The root causes of Poverty

National Planning Commission

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1. Introduction

Namibia is an upper middle income country, one of only eight in Africa. The economy has grown substantially since Namibia's independence in 1990. This economic growth has made possible high living standards for many, but a large segment of the population has not yet been drawn fully into full participation in a modern economy, with all the benefits that this entails. This is the central reason for poverty in Namibia today.

From this perspective it is possible to consider those who are in poverty¹ as that part of the population that has not yet been well integrated into the modern economy. Exclusion from the modern economy takes a number of forms, much of it relating to the economic position of adult household members in the labour market:

- Some are still mainly engaged in agriculture for subsistence, to a large extent not participating in the market economy. (In this report, they will be referred to as Subsistence Agriculture.)
- Others attempt but fail to get jobs in the labour market, thus remaining unemployed. (the Unemployed)
- Still others do have jobs, but extremely low paying jobs, reflecting low levels of productivity, and therefore earn too little to escape poverty. (In this report, they will be called Low-wage Workers.)
- Finally, there are some households who do not have any members that are part of the labour force: They largely consist of persons above retirement age, children, and people who are physically or mentally handicapped and thereby excluded from labour force participation. (The report will refer to them as non-economically active households.)

All of these groups have in common that their members are excluded from the modern labour market in different ways. At the household level, it is of course possible that some adult members may be so excluded, whilst others are earning attractive incomes, enabling the household as a whole to maintain high consumption levels, i.e. to live well above the poverty line. But even some of those who do earn good salaries or wages may find themselves in poverty, as the majority of household members may not be earning anything.

This report therefore aims to contribute to policymakers' understanding of the mechanisms which drive and perpetuate poverty and exclusion from the modern economy in Namibia. Section 1 deals with the current macroeconomic climate by considering economic growth and employment growth in recent times. Recent poverty and inequality trends are also discussed in order to assess the extent and location of poverty in the Namibian context. Section 2 examines how inclusive Namibia's economy is by considering labour market conditions, with a specific focus on the more economically vulnerable groups in Namibia and internal migration as a possible way for the poor to improve their welfare. Finally, Section 3 investigates the underlying mechanisms which prevent many of Namibia's citizens from participating fully in Namibia's modern economy. Section 4 concludes with some tentative summary recommendations to promote inclusion of the poverty-vulnerable in the modern economy.

¹ The poverty line is defined as Namibia \$5630 in 2014

1.1 Economic growth in Namibia

The Namibian relative contributions by economic sector remained unchanged for the most part with the tertiary industry contributing about 56% to gross domestic product (GDP) while the secondary industries contributed an average of 18% over the last eight years. The primary industry contributed an average of 20%. During this period, the economy registered a fairly good economic growth averaging 4.6%. This growth was driven mainly by resources extraction, mainly mining and quarrying, which contributed 12% to GDP with manufacturing and construction contributing 12% and 11%, respectively. The agricultural sector which in terms of livelihood supports about 70% of the population contributes 4.5% to GDP. The wholesale and retail trade, repairs, and financial intermediation, transport, and communication, real estate, business services and hospitality sectors have seen robust growth during this period. This growth has enabled a rapid growth in government spending averaging 4.8%.

However, given the current performance of the world economy and the contribution of mineral resources to growth, the demand for mineral products is estimated to slow down thereby affecting the performance of the economy. Thus, economic growth is projected at 4.8% and 5.9% in 2016 and 2017 respectively.

1.2 Employment growth

Although the mining sector remains the driver of economic growth, its contribution to employment creation remains very low accounting for only 2% of total employment. In comparison the agricultural and forestry sector which contributes only 5% to GDP accounts for 28% of total employment. The wholesale and retail trade, repairs and services sector, one of the fast growing sectors matches the mining sector in terms of its contribution to GDP and accounts for 13.6% of total employment. The private household sector which accounts for 9.4% of total employment contributes only 1 % to GDP. Together the agricultural and forestry sector; wholesale and retail trade, repairs services sector and the private household accounts for just above half (51%) of total employment. However, these are the lowest paying sectors with an average wage of N\$2 114, N\$4 474 and N\$1 168, respectively. Furthermore, these sectors composed the informal and subsistence sectors.

1.3 Current poverty and inequality in Namibia

Despite relatively good economic growth, and recent stable employment growth, the Namibian population continue to be susceptible to poverty. Rated as a high middle income country, Namibia's poverty and inequality levels are among the highest. About 28.7% of the population is poor while 15% are extremely poor. Poverty is highest in rural (37%) than in urban areas (15%). It is also high among women (32%) than man (26%). The mostly rural regions of Kavango, Zambezi, Oshikoto, Otjozondjupa, Omaheke, Ohangwena and Kunene have poverty levels that are high than the national average while poverty in Khomas and Erongo which are more urbanized regions is 10% or less.

The poor are mainly the less educated with 80% of the poor having attained either primary education or have never attended formal education. Only 17% of the poor have attained secondary education while poverty among graduates is almost non-existent at less than 1%. This indicates the importance of education as a poverty reduction strategy. Poverty is highest among old age pensioners (44%) and subsistence farmers (39%) while the working poor are estimated at 16%.

Poverty is also highest among those with less access to services. In terms of access to safe drinking water, poverty is highest among those whose main source of drinking water is a river, canal, lake or Oshana; dam; well or a public pipe. With regards to sanitation, poverty is highest among those that do not have access to any toilet facility or who are using the bucket system. In terms of ownership or access to assets, poverty is highest among those with neither own, nor have access to telephones, radio, livestock, and land either for crops or grazing. Poverty is also highest among those who live more than one kilometre away from their main source of drinking water, health facilities, schools, public transport and local markets.

With a Gini coefficient of 0.597, Namibia is one of the most unequal countries in the world. Inequality is highest in urban (0.583) than in rural areas (0.487). However, while inequality has been declining in rural areas, it has registered marginal increases in urban areas. Inequality is highest in !Karas (0.634) and lowest in Ohangwena (0.405). There are no major inequality differences with regards to educational attainment while it is highest among those whose main source of income is business (0.656) and salary and wages (0.568).

1.4 Approach to investigating the root causes of poverty

The aim of this report is to identify the root causes of poverty and poverty persistence in certain communities. To accomplish this, the report draws on the following nationally representative data: the Namibian Population and Household Surveys 2001 and 2011, the Namibian Household Income and Expenditure Surveys 2003 – 2004 and 2009 – 2010, the Namibian Labour Force Survey 2014, the Demographic and Health Surveys as well as administrative records from the Ministry of Education, Arts and Culture and the Ministry of Gender Equality and Child Welfare. Thus, the report adopted a triangulation methodology with no causality analysis being undertaken. The report applies the national poverty definition, the cost of basic need approach adopted by the Namibia Statistics Agency in 2008, the then Central Bureau of Statistics. Using 2009/10 NHIES data, the poverty line which is the cut-off point separating the poor from the non-poor was estimated at N\$4 535.52. This is the poverty line which is applied throughout the report.

While the report is mostly descriptive in nature, there are a number of instances where statistical analysis forms the basis for tables and figures. There are some caveats which need to be noted. For most of the data analysis we do not distinguish between Kavango West and Kavango East. However, we do so for all analysis involving the Labour Force Survey 2014 and the Demographic and Health Survey 2013 (where it is not compared to data from previous years).

2. Inclusion of the poor into economic activities

2.1 Characteristics of the labour force and economically inactive population

The analysis which follows assumes four distinct labour market categories: the broadly unemployed, employed, those engaged in subsistence agriculture, and those that are not economically active. According to this categorisation about 39.4% of the population are employed, 11% are engaged in agriculture, 20.8% are unemployed while 28.4% are non-economically active. This indicates that about 60% of the population is excluded or not participating in productive economic activities. This has a major impact on poverty levels. Figure 1 indicates that labour market status is closely linked to educational attainment. The various labour market categories are discussed in the subsections below.





Source: Own calculations (Namibian Labour Force Survey, 2014).

2.1.1 The employed

Figure 1 above indicates close to 68.5% of the employed individuals have some tertiary education. In contrast, 74% of individuals in subsistence agriculture have either no education or some primary schooling. The employed are primarily located in Khomas (30.7%), Erongo (13.4%), Otjozondjupa (8.2%) and Oshana (7.4%). The employed also have higher levels of education when compared to the unemployed, not economically active, and individuals in subsistence agriculture. Nearly 80% of tertiary educated individuals are employed, compared to only 42% of secondary schooled, and only 27% of those with no schooling or primary education only. This indicates that it pays off to be educated. Employment across the age distribution is as expected, with the proportion of individuals in employment being highest for those between the ages of 40 and 50. Employment is highest among males, with females accounting for only about 45% of total employment.

Employment by broad sector and occupation type

Of the Namibian population aged 15 to 65 (working age population), approximately 71.6% are reported to be economically active, where economic activity is classified in line with the definition above i.e. employed, broad unemployed and subsistence activity. We begin with quite a broad definition of employment that includes formal employment (government, private and commercial agriculture sectors), informal employment and vulnerable employment (subsistence agriculture, own account work and unpaid family work). Table 1 indicates that 18.6% of the employed are in the public sector, 34.3% are employed in the private formal sector, 5.2% are employed in the informal sector and 5.4% are employed in private household (non-subsistence). This means that close to a third of the employed are found within vulnerable employment while close to half of the employed are either in the informal, subsistence or private households which has an average wage of N\$1168.² The implications for poverty among those working in this group is significant – despite being counted amongst the employed, many of these individuals have little job security and extremely low wages relative to individuals in the formal sector. The developing country experience is that generally very

² These percentages differ from those found in the LFS 2014 report because we have included unpaid employment as a separate sector of employment category. Excluding this sector yields identical proportions as are found in table 4.9 and table 4.18 in the official LFS 2014 report.

few of these workers transition into the formal sector, effectively limiting the benefits they can reap from the modern economy.

Sector of employment	Total	Percentage
Government and parastatal	123727	18.62
Private formal (including commercial farming)	228220	34.34
Private informal	34504	5.19
Private household (non-subsistence)	35981	5.41
Subsistence (paid)	36217	5.45
Subsistence (unpaid)	112506	16.93
Other unpaid work	93387	14.05
Total	664542	100.00

Table 1 - Public, private and subsistence employment

Source: Own calculations (Namibian Labour Force Survey, 2014).

2.1.2 The unemployed

Although Khomas recorded the highest proportion of individuals classified as employed, it was also the region with the highest numbers of unemployed (17.1%). This is due to the fact that 20.4% of the working age population reside in Khomas. Given migration patterns and the chances of a migrant getting a job compared to a non-migrant, this finding explains the high unemployment rates in urban localities. The relative proportions of the unemployed in the predominantly northern, more rural regions (e.g. Kunene, Ohangwena, Oshana and Otjozondjupa) are highest at 20 - 25 years. Approximately 60% (80%) of the unemployed possess junior (senior) secondary schooling or less. As is expected, the likelihood of unemployment is highest amongst the youth (aged 19-34), particularly women aged 20-29. Figure 2 suggests that young adults (between the ages of 20 and 30) are at greatest risk of unemployment with the incidence of unemployment being greatest among the youth. Unemployment is highest among the females (22.9%) than males (18.4%).

Chronic unemployment

Chronic unemployment is a significant problem with more than 80% of the unemployed indicating that they have been unemployed for a period of more than one year and 61.5% for a period of more than two years. Chronic unemployment is more prevalent among females. More than 80% of unemployed women have been unemployed for more than a year and 65% for more than two years. This explains why more female (53.2%) than male (44.6%) workers are engaged in subsistence farming. Given poverty prevalence among subsistence farmers (39%), this could further explain why more women (32%) than men (26%) are poor. Chronic unemployment is highest within the regions of Khomas, Ohangwena, Oshana, Otjozondjupa, Erongo and Omusati.

	< 1	1 month <	3 month <	6 months	1 year <	2 years	
Region	month	3 months	6 months	< 1 year	2 years	or more	Total
!Karas	12,4	6,8	4,4	7,4	4,0	2,9	4,0
Erongo	7,1	8,6	6,0	10,9	9,9	8,1	8,6
Hardap	19,6	10,6	10,3	4,8	5 <i>,</i> 8	2,6	4,5
Kavango East	0,0	2,2	3,6	4,6	4,8	8,5	6,7

Table 2 - Chronic unemployment

Kavango West	0,9	4,4	1,8	3,6	1,5	3,2	2,9
Khomas	18,7	15,7	16,8	21,0	21,9	15,6	17,3
Kunene	4,6	1,5	3,8	4,6	4,7	5,2	4,8
Ohangwena	2,6	6,6	7,4	10,1	13,0	12,2	11,4
Omaheke	3,0	2,1	3,4	2,0	1,4	0,9	1,3
Omusati	9,4	6,6	2,7	7,2	9,4	8,5	8,2
Oshana	5,1	9,2	11,4	9,0	6,7	11,4	10,1
Oshikoto	6,5	7,6	13,0	7,3	5,6	7,3	7,3
Otjozondjupa	7,7	12,5	10,9	4,6	8,3	9,1	8,8
Zambezi	2,5	5,6	4,7	3,0	3,2	4,7	4,2
Total	2,6	4,9	4,6	8,0	18,5	61,5	100,0

Source: Own calculations (Namibian Labour Force Survey, 2014).

2.1.3 Subsistence farming

More than half of subsistence farmers are located in Omusati (23.5%), Ohangwena (16.7%), and Oshikoto (13.3%). In general, subsistence agricultural activities are concentrated among individuals with low levels of education. About 93% of subsistence farmers have either no education (23.1%), primary education (40%), or junior secondary education (30%). This is partly explained by the fact that subsistence farmers are older, on average, than individuals in employment or unemployment. Figure 2 below shows that more than half of subsistence farmers within the working-age population are above the age of 40. The proportion of individuals engaged in subsistence agriculture rises over the age profile. At the same time, the proportion of unemployed individuals decreases over the age profile. Figure 2 suggests that many individuals transition from unemployment into subsistence agriculture activity in their mid-30s. There is no difference between male and female in terms of their participation in subsistence farming.





Source: Own calculations (Namibian Labour Force Survey, 2014).

2.1.4 Non Economically Active Population

Table 4 below indicates that with just about 40% of the Namibian population employed, the majority (60%) of the population are excluded from the modern economy. This has developmental effects as well as poverty effects. Labour market participation is lowest in Kavango (East and West), Ohangwena and Zambezi, with between 35 and 40% of the working age population reporting to be non-economically active (NEA). The NEA population tend to be better educated than those engaged in subsistence agriculture and unemployment, although less educated than the employed. The age profile of non-activity indicates relatively greater proportions of non-activity amongst women (except for school-going age groups), with non-activity of both genders increasing sharply from early 50s. This could indicate early retirement and early exit from the labour force due to chronic unemployment.

Region	Employed	Unemployed	Subsistence	NEA	
!Karas	53,1	19,4	4,4	23,1	100
Erongo	60,2	20,0	2,6	17,1	100
Hardap	42,2	23,0	11,5	23,4	100
Kavango East	27,0	22,9	12,1	38,0	100
Kavango West	18,8	17,1	26,5	37,6	100
Khomas	59,6	17,4	0,4	22,7	100
Kunene	34,2	25,9	17,9	22,0	100
Ohangwena	15,9	24,7	19,9	39,6	100
Omaheke	41,6	21,7	18,4	18,4	100
Omusati	22,4	16,9	27,0	33,8	100
Oshana	34,5	24,5	9,7	31,3	100
Oshikoto	27,6	18,6	19,1	34,7	100
Otjozondjupa	48,2	26,1	3,9	21,9	100
Zambezi	32,9	20,7	10,2	36,3	100
Total	39,5	20,8	11,4	28,4	100

Table 3 – Labour market activity by region

Source: Own calculations (Namibian Labour Force Survey, 2014).

2.1.5 Wage levels (the working poor)

According to our broad definition of economic activities, 59% are of the working population of which 72% are in the labour force. Of the economically active population, 71% are in employment of which 22% are in subsistence. Although more than two thirds of the labour force are in employment, only 68.3% of these individuals are in paid employment while of the subsistence employees only 8% are in paid employment. Nonetheless, only 72.9% of paid workers receive a monthly wage income in excess of N\$1200. This means that only 15% of the Namibian population earns a monthly wage income in excess of N\$1200. If one applies the current domestic workers minimum wage, then only 14% of the population earns above N\$1353. Of those earning above the minimum wage, government accounts for 28%, 10% from parastatals, 49% from private formal while private informal accounts for 5%.

Figure 3 - Paid employees in Namibia



2.1.6 The relationship between wages and educational attainment

From a labour market perspective, education makes individuals more productive and also acts as a signal to potential employers of an individual's potential productivity. Thus, more educated individuals are more likely than less educated individuals to be employed, and once employed are likely to earn more than their less educated counterparts in the labour market. Education therefore provides individuals and households with the opportunity to transcend deprivation through its value in the labour market.

The benefits of education are not confined to the individual or household investing in education. The generally accepted relationship between educational attainment and individual labour market success has prompted many economists to study the relationship between educational attainment and economic growth (see for example Barro, 1997 and Mankiw *et al.*, 1992). Theoretically education raises the productivity of workers and improves a country's ability to absorb new technology and produce knowledge. This not only enhances a nation's productivity but also increases its attractiveness as an investment destination and therefore allows countries to access higher economic growth paths.

While many developing countries struggle with education quality, the strong positive association between educational attainment and labour market success (and by extension poverty alleviation) cannot be dismissed. In this section of the report, the labour market returns to education are discussed. The figures in this section are based on regression analysis³, which controls for a number of factors that are expected to affect wages, in order to determine the true relationship between wages and educational attainment using the Namibian Labour Force Survey 2014.

³ The regression output is shown in Table A in the appendix. The dependent variable is the wage, which is dependent on educational attainment, age, age squared (to determine whether wages increase unanimously as age increases), gender, region and a dummy variable for area type.

Figure 4 shows the relationship between wages and educational attainment. The senior secondary wage category is the reference category. Wages in other categories are expressed as a percentage of the senior secondary wage category (which is given a value of 100). The circles indicate the average wage for each education category, while the dotted horizontal line displays the confidence intervals around these estimates. For example, on average individuals with junior secondary education earn 50 percent (half) of what those with senior secondary education earn while an employee with tertiary education earns four times more than one with secondary education while those with certificate or diploma earns twice as much. However, it is also important to consider the confidence intervals, which indicates how widely distributed incomes are by education category. Incomes for certificate holders and those with postgraduate education are quite widely spread, suggesting that different sectors reward educational attainment differently or that the quality of educational qualifications may vary between individuals.

While there are slight differences at low levels of education, having secondary education rewards better than no education. This explains the stark differences in poverty prevalence by educational attainment with 45.3% of those with no formal education reported to be poor, while about a third of those with primary education are reported to be poor. Similarly having secondary education pays off with only 16.6% of those with secondary education are reported to be poor. Given the returns to education, poverty is non-existent among those with tertiary education.









Residing in Khomas and Erongo pays off in terms of earnings other things being the same while employees in Oshana, Omusati, Omaheke and Ohangwena earns relatively less. Given the main economic activities in !Karas, employees earns relatively better wages even after controlling for education, age, and gender. There seems to be no differences in earnings between other regions. When other factors are considered such as education, age, rural/ urban and gender, employees in Khomas and Erongo earns relatively more than in other regions while Omusati, Omaheke and Oshana earns relatively less than other regions.





2.2 Wage levels and the working poor

About 27% of the employed are lowly paid (earning less than N\$1200.00 per month). More than half of the employed in Omusati, Oshikoto, Kavango West, and Omaheke while more than 40% of the employed in Ohangwena and Otjozondjupa are lowly paid. These are the regions where either the level of subsistence farming or unemployment is highest. With the exception of Omusati, all these regions have poverty levels that are above the national average or above 30%. This explains why poverty levels are high in these regions. These five regions accounts for 69% of all the poor in Namibia. The regions with more than 80% of the wage earners earning above N\$1200 are the same regions whose more than 50% of their population are employed and have a relatively low levels of subsistence farming (less than 5% of the population). In terms of poverty levels with the exception of !Karas whose poverty levels are close to the national average at 27%, poverty levels in the other two regions are 10% or less. This indicates the importance of participating in modern economy on poverty levels.

	Non-low wage	Low wage		
Region	earners	earners	Urban	Rural
!Karas	83.73	16.27	38.27	61.73
Erongo	85.9	14.1	74.67	25.33
Hardap	61.81	38.19	45.2	54.8
Kavango East	69.84	30.16	58.34	41.66
Kavango West	48.15	51.85	9.44	90.56
Khomas	89.18	10.82	82.86	17.14
Kunene	63.63	36.37	30.34	69.66
Ohangwena	57.15	42.85	22.51	77.49
Omaheke	48.76	51.24	22.02	77.98
Omusati	47.32	52.68	11.15	88.85
Oshana	66.98	33.02	62.74	37.26
Oshikoto	47.81	52.19	9.83	90.17
Otjozondjupa	59.98	40.02	34.86	65.14
Zambezi	68.3	31.7	31.42	68.58
Total	72.78	27.22	39.6	60.4

Table 4 - Low wage earners by region

Low wage earners are more concentrated in rural (60%) than in urban areas (39.6%). Over 70% of the low wage earners are in the rural areas of Kavango west, Oshikoto, Omusati, Omaheke, Ohangwena, and Kunene. These being the same regions with high levels of subsistence farmers and non-economically active population, this finding could explain the high poverty levels in these regions.

In the more urbanized regions, the lowly wage earners are in Khomas, Erongo, Oshana and Kavango East. This finding could be a result of migration and could explain why poverty is increasing in some of the urban localities.

About 98% of the low wage earners have attained either secondary education or less of which the majority (41%) have attained junior secondary education. Close to 30% have attained primary education. There are no low wage earners (earning less than N\$1200) among those with tertiary

education. Again this explains why poverty prevalence among those with tertiary education is less than 1 %. And this indicates the importance of education in addressing the poverty challenge.

Region	None	Incomplete primary	Complete primary	Incomplete secondary	Complete secondary
!Karas	5,31	17,43	14,29	57,05	4,45
Erongo	5,73	16,62	6,45	52,66	15,37
Hardap	15,78	33,09	7,04	37,25	5,82
Kavango East	7,66	19,88	12,67	47,47	11,10
Kavango West	16,34	33,62	8,81	31,72	8,78
Khomas	11,26	14,77	7,92	47,87	12,36
Kunene	28,49	26,51	6,72	28,94	8,69
Ohangwena	23,85	23,87	3,93	35,67	11,25
Omaheke	37,71	20,11	13,02	23,84	3,77
Omusati	10,82	24,14	3,15	53,12	8,06
Oshana	11,03	13,74	8,53	51,20	14,94
Oshikoto	14,97	25,78	8,97	40,16	8,85
Otjozondjupa	31,57	17,62	10,99	32,45	6,14
Zambezi	15,54	23,20	5,27	40,49	15,17
Total	17,44	21,28	8,18	41,81	9,56

Table 5 - Low wage earners by region and educational attainment

2.3 Status of subsistence farmers

Namibia's colonial past created a legacy of two contrasting land ownership systems. A private land ownership system as well as a communal land ownership system. As was the case under colonial rule, the communal areas are still predominantly populated by agricultural households of which the majority can be considered as subsistence agriculture households.

Not much is known about subsistence farming in Namibia and data is scant. An unfortunate limitation for this report is a lack of access to good data. This section draws predominantly from the Namibia Census of Agricultural 2013/2014 Communal Sector Report (CSR). The report covered households that reported agricultural activities in the communal areas of Namibia. This section will assume that the report covers all subsistence farmers in Namibia. While the possibility exists that some subsistence agricultural households are not in communal areas, and thus not covered by the report, it is expected that that proportion of all subsistence agricultural households in this category is negligible. All data and figures reported are drawn from the report unless stated otherwise.

The total population estimated to be in subsistence agricultural households for 2013/2014 was 907 715 living in 159 484 households (shown in Table 7 below). Omusati and Ohangwena contain the largest numbers of subsistence households and together contain close to 50% of all subsistence agricultural households in Namibia.

Population		Households		
Frequency		Frequency	%	

 Table 6 - Namibia's Subsistence Farming Population (2013/2014)

1.000			4.950		
//!Karas	4 045	0.4	1 253	0.8	
Erongo	3 704	0.4	1 424	0.9	
Hardap	1234	0.1	459	0.3	
Kavango East	59 404	6.5	9 760	6.1	
Kavango West	67 123	7.4	10 026	6.3	
Khomas	259	0.0	94	0.1	
Kunene	23 639	2.6	4 909	3.1	
Ohangwena	216 984	23.9	34 480	21.6	
Omaheke	8 352	0.9	2 562	1.6	
Omusati	243 619	26.8	43 339	27.2	
Oshana	97 214	10.7	15 699	9.8	
Oshikoto	131 632	14.5	23 984	15.0	
Otjozondjupa	14 263	1.6	3 444	2.2	
Zambezi	36 243	4.0	8 051	5.0	
Namibia	907 715	100	159 484	100	

Source: Namibia Agricultural Census 2013/201 Communal Sector Report

The CSR distinguishes agricultural households from agricultural holders. A holder is the civil or juridical person who make decisions regarding the use and management of an agricultural holding. In 2013/2014 there were approximately 169 787 holders of which 67 096 were 60 years of age or older. The number of agricultural holders do seem to increase slightly with age but there is a sharp jump in the number 60 years or older.





Source: Namibia Agricultural Census 2013/201 Communal Sector Report.

Clearly households engaged in subsistence agriculture form a large group of the total number of households, not only in the communal sector but also for the whole country. The total population who live in agricultural households in the communal sector form more than 40% of the total Namibian population. Subsistence agriculture is clearly not a sector to be ignored.⁴

⁴ Assuming the rough estimate for the total population of 2.1million.

2.3.1 Poverty among subsistence households

Apart from the CSR there is little information on agricultural practices of households in the other publicly available surveys. The NHIES surveys can give indications of poverty among farmers yet the surveys do not identify farmers as well as the 2011 census does. Similarly, the census identifies farmers well but does not give information on their production, consumption and use of inputs.

Data from the Namibian Household Income and Expenditure Survey (NHIES) for 2009/2010 is used to get some information on the income levels of subsistence farmers. Namibia's poverty line is determined by a "cost of basic needs" approach. Each household is classified as poor or severely poor based on their costs of basic needs compared to an upper and lower poverty line.

From the NHIES surveys an idea of the important of subsistence farming as a source of income can be gauged. The proportion of households reliant on subsistence agriculture as their main source of income declined from about 38% in 1993/1994 to 29% and 23% in 2003/2004 and 2009/2010, respectively (CBS, 2006) (CBS, 1996) (NSA, 2012). This though, is an underestimate of the amount of households engaged in subsistence farming as many would have other sources of income. Expansions in grants and remittances can also account for some of the decline observed in the proportion reporting farming as their main source of income.

The 2009/2010 NHIES indicates that roughly 98 830 households reported subsistence agriculture as their main source of income. Furthermore, around 36% of all poor households (using the upper poverty line) reported that subsistence agriculture was their main source of income.



Figure 8 - Main source of income 2009/10

Source: NHIES 2009/2010.

Figure 9 shows the distribution of logarithm of per adult equivalent expenditure for households by their main source of income. The distribution for households reporting that subsistence agriculture is their main source of income lies to the left of households reporting wages as their main source of income. This implies that they are generally much poorer. In fact, approximately 30% of households reliant on subsistence farming in 2009/2010 were poor as compared to only 10% of households reliant on wages.

Figure 9 - Household Distribution of per Adult equivalent expenditure (2009/2010)



Source: Own calculations from NHIES 2009/2010.



Figure 10 - Household Poverty by Main Source of Income (2009/2010)

Source: Own calculations from NHIES 2009/2010.

Another source of information indicating poverty among subsistence farmers is the reported food shortages in the Agricultural Census Report. Households were asked whether they experienced any food shortages in the previous 12 months. Figure 11 below reveals that approximately threequarters of households experienced food shortages in the year prior to the survey. Food shortages were particularly prevalent in Kavango East (92.1%), Kavango West (89.2%) and Kunene (85.4%). Evidently, poverty is particularly prevalent among subsistence farmers.



Figure 11 - Share of Households who Experienced Food Shortages in the Past 12 Months (2013/2014)

Source: Namibia Agricultural Census 2013/201 Communal Sector Report.

2.3.2 Productivity of subsistence farmers

One possible way through which poverty can be decreased among subsistence farmers is by increasing their productivity. Apart from the CSR there is little information on agricultural practices of households in the other publicly available surveys. The NHIES surveys can give indications of poverty among farmers yet the surveys do not identify farmers as well as the 2011 census does. Similarly, the census identifies farmers well but does not give information on their production, consumption and use of inputs.

The 2013/2014 Agricultural Census on the other hand does have that information but the microdata has not yet been released for public use. Some general patterns can be observed in the report but unfortunately, this piece cannot relate the type of agricultural technologies used, to the productivity of individual farmers. That would allow us to establish whether farmers with high productivity can be observed as those who use fertilizer and better seed varieties. Information on that would allow this report to establish much stronger conclusions. While this study currently does not have information on the productivity of farmers on a micro level, much can be inferred by looking at the practices of farmers as reported in the CSR.

Agricultural practices of crop farmers

The three most commonly grown crops in the communal areas are millet, sorghum and maize with millet being by far the most dominant. Matanyaire (1998) notes that farmers do not really have another choice due to the aridity of the environment, and sandy soils which have inherently low soil fertility and low capacity to hold water. Figure 12 reports the prevalence of fertilizer use (at the household level) and the type of seeds used (by holders) for these three crops.

Fertiliser use can give indications of the productivity of communal farmers. Fertiliser makes crops grow faster and bigger in order to increase crop yields (NSA, 2015). For maize only 4.52% of

households applied fertiliser. There was higher application for sorghum (17.22%) and Millet (23%) but in general application was very low.

Similarly to the application of fertiliser, the use of better seed varieties is very low. Out of the 132 259 holders growing millet, more than 81% still used local seed varieties, 17.82% used improved seed varieties while 1.13% used hybrid seeds. For maize 83% of holders used local seeds while more than 90% of holders used local seed varieties for sorghum.

There is also very little use of irrigation to water crops with less than a 1 000 out of the 152,652 households using irrigation. The low use of fertiliser, improved seed varieties and irrigation all suggest that there might be potential to increase the productivity of subsistence farmers.



Figure 12 - Fertiliser and seed usage by crop (2013/14)

Source: Namibia Agricultural Census 2013/201 Communal Sector Report.

2.3.3 Subsistence farming and the modern economy

One possibility that could potentially be limiting the use of better technologies is a lack of access to them. Results from the CSR seem to suggest that this is possibly true. This can be observed when for example looking at the reasons why households did not use better seed varieties, shown in Figure 13. No knowledge, a lack of availability, and the cost of better seed varieties were the most important reasons for not using them. No knowledge possibly implies a lack of access to education and information, while unavailability implies a lack of access to markets or the goods at the markets.

Figure 13 - Reasons for not using better seed varieties



Source: Namibia Agricultural Census 2013/2014 Communal Sector Report.

A further indication that markets are underdeveloped for communal farming households is the fact that 90% of them indicated that they source their inputs from themselves (shown below in Figure 14). Only 5.6% reported supplying their inputs from markets.

Figure 14 - Main source of input supplies



Source: Namibia Agricultural Census 2013/2014 Communal Sector Report.

The fact that seeds tend to be too expensive may imply that there is a lack of access to credit. Only 1 494 households of all agricultural households in the communal sector (less than 1%) applied for credit. Of those that applied, another 420 did not receive it. The low levels of loan applications suggest that the credit market is not well developed and that the available credit might be too expensive.

Information on the distance to facilities though suggests that the majority of households are not situated very far from markets and other agricultural support services. For all facilities apart from

produce markets less than 20% of households are more than 10km away. For local and regional produce markets 20.7% and 30.9% are more than 10km away respectively. Even though these distances might not be large, bad roads and transport costs might mean that supplying inputs from the markets becomes too expensive.

While this section has not reported much on livestock farming it is important to point out that livestock farmers in the northern communal areas have very little access to commercial meat markets due to the prevalence animal diseases. A veterinary fence borders off the communal areas in the north from the rest of the country to prevent the spread of animal diseases endemic in the north of the country. Foot-and-mouth disease, for example, is endemic in the Zambezi region due to the large number of buffalo that freely roam there. The effect of this is that farmers in the Northern Communal Areas (NCA) have little access to both the local and regional beef markets (Naziri, Rich, & Bennet, 2015).

One way to increase productivity of farmers by for example using fertiliser and improved seeds would be through extension services⁵. Yet, as figure 14 shows, the number of households receiving extension services is very low. No more than 8 040 households (out of 159 484) received extension services on any topic. This is a very low proportion of households.





Source: Namibia Agricultural Census 2013/2014 Communal Sector Report

2.3.4 Conclusion

While an in depth analysis of subsistence farmers and their practices was not possible due to a lack of data, it is evident that it is a sector that requires more attention. A large proportion of the population is engaged in subsistence agriculture and these individuals also form a large proportion of the poor. The use of better technologies is clearly lacking among crop farmers and addressing that should lead to increases in productivity. This is particularly important given the large majority of

⁵ In the agricultural context, extension services are services aimed at improving the welfare of rural households by improving agricultural productivity. This is done mainly educating farmers on more efficient farming methods and business management skills.

farmers who are over the age of 60. These individuals will not easily shift to other, possibly more productive sectors.

2.4 Poverty and internal migration

Despite strong economic growth in post-independence Namibia, poverty in Namibia is still very much geographically defined with regions in the northern parts of Namibia (particularly those regions above the "Red Line⁶"), registering the highest poverty headcounts in 2011. Namibia's previous governments historically invested very little in regions in the North in the way of infrastructure, government services and other amenities relative to the more urban central parts and the southern regions. These historical patterns of underinvestment in Namibia's northern regions are clearly distinguishable by the geographical concentration of poverty in these regions, as discussed in section 1.4 of this report. Poor people living in these impoverished, remote areas are disadvantaged not only because of their personal economic circumstances but also because these areas tend to be isolated from modern sector economic activity. Rural-urban migration offers a way for individuals living in poor regions to overcome the constraints of geographical exclusion from the modern economy.

While migration offers a possible pathway out of poverty for rural-born individuals and rural households⁷, the unprecedented scale of rural-urban migration to more urban regions and the consequent increase in the population living in makeshift dwellings on the urban periphery, have naturally placed pressure on urban basic services such as water, sanitation and electricity provision. There is also some pressure on the labour market, with many recent migrants being unsuccessful in the urban labour market either through unemployment or low wages earned in vulnerable urban employment. The costs of migration are not limited to the migrants themselves, nor are the exercise costless for the rural sending region. In addition to rural household investments in migration not providing the returns these households may hope for, the age and education selectivity of migration means that sending regions are at risk of permanently losing the very human capital (and by extension spending, investment and insurance power) that they so desperately need to escape the poverty traps endemic to these regions.

Throughout this report, the deterministic nature of location in welfare outcomes is stressed. In this section of the report we concentrate on internal migration as one of the large demographic processes which may improve poor household welfare. First, the magnitudes and direction of migration flows are first discussed, followed by an analysis of internal migrant characteristics, which in turn is followed by descriptive analysis to determine to some extent whether interregional migrants are in fact better off than their stationary counterparts in sending regions.

2.4.1 Internal migration in Namibia

⁶ The Red Line refers to a veterinary cordon fence which was erected to prevent pest outbreaks in the northern regions from infecting livestock in the southern regions. Meat produced north of the border may not be sold internationally, further entrenching patterns of inequality between farmers in the North and the South.

⁷ Rural households, who do not earn enough from rural economic activities

Based on the 1962 Odendaal Commission's recommendations, Namibia was divided into 11 administrative regions in 1964 (Frayne and Pendleton, 2002: 4). 'Black people⁸' were allocated to 10 of these regions, which were akin to South Africa's homelands and comprised 40% of Namibian land, while 'whites' were allocated to the remaining region, which made up 43% of the land space⁹. The central region, where the capital city of Windhoek was situated, contained most of the country's land while the 'homelands' generally consisted of land unsuitable for farming. This inequality in terms of land quality and that agricultural activities in the homelands were limited to subsistence farming where it was feasible. Poor farming conditions in these regions forced households to diversify their income sources to include waged labour on commercial farms in order for families to survive. Initially, mobility for individuals from these areas was institutionally limited to males who had jobs in commercial farming (Niikondo, 2008). While the restrictions on rural mobility served the interests of commercial farmers well, these apartheid-style laws which prevented rural families from settling in towns outside of the homelands effectively prevented rural women in large part from participating in the urban labour market. By the 1970s, the implementation of these laws had gradually relaxed but it was not until independence from South African control, that legal restrictions on mobility and settlement were completely repealed and abolished.

Namibia's independence in 1990 solidified its borders with South Africa, which up until that point had been porous for citizens from both countries (Crush, 2002: 1). The accompanying cross-border controls precipitated two changes in Namibian migration patterns: labour migration to South Africa decreased dramatically from its pre-independence levels, and internal migration and urbanisation increased rapidly in response. Khomas and Erongo, Namibia's most highly urbanised regions accounted for 23.3% of the population in 2011, up from 15.7% in 1991 (Namibian Statistical Agency, 2015: 2).

Table 8 shows the migration flows by region in 2011, with the percentages arranged so as to show the composition of internal migration flows by current region. Doing so provides some insight into the relative attractiveness of regions for interregional migrants.

⁸ The terms are used here not to endorse the use of artificial constructs but rather in a historical sense to describe the criteria which the South African government used to define boundaries and spatial mobility restrictions.

⁹ The remaining 17% of land was allocated to mining districts and natural reserves, both of which were under government control.

Table 7 - Migration flows by current region between September 2010 and September 2011 (all ages)

			Current region												
		Zambezi	Erongo	Hardap	!Karas	Kavango	Khomas	Kunene	Ohangwena	Omaheke	Omusati	Oshana	Oshikoto	Otjozondju pa	Total
	Zambezi		11,2	4,6	9,9	7,7	31,3	3,9	3,7	3,9	6,3	8,2	3,9	5,5	100
	Erongo	1,9		4,7	4,1	3,1	34,6	4,9	7,8	3,1	8,0	7,7	7,2	13,1	100
	Hardap	0,6	13,6		13,0	2,9	46,8	1,8	1,8	5,6	2,0	2,9	2,6	6,4	100
	!Karas	2,6	15,8	15,4		4,6	30,8	0,7	4,9	2,1	6,2	6,8	4,3	6,0	100
	Kavango	4,6	8,9	5,0	9,6		26,0	5,2	3,6	7,6	1,1	3,1	4,3	21,2	100
<u> </u>	Khomas	2,5	17,2	10,1	6,2	5,0		2,7	8,3	8,8	8,9	10,2	6,9	13,2	100
region	Kunene	6,9	15,8	4,7	2,2	5,3	15,0		3,1	4,1	10,1	7,5	4,3	21,0	100
repon	Ohangwena	0,5	11,5	1,9	3,3	2,0	29,9	0,9		2,2	7,4	19,3	14,6	6,5	100
	Omaheke	0,4	7,7	8,5	10,8	5,3	44,8	2,1	1,6		1,9	2,9	1,7	12,3	100
	Omusati	0,9	15,6	2,0	3,7	1,4	31,2	3,0	6,0	2,3		20,7	6,3	7,1	100
	Oshana	2,2	9,6	1,3	4,2	2,8	25,5	3,0	11,6	2,7	14,8		15,4	7,0	100
	Oshikoto	0,7	11,1	1,1	2,1	3,2	24,0	1,8	15,8	2,0	8,8	18,1		11,3	100
	Otjozondjupa	1,5	15,3	3,5	3,4	7,7	29,2	7,3	4,4	6,6	5,9	6,3	8,9		100
	Total	1,7	12,1	4,7	5,5	4,1	25,2	3,1	6,4	4,3	6,9	9,7	7,0	9,3	100

Source: Own calculations based on Census 2011.

Approximately 41 000 Namibians or 1.94% of the population had moved between regions in the twelve months preceding Census in 2011. Relative to the 5.9% of the population who had moved in previous Census 2001 (shown in Table A.d), this shows a substantial decrease in interregional migrational propensity. Table 9¹⁰ reveals, perhaps unsurprisingly, that the two most popular destination regions were the wealthiest ones with the most well developed labour markets. Khomas and Erongo received 25.22% and 12.07% of all interregional migrants respectively. This represents a substantial increase in in-migration for these regions, who had received 14.26% and 6.94% of all migrants in 2001. Oshana, a region which has been the site of recent economic development, received 9.74% of migrants. The two least attractive destinations for interregional migrants are Zambezi and Kunene (receiving 1.66 and 3.12% of migrants respectively).

¹⁰ Migration flows in absolute terms are shown in Table A.Y in the Appendix.

Table 9 disaggregates the interregional flow of individuals aged 20 years and older in order to determine whether some differences exist between regions in terms of migration propensity. The reason for focusing on this age group is primarily because we expect that they have considerably more autonomy in deciding to migrate from or stay in the region they were residing in in September 2010. In addition, the exodus of adult migrants from impoverished regions by implication means an exodus of human capital and spending power, both of which are integral in attracting investment and regional development.

	Pop in 2011 (1)	Inmigrants (2)	Outmigrants (3)	Pop excl migration (4)	Outmigrants as % of population excl migration (5)	Inmigrants as % of population after migration (6)	Net migration (7)	Inmigrants as % of total migrants (8)
Zambezi	44891	443	3275	47723	6,9%	1,0%	-2832	1,7%
Erongo	92289	3216	1970	91043	2,2%	3,5%	1246	12,1%
Hardap	45274	1249	988	45013	2,2%	2,8%	261	4,7%
!Karas	45515	1459	988	45044	2,2%	3,2%	471	5,5%
Kavango	101058	1092	1411	101377	1,4%	1,1%	-319	4,1%
Khomas	208895	6716	4328	206507	2,1%	3,2%	2388	25,2%
Kunene	40045	830	811	40026	2,0%	2,1%	19	3,1%
Ohangwena	109714	1692	2434	110456	2,2%	1,5%	-742	6,4%
Omaheke	37309	1148	944	37105	2,5%	3,1%	204	4,3%
Omusati	117741	1848	2436	118329	2,1%	1,6%	-588	6,9%
Oshana	89874	2594	2703	89983	3,0%	2,9%	-109	9,7%
Oshikoto	85181	1860	2208	85529	2,6%	2,2%	-348	7,0%
Otjozondjupa	73729	2487	2138	73380	2,9%	3,4%	349	9,3%
	1091515	26634	26634	1091515				

Table 8 - Migration flows disaggregated by region and direction of flow (20 years and older only)

Source: Own calculations based on Census 2011 data.

In the table above migrants are placed back in their respective places of origin to determine regional population sizes before migration. Using these regional pre-migration population sizes as a base and outflows, we are now able to determine which region's population is most likely to migrate, controlling for population size. The results, shown in the fifth column above, reveal that individuals living in Zambezi are most likely to migrate. About 6.9% of the Zambezian population in 2010 had migrated to other regions by September 2011. Oshana and Otjozondjupa were the next largest senders (relative to their population size), with approximately 3% of their populations moving to other regions in the same time period. Column 7 shows the net internal migration flows by region by subtracting outflows from inflows. Khomas is the largest net receiver of internal migrants by a large margin at 2 388 more in-migrants than out-migrants, with most of those out-migrants moving to neighbouring Erongo which is the second largest net receiver of migrants at 1 246.

The impact of migration on receiving and sending areas is exacerbated by the age selectivity of migration. On average globally, migration is highly age-selective, with young adults between the ages of 20 and 29 years being most likely to migrate. There are a number of reasons for this: younger people are less likely to be bound in a marital sense or otherwise to their area of origin; they have more time left to work than older people and therefore in aggregate terms the difference between their expected urban income and expected rural income is likely to be larger; and in the developing

country context, migration is often spurred on (especially in the initial stages) a demand for physical ability or effort which quite often is positively associated with youth.

Figure 16 below shows the kernel densities of age by internal migration status in Namibia. The migrant age distribution is concentrated between the ages of 15 and 29 years. This age category constitutes 50.33% of all migrants, evidence of the age selectivity of internal migration in Namibia. In contrast, the non-migrant age distribution dominates the migrant distribution at ages below 17 and above 36 years, indicative of how the Namibian non-migrant population is comprised largely of children and older adults.





Source: Own calculations based on Census 2011 data.

The age selectivity of migration has consequences for the age distributions of Namibia's mostly rural sending regions and mostly urban receiving regions. Figure 17 below shows the age distributions of the largest sending region, Zambezi, and the largest receiving region, Khomas.



Figure 17 - Age distributions by gender: Khomas and Caprivi 2011

Source: Own calculations based on Census 2011.

While Zambezi's population is comprised mostly of children, Khomas' population is dominated by young adults. Zambezi also has proportionally more elderly individuals relative to Khomas. This

combination of relatively more children (also due to higher fertility rates) and relatively more elderly people in Zambezi, in addition to extremely high outmigration propensities, is likely to have lasting impacts in terms of economic development and consequently, poverty alleviation. Figure 18 shows the relationship between poverty and age. The non-working age population expressed as a percentage of the working-age population by constituency (hereinafter referred to as the dependency ratio) is shown in relation to the constituency poverty headcounts.





Source: Own calculations based on Census 2011.

Figure 18 clearly shows the relationship between the dependent population as a proportion of the working-age population and poverty headcounts. On average, the larger the dependency ratio, the larger the poverty headcount.

The map in Figure 19 shows net in-migration (number of in-migrants minus the number of outmigrants) by constituency. Dark red constituencies are those that lose substantially more individuals to migration than they gain from migration, lighter red show constituencies that lose slightly more than they gain and green constituencies are those who gain more than they lose. Many constituencies in the north show large negative growth in population due to migration while the centrally located urban constituencies show relatively strong positive population growth due to migration. There is also strong growth in the southern constituencies of Keetmanshoop Rural and !Karas, possibly due to in large part to seasonal migration to farms in the region bordering South Africa.

Figure 19 - Net internal migration by constituency 2010 to 2011



Source: Own calculations from Census (2011).

2.4.2 Migration outcomes

Migration offers individuals born in poor regions a possible pathway out of poverty. Migration not only allows individuals to overcome labour market differentials between regions, but also potentially allows them access to better quality basic services such as water, sanitation and electricity, and urban amenities such as schools. In this section we consider whether migration allows for some upward mobility for migrants. First we consider the labour market performance of migrants versus non-migrants, followed by a discussion of differentials in terms of access to services.

2.4.2.1 Labour market

Figure 20 shows the broad unemployment rates of migrants between the ages of 20 and 64 years by sending region relative to non-migrants from the same region. Relative to their stationary counterparts, migrants from rural areas are more likely to be employed. It is only migrants leaving Khomas and Erongo who are less likely to be employed than non-migrants living in the same region. Possibly, this group of migrants may contain return migrants who were not successful in that region's urban labour market and were moving to another urban labour market or were returning to rural regions for employment in the vulnerable sector or for retirement. Unfortunately, the data does not allow us to test this theory as it only contains information about the last move within the year before Census 2011.

Figure 20 - Broad unemployment rates by region of origin (migrants) / current region (nonmigrants) 2011



Source: Own calculations based on Census 2011.

2.4.2.2 Access to services

Potential migrants may not explicitly consider service provision differentials between regions in their migration decision but a consideration of the service quality differences between regions can be useful for researchers in the sense that service provision could be a proxy for differences in government investment and functioning, which may be complementary to migrant efforts to improve or maintain human capital and help migrants succeed in the labour market. Access to better quality basic services such as improved water and sanitation are positively related to health, which is important for individual presentability during the job search process and subsequent productivity if employed. Migrants may therefore be inclined to locate in regions where government is perceived to concentrate most of their investment efforts. As noted in our section 3.5 of this report, Namibia's central regions of Khomas and Erongo continue to enjoy distinct advantages over the northern regions in terms of access to services. Table 10 shows access to water for migrant and non-migrants.

Table 9 - Access to water by migration status

	Im	proved wate	er source		Piped wat	ter
	Non-migrant	Migrant	% point difference	Non-migrant	Migrant	% point difference
Zambezi	81,38	93,91	12,53	57,31	84,87	27,56
Erongo	97,13	96,22	-0,91	92,71	89,13	-3,58
Hardap	95,92	96,25	0,33	78,58	81,12	2,54
!Karas	93,82	95,75	1,93	86,58	87,67	1,09
Kavango	69,69	92,97	23,28	48,21	73,82	25,61
Khomas	98,88	96,71	-2,17	96,18	89,53	-6,65
Kunene	74,41	91,87	17,46	48,11	72,27	24,16
Ohangwena	64,07	92,45	28,38	48,29	85,32	37,03
Omaheke	96,41	96,48	0,07	67,49	79,32	11,83
Omusati	59,55	94,1	34,55	47,41	87,18	39,77
Oshana	86,05	92,87	6,82	82,15	86,72	4,57

Oshikoto	72,98	91,04	18,06	63,93	80,14	16,21
Otjozondjupa	97,62	95,46	-2,16	85,1	83,38	-1,72
Total	82,88	94,32	11,44	71,19	84,68	13,49

Source: Own calculations from Census 2011.

On average, migrants appear to have better access to water than their non-migrant counterparts in their regions of origin (in terms of both improved water¹¹ and piped water criteria). It is only in Khomas and Erongo where out-migrants are marginally worse off than non-migrants from the same regions, which is possibly related to return migration because of retirement or failure in the urban labour market. Migrants from Zambezi, Kavango, Ohangwena and Omusati are much better off than their non-migrant counterparts.

Figures 21 and 22 show access to improved sanitation¹² and access to electricity. Differences between migrants and non-migrants are largest and most positive for individuals from Namibia's northern regions, while migrants from Khomas and Erongo fare worse than non-migrants from the same area in terms of access to improved sanitation and electricity.





Source: Own calculations (Census, 2011).

¹¹ Improved water includes piped water from all sources as well as boreholes and protected wells.

¹² Improved sanitation includes flush toilets, septic tanks, ventilated pit latrines and covered pit latrines

Figure 22 - Access to electricity by migration status



Source: Own calculations (Census, 2011).

2.4.3 Conclusion

In a sparsely populated country with economic activity concentrated around the capital city, migration offers those individuals and households in remote rural regions the opportunity to escape the deprivation endemic to such regions. Better labour market opportunities as well as better access to services in urban areas serve as strong pull mechanisms for potential migrants while natural disaster events such as droughts and floods, as well as poor labour market prospects and poor service quality, serve to push migrants out of rural areas. The impact of migration streams on rural areas is likely to be profound. Despite possible positive links between the rural and urban household in terms of possible remittances, rural areas as a whole are likely to remain undeveloped as human capital, and by extension spending power, migrates to urban areas. To some extent, the resultant economic imbalance between urban and rural regions can be corrected by improving agricultural productivity in rural areas and developing non-farming industry in rural regions so that those excluded by remoteness from economic centres can enjoy the benefits of a rapidly modernising economy.

2.5 Economically-vulnerable households

In this section the characteristics of those households most vulnerable to poverty are considered. Economically-vulnerable households are defined here as those households who, through exclusion from the modern economy and labour market, are at higher risk of being or falling into poverty than other groups. The economically-vulnerable include those households where there are no economically active individuals, subsistence farmers, involvement in the informal economy or are unpaid workers. According to this definition 41.94% of the Namibian households or about 183 193 people are economically-vulnerable. The Namibian economy is characterized by low levels of labour market participation with approximately 30% of the working age population being economically inactive. The economically inactive are lowly educated with 97% have either attained secondary education or less. About 60% of the inactive population are found in five of the fourteen regions, Khomas, Ohangwena, Omusati, Oshana and Oshikoto.

The majority of the economically vulnerable households are subsistence farmers (42.5% or 77 530 people) and old age pensions recipients (19.6% or 35 890 people). About 13% are households involved in business activities while a small proportion of about 6% each belongs to salaries and wages and cash remittance. Vulnerable households are proportionally more in rural areas (78.6%) compared to urban areas (21.4%). More female (53.4%) headed households are economically vulnerable than male (46.6%). And these female households depends more on remittances and old age pension as their main source of income. The main source of income for the economically vulnerable households is cash remittances, old age pension, pension from employment and subsistence farming. More than half (54%) of the economically vulnerable households are found mainly in the more rural based regions of Omusati (15%), Kavango (14%), Ohangwena (13.6%), and Oshikoto (10.5%). This explains the high poverty levels among female headed households, among those living in rural areas.

Main source of income	Non Vulnerable	Vulnerable	Total
Salaries and/or wages	94.18	5.82	100
Farming	24.84	75.16	100
Business activities,	32.3	67.7	100
Pensions from employment	23.19	76.81	100
Cash remittances	15.05	84.95	100
State old pension	17.3	82.7	100
Other, specify	18.07	81.93	100
No income	3.29	96.71	100
Total	58.06	41.94	100

 Table 10
 Vulnerable households by main source of income

In terms of education, the economically vulnerable households are less educated with 62% having attained either primary education or have never attended formal education. About one third have attained secondary education while only 3.6% have attained tertiary education. This indicates the strong relationship between educational attainment and the household's economic status.

Level of education	Non-vulnerable	Vulnerable	Total		
No formal education	11.45	28.59	18.64		
Primary	23.7	33.67	27.88		
Secondary	48.1	32.03	41.36		
Tertiary	14.59	3.63	10.0		
Not stated	2.16	2.08	2.13		
Total	100	100	100		

Table 11 - Vulnerable households by educational attainment

About 41% of the economically vulnerable individuals are poor while 22% are extremely poor. Among the poor economically vulnerable, the majority are in rural areas (43.8%) than in urban (25.4%). About 78% of the poor economically vulnerable cited subsistence farming (52.6%) and old age pension (24.9%) as their main source of income. This indicates that interventions aimed at improving productivity in subsistence farming will have a greater impact on poverty reduction. It further shows the likely impact of social safety net on poverty reduction. More than two thirds of

the poor economically vulnerable people live in four regions of Kavango (29.8%), Ohangwena (14.4%), Oshikoto (14.2%) and Omusati (10.2%). These are the same regions where subsistence farming is highest. In terms of poverty levels these four regions accounts for 62% of all the poor in Namibia.

Regions of Namibia	Non-poor	Poor	Total
Zambezi	2.93	8.48	5.22
Erongo	3.56	0.99	2.5
Hardap	2.65	1.69	2.26
!Karas	3.14	1.94	2.65
Kavango	10.31	29.83	18.34
Khomas	7.93	2.03	5.5
Kunene	4.26	3.84	4.09
Ohangwena	18.22	14.36	16.63
Omaheke	3.09	1.89	2.59
Omusati	20.82	10.16	16.44
Oshana	11.11	5.76	8.91
Oshikoto	8.67	14.15	10.93
Otjozondjupa	3.32	4.85	3.95

Table 12 - Poverty among vulnerable households

3. Exclusion and inclusion from the mainstream economy

Namibia's relatively strong economic growth masks the severe inequality that persists well into the third decade of its independence. Many of its citizens are excluded from the benefits of that growth, by virtue of them having weak or no attachments to the labour market. While exclusion from the modern economy has a strong geographical dimension (in that the northern, more rural regions bear the greatest burden of exclusion), education affords younger individuals the opportunity to participate more fully in the modern economy. It is also lack of education and education quality disparities that exclude many individuals and households from integrating fully into labour market and the modern economy.

For individuals and households who are unable to use labour market channels due to age, infirmity or disability, social grants offer some relief. Namibia has made tremendous strides in the provision of grants for the elderly and vulnerable children but access can still be improved to alleviate poverty in some regions. Health is an important component in the accumulation of human capital and success in the labour market. Healthier children are in school more often and are likely to learn more than their unhealthy peers, all other things equal, while healthy adults are likely to be more productive than their unhealthy counterparts. Nutrition and access to basic services of an acceptable quality are extremely important in ensuring that individuals remain healthy.

In this section the primary channels through which poverty in Namibia exists, persists and can be addressed are discussed. The Namibian education system is discussed first, followed by discussions of the grant system and child nutrition and health. Thereafter, fertility and its association with poverty is considered followed by access to services.

3.1 Education

Education increases the productive capacity of the population. This makes educated people more attractive as workers and thereby increases their employment prospects and the wages they can earn due to their higher productivity. It also encourages entrepreneurship, which is essential to increase the economic base of the economy. By improving productivity and entrepreneurship, it makes the economy internationally stronger and contributes to economic growth.

The education levels of the Namibian population have grown strongly, though in the 2011 Census 6% of children aged 12 years had still never entered school. The majority that does go to schools has experienced a rising trend to stay in school longer, as is reflected for different age groups in Figure 23, derived from Census data. The proportion of the age group 20-24 that has reached at least grade 10 is now 59%, while for those aged over, this proportion was less than 50%. Yet despite this progress, this graph still shows a drop at higher education levels, because many children repeat or drop out of school.





Source: Derived from Namibian Census (2011).

A large part of the Namibian population is still poorly educated. They are the people most likely to be excluded from the economic mainstream. Factors that contribute to the poor education of many Namibians are the poor quality of education that leads to low scores in tests of numeracy and literacy and in national examinations. Poor quality education contributes to high rates of repetition that in turn make it more likely that children would drop out before completing school. Parental attitudes to education also contribute to early drop out, as many parents, particularly in rural areas, do not fully understand the importance of education for the job prospects and economic futures of their children. As a consequence of these factors, many young people still enter the economy not well prepared for modern jobs, thus potentially excluding them from the benefits of the modern economy and often condemning them to poverty. This again has a strong geographic dimension, as

education quality in rural areas is often quite weak – it is very difficult to attract well-educated teachers to the very remote areas often found in Namibia, and it is in such areas also where parents are often least supportive and children least motivated, as the benefits of a good education are less clear in rural environments where many parents are largely involved in subsistence agriculture.

3.1.1 Educational quality

Educational quality in Namibia is still relatively weak. Namibia performed better in the 2007 SACMEQ assessments than in 2001, but schools located in isolated rural regions performed almost half a standard deviation (equivalent to about a full year's learning) below the SACMEQ average in mathematics. Differences at a regional level are even larger, e.g. when one compares Khomas and some northern regions.

	Mathematics score	Reading score
Isolated/Rural areas	448	464
Small towns	492	524
Cities	521	572
TOTAL NAMIBIA	471	497
Zambezi	459	490
Erongo	524	579
Hardap	483	510
!Karas	511	550
Kavango	456	482
Khomas	523	575
Kunene	479	503
Ohangwena	448	463
Omaheke	469	496
Omusati	450	462
Oshana	457	471
Otjozondjupa	489	527
Oshikoto	475	501

Table 13 - Mathematics and Reading scores in SACMEQ III, 2007

Source: Own calculations from SACMEQ (2007) data.

Further indications of education quality can be found in results of external examinations that take place in grades 5 and 7 in alternate years, and every year in grades 10 and 12. As Table 15 shows, in 2013, only 27% of grade 5 children achieved a pass mark in Maths and 28% in English. Performance was much better in the non-remote (urban) areas, though still disappointing, with somewhat less than half the children in these urban areas passing. Of those passing Maths, 70% were located in urban areas. In the grade 7 examinations, the Maths and English pass rates remained exceedingly low, and the number of Maths passes are barely more than half the number that passed in Grade 5, due inter alia to high drop-outs. The number achieving 23 points (i.e. a pass mark) in Grade 10 is less than 8 800, while only about 6 600 achieve 25 points in matric (the required number for university access), of whom 79% do so in schools located in urban areas.

Although it is often pointed out that average examination marks in urban areas in grades 10 and 12 do not compare well with those in rural areas, it should be considered that the higher drop out amongst weaker students in rural areas inflates the average marks in these rural areas. Perhaps more pertinent is that 79% of those achieving 25 points in grade 12 come from schools that are not considered remote.

Table 14 - Students achieving threshold values in external examinations

	% of students who wrote	Number who passed or achieved threshold	% of those who passed in urban (non-remote) locations
% achieving pass mark in Grade 5, 2013:			
Maths	27%	11 370	70%
English	28%	9 660	58%
% achieving pass mark in Grade 7, 2012:			
Maths	23%	6 038	57%
English	34%	10 076	66%
Sciences	50%	12 308	51%
% obtaining 23 points in Grade 10, 2013:	55%	8 777	47%
% obtaining 25 points in Grade 12, 2012:	45%	6 610	79%

Source: Derived from Ministry of Education, Arts and Culture data in UNICEF (2014).

3.1.2 Enrolment, repetition and drop-out

Figure 24 shows enrolment for the five years 2008 to 2012. Patterns appear to be quite stable, implying that there is no great trend for rising progression to higher grades. There is much drop-out in the secondary grades, so that far fewer pupils remain in school to the higher grades. There is also much repetition. In lower grades, most pupils are in the grade that is appropriate for their age (for instance, 71% of those in grade 1 are not over-aged, but due to repetition the proportion that is not over-aged drops to 28% by grade 8. By Grade 7, 35% of Namibian students are at least two years too old for their grade. Figure 25 shows the high repeater rates, especially in grades 5 and 8, particularly among boys. Drop-out rates are very high (about 30%) in grade 10 (Figure 26).













Schools in Namibia are classified according to remoteness, as an incentive is paid to attract qualified teachers to remote schools. In the most remote areas, there were 12 780 children in grade 1 in 2012 compared with fewer than 9 000 in grade 5, just over 5 000 in grade 8, about 2 000 in grade 10, and only 184 in grade 12. Some children in higher grades may leave these remote areas to attend schools in less remote areas (e.g. boarding schools), but many simply drop out. Although the data does not make it possible to follow the same children as they progress from grade to grade (which would be a cohort analysis), comparing the numbers in the different grades is quite similar. Such a pseudo-panel analysis is shown in Figure 27. It can be seen that those who reached grade 12 in category 1 schools in 2012 was only 1% of the number in grade 1 in that same year, while the number of grade 12's in the least remote schools (category 4) was 58% of the grade 1 number in that category of schools.

This illustrates that there is much drop out from schools in Namibia, particularly after grade 7. By Grade 10 most children have already left school. Note that the relatively good performance of category 3 schools (less remote but not urban) in retaining children applies only up to grade 10. It is

also clear that the drop out is especially severe in more remote areas, though boarding schools do offer some possibilities for children from these areas who want to complete school.





Source: UNICEF (2014: 23).

Note: These are not really 'survival rates', as they show the number in each other grade relative to the number of grade 1 pupils in that school category in 2012 rather than following the same children over time. However, given the stability of the patterns over time, the figure provides a good reflection of the patterns that actual survival rates would show.

3.1.3 Conclusion

The extremely weak performance of children in remote areas in primary school is a cause for great concern and requires far greater attention to the quality of education in such schools. There are also no signs of a general improvement in performance. School enrolment and promotion rates are also not improving in either remote schools or in the Namibian education system as a whole. Drop-out is extremely high from the junior secondary phase, especially in the most remote schools. Boarding schools and children moving to other schools from 'feeder schools' cannot explain the large differences in drop-out rates between especially the two most remote categories of schools and urban and other less remote schools.

A Ministry of Education, Arts and Culture report (2014) recommended that the Ministry should increase its efforts at dealing with the extraordinarily poor conditions for pupils and teachers in remote schools by improving infrastructure and maintenance of facilities. Children in remote areas should be encouraged to continue to higher grades by providing classes and teachers for such grades in remote areas, by offering more financial support (bursaries or subsidised hostel accommodation) to children in such schools who need to move to other areas, and by strengthening the system of feeder schools. Similarly, more attention should be given to the quality of the accommodation offered in school hostels, both in remote areas and in non-remote areas, in order to make them more attractive for students from remote areas.

The weak quality of education, especially in the rural areas, leaves a large part of the youth unprepared for a modern economy and thus contributes to perpetuating poverty, as it is very difficult to compete effectively in a modern economy without a good education. This further entrenches the strong spatial dimension to poverty, as young people from rural areas are already at a disadvantage in terms of access to the urban labour market.

3.2 Social grants

Namibia has a variety of legislations that provide for social protection in the country. There exists a range of non-contributory social protection instruments, including housing and living expenses allowances for vulnerable groups, means-tested cash transfers, food-for-work programmes, and free access to primary healthcare and basic education. The need for social safety nets¹³ arises from the realisation that there is always a degree of inequality and limit to opportunities for some households in any economy. The structure of non-contributory social protection schemes is shown in Figure 28 below.



Figure 28 - Types of non-contributory social safety net instruments in Namibia

Source: Chiripanhura and Niño-Zarazúa (2014: 2).

In this section the grants that are most likely to impact poverty in a meaningful way, the old age pension and grants aimed at orphans and vulnerable children, is discussed.

3.2.1 Old Age Pensions

The old age pension is a universal and unconditional cash transfer to Namibian citizens aged 60 years and above residing in Namibia. The grant provides the elderly with some cash income to help mitigate against factors that could make them more vulnerable to falling into severe poverty. Cash transfers to the elderly can help them maintain their status in multigenerational households because they are contributing some form of income to the household. Hence, old age pensions could reduce the risks of abuse and neglect of the old. It also gives grandparents the possibility to take better care

¹³ We take as the definition of safety nets non-contributory transfers targeted in some manner to the poor or vulnerable. This is a fairly commonly accepted definition, although the International Labour Organization extend the definition of social assistance as tax-financed benefits to those with low incomes (ILO 2000).

of grandchildren when parents have passed on. For some elderly individuals it replaces support provided by older children (Chiripanhura and Niño-Zarazúa, 2014).

There has been a fairly rapid growth in the Old Age Pension (OAP) over the years. A substantial increase of over 40 000 beneficiaries was recorded between the period of 2002 and 2014¹⁴. Even with such an increase, coverage may still not be 100 percent because of large distances across the country. In 2011 for instance, compared to the total population of citizens aged 60 and above, there were about slightly more than 10 000 elderly who were not benefiting from the grant. This could be attributed to the unavailability of national documents by some of the elderly to prove that they are citizens, in addition to the geographical isolation of some communities. According to the Namibia Household Income and Expenditure Survey (NHIES) of 2009/10, 25% of the pension beneficiaries travelled more than 6 kilometres to the nearest pension pay point with about 11% travelling more than 20 kilometres to the pension point. Although the northern regions seem to have a higher number of recipients, their coverage is the lowest because they have a higher population above 60 years who do not get the grant. The growth in old age recipients might put a strain in the economy especially if the employment growth is not keeping up because the tax base needed to finance social grants of this nature is rather narrow.

According to Devereux (2000), at independence, white Namibians' social pension income was 7 times higher than that of the Owambo, Zambezi and Kavango ethnic groups because earning at that time were influenced by social hierarchy as per the colonial administration definitions. To equalise the social assistance income, the government opted to freeze the top level while adjusting the lower levels upwards. For black pensioners, the 'standard rate' was set at N\$92/month in October 1990 and raised to N\$120 in 1992. In May 1994 the standard rate was raised to N\$135 and in 1996 to N\$160. Twelve years later the pension was raised to N\$450, then to N\$500 in 2010 and eventually to N\$600 in 2013. After the new recent government, his Excellency the President Dr. Hage Geingob raised the pension grant to N\$1000.



Figure 29 - Old age pension amounts by year (nominal values)

Source: Graph constructed using data from Devereux (2000), Chiripanhura and Niño-Zarazúa (2014), MGECW (2015).

¹⁴ A comprehensive table of old age pension growth by region between 2002 and 2014 is shown in Appendix Table A.XX.

Apart from reducing poverty among senior citizens, the social grant is a vital source of income for many households and is used for improving household food security and paying for children's education, Devereax (2000). In fact, the NHIES 1993/94 states that the old age pension constituted the main source of income in about 10.5% of the households, the majority of which were in rural areas. The situation did not change significantly in 2009/10: the NHIES 2009/10 shows that the basic social grant was the main source of income in 10.2% of all households.

According to the 2011 Census, there is more than 90 percent coverage of the old age grant across most regions, except for Kavango, Ohangwena and Erongo where the coverage is at 73, 86 and 87 percentage, respectively. Kavango and Ohangwena regions happen to be amongst the poorest. Kavango for instance, was found to be the poorest region in Namibia with 53.2 percent of its population living below the poverty line of N\$4535.52 per annum (NPC 2013). Table 16 also reveals that there are regions whose coverage is above 100 percent. This requires a closer look at both the census and the administrative records data to ascertain whether there is an over counting in some of the regions. The table reveals that for Kavango, Ohangwena and Oshikoto who are among the poorest regions in Namibia, as well as for Erongo coverage needs to be improved. According to Chiripanhura and Niño-Zarazúa (2014), in general, there is more extensive coverage in urban areas where most of the qualifying individuals are non-poor.

Region	2011 Recipients	2011 Elderly Population	Those not receiving	% Coverage
Zambezi	5370	5526	156	97
Erongo	7340	8445	1105	87
Hardap	6358	6202	-156	103
!Karas	4678	4800	122	97
Kavango	11206	15411	4205	73
Khomas	11277	12317	1040	92
Kunene	6098	5993	-105	102
Ohangwena	19413	22581	3168	86
Omaheke	4910	4844	-66	101
Omusati	24465	26019	1554	94
Oshana	14880	13251	-1629	112
Oshikoto	13982	15468	1486	90
Otjozondjupa	7715	8346	631	92
National	137692	150028	12336	92

Table	15 -	Old	Aae	Pension	Coverage	2011
<i>i</i> unic		Ulu .	/igc	i chiston	coverage	2011

Source: Own calculations (Census, 2011) and MGECW (2011).

3.2.2 Grants to Orphans and Vulnerable Children

There are four principal child grants and allowances, namely the Child Maintenance Grant, the Foster Parent Grant, the Places of Safety Allowance, and the Special Maintenance Grant. Child and family benefits are mainly administered by the Ministry of Gender Equality and Child Welfare, (MGEWC). In their report, the MGECW (2012) explains that the Child Maintenance Grant is received by a person who satisfies the following conditions: they are a biological parent to a child younger than 18 years, with a spouse receiving the disability or old age grant, or is deceased, or is serving a jail term of not less than 3 months. The grant is also given to persons whose spouses are certified as unfit for labour market activity. The Foster Parent Grant on the other hand is a means-tested cash

allowance given to any person who cares for any child placed in their custody. Apart from these, there is the Place of Safety Allowance given to families or individuals who take custody of a child under the age of 21 placed in care which is at N\$10.00 per day per child while the other two grants are at N\$250 per child per month.

Between 2004 and 2015 the Orphans and Vulnerable Children grants coverage increased by 30%¹⁵. Regional growth differences are also noticeable with Ohangwena having the highest beneficiaries standing at 161 309 children. !Karas on the other hand has the lowest vulnerable children benefiting from the grant, with only 34 550 children. Although Oshana's poverty level is below the national average of 26 percent, it has a high population of vulnerable children on the grant, as opposed to Kavango, the poorest region. Kavango according to Figure 30, has 70 000 children less that you would find in Ohangwena. Again we cannot conclude if this means that there are no other vulnerable children in Kavango because there may be some errors of exclusion as percentage of coverage in relation to the child population in that region is not established. Worth mentioning from the graph is also that there is quite a higher number of vulnerable children in Khomas, the most urbanized area in Namibia and the least poor region. However, in general, these results show that there appears to be more vulnerable children in general in regions whose poverty rates are above and or slightly below that of the nation.





Source: MGECW (2015).

Although the grant seems small in value, a study carried out by the MGECW established that grants given to children are quite useful than one would think. As a matter of fact, receiving the grant means that caregivers no longer has to resort to begging. A beneficiary from the Hardap region stated that *"I used to have a list and I went around to people to help me with money. Now the grant money has really helped a lot. At least I do not have to do that anymore."* (Anna, caregiver of MG beneficiary, Hardap). In addition to providing means to afford food as well as paying school fees for those years when education was not free, now with free basic education, the burden of education fees is reduced therefore caregivers and their children can now use that money more on other expenses to improve their livelihoods, MGECW (2010).

¹⁵ Table A.xx in the appendix shows growth in OVC grant coverage by year and region between 2004 and 2015.

The affordability and sustainability of welfare grants depend on the performance of the economy. For instance, high unemployment means the government has a reduced tax base, implying that there will be less money for redistributing. Over the years, the share of the social spending to government expenditure was 3.1% in 2001, 6.8% in 2011, and was estimated to be at 5.4% in 2015.

3.3 Child health and nutrition

3.3.1 Child health

Infant mortality refers to the death of children under the age of one year. Thus the rate would mean the number of deaths per 1000 live births. Child mortality¹⁶ on the other hand includes the death of children under the age of 5, MHSS (2014). Child deaths have been halved in the past two decades. In 1992, 38 children (per 1000) died before the age of 5; however that number had dropped to only 16 in 2013.

According to the Demographic and Health Survey of 2013, 39 out of every 1 000 children born alive die before their first birthday. The country as a whole has shown notable progress in children's health, having reduced infant mortality from a high of 57 out of every 1 000 in 1992. Increased literacy levels and decreased fertility rates may also have contributed to this achievement. Rural children are more likely to die before their 5th birthday compared to urban children. Compared to the highest quantile, the highest rates of mortality are found in the lowest quantile in which poor households are classified. By implication, this suggests that higher rates of child mortality should be expected in the more poorer regions than there is in the less poor regions. Many deaths are due to conditions that could be prevented or treated with access to simple affordable interventions. In an analysis of the deaths according to the circumstances of the mothers and babies, MoHSS found that children of mothers with lower incomes are more likely to die than those of mothers with higher incomes (MoHSS, 2008).

3.3.2 Child nutrition and malnutrition

Malnutrition means more than feeling hungry or not having enough food to eat. It encompasses an inadequacy in the intake of protein (necessary to keep the body healthy and build muscle). To establish if a person is malnourished or not, the following parameters are used:

- To measure stunting, height for age is measured;
- To measure wasting, weight for height.

Good feeding is essential if a baby is to grow well. The type of growing that encourages good cognitive development that will in turn in later years lead to a healthy person. But because stunting reflects a long-term deficiency in proper nutrition (MoHSS, 2008b), its effects, such as lower levels of physical and cognitive development, are permanent which in most cases contribute to early mortality (MoHSS, 2010). The dangers of being underweight are far reaching as well because the size of a new-born baby is also a factor in whether he or she survives or not. By implication, a nation with a growing proportion of underweight babies might face a risk of having few able bodies to participate in the labour market in the future (WHO 2009). Furthermore, the degree of poverty of a mother has its impact in many ways. Poorer mothers live further from health facilities, report difficulty in getting to these health facilities because of cost and therefore less frequently attend for

¹⁶ Child mortality is a useful indicator of the state of a country's health system and the access to health services within that country.

post-natal care. As such, low birth weight and high numbers of children are found to be stunted are also likely to arise because of poverty and lower levels of education of parents or cares (MoHSS 2009).

From the table below, stunting and underweight are the most pronounced malnutrition indicators in Namibia because they are quite large observations compared to wasting. Using the actual NDHS results, stunting although still high, has fairly reduced over the years between the first and current NDHS even though this reduction may not actually mean less cases of stunted children because the population size factor may have had an impact. The Kavango region had the highest incidence of stunted children in 2006, six years later Ohangwena region, became the worst region in this indicator with just above one third of the population of children in that region being stunted. In general, the poor regions, which are usually rural, have the highest incidences of stunted and underweight children.

	STUNTING	WASTING	UNDERWEIGHT
DHS 1992	28.4	8.6	26.2
Male	30.3	8.7	26.9
Female	26.6	8.5	25.5
Urban	31.3	6.6	17.8
Rural	21.8	9.5	29.8
Northwest	27.1	9.8	30.0
Northeast	42.1	7.9	31.1
Central	19.6	13.2	20.5
South	24.7	5.2	18.4
DHS 2006	29	8	17
Male	31.5	7.3	17.6
Female	26.4	7.6	15.5
Urban	23.8	5.6	11.5
Rural	31.4	8.3	19.0
ERONGO	21.5	3.2	6.5
HARDAP	30.0	10.8	20.3
KARAS	30.2	7.7	16.0
KAVANGO	38.8	6.9	18.5
KHOMAS	22.6	5.3	11.4
KUNENE	27.0	5.2	12.6
OHANGWENA	34.0	6.9	19.5
OMAHEKE	21.6	5.5	14.2
OMUSATI	27.7	10.1	18.3
OSHANA	28.3	9.6	21.2
OSHIKOTO	32.3	11.2	21.9
OTJOZONDJUPA	27.1	8.6	15.4
ZAMBEZI	26.1	5.3	13.8
DHS 2013	23.8	6.2	13.4
Male	26.6	8.6	15.3
Female	21.0	3.9	11.4
Urban	16.7	5.0	9.1
Rural	27.8	6.9	15.8
ERONGO	15.2	8.1	9.9
HARDAP	29.1	8.2	17.8
KARAS	27.0	5.6	12.1
KAVANGO	23.9	8.5	15.0
КНОМАЅ	12.8	3.5	9.1
KUNENE	19.4	6.1	11.9
OHANGWENA	36.5	5.4	16.3
ОМАНЕКЕ	26.9	10.4	18.1
OMUSATI	24.2	6.0	14.6
OSHANA	19.8	4.5	8.2
ОЅНІКОТО	26.3	8.5	20.7
OTJOZONDJUPA	20.1	4.3	6.5
ZAMBEZI	18.6	5.7	10.5
	•	•	•

Table 16- Stunting, Wasting and Underweight by region

Source: DHS (1992/2000/2006/2013), MOHSS

3.3.3 School Feeding Programs

The Namibian School Feeding Programme (NSFP) has been in existence for 21 years. Started by the World Food Programme in 1991, it was fully taken over by the Namibian government in 1996/1997. Currently, the programme supports approximately 1423 schools across the country. Because this NSFP provides a standardized mid-morning meal to learners at participating schools which has quite a fair amount of required nutrition intake, it encourages learners to stay in school. The meal consists of a maize blend, which is cooked as porridge at schools. The maize blend is fortified and by weight consists of 63% maize meal, 25% protein (soya) blend, 10.8% sugar and 1.2% salt.

Even though the NSFP has grown over the years and is supporting a large number of needy children, there still exist a range of bottlenecks found that hampers smooth administration and access to this programme. In 2012, the Ministry of Education, when assessing the implementation of the programme found that two thirds of the schools visited had experienced cases of food going bad, and sometimes took inappropriate action to try and restore it. In addition, cooking arrangements are not optimal because of unpaid cooks, a shortage of kitchen equipment, including utensils for learners. Moreover, the food commodities used in the maize blend, and centralized procurement do not favour small-scale local production. As a result, the availability of the maize blend depends largely on Namibia's ability to import food products from its neighbours, particularly South Africa and sometimes Zambia, MOE (2012).

Out of the participating schools, 86% are of primary and combined level. At inception of this programme, the idea was to means test it to only reach out to those who met certain criteria, this was however not practical when implementation started as many children showed interest in participating. As a result, due to a lack of stringent governing measures of the programme as well as ethical reasons, the meals were given to any pupil who wishes to participate. In 2012, from the schools that are in rural areas especially, up to 97% of learners participated in this programme. The meal's protein content marginally exceeds World Food Programme minimum requirements but only contains 5.75 grams of fat (WPF guidelines state a desired minimum of 10.59 grams).

Region	Number of Schools in NSFP	Number of schools
Erongo	32	66
Hardap	40	55
!Karas	33	49
Kavango East	132	323
Kavango West	176	323
Khomas	35	100
Kunene	90	60
Ohangwena	225	243
Omaheke	30	42
Omusati	243	274
Oshana	79	137
Oshikoto	171	200
Otjozondjupa	44	72
Zambezi	93	102
Total	1423	1723

 Table 17: School Feeding Programme coverage by region

Source: MOF (2015).

3.4 Fertility and poverty in Namibia

The assumption that there is a causal relationship between fertility and poverty is generally based on the belief that at the macro-level countries with higher fertility rates tend to have lower per capita incomes (or vice versa) and at the micro-level, that larger households are more likely to be poor than smaller households. The argument of a causal relationship between population growth rates and economic circumstance was advanced by neo-Malthusians¹⁷ in the 1960s and 1970s. According to this view, increasing ratios of children relative to working adults demanded that savings which could otherwise have been used for development projects such as infrastructure expansion and labour market development, would have to be diverted to satisfy the increasing demand for education, health services and food for the growing numbers of children (Merrick, 2002: 42). Investment possibilities at the household and country levels would therefore be crowded out by the more immediate consumption needs of a growing population of children.

This view fell largely out of favour by the 1990s as critics of the neo-Malthusian hypothesis pointed out the possibility that instead of population growth (and by implication fertility) causing poverty, it was possible that poverty could influence fertility. Poor parents, many of whom would be engaged in agricultural activities, could view fertility as a means to escape poverty. Having more children could afford poor agricultural households access to cheap labour in sparsely populated regions. In addition, fertility could also be viewed as a personal investment by parents who view children as a possible source of income in retirement.

However, this newer perspective on the relationship between fertility and poverty neglects the power relations within poor households and cultural factors in poor communities which quite often substantially reduce women's fertility choices. Disempowered women may not use birth control methods due to the cost or absence of contraceptives, poor education about the implications of fertility and cultural or religious norms which do not consider contraceptive use favourably or at all. The disempowerment of women, which often makes independent fertility choices difficult for them, is perpetuated by their culturally assigned roles as primary caregivers, with many women in poor areas having weak or no links to the modern labour market. In addition, children born in homes with weak links to the modernising economy generally have fewer opportunities to transcend their initial conditions than children born to more privileged households.

This section therefore explores the relationship between fertility and poverty in Namibia in order to understand how fertility prevents many individuals from participating fully or at all in the modern economy. The analysis begins with an overview of fertility over time, location and socioeconomic circumstances, followed by a descriptive analysis of the mechanisms which regulate and perpetuate the relationship between fertility and poverty in Namibia.

3.4.1 Fertility in Namibia

The fertility rate in Namibia has fallen from an average of 6.1 children per woman in 1991 to 3.6 in 2011. The total fertility rate is currently above replacement level but is expected to decline over the next 15 years (NSA, 2014). Table 19 shows that fertility rates in Namibia's poorer, more rural areas tend to be higher than those of urban areas (and consequently, higher than the national average). The reasons for these differences between rural and urban areas include the stylised fact that

¹⁷ The original Malthusian hypothesis (advanced by Thomas Robert Malthus) in 1798 asserted that population grows geometrically and that food production grows arithmetically. Under these conditions, unchecked population growth would eventually lead to famine.

women in urban areas tend to have higher levels of education, income, and have access to family planning information services (Ministry of Health and Social Services¹⁸, 2008).

· · · · ·	Growth rate	Fertility rate	Fertility rate
	(2011)	(2011 Census)	(2013 NDHS)
Namibia	1.4	3.6	3.6
Urban	4.0	3.0	2.9
Rural	-0.1	4.3	4.7
Regions			
Caprivi	1.3	4.0	4.2
Erongo	3.4	3.0	2.9
Hardap	1.5	3.5	3.7
!Karas	1.1	3.1	3.4
Kavango	1.0	4.4	4.6
Khomas	3.1	2.7	2.6
Kunene	2.3	4.9	4.5
Ohangwena	0.7	4.5	5.3
Omaheke	0.5	4.3	4.6
Omusati	0.6	3.8	4.2
Oshana	0.9	2.9	2.7
Oshikoto	1.2	4.0	4.2
Otjozondjupa	0.6	3.9	4.1
Education			
No education			5.3
Primary education			4.8
Secondary Education			3.5
More than secondary			2.2
Wealth quintiles			
Lowest			5.5
Second			4.4
Middle			3.9
Fourth			3.1
Highest			2.3

Source: 2014 Namibia Fertility report based on 2011 Population census and the 2013 NDHS report .

Table 18 shows that women who have attained higher levels of education also tend to have fewer children. On the other hand, if women had had children while they were attending school, they would be more likely to have performed poorly or dropped out and not have completed higher levels of education. Therefore, although the direction of causality between fertility and the level of education is indeterminate given the static nature of the comparison in Table 19, the correlation between the two variables is noteworthy and in line with expectations.

The regions with the higher fertility rates are Kunene, Ohangwena, Kavango, and Omaheke. These regions are mainly rural, with Kavango region being the poorest region in the country and Kunene region have the poorest constituency of Epupa. The regions with fertility rates that are closer to the replacement levels are Khomas, Oshana and Erongo these regions are characterised as urban compared to other regions with high fertility rate, and their residents have better chances to access information and services.

There is a negative correlation between women's wealth quintiles and the fertility rate. The number of children in a household also affects women's ability to secure jobs that are far from their homes and have long working hours. This makes upward mobility in terms of their socio-economic status difficult for a household with many dependants and a few people to assist in child care to gain.

¹⁸ Hereinafter referred to as the MoHSS.

Adolescent pregnancy also exposes young women to health risks. The World Health Organisation (2012) finds that pregnancy is the leading cause of death for teenage women in many developing countries. Adolescents are more likely to experience severe complications and the children of teenage mothers have a higher risk of morbidity and mortality due to mothers being poorly equipped educationally to take care of children's health optimally and because younger mothers are more likely to have precarious financial circumstances than older mothers (UN, 2013). The labour market implications could therefore be profound for young mothers while their children who survive to school-going ages are likely to accumulate human capital more slowly than their counterparts with older parents.

A country that has a high level of teenage pregnancy could be subject to population momentum. Population momentum refers to a situation where the population would continue to grow even if the fertility rate would drop to the replacement level. A high level of teenage pregnancy would be a troubling feature in a country (area) with a high fertility rate. Table 20 shows that the trend of teenage pregnancy is high across all age cohorts – the proportion of women currently aged 30 to 39 years who had their first birth before the age of 19 is 31% while for all other age groups the figure is higher than 25%. The teenage pregnancy rate for those individuals currently aged 15 to 19 years is 13%. A superficial consideration of the data for the young age group the percentage is expected to be lower because they still in teenage years and might still record more pregnancy before age 20. Teenage pregnancy is generally higher in rural areas than in urban areas. A comparison from Table 19 shows that approximately 34% of women (between the ages 20 and 29) in rural areas had given birth in their adolescent years compared to approximately 25% of similarly aged women in urban areas.

Table 19: Proportions of women who had given birth in their adolescent years by urban/rural and
current age group

Age specific							
Type of Residence	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Urban	0.12	0.25	0.25	0.27	0.29	0.27	0.26
Rural	0.13	0.34	0.34	0.35	0.33	0.28	0.26

Adolescent pregnancy has been linked to the perpetuation of poverty across successive generations of women in a family, largely because it interrupts young women's schooling and reduces their chances of entering job market (Hardy et al., 1998). The regions with high proportions of teenage pregnancy tend to be the poorest regions where sexual activity for girls is often initiated within the context of marriage, or as a result of coercion, frequently with older men. The frequency of sexual activity is higher in adolescents who are in stable relationships – marriage or union – than in those who are not, hence the greater likelihood of pregnancy in the absence of contraception (WHO, 2011). Poverty might also limit access to contraception not only because poor households cannot afford contraceptives in the private market but also because functional private and public markets for contraceptives may not exist in remote regions. The link between poverty and teenage pregnancy is particularly strong in Kavango, which is Namibia's most impoverished region. Kavango had the highest proportion of teenage pregnancy with more than 45% of women between the ages of 20 and 39 years reporting that they had given birth in their adolescent years. Kavango also has a high number of teenagers who are married relative to Oshana (which has one of the lowest teenage pregnancy rates). According to the 2011 Population and Housing Census, a total of 1929 teenagers are married and 1306 of them have given birth before the age of 20 years, compared to 15 and 84 in Oshana respectively. The level of contraceptive use is also low in Kavango region – contraceptives of any kind are used by only 40.8% of the female population compared to 57.9% in Oshana.

Age category							
Region	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Caprivi	18.4	40.3	43.6	44.1	36.5	32.4	32.9
Erongo	13.1	26.4	25.7	26.7	28.3	27.6	29.4
Hardap	14.9	34.4	33.9	36.6	31.3	30.3	30.5
!Karas	12.3	31.9	30.3	31.6	30.9	26.4	26.4
Kavango	23.4	47.1	45.8	49.4	51.5	45.9	41.8
Khomas	9.9	19.5	20.7	23.6	25.4	23.5	22.7
Kunene	22.3	45.2	39.8	39.0	42.2	41.7	37.5
Ohangwena	9.6	28.6	29.5	32.4	29.7	24.4	20.1
Omaheke	17.6	43.2	39.3	37.5	39.7	38.6	42.5
Omusati	7.5	21.4	21.7	23.7	21.6	14.9	14.6
Oshana	7.7	17.8	18.7	22.6	20.9	19.6	18.4
Oshikoto	10.1	27.5	27.6	30.5	29.3	24.7	23.5
Otjozondjupa	18.0	36.3	33.4	34.0	37.4	36.4	35.9

Table 20 - Proportions of women who had given birth in their adolescent years by region and age group

Existing literature on various social and educational issues suggests that teenage pregnancies, or unwanted pregnancies of school going girls are a major contribution to girls dropping out of school. Many girls who become pregnant have to leave school. This has long-term implications for them as individuals, for their families and communities. It is not known how many of these girls actually resume school after they have delivered and nursed their infants. Many girls who do return to school after giving birth struggle to cope with the workload of school as well as with problems occurring within the household. (United Nations: 2013). There is a clear pattern between the level of education and teenage pregnancy. The women with no years of schooling and those who have primary education have the highest levels of teenage pregnancy relative to other levels of education. Only 8% of women in the age group 25 to 29 years with tertiary education has had children before the age of 20 years while the corresponding figure for women with primary education was 50%, and 42% for those with no education.

Table 21 compares adolescent pregnancy to the well-being of women, as measured by assets, media and transport and well-being of having access to energy, light and water. Women in the first three well-being quintiles are more likely to have given birth in adolescence, while those in the fifth well-being quintile are substantially less likely to have given birth during adolescence.

Table 21 - Proportions of women who had given birth in their adolescent years by the well-being index and age group

Age specific							
Quintiles of wellbeing_ Index	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Lowest	15.2%	38.7%	39.3%	40.0%	37.4%	30.5%	28.4%
Second	14.2%	34.2%	35.2%	36.7%	34.1%	30.9%	28.6%
Middle	13.6%	32.6%	32.2%	33.4%	32.8%	28.5%	27.4%
Fourth	12.8%	27.5%	27.1%	29.6%	30.8%	29.7%	27.9%
Highest	7.9%	16.6%	17.0%	20.4%	21.8%	20.6%	21.1%

The data in Table 22 indicate a relatively high level of premarital conception among teenagers. About 75.2% of teenage pregnancies in Namibia occur amongst teenagers who have never married. Studies have established that pregnancies that precede marriage and result in a birth within marriage are more common in Africa than other regions.

Age specific				
			Total teen	Percentage of total
Marital Status	Mean	Total teenagers	pregnancy	Teen Pregnancy
Never married	1.375718	16045	11663	75.17
Married	1.596704	5523	3459	22.29
Previously married	1.766497	696	394	2.54

Table 22:- Marital status of teenage mothers (15-19 Years)

3.5 Access to services

In the context of multi-dimensional poverty, the availability, affordability, and accessibility of essential services is often used to measure the extent of deprivation among the poor (NPC, 2013:13). This deprivation is closely linked to the ability to escape poverty and participate in the modern economy.

Access to decent housing, basic amenities like clean water, sanitation, and electricity, and essential services like health care and education are crucial for creating an environment that is conducive to productive activity and economic inclusion. Yet, the converse also holds true. In extreme cases, a lack of access to services may constitute an insurmountable barrier to economic participation and integration into the modern economy. This is particularly true for the poor and the economically vulnerable among whom a lack of access to the amenities and essential services that are required to meet basic needs often leads to further exclusion from the economic mainstream.

To better understand the root causes of poverty in Namibia and the factors that may contribute to economic exclusion, it is clearly necessary to review the extent of access to essential services across different areas in the country. Unfortunately, the available population censuses and household survey datasets for Namibia contain only limited information on the availability, provision, and utilisation of services and amenities and provide virtually no information about the costs associated with accessing such services. Nevertheless, despite these data limitations, some insights can be gained through the simple descriptive analysis of the numbers and percentages of people who have access to various basic amenities and services. The analysis and discussion in this section seeks to provide such insights by looking specifically at the extent of access to different types of housing, clean water, electricity, sanitation, and the physical distance from essential service providers.

3.5.1. Access to housing

Housing type may have a significant impact on poverty to the extent that it either raises or lowers one's likelihood of socio-economic exclusion and, by extension, exposure to deprivation and poverty itself. In general, improvised housing structures and traditional dwellings not only offer less shelter and security than formal housing, but are also endowed with fewer amenities. Moreover, nonformal housing structures are more likely to be located on the periphery of villages, towns, or cities than formal dwellings, meaning that their inhabitants would also be further from essential services and the activities of the modern economy. Thus, the extent of access to decent housing is likely to have an important impact on economic participation and, therefore, also on people's ability to escape poverty.

Less than a third of Namibia's population (29.7%) live in modern housing¹⁹, while 45.8% reside in traditional dwellings. The remaining 24.4% live in other types of housing²⁰, including mobile homes and improvised dwellings (hereafter shacks).

While traditional dwellings remain the dominant type of housing in the country overall, large differences are apparent between regions. With the exception of Omaheke and Otjozondjupa, the share of individuals from the central and Southern regions who live in traditional dwellings is largely negligible. In Khomas, Erongo, !Karas, and Hardap, roughly 60% of the population live in modern housing with the bulk of the remaining population living in other non-traditional dwellings. This is in stark contrast to the Northern regions, where between 49.7% (Kunene) and 89% (Omusati) of the population live in traditional dwellings.

In addition to inter-regional differences, housing types also differ considerably between urban and rural areas. Data from the 2011 Population and Housing Census indicates that 96.6% of all traditional dwellings are in rural areas, whilst 76.6% of modern housing is in urban areas. Given that certain regions are far more urbanised than others, the differences in housing types across rural and urban areas is likely to be one of the major reasons for the observed inter-regional differences in housing type.



Figure 31 - Percentage of population in modern, traditional, and "other" housing

SOURCE: Own calculations using the 2011 National Population and Housing Census. NOTES: Bars denote the percentage of the population within each region who reside in modern, traditional, and "other" types of housing.

¹⁹ In this report, "modern housing" is defined as all detached and semi-detached houses as well as apartments and flats with walls made from cement bricks.

²⁰ In this report, "other housing" is defined as all household structures that are neither classified as modern housing, nor traditional dwellings.

Table **23**24 shows that, in line with general population growth and increasing urbanisation, the growth in the number of people living in modern households (25.2%) has exceeded the growth in the number of people living in traditional dwellings (18%).

Yet, by far the most significant increase has been in the number of people living in shacks which more than doubled between 2001 and 2011, rising from around 106 000 to over 246 000. The implication of this comparatively rapid growth is that there has been a decline in the share of the population living in traditional dwellings, there has been a significant increase in the share of the population living in shacks.²¹ By 2011, 11.6% of the Namibian population lived in shacks, about 5.4% more than had been the case in 2001.

It is important to note that the growth in the number of shacks in Namibia has not just been limited to only a handful of regions or areas. **Error! Reference source not found.** shows that there has been an increase in the percentage of people living in shacks in virtually all regions, though the extent of this growth has differed from one region to the next.²² In most regions, the number of people living in shacks grew by between 100% and 270% between 2001 and 2011. A notable exception to this is Zambezi, which experienced an unprecedented near-18-fold increase in the number of shack dwellers. Thus, while only about 0.8% of the population in Zambezi lived in shacks in 2001, by 2011 this figure had risen to 12.5% of its population.

Tuno of	2	001a	2	011	Cł	nange	Growth (%)		
Type of housing	Population	ation Popula-tion share (%)b		Popula-tion share (%)b	Populat ion	Popula-tion share (%)	Populat ion	Popula-tion share (%)	
Modern	502 670	29.9	629 476	29.8	126 806	-0.1	25.2	-0.2	
Traditional	820 319	48.7	967 690	45.8	147 371	-2.9	18.0	-6.0	
Shacks	105 730	6.3	246 083	11.6	140 353	5.4	132.7	85.4	

Table 23: Namibian population by housing type (2001/2011)

SOURCE: Own calculations using the 2001 and 2011 National Population and Housing Censuses. NOTES: ^{*a*} 173 640 respondents in the 2001 Census data (9.4% of the population) did not report any housing information. The population shares presented for 2001 were therefore estimated as a percentage of the population for whom housing information was available (1 683 532) and not as a percentage of Namibia's estimated total population in 2001 (1 852 498). ^{*b*} Population shares do not sum to 100% since the share of individuals living in other non-shack dwellings has been excluded from the table.

While the share of the rural population who live in shacks has increased since 2001, the growth in shacks has primarily taken place in urban areas. Of the 145 027 additional people living in shacks in 2011 compared to 2001, 127 787 (91%) were in urban areas. This growth coupled the fact that urban areas already accounted for more than two-thirds of all Namibian shack dwellers in 2001, meant that 23.8% of Namibia's urban population lived in shacks in 2011 – 11% more than had been the case in 2001. It is therefore not surprising that the greatest number of shack-dwellers also live in the most urbanised regions. On average, about a quarter of all individuals in Khomas, Erongo, !Karas, and Hardap lived in shacks in 2011 and these four regions collectively accounted for 65% of all shack dwellers in Namibia at the time.

The extent of the growth in the number of people living in shacks in urban areas is partly the result of large numbers of people migrating from rural areas in search of better economic prospects in

²¹ There was also a marginal decline in the share of the population living in modern households between 2001 and 2011.

²² Omusati, the region with the smallest number of shack dwellers, experienced a marginal decline in the percentage of individuals living in shacks between 2001 and 2011.

urban regions. The growth in shacks places additional pressure on existing services and service delivery.





SOURCE: Own calculations using the 2011 National Population and Housing Census. NOTES: Bars denote the percentage of the population within each region who reside in shacks.

3.5.2. Access to clean water, electricity, and sanitation²³

About 76.3% of Namibia's population have access to clean water. As is reasonable to expect, access to clean water is primarily a concern in rural and isolated areas. More than 98.5% of the urban population have access to clean water with regional urban access rates ranging from 93.8% (Kunene) to 99.3% (Khomas). However, only 61.5% of the rural population have access to clean water and there are also significant differences in access between regions.

Figure 33 shows that only about half of the rural populations of Kavango, Omusati, Ohangwena, and Kunene have access to clean water. By contrast, in the regions of Khomas, Otjozondjupa, Hardap, !Karas, Omaheke, and Oshana, access to clean water is reasonably high even among those individuals in rural areas (approximately 85% of the population, on average).²⁴

Similar to the case for clean water, access to electricity in Namibia varies considerably between urban and rural areas. While 77% of Namibia's urban population have access to electricity, only 14.3% of the rural population do. Overall, only 39.6% of the country's population have access to electricity.

²³ The three indicators considered in this section, namely access to clean (potable) water, access to electricity (for lighting), and access to sanitation (toilets) are described in Table 24.

²⁴ Access to water in rural areas of Erongo is surprisingly low at just over 70% of the population.



Figure 33 - Percentage of population with access to clean water

SOURCE: Own calculations using the Namibia Household and Population Census 2011. NOTES: Bars denote the percentage of the population within each region who have access to clean (potable) water.

Figure 34 shows that the extent of variation in access to electricity between regions is more pronounced than it is for access to clean water. At the upper end of the distribution, 70% or more of the populations in Erongo, Khomas, Hardap, and !Karas have access to electricity. At the other end of the scale, less than 10% of the population in Omusati and Ohangwena have access to electricity. While, it is clear that there is considerable variation in access to electricity across regions even within urban and rural areas, urban-rural disparities in access are evident in all regions. Crucially, these disparities are largest in the most rural and isolated regions where the percentage of individuals in urban areas who have access to electricity can be between six and seventeen times as high as it is in rural areas.



Figure 34 - Percentage of population with access to electricity

SOURCE: Own calculations using the Namibia Household and Population Census 2011. NOTES: Bars denote the percentage of the population within each region who have access to electricity as the main source of lighting in the household.

The extent of access to sanitation in Namibia exhibits a similar inter and intra-regional pattern as is observed in terms of access to electricity. Again, significant disparities in access rates between urban and rural areas are evident across all regions. Thus, while 39.4% of Namibians have access to sanitation, the access rate among the urban population (76%) is more than five times as high as the access rate among the rural population (14.7%).





SOURCE: Own calculations using the Namibia Household and Population Census 2011. **NOTES**: Bars denote the percentage of the population within each region who have access to sanitation (flush toilet or ventilated pit latrine.

Much like the case for clean water and electricity, it is the poorest regions that have the lowest levels of access to sanitation. Less than 20% of the population in Zambezi, Oshikoto, Kavango, Ohangwena, and Omusati have access to sanitation. By contrast, about 80% of individuals in the more urbanised regions of Khomas and Erongo have access to clean sanitation. Yet, there is also evidence of extensive deprivation in some urban areas. Only 50% or less of the urban populations in Omaheke, Zambezi, Kavango, and Ohangwena have access to sanitation.

3.5.3. Distance to services

Access to services and distance to service providers are closely linked. If the physical distance to essential service providers is too great, it may impede utilisation of those services or even preclude some individuals from accessing them altogether. This is because increased distance from services generally raises both the direct financial and indirect opportunity costs associated with accessing those services. Not only do people who live further away from services generally need to spend more money in order to travel to those services, but they also need to offer up more of their time and energy to get to those services – time and energy which may otherwise have been spent engaging in more productive activities.

The link between service access and service distance is particularly relevant in Namibia where the distance to essential services and even basic amenities is often very large, especially in rural and isolated areas. Table 245 shows the percentage of people in different regions who are considered to be "far away" from basic amenities like drinking water, or far away from essential service providers such as hospitals, police stations, pension pay points, and schools.

32.2% of Namibians have to walk at least 1km in order to access their drinking water. In line with expectations, this figure is even higher in rural areas (48.4%). In the four regions with particularly low levels of access to clean water, there is also evidence that individuals have to walk far to access drinking water. More than half of the populations in Ohangwena, Omusati, Oshikoto, and Kavango have to walk for more than 1km in order to access their drinking water. In part, this is expected since the vast majority of these regions can be characterised as rural.

The inter-regional patterns observed in the estimates in Table 245 broadly correspond to those found when looking at access to clean water, electricity, and sanitation. This seems to suggest that those regions with the lowest levels of access to basic amenities also tend to be the regions where people live far away from essential services. Thus, while there is some variation in the percentage of individuals who have to travel long distances to service providers within rural areas across regions, it is clear that distance to essential services are, on average, greatest in the more rural, Northern regions. For example, while about 11.1% of the rural population in Namibia live more than 10km away from the nearest primary, secondary, or combined school, the figure for the rural populations in Kunene, Omusati, and Otjozondjupa is closer to 60%. Similar patterns are observed with regard to the distance to hospitals, police stations, and pension pay points.

3.5.4 Access to services: implications for poverty in Namibia

Although the descriptive analysis presented in this section offers mainly superficial insights regarding access to services across regions and areas of Namibia, it is nonetheless possible to draw a number of conclusions that are pertinent from the vantage point of understanding the association between access to services, poverty, and economic exclusion in the country.

First, it is clear that large proportions of the Namibian population still do not have access to basic amenities and services. Given the importance of access to decent housing, clean water, and sanitation for health, education, and labour market outcomes, this lack of access effectively puts a large part of the population at a disadvantage in terms of their ability to participate in the economic mainstream.

Second, the extent of access to services and distance from service providers differs substantially between urban and rural areas. While such differences are to be expected, it is the magnitude of those differences that are particularly disconcerting. In many instances the incidence of inadequate access to services in orders of magnitude is higher in rural areas than it is in urban areas.

		All areas								R	ural area	as		
Region	Drinking water >1km	Hospital or clinic > 6km	Police Station > 20km	Pension Pay Point >10km	Public Transport >10km	Local Market > 6km	School > 10km	Drinking water >1km	Hospital or clinic > 6km	Police Station > 20km	Pension Pay Point >10km	Public Transport >10km	Local Market > 6km	School > 10km
Zambezi	23.3	36.4	24.8	3.9	9.2	4.2	2.9	30.9	50.5	34.6	5.2	12.2	5.7	4.0
Erongo	6.0	9.5	5.3	4.6	5.2	3.1	5.0	35.8	55.3	35.8	28.7	32.7	21.0	34.1

Table 24 ·	· Percentage	of population	ı by distance	from essential	services
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Hardap	6.3	28.7	25.2	25.9	25.5	23.2	21.4	8.7	58.1	52.9	54.4	51.2	48.4	44.5
!Karas	10.3	35.1	36.0	35.0	22.5	16.2	19.8	14.4	59.1	60.8	59.0	38.1	27.3	33.4
Kavango	53.0	25.5	43.3	8.4	24.8	11.3	1.4	60.9	30.1	50.7	9.6	29.1	13.3	1.7
Khomas	5.3	15.1	3.5	6.4	6.7	2.2	1.0	22.0	63.1	55.6	60.1	52.7	39.0	17.6
Kunene	30.5	58.9	46.6	29.3	38.6	40.3	36.9	46.8	92.3	75.2	47.3	61.4	65.1	59.5
Ohangwena	54.6	53.7	24.8	2.2	10.8	21.6	0.8	56.6	55.0	25.9	2.3	11.2	22.5	0.9
Omaheke	26.9	52.1	42.4	38.7	50.0	28.0	40.3	26.2	77.6	63.1	57.2	74.5	41.7	60.1
Omusati	58.0	35.3	16.2	4.6	15.5	5.3	1.2	58.9	35.9	16.5	4.7	15.8	5.4	1.2
Oshana	28.3	38.1	8.5	2.3	27.8	2.0	1.5	40.2	55.6	13.2	3.5	41.8	3.1	2.3
Oshikoto	48.4	63.3	33.1	14.4	7.7	10.0	3.4	53.6	70.5	36.9	16.0	8.5	11.2	3.8
Otjozondjupa	17.0	34.0	28.1	28.5	26.0	22.1	26.3	22.1	74.8	63.7	62.2	58.3	50.6	60.1
NAMIBIA	32.2	34.6	22.8	10.8	17.2	11.3	6.9	48.4	51.6	36.5	16.3	26.4	18.1	11.1

SOURCE: Own calculations using the Namibia Household and Population Census 2011.

Lastly, and perhaps most importantly, it would appear as though access to services in Namibia is lowest in the poorest regions and among those with the weakest attachment to the modern economy. This is partly evident in Table **26**26 which shows the ranking of Namibia's 13 regions on several access variables alongside the regional rankings in terms of their respective poverty headcount and unemployment rates. Though one cannot draw a causal inferences based on the figures in the table, the data shows that there is a positive association between accesses to different services.

	Housing	Ş	Basic an	nenities		Distance	e to				Socio- econom	iic
Region	Modern	Shacks	Clean water	sanitation	electricity	Drinking water	Hospital	Police Station	Pension Pay Point	School	Poverty headcount	Unemploymen t rate
Caprivi	9	7	8	6	9	6	8	5	3	6	11	8
Erongo	3	12	2	1	1	2	1	2	4	8	2	1
Hardap	1	10	4	3	4	3	4	7	9	10	4	5
!Karas	4	11	5	4	3	4	6	10	12	9	3	3
Kavango	11	4	10	10	11	11	3	12	7	4	13	13
Khomas	2	13	1	2	2	1	2	1	6	2	1	2
Kunene	8	6	11	9	8	9	12	13	11	12	10	4
Ohangwena	13	2	12	12	12	12	11	6	1	1	9	12
Omaheke	6	9	6	7	6	7	10	11	13	13	6	10
Omusati	12	1	13	13	13	13	7	4	5	3	8	11
Oshana	7	5	7	8	7	8	9	3	2	5	5	6
Oshikoto	10	3	9	11	10	10	13	9	8	7	12	9
Otjozondjupa	5	8	3	5	5	5	5	8	10	11	7	7

Table 25 - Regional rankings in terms of housing, access to basic amenities, distance to services, and socio-economic indicators

SOURCE: Own calculations using the Namibia Household and Population Census 2011. Poverty headcount figures taken from NPC (2015:13). NOTES: Figures denote each regions rank in terms of the indicated indicator variable or metric. Lower rank values (1,2,...) are good, while higher rank values (...,12,13) are bad.

Indicator	Description
Access to	Individual lives in a household where the main source of water used for drinking and cooking is either (1)
clean water	piped water inside or outside the house, (2) public piped water, (3) a borehole with a covered tank, or (4)
	a protected well. "Yes" = 1, "No" = 0
Access to	Individual lives in a household where the main source of energy for lighting is either (1) electricity from the
electricity	mains, (2) electricity from a generator, or (3) solar energy. "Yes" = 1, "No" = 0
Access to	Individual lives in a household where the main toilet facility is either (1) a private or shared flush toilet
clean	connected to sewer, septic tank, or cesspool, or (2) a pit latrine with a ventilation pipe. "Yes" = 1, "No" = 0
sanitation	

Table 26 - Description of access to services indicators

4. Conclusion and recommendations

The persistence of poverty in certain areas and amongst certain households in Namibia is strongly associated with the exclusion of many Namibians from the mainstream economy. Many Namibians, by virtue of education level, location or health, cannot participate fully in the modern economy and are therefore vulnerable to falling into and remaining in poverty. In this paper we have considered current poverty and inequality in Namibia and the likely contributors to poverty and its persistence. The links between educational attainment, educational quality, labour market success and poverty cannot be overemphasised. Namibia's uneven regional development also constrains labour market success.

Namibia currently suffers from variable education quality between schools and regions, despite spending a considerable portion of its national budget on basic education (N\$11.3 billion). Remote schools are generally worst off in terms of teaching resources, both in the form of teachers, teaching material and facilities. In addition, dropout rates in early secondary grades are concerning. Very few Namibians qualify for university entrance every year. While expenditure on education is relatively high for a developing country, perhaps the efficiency of that spending is one area government can address.

Namibia also does not have enough modern sector jobs. Despite the subsistence farming sector absorbing many labour market participants, the sector is characterised by precarious employment and low wages. Namibia has experienced strong economic growth in recent years but that growth is concentrated in the two economic centres of Erongo and Khomas. In order for the majority of Namibians to participate in the modern economy, growth has to be more evenly distributed.

There are a large number of households with no link to the labour market. For these households, social grants are instrumental in poverty alleviation. Namibia has made remarkable progress with grant provision but could possibly improve the targeting of vulnerable households by extending the child grants to poor households with children.

The migration and urbanisation processes which accompany uneven regional development in Namibia are inevitable. In a country where mobility is not institutionally restricted, it may be advisable for government to fast-track development of rural areas in order to make those labour markets attractive for potential out-migrants. Although access to basic services is a primarily rural problem, the influx of migrants to urban regions also contribute to service access problems as migrants settle on unserviced land. Thus, government could consider:

• Improving access to Community Skills Development Centres (Cosdecs) in remote areas and aligning the curriculum with that of the Vocational Training Centres.

- To improve career options and full integration into the modern economy, there is need to introduce vocational subjects at upper primary and junior secondary levels. This will facilitate access to vocational education and labour market readiness by the youth.
- Improving productivity of the subsistence agriculture by encouraging the use of both traditional and modern fertiliser and by providing information on modern farming methods.
- The dismantling of the "Red Line" seems to hold some promise for livestock farmers in the North who were previously prevented access to markets outside of the northern regions.
- Consider establishing a third economic hub for Namibia to relief Khomas and Erongo from migration pressure. With abundant water resources, a fertile land and being along the Trans Zambezi Corridor, Kavango East is a good candidate for an agricultural capital and a logistic growth point.
- Given persistent drop-out rates especially in remote rural areas, there is need for increased access to secondary education by addressing both the distance and the quality of education.
- Educate youth on the danger of adolescence pregnancy both in terms of exclusion from the modern economy and health implications.
- Given the established relationship between access to services, poverty and economic inclusion, there is need for government to strive towards a regional balanced provision of access to safe drinking water, sanitation, electricity and housing.

Appendix





		Current region													
		Capri	Erong	Harda	!Kara	Kavang	Khoma	Kunen	Ohangwen	Omahek	Omusa	Oshan	Oshikot	Otjozondju	
		vi	0	р	S	0	S	е	а	е	ti	а	0	ра	Total
	Caprivi		365	149	324	253	1026	126	121	128	206	269	127	181	3275
	Erongo	37		93	80	61	681	97	154	60	157	151	141	258	197
	Hardap	6	134		128	29	462	18	18	55	20	29	26	63	988
	!Karas	26	156	152		45	304	7	48	21	61	67	42	59	988
Previous	Kavango	65	125	70	135		367	73	51	107	16	43	60	299	1411
	Khomas	110	745	438	268	218		116	359	379	385	441	298	571	4328
of	Kunene	56	128	38	18	43	122		25	33	82	61	35	170	811
residenc	Ohangwena	13	279	45	81	48	728	23		54	180	469	356	158	2434
е	Omaheke	4	73	80	102	50	423	20	15		18	27	16	116	944
	Omusati	21	379	49	90	35	760	73	145	55		504	153	172	2436
	Oshana	58	259	36	113	75	688	80	314	73	401		416	190	2703
	Oshikoto	15	246	25	47	70	530	40	348	43	195	399		250	2208
	Otjozondju														
	ра	32	327	74	73	165	625	157	94	140	127	134	190		2138
	Total	689	4776	1937	2169	1626	10659	1274	2691	1681	275	3943	2994	381	40999

Table A.dMigration flows between regions between 2010 and 2011 (all ages)

Table 9- Migration flows by current region between September 2000 and September 2001 (all ages)

		Current region													
		Caprivi	Erongo	Hardap	!Karas	Kavango	Khomas	Kunene	Ohangwe na	Omaheke	Omusati	Oshana	Oshikoto	Otjozondj upa	
	Caprivi		4,27	1,59	5,61	5,12	22,17	10,35	6,08	1,93	7,46	6,89	3,88	24,65	100.00
	Erongo	2,93		6,39	3,67	1,94	17,07	9,05	15,65	2,04	15,41	9,63	7,98	8,22	100.00
	Hardap	2,66	10,96		13,19	15,28	26,76	2,14	8,63	7,28	2,48	3,2	2,3	5,12	100.00
	!Karas	3,42	4,81	8,97		7,43	15,62	1,55	15,56	4,62	15,6	14,24	6,22	1,95	100.00
	Kavango	7,19	4	10,36	9,16		16,98	2,63	14,68	4,5	3,84	3,57	2,94	20,17	100.00
	Khomas	6,2	7,86	7,47	4,91	6,12		2,17	17,17	9,48	14,57	8,03	8,03	7,99	100.00
Previous region	Kunene	25,03	17,04	2,3	2,51	2,22	7,79		2,86	8,93	10,5	5,02	3	12,81	100.00
	Ohangwena	5,53	9,7	3,12	3,53	8,02	25,22	0,48		7,78	6,13	12,71	13,08	4,7	100.00
	Omaheke	3,84	3,98	5,77	6,77	8,72	25,53	9,42	20,87		2,71	2,25	1,03	9,12	100.00
	Omusati	8,45	9,51	0,97	3,66	0,71	21,69	3,43	13,49	1,26		21,06	9,38	6,39	100.00
	Oshana	4,68	6,3	1,13	3,32	1,51	12,06	1,96	22,07	0,91	25,21		16,23	4,61	100.00
	Oshikoto	2,5	6,9	0,48	1,77	2,23	12,09	1,09	30,69	0,76	9,35	18,22		13,94	100.00
	Otjozondjupa	7,6	8,12	2,54	1,34	11,76	16,14	6,5	8,51	5,57	9,93	7,85	14,14		100.00
	Total	5,5	6,94	4,19	4,3	5,24	14,26	3,71	14,43	4,73	11,02	8,82	7,89	8,97	100.00

Source: Own calculations based on Census 2001.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
CAPRIVI	3949	4239	4340	4521	4633	4842	5060	5197	5355	5489	5355	5823	5813
ERONGO	4158	4612	5066	5417	5765	6126	6525	6917	7309	7656	7309	8438	8480
HARDAP	5078	5230	5733	5825	5866	5951	6063	6180	6330	6432	6330	6783	6811
KARAS	3462	3717	3972	4064	4120	4290	4396	4477	4686	4719	4686	5036	5070
KAVANGO	7093	8405	8975	9714	10271	10540	10777	10880	11177	11486	11177	12465	12481
KHOMAS	5938	6684	7442	7912	8426	8983	9722	10353	11159	11843	11159	13306	13446
KUNENE	4366	4686	5042	5142	5246	5518	5725	5856	6145	6224	6145	6496	6511
OHANGWENA	16263	17758	18509	18723	18912	18924	18950	19115	19432	19380	19432	19351	19280
OMAHEKE	3590	3903	4107	4197	4321	4476	4573	4763	4925	4971	4925	5236	5266
OMUSATI	19833	21448	22350	22803	23219	23572	23791	23948	24470	24496	24470	24728	24706
OSHANA	10559	11220	11973	12375	12855	13450	13943	14360	14796	15234	14796	16026	16027
OSHIKOTO	11042	12038	12699	13146	13555	13609	13712	13809	13997	14116	13997	14288	14305
OTJOZONDJUPA	5518	5954	6270	6452	6727	7007	7218	7420	7724	7946	7724	8506	8525
NATIONAL	100849	109894	116478	120291	123916	127288	130455	133275	137505	139992	137505	146482	146721

Table A.x – Old age pension (number of recipients 2002 to 2014)

Table A.xx – Orphans and Vulnerable Grants Coverage 2004 to 2015

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
ERONGO	973	1208	1862	2383	2922	3133	3336	5679	6197	4128	4340	5215
HARDAP	2106	2257	2591	2933	3370	3537	2424	3599	3847	4869	5048	6403
KARAS	1061	1116	1576	1807	2366	2484	3786	4398	4936	3315	3510	4195
KAVANGO	956	1433	3238	4769	6603	7972	8486	2718	3035	15046	16748	19642
KHOMAS	2948	3402	4880	5955	7290	7367	7519	10228	12889	9029	8919	11170
KUNENE	653	972	1373	1887	3174	4376	6107	8123	8700	11816	13464	15611
OHANGWENA	1626	2816	5632	9086	14555	16789	18633	7967	9947	23520	24377	26361
OMAHEKE	1007	1135	1655	2189	2672	3112	3286	20839	22272	4492	4708	5115
OMUSATI	2358	3615	6070	8198	14136	16133	17951	3721	4156	20721	21126	22903
OSHANA	2275	3609	6005	8301	12634	14469	15578	19365	20250	17751	17713	19067
ОЅНІКОТО	1076	1677	3278	6526	11184	12709	13935	16658	17091	16285	16450	17807
OTJOZONDJUPA	1656	2009	2923	3736	4702	5143	5413	15124	15694	7146	7541	8263
ZAMBEZI	1016	1410	2432	3160	4522	4912	5170	5932	6671	7334	7298	9064
NATIONAL	19711	26659	43515	60930	90130	102136	111624	124351	135685	145452	151242	170816

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Glossary

Total Fertility Rate:	The average number of children that a woman would have by the end of their childbearing years if she were to follow the age specific rates, in a given year, throughout her life.
Age-specific fertility rate:	The annual number of births per woman in a particular age group ²⁵
Replacement level fertility:	This is the average number of children that would be needed in order to replace the population if the children would survive to childbearing age. This rate is approximately 2.1 children per woman

²⁵ Expressed per 1000 women in that age group