China, for example, created *special economic zones (SEZ)* and *special port cities*<sup>4</sup> to take advantage of their coastal locations. Their strategic view was to target foreign investments in combination with domestic resources.

Effective urbanization cannot be achieved by market mechanism alone. The governments need to understand the necessity of providing sustainable urban services, including basic infrastructure, social and physical security, political stability, good living environment, and effective transport systems to make the urban environment attractive for domestic and foreign investors. Thus, the governments at local, regional, and national levels need differentiated and complementary roles. The participation of private sector, as well as the roles of NGOs and civil society, all play a role and need to be engaged for development of urban planning and development strategy to achieve effective urbanization.

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<sup>3</sup> This is discussed in the World Bank Institute June 2007, Development Outreach, by Jeffrey D. Sachs, Director, The Earth Institute at Columbia University.

<sup>4</sup> The specific development strategy included the use of export processing zones (EPZ), industrial parks, science parks, and tax incentives, to attract international business.

There is no doubt that Dar es Salaam need to establish a long-term urban vision to show what functions and roles the city aims to achieve in the future. Without common vision of the city, each agency in the government sector develops their policies with their own goals. In the private sector, they are looking to maximize their own profits without paying attention to sustainability of urban environment. Dar es Salaam needs an urban vision to share it among the stakeholders including the public and private sectors, NGOs and the citizen. The following are proposed growth vision for Dar es Salaam, as a target to achieve in a long-term future:

1. Dar es Salaam aims to become an economic growth pole in Tanzania as well as the Eastern and Central Africa, based on its geographical advantage of the coastal city. The city will function as a regional gateway and achieve a status of world city<sup>5</sup> in the future.
2. Dar es Salaam will achieve an effective urbanization by the developments of sustainable infrastructure, good urban environment and strategic view to attract domestic and foreign investments.
3. Dar es Salaam will establish efficient transport systems to provide affordable access and mobility for all the people to create a better future.

The vision of the city will directly and/or indirectly reflect to future urbanization pattern and development of transport systems in Dar es Salaam.

### **3.3 Socioeconomic Framework**

#### **3.3.1 Population Projection**

The National Bureau of Statistic (NBS) made a population projection for Tanzania Mainland<sup>6</sup> from 2003 to 2025. According to this projection, Tanzania Mainland will increase its population from 33.8 million habitants in 2003 to 41.9 million habitants in 2010 and to 63.3 million habitants in 2025 (Table 3.3.1). The average annual growth rate is 3.1 percent until 2010 and then it slightly drops to 2.9 percent between 2010 and 2015 and to 2.7 percent between 2020 and 2025. This population projection for Tanzania Mainland is quite probable according to the recent trends of the country. Thus, the Study team adopted these figures and extended to 2030 by using the average annual growth rate of 2.4 percent between 2025 and 2030. This is a framework of future population in Tanzania Mainland.

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<sup>5</sup> Regarding the status of world city, see Technical Report, Volume II.

<sup>6</sup> National Bureau of Statistics, Tanzania: National Projections, Volume XII, December 2006.

**Table 3.3.1 Population Projection of Tanzania Mainland by NBS, 2003-2025**

Year	Tanzania Mainland	
	Population (1,000)	Average Annual Growth Rate
2003	33,846	
2007	38,291	3.1% (2003-2007)
2010	41,914	3.1% (2007-2010)
2015	48,366	2.9% (2010-2015)
2020	55,356	2.7% (2015-2020)
2025	63,299	2.7% (2020-2025)
2030*	71,243	2.4% (2025-2030)

Note: The population in 2030 is estimated by the Study Team by using the average growth rate of 2.4 percent per annum between 2025 to 2030

Source: National Bureau of Statistics, 2002 Population and Housing Census: Analytical Report Volume XII Regional and District Projection

The NBS also made a population projection for Dar es Salaam Region<sup>7</sup> from 2003 to 2025. According to this projection, Dar es Salaam will increase its population from 2.6 million habitants in 2003 to 3.1 million habitants in 2010 and to 4.1 million habitants in 2025 (Table 3.3.2). The average annual growth rate is estimated to drop significantly from 4.4 percent between 1988 and 2002 to 2.9 percent between 2003 and 2010 and to 1.6 percent between 2020 and 2025. The share of Dar es Salaam population in Tanzania Mainland will also decrease by nearly one point from 7.6 percent in 2003 to 6.7 percent in 2025. This population projection by the NBS is quite low according to the recent trend of rapid population growth in the city<sup>8</sup>.

**Table 3.3.2 Population Projection for Dar es Salaam by NBS, 2003-2030**

Year	Tanzania Mainland	Dar es Salaam Region		
	Population (1,000)	Population (1,000)	Average Annual Growth Rate	% share in Tanzania Mainland
2003	33,846	2,564		7.6%
2007	38,291	2,882	2.9% (2003-2007)	7.6%
2010	41,914	3,118	2.9% (2007-2010)	7.6%
2015	48,366	3,486	2.3% (2010-2015)	7.3%
2020	55,356	3,814	1.8% (2015-2020)	7.0%
2025	63,299	4,131	1.6% (2020-2025)	6.7%
2030*	71,243	4,472	1.6% (2025-2030)	6.4%

Note: The population in 2030 is estimated by the Study Team by using the average growth rate of 1.6 percent per annum between 2025 and 2030.

Source: National Bureau of Statistics, 2002 Population and Housing Census: Analytical Report Volume XII Regional and District Projection

<sup>7</sup> National Bureau of Statistics, Dar es Salaam: Regional and District Projections, Volume XII, December 2006.

<sup>8</sup> See Chapter 1 of this technical report.

Recently, the Dar es Salaam Bus Rapid Transit (DART) Study made a population projection for Dar es Salaam to analyze future transport demand in the city. According to the DART Study, Dar es Salaam will increase its population from 2.6 million habitants in 2003 to 3.5 million habitants in 2010 and to 6.7 million habitants in 2030 (Table 3.3.3). The average annual growth rate will gradually decrease from 4.2 percent per annum between 2003 and 2010 to 2.9 percent per annum between 2025 and 2030. The percentage share of the Dar es Salaam population in the Tanzania Mainland will continuously increase from 7.7 percent in 2003 to 8.4 percent in 2010 and to 9.5 percent in 2030. The DART study estimated the population of Dar es Salaam will increase more than double from 2003 to 2030. This population projection is relatively high according to the recent trend of population growth in Dar es Salaam.

**Table 3.3.3 Population Projection by DART Study, 2003-2030**

Year	Tanzania Mainland	Dar es Salaam Region		
	Population (1,000)	Population (1,000)	Average Annual Growth Rate	% share in Tanzania Mainland
2003	33,846	2,597		7.7%
2007	38,291	3,066	4.2% (2003-2007)	8.0%
2010	38,291	3,453	4.0% (2007-2010)	8.4%
2015	41,914	4,160	3.8% (2010-2015)	8.8%
2020	48,366	4,940	3.5% (2015-2020)	9.1%
2025	55,356	5,785	3.2% (2020-2025)	9.4%
2030	63,299	6,681	2.9% (2025-2030)	9.5%

Source: The Dar es Salaam Bus Rapid Transit Report

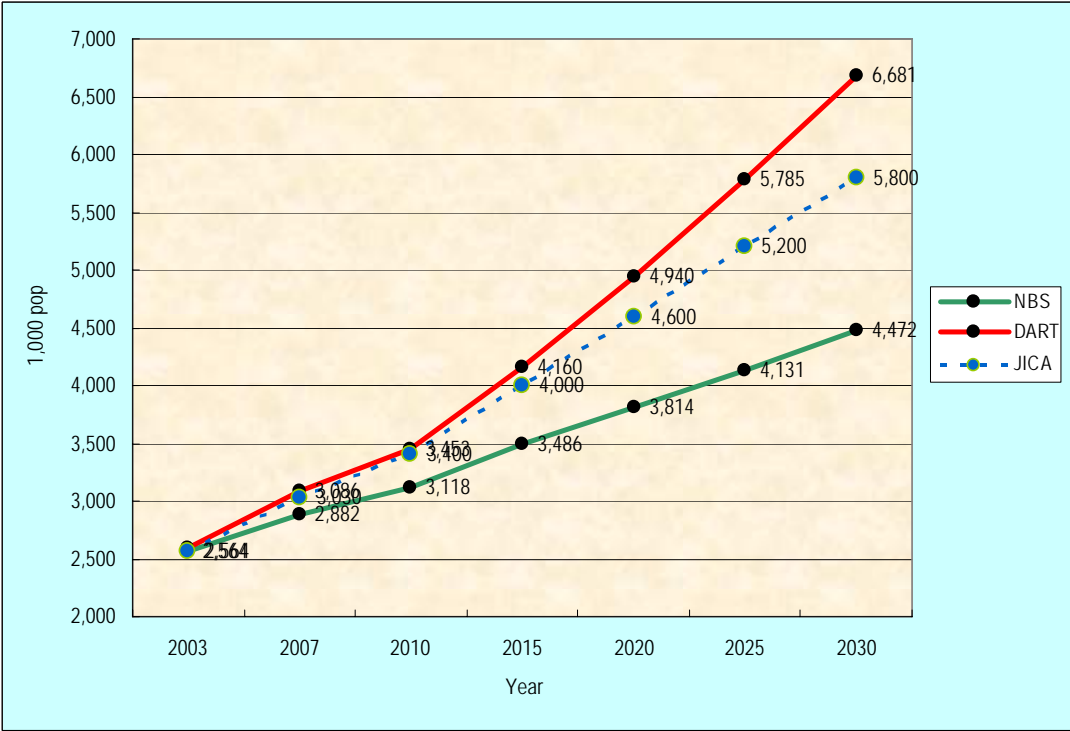
There are huge differences in these two population projections for Dar es Salaam: i.e., in the year 2030, 4.5 million habitants by the NBS and 6.7 million habitants by the DART Study. Of course, the future population projection is fluctuated by a number of factors, such as birth rate, mortality rate, age structure, migration rate, education, economy, national policy, disease such as HIV/AIDS, etc. The JICA Study team assumed that the population projection made by the NBS is a lower growth case and the population projection made by the DART Study is a higher growth case.

Taking into account these two cases mentioned above, the JICA study team conducted a population projection for Dar es Salaam with a target of somewhere in between, as a medium growth case. In our projection, the population of Dar es Salaam will increase from 2.6 million habitants in 2003 to 3.4 million habitants in 2010 and to 5.8 million habitants in 2030 (Table 3.3.4). Accordingly, some 2.8 million habitants will increase in Dar es Salaam for the next 23 years from 2007 to 2030. Figure 3.3.1 shows a comparison of population projections for Dar es Salaam made by the NBS, DART Study and JICA Study.

**Table 3.3.4 Population Projection for Dar es Salaam by JICA Study**

Year	Tanzania Mainland	Dar es Salaam Region		
	Population (1,000)	Population (1,000)	Average Annual Growth Rate	% share in Tanzania Mainland
2003	33,846	2,564		7.6%
2007	38,291	3,030	4.3% (2003-2007)	7.9%
2010	38,291	3,400	4.1% (2007-2010)	8.1%
2015	41,914	4,000	3.3% (2010-2015)	8.3%
2020	48,366	4,600	2.8% (2015-2020)	8.3%
2025	55,356	5,200	2.5% (2020-2025)	8.2%
2030	63,299	5,800	2.2% (2025-2030)	8.1%

Source: JICA Study Team



**Figure 3.3.1 Comparison of Population Projections for Dar es Salaam made by NBS, DART Study and JICA Study, 2003-2030**

**3.3.2 Economic Projection**

Tanzanian economy has experienced significant growth since year 2000. In fact, the average annual growth rate of real GDP at constant 1992 price was 4.2 percent between 1995 and 2000 and it increased to 6.1 percent between 2000 and 2005. Based on the strong economic performance during the recent years, the Ministry of Planning, Economy and Empowerment made a short-term macro



economic projection until 2010<sup>9</sup>. According to this projection, the real GDP of Tanzania Mainland is estimated to grow from 2,333 billion Tshs in 2005 to 3,322 billion Tshs in 2010 with an average annual growth rate of 7.3 percent during the period between 2005 and 2010 (Table 3.3.5). The secondary and the tertiary sectors will grow significantly with high growth rate of 11.1 and 8.0 respectively during the period. This is a quite high economic growth projection, compared to the recent performance..

**Table 3.3.5 Real GDP of Tanzania Mainland, 1992-2010 (at 1992 Constant Price)**

	Primary		Secondary		Tertiary		Total	
	GDP (Billion Tshs)	Annual Growth Rate	GDP (Billion Tshs)	Annual Growth Rate	GDP (Billion Tshs)	Annual Growth Rate	GDP (Billion Tshs)	Annual Growth Rate
1992	612		188		533		1,333	
1995	682	3.7%	177	-2.0%	553	1.2%	1,412	1.9%
2000	797	3.2%	253	7.4%	688	4.5%	1,738	4.2%
2005	1,020	5.1%	405	9.9%	908	5.7%	2,333	6.1%
2010	1,303	5.0%	686	11.1%	1,333	8.0%	3,322	7.3%

Note: The GDP by economic sector in 2010 is a projection made by the Ministry of Planning, Economy and Empowerment.  
Source: The Ministry of Planning, Economy and Empowerment. (2007), Macroeconomic Policy Framework for the Plan/Budget 2007/08-2009/10.

In general, future macro economic projection is always an uncertain entity, because the national economy is affected by a number of internal and external factors, such as natural and social environment and unpredictable changes of global economy. In addition, the future economic projection is often seen as a target or goal to achieve by efforts. Therefore, there is no concrete measure to predict future economy. The Study team, therefore, applied an average economic growth rate of 5.5 percent per annum for Tanzania Mainland, as a moderate-high economic growth scenario of the country. Based on this macro economic assumption, the GDP per capita will increase about 2 times between 2003 and 2030 in Tanzania Mainland.

Data of regional GDP by economic sector for Dar es Salaam is not available. The Study team, therefore, made an assumption that Dar es Salaam economy will grow faster than the national average. Taking into consideration dominance of tertiary economy in Dar es Salaam, the average annual growth rate of regional GDP is assumed to be 7.6 percent between 2003 and 2010 and then it will gradually decrease to 6.1 percent between 2025 and 2030. The per capita income in Dar es Salaam will also grow faster than the national average. We assumed that the regional GDP per capita growth rate of Dar es Salaam is almost one point higher than the average of Tanzania Mainland. Accordingly, the per capita income of Dar es Salaam will increase 2.65 times between 2003 and 2030. These assumptions are summarized in Table 3.3.6.

<sup>9</sup> Ministry of Planning, Economy and Empowerment (2007), Macroeconomic Policy Framework for the Plan/Budget 2007/08-2009/10.

**Table 3.3.6 Economic Growth Assumption in JICA Study**

Year	TANZANIA			Dar es Salaam		
	GDP Growth Rate	GDP Per capita Growth Rate	Per capita GDP 2003=100	GRDP Annual Growth Rate	GRDP Per capita Growth Rate	Per capita GRDP 2003=100
2003-2010	5.5%	2.5%	119	7.6%	3.5%	127
2010-2015	5.5%	2.6%	135	7.0%	3.6%	152
2015-2020	5.5%	2.7%	155	6.7%	3.7%	182
2020-2025	5.5%	2.8%	177	6.4%	3.8%	220
2025-2030	5.5%	2.8%	204	6.1%	3.8%	265

Source: JICA Study Team

The Study team also made an estimation of future work population by economic sector in Dar es Salaam. We assumed that job participation rate in the total population will increase from 37.3 percent in 2002 to 40 percent in 2030. Based on this assumption, future work population in 2030 by economic sector is estimated (Table 3.3.7). The work population will grow from 0.93 million persons in 2002 to 2.32 million persons in 2030, especially the work population in tertiary sector will increase triple from 0.64 million persons in 2002 to 1.97 million persons in 2030.

**Table 3.3.7 Projection of Work Population by Economic Sector in Dar es Salaam, 2030**

Year	Primary	Secondary	Tertiary	Total
2002	164,279	123,016	640,239	927,534
2030	116,000	232,000	1,972,000	2,320,000

Source: JICA Study Team

## 3.4 Spatial Framework

### 3.4.1 Physical Constraints for Future Urbanization

Dar es Salaam will reach its population with 5.8 million habitants in 2030. This indicates that another roughly 2.8 million persons will accommodate within the city for the next two decades. A question is where this population will be accommodated. If adequate land development policies are not prepared, urban sprawl and unplanned settlements would continuously extend beyond the city boundary, especially along the major arterial roads. This will cause chaotic congestions of road traffic and further deterioration of living environment. This section discusses a spatial framework for future urbanization to accommodate 5.8 million habitants in 2030, in terms of physical constraints and provision of basic urban services.

The SUDP designated potential hazardous areas including swamps and risks of land erosion and flood, as unsuitable lands for future urbanization. The SUDP also identified natural resources to maintain ecosystem of the city. The Study team took field observation on these potential hazardous areas and

natural reserve areas designated by the SUDP and then a physical constraint map was prepared (Figure 3.4.1). The areas not suitable for future urbanization are found in the areas, includes existing river valleys, potential erosion areas along the coast and steep slope areas in the western parts of the city.

In addition, future development plans of utility agencies, such as water supply, sewerage and electricity, are important factors to identify future urbanization. The SUDP provides a map indicating long-term plans of utility agencies (Figure 3.4.2). The water supply, one of the most critical elements of future urbanization, will expand its service to Kunduchi, Bunju and Mbeweni in the north; Kitunda and Chamazi in the south; and Kigamboni, Vijibweni, Kibada, Mijimwema, Toangoma and Kisarawe in the east in Temeke municipality.

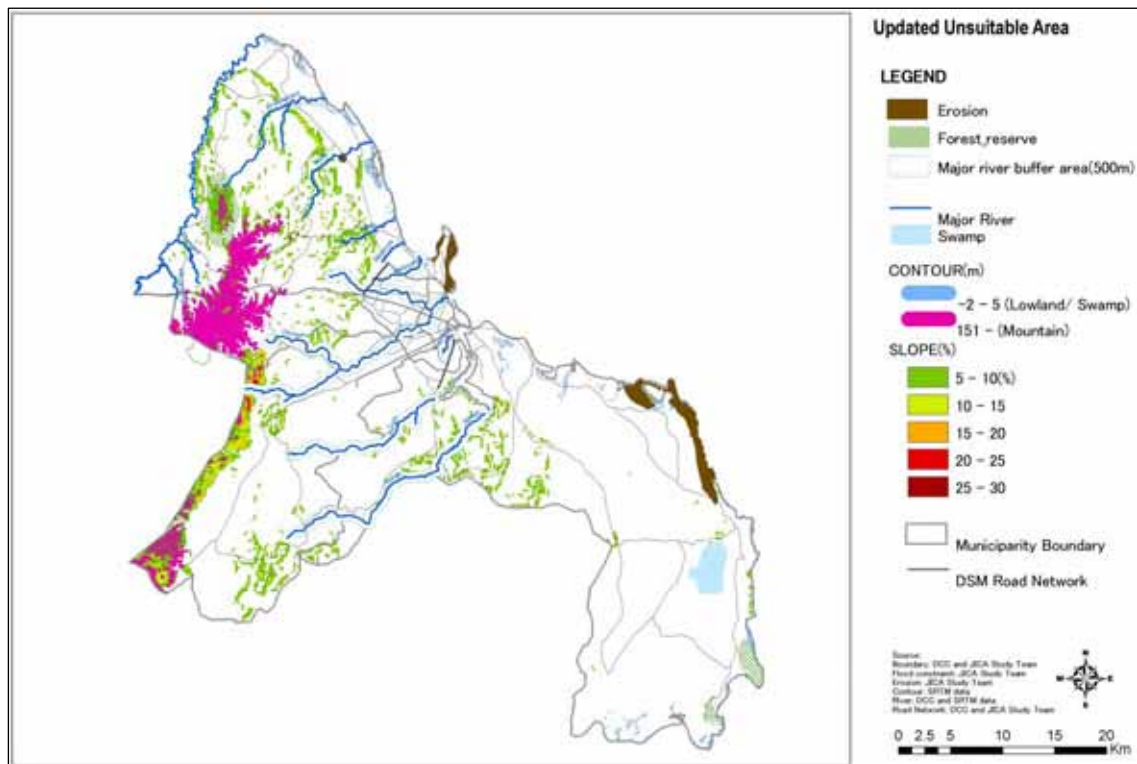


Figure 3.4.1 Constraints for Future Urbanization

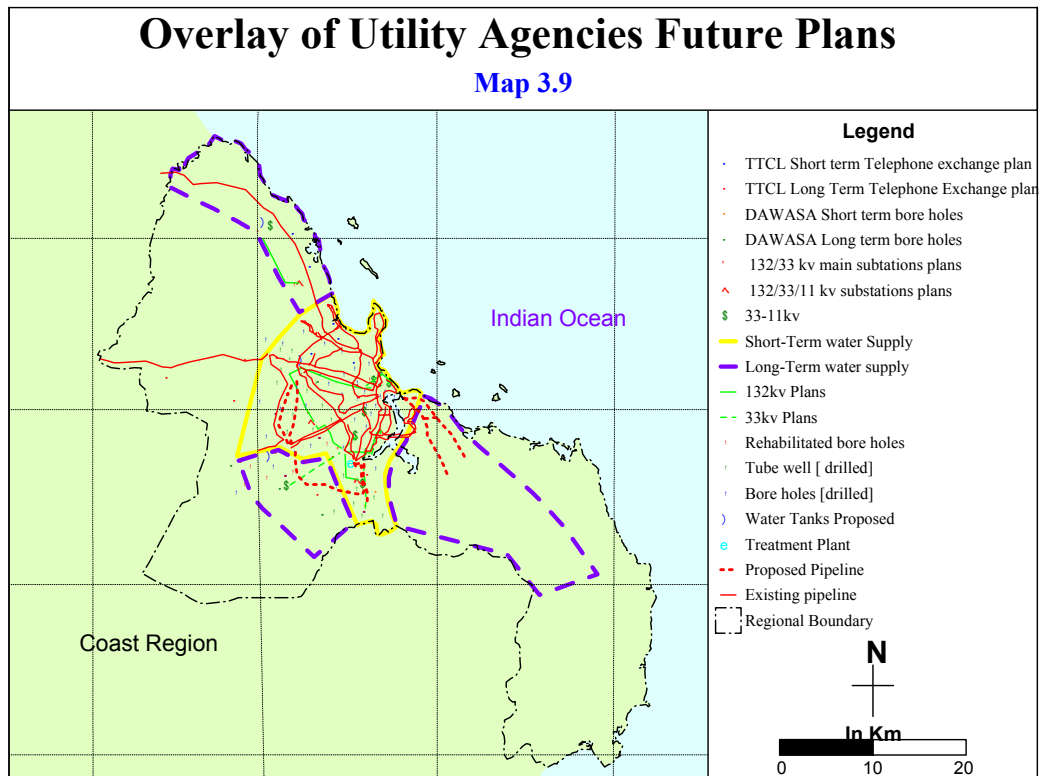
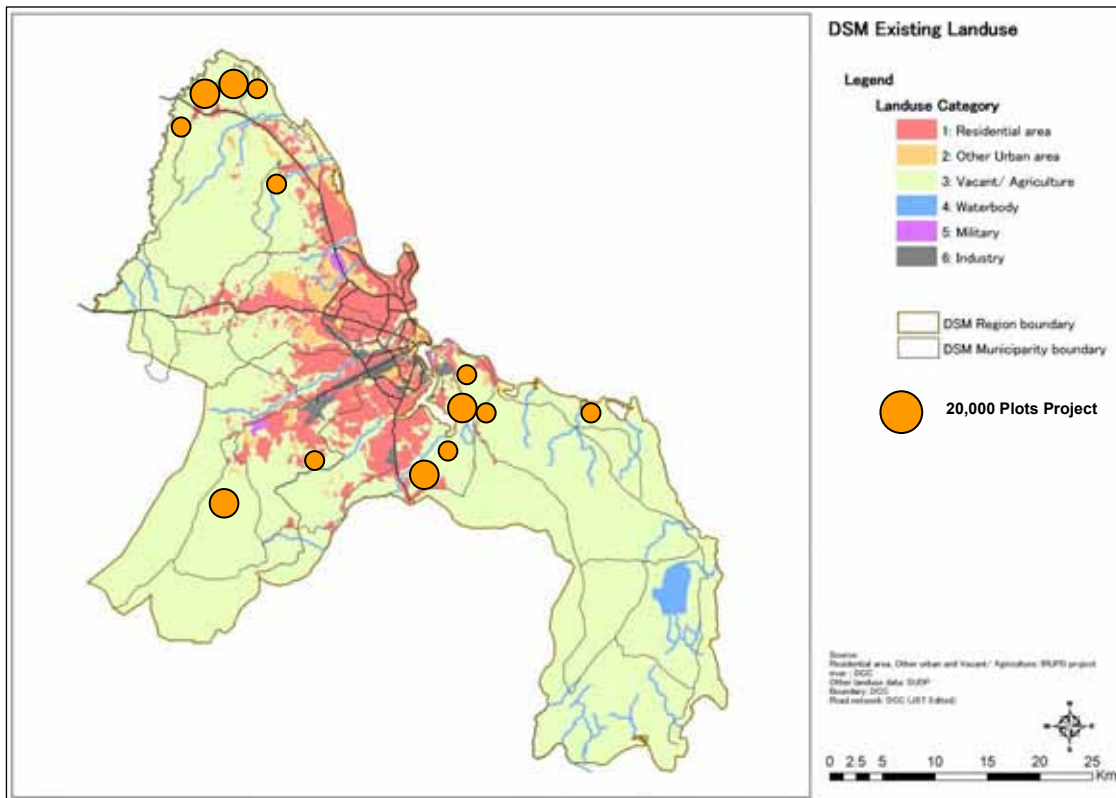


Figure 3.4.2 Long-term Development Plan of Utility Agencies

### 3.4.2 Residential Development by the MLHSD

Recently, the Ministry of Land and Human Settlement Development (MLHSD) takes initiative to develop new residential areas, called “20,000 plots projects.” The locations of the projects are shown in Figure 3.4.3. It will provide new housing plots in the several sites mostly in outskirts of the city. The project sites include Bunju, Mbweni and Mivumoni in Kidondoni Municipality, Mwanagati and Buyuni in Ilala Municipality, and Kisota, Bijibweni, Kibada, Toangoma and Somangira in Temeke Municipality. In this project, the MLHSD provides land survey and develops housing plots with major infrastructure, including roads, water supply and electricity. The projects are very successful and most of the plots are already sold out, although actual development is not yet completed. The 20,000 plots projects are the first government initiative in large scale of housing development.

According to the layout plan for the 20,000 plots projects prepared by the MLHSD, there are three types of plot size: 400-600 square meters in high-density area; 601-1,200 square meters in medium-density area; and 1,201-1,500 square meters in low-density area. The housing density is extremely low in the 20,000 plots projects even in the high-density area. Thus, some criticizes that the 20,000 plots projects are only affordable for high and middle-income people. The MLHSD are now reviewing the plan to prepare smaller plots for low-income people with cross subsidy scheme.



**Figure 3.4.3 Locations of 20,000 Plots Projects by MLHSD**

### 3.5 Summary and Conclusion

This chapter reviewed national development vision and policies, including Tanzania Development Vision 2025, National Strategy for Growth and Reduction of Poverty (NSGRP) and Mini-tiger Plan 2020. All these plans provide a large policy framework for the development of the country, with emphasis on the importance of economic development and improvement of living environment. Urban transport planning in Dar es Salaam must contribute to the country’s economic growth and poverty reduction as well as increasing mobility for all the residents.

One of the great challenges of Dar es Salaam is how to get the city to become a dynamic growth pole in the national economy. Dar es Salaam indeed has a great potential to become an economic growth pole in the country based on the geographical advantage of coastal city in the country. In order to achieve an economic growth, Dar es Salaam needs effective infrastructure, urban development strategy and good governance. Effective urban transport system can be realized in these policy dimensions.

The Study team proposed a future socioeconomic framework for Dar es Salaam for the analysis of transport demand. According to the population projection, Dar es Salaam will increase from 3 million habitants in 2007 to 5.8 million habitants in 2030. Some 2.8 million persons will increase for the next two decades in the city. Without effective urban planning including transport planning, chaotic urban sprawl will continuously expand to outskirts of the city, which causes further transport congestion and deterioration of living environment.

In order to guide future directions of urbanization in Dar es Salaam, the physical constraints and long-term utility development programs were examined. According to these analyses, three potential areas were identified for future urbanization; they are along Bagamoyo road to the north, Kintunda and Chamazi to the south, and large area in Temeke municipality. The MLHSD is now taking initiative of housing developments in Dar es Salaam, called 20,000 plots projects. These housing development projects are mostly located in the areas to be expected urbanization in the future. Urban transport master plan needs to consider future housing developments to accommodate a large number of increasing population.

## Chapter 4 Future Urban Structure

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This chapter discusses future urban structure and development scenarios for Dar es Salaam, based on the previous discussion of socioeconomic and spatial frameworks. The chapter is divided into four sections: (i) Alternatives of Future Urban Structure; (ii) Proposed Urban and Land Development Policies; (iii) Future Distribution of Population and Economic Activities; and (iv) Potential Measures for Urban Regeneration. These analyses provide spatial guideline of the development of Dar es Salaam Transport Policy and System Development Master Plan.

### 4.1 Alternatives of Future Urban Structure

#### 4.1.1 Three Types of Future Urban Development Pattern

Future urban structure is closely associated with the pattern of future transport demand. Urban structure indicates distribution patterns of population, jobs and other urban activities. Conceptually, there are three alternatives as the probable future urban development patterns in Dar es Salaam. They are: (i) Mono-centric Radial Development Pattern; (ii) Poly-centric Satellite Centers Development Pattern; and (iii) Strategic Corridor Development Pattern. Each development pattern is discussed in the following.

##### *Mono-centric Radial Development Pattern*

In this pattern, major urban functions and activities will continue to concentrate in the central area and along the major arterial roads. In order to accommodate the increasing population, residential areas will expand to further outside beyond 30 km distance from the central area (Figure 4.1.1). The agricultural lands, forests and open spaces between the major arterial roads will be rapidly lost and occupied by densely populated settlements in the near future. The continuous concentration of administrative functions and economic activities in the central area and along the major arterial roads will cause further traffic congestion and deterioration of the urban environment. Intensive urban redevelopment activities in the center area and its adjacent areas are essential to maintain urban services and economic activities.

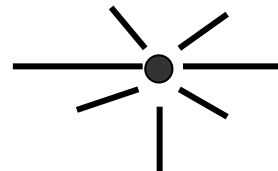
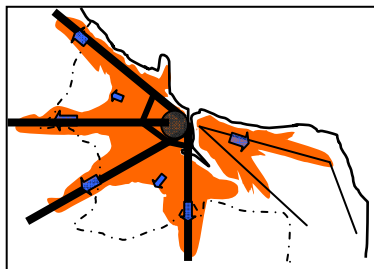
##### *Poly-centric Satellite Centers Development Pattern*

In the Poly-centric Satellite Centers Development Pattern, new satellite centers will be developed in the peripheral areas within 15-20 km distance from the central area (Figure 4.1.2). This concept of satellite

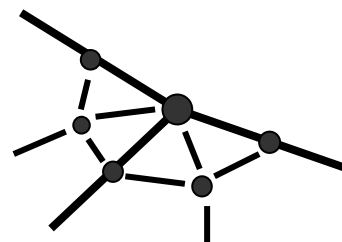
centers development is originally proposed by the DCC through the Strategic Urban Development Plan (SUDP). The potential sites for the satellite centers are Bunju and Mbezi in Kinondoni Municipality, Pugu in Ilala Municipality, and Mbagala Kongowe and Mji Mwema in Temeke Municipality. Some economic activities and employments should be decentralized from the existing central area to the satellite centers. Intensive urban development and public and private investments must be encouraged in the satellite centers. From a long-term perspective, future urbanization will spill over beyond the administrative boundary of Dar es Salaam. Strong institutional measures will be necessary to avoid disordered urbanization.

### ***Strategic Corridor Development Pattern***

In the Strategic Corridor Development Pattern, urban development and public and private investments can be concentrated into strategic development axis (Figure 4.1.3). The potential development axis will be the BRT corridor along Morogoro road, connecting the City Center with Kaliakoo, Magomeni, Manzese, Ubongo and Kimara in the first phase. Major urban activities will be encouraged to concentrate on the corridor, aiming to establish a compact and efficient urban structure. Intensive urban development and densification are implemented along the corridor. In a long-term perspective, the development corridor will be extended to the south along Kilwa road and then to the east to Kigamboni area after construction of a bridge crossing the river.

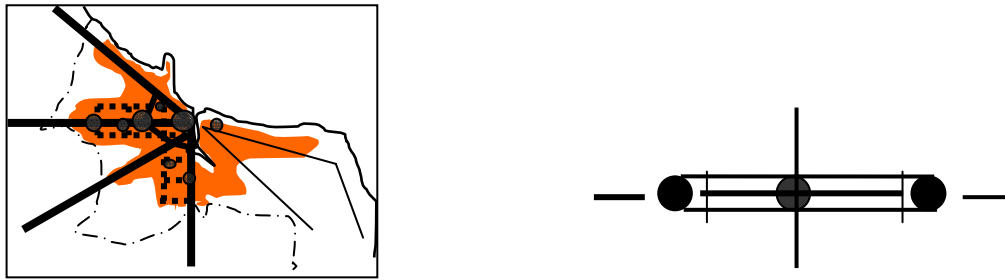


**Figure 4.1.1 Conceptual Diagram of Mono-centric Radial Development Pattern**



**Figure 4.1.2 Conceptual Diagram of Poly-centric Satellite Centers Development Pattern**





**Figure 4.1.3 Conceptual Diagram of Strategic Corridor Development Pattern**

#### **4.1.2 Proposed Urban Development Scenario**

The mono-centric radial development pattern is the continuation of existing urban growth pattern with the concentration of urban activities in the central city and along limited arterial roads. Due to the limitation of available land in the central area, urban growth will expand towards the peripheral areas along the arterial roads. If the present haphazard urban sprawl continues, serious urban and environmental problems would be accelerated, such as long travel times to work, deterioration of living environment and contamination of water and air. This is the worst scenario of the future urban structure in Dar es Salaam.

In the poly-centric satellite centers development pattern, it is necessary to encourage decentralization of urban functions from the central area to the satellite centers. A large number of employment opportunities need to generate in these satellite centers, and new residential areas with high- and medium-densities need to be developed around the satellite centers. In order to introduce private investment into the satellite centers, new transport system connecting between the central area and satellite centers will be essential to alleviate heavy traffic congestion in the existing arterial roads. The development of new satellite centers, however, takes for a long time, and also large amount of investment is needed. Furthermore, strong institutional measures must be established to attract private investment in the satellite centers.

The third alternative, the strategic corridor development pattern is the most suitable and practical urban structure for Dar es Salaam in terms of cost effectiveness and balanced development. The BRT operation will become a trigger to encourage the changes of urban structure: i.e., from mono-centric radial development pattern to strategic corridor development pattern. The property value along the corridor will increase significantly and urban development will take advantage of these changes. There are significant opportunities for private sector to invest urban development to seek more profits by effective use of urban land along the corridor. As a result, the strategic corridor development pattern is the most suitable urban structure for Dar es Salaam toward the year 2030. In theory, the poly-centric satellite centers development pattern may be the better option in the long-term perspective, but it will be achieved beyond the year 2030. Figure 4.1.4 and Figure 4.1.5 show conceptual urban structure and development scenario for Dar es Salaam in a timeframe from 2007 to 2050.

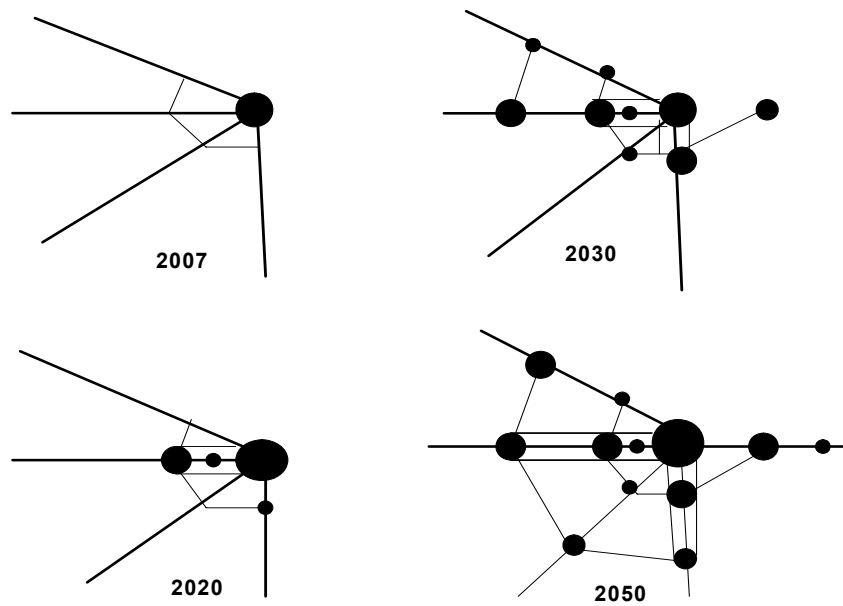


Figure 4.1.4 Future Urban Structure for Dar es Salaam with a Time Frame from 2007 to 2050

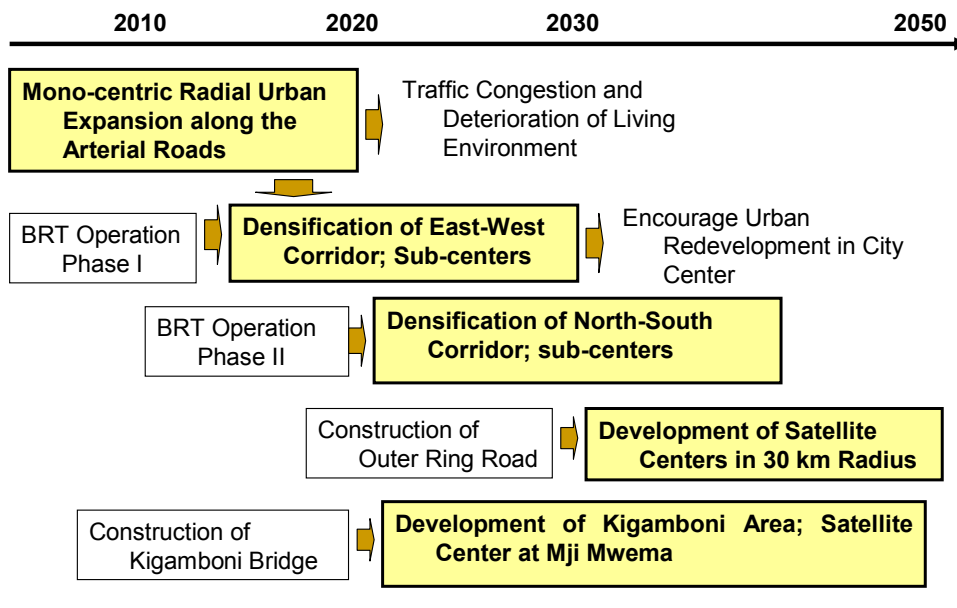


Figure 4.1.5 Urban Development Scenario for Dar es Salaam with a Time Frame from 2007 to 2050

## 4.2 Proposed Urban and Land Development Policies

The Study team proposed the strategic corridor development pattern as a suitable future urban structure for Dar es Salaam. The strategic corridor development can be achieved through effective urbanization with strong control measures of land use and urban development. Intensive urban developments and public and private investments should concentrate on the areas along the BRT corridors, i.e., Morogoro

corridor in the first phase and Kilwa corridor in the second phase. A comprehensive urban and land development policy needs to be established to promote effective urban development.

#### **4.2.1 Housing and Residential Development**

The following are recommendations on housing and residential developments in Dar es Salaam.

- In order to avoid disordered urban sprawl and expansion of unplanned settlements to the peripheral area, one of the effective tools is urban growth boundary (UGB) to identify a limit of urbanization for the next 20 years. The UGB should be reviewed every 5 years based on the analysis of population growth, natural conditions, land development constraints, and infrastructure development programs. The inside of the UGB is priority area of intensive urban development to accommodate future population. Figure 4.2.1 illustrates a proposed UGB toward year 2030.
- The existing residential areas along the coastal line, including Msasani, Oyster Bay and Mikocheni, should preserve good living environment.
- Community Infrastructure Upgrading Program (CIUP) should be introduced into the unplanned and unserved settlements to provide basic infrastructure including water supply, sanitation, sewerage, and community roads. Local participation and initiative is essential in successful implementation of CIUP.
- Land registration should proceed in unplanned settlements. It will provide land tenure for the residents and increase local tax revenue from the properties.
- Urban redevelopment should be encouraged in the areas along Morogoro road, especially Magomeni, Manzese and Tandale areas, to achieve more efficient and effective use of urban land.
- There are many properties owned by public authorities, including National Housing Corporation (NHC) and National Railway Corporation (NRC) along the BRT corridor and the central area. Some of these properties are occupied by old residential areas or left unused open space. It is encouraged to redevelop these properties and use the land more effectively, emphasizing on public private partnership on redevelopment scheme.
- The provision of housing is one of the critical factors to achieve effective urbanization in Dar es Salaam. The MLHSD, NHC and National Social Security Fund (NSSF) should play an important role to provide housing especially for middle- and low-income people.
- A large scale of residential development is needed to absorb rapidly increasing population in the city. The potential areas for the large scale residential developments are 15-20 km radius from the city center, such as Kimara and Goba in Kinondoni Municipality, Kitunda and Ukonga in Ilala Municipality, and Kibada and Tangoma in Temeke Municipality.

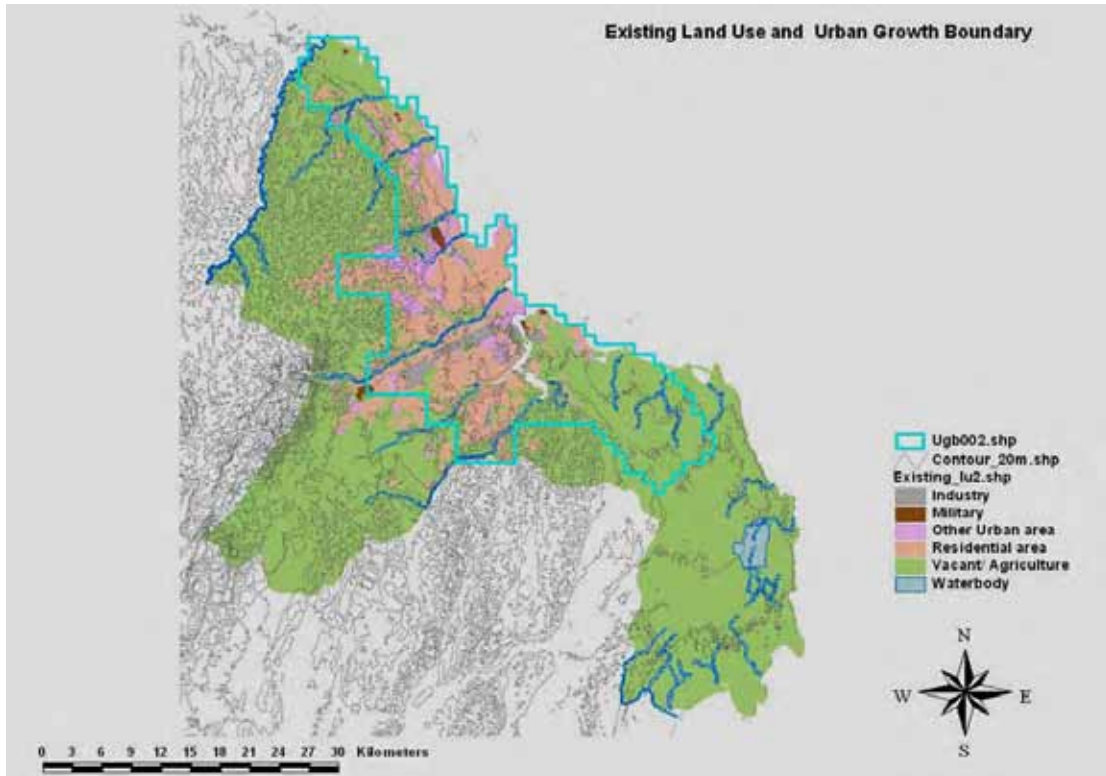


Figure 4.2.1 Proposed Urban Growth Boundary

#### 4.2.2 Commercial and Business Development

The following are recommendations on commercial and business developments in Dar es Salaam.

- In order to promote the compact corridor development, intensive development of commercial and business area should be implemented along the Morogoro BRT corridor, especially the areas at Kawawa intersection, Ubungo intersection and Morocco Terminal. These developments will encourage decentralization of work places from the central area to surrounding areas along the BRT corridor.
- Potential locations of urban service centers are the surrounding areas of BRT station and intersections of primary arterial roads, such as Ubungo, Mwenge, Changombe, Mgulani and Kigamboni areas.
- Following the schedule of the BRT operation, satellite centers will be developed. The potential areas for the satellite centers are at Kunduchi in the north, Kiwarani in the west and Kisarawe in the south as shown in Figure 4.2.2. The development of satellite centers will encourage decentralization of commercial and business activities from the central area.
- Secondary urban service centers to provide services at ward and neighborhood levels can be located in the surrounding area of BRT station and/or intersections of primary arterial roads. Some of the potential locations of the urban service centers are Ubungo, Mwenge, Changfombe, Mgulani areas.

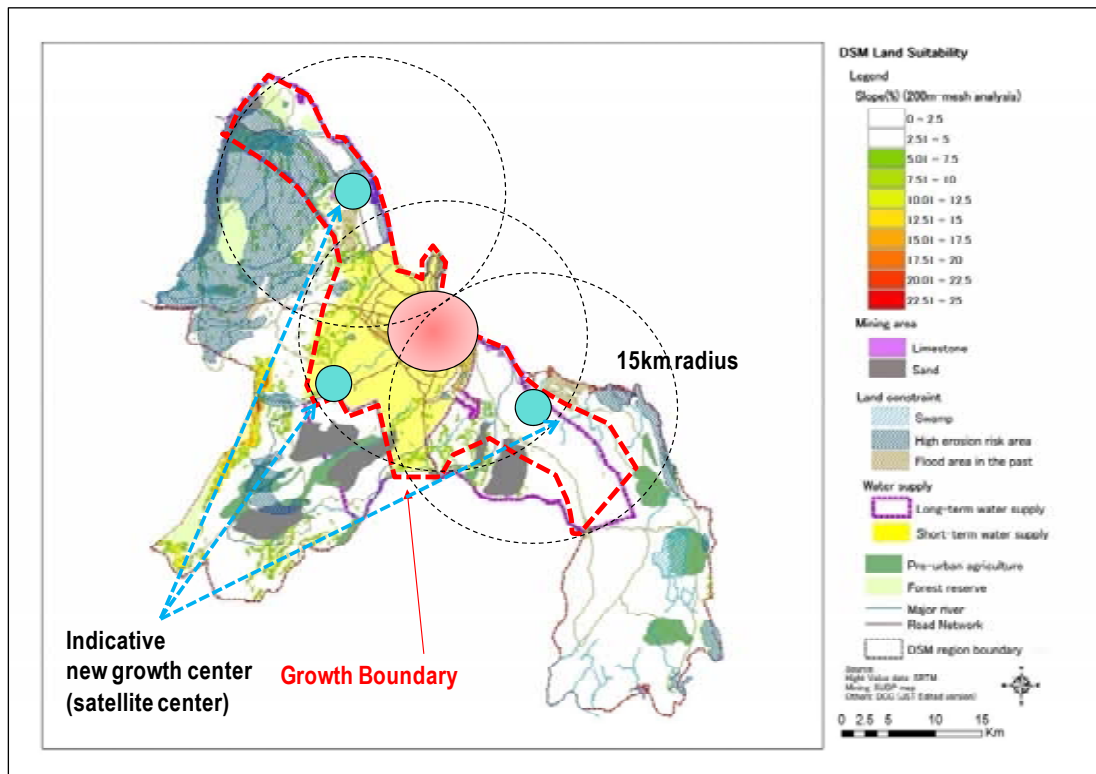
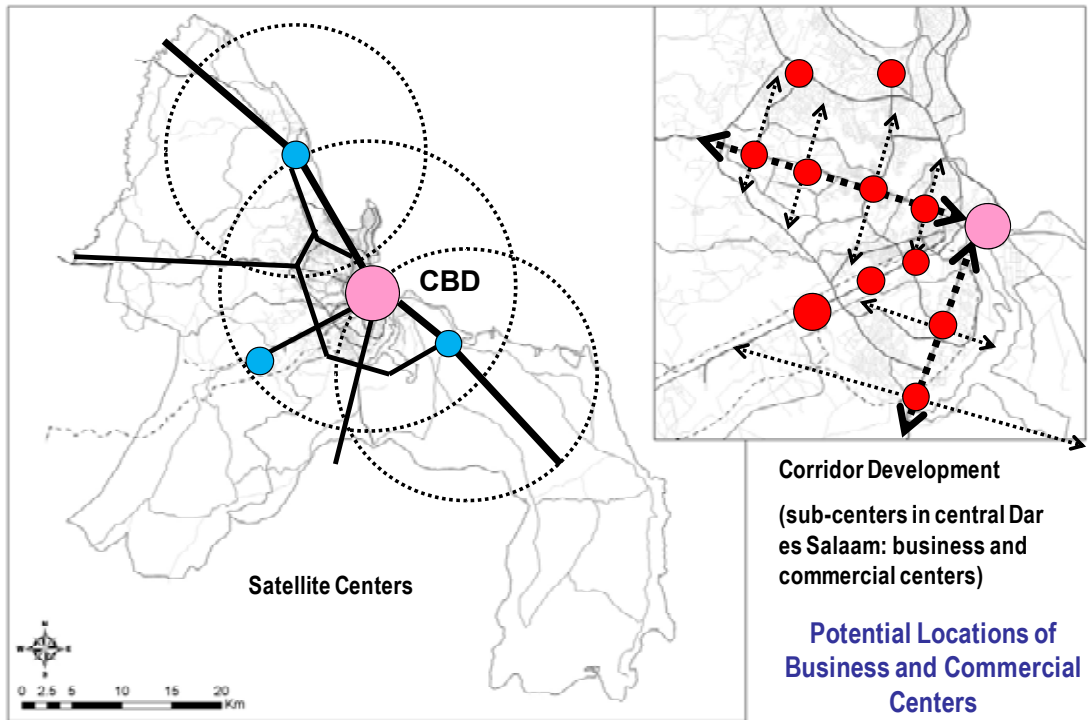


Figure 4.2.2 Development Patterns of Satellite Centers and Sub-centers

### 4.2.3 Intensive Corridor Development

The following are recommendations to promote intensive corridor development:

- In parallel with Morogoro road, at least two arterial roads should be developed to promote effective corridor development. Figure 4.2.3 illustrates the image of corridor development. The area between the arterial roads can be designated as a special development zone to encourage intensive urban development. The private sector will receive a benefit from the development in the special development zone.

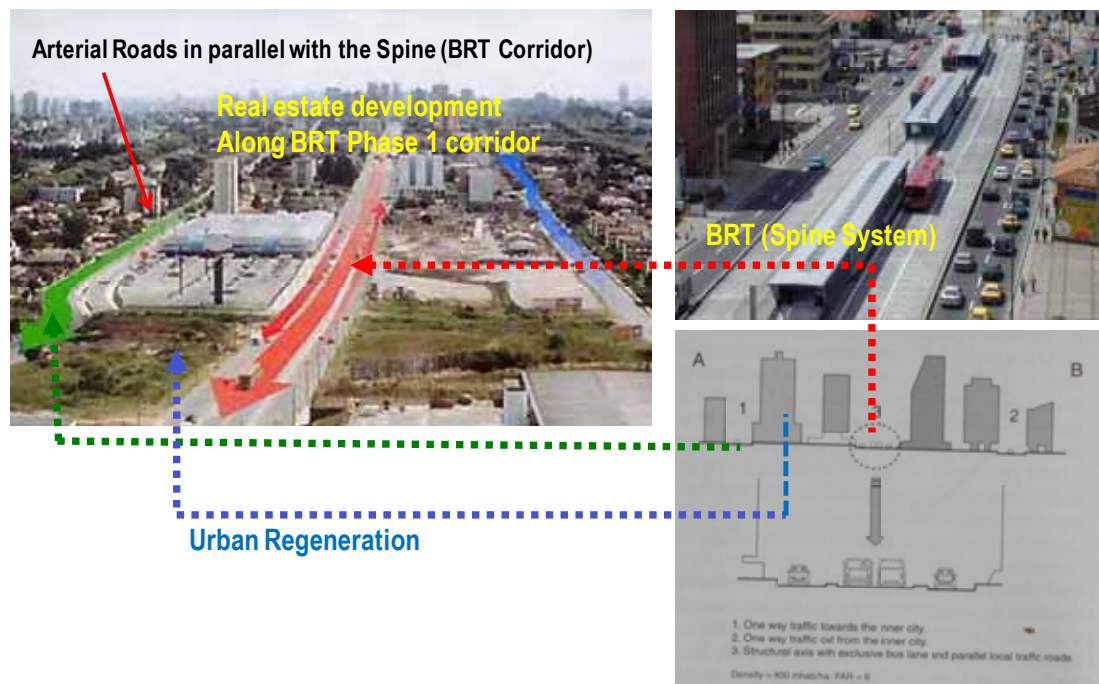


Figure 4.2.3 Image of Intensive Corridor Development

- The government needs to establish innovative measures to encourage urban development in the corridor. Some of the potential measures include Tax Increment Financing (TIF) and Transfer of Development Right (TDR). The mechanism of TIF and TDR are discussed in section 4.4 of this report.

### 4.2.4 Revitalization of Central Business District

The following are recommended policies for revitalization of the city center:

- The historical center of Dar es Salaam is major attraction for domestic and international tourism. The city center should develop pedestrian space and greenery to attract the tourists.
- The existing on-site parking should be carefully examined, because some of the on-site parking causes heavy traffic congestion in the city center.
- The BRT operation will directly affect to the flows of car traffic and pedestrian in the central

city. Morogoro road will become a transit mall, which encourage mixed-used development of commercial, business and residential. Samora Avenue and Maktaba Street will form major shopping streets in the central city.

- In order to avoid further concentration of car traffic in the city center, decentralization of government offices from the city center to surrounding sub-centers or satellite centers will be encouraged.
- Kariakoo is an old residential and commercial area. The BRT terminal will be located in the south of Kariakoo. Along with the development of the BRT terminal, its surrounding area can be redeveloped and form a business and commercial center.
- The waterfronts, including Kivukoni front road, ferry terminal and ocean road, are the scenic attraction for tourism. These areas should be used as a recreational space.

#### **4.2.5 Industrial Development**

The following are recommendations regarding future industrial development:

- Encourage industrial development outside of Nelson Mandela Road. In order to avoid air pollution and heavy cargo traffic into the city center and its peripheral areas, the existing industrial sites inside of Nelson Mandela Road is encouraged to develop light industry and mixed use of business and residential areas.
- A large-scale of new special economic zone (SEZ) and/or export processing zone (EPZ) will be developed along Nelson Mandela Road and/or Kigamboni area to promote foreign and domestic investments. From a regional development perspective, new industrial area can be developed in Bagamoyo District, where the government is now under consideration as a potential location of the development of international airport and seaport.
- Industrial development along Bagamoyo road should be limited to avoid environmental pollution. The area can be developed as business park or science park to invite foreign and domestic investors.
- Encourage redevelopment of the existing industrial area in Changombe and use the area for the mixed use of commercial, business and residential. If the existing railway line connecting between the central city and Ubungo can be converted to BRT line, Changombe would have a great potential to become one of the sub-centers.

#### **4.2.6 Agriculture and Open Space Development**

- Tourism is one of the significant resources in economic development of Dar es Salaam. Tourism resources, such as historic buildings in the central area and natural beaches along the coast should preserve to attract domestic and international visitors.
- With strong land management measures, the flood plain area in the river basins should

preserve as open space and recreational space.

- The upper stream of the rivers, the western part of the city, should be protected as natural reserve to maintain ecological balance of the city.
- The areas outside of UGB should be used as agriculture and open space, rather than urban land use. The existing housing located outside of the UGB can be combined with productive activities of urban agriculture.

## **4.3 Future Allocations of Population and Economic Activities**

### **4.3.1 Future Population Distribution in 2030**

The future population distribution was calculated by zone illustrated in Figure 4.3.1. The zone is a geographical unit characterized by degree of urbanization, distance from city center and differentiation of corridor. Based on the characteristics of each zone, the future population allocation is shown in Table 4.3.1. The basic concepts for the future population allocation are summarized as follows:

- Zone 1 (City Center within about 3 km radius) is already occupied by residential, commercial, business and government facilities. Through urban redevelopment activities, the population will increase slightly from 83,000 habitants in 2007 to 117,000 habitants in 2030. The population density will increase from 77 persons/ha in 2007 to about 100 persons/ha in 2030.
- Zone-2 (Msasani) is mainly low-density and good residential area located in the coast. The good living environment should be maintained, and the population will increase slightly from 53,000 habitants in 2007 to 61,000 habitants in 2030.
- The areas from Zone-3 to zone-7 (roughly inside of Nelson Mandela road) are already densely populated areas and there is no much open space for future development. It is expected that intensive urban redevelopment will be implemented in Morogoro corridor (Zone-4) and it will cause some changes land use from residential to commercial or business uses. Thus, the population in zone-4 is expected to decrease slightly from 448,000 habitants in 2007 to 409,000 habitants in 2030.
- Zone-8 (Kigamboni area within 5 km from the city center) will increase its population significantly by nearly 386,000 habitants between 2007 and 2030, with intensive urban development. The construction of new bridge crossing the Indian Ocean is essential to promote urban development in this zone.
- The areas from zone-9 to zone-12 are just outside of Nelson Mandela road. In these area there are still a plenty of vacant lands and can absorb future increasing population. The population in these areas is expected to become almost double from 1,2 million habitants in 2007 to 2.4 million habitants in 2030.
- The areas from zone-13 to zone-16 are located in the city boundary, roughly 20-30 km from



the city center. These areas are still not urbanized and they are mainly occupied by agriculture and forest. In these areas, some housing projects like 20,000 plots projects are already on going. Thus, the population will increase in strategic locations in these areas. Especially, zone-13 and zone-16 are expected to have large population growth.

Figure 4.4.2 shows the future population distribution in 2030 by using 1 km grid. This population distribution is based on the intensive population allocation with in the urban growth boundary proposed by the study team.

**Table 4.3.1 Future Population Distribution by Zone, 2030**

Zone	Area (square kilo meter)	Population in 2007	Population Density in 2007 (person/ha)	Population in 2030	Increased Population (2007-2030)
1	10.77	82,973	77.0	116,558	33,585
2	12.17	52,791	43.4	60,850	8,059
3	18.81	270,117	143.6	282,150	12,033
4	20.45	448,189	219.2	409,000	-39,189
5	13.52	187,239	138.5	202,800	15,561
6	4.52	120,400	266.4	128,138	7,738
7	21.76	211,189	97.1	193,250	-17,939
8	52.37	64,399	12.3	450,787	386,388
9	28.06	126,962	45.2	243,509	116,547
10	64.78	203,495	31.4	568,822	365,327
11	47.86	403,055	84.2	671,319	268,264
12	173.77	434,155	25.0	933,217	499,062
13	236	127,197	5.4	434,899	307,702
14	141.06	68,035	4.8	283,714	215,679
15	286.35	200,551	7.0	449,508	248,957
16	522.65	29,272	0.6	371,479	342,207
TOTAL	1,655	3,030,019	18.3	5,800,000	2,769,981

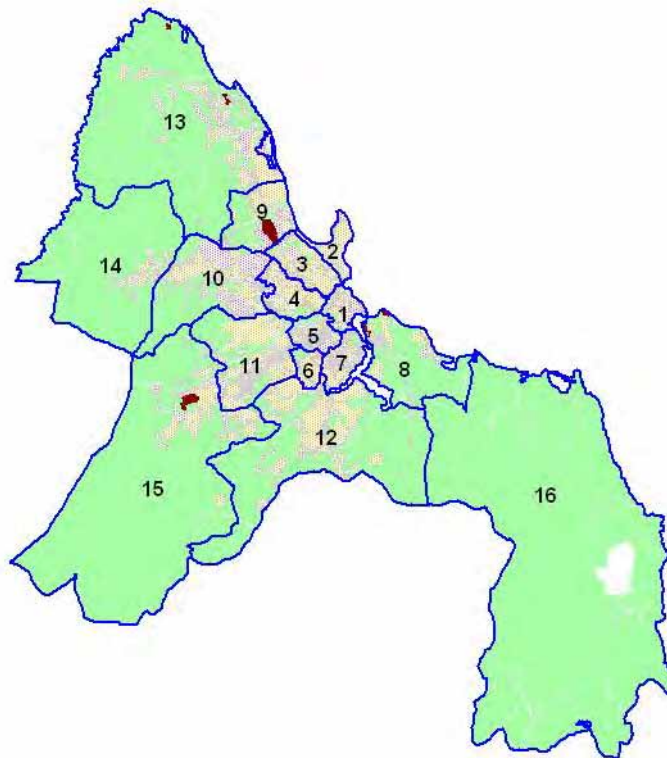


Figure 4.3.1 Super Zone Boundary for Future Population Distribution

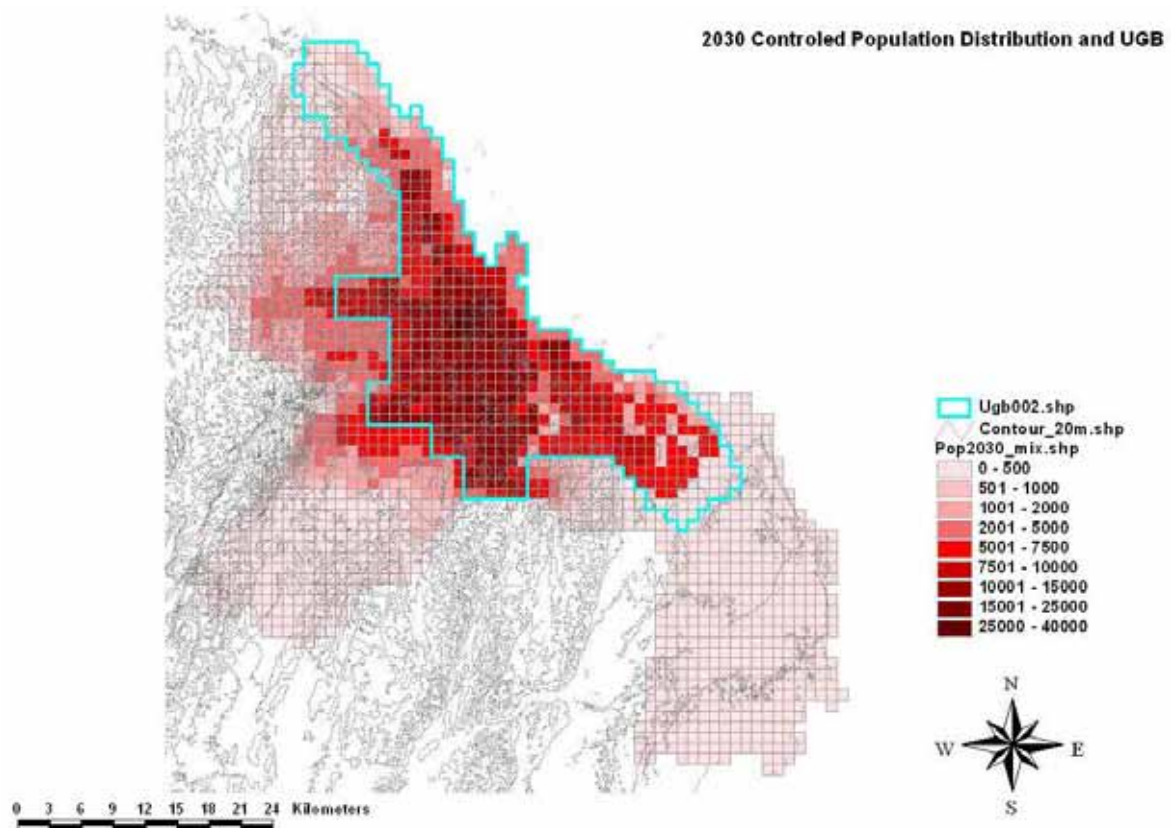


Figure 4.3.2 Future Population Distribution with Intensive Allocation within the UGB, 2030

### 4.3.2 Job Distribution in 2030

The total work population will increase about 1.4 million jobs from 927,500 jobs in 2002 to 2,320,000 jobs in 2030. The future locations of jobs were estimated based on the proposed strategic corridor development pattern. Some 116,000 jobs in the primary sector will be located mainly in the peripheral areas, such as zone-10, 12, 14 15 and 16. Some 232,000 jobs in the secondary sector will be located at strategic places concentrated on zone-4 inside of Nelson Mandela road and zone-8 in Kigamboni, as well as places outside of Nelson Mandela road, such as zone-10, 11 and 12. Some 1,972,000 jobs in the tertiary sector will be concentrated in the central city (zone-1), Morogoro corridor (zone-4) and surrounding urban centers (zone-8 and zone-11). Although many tertiary jobs will be developed outside of the city center, the city center will still maintain its major functions as political, administrative, commercial and financial center at a national and regional level. Table 4.3.2 shows future distribution of jobs by economic sector in each zone. Figure 4.3.3 illustrates the distribution of total number of jobs in 2030.

**Table 4.3.2 Future Distribution of Jobs by Economic Sector, 2030**

Zone	Jobs in 2030			
	Primary Sector	Secondary Sector	Tertiary Sector	Total
1	0	0	343,500	343,500
2	0	3,700	26,300	30,000
3	0	18,800	135,500	154,300
4	3,500	32,600	261,800	298,000
5	4,100	9,800	141,900	155,700
6	0	5,300	38,100	43,400
7	0	12,100	32,200	44,300
8	6,900	45,400	326,300	378,700
9	0	3,900	27,900	31,700
10	17,000	14,800	106,500	138,300
11	9,700	37,700	266,500	313,900
12	13,700	26,600	122,100	162,400
13	7,200	10,600	76,400	94,200
14	15,200	1,700	12,200	29,200
15	20,600	7,000	44,400	72,000
16	18,000	2,000	10,500	30,500
Total	116,000	232,000	1,972,000	2,320,000

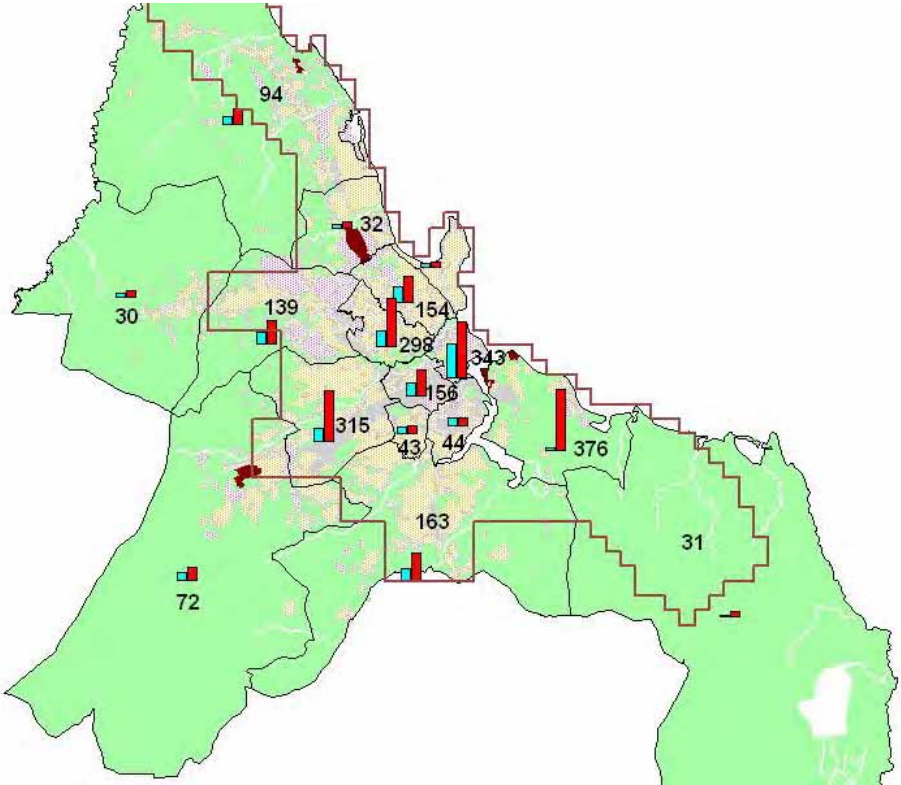


Figure 4.3.3 Future Distribution of Jobs by Zone, 2030

## 4.4 Potential Measures in Urban Regeneration

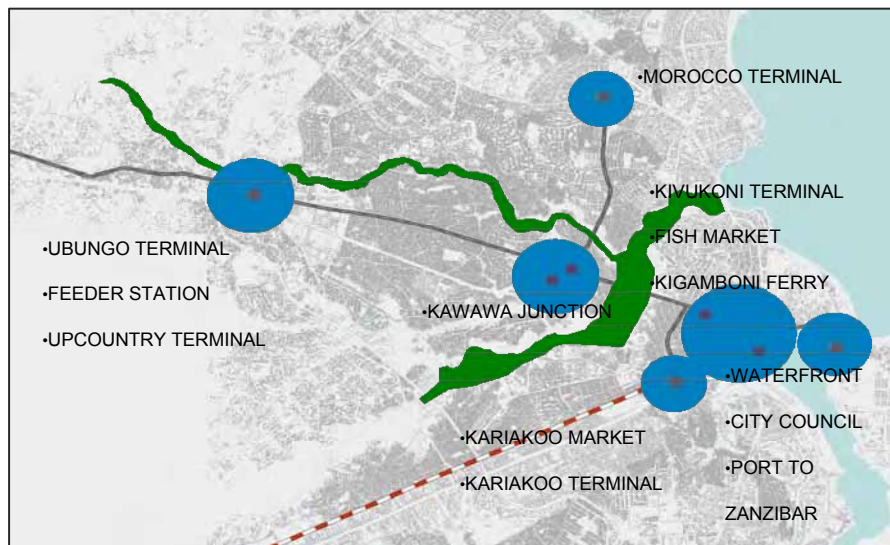
This section discusses potential methods to realize regeneration of urban structure from a mono-centric radial development pattern to a compact corridor development pattern. Some of the potential measures include redevelopment to create new urban centers along the BRT corridor, and applications of transfer of development right (TDR) and tax increment financing (TIF).

### 4.4.1 Creating New Urban Centers

The implementation of the BRT will lead a change of urban structure and land use. The property value along the BRT corridor will increase significantly, and urban redevelopment will take advantage of these changes property value. In order to encourage urban redevelopments along the BRT corridor, the government needs to provide:

- Clear urban development policy and measures to invite private investment along the BRT corridor.
- Regulatory framework to encourage urban redevelopments in the areas nearby terminals and main stations.
- Proper land use zoning around the BRT corridors.
- Development of proper real estate market

The phase-1 operation of BRT system will promote a strong urban development and redevelopment opportunities in the city, especially along Morogoro and Kawawa roads and the City Center. The development of new urban centers will be located in the BRT terminals. The study team identified at least six potential areas for development of new urban centers (Figure 4.4.1).



Source: DART Study

**Figure 4.4.1 Urban Sub-centers Development along the BRT Corridor**

The development directions of each urban sub-center are summarized as follow:

- With the implementation of the BRT, the Kivukoni area can be a major destination of shopping, tourism, folklore/ handcraft and restaurants in association with the local fish market. In this area, it is necessary to reorganize into more efficient transport system with different modes – BRT, complementary bus services, ferry and freight to fish market.
- The main activities in the Central Business District (CBD) are government administration, business and commercial services. The area attracts a number of domestic and foreign visitors - both tourists and business. It is a potential area for development of hotels, restaurants, business and commercial services for international and domestic visitors
- In the CBD area, there are several potential sites to promote urban redevelopment: (i) Waterfront; (ii) City Council area; (iii) Samora Avenue; (iv) Libya Square; and (v) Railway Station.
  - (i) The waterfront area along Kivukoni Front and Ocean roads is distinguished by its scenic view. It can be redeveloped to an attractive open space or boulevard for recreation, walking, commercial and leisure.
  - (ii) The City Council area is an emblematic area with historic value. It is proposed transformation of the area into a historical and scenic area through the redevelopment of civil and cultural attractions.
  - (iii) The Samora Avenue will be directly affected in its characteristics by the implementation of BRT. Some changes will naturally occur by reorganization of business and commercial activities. It is recommended that Samora Avenue will be redeveloped as a major shopping street in the CBD.
  - (iv) The commercial and service activities in the City Center will be intensified by the operation of the BRT. Libya Square can be an “oasis” for recreation for the surrounding residents.
  - (v) The sites of railway station and rail yard are very valuable lands in the City Center. It is recommended that the function of railway station will be integrated into Tazara Station and that the existing railway station and rail yard can be used for a future BRT system connecting the CBD and Ubungo.
- Kariakoo area is a relatively old residential and commercial area. The development of BRT terminal in the south will become a trigger to encourage urban redevelopment in this area. With intensive urban redevelopment, Kariakoo will create a new face of the city with the functions of new market, restaurants, parking areas, service buildings, and public administration buildings.
- The intersection of Kawawa and Morogoro is one of the most important nodes in the City. With the implementation of the BRT System, the land value near the intersection will increase significantly. By using market mechanism, the area can be redeveloped as an urban center with

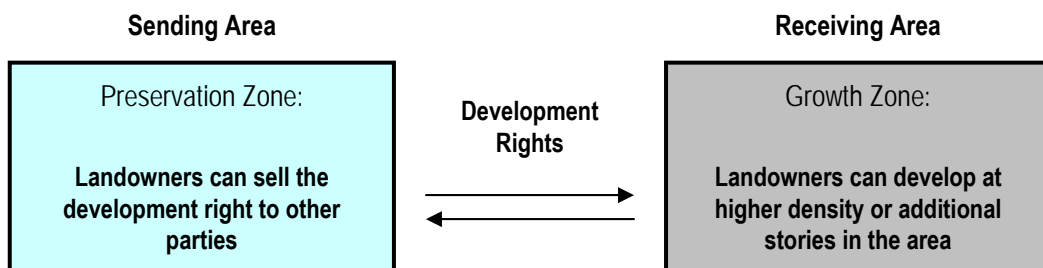
business, commercial and cultural functions. The area can be designates as a Tax Increment Financing (TIF) district to encourage private investments.

- Morocco Terminal will be an important transfer point of the BRT System. The area has a great potential to be redeveloped as an attractive urban center for business and commercial activities.
- Ubungo is an important point not only for the BRT System but also for the entire transport network in Dar es Salaam. The inter-city bus terminal connects the city with the hinterland of upcountry. Ubungo has a potential to become one of sub-centers to provide urban services in the western part of the city.

#### 4.4.2 Transfer of Development Right (TDR)

Transfer of development right (TDR) is an incentive-based tool to achieve land use goals with regulatory power of local government. In general, such land use goals are preservations of historic areas and/or productive farmland, and redirecting development potential to more suitable areas. The TDR suggests that the right to develop property can be transferred from one area to another to achieve the goals of land use. It is suggested that the TDR might be useful tool to direct development activities to the BRT corridor.

Typically, TDR allows to exchange development rights between sending area and receiving area. Landowners in receiving areas can purchase development rights from landowners in the sending areas, and they can develop buildings at higher density or with additional stories than what is allowed by existing zoning regulations. Landowners in the receiving areas, therefore, can enjoy a greater economic return on their property by using TDR. This mechanism of sending and receiving areas is illustrated in Figure 4.4.2.



**Figure 4.4.2 Mechanism of Transfer of Development Right**

The concept of TDR has been applied in many cities in the developed and developing countries. In the United States, TDR allows developers to build extra floors if they bought the development rights of a historic building of a nearby site. The owners of the historic site sold their development right to developers, and they received the money from developers. The money received are usually used for restoration or preservation purposes of the historic site. The concept of TDR was introduced into developing country too. For example, the Bombay Municipal Corporation in India applied TDR and acquired private land from landowners with compensation of the grant of TDR, which allows the landowners to develop at designated areas. The Municipal Corporation can use the private land for

public purposes, such as roads, parks and slum rehabilitation. The TDR is now widely used in Brazilian cities; Curitiba, for example, uses TDR as a tool to promote guided densification and intensive development at designated areas such as development corridor<sup>1</sup>.

Practically, the TDR concept can be applied to Dar es Salaam and it will encourage to redirect the development activities into the BRT corridor. Developers can buy the development rights in agriculture or preservation areas from the landowner, and these development rights will be transferred to the area along the BRT corridor under the regulatory power of local government. The developers can develop with higher density or additional floor areas than what is allowed by existing zoning regulations. Landowners in the receiving areas can enjoy an economic return on their property. It is important that land use along the corridor must be controlled effectively to attract buyers of development right. Successful implementation of TDR needs the administrative and institutional capabilities of local government.

#### **4.4.3 Tax Increment Financing (TIF)**

How do local governments increase their revenue to promote urban development and urban revitalization? One of the innovative tools to increase local revenue is Tax Increment Financing (TIF), which has been used in many cities in the US since the 1990s. By using a local government's regulatory power, the TIF generates revenue for local economic development in a specific geographical area. The TIF allows the city to re-invest a portion of property tax revenue from the TIF district for a certain period<sup>2</sup>. The property tax revenue would arise, if new developments take place, or if the value of existing properties rises. The increased portion of the property tax revenue is called "tax increment," and it can be spent on improvement of infrastructure or given as subsidies to encourage private development in the designated TIF area.

Theoretically, the TIF does not require a city to raise the tax rate. It generates money for redevelopment by raising the value of the property in the TIF district. This mechanism can be described in the following way:

- When the TIF is established, the local government looks at the existing value of all the properties in the TIF district. This is the "initial assessed value," which stays flat for a certain period. This means that once a TIF district is established, new or increased property tax revenue from the TIF district does not go to the city's general fund.
- The property value in the TIF district would increase, if there were new development, improvement of existing property, or natural growth in property values. The difference between the "initial assessed value" and "new assessed value" is the tax increment.
- The money created by the tax increment goes to a special TIF fund, which is separated from

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<sup>1</sup> The practice of TDR in Brazilian cities is discussed in *Compact Cities: Sustainable Urban Forms for Developing Countries*, pp. 127-139.

<sup>2</sup> It is 23 years in Chicago.



the city's general fund<sup>3</sup>. The TIF fund can be re-invested in the TIF district to develop public infrastructure and to encourage private investment. Accordingly, the assessed value of properties in the TIF district rises.

For example, we assumed that the initial assessed value of all the properties in the TIF district was \$1,000,000 in total, when the TIF was established, and it increased by 20 percent to \$1,200,000 in one year after it was established. The growth is \$200,000, and the tax increment amounts to \$20,000, if the tax rate is 10%. The tax increment goes to a special TIF fund, and it is re-invested in the TIF district. The TIF is not a new tax. It is a reallocation of a city's property tax revenue from the general fund to a TIF special fund, which allows the local government to reinvest it in the TIF district.

The mechanism TIF can be potentially applicable to Dar es Salaam, especially the areas along the BRT corridor. With the implementation of the BRT, the property value will increase significantly, and it makes the local government generate more revenue from the property tax in the area. The increment of the tax revenue can be reinvest in the designated TIF district and spent for a specific purpose, such as implementing land survey, improving infrastructure, putting vacant land to productive use, and creating job opportunities. It is noted that property registration and land evaluation system and effective tax collection system must be established for the implementation of TIF. Successful implementation of TIF needs the administrative and institutional capabilities of local government.

## 4.5 Conclusion

This chapter examined future urban structure as a spatial framework for urban transport master plan in Dar es Salaam. There are three alternatives of future urban development pattern in Dar es Salaam: (i) mono-centric radial development pattern, (ii) poly-centric satellite centers development pattern, and (iii) strategic corridor development pattern. Through the comparative analysis, the strategic corridor development pattern was selected as a better option for future urban structure of Dar es Salaam in terms of cost effectiveness and balanced development. The BRT operation will become a trigger to change urban structure from the existing mono-centric radial development pattern to the strategic corridor development pattern.

In order to avoid disordered urban sprawl and expansion of unplanned settlements to the peripheral area, urban growth boundary (UGB) is an effective tool to control future urbanization. The UGB designates a limit of urbanization for the next 20 years. The inside of the UGB is a priority area in implementation of intensive urban development to accommodate future increasing population. The outside of the UGB is rather rural area with emphasizing on protection of agriculture and natural forest. A long-term investment of infrastructure should concentrate on inside of the UGB.

Future population and economic activities were allocated based on the strategic corridor development pattern. The future population will increase significantly in the areas between Nelson Mandela road and the UGB and Kigamboni side in Temeke Municipality. It is essential in the construction of new bridge crossing Krasini Creek. The future economic activities are encouraged to develop in the

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<sup>3</sup> The general fund is used by public agencies to maintain, improve, and develop public schools, parks, and infrastructure.






proposed urban centers located on the corridor as well as Kigamboni side. The future transport demand forecast will be made based on these distribution of population and economic activities.

In order to regenerate urban structure from mono-centric radial development pattern to strategic corridor development pattern, several potential measures were proposed in this study. They are: (i) urban redevelopment for creating new urban centers; (ii) transfer of development right (TDR) and (iii) tax increment financing (TIF) to promote private investment along the corridor. These methods have a great potential to regenerate urban structure of Dar es Salaam. It should be noted that successful implementation of urban redevelopment and application of TDR and TIF to Dar es Salaam needs a strong leadership of the government. Administrative and institutional capability building of the central and local governments are essential in successful implementation of these methods.

Finally, urban development and transport planning are two wheels to achieve effective urbanization. Without effective transport policy and planning, intensive urban development along the BRT corridor cannot be realized and vice versa. In order to realize effective urbanization in Dar es Salaam, it is recommended to establish a new organization, so-called Dar es Salaam Urban Development Authority (DUDA), which will be responsible for urban planning and development issues in Dar es Salaam. We believe that Dar es Salaam Urban Transport Authority (DUTA), a new organization, will be established in a near future and it will be responsible for urban transport issues in Dar es Salaam. Along with the DUTA, Dar es Salaam Urban Development Authority (DUDA) will play a leading role to regenerate the city of Dar es Salaam.

## APPENDIX

### Typical Housing Areas in Dar es Salaam and Their Population Densities

	
<p><b>1.</b> Ocean Road in Upanga East, 3-story apartment constructed by NHC. The population density of the ward is about 50 persons/ha.</p>	
	<p><b>2.</b> United Nation Road at Upanga, 7-story apartment constructed by a private sector</p>
	
<p><b>3.</b> Tandika Mtoni near Kilwa Road, South of Mandela Road, Unplanned settlement for low-income people. The population density of this area is about 360 persons/ha.</p>	



**4.** Muchafukoge in the Central City. The population density of the ward is about 120 persons/ha. Muchafukoge is the mixed use area of residential and commercial.



**5.** Makumbusho, 3-story apartment constructed by NHC along Morogoro Road near the intersection at Kawawa road. The population density of the ward is about 320 persons/ha.



**6.** Tandale, between Morogoro and Bagamoyo Road, Unplanned settlement for low-income people. The population density of the ward is about 210 persons/ha.



**7. Manzese** between Morogoro and Mandela Rods, Unplanned Settlement. The population density of the ward is 175 persons/ha.



**8. Segerea**, peripheral area to the west of Tabata, Houses developed by National Social Security Fund (NSSF). The population density of the ward is about 50 persons/ha.



**9. Housing for army** in Sinza. 5-story apartment buildings with a lot of open space.



**10. Muwananyamala**, near hospital. The population density of the Ward is about 230 persons/ha.



**11. Kijitonyama**, typical residential area for middle income people. The population density of the Ward is about 100 persons/ha.



**12. Sinza**, typical residential area for middle-income class people. Most of the residents have land registration and pay land rent fee to the government. The average population density of the Ward is about 150 persons/ha.



1-12: Locations of the Housing Area

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