STATUS AND PROGRESS IN HUMAN DEVELOPMENT IN ZANZIBAR

By: Flora Kessy and Mashavu Omar

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AU	African Union
CCT	Conditional Cash Transfers
DHS	Demographic and Health Survey
EAC	East African Community
EEPCO	Environmental Engineering and Pollution Control Organization
EmONC	Emergency Obstetric and Newborn Care
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GPI	Gender Parity Index
HBS	Household Budget Survey
HDI	Human Development Index
HFIAS	Household Food Insecurity Access Scale
HMIS	Health Management Information System
ILFS	Integrated Labour Force Survey
ILO	International Labour Organization
IMCI	Integrated Management of Childhood Illnesses
MAIR	MKUZA II Annual Implementation Report
MDAs	Ministries, Departments and Agencies
MDGs	Millennium Development Goals
MKUZA	Mkakatiwa Kukuza Uchumina Kupunguza Umaskini Zanzibar
MoEVT	Ministry of Education and Vocational Training
MoH	Ministry of Health
MoHCDGEC	Ministry of Health, Community Development, Gender, Elderly and Children
MPI	Multidimensional Poverty Index
MMR	Maternal Mortality Ratio
NBS	National Bureau of Statistics
NCHS	National Centre for Health Statistics
NER	Net Enrolment Ratio
OCGS	Office of Chief Government Statistician
OPEC	Organization of the Petroleum Exporting Countries
OPHI	Oxford Poverty and Human Development Initiative
PHC	Population and Housing Census
PSSN	Productive Social Safety Nets
PWP	Public Works Programme
RGoZ	Revolutionary Government of Zanzibar
SAM	Severe Acute Malnutrition
SDGs	Sustainable Development Goals
SUZA	State University of Zanzibar
SWASH	School Water, Sanitation and Hygiene
TASAF	Tanzania Social Action Fund
TBA	Traditional Birth Attendants
TDHS	Tanzania Demographic and Health Survey

TDHS-MIS	Tanzania Demographic and Health Survey and Malaria Indicator Survey
TFR	Total Fertility Rate
THDR	Tanzania Human Development Report
TSPA	Tanzania Service Provision Assessment Survey
TZS	Tanzanian Shillings
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
URT	United Republic of Tanzania
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
ZPC	Zanzibar Planning Commission
ZSEST	Zanzibar Strategy for Economic and Social Transformation
ZSGRP	Zanzibar Strategy for Growth and Reduction of Poverty
ZSPP	Zanzibar Social Protection Policy

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ABSTRACT

This paper provides an overview of human development in Zanzibar. Human development has been measured using indicators on poverty, longevity of life, knowledge, and health output and outcomes. Data have been drawn mainly from secondary official sources and routine data systems of various ministries, departments and agencies.

Poverty measured by both single and multidimensional indicators is pervasive, with higher poverty incidence in rural than in urban areas (40.2% versus 17.9% respectively) and large disparity across districts despite more than two decades of poverty-reduction efforts. Life expectancy at birth increased from 57 to 65.2 years for the total population and improvements have been noticed in all regions expect Mjini Magharibi and Kusini Unguja. Performance of nutrition indicators shows a decline in stunting rates from 30% in 2010 to 23% in 2015/16. Pemba suffers more stunting than Unguja. There was significant decline in all child mortality indicators in Zanzibar between 2004/05 and 2012 and in the maternal morality ratio (from 473/100,000 in 2006 to 310/100,000 in 2013), which is associated with an increased proportion of births taking place in a health facility and with assisted delivery. In both the dry and rainy seasons, a majority of households had access to an improved water source (92.6% and 93.2% respectively in 2014/15) and a large proportion of households had a toilet facility (83.6%). Rural areas are less likely to have a toilet facility (72.5%) compared to urban areas (98.3%). While the Net Enrolment Ratio (NER) in primary education showed an increasing trend from 83.7% in 2012 to 87.5% in 2014, the NER for ordinary-level secondary education was consistently low for the three years and exhibited a decreasing trend (from 48.2% in 2012 to 45.1% in 2014). A majority of students who passed the Form 4 examinations got Division 4 but the trend for Form 6 results was better, with the majority getting Division 3 and a higher pass rate. There was a decline in the proportion of illiterate people of both sexes over time, from 24.2% in 2004/05 to 16.3% in 2014/15.

Poor performance of productive sectors resulted in weak economic growth (7% versus 10% envisaged in Vision 2020), which not only hinders the capacity of government to deliver both social and economic services but also traps households in poverty. Thus, further improvement in human development dimensions in Zanzibar is contingent on economic policies aimed at promoting economic growth through increased productivity and forging synergies in strategic sectors; creating employment opportunities; education and training; and provision of basic social services. It also depends on structural changes targeted at reducing inequality (through properly designed redistributive policies such as social protection), increasing opportunities and access to resources, and promoting rural development.

1. INTRODUCTION

1.1 Background to the Study

Zanzibar aspires to transform the economy and improve the well-being of its people to reach middle income country status by 2020 as stipulated in the Revolutionary Government of Zanzibar Development Vision 2020 (RGoZ, 2000). The overall goal of Zanzibar Development Vision 2020 is to transform Zanzibar into a middle income country and eradicate absolute poverty in the society by building a strong and competitive economy so as to achieve high-quality livelihoods for citizens and improve good governance and the rule of law without compromising Zanzibar's rich culture (RGoZ, 2011). Achievement of Development Vision 2020 to a large extent requires economic policies that are aimed at creating education, training and employment opportunities; providing basic social services; and encouraging participatory development. However, economic policies alone are not adequate to induce the structural changes needed to reduce inequality, increase opportunities and access to resources, promote rural development, and protect vulnerable groups. Thus, the rallying theme for Tanzania Human Development Report (THDR) 2017 is "social policy in the context of economic transformation".

In order to evaluate whether social and economic policies to reduce poverty and improve human development are delivering, it is important to describe the existing situation, compare it with the past and use it to evaluate the future. THDR 2014 was the first of its kind and unique in providing a national-level exploration of the status and progress of human development in Tanzania. As part of the preparation for that report, a detailed study of the status and progress of human development in Zanzibar was commissioned. As a contribution to THDR 2017, this paper provides statistics on the progress of human development in Zanzibar using current data (updating the figures in THDR 2014). The paper provides an overview of areas where progress has been made and where stagnation has been observed and the reasons for the observed trend. It also provides some recommendations on economic and social development issues that should be addressed in order to improve human development indicators.

1.2 Dimensions of Human Development

The human development approach draws considerably from the work of Amartya Sen, who showed that focusing solely on income has not been sufficient in monitoring development of the well-being of the people. For example, there are cases where a country or territory enjoys substantial per capita income while the people suffer very high mortality rates. An exclusive focus on income would not alert policy makers on the need to deal with the problem of high mortality. Further, a country or a territory may enjoy high per capita income while a majority of the citizens enjoy no freedom or human rights.

The human development approach combines various dimensions of human well-being in evaluating progress. The underlying philosophy of the human development approach

is that human beings make progress only through attaining numerous functions and capabilities that they have reason to value (Anand and Sen, 1994). Income is important in the human development approach, but its importance is only because it is an instrument for attaining something else that human beings value, such as good nutrition, low morbidity and long life. Money is not of intrinsic importance; it is only of instrumental importance. Money is mainly included in the human development approach because it creates the capability to attain a number of functions, and because of its close, *albeit* imperfect, correlation with other valuable dimensions of human development (RGoZ, 2009).

The following are major human development dimensions discussed in various reports:

Longevity of life: Overall, life expectancy is an important indicator of human development. Child and infant mortality rates are two of the most important indicators of progress in human development.

Knowledge: It is assumed that there is an intrinsic and universal quest to pursue knowledge. A person who manages to acquire more knowledge than others is considered to be better off than others. Knowledge is important for its own sake as well as for the sake of empowering a person to attain various other goals, including higher earnings and better enjoyment of life. There are various measures of knowledge that can be used in assessing progress in terms of human development. These include literacy rates, enrolment ratios and performance (e.g. examination pass rates, transition rates, retention rates) at various levels of the education system, and access to education.

Health: This is another common dimension of human development that is extensively employed both by the global United Nations Development Programme (UNDP) Human Development Report and by various national and territorial human development reports. Ill health has an obvious effect of reducing personal well-being. Health is also valuable for its instrumental value; a person with good health tends to be more productive than a person with ill health. Good health therefore increases both individual and national income (in countries with low unemployment rates). Reduction in morbidity and mortality is therefore an overriding objective. Life expectancy at birth gives a general indication of how healthy a population is. Other indicators include infant and child mortality, maternal mortality, and nutrition measures such as wasting and stunting of children. Access to health care is also an important indicator of health, and various indicators can be used to capture access to health facilities. These include the number of doctors per person, distance to the nearest health facility, skilled health attendance at birth, etc.

1.3 The Revolutionary Government of Zanzibar Development Vision 2020

The Revolutionary Government of Zanzibar Development Vision 2020 is a long-term development vision that aspires to eradicate absolute poverty in the society through enhancing income and access to basic social needs, including food, better shelter/housing, adequate and decent clothing, and improving democracy and social security. Empowerment of Zanzibaris through creation of opportunities that allow them to develop their full potential in increasing production and household income is among the approaches envisaged to realize the Vision goals.

The Vision provides a guiding policy framework for sound macro-economic interventions aimed at enhancing economic growth through support to productive sectors like tourism, transformation of the economy from a predominantly rural-based subsistence agriculture to a diversified and semi-industrialized economy with a modern rural sector, enhancing the involvement of private sector and people's (including women's) participation in productive socio-economic activities, and enhancing the quality and accessibility of economic infrastructure to cope with the demands of growth.

Also, the Vision provides a necessary guiding framework for sound social-economic interventions aimed at reducing or eradicating poverty through well-developed and effectively utilized human resources; improving the standards of social services such as education, health and water; improving social protection, including ensuring opportunities for orphans, the disabled and women; guidance on the customs and traditions of Zanzibar; and creating an enabling environment for the sustenance of peace, political stability and religious tolerance.

In terms of measurable indicators, through implementation of the strategies proposed in the Vision, Zanzibar aspires by the year 2020 to attain:

- Sustainable economic growth averaging 9–10% per annum from the level of 4.5% in the year 2000, with intermediary targets of growth of 5–6% between 2000 and 2005, rising to 7–8% by 2010 and to 9–10% by 2020.

- High levels of employment in the modern sector (50% to be employed in tourism and economic free zones, 20% in agriculture and 30% in all other sectors); annual income per capita rising from US$200 to that of middle income countries, and thus abject poverty eradicated.

- A diversified economy that is semi-industrialized, with the combined contribution of tourism, trade, manufacturing and construction to Gross Domestic Product (GDP) reaching over 60%.

- High quality of life that is socially desirable, economically viable and environmentally sustainable, with life expectancy increased from 48 to 65 years, and infant mortality rates having fallen from 101 to 20 per 1000 by 2010.

- Expanded basic universal education by raising the primary-school enrolment rate from 84.2% (in 1997) to 100% by 2005 and the transition rate to the second cycle of secondary education reaching 100% by the last year of the Vision, thus eradicating illiteracy,[1] and

- Access to clean and safe water increased to 100% of the population by 2020.

Zanzibar Vision 2020 has been implemented through a number of medium-term poverty-reduction plans and strategies including the Zanzibar Strategy for Growth and Reduction of Poverty (ZSGRP), translated in Kiswahili as *Mkakatiwa Kukuza Uchumina Kupunguza*

[1] The education system in Zanzibar is such that basic education covers nine years (Standard 1 to Form 2), then those who pass the national examinations at Form 2 are allowed to proceed to Form 3.

Umaskini Zanzibar (MKUZA I and II) (RGoZ, 2010). The MKUZA II and other poverty-reduction plans facilitate the implementation of Vision 2020 and the Millennium Development Goals (MDGs) concurrently. The role of MKUZA II is to implement a range of policies and programmes that address different development challenges. To this end, various policies and strategies have been developed (or revised) – targeting, among other sectors, agriculture, roads, education, health, water, social protection and HIV& AIDS – that directly or indirectly support the accomplishment of various social and economic objectives of Vision 2020 and MDG targets.

As noted above, there are numerous indicators that can be used in measuring human development. The indicators in Development Vision 2020 reflect most of these indicators. Thus, assessment of the performance of the indicators from the dimensions mentioned above (longevity of life, knowledge and health) and as reflected in Zanzibar Development Vision 2020 forms the basis of this paper.

1.4 Methodology

The data presented in this paper are taken mainly from secondary official sources, primarily the Office of the Chief Government Statistician (OCGS) in Zanzibar.[2] Six up-to-date sources of information for socio-economic indicators include:

- Population and Housing Census (PHC) 2012 – various reports.
- Integrated Labour Force Survey (ILFS) 2014.
- Tanzania Demographic and Health Survey and Malaria Indicator Survey (TDHS-MIS) 2015/16 – key indicators report.
- Household Budget Survey (HBS) 2014/15 – income and non-income poverty preliminary results are available.
- Tanzania Service Provision Assessment Survey (TSPA), 2014/15.
- Zanzibar Socio-economic Survey 2015.

As deemed appropriate, data were also sourced from routine data systems of various Ministries, Departments and Agencies (MDAs), for instance, the Ministry of Education and Vocational Training (MoEVT) and the Ministry of Health (MoH). In identifying the gaps and challenges in reaching the desired level of human development, various MDAs were also consulted, including the Zanzibar Planning Commission (ZPC), which is mandated to review progress in the implementation of MKUZA II. ZPC produces the MKUZA Annual Implementation Report (MAIR).

[2] Note that we can make comparisons with Mainland data for information from the DHS and Census only. Information from other surveys, e.g. ILFS and HBS, is not comparable because of different sampling frames and dates of survey administration.

2. OVERVIEW OF STATUS OF HUMAN DEVELOPMENT INDICATORS

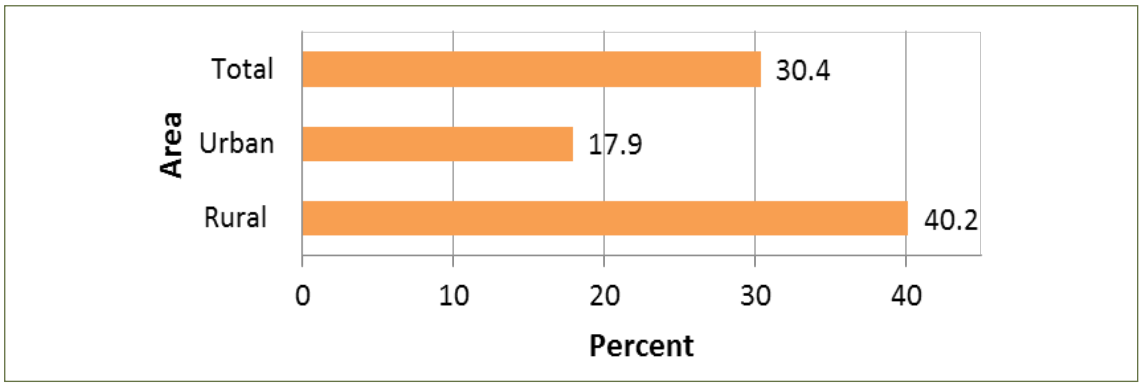
2.1 Poverty

2.1.1 Basic-Needs and Food Poverty Incidence

Poverty is still pervasive in Zanzibar. The basic-needs poverty rate declined from 34.9% in 2009/10 to 30.4% in 2014/15,[3] while food poverty declined only marginally, from 11.7% in 2009/10 to 10.8% during same period (Figures 1 and 2). Food poverty measures the inability to afford basic dietary requirements (recommended calorie intake) while basic-needs poverty takes into account additional resources expended on non-food items such as shelter and clothing.[4] The insignificant decline in food poverty is partly due to increases in the cost of food items, a phenomenon also observed globally towards the end of the 2000s. Zanzibar being a net food importer, such phenomenal increase in food prices could result in a substantial loss in welfare. The marginal decline in food poverty is reflected in the decrease in the food share of total expenditure (from 52.2% in 2009/10 to 45% in 2014/15) (RGoZ, 2016a).

Poverty in Zanzibar is largely characterized by higher poverty incidence in rural than in urban areas. About 40.2% of people in the rural areas live below the basic-needs poverty line as compared with about 17.9% in urban areas. Similarly, 15.7% of people live below the food poverty line in rural areas as compared with about one-third of that (4.5%) in urban areas (Figures 1 and 2).

Figure 1: Proportion of Population below Basic-Needs Poverty Lines by Area 2014/15

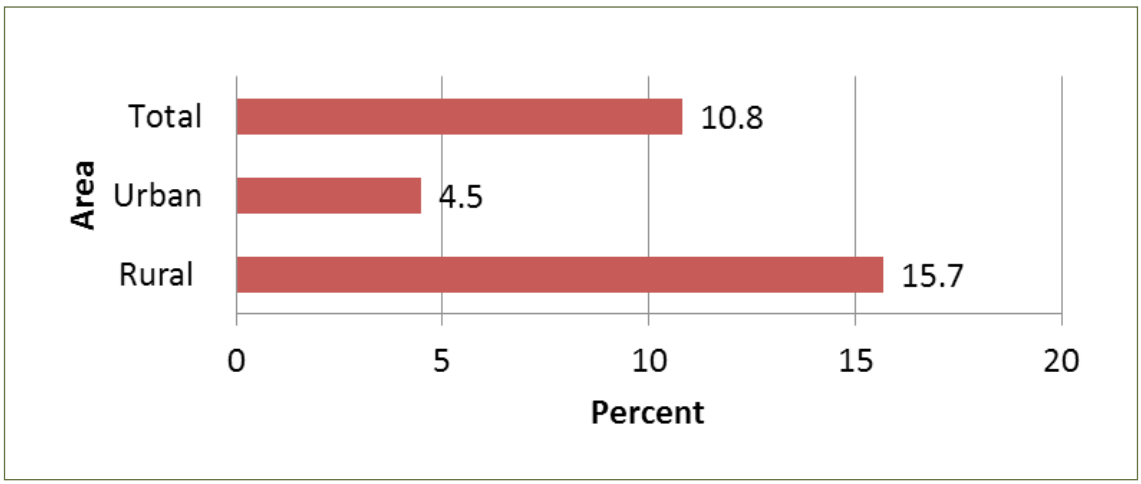


Source: RGoZ (2016a).

[3] This figure represents the percentage of population that has difficulties attaining basic needs of food, shelter and clothing. The same measure of poverty is used in Tanzania Mainland but different poverty lines have been set. While the basic-needs poverty line in Zanzibar was set at Tanzanian Shillings (TZS) 53,377 per capita/per 28 days using the 2014/15 Household Budget Survey figures, the basic-needs poverty line for Tanzania Mainland was set at TZS 36,482 using the 2011/12 Household Budget Survey data (see RGoZ (2016a) and URT (2014a) respectively).

[4] It is very important to note that due to improvements in the methodologies used in the 2014/15 HBS, the methodology employed in estimating poverty rates in 2009/10 has been revised to match the methodological improvements implemented during the 2014/15 HBS. Undertaking this improvement we can see that basic needs poverty has fallen in the five years since 2009/10 by 4.5 percentage points (RGoZ, 2016a).

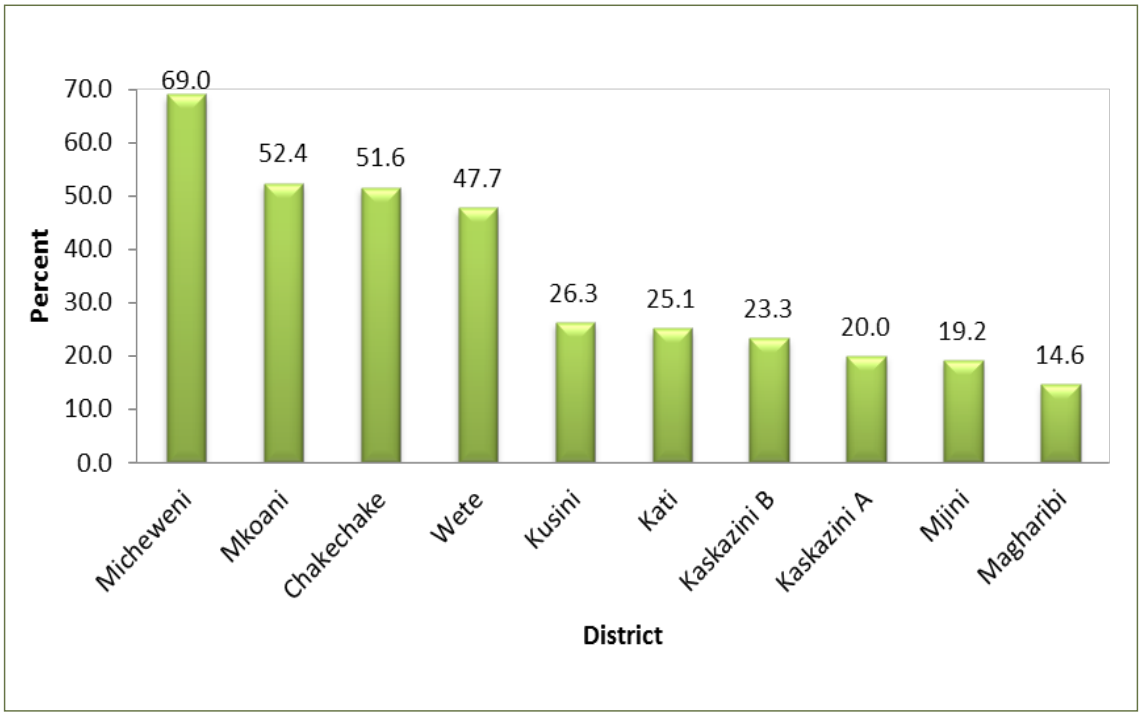
Figure 2: Proportion of Population below Food (Extreme) Poverty Headcount Rates by Area 2014/15



Source: RGoZ (2016a).

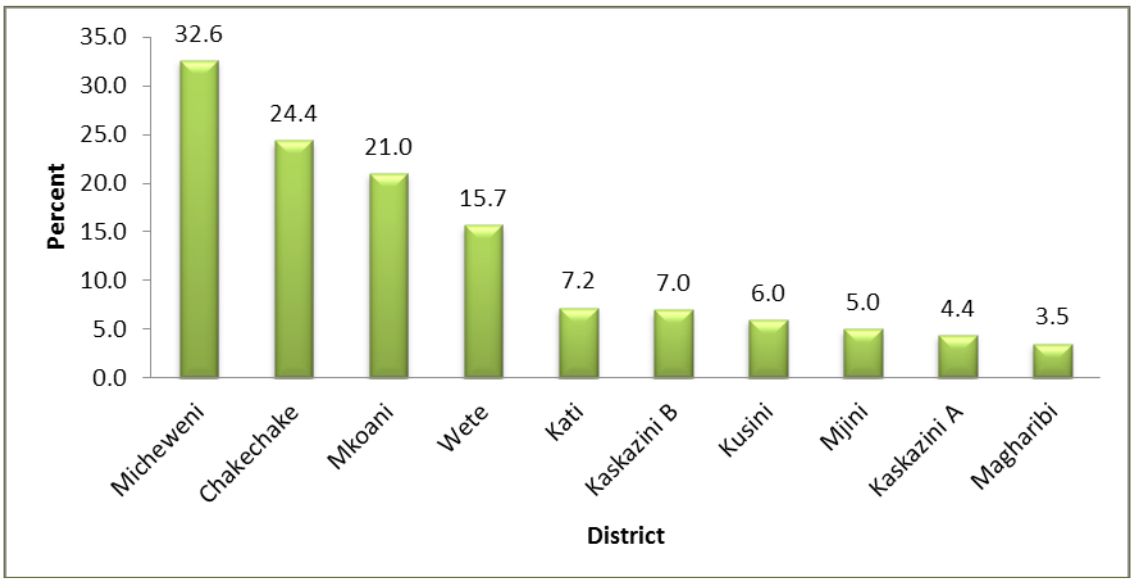
There is large disparity in poverty levels across districts, as shown in Figures 3 and 4. In 2014/15, the proportion of the poor (using basic-needs poverty) ranged from 14.6% in the Magharibi district to 69% in the Micheweni district (a range of 54.4 percentage points). Districts in Pemba have the highest poverty rates – both basic-needs and food poverty compared to districts in Unguja. The percentage of people living below the basic-needs poverty line in Micheweni is 69%, a remarkably high figure compared to the national average of 30.4% and Magharibi district, which has the smallest proportion of poor (14.6%) (Figure 3).

Figure 3: Proportion of Population below Basic-Needs Poverty Line by District, 2014/15



Source: RGoZ (2016a).

Figure 4: Proportion of Population below Food Poverty Line by District, 2014/15



Source: RGoZ (2016a).

It is important to note that the very poor districts are also severely affected as measured by the depth of poverty (poverty gap). The poverty gap is the average shortfall per equivalent adult consumption in the population relative to the poverty line, which helps to identify the depth of poverty. The deeper in poverty someone is, the larger the poverty gap index. Data from 2014/15 HBS show the overall poverty gap index for the Zanzibar population to be 7.2%. The gap in rural areas is 10.3%, meaning that people living in rural areas are deeper in poverty – they are farther from the poverty line and there is huge disparity between districts (Table 1). While the poverty gap is only 2.6% in Magharibi (the least poor), it is 18.9% in Micheweni (the poorest district).

Table 1: Poverty Gap Index by District, 2014/15

District	Poverty Gap Index
Kaskazini A	4.2
Kaskazini B	5.3
Kati	5.1
Kusini	5.2
Magharibi	2.6
Mjini	3.6
Wete	11.7
Micheweni	18.9
Chakechake	14.1
Mkoani	14.2
Urban	**3.2**
Rural	**10.3**
Zanzibar	**7.2**

Source: RGoZ (2016a).

Food poverty can be used as a measure of "extreme poverty" and this can be related to household food insecurity. New to the HBS 2014/15 was a series of questions known as the Household Food Insecurity Access Scale (HFIAS). The HFIAS is composed of nine questions that have been used in several countries and appear to distinguish food-insecure from food-secure households across different cultural contexts. The questions ask about the changes households made in their diet or food consumption patterns as a result of limited resources to acquire food. These results are then assigned a category (food secure or mildly, moderately, or severely food insecure) and given a numerical value, with higher numbers representing a greater level of food insecurity.

The HFIAS results show that overall, just over half of the population is food secure (51.4%), 6.0% experience mild food-access insecurity, 28.0% have moderate food insecurity but 14.6% are severely food insecure (Table 2). There is a noticeable difference between rural and urban households, with rural households being much more likely to experience severe food insecurity, just as they experience higher basic-needs and food poverty.

Table 2: Percentage of Households by Level of Food Security, 2014/15[5]

	Rural	Urban	Total
Food secure	37.6	69.6	51.4
Mildly food insecure	6.4	5.5	6.0
Moderately food insecure	36.7	16.6	28.0
Severely food insecure	19.3	8.4	14.6

Source: RGoZ (2016a).

Gini coefficients and percentile ratios are common indices used to measure inequality. The Gini coefficient ranges from 0 (every person has the same consumption) to 1 (one person has all of the consumption in the country). The Gini coefficient stands at 0.30 in the 2014/15 HBS. There is more inequality among the individuals in urban areas compared to rural areas (0.31 and 0.27 respectively) (RGoZ, 2016a).

Another inequality measure, the percentile ratio, is the ratio of the consumption of the richest 90th percentile over the 10th percentile. HBS 2014/15 shows that in both rural and urban areas households in the 90th percentile have 3.8 times more consumption than those in the 10th percentile (RGoZ, 2016a). Table 3 below shows the Gini coefficients and percentile ratios by district.

[5] A **food-secure** household experiences none of the food-insecurity conditions, or just experiences worry, but rarely. A **mildly food-insecure** household worries about not having enough food sometimes or often, and/or is unable to eat preferred foods, and/or eats a more monotonous diet than desired and/or some foods considered undesirable, but only rarely. A **moderately food-insecure** household sacrifices quality more frequently by eating a monotonous diet or undesirable foods sometimes or often, and/or has started to cut back on quantity by reducing the size of meals or number of meals, rarely or sometimes. A **severely food-insecure** household cuts back on meal size or number of meals often, and/or experiences running out of food, going to bed hungry or going a whole day and night without eating, even as infrequently as once or twice in the last 30 days (RGoZ, 2016a).

Table 3: Gini Coefficient and Percentile Ratio by District, 2014/15

District	Gini Coefficient	Percentile Ratio
Kaskazini A	0.29	3.0
Kaskazini B	0.28	2.9
Kati	0.25	2.8
Kusini	0.19	2.4
Magharibi	0.27	3.1
Mjini	0.33	3.8
Wete	0.27	3.1
Micheweni	0.22	2.4
Chakechake	0.29	3.8
Mkoani	0.27	3.5
Urban	**0.31**	**3.8**
Rural	**0.27**	**3.8**
Zanzibar	**0.30**	**3.7**

Source: RGoZ (2016a).

Comparison of the five indicators presented above shows an interesting picture. While the Micheweni district has the highest rate of poverty (both basic and food poverty) and the highest poverty gap, it is also less unequal compared to rich districts such as Mjini and Magharibi (Table 4). Mjini has low poverty rates but it is the most unequal district as measured by Gini coefficient (0.33) and percentile ratio (3.8).

Table 4: Comparisons of Districts across Indicators, 2014/15

District	Basic-Needs Poverty (%)	Food Poverty (%)	Poverty Gap (%)	Gini Coefficient	Percentile Ratio
Micheweni	69.0	32.9	18.9	0.22	2.4
Mkoani	52.4	21.0	14.2	0.27	3.5
Chakechake	51.6	24.4	14.1	0.29	3.8
Wete	47.7	15.7	11.7	0.27	3.1
Kusini	26.3	6.0	5.2	0.19	2.4
Kati	25.1	7.2	5.1	0.25	2.8
Kaskazini B	23.3	7.0	5.3	0.28	2.9
Kaskazini A	20.0	4.4	4.2	0.29	3.0
Mjini	19.2	5.0	3.6	0.33	3.8
Magharibi	14.6	3.5	2.6	0.27	3.1

Source: RGoZ (2016a).

2.1.2 *Multidimensional Poverty Measure*

In Zanzibar, poverty is more persistent based on the Multidimensional Poverty Index (MPI). MPI is a three-dimensional assessment that represents ten basic indicators in human development (education, health and standard of living). The ten indicators in this measurement include: health (nutrition and child mortality); education (years of schooling and school attendance); living standards (type of cooking fuel, sanitation, cooking water source, access to electricity, type of floor and ownership of assets). Table 5 shows MPIs across regions in Zanzibar. Using this indicator, 32.6% of people in Kaskazini Pemba (the home of the Micheweni district) face severe poverty while only 3.9% of the population in Kusini Ungujais live in severe poverty.[6] The 2015 update of MPIs provides an estimate of the population that is destitute. In Zanzibar, 16% of the population is termed destitute, meaning that this population is severely deprived in all indicators used in measuring MPI.[7] Using the same indicators, 65.6% of Tanzanians are multidimensionally poor, 33.4% of the population face severe poverty and 24.2% are destitute (OPHI, 2013; 2015).

Table 5: Multidimensional Poverty across Regions

Region	MPI	Incidence of poverty (%)	% of population vulnerable to poverty	% of population in severe poverty
Mjini Magharibi	0.144	34.5	28.8	6.6
Kusini Unguja	0.082	19.6	34.8	3.9
Kaskazini Unguja	0.281	57.6	24.2	26.3
Kusini Pemba	0.277	57.5	25.8	25.2
Kaskazini Pemba	0.321	61.9	23.1	32.6
Zanzibar	**0.200**	**41.9**	**28.7**	**17.0**

Source: OPHI (2013).

2.1.3 *Human Development Index*

The UNDP Human Development Index (HDI) measures the average achievements in three basic dimensions of human development (UNDP, 2015):

- A long and healthy life, measured by life expectancy at birth.
- Knowledge, measured by mean years of schooling for adults aged 25 years and expected years of schooling for children of school-entering age.[8]
- A decent standard of living, as measured by GDP per capita.

[6] Oxford Poverty and Human Development Initiative (OPHI) (2013); see www.ophi.org.uk. The MPI analysis is based on the 2010 Demographic and Health Survey (DHS) data.

[7] Households that are classified as destitute are "the poorest of the poor". They are deprived in at least one-third of the same indicators used in MPI but according to more extreme criteria than those used to identify the MPI poor – including having no one in their home with more than one year of schooling, having a primary-aged school child out of school, having someone at home with severe malnutrition, practicing open defecation to relieve themselves, having no clean water, or needing to walk 45 minutes to get it, having only a dirt floor, and cooking with wood, dung or straw. Also, the destitute may possess no assets whatsoever – not even a radio or mobile phone (see OPHI, 2015).

[8] Until 2010, the used measure for education in the HDI was "adult literacy rate (with two-thirds weighting) and the combined primary, secondary, and tertiary gross enrolment ratio (with one-third weighting)".

Figure 5 shows the HDI by region for 2004/05 and 2009/10. Each region registered progress in terms of HDI. There is a notable variation in the levels of human development across regions and this variation persisted from 2004/05 to 2009/10. It is noted that Mjini Magharibi had the highest HDI in 2010. The lowest HDI was that of Kaskazini Pemba. It is also evident from Figure 5 that the ordering of regions in terms of performance has not changed since 2005.

Figure 5: Human Development Index by Region, Zanzibar

Source: RGoZ (2012).

2.1.4 Zanzibar Poverty Profile

The poverty profile presents the association of poverty with several important characteristics without necessarily implying a causal relationship. Thus, poverty can be examined in relation to various household characteristics such as household size, dependency ratio and gender of the head of the household. Other important aspects such as sources of income, main economic activities, education of the head of the household and mean distance to important facilities can also be related to the poverty status of household (RGoZ, 2012).

Information from household budget surveys shows that as household size increases, the incidence of poverty also increases. This trend holds for both 2004/05 and 2009/10 and also for both rural and urban areas. For example, households whose size is between four and six suffer less poverty than households whose size is above six. Households whose size is below four suffer less poverty than the rest of households. It is important however to note that it is not the size of the household that determines the level of poverty, but poverty itself may actually determine the size of the household. This happens when children are seen as assets, where child mortality is high and thus poor people opt to have more children just to guarantee that some would survive to adulthood, and when children are seen as old-age security due to lack of assets and pension. Further, the poor are generally less educated, and therefore females in this group are less likely to be employed in the formal sector. Because of this, the opportunity cost of bearing a child is lower for poor households than it is for rich households. All these suggest that poverty itself may be the cause of larger

household size, rather than the other way around.[9]

Data from the 2012 Population and Housing Census show the average household size to be 5.1 (an average of 3.6 and 8.6 for male- and female-headed households respectively) (URT, 2014b). Data from the Demographic and Health Survey (DHS) 2010 show that women with no education have a fertility rate double that of women with secondary (+) education (7.0 versus 3.0) (NBS and ICF Macro, 2011).

Another dimension of demography that is associated with poverty is the dependency ratio, which is the total number of the dependents over the number of persons who are not dependent in the household. Generally poverty increases with the dependency ratio, meaning that as the dependent ratio in the household increases, the incidence of poverty also increases. The positive relationship between poverty incidence and the dependency ratio gives an important dimension of the relationship between poverty and household size. Large households are more likely to have a higher dependency ratio than small households. The population structure of Zanzibar is dominated by children and youth and has a high dependency ratio (0.86 in 2014/15).[10]

In 2004/05 female-headed households suffered higher poverty incidence than male-headed households. This ranking was however reversed in 2009/10, when male-headed households had a higher incidence of poverty than female-headed households. This reversal of fortune needs to be analysed in depth. For example, it is important to ascertain whether the difference in poverty incidence by the gender of the household head is statistically significant or is simply due to sampling variability. About 31.1% of households in Zanzibar are female-headed (RGoZ, 2012).

There is a general trend for poverty incidence to decline as the education level of the head of the household increases. The very poor are also located very far away from important social services (Table 6). For example, very poor households were found to be farther from hospital and schools than households that were moderately poor. Households that were moderately poor were in turn located far from such key facilities as compared to the households that were non-poor. However, access simply signals capability; it does not necessarily reflect achievement, or functioning.

For instance, being closer to a school makes it easier to attend school but does not necessarily mean that the household would send children to school. Access is very important because it enables members of households to enjoy the facility should they wish to. Utilization of such facility is even more important because it improves the achievement of the members of the households. The percentage of children aged 7 to 16 from very poor households who go to school increased from 71% in 2004/05 to 74% in 2009/10. In general, attendance to school for children aged 7 to 16 increased from 80.4% to 83.9%.

[9] Note that it is beyond the scope of this study to substantiate these relationships.

[10] The age-dependency ratio is the ratio of the combined population aged less than 15 years and those aged 65 years or more compared to the population in the age range 15–64 years. The high ratio that approximates one or more suggests that an individual in the society has to produce not only for himself/herself but also to cater to the needs (an economic burden) of an additional person(s). Economically, this can be interpreted as an investment diversion, whereby already limited resources are committed to support less direct investment expenditures, like health (RGoZ, 2012).

Table 6: Mean Distance to Selected Facilities by Poverty Status (Kilometres)

Facilities	Poverty Status							
	2004/05				2009/10			
	Very Poor	Poor	Non-Poor	Total	Very Poor	Poor	Non-Poor	Total
Water supply in dry season	0.6	0.5	0.3	0.4	0.5	0.2	0.3	0.3
Place for collecting firewood or charcoal	1.9	1.5	1.1	1.4	1.6	1.1	0.8	1.0
Market place	2.5	2.4	1.8	2.1	1.1	1.4	1.3	1.3
Health centre	1.4	1.4	1.1	1.2	1.2	1.0	0.8	0.9
Hospital	9.8	9.5	8.4	9.0	11.1	8.9	7.0	8.1
Primary school	1.2	1.1	0.8	1.0	2.2	0.9	0.6	0.9
Pre-school	2.9	2.2	1.5	1.9	0.9	0.6	0.5	0.6
Secondary school	2.0	2.0	1.5	1.7	1.3	0.8	0.7	0.8
Bank	19.8	18.0	13.8	16.1	21.2	19.1	14.1	16.6
Post office	13.3	11.3	9.3	10.5	12.1	9.9	7.8	9.0
Police post	5.8	4.9	3.6	4.3	6.2	3.7	2.7	3.5
Main farm	2.6	2.7	2.8	2.7	2.1	1.9	2.3	2.1
Trained traditional birth attendant	0.7	0.5	0.3	0.5	0.2	0.2	0.3	0.2
Public transport	0.8	0.7	0.5	0.6	0.4	0.3	0.2	0.3
Milling machine	4.8	5.3	4.0	4.6	3.1	3.2	2.3	2.7
Primary cooperative society	7.7	6.8	6.0	6.5	4.4	4.0	4.1	4.1
Community or social centre	1.0	0.9	0.6	0.8	0.5	0.5	0.4	0.4
Mosque or church	0.2	0.2	0.1	0.2	0.3	0.3	0.2	0.2
Primary court	8.3	7.1	5.7	6.6	8.1	6.1	4.6	5.5

Source: RGoZ (2012).

Data from HBS 2010 show consistently that the incidence of poverty is highest among farmers for the whole of Zanzibar. This is closely followed by fishers and then the self-employed. In 2009/10, unpaid workers suffered the highest incidence of poverty, followed by the households without any economic activity, farmers and then fishers. The same source shows that in 2009/10 fishers suffered the highest incidence of poverty in urban areas. Households whose main source of income is wages or salary had the lowest incidence of poverty. This shows that employment creation is an effective way of alleviating poverty in Zanzibar.

2.2 Health and Life Expectancy

The most common indicator of health used in the human development reports is life expectancy at birth. Table 7 reports the life expectancy by region based on the 2002 and 2012 Population and Housing Census (PHC) data. Life expectancy at birth increased from 57 to 65.2 years for the total population in Zanzibar. Improvements have been noticed in all regions except Mjini Magharibi and Kusini Unguja. There is a huge disparity (four years) between the region with the highest life expectancy (Kaskazini Unguja) and that with the lowest in 2012 (Kusini Unguja). Overall, the goal of increasing life expectancy to 65 years as stipulated in Vision 2020 has been achieved for all regions except Kusini Unguja.

Table 7: Life Expectancy at Birth

Region/Year	2002	2012
Zanzibar	**57.0**	**65.2**
Mjini Magharibi	64.9	65.0
Kaskazini Unguja	58.0	66.6
Kusini Unguja	62.5	62.3
Kaskazini Pemba	53.2	66.2
Kusini Pemba	57.8	65.3

Source: URT (2015).

There are however several other indicators that can be used to assess the health situation. The major ones reported in the MDGs and MKUZA II include the nutritional status of children, the maternal mortality ratio and child mortality. In nutrition, it is common to use the height-for-age measure (stunting), the weight-for-height measure (wasting) and the weight-for-age measure, which is a summary measure of both stunting and wasting. Table 8 gives measures of nutritional status for Zanzibar, Unguja and Pemba compared to Tanzania Mainland for the years 2004/05, 2010 and 2015/16.

In terms of stunting, Zanzibar performed better compared to Tanzania Mainland for the three years (2004/2005, 2010 and 2015/16). However, Zanzibar seemed to suffer more wasting than Tanzania for the three years. As for the weight-for-age measure, Zanzibar was doing better than Tanzania Mainland in 2004/05 although there was a reversal from 2010, with Zanzibar showing a slightly larger number of underweight children than Tanzania Mainland. In the three years, we see that Pemba suffered more stunting and underweight than Unguja. In terms of wasting, Pemba fared better than Unguja in 2004/05 but this was reversed in the consecutive years. It is also important to note that 8.8% of children in Zanzibar are severely stunted (MoHCDGEC et al., 2016). Stunting reflects failure to receive adequate nutrition over a long period of time and is affected by recurrent and chronic illness.

Table 8: Nutritional Status in Zanzibar

Area/ Year	Percentage of Stunted Children			Percentage of Wasting Children			Percentage Children with Low Weight for Age		
	2004/05	2010	2015/16	2004/05	2010	2015/16	2004/05	2010	2015/16
Mainland	38.0	42.3	34.7	2.9	4.6	4.4	21.9	15.7	13.7
Zanzibar	23.1	30.2	23.4	6.1	12.0	7.1	19.0	19.9	15.2
Unguja	18.0	26.7	20.0	6.7	12.7	6.0	17.0	18.9	12.7
Pemba	32.1	35.5	29.3	4.9	10.9	8.9	22.5	21.4	15.7

Sources: NBS and ORC Macro (2005); NBS and ICF Macro (2011); MoHCDGEC et al. (2016).

Another health indicator is the child mortality rate per 1,000 live births. Table 9 presents figures for infant, child and under-5 mortality rates. There was a decline in all child mortality indicators in Zanzibar between 2004/05 and 2012. Although Zanzibar fared better than Tanzania Mainland in terms of infant mortality, child mortality and under-5mortality in 2004/05 and 2010, the gap closed in 2012.

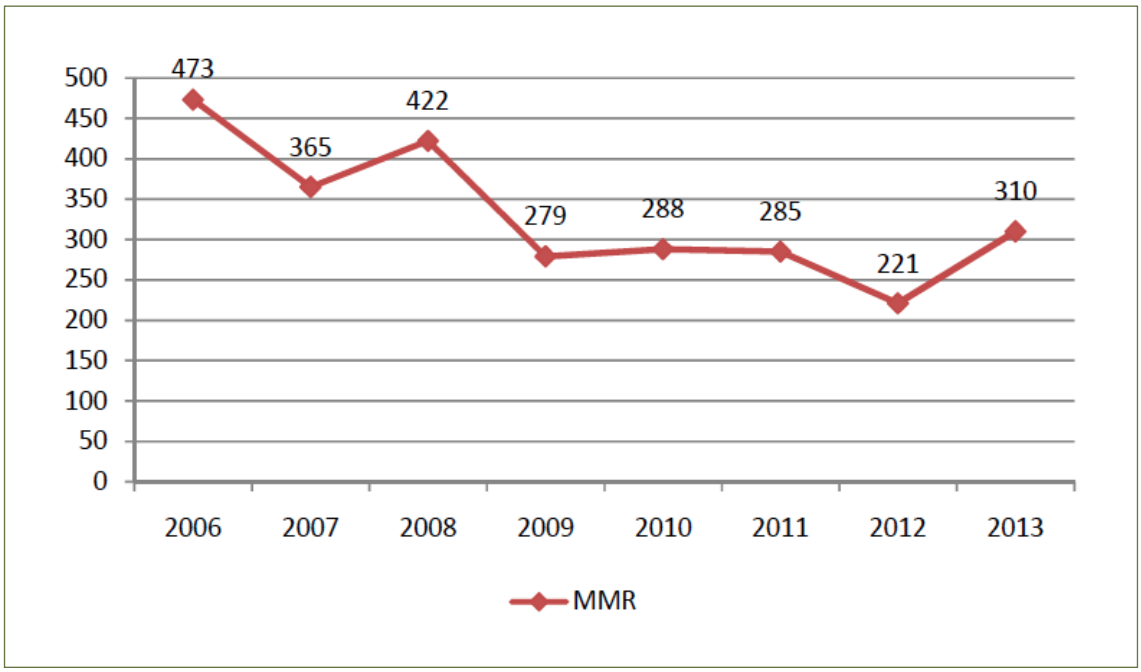
Table 9: Infant, Child and Under-5 Mortality

Area/ Year	Infant mortality			Child mortality			Under - 5 mortality		
	2004/05	2010	2012	2004/05	2010	2012	2004/05	2010	2012
Mainland	83	60	46.2	42	35	21.3	133	93	66.5
Zanzibar	61	54	46.4	42	29	22.0	101	73	67.4

Sources: NBS and ORC Macro (2005); NBS and ICF Macro (2011); URT (2015).[11]

The Maternal Mortality Ratio (MMR) is another indicator that is used to measure progress in human development. In 2010, the MMR in Tanzania (overall) was 454 per 100,000 live births (NBS and ICF Macro, 2011), but it declined to 432 per 100,000 in 2012 (URT, 2015). There are no current data available to report on this indicator from the Tanzania Demographic and Health Survey (TDHS). However, data from the Health Management Information System (HMIS) show that the MMR in Zanzibar increased from 221 per 100,000 live births in 2012 to 310 per 100,000 live births in 2013 (Figure 6) (RGoZ, 2015a). Data from the Population and Housing Census show the MMR in Zanzibar in 2012 to have been 307 per 100,000 live births, a figure that is close to the HMIS data for 2013 (310 per 100,000 live births).[12] This figure is lower than the reported figure for Tanzania Mainland (434 per 100,000 live births) (URT, 2015).

Figure 6: Trend of MMR from 2006-2013, Zanzibar



Source: RGoZ (2015a).

Table 10 shows MMR by region in Zanzibar. Kaskazini Unguja had the highest MMR while Kusini Unguja had the lowest.

[11] The 2012 data are from the Population and Housing Census.

[12] Although HMIS data are congruent with census data, it is important to note that HIMS MMR data are not comparable to census and DHS data. This is because the HMIS data do not capture the deaths that occurred at the community level (only deaths that occurred at facility level), which means the calculation is based on a wrong denominator.

Table 10: Maternal Mortality Ratio by Region, Zanzibar

Region/Year	2012
Zanzibar	**307**
Kaskazini Unguja	475
Mjini Magharibi	338
Kusini Pemba	268
Kaskazini Pemba	267
Kusini Unguja	241

Source: URT (2015).

Due to the limited availability of timely maternal mortality estimates, two commonly available proxy indicators are used to assess reproductive-health risks encountered by pregnant women: assisted deliveries and facility-based deliveries (Table 11). Overall, the proportion of births taking place in a health facility increased significantly from 2010 to 2015/16. There was a large increase from 23.2% to 50.8% in Kaskazini Unguja (NBS and ORC Macro, 2005; NBS and ICR Macro, 2011; MoHCDGEC et al., 2016). Although the performance of these indicators was slightly higher for Tanzania Mainland compared to Zanzibar in 2004/05 and 2010, there was a reversal in 20115/16.

Table 11: Percentage of Facility-Based and Assisted Deliveries

Area	Percentage of health-facility deliveries			Percentage change	Percentage delivered by a skilled provider[1]			Percentage change
	2004/05	2010	2015/16	2004/05 to 2015/16	2004/05	2010	2015/16	2004/05 to 2015/16
Mainland	**47.0**	**50.2**	**60.1**	**13.1**	**53.9**	**50.5**	**63.5**	**9.6**
Zanzibar	**48.8**	**49.2**	**64.1**	**15.3**	**50.8**	**53.7**	**68.8**	**18**
Unguja	58.2	61.0	71.9	13.7	61.5	67.5	77.5	16
Pemba	34.0	32.0	51.0	17.0	34.7	33.6	54.1	19.4
Kaskazini Unguja	23.2	40.4	50.8	27.6	25.4	44.6	57.4	32
Kusini Unguja	54.6	62.0	76.1	21.5	61.7	71	78.5	16.8
Mjini Magharibi	73.4	70.2	80.8	7.4	75.9	77.2[2]	86.8	10.9
Kaskazini Pemba	28.9	23.6	50.0	21.1	30	25.1	51.5	21.5
Kusini Pemba	39.3	40.5	52.2	12.9	39.6	42.3	57.2	17.6

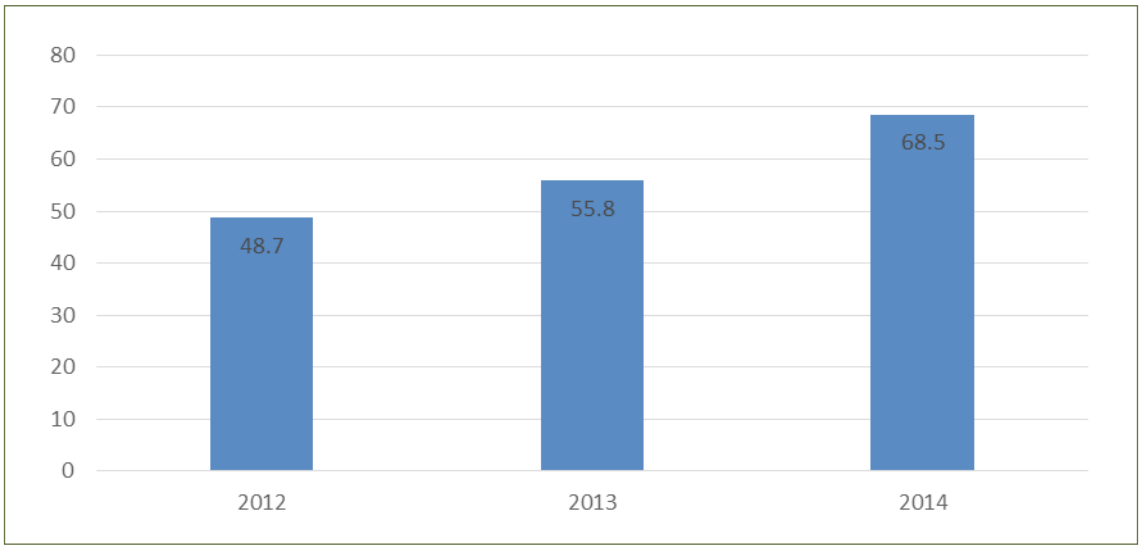
Sources: NBS and ORC Macro (2005); NBS and ICF Macro (2011); and MoHCDGEC et al. (2016).

Table 11 demonstrates disparities between and within Unguja and Pemba. Overall, regions in Pemba have fewer facility-based and assisted deliveries compared to those in Unguja.

Although Kaskazini Pemba exhibited a declining trend in health-facility deliveries from 2004/05 to 2010 it picked up significantly in 2015/16 (an increase of more than 100%). The same has been observed for assisted deliveries. Mjini Magharibi exhibited a declining trend in facility deliveries from 2004/05 but this picked up significantly in 2015/16.[13]

Data from HMIS indicates that facility delivery increased from 48.7% in 2012 to 55% in 2013 and then to 68.5% in 2014, thus attaining the MKUZA II target of 60% (Figure 7). The 2014 figure is close to the TDHS-MIS data for 2015/16 on assisted delivery.

Figure 7: Delivery in Health Facilities, 2012–2014



Source: RGoZ (2015a).

2.3 Knowledge and Education

2.3.1 Basic Education

The Global Human Development Report uses the gross enrolment ratio as a measure of education achievement because it is easy to compile for many countries. In this report we provide data on both enrolment ratios as well as a variety of dimensions of education quality. Table 12 gives the Gross Enrolment Ratio (GER) for basic education in Zanzibar, which includes the primary level (Standard 1–Standard 7) and first cycle of lower secondary education (Form 1–Form 2). It must be noted that in Zanzibar basic and compulsory education is for nine years.

Overall, the GER for basic education decreased from 113.5% in 2012 to 95.3% in 2014 and declined to 93.6% in 2015. Girls registered a better GER than boys, at 113.5% in 2012, while boys' GER was 110.9%. This trend is consistent across the three years. Although districts in Pemba (except Chakechake) had GERs below those of districts in Unguja, the trend reversed in 2015.[14]

[13] The declining trend could be a result of cost-sharing: expectant mothers were supposed to pay TZS 1,000 plus the cost of supplies such as cotton for normal delivery and TZS 40,000 for caesarean section. Nevertheless, delivery services are now free in Zanzibar.

[14] One major reason for the observed declining trend in GER is the change of denominator. The data from 2012 to 2014 have been revised to take into account the actual population data from the 2012 Population and Housing Census instead of the 2002 census projections.

Table 12: Gross Enrolment Ratio (Basic Education, Standard 1 to Form 2)

District	2012			2014			2015		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Mjini	95.9	97.5	96.7	99.9	101.2	100.6	102.3	99.5	100.9
Magharibi	178.6	178.7	178.6	93.8	94.6	94.2	87.0	81.6	84.2
Kaskazini A	103.3	117.7	110.2	93.8	103.4	98.6	131.2	99.2	112.3
Kaskazini B	88.6	101.2	94.6	68.9	71.2	70.0	67.1	65.3	66.2
Kati	110.8	115.9	113.2	110.1	114.8	112.4	109.4	110.2	109.8
Kusini	112.6	109.7	111.2	114.6	120.6	117.4	116.1	114.5	115.3
Micheweni	93.9	98.9	96.3	76.5	83.2	79.7	80.1	80.7	80.4
Wete	89.8	95.0	92.3	100.1	101.9	101.0	107.5	104.8	106.2
Chakechake	104.3	108.0	106.1	98.2	98.4	98.3	107.7	96.3	101.7
Mkoani	93.6	98.0	95.7	92.8	97.7	95.2	100.8	100.3	100.6
Total	**110.9**	**116.3**	**113.5**	**93.8**	**96.8**	**95.3**	**96.4**	**91.1**	**93.6**

Source: RGoZ and MoEVT, Budget Speeches (2012/13, 2014/15 and 2015/16).

Table 13 presents figures for GER for primary education (Standard 1–Standard 7). Overall, the GER for primary education stands at 102.5%, which is a decline from 112.1% reported in 2010. This is higher than the GER for basic education (seven percentage points), meaning that a good number of children never complete the basic education cycle. Just like the GER in basic education (Table 12 above), girls registered a better GER at primary school than boys in 2010 and 2012, but the gap closed in 2014 (102.9% versus 102.2% respectively).

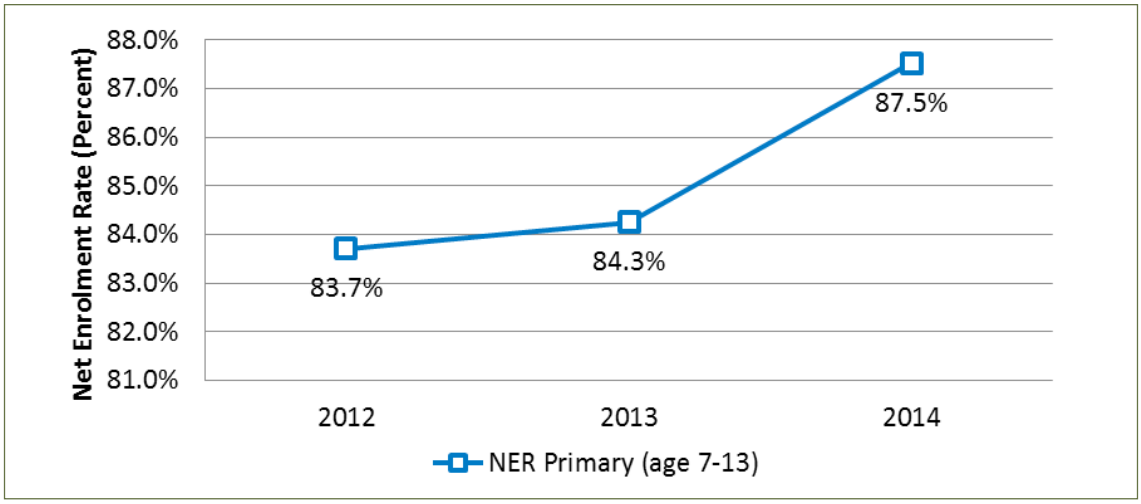
Table 13: Gross Enrolment Ratio (Primary Education, Standard 1–7)

District	2012			2014			2015		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Mjini	97.2	98.0	97.6	102.0	100.6	101.3	97.8	99.3	98.6
Magharibi	187.3	187.2	187.3	102.5	102.2	102.4	89.5	86.9	88.1
Kaskazini A	113.3	123.7	118.3	103.9	109.4	106.7	153.5	104.4	123.8
Kaskazini B	99.1	105.8	102.4	74.6	72.8	73.7	71.0	68.1	69.5
Kati	122.0	126.5	124.2	121.9	123.9	122.9	111.6	117.5	114.5
Kusini	124.4	119.8	122.1	127.3	129.0	128.1	118.2	121.9	119.9
Micheweni	104.6	111.4	107.9	85.8	91.7	88.6	87.4	89.1	88.3
Wete	99.2	103.3	101.2	110.9	109.9	110.4	113.7	112.9	113.3
Chakechake	114.1	116.4	115.2	108.1	107.0	107.6	116.3	103.6	109.7
Mkoani	102.4	106.4	104.3	102.2	104.6	103.4	107.8	107.4	107.6
Total	**119.5**	**123.6**	**121.5**	**102.2**	**102.9**	**102.5**	**100.4**	**96.4**	**98.4**

Source: RGoZ and MoEVT, Budget Speeches (2012/13, 2014/15 and 2015/16).

Figure 8 shows the Net Enrolment Ratio (NER) for primary education. The NER in primary education shows an increase from 83.7% in 2012 to 87.5% in 2014 respectively. The NER in 2013 was far below the 2015 target of 95% as stipulated in the MKUZA II monitoring master plan (RGoZ, 2015a).

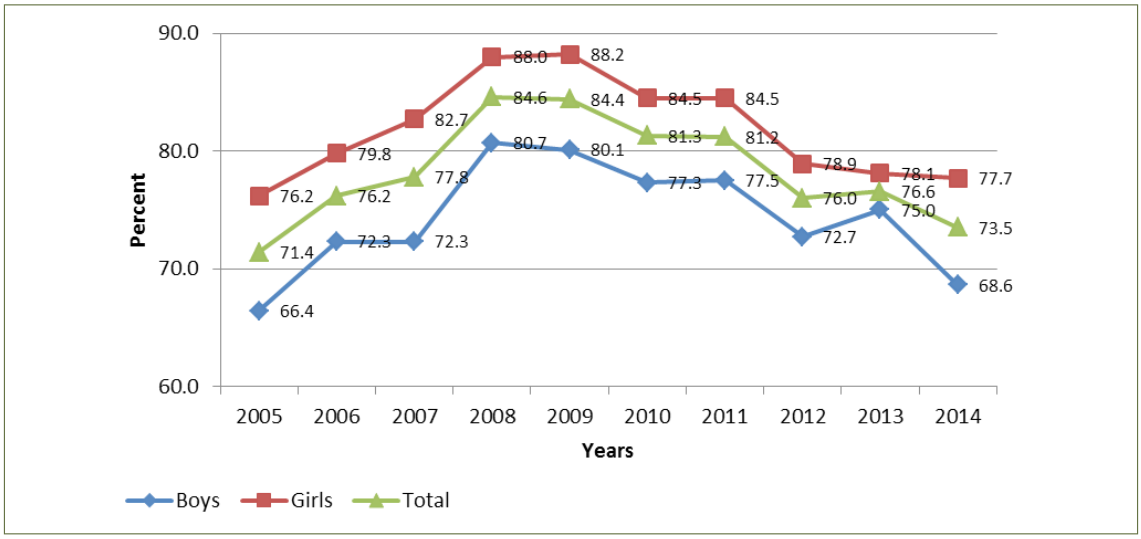
Figure 8: Net Enrolment Rate, Primary Education (Age 7–13), 2012–2014



Source: RGoZ (2015b).

The proportion of pupils starting grade 1 who reach the last grade of the education cycle can be obtained through cohort analysis. This analysis traces the flow of a group of pupils who enter grade 1 in the same year and progress through the same educational cycle. These pupils jointly experience a series of events over a period of time (i.e., promotion, repetition, dropout or successful completion of the final grade). The previous trend, from 2005–2009, registered a steady improvement in the percentage of the cohort completing Standard 7, from 74.4% in 2005 to 82.4% in 2009. The data for the period from 2010–2012 reveal a fluctuating trend of the same aspect, from 94.1% to 79.9% to 80.2%, respectively. A similar trend in terms of the transition rate from primary Standard 7 to secondary Form I has been noted – the transition rate declined from 81.3% in 2010 to 75.0% in 2013 (Figure 9) (RGoZ, 2014).

Figure 9: Trend in Transition Rate from Primary Standard 7 to Secondary Form I, 2005–2014



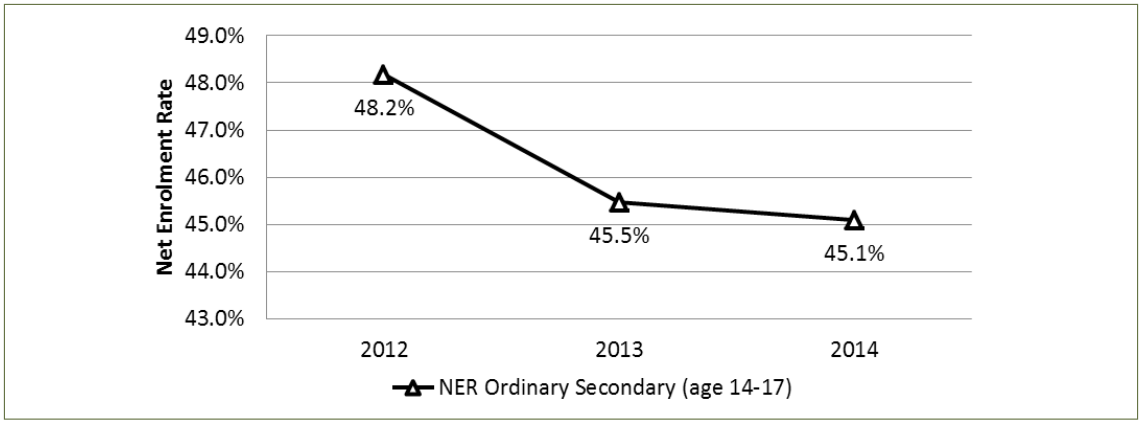
Source: RGoZ (2014).

2.3.2 Secondary Education

Figure 10 shows the NER for ordinary-level secondary education. The NER for ordinary-level

secondary education was consistently low for the three years and exhibited a decreasing trend (from 48.2% in 2012 to 45.1% in 2014) (RGoZ, 2015b).

Figure 10: Net Enrolment Rate, Secondary Education, 2012–2014



Source: RGoZ (2015b).

Table 14 shows the pass rates at the Form 2 terminal examination, the examination that decides whether a pupil will continue to Form 3. There was no significant improvement (only a marginal increase from 58.2% in 2010 to 59.4% in 2013). Girls registered a better pass rate than boys (62.6% in 2013, whereas boys' pass rate was 55.5%). This trend is consistent across the three years.

In the Education Statistical Abstract of 2014, the Gender Parity Index (GPI) was introduced. This is a parity ratio of female to male values of a given indicator. A GPI that is equal to 1 indicates parity between females and males. In general, a value less than 1 indicates disparity in favour of boys/men. However, the interpretation should be the other way around for indicators that should ideally approach 0%. These may mean more drop-outs (RGoZ, 2015c). Information presented in Table 14 shows the overall GPI for Zanzibar in 2014 to have been 1.11, meaning that more girls transited to Form 3 than boys. Overall, girls registered better pass rates than boys in all districts except Kaskazini A, Micheweni, Wete and Mkoani.

Table 14: Transition Rates from Form 2 to Form 3 by District (Form 2 Examination Pass Rates in Percentage)

District	2012			2013			2014	
	Boys	Girls	Total	Boys	Girls	Total	Total	GPI
Mjini	48.0	64.0	56.7	47.0	62.4	55.1	63.3	1.20
Magharibi	51.8	63.2	58.2	50.5	60.7	56.1	62.3	1.13
Kaskazini A	55.1	50.0	51.8	65.1	58.8	61.2	62.1	0.96
Kaskazini B	53.6	64.1	59.9	53.7	65.2	60.9	53.5	1.22
Kati	44.2	60.3	52.6	53.4	65.1	59.5	59.5	1.18
Kusini	48.1	57.3	52.8	55.3	66.6	60.9	57.6	1.21
Micheweni	72.0	66.0	68.7	72.3	66.9	69.5	61.1	0.96
Wete	52.1	59.6	56.2	66.9	63.7	65.1	62.2	0.96

Chakechake	47.5	63.4	56.9	56.7	60.9	59.2	59.2	1.23
Mkoani	51.3	60.2	56.2	61.2	66.8	64.3	57.0	1.00
Total	**51.2**	**61.3**	**56.9**	**55.5**	**62.6**	**59.4**	**65.5**	**1.11**

Source: RGoZ and MoEVT, Budget Speeches (2012/13, 2014/15 and 2015/16); RGoZ (2015c).

Tables 15 and 16 show the pass rates for both Form 4 and Form 6 examinations. It is clear from Table 15 that a majority of students who passed the Form 4 examinations got Division 4. In 2015, about two-thirds (75.9%) of the students who sat for Form 4 examinations passed, but for those who passed, a majority (75.4%) got Division 4. This means that students selected to join various vocational courses do not have the requisite capacity to withstand the rigor of post-secondary learning. The trend for Form 6 results was better, with a majority of students getting Division 3 and a higher pass rate of 99.4% in 2014/15 (Table 16). Compared to previous years, a good number of students got Division 2 in 2014/15 (28.1%). A summary of pass rates in 2014 at three levels (Standard 7, Form 2, and Form 4) by gender and districts is presented in Table 17.

Table 15: Form 4 Examination Results (Boys and Girls), 2010–2015

Year	No. of Candidates	Passed					Pass Rate (%)				
		DIV. 1	DIV. 2	DIV. 3	DIV. 4	Total DIV. 1–4	DIV. 1	DIV. 2	DIV. 3	DIV. 4	Total DIV. 1–4
2010	16,625	89	174	1,328	10,354	11,945	0.3	0.8	6.5	64.1	71.7
2011	11,877	60	107	772	8,081	9,020	0.5	0.9	6.5	68.0	75.9
2012	13,051	45	150	562	6,178	6,935	0.3	1.1	4.3	47.3	53.1
2013	11,204	130	534	1,289	6,157	8,110	1.1	0.1	0.1	52.0	68.5
2014	12,812	109	627	1,295	5,682	7,713	0.9	4.9	10.1	44.3	60.2
2015	13,002	104	657	1,663	7,444	9,868	1.1	6.7	16.9	75.4	75.9

Source: RGoZ (2015c and 2016b).

Table 16: Form 6 Examination Results (Boys and Girls), 2009/10–2014/15

Year	Candidates	Passed					Pass Rate (%)				
		DIV. 1	DIV. 2	DIV. 3	DIV. 4	Total DIV. 1–4	DIV.1	DIV. 2	DIV. 3	DIV. 4	Total DIV. 1–4
2009/10	1,959	39	131	1,026	463	1,659	1.9	8.1	53.2	20.7	84.0
2010/11	2,308	43	189	1,229	479	1,940	1.2	6.0	45.4	24.8	77.4
2011/12	1,813	17	87	809	428	1,341	0.9	4.8	44.6	23.6	74.0
2012/13	2,067	1	40	1,124	471	1,636	0.05	1.9	54.4	22.8	79.1
2013/14	1,159	51	194	629	233	1,107	4.4	16.7	54.3	20.1	95.5
2014/15	723	90	203	323	90	706	12.4	28.1	44.7	12.4	99.4

Source: RGoZ (2015c and 2016b).

Table 17 shows the examination performance by district and gender. Overall, only 15.9% of students had a Form 4 pass rate high enough to progress to advanced learning. North B had the lowest number of students with a high-enough grade to progress (5.5%). On average, more girls than boys passed the Standard 7 and Form 2 examinations, with a GPI of 1.13 and 1.11 respectively. The GPI for the Form 4 examination pass rate was 0.97, which means there was no significant difference between boys' and girls' pass rates. On average, more boys had a high-enough grade to progress in all districts except North B. The South district had the lowest GPI on high-enough grades to progress (0.51). This means the number of girls with a high-enough grade to progress was half that of boys.

Table 17: Examination Performance by District and Gender, 2014

District	Std 7 pass rate	GPI	Form 2 pass rate	GPI	Form 4 pass rate	GPI	Form 4 with high grade to progress	GPI
Urban	81.7%	1.16	63.3%	1.20	64.2%	0.98	21.8%	0.64
West	79.0%	1.14	62.3%	1.13	66.5%	0.91	17.2%	0.85
North A	65.1%	1.05	62.1%	0.96	48.7%	1.06	6.1%	0.28
North B	72.3%	1.24	53.5%	1.22	58.3%	0.88	5.5%	1.29
Central	68.4%	1.38	59.5%	1.18	62.2%	0.98	11.0%	0.62
South	67.1%	1.39	57.6%	1.21	55.6%	0.92	9.6%	0.51
Micheweni	66.1%	0.99	61.1%	0.96	57.1%	1.07	6.0%	-
Wete	74.1%	1.02	62.2%	0.96	51.9%	1.06	11.8%	0.62
Chake Chake	75.9%	1.10	59.2%	1.23	60.6%	0.96	20.8%	0.58
Mkoani	57.8%	1.09	57.0%	1.00	60.7%	1.01	10.9%	0.63
TOTAL	**73.5%**	**1.13**	**65.5%**	**1.11**	**59.6%**	**0.97**	**15.9%**	**0.72**

RGoZ (2015c).

2.3.3 Tertiary Education

Table 18 shows the number of students enrolled at universities located in Zanzibar from 2012 to 2015. These figures should not be interpreted as the number of Zanzibaris pursuing university education during this period. It is not possible to determine with precision the number of Zanzibaris who are pursuing university education at any given time as some of them are registered in the universities located in Tanzania Mainland and others are pursuing their studies abroad. Moreover, enrolment at the three universities in Zanzibar includes a significant number of students from Tanzania Mainland and from abroad. Nonetheless, enrolment at the local universities in Zanzibar can be taken as a proxy for the existing capacity for offering university education. Between 2012 and 2015, the total enrolment at the local universities increased by about one-third (35%), meaning that more tertiary-level skills requisite for increased labour productivity have been imparted.

A critical mass of educated women is necessary for creating a pool of women with capacity to compete for political posts and to take up executive positions in the government and private sector. As shown in Tables 12 and 13 above, the basic education GER for females is not low, and in some cases it is higher than male gross enrolment. Thus, it is worth noting the progress in the enrolment of women at the tertiary level (Table 18). The enrolment of females increased significantly from 51.8% of the total number of students in the three universities in 2012 to 58.6% in 2015.

Table 18: Enrolment in Tertiary Education

University	2012			2014			2015		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
State University of Zanzibar (SUZA)	813	1,049	1,862	834	1,244	2,078	1,307	1,894	3,201
University of Abdulrahman Al-Sumait Memorial	584	626	1,210	707	1,173	1,880	494	779	1,273
Zanzibar University	1,122	1,040	2,162	970	1,110	2,080	1,122	1,467	2,589
Total	**2,519**	**2,715**	**5,234**	**2,511**	**3,527**	**6,038**	**2,923**	**4,140**	**7,063**

Source: RGoZ and MoEVT, Budget Speeches (2012/13, 2014/15, and 2015/16).

Several parameters can highlight the quality of education that is offered. One such indicator is the number of pupils per class. Obviously a very large class makes it impossible for the teacher to give sufficient attention to each pupil. Table 19 gives trends in the class–pupil ratio by district for the years 2008, 2010, 2012 and 2014. Overall the average class–pupil ratio for Zanzibar as well as the districts has been declining, with the exception of Kaskazini A, where the rate remained constant, which is a sign of progress.

Table 19: Class–Pupil Ratios by District (Percent), 2008–2015

District	2008	2010	2012	2014	2015
Mjini	66.9	67	64	55	52
Magharibi	78.7	78	66	62	59
Kaskazini A	65.8	61	67	49	49
Kaskazini B	64.4	61	68	53	49
Kati	47.9	44	45	39	35
Kusini	38.5	41	34	36	37
Micheweni	92.9	92	76	79	74
Wete	73.9	63	52	75	60
Chakechake	74.4	68	68	69	59
Mkoani	71.9	70	93	86	65
Zanzibar	**68.5**	**66**	**58**	**59**	**51**

Source: RGoZ and MoEVT, Budget Speeches (2008/9, 2010/11, 2012/13, 2014/15 and 2015/16).

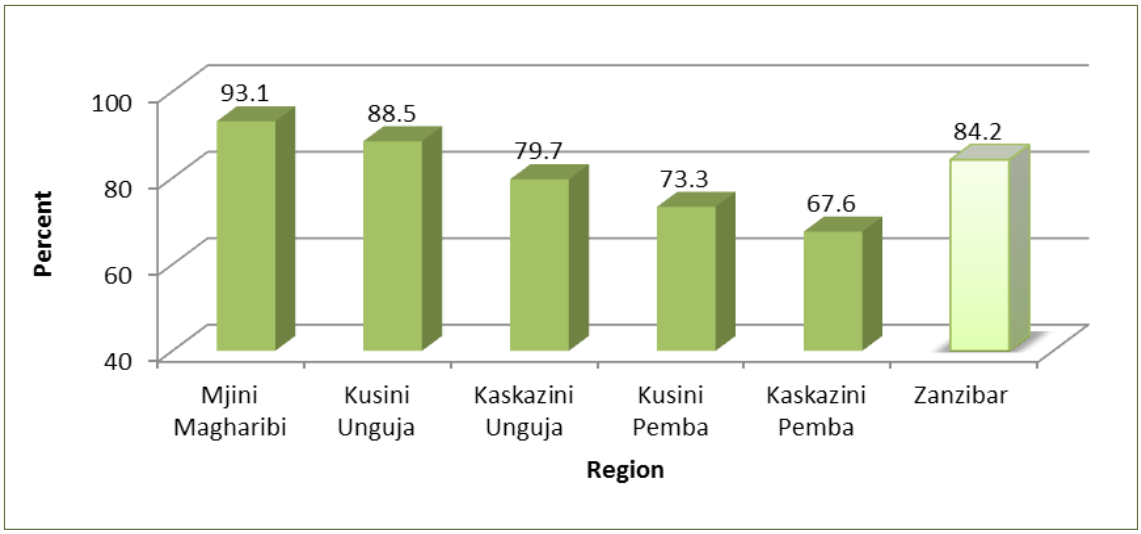
Table 20 gives an indication of the illiteracy rate in Zanzibar. There was a declining trend in the proportion of illiterate people for both sexes over time, from 24.2% to 16.3% between the three surveys. The proportion of illiterate people has declined more for women in absolute terms (from 30.2% to 20.6%) although men have gained proportionally more (RGoZ, 2012; 2016). Gender disparities on illiteracy were more pronounced within older age groups: the proportion illiterate was higher among females in all age groups but the gap was narrower among youth and young adults. This reflects the increasing participation of girls in education among younger cohorts. Adult literacy rates varied across the five regions, from 93.1% in Mjini Magharibi to 67.6% in Kaskazini Pemba (Figure 11) (URT, 2014b).

Table 20: Adult Illiteracy Rate by Sex

Sex	Illiteracy Rate		
	2004/05*	2009/10*	2014/15**
Male	17.5	12.0	11.7
Female	30.2	22.8	20.6
Total	**24.2**	**17.7**	**16.3**

*Source: *RGoZ (2012); ** RGoZ (2016a).*

Figure 11: Literacy Rate for Persons Aged 15 Years and Above by Region, 2012



Source: URT (2014b).

2.4 Access to WASH Services

2.4.1 Access to WASH Services by Households

The last dimension of human development considered in this report is access to Water, Sanitation and Hygiene (WASH) services. Water is one of the essentials for life, both for consumption and for maintaining cleanliness and improved sanitation. Evidence shows that access to safe water and good sanitation contributes significantly to reducing child mortality (Abou-Ali, 2003); reduces the opportunity cost of time – the time that women spend walking long distances to fetch water and time that people are sick (e.g. Tanzania loses the equivalent

of 1 million life-years in productivity every year due to water-, sanitation- and hygiene-related diseases) (WHO, 2009); and makes good economic sense: for every US$1 spent on water and sanitation, US$11 is gained through prevented losses in productive time and education, and savings in health care costs (Hutton et al., 2004).

Table 21 presents the distribution of households by source of drinking water and by area. Sources that are likely to provide water suitable for drinking are identified as improved sources. Improved sources include piped sources within the dwelling, yard or plot; public taps or standpipes; protected dug wells or springs; tube wells or boreholes, rainwater and bottled water while non-improved sources include unprotected dug wells, unprotected springs, carts with a small tank or drum, tanker-trucks, and surface water (rivers, dams, lakes, ponds, streams, canals, and irrigation channels). In both the dry and rainy seasons the vast majority of households have access to an improved water source (92.6% and 93.2% respectively). The situation has improved slightly since 2009/10 (89.5% in the dry season to 92.6%) (RGoZ, 2016a).

Table 21: Percentage of Households by Type of Water Source and by Area, 2014/15

Source of drinking water	Rural	Urban	Total
Dry season			
Improved source	88.3	98.4	92.6
Non-improved source	11.7	1.6	7.4
Rainy season			
Improved source	89.2	98.5	93.2
Non-improved source	10.8	1.5	6.8

Source: RGoZ (2016a).

The 2014/15 HBS further shows that in the dry season 38% of households had drinking water within the home (Table 22). This was more likely in urban areas, where 56.5% had water in the home. In total, 96.9% of households had a water source within one kilometre during the dry season, which is an improvement from 85.4% reported in 2009/10.

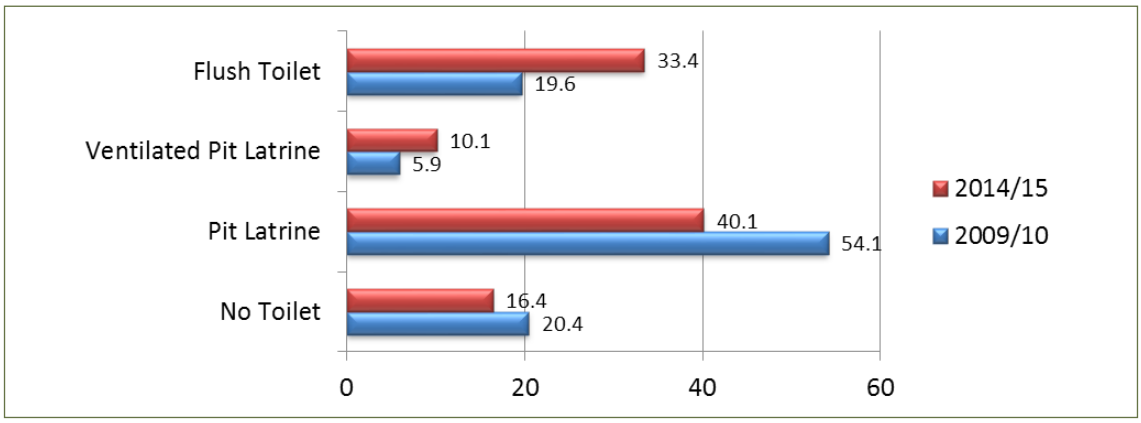
Table 22: Distance to the Water Source by Area, 2014/15

	Rural	Urban	Total
Dry season			
In the home	23.9	56.5	38.0
Less than 1 km	71.4	42.5	58.9
More than 1 km	4.7	1.0	3.1
Rainy season			
In the home	25.5	57.5	39.3
Less than 1 km	71.7	42.0	58.8
More than 1 km	2.8	0.5	1.8

Source: RGoZ (2016a).

The 2014/15 HBS shows that a large proportion of households in Zanzibar had a toilet facility and there was a slight increase from 79.6% in 2009/10 to 83.6% in 2014/15 (Figure 12). Rural areas were less likely to have a toilet facility (72.5% compared to 98.3% in urban areas).

Figure 12: Percentage of Households by Type of Toilet, 2009/10 &2014/15



Source: RGoZ (2016a).

Based on the 2012 census data, the Kaskazini Pemba region had the highest percentage of households with no toilet facilities (52.6%), followed by Kusini Pemba region (42%) (Table 23) (URT, 2014b).

Table 23: Percentage of Households with No Toilet Facility by Region, 2012

Region/Year	2012
Zanzibar	**19.1**
Kaskazini Pemba	52.6
Kusini Pemba	42.1
Kaskazini Unguja	24.2
Kusini Unguja	10.7
Mjini Magharibi	0.8

Source: URT (2014b).

2.4.2 School WASH

The MoEVT has overall responsibility for providing quality education in a safe, secure and friendly environment for all school-aged children in Zanzibar. Access to WASH services contributes to educational performance by keeping children (particularly girls) in school: less time is lost through illness or absence due to not being able to deal effectively with menses or being sent out to fetch water.

Efforts to increase school enrolment have been successful but this has at the same time placed a heavy burden on the existing school infrastructure, particularly the water, sanitation and hygiene facilities. Almost all schools have latrines but in general the schools' hygienic status is unsatisfactory. Overcrowding of pupils in schools, especially in primary schools, has resulted in very high and unacceptable pupil/latrine ratios. For instance, in 2013 the pit/pupil

ratio for boys and girls was 1:42 and 1:41 respectively (RGoZ, 2015b). Also, pupils are not familiar with hygienic practices (washing hands with soap before and after eating and after using a toilet). This puts pupils in the schools at risk of contracting water-borne diseases, including diarrhoea and cholera. The recent outbreak of cholera in Zanzibar affected adults and children alike. Although we do not have statistics on the relationship between school WASH and the recent cholera outbreak, the records of the patients who were hospitalized show that about 33% were aged between 6 and 20 years, which is the school age.

In 2011/12 the United Nations Children's Fund (UNICEF) in collaboration with the MoEVT initiated the School Water, Sanitation and Hygiene (SWASH) programme. Thirteen schools have benefited from the programme (Table 24) (RGoZ, 2015d). Hand-washing facilities have been constructed in each school and SWASH knowledge has been imparted to teachers and students. In the SWASH programme, the MoEVT is working in collaboration with various Non-Governmental Organizations (NGOs) such as the Associazione di Cooperazione Rurale in Africa e America Latina (ACRA) – an organization from Latin America – the Zanzibar Milele Foundation and the Environmental Engineering and Pollution Control Organization (EEPCO).

Table 24: Primary Schools Benefiting from the SWASH Programme

Sn.	Name of School	Area	No. of Toilets
1.	Mtopepo, Bububu, Kijitoupele,	Unguja	18 latrines (10 for girls and 8 for boys)
2.	Nyerere and Tunguu	Unguja	9 latrines
3.	Wingwi and Vitongoji	Pemba	18 latrines
4.	Makongeni, Kengeja, Chwale, Gando Mabatini, Konde, Pujini	Pemba	9 latrines

Source: RGoZ (2015d).

2.4.3 Access to Water and Sanitation Service at Health Facilities

Table 25 provides statistics on the availability of water and client latrines at health facilities in 2015. Overall, the majority of health facilities had both improved water sources and client latrines (over 80%). However, more health facilities in Unguja had both improved water sources and client latrines compared to those in Pemba. All health facilities in Kusini Unguja had an improved water source, which is exemplary.

Table 25: Percentage of Health Facilities with Improved Water Sources and Client Latrine

Area	Improved Water Source[3]	Client Latrine
Zanzibar	90	84
Rural	89	76
Urban	92	96
Unguja	94	85
Kaskazini Unguja	93	59
Kusini Unguja	100	76
Mjini Magharibi	91	97
Pemba	83	82
Kaskazini Pemba	80	82
KusiniPemba	87	83

Source: MoHSW et al. (2016).

3. GAPS AND CHALLENGES IN ACHIEVING THE DESIRED LEVEL OF HUMAN DEVELOPMENT

3.1 Poverty Reduction

Poverty in Zanzibar as a whole and in both urban and rural areas is still a major problem that requires relentless efforts to be reduced or eliminated by 2020. The decline in basic-needs poverty over the period 2009/10–2014/15 is small (4.5 percentage point) and districts in Pemba have unacceptably high poverty rates, e.g. 69% of households in Micheweni are poor by the basic-needs definition. Although only 10.8% of the Zanzibar population falls below the food poverty line, there is huge disparity between districts (e.g. 3.5% in Magharibito, 32.6% in Micheweni) (RGoZ, 2016a). Zanzibar has yet to attain food security in terms of food self-sufficiency, food accessibility and nutrition. The island still depends on food imports as domestic production is based on subsistence farming that heavily relies on rainfall.

Within MKUZA II, Cluster I focuses on economic growth and the reduction of income poverty. This is very relevant to the main objective of Vision 2020, which is to eradicate absolute poverty in Zanzibar in both urban and rural areas, which means the ability of the people to obtain the necessities, namely, food, better shelter/housing, and adequate and decent clothing will be increased. Absolute poverty will be eradicated through (RGoZ, 2000):

- Sustainable economic growth averaging 9–10% per annum from the level of 4.5% in the year 2000.

- A high level of employment in the modern sector (with 50% to be employed in tourism and economic free zones, 20% in agriculture and 30% in all other sectors; income per capita rising from US$200 to that of middle income countries).

- A diversified economy that is semi-industrialized, with the combined contribution of tourism, trade, manufacturing and construction to GDP reaching over 60%.

Thus, Zanzibar aspires to increase its economic growth to the level that can reduce poverty. Vision 2020 also shows the anticipated source of such growth – tapping the synergies of the agriculture, tourism and manufacturing sectors. Nevertheless, based on recent history and the outlook for the economy, it seems unlikely that the 10% growth target stipulated in Vision 2020 will be reached. Growth in 2014 was 7%, and growth rates over the last decade have rarely exceeded this number, typically remaining within the 4% to 7% range (RGoZ, 2015e). Furthermore, the performance for 2015 was not particularly favourable given the performance of the agricultural sector, with production of major crops such as cloves and rice declining and the negative economic impact of election-year uncertainties (e.g. chaotic demonstrations that could disrupt the production process and vandalism/destruction of assets).

Agriculture (crops, fisheries, livestock and forestry) constituted around 19.2% of total GDP in 2015. Crops constituted the largest sub-sector, with an average share of total GDP at

17.2% between 2010 and 2014 but which dropped to 9.1% in 2015. MKUZA II aimed to increase growth in the agriculture sector from 4.4% in 2000 to 10% in 2020. According to the new GDP statistics (RGoZ, 2016b) the agriculture sector grew by an average of 2.5% between 2010 and 2015 (Table 26). This growth rate is barely equivalent to the rate of population growth and well below the target of 10%. Overall, agriculture-sector growth has been well below the anticipated growth rate and has thus been unable to make a considerable contribution to poverty reduction.

Table 26: Agriculture-Sector Growth (Constant 2007 Price Growth Rates)

	2010	2011	2012	2013	2014	2015
Total sector growth[4]	3.3	4.7	-8.3	13.2	-0.4	2.7
Crops	4.3	1.7	-18.4	22.9	-7.2	-1.6
Livestock	1.8	4.0	6.7	5.1	7.5	7.5
Forestry	3.5	3.8	3.9	3.5	3.8	4.0
Fishing	1.5	13.9	2.5	3.6	8.9	8.2

Source: RGoZ (2015e); RGoZ (2016b).

Anecdotal evidence suggests that farmers may have begun to switch from traditional crops (such as cassava) to horticulture-type crops (such as watermelon, cucumbers, peppers, etc.). This switch is apparently driven by a desire to increase revenue, as the latter type of crops is in high demand from the tourism sector, which means a readily available market, and also generates multiple harvests in a year, which leads to higher production and hence income. Similarly, there may have been a switch to increased production of sugar cane as a consequence of farmers' desire to supply a newly constructed sugar factor in Zanzibar (RGoZ, 2015e).

Quality improvement and processing initiatives have the potential to strengthen the value chain for agricultural produce and link it with the growing tourism sector (linking agriculture, manufacturing and tourism). However, these initiatives have not yet displayed much success considering the relatively low level of agricultural product input to the tourism sector in Zanzibar. Farmers' diversification and transition to the high-value vegetables demanded in the tourism industry, such as the above-discussed transition to horticulture-type crops, should be supported as they will help improve income and perhaps reduce vulnerability to climate change and diseases among traditional crops.

Slow progress has been made in creating decent employment. Youth constitute the majority share of the underemployed and economically inactive. According to data from the 2014/15 Integrated Labour Force Survey (ILFS), the unemployment rate for youth aged 15–24 years has more than tripled, from 8.7% in 2006 to 27% in 2014/15. This rises to 45.8% in urban areas and is 15.8% in rural areas. The unemployment rate for youth aged 15–35 years has also increased slightly from 19.6% to 21.3% (RGoZ, 2015f). The high unemployment rate is attributed to the education level attained.

There is growing concern that Zanzibari youth are not participating in the high-growth sectors of the economy, due, in part, to poor alignment of their skills and experience with the demands of a modern economy. About 92.3% of the unemployed population have

only secondary-level (Form 4) education or below, with those of lower secondary (Form 2) and below constituting about 67.9% (Table 27) (RGoZ, 2015f). Future growth and poverty reduction will depend on how well Zanzibar equips its youth.

With a median age of 17 years, Zanzibar has a young population, implying that the demographic dividend can be reaped only if interventions to reduce fertility rates and to tap the economic capacity of these youth are put in place.[15] It is also crucial to reduce the currently high rates of non-activity (being out of school and out of work) among adolescents and youth. This will positively impact their economic returns and demographic choices through increased income and reduced fertility.

Table 27: Percentage Distribution of Currently Unemployed Persons 15+ by Education Level, Area and Sex, 2014

Education Level Attained	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
No Formal Education	6.2	13.6	12.1	1.3	5.3	4.4	2.7	7.8	6.7
Adult Education	1.7	0.3	0.6	1.1	1.5	1.4	1.3	1.1	1.2
Primary Education	29.9	25.4	26.3	18.6	22	21.3	21.8	23	22.8
Training after Primary Education	0	0.7	0.6	0.7	0.6	0.6	0.5	0.6	0.6
Lower Secondary Education	39.4	34.5	35.5	38.1	36.8	37.1	38.5	36.1	36.6
Secondary Education (O Level)	19.7	21.3	21	28.5	25.1	25.9	26.1	24	24.4
Total for Secondary Education and Lower Level	**96.9**	**95.8**	**96.1**	**88.3**	**91.3**	**90.7**	**90.9**	**92.6**	**92.3**
Training after Secondary Education (O Level)	2.2	0.8	1.1	0.3	1.8	1.5	0.9	1.5	1.4
Advanced Secondary Education (A Level)	0	0.5	0.4	2.8	0.9	1.3	2	0.8	1
Training after Advanced Secondary Education (A Level)	0	0	0	0.7	0.1	0.2	0.5	0.1	0.2
Tertiary Non-University	0.8	1.7	1.6	4.9	4.5	4.6	3.8	3.7	3.7
Tertiary University	0	1	0.8	2.9	1.3	1.7	2.1	1.2	1.4
Total of Individuals	**5,312**	**20,883**	**26,195**	**13,728**	**48,076**	**61,804**	**19,040**	**68,958**	**87,998**

Source: RGoZ (2015f).

Sustained growth in the service sector driven by tourism can result in increased employment of both skilled and semi-skilled workers. However, the problem is of such a large magnitude

[15] A country with both increasing numbers of young people and declining fertility has the potential to reap a demographic dividend. However, currently, Zanzibar is in no position to benefit from the demographic dividend because of a high Total Fertility Rate (TFR) – 5.1 in Zanzibar and 4.6 and 6.4 in Unguja and Pemba respectively. Further, children (0–14 years) constitute about 43% of the Zanzibar population.

that tourism alone cannot provide the jobs required. There is anecdotal evidence of 150 young people applying for one vacancy (RGoZ, 2015e), which suggests the problem is not just one of missing skills but also insufficient job creation. With such high population growth (the average annual inter-censal growth rate (2002–2012) for Zanzibar was 2.8%) (URT, 2013), job creation is imperative to avoid the risk of a "missing generation". Good education and a flourishing private sector are the essential ingredients for a fulfilled and well-utilized labour force. Targeted social-protection interventions e.g. microfinance to improve the production capacity of the youth, is important in stimulating engagement in private enterprises.

3.2 Access to Health Services

Although there was significant improvement in life expectancy at birth (an increase from 57 years in 2002 to 65.2 in 2012), and significant decline in all child mortality indicators in Zanzibar between 2004/05 and 2012, maternal mortality levels are still high (overall, 307 deaths per 100,000 live births and in Kaskazini Unguja, as high as 475 deaths per 100,000 live births) (URT, 2015). The major causes of maternal mortality are haemorrhage before and after delivery, hypertension, eclampsia and anaemia. Increased efforts towards community sensitization to ensure facility deliveries by skilled health personnel, implementation of Integrated Management of Childhood Illnesses (IMCI), increasing the number of trained health workers in Emergency Obstetric and Newborn Care (EmONC), maternal death reviews, and increasing service coverage for mothers and new-borns are some of the interventions geared towards the reduction of maternal deaths. Others include community sensitization on the importance of using family-planning services and abortion care, specifically to reduce the alarming prevalence of unsafe abortions, especially among women from rural areas, and exploring the role of Traditional Birth Attendants (TBAs) in facilitating referrals.

Efforts to improve health care quality have been impeded by inadequate numbers of health providers and inadequate availability of essential medicine, diagnostic equipment and facilities. Close to 50% of maternal deliveries still occur at home with unskilled attendants (RGoZ, 2014), and it takes skill to predict or prevent a bad outcome. Increasing skilled attendance at birth will help in the detection, appropriate referral and management of complications. The introduction of the pool-logistics system aimed at improving the availability of essential medicines and medical supplies at health facilities has contributed in curbing medicine stockout problems. The percentage of facilities experiencing stockouts of essential medicine decreased from 50% in 2012/13 to 37% in 2013/2014. (RGoZ, 2015a).

There was a decline in underweight and stunting from 33.8% and 37% in 1996 to 19.9% and 30.2% in 2010, respectively. This achievement is attributable to a number of factors, including emphasis on selective interventions to improve health and nutritional status, such as immunizations, oral re-hydration, use of antibiotics and micronutrients, with child survival being a major motivation and justification. Adoption of the World Health Organization (WHO) New Growth Standard as a guide on growth monitoring and promotion; availability and utilization of the Guidelines on Severe Acute Malnutrition (SAM), which guide on management of malnourished children; and formulation of the Multi-sectoral Nutrition Committee have also contributed to the observed decline. The committee aims to keep on board sector-related nutrition issues in order to further improve nutritional indicators in the Isles.

3.3 Access to Education Services

Primary education usually begins at age 6 and lasts to age 13 or 14 years as stipulated in the Zanzibar Education Policy of 2006. In Zanzibar, primary education is the level at which the basic skills of numeracy, literacy, proficiency and competency are developed and learners are introduced to logical thinking and reasoning. It is at this level that skills for further learning are developed. A substantive increase in the NER has been observed although it is below the 2015 MKUZA target of 95%. The incremental growth in the NER is due to the efforts made by the government in construction of more classrooms and sensitizing communities to the importance of education.

In an effort to increase the NER in future, the MoEVT, through loan support from the Organization of Petroleum Exporting Countries (OPEC), intends to construct more primary schools. A total of 5,400 primary-school-age children are expected to benefit from this project, meaning that the NER of primary education will be enhanced. Improvements have also been noted for the NER for secondary education (48.2% in 2013/14 versus 38.2% in 2012/13) (RGoZ, 2015a). The performance was a result of the strong cooperation between government, development partners and communities, who worked together in improving the school infrastructure through construction of new school buildings and renovation of existing schools.

Although progress has been made in expanding the number of primary and secondary schools, progress in transition from Form 2 to Form 3 has been slow, as noted in Table 14 above, and the outcome for those who proceed is poor in the sense that the majority get Division 4 in their Form 4 results. This has resulted in low transition to A level and further to tertiary level. For instance, the percentages of students who transited from A level to tertiary level between 2011/12 and 2012/13 showed no improvement. By 2011/12 the transition declined to 45.5% from the 50% of the MKUZA II baseline, and further down to 42.1% in 2012/13. In 2013/14 the transition rate improved slightly to 45.6%. This means that resources must be directed to expanding not only the infrastructure for secondary and higher education but also improving the quality of education in order to develop requisite skills for contemporary labour markets.

3.4 Access to WASH Services

Significant progress has been made in water-service coverage. These achievements are more pronounced in urban than in rural areas. Access to sanitation facilities is still a problem as only close to 56.5% (RGoZ, 2016a) of the population has access to improved sanitation facilities. It is important to note that the Kaskazini Pemba region has the highest percentage of households with no toilet facilities (52.6%), followed by the Kusini Pemba region (42%) (URT, 2014b).

As noted above, although hygiene education has been integrated in the primary school curriculum, most schools experienced shortages of hygiene materials. Similarly, teachers and pupils have limited knowledge about hygiene, having received inadequate training in this area. Also, a majority of the schools have an insufficient number of latrines to cater to the school population, and worse still, most schools have no latrines for children with disabilities. For instance, in 2013 the pit/pupil ratio for boys and girls was 1:166 and 1:167

respectively, which is unacceptable (RGoZ, 2015b). In addressing these gaps, development partners, in particular UNICEF and some NGOs in collaboration with MoEVT, are supporting the SWASH programme. Under this programme, 13 primary schools have benefited through the construction of basic sanitation and hygiene facilities. Further, the guidelines for hygiene and sanitation in schools have been translated into Kiswahili so as to make them user-friendly, and some teachers have been trained in how to use the guidelines. More efforts are needed in constructing sanitation and hygiene infrastructure at schools in order to improve the learning environment.

3.5 Population Growth

The average annual inter-censal growth rate (2002–2012) for Zanzibar was 2.8% (URT, 2013). Its population structure is dominated by children and youth and has a high dependency ratio (0.86 in 2014/15).[16] The implications of this structure are high costs of provision of social services, particularly education, low household savings and hence low investments in direct productive sectors, as well as the costs of feeding such a young population.

The percentage of new acceptance of modern family-planning services slightly increased from 5.3 in 2012 to 5.8% in 2013 (RGoZ, 2015a). This is less than the target of 10% set by the Ministry of Health. Strong commitments are needed in raising awareness among women and men of child-bearing age of the importance of using modern family-planning services.

Overall development and per capita improvements in Zanzibar will require attainment of the demographic transition, mainly through provision of better reproductive-health services. This calls for efforts to reduce population growth and improve the well-being of the population by raising life expectancy, reducing mortality rates and investing in human capital through better health and education services. Raising the minimum level of education of girls and increasing economic opportunities are long-lasting solutions to slowing population growth, in addition to family-planning education and other birth control measures. Staying in school longer delays entry into family life but also raises self-awareness and the confidence to make reproductive-health decisions.

3.6 Social Protection

Zanzibar's commitment to social protection derives from its international, regional and national commitments under the Universal Declaration of Human Rights (1948), which provides for the right of every person to social protection, and the International Labour Organization (ILO) Convention 102, which sets out the minimum standards of social security benefits. This is critical for the reduction of poverty and hunger and the attainment of the Sustainable Development Goals (SDGs). Zanzibar is also committed to foster the development of social protection with African Union's (AU) Declaration and East African Community (EAC) commitment to further basic social protection in support of disadvantaged citizens.

[16] The age-dependency ratio is the ratio of the combined population aged less than 15 years and those aged 65 years or more compared to population in the age range 15–64 years. A high ratio that approximates 1 or more suggests that an individual in the society has to produce not only for himself/herself but also to cater to the needs (an economic burden) of an additional person(s). Economically, this translates into an investment diversion, whereby the already limited resources are committed to support less direct investment expenditures, like health (RGoZ, 2016).

These international commitments have been domesticated through its poverty-reduction strategies, notably MKUZA I and MKUZA II and various policies. Goal 6 of the MKUZA II is "improved safety nets and social protection for poor and vulnerable groups". Groups recognized as especially in need of social protection include "orphans and vulnerable children, child- headed households", as well as "older people and their households". The MKUZA II Successor Strategy, named the Zanzibar Strategy for Economic and Social Transformation (ZSEST), has added a thrust on "empowerment of economically vulnerable households". It acknowledges the importance of establishing a social-protection system for Zanzibar that improves the quality of life for all by progressively reducing poverty, allowing Zanzibaris to manage economic risks and social vulnerabilities, and ensuring universal access to essential basic services (RGoZ, 2015h).

The Zanzibar Social Protection Policy (ZSPP) has been developed with the objective of providing guidance in establishing a comprehensive social-protection system that meets the needs for income security, risk management and access to basic services for all Zanzibaris, thereby contributing to a more equitable society. The specific objectives of the ZSPP are to:

- Contribute to minimum income security for all by providing social transfers to extremely poor Zanzibaris who are unable to provide for themselves and have no other means of support;

- Ensure that all Zanzibaris have adequate protection against life-course shocks and livelihood risks, by installing effective safety nets and extending social security coverage;

- Progressively extend access to basic social services such as education, health care, social welfare and child and other protection services, and ensure that their quality will not be compromised; and

- Strengthen multisectoral coordination of all stakeholders working on social protection.

Thus, through its policies and poverty-reduction strategies, the government is committed to address the social and economic needs of various groups of population through properly designed social-protection interventions. There are several social-protection interventions in Zanzibar but we provide an example of one intervention that has the potential not only to protect and prevent households from falling further into poverty (preventing and stopping impoverishment), but also to promote the productive capacity of poor households so that they can move out of poverty.

In its second phase, the Tanzania Social Action Fund (TASAF) implemented Conditional Cash Transfer (CCT) as a pilot programme in the year 2008/2009, which covered only 40 shehias and reached a total of 6,681 households (2,500 or 37.4% in Unguja; and 4,181 or 62.6% in Pemba) through geographical and community targeting. A total of 11 rounds of transfers were paid out as of November 2015. More shehias (103: 68, or 66.0%, in Unguja; and 35, or 34.0%, in Pemba) were included into TASAF III through its Productive Social Safety Nets (PSSN) programme. The PSSN has four total interventions: CCT, the Public Works Programme (PWP), the Livelihood Programme, and the Infrastructure Programme.

All able-bodied members from beneficiary households qualify for public works and can participate in PWP for four months annually, with 15 days for each month (thus 60 days total) allocated for public works. A villager who offers his or her labour is paid TZS 2,300 per day as a wage. That means the labourer can earn up to TZS 138,000 per year. The PWP and Livelihood Programme have the potential to move people out of poverty through participation in productive activities.

Zanzibar has finalized the process of revising MKUZA II and drafting the Successor Strategy – the ZSEST. Overall, the ZSEST has proposed an improved and integrated social-protection approach aimed at promoting inclusive economic growth and reducing vulnerability to economic shocks (addressing the protective, promotive and transformative elements).[17] This approach is well built in the sense that it recognizes the need to protect the poor by providing consumptive social protection, but also the need to enhance their productive capacity by providing social protection that is aimed at increasing their productivity, e.g. public work programmes, microfinance for income-generation, etc. Thus, *promotive and transformative approaches* propose the extension of social protection to arenas such as strengthening the production capabilities of the poor, equity (promoting social equity and inclusion), empowerment, and economic and social-cultural rights and redistributive issues, rather than confining the scope of social protection to targeted income and consumption transfers (or only to few vulnerable groups as defined in the ZSPP) (RGoZ, 2013). Various scholars have propounded the role of social protection in supporting the productive sectors, especially in areas with generalized insecurity (high poverty levels) such as Zanzibar.[18] Cash transfers aimed at increasing the productivity of the poor is one form of redistributive mechanism.

[17] See Devereux and Sabates-Wheeler (2004) on the discussion of promotive and transformative social protection aspects.

[18] See Farrington and Holmes (2004) for an excellent framework that links social protection and productive sectors, in particular, agriculture.

4. CONCLUSIONS AND RECOMMENDATIONS

Improvement in human development dimensions in Zanzibar is contingent on economic policies aimed at promoting economic growth through increased productivity in strategic sectors; creating employment opportunities; education and training; and provision of basic social services. It also depends on structural changes targeted at reducing inequality (through properly designed redistributive policies such as social protection), increasing opportunities and access to resources, and promoting rural development. When inequality and poverty follow some geographical patterns as shown in this report, the need to address the problem becomes even more urgent. This is because such geographical disparity can quickly turn into destabilizing polarization, particularly when people maintain strong identities delimited around these geographical areas. Thus, the first step in trying to improve human development dimensions is to find out the reasons for such a pattern. In some cases, geographical condition may explain the disparity in household welfare across geographical areas.

In line with addressing the noted polarizations, Zanzibar needs to create a competitive economy capable of addressing human development needs:

- In promoting economic transformation, linking various sectors in the transformation process and tapping synergies has been underscored in the MKUZA II review process, e.g. linking the agriculture, tourism and manufacturing sectors; and linking tourism with rest of economy – construction, aquaculture, agriculture (production of spices, fruits and vegetables), that is, building on Zanzibar's strengths in natural and cultural resources (RGoZ, 2015d; 2015g).

- Poverty can be reduced through improving productivity in agriculture (notably horticulture) and fishing, with special emphasis on deep-sea fishing (while maintaining ecosystems) and linking this with processing (run by the private sector); and moving from subsistence to commercial agriculture and fishing. Priority areas and projects in the agriculture sector should focus on production and agro-processing in areas in which Zanzibar has comparative advantages. These areas include spices, fruits, vegetables and aquaculture (especially seaweed production).

- Zanzibar has major undeveloped potential in aquaculture. Given its potential, the government should include aquaculture and, in particular, seaweed production and processing as priorities moving towards 2020. Any new initiative should, however, not be implemented without solid knowledge about its technical, environmental, social and financial feasibility and desirability.

- Given the challenges associated with developing manufacturing capabilities, initial expansion of the manufacturing sector in Zanzibar should focus on supporting the key growth drivers, e.g. processing and packing of seaweed, fish, clove and spices.

- In the tourism sector there should be a focus on sustainable high-end tourism in line with developments in the agriculture and manufacturing sectors. The successful broadening and deepening of linkages with other sectors is an integral part of making tourism work for economic diversification and enabling it to benefit the poor. In terms of exploring ways to increase the economic benefits of tourism it is important to focus not only on the number of arrivals, but also on how taxes and levies from tourism are being collected in view of increasing revenue collection.

In order to ensure a decent standard of living for everyone as well as solid human-resource development, the delivery of a number of key basic services in the areas of education, water and sanitation, and health have been prioritized in the ZSEST, in addition to the growth sectors. The economic and social transformation will be facilitated by properly designed redistributive policies to ensure that the benefits of growth are shared by all Zanzibaris.

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(Footnotes)

1 A “skilled provider” may be a doctor/Assistant Medical Officer (AMO), clinical officer, assistant clinical officer, nurse/midwife, or Maternal and Child Health (MCH) aide.

2 The figures for Mjini Magharibi in 2010 and 2015/16 are counter-intuitive. There was a decline in deliveries at health facilities and an increase in home delivery but yet, delivery by skilled personnel increased. This may mean that although fewer women showed up at a health facility for delivery, more skilled providers were available to assist them compared to other years (note that women may show up for delivery at a health facility but there are no skilled providers to assist them).

3 Improved water sources include water that is piped into the facility or onto its grounds; bottled water; water from a public tap or standpipe, tube well or borehole, protected dug well, or protected spring; or rain water. The outlet from this source must be within 500 metres of the facility.

4 Crops, forestry, livestock and fishing.

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