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The Provincial Decision-making Enabling Project

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A Profile of the Limpopo Province: Demographics, Poverty, Income, Inequality and Unemployment from 2000 till 2007

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PROVIDE PROJECT

The Provincial Decision-making Enabling Project

Overview

The Provincial Decision-Making Enabling (PROVIDE) Project aims to facilitate policy design by supplying policymakers with provincial and national level quantitative policy information. The project entails the development of a series of databases (in the format of Social Accounting Matrices) for use in Computable General Equilibrium models.

The National and Provincial Departments of agriculture are the stakeholders of the PROVIDE Project.

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A Profile of the Limpopo Province: Demographics, Poverty, Income, Inequality and Unemployment from 2000 till 2007[1]

Abstract

The Limpopo agricultural sector is a dynamic and livelihood sustainable sector. Approximately 2.7% of the Limpopo value added gross domestic product comes through agriculture and 1.1% of the population in Limpopo is working in this sector. There is thus a need for macro-economic research in order to investigate potential and current challenges and opportunities.

This paper examines several of these challenges namely demographic compositions, unemployment, income distribution, poverty and inequality. It will provide results from the Labour Force Surveys from 2000 until 2007 with a more in-depth look into 2007. Population and labour force statistics provide the foundation for further analysis. This paper indicates that unemployment is being dominated by the African individuals and that employment in the Limpopo agricultural sector was on a decreasing trend until 2005, where-after it stabilised. It shows further that income distribution is highly skewed which leads to high levels of poverty and inequality. Agricultural incomes are lowest across all races compared to non-agricultural incomes except for the White farmers/farm workers who earn more than their counterparts in other sectors. Poverty is extremely high for African workers in the Limpopo agricultural sector but has decreased since 2000, with a slight increase in 2007. One of the principal concerns is that of inequality. It shows no improvement since 2000 with a high in-between race inequality and lower within race inequality in the Limpopo agricultural sector.

Throughout the report the Limpopo agricultural sector is compared to the non-agricultural sector, Limpopo overall and South Africa for a better understanding of Limpopo agricultural sector's position. This report indicates that Limpopo agricultural sector could benefit from intervention and support to correct the present state of decreasing employment, low income, and high poverty and inequality levels.

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1. Introduction

Limpopo is home to about 5.7 million individuals and about 62 000 are working in the agricultural sector (Statistics South Africa, 2007a). Therefore 1.1% of the Limpopo population is working in the agricultural sector, but it contributed 2.7% through value added for the economy in 2006 (Statistics South Africa, 2007b). This shows that the agricultural sector is an important sector in Limpopo and thorough analysis is needed to identify areas of need to better the sector.

This paper investigates the Limpopo agricultural sector by analysing the Labour Force Surveys conducted by Statistics South Africa. These surveys are conducted biannually, and since 2000 done in March and September. The focus of this paper is to analyse trends through years (2000 till 2007) and to take a closer look at the 2007 data. Like all datasets, the Labour Force Surveys have some restrictions, and these are discussed in the next section together with the measurement issues confronted throughout the study.

Section 3 examines the population statistics of South Africa and Limpopo, together with the labour force profiles for South Africa, Limpopo and the Limpopo agricultural sector. Unemployment then will be discussed as well as employment statistics of the Limpopo agricultural sector. The premises of this section are demographic analyses. Section 4 analyses the income profiles of the agricultural sector. Poverty indices are next investigated, and the Foster-Greer-Thorbecke class of indices was used. This is explained in this section together with the results for the agricultural sector. Section 6 takes a closer look at inequality within the province by using the Gini, Theil and Lorenz curve analysis. Throughout the paper the results of the Limpopo agricultural households are compared with Limpopo and South Africa data. Lastly conclusions are drawn from the provided information.

2. Measurement and challenges of dataset

2.1. Labour Force Survey

The Labour Force Surveys are conducted by Statistics South Africa biannually (March and September). For this paper, two datasets were used. Both datasets were obtained from Mr. Derek Yu from the University of Stellenbosch. This was done to have consistency between the two datasets. The first dataset is the 2007 March Labour Force Survey and it was used for more in-depth analysis such as location of work activity or analysis on district level. The second dataset is a merged dataset of all the Labour Force Surveys from 2000 until 2007. This was used for over-time analysis. This dataset only includes the working population (15 – 65 years), but does have the information regarding the rest of the household for household level analysis. Adjustments were also made with the consumer price index (CPI) of wages for individuals as

well as households to have reliable comparisons across time. The CPI adjusted wages to the basis year of 2000.

2.2. Extent of data

Respondents had to answer six sections in the most recent survey. The first section asks demographic information, section two about activities the past seven days, section three unemployment and non-economic activities, section four the main work activities the past seven days, section five about job creation and public works programmes and the last section (six) about agricultural activities. The surveys did change with time, but no major change occurs, and the demographic and employment sections remained relatively unchanged. In the Labour Force Survey of March 2007 there are 109 551 observations, whilst the Labour Force Survey from 2000 until 2007 contains between 23 000 and 70 000 observations depending on the period (period refers to when the survey was done, i.e. March 2000 or September 2005).

Weights were calculated by Statistics South Africa, and were used throughout the analysis to scale data from sample to population level[2]. It needs to be mentioned that the Indian population is the minority in South Africa and thus data for this sub-group might be problematic due to low observation numbers. Measurement errors do occur, and thus the reader must be careful when quoting figures for the Indian population.

In a number of cases, respondents did not provide any answers to certain questions. One of these problematic questions are that of income where respondents are averse to give their personal income information. If no answer was given for income, it was classified as a dot income (“.”). The statistical programme used for economic analysis (STATA) does not consider dot incomes as entries, and thus will disregard it when calculating mean or median income. But calculating household incomes, dot incomes are read as zero, thus a household with two individuals, one earning R100 and the other one did not respond, will have a household earning of R100. This means all household and per capita calculations are distorted and biased towards zero income. Poverty and inequality calculations are affected the most, due to calculation surrounding the rates (see respective sections for calculations of different rates). Poverty and inequality rates for certain subgroups might be exaggerated due to non response. This is especially troublesome when non response occur just within a specific subgroup. If the non response is according to the population composition the rates will be inflated accordingly, but if it is a skew distribution, all rates are inflated but one group more than the other.

These inflated rates are difficult to pinpoint, because non response is unpredictable. Non response can be any value, and there are different ways of dealing with this. One response is to regard all non response as zero, another is to use hot deck imputation methods. Schoier (2008)

[2] See Metadata in Labour Force Survey reports. Available online at www.statssa.org.za

states that this method uses respondents that fully completed the questionnaire to match with respondents that have missing values, and then impute their values into the non response values. This preserves the distribution of item values and there are different methods to obtain the 'donor value'. One way is to filter through certain variables (example race, sex etc.) for both donor and receiver, and when these variables match the rest of the donor information will be imputed into the receiver's missing values.

For South Africa in 2007, 62.68% of respondents did not provide information regarding income. If a sub sample of all respondents that are living in a household under the poverty line is taken, 83% did not provide income information. This becomes problematic especially in cases where the sample size is very small as the case with the White and Indian population. If only 17% (100% - 83%) of income information for those living under the poverty line is available, a small sample size will have negative impacts on poverty. For example, in Limpopo there are 17 entries for White individuals living under the poverty line. On an average only 17% of that information is available, leaving only 3 entries. In reality, there are only 1 entry left which is too small to make any significant derivation. In Limpopo, 4 468 entries were made in the African population group living under the poverty line. In reality 90% did not respond, leaving 442 entries. Although 442 entries is still a small sample size, a better analysis can be done. This trend of low White and Indian samples continues throughout all provinces, where the African and Coloured populations have a bigger sample size to do better analysis with.

For the purpose of this paper, non-response was disregarded in income profiles, but treated as a zero in household income calculations. In the poverty profiles, per adult equivalent household income is used and thus missing values are also treated as zero.

This paper focuses on the Limpopo agricultural households, but does compare certain statistics with the non-agricultural households in Limpopo and South Africa. South Africa is a diverse country and therefore social parameters i.e. income, poverty and unemployment are often compared across population groups. Population groups are classified according to the classification system used by Statistics South Africa in the Labour Force Surveys. Demographic analysis was also done according to gender, industry, occupation or skills level.

District level analysis was also done as mentioned earlier, and for clarity the following figure presents Limpopo and its districts. There are five districts[3] within the Province namely Greater Sekhukhune, Mopani, Vhembe, Capricorn and the Waterberg. Figure 1 reflects the five main districts:

[3] The Labour Force Surveys also reports results for Maruleng which was a cross border district with Mpumalanga, previously known as Bohlabela. Maruleng is currently a local municipality of Mopani and figures for Mopani and Maruleng were combined.

Figure 1: Limpopo Province Districts Map

Source: Demarcation Board (www.demarcation.org.za)

2.3. Challenges

2.3.1. Definitions of agricultural households

Agricultural households are defined as households whose main income (more than 50%) is derived from employment in the agricultural industry, or income from an occupation classified as a skilled agricultural worker, regardless the industry. In addition a household is also defined as an agricultural household if the household is involved in agricultural activities that entail the production of food crops and/or keeping of animals and that these activities provide the household with its main food source or income source. Households that rely on agricultural activities for food supply or (non-salary) income are classified as subsistence farmers for purposes of this report. Information about subsistence farming was derived from the questions in section six of the Labour Force Survey where respondents were asked to indicate the aim of their involvement in agricultural activities as one of the following: a) as main source of food for the household, b) as main source of income/earning a living, c) as extra source of income, d) as extra source of food for the household, or e) as a leisure activity of hobby. Since there is no indication of the value of production by these households, households were classified as

agricultural households if they selected either a) or b) in the questionnaire. Both datasets, i.e. the dataset for 2007 and the dataset for 2000 till 2007, contain information on employment in the agricultural industry, or income from an occupation classified as a skilled agricultural worker, regardless the industry. However information on subsistence farming as defined above, was only available in the dataset for 2007; hence workers involved in subsistence farming, but not employment in agriculture, are not included in the numbers presented in this report when looking at trends over the 2000 till 2007 period.

Non response with regard to income for individuals employed in the agricultural sector was treated as stated in section 2.1, and thus not regarded in the definition of agricultural households. Only the labour force was considered (thus individuals between 15 and 65) for analysis to gain information about employees, but all members of a household were included in household analysis.

2.3.2. Income Bands

Respondents were asked their respective incomes, and two different answers were accepted. Respondents could either state the specific value, or report it in income bands. These specific values and income bands were in Rand terms and either weekly, monthly or annual. It must be kept in mind that the earnings reported are from the main source of income (thus labour income), therefore social grants, remittances and in-kind transfers are not taken into account. In order to attain a value for the income bands, the interval regression method was used. This method consists of a generalised Tobit model where-after pseudo-maximum likelihood measures are estimated. The assumption is made that earnings follow a lognormal distribution. Interval-coded information is incorporated into the likelihood function to obtain the specific values for each income band. For more information, see Daniels and Rospabé (2005) and Von Fintel (2006).

3. Demographics

3.1. Population statistics

In order to do social analysis, racial compositions are needed on national, provincial and district level for the population. The population will also be looked at in terms of households as defined in section 2.3.1. Table 1 offers the number of people residing in South Africa and Limpopo by race, together with their shares of the population in 2007.

Table 1: Racial Composition of South Africa and Limpopo in 2007

Population Group	South Africa	Share	Limpopo	Share
	Number	%	Number	%
African	37,887,594	79.42	5,526,751	97.07
Coloured	4,223,511	8.85	3,461	0.06
Indian	1,168,672	2.45	22,335	0.39
White	4,348,366	9.11	137,973	2.42
Other	8,764	0.17	3,044	0.05
Total	47,706,907	100	5,693,564	100.00

Source: Own calculation from Labour Force Survey 2007

It is shown that the African population group is the majority group in South Africa (79.42%) and this dominance is more pronounced in Limpopo (97.07%). The total population of South Africa is 47.7 million, while Limpopo has 5.7 million residents. Investigating the racial composition of the five districts, the following information is obtained for 2007. Table 2 indicates that Africans are more evenly distributed throughout the Province whilst the concentration of Whites is the highest (63.03%) in Waterberg. Mopani and Capricorn have the account for the largest share of the population.

Table 2: Racial Composition of Limpopo districts in 2007

	Population Group					
District	**African**	**Coloured**	**Indian**	**White**	**Other**	**Total**
Sekhukhune	895,390					895,390
% Share	16.20					15.73
Mopani	1,544,709	464		13,086	1,308	1,559,567
% Share	27.95	13.40		9.52	42.99	27.39
Vhembe	1,196,677	406		15,736		1,212,819
% Share	21.65	11.72		11.44		21.30
Capricorn	1,338,671		17,012	22,480	1,735	1,379,899
% Share	24.22		76.17	16.35	57.01	24.24
Waterberg	551,304	2,592	5,323	86,671		645,889
% Share	9.98	74.87	23.83	63.03		11.34
Total	5,526,751	3,461	22,335	137,512	3,044	5,693,564

Source: Own calculation from Labour Force Survey 2007

The racial composition of the agricultural and non-agricultural households (as defined in section 2.2.1) in Limpopo in 2007 is given in Table 3. A household is defined in a specific population group according to the household head's race. The household head is classified as person number one that completes the questionnaire, thus it is not necessarily the household head that complete the questionnaire under the title 'person number one', but the assumption is

made that the household head is more likely to complete the questionnaire first. Unfortunately mixed households are not acknowledged, and will be classified according to the household head's race.

Table 3: Racial Composition of agricultural households and non-agricultural households in Limpopo 2007

Population Group	Agricultural		Non-agricultural		Total	
	Number	Share (%)	Number	Share (%)	Number	Share (%)
African	51,955	98.36	1,340,985	96.19	1,392,940	96.27
Coloured			730	0.05	730	0.05
Indian			5,326	0.38	5,326	0.37
White	868	1.64	46,091	3.31	46,959	3.25
Total	52,823*	100	1,394,162	100	1,446,985	100

Source: Own calculation from Labour Force Survey 2007

*See Table 5 for detailed breakdown

African households dominate the agricultural households (98%), as well as non-agricultural households (96%). The following table indicates the distribution of agricultural households by district and race:

Table 4: Racial composition of agricultural households in Limpopo districts

	Population Group			
District	African	White	Total*	Share (%)
Sekhukhune	3,750	0	3,750	7.10
% Share	7.22	0.00		
Mopani	14,480	407	14,888	28.18
% Share	27.87	46.92		
Vhembe	16,225	0	16,225	30.72
% Share	31.23	0.00		
Capricorn	10,921	0	10,921	20.67
% Share	21.02	0.00		
Waterberg	6,579	461	7,040	13.33
% Share	12.66	53.08		
Total	51,955	868	52,823	100.00

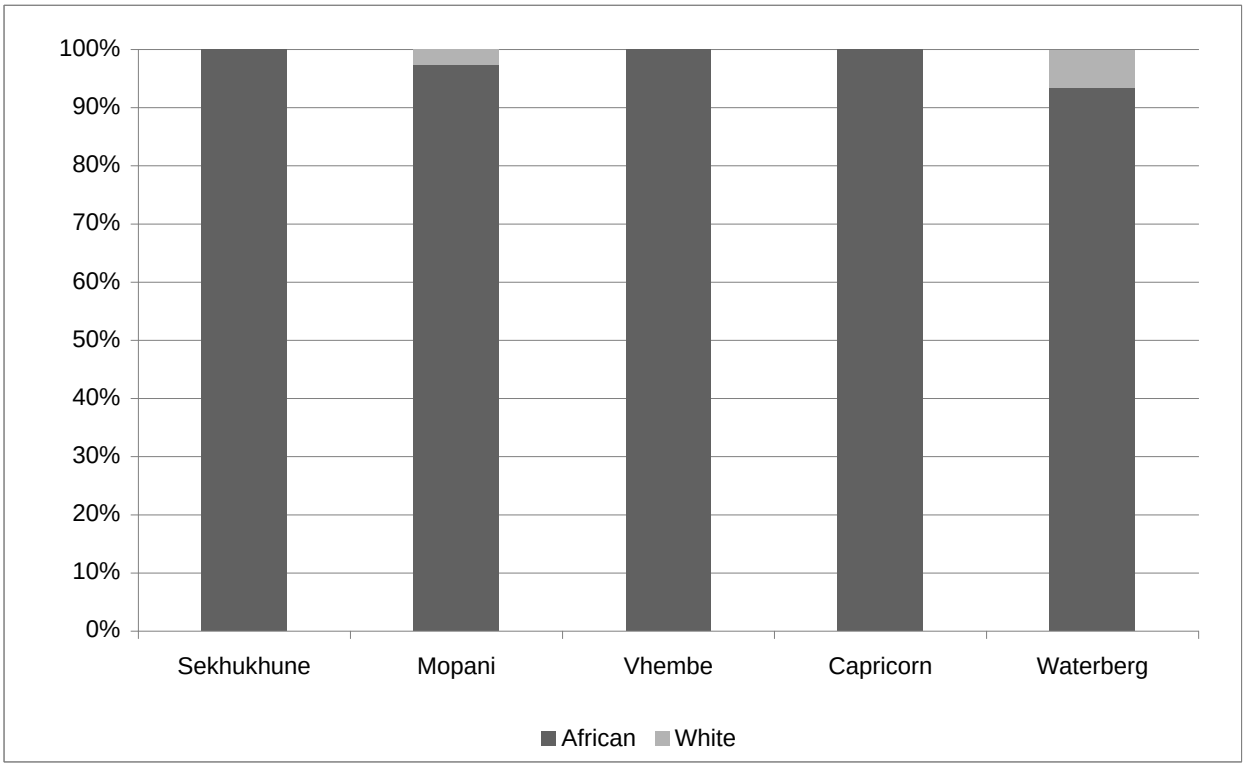
*The Indian population group has been left out due to insignificant low numbers.

Source: Own calculation from Labour Force Survey 2007

Table 4 indicates that the majority of the African households stay in the Vhembe district (31.23%), while Whites are only found in Waterberg (53.08%) and Mopani (46.92%).

Compiling a stacked column chart for comparing race compositions per district, the results are as follows:

Figure 2: Agricultural household shares by regions and race



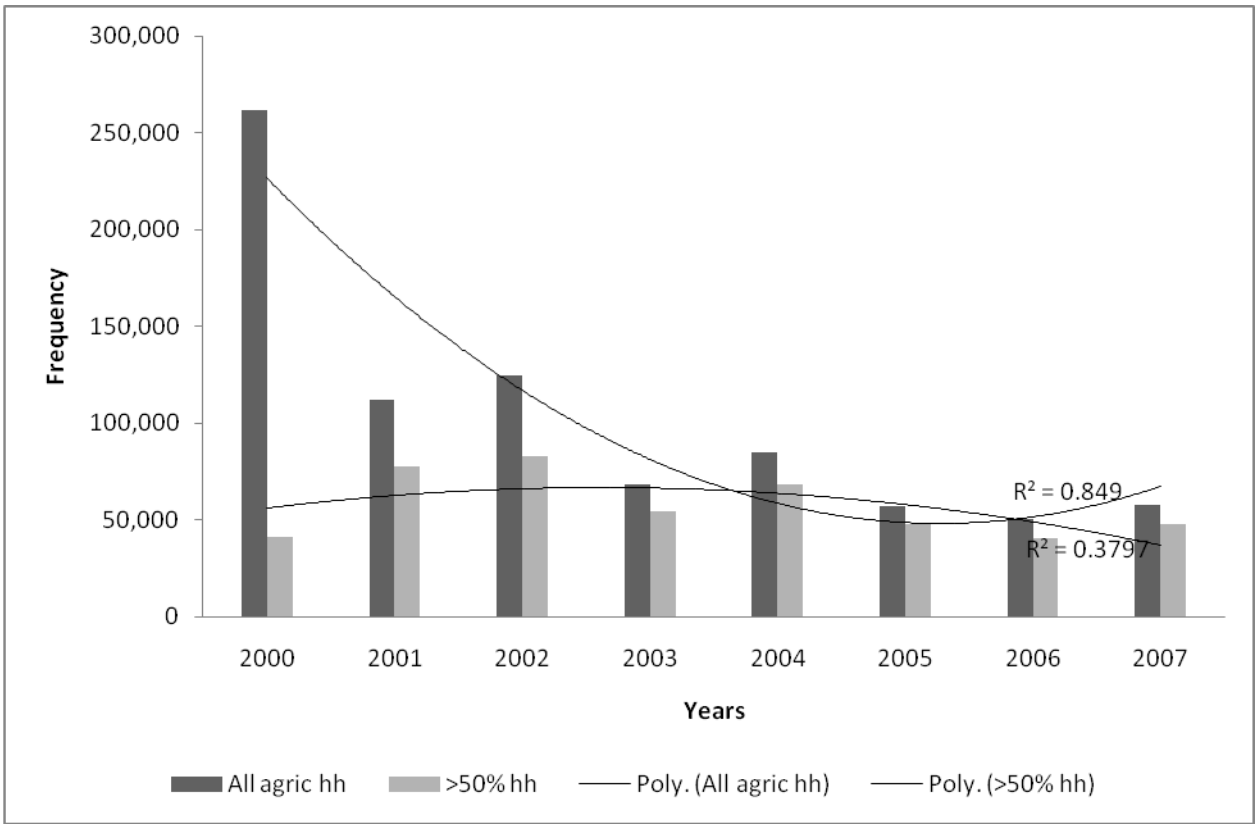
Source: Own calculation from Labour Force Survey 2007

Figure 2 clearly indicates that African households are dominant in all the Districts. Waterberg has the largest share with regard to White households (6.5%) followed by Mopani with 2.7%.

Looking at the change in agricultural households since 2000, Figure 3 indicates the change in both all households with a member/ members working in agriculture and households whose agricultural income is more than 50% of household income. The number of households in both series declined until 2006, but there was a slight increase experienced in 2007. In 2007 there were 57 632 households with members working in agriculture, while there were 47 973[4] households for whom the agricultural income accounted for more than 50% of the households income. It must be kept in mind that due to the dataset used for obtaining flow charts (thus over time), section 6 of the LFS questionnaire (access to agricultural land and main reason for it) was excluded. Households that therefore have access to agricultural land and this land is the main source of non-salary income and/or food, are not counted in Figure 3.

[4] Comparing this to Table 5, it corresponds to the total of the first two columns.

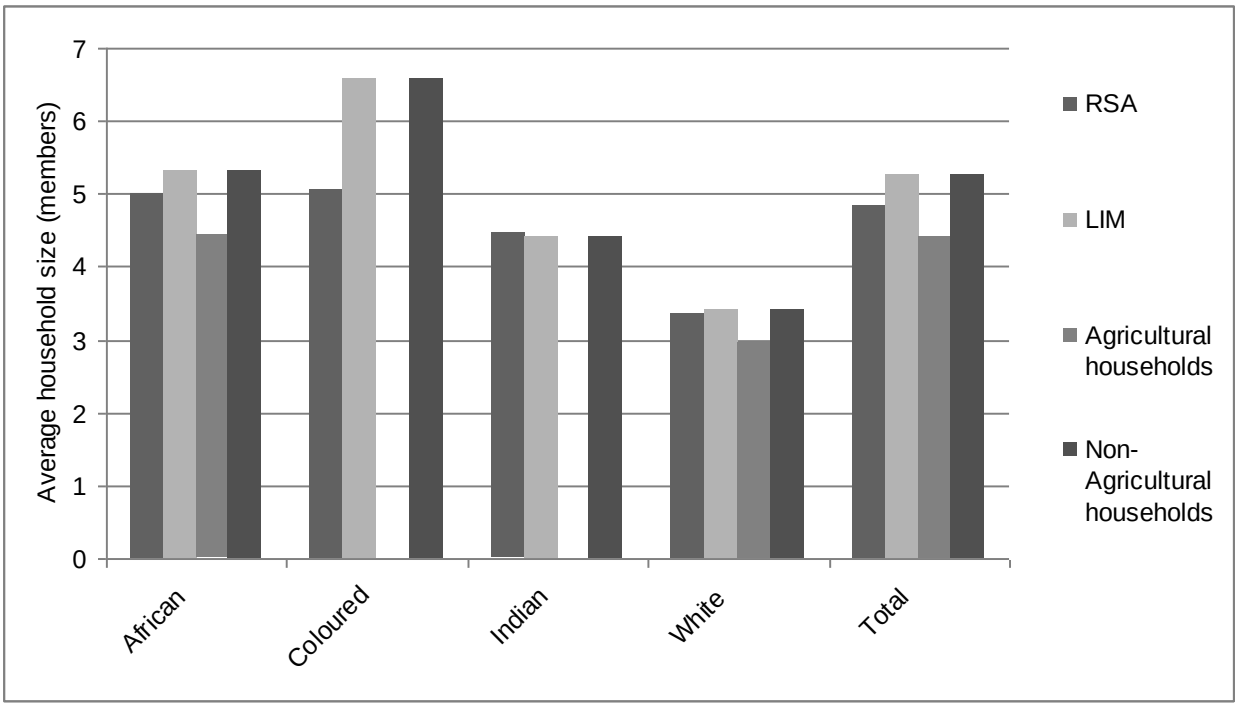
Figure 3: Agricultural households over time



Source: Own calculation from Labour Force Survey 2000-2007

The average household size by race is given in the next figure (Figure 4). It can be seen that Limpopo's household size are higher than South Africa's for all races except for the Indian population. The Coloured non-agricultural households in Limpopo have a relatively large household size (6.59). There are no Coloured and Indian agricultural households recorded in Limpopo. The African agricultural household size is lower than the African non-agricultural household size (4.4 compared to 5.3). Because of the large number of Africans compared to other race groups in Limpopo, the reported totals are similar to the numbers for Africans.

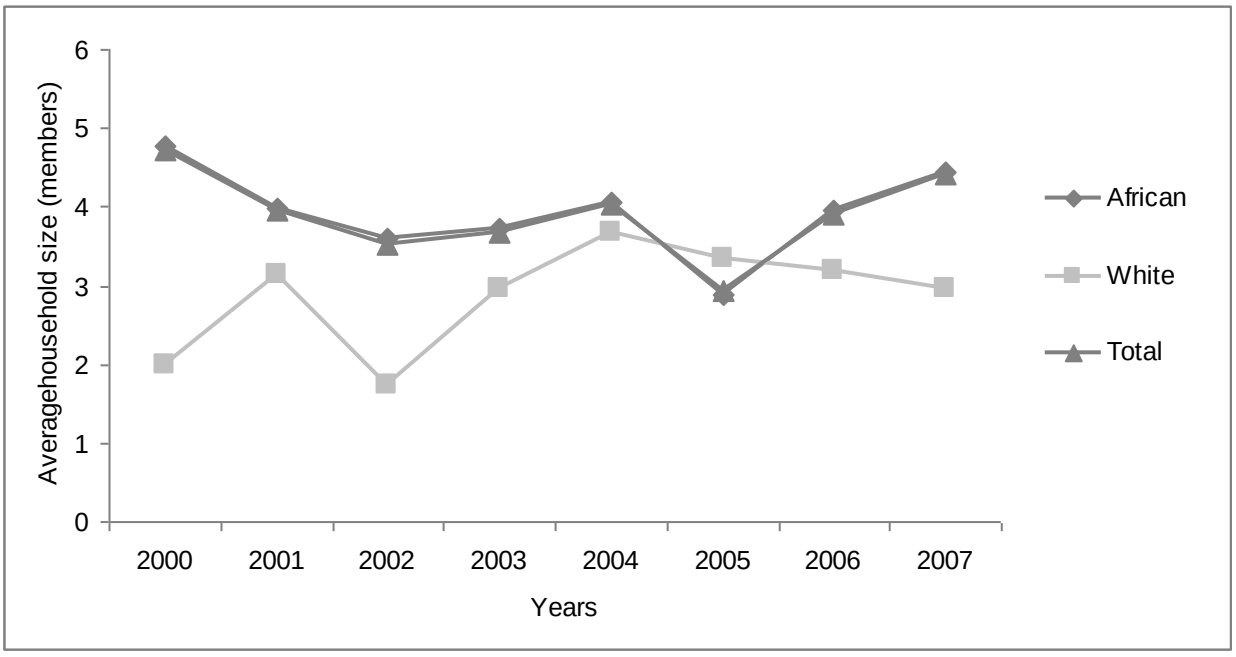
Figure 4: Household size by race for 2007



Source: Own calculation from Labour Force Survey 2007

Taking a look at how the household sizes increased or decreased through time for the agricultural households, the following figure (Figure 5) was obtained. Figure 5 indicates that the African population's households are the biggest while the Whites have the least number of people within the household. The White population's size showed a sharp increase between 2002 and 2004, but is on a decreasing trend since 2004, declining from 3.67 in 2004 till 2.97 in 2007. Investigating the trend of African household size over time, it differs year on year. In 2005, the average was 2.89 members in a household, increasing to 3.95 in 2006 and further to 4.45 in 2007.

Figure 5: Household size from 2000 till 2007 for the agricultural households



Source: Own calculation from Labour Force Survey 2000-2007

Economic activities within the agricultural households are investigated next to identify whether the households obtain their income and/or food from employment or subsistence farming. Table 5 indicates the number and share of agricultural households in Limpopo that obtain more than 50% of their income from agricultural activities, or whose main food source is from agricultural activities. These households have indicated their main source of income from agriculture, i.e. a) from employment in the agricultural sector or by agricultural occupation (column 1), b) from subsistence farming only (as defined in section 2.2.1) (column 4), or c) from a combination of a) and b) (columns 2 and 3). The African households have the biggest share (99.09%) of employment in the agricultural sector. There are only 3 039 households in Limpopo that depend solely on subsistence farming for main source of non-salary income (2 169 households) or main source of food (8 701 households) and 97.56% of these households are African. 85.12% of agricultural households derive more than 50% of their household income from employment within the agricultural sector, while households involved with subsistence farming comprise 5.75%. There are 3 074 households that depend on subsistence agriculture, but they also receive salary income from employment in agriculture and this salary income is more than 50% of the household income. While 1 749 households depend on subsistence agriculture, but their salary income from employment in agriculture is less than 50% of the household income.

Table 5: Economic activity for agricultural households by population group in 2007

	Only Employment and Occupation and >50% income		Subsistence farming and >50% income		Subsistence farming and <50% income		Subsistence farming only		Total	
Population group	**Number**	**Share**	**Number**	**Share**	**Number**	**Share**	**Number**	**Share**	**Number**	**Share**
African	44,554	99.09	2,687	87.43	1,749	100	2,965	97.56	51,955	98.36
White	407	0.91	386	12.57			74	2.44	868	1.64
Total	44,961	100	3,074	100	1,749	100	3,039	100	52,823	100
Activity Share	85.12		5.82		3.31		5.75		100	

Source: Own calculation from Labour Force Survey 2007

3.2. South African and Limpopo labour force

Every citizen in a country can be classified as either economically active or economically inactive. If an individual is economically active, (s) he must be between the ages 15 and 65, and able and willing to work. (S)He is part of the labour force, whether employed or unemployed. The not economically active population is either not able or willing to work, or does not fall in the required age range. The labour force is divided between the employed and unemployed. In order to be classified as unemployed, there are two definitions, a broad (expanded) and narrow (official) definition. The broad definition states an individual is unemployed if (s)he: (a) did not work the past 7 days; (b) wants to work and is available to start within 2 weeks. The narrow (official) definition is the broad definition including (c) is actively searching for work the past 4 weeks (Statistics South Africa). The labour force can thus vary according to which definition of unemployment is used. Table 6 represents the number and share of people in 2007, according to the strict and broad definition in the labour force, for South Africa and Limpopo respectively:

Table 6: South African and Limpopo labour force in 2007

	South Africa				Limpopo			
	Broad		**Strict**		**Broad**		**Strict**	
	Number	**Share**	**Number**	**Share**	**Number**	**Share**	**Number**	**Share**
African	15,825,035	77.44	12,671,070	74.81	1,762,967	95.67	1,191,980	94.06
Coloured	1,977,240	9.68	1,746,798	10.31	2,020	0.11	2,020	0.16
Indian	513,937	2.52	473,161	2.79	12,180	0.66	11,502	0.91
White	2,117,799	10.3	2,047,715	12.09	65,683	3.56	61,783	4.88
Total	20,434,011	100	16,938,744	100	1,842,850	100	1,267,285	100

Source: Own calculation from Labour Force Survey 2007

In 2007, there were 20.4 million (16.9 million) individuals in the South African labour force according to the broad (strict) definition. In the Limpopo Province there were 1.8 million with the

largest share (95.67%) accounted by African population. It can be deduced that the largest contributor to the national labour force is Africans as shown above, followed by Whites with a smaller share (3.56%).

3.3. Unemployment in South Africa and Limpopo

In explaining the labour force, unemployment was defined. The next table (Table 7) and figure (Figure 6) represent unemployment data (in numbers and percentage respectively) for South Africa and Limpopo by population group.

Table 7: Unemployment numbers for South Africa and Limpopo by population group in 2007

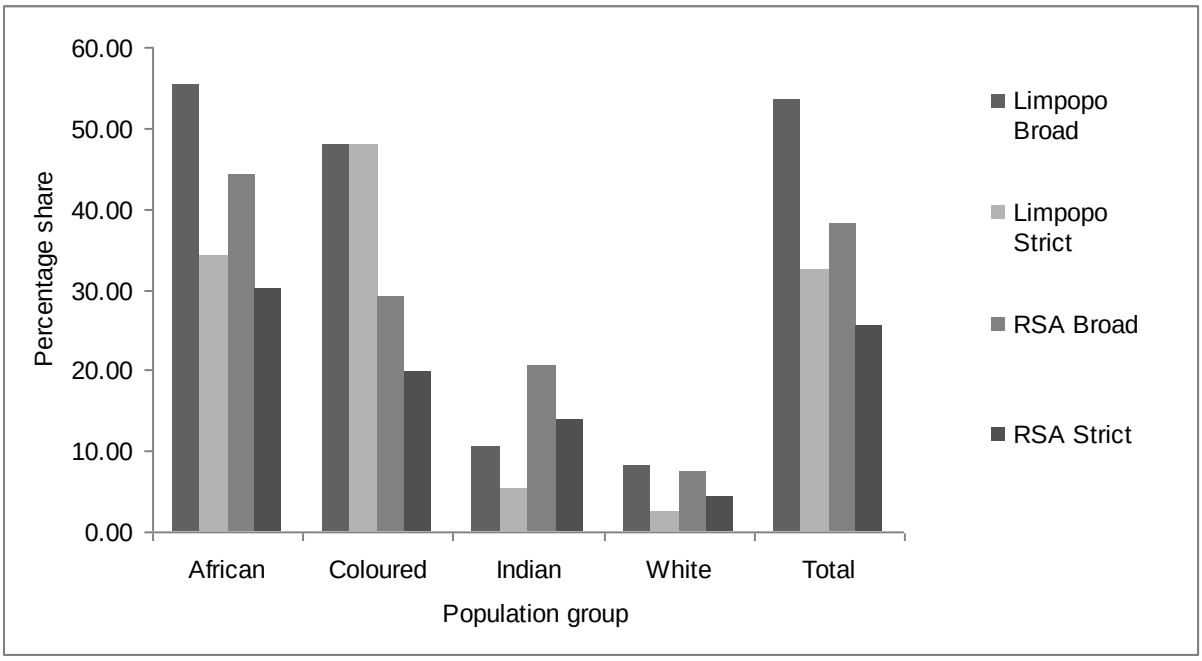
	South Africa		**Limpopo**	
	Broad	**Strict**	**Broad**	**Strict**
African	6,984,075	3,830,110	979,298	408,311
Coloured	576,177	345,735	969	969
Indian	105,855	65,079	1,295	617
White	158,206	88,122	5,390	1,490
Total	7,830,004	4,330,958	986,952	411,387

Source: Own calculation from Labour Force Survey 2007

It is evident from the table above that the leading or dominant population group in terms of unemployment is the African population across South Africa and Limpopo as a whole. The White population also followed the African with over 5 000 people unemployed. Unemployment is high within the African population across all definitions and for both South Africa and Limpopo. In Limpopo there are 979 298 Africans unemployed according to the broad definition. The smallest unemployed group in Limpopo is that of the Indian population according to the strict definition and the Coloured population according to the broad definition.

There is a clear trend with Africans having the highest unemployment rate in South Africa and Limpopo for both definitions (broad and strict respectively) (Figure 6). Indians in Limpopo have a slightly lower unemployment rate than in South Africa, whereas Whites have a significantly lower rate compared to other population groups. The total unemployment rate for the official (strict) definition for South Africa and Limpopo respectively are 25.53% and 32.46%.

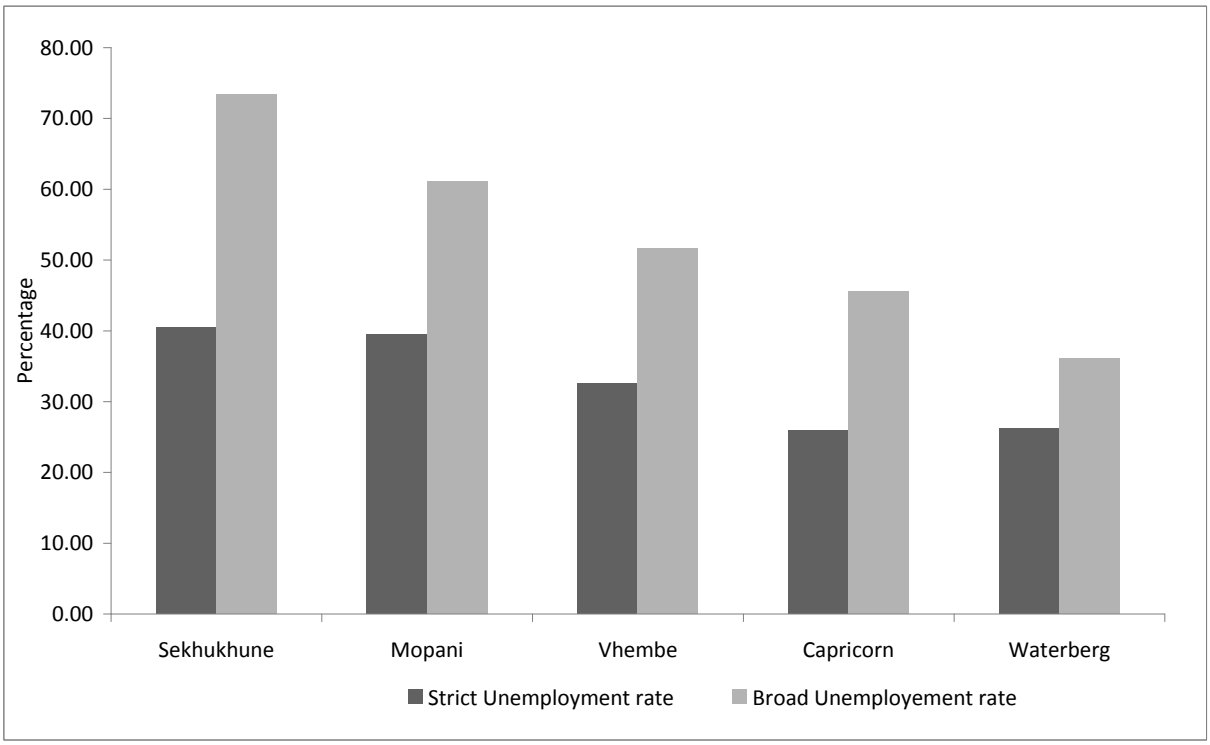
Figure 6: Unemployment rates for South Africa and Limpopo by population group



Source: Own calculation from Labour Force Survey 2007

Taking a closer look at the Limpopo, the following information regarding district level was obtained. In Figure 7, Sekhukhune has the highest unemployment rate considering the broad definitions (73.45%) and the strict definition (40.44%). The lowest unemployment rate is 25.88% for Capricorn (strict) and for Waterberg 36.13% (broad).

Figure 7: Unemployment rates for districts in the Limpopo Province



Source: Own calculation from Labour Force Survey 2007

3.4. Work-force and Employment in Limpopo agriculture

A work-force is defined as all individuals that are able to work, of working age and employed according to various dictionaries (www.thefreedictionary.com ; www.patana.ac.th ; www.allwords.com), although Wikipedia (www.wikipedia.org) excludes the management and only refer to manual labour. For the purpose of this report, the full definition (including management) will be used to avoid making sample sizes too small by excluding management data.

The agricultural work-force, thus those between 15 and 65, and as previously mentioned in the agricultural industry or occupation, is listed for both South Africa and the Limpopo for 2007 in the subsequent table:

Table 8: South African and Limpopo agricultural work-force

	South Africa		Limpopo	
	Number	**Share (%)**	**Number**	**Share (%)**
African	741,228	75.82	61,777	98.73
Coloured	143,172	14.65		
Indian	5,458	0.56		
White	87,728	8.97	793	1.27
Total	977,586	100	62,570	100

Source: Own calculation from Labour Force Survey 2007

As can be seen in Table 8, the African population dominates the agricultural work-force in South Africa and Limpopo. There are no Indians or Coloureds recorded in the agricultural work-force of Limpopo. The White population's share in South Africa is 9% and 1.3% in Limpopo. Decomposing the agricultural work-force in Limpopo by district and gender, the following is obtained:

Table 9: Agricultural work-force of the Limpopo districts by gender in 2007

	Male	**Share (%)**	**Female**	**Share (%)**	**Total**	**Share (%)**
Sekhukhune	349	9.76	3,224	90.24	3,573	100.00
Mopani	8,442	45.73	10,018	54.27	18,460	100.00
Vhembe	10,359	61.86	6,386	38.14	16,746	100.00
Capricorn	8,634	61.31	5,449	38.69	14,083	100.00
Waterberg	6,550	66.87	3,245	33.13	9,794	100.00
Total	34,334	54.80	28,322	45.20	62,656	100.00

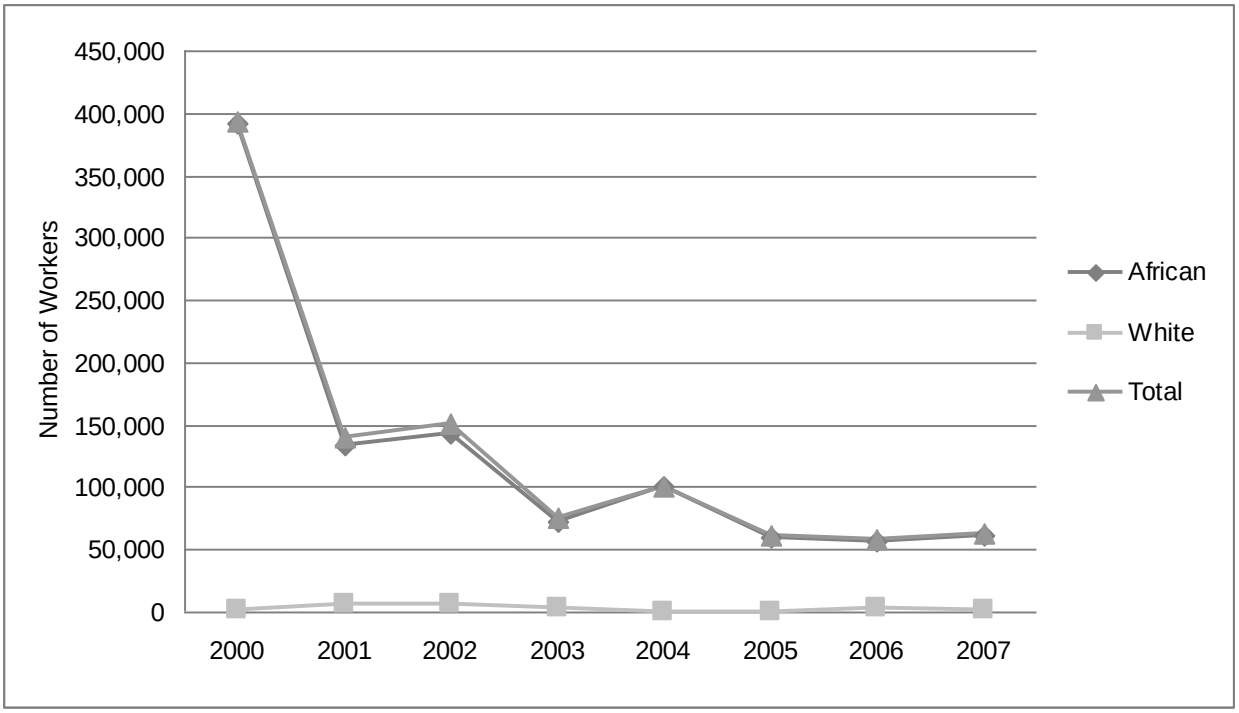
Source: Own calculation from Labour Force Survey 2007

Table 9 illustrates that the majority (54.8%) of the work-force is male. Females are only dominating in the Sekhukhune (90.24%) and Mopani (54.27%). Waterberg is the district with the highest share (66.87%) of males in their work-force.

3.4.1. Employment over time

Employment for the Limpopo agricultural sector has been in the limelight the past few years due to reports stating the steady decline within the sector. According to Statistics South Africa the definition of an agriculture worker is if (s) he claims that the main industry that (s) he works in is that of Agriculture, Fishery and Hunting, or if the main occupation is skilled agriculture regardless the industry. The industry Agriculture, Fishery and Hunting was evaluated, and workers of only agricultural activities were used in this report. The following figure was obtained from the data:

Figure 8: Agricultural employment figures from 2000 to 2007



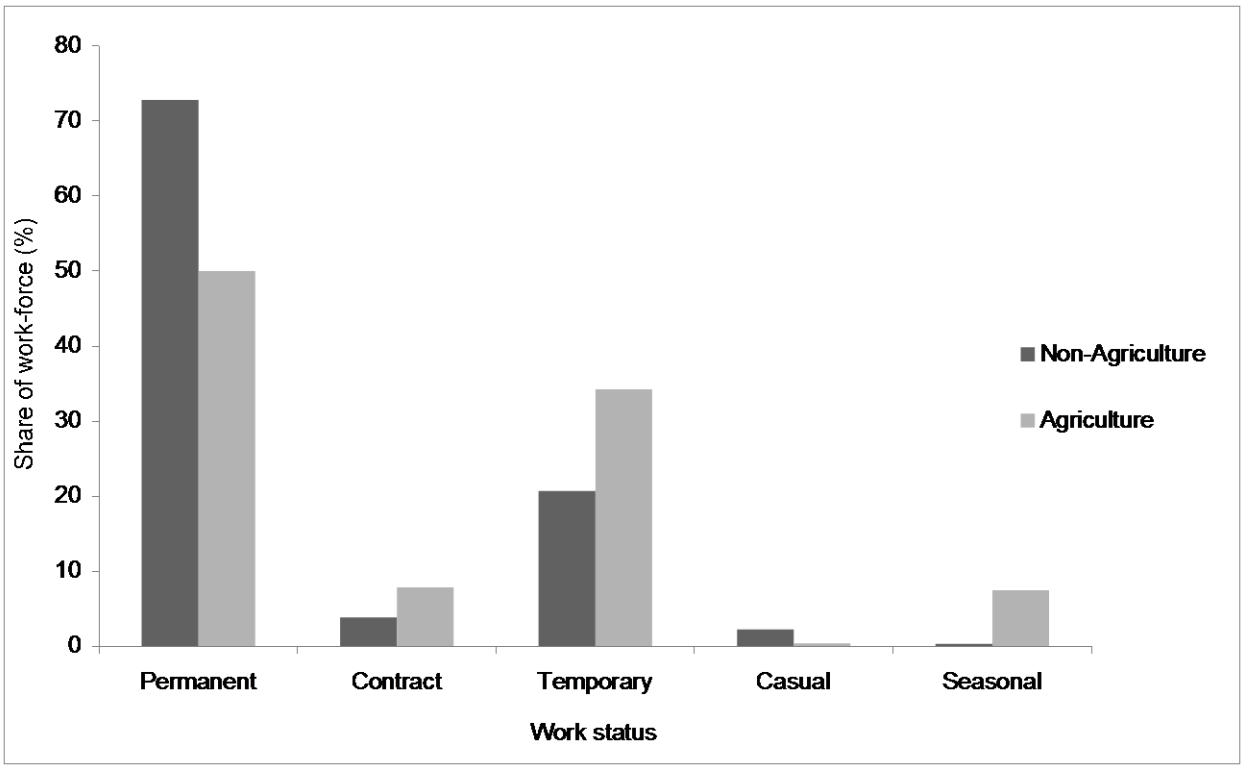
Source: Own calculation from Labour Force Survey 2000-2007

It can be observed in Figure 8 that there is a decreasing trend in total employment. The African workers leaving the sector are mostly responsible for this occurrence as their trend follows a similar path as the trend for total employment. African employment decreased significantly over time from 391 823 to 61 777 workers. Employment for White workers stayed relatively constant over time. Further analysis needs to be done in order to investigate the reasons behind this declining trend.

3.4.2. Employment status

The Labour Force Survey asks various work-related questions to employed respondents, one being that of the terms of employment. Respondents had to classify whether their job was permanent, a fixed period contract, temporary, casual or seasonal. The following results in Figure 9 were obtained for 2007 while Figure 10 indicates the period 2000-2007:

Figure 9: Work status for the Limpopo work-force in 2007

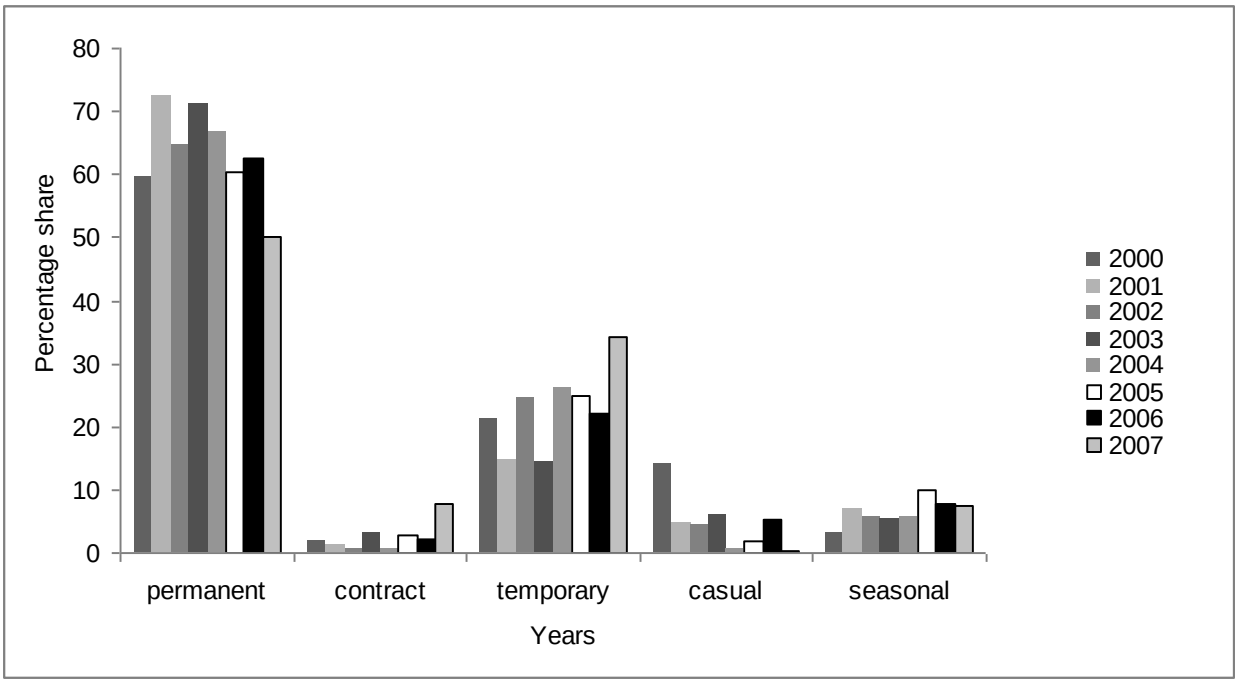


Source: Own calculation from Labour Force Survey 2007

The agricultural work-force has predominantly a permanent work-force (49.99%), but there is also a high incidence of temporary workers in the agricultural sector (34.27%). There are also contract (7.87%) and seasonal workers (7.48%). This seasonal element is clearly unique within the agricultural work-force, as the non-agricultural work-force has almost no (0.33%) seasonal employees. Casual workers are almost non-existent (0.40%).

Figure 10 presents the work status data from 2000 till 2007 for the agricultural work-force:

Figure 10: Work status over time



Source: Own calculation from Labour Force Survey 2000-2007

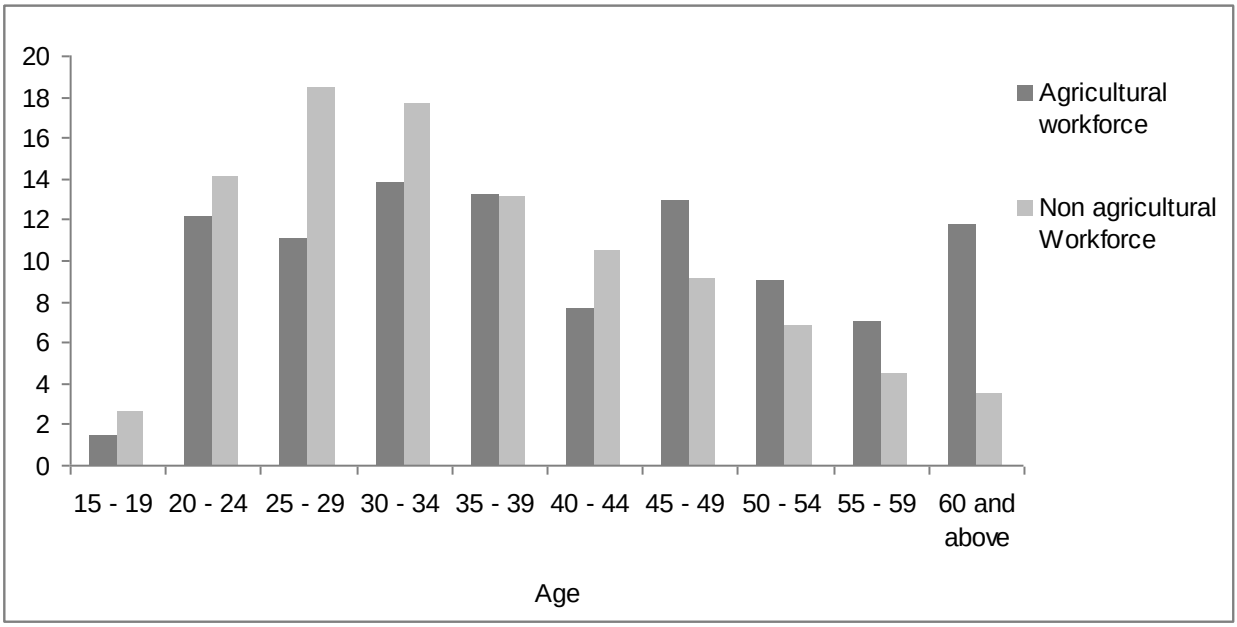
This figure indicates a slight increase followed by a decrease in the share of permanent labour, while the share of fixed period employees showed a slight increase. There is a noticeable increase in the share of temporary labour, while casual employment shows a decline. The share of seasonal workers is higher in 2007 than what it was in 2000, but it peaked in 2005 and declined thereafter.

3.5. Characteristics of Limpopo agricultural work-force

3.5.1. Age structure

Comparing the agricultural work-force with the non-agricultural work-force (thus those in other industries), Figure 11 was obtained.

Figure 11: Age structure of agricultural and non-agricultural work-force in the Limpopo Province



Source: Own calculation from Labour Force Survey 2007

The differences between the two work-forces can be observed, with the greatest share of the non-agricultural workforce falling in the age group 25-29 years, and lower shares as age increases. The age distribution of the agricultural work-force is more variable. The greatest share of the agricultural workforce falls in the age group 30-34 years, but there is a larger share of the work-force from ages 45 and above, compared to the non-agricultural work-force. There are more workers in the agricultural work-force (11.75%) than the non-agricultural work-force (3.45%) that is older than 60 years of age.

3.5.2. Location and occupation

The agricultural workers also indicated where the location is of their work. As expected, the majority (72.47%) work on a farm. The second most common place where agricultural activities take place is inside a formal business (factory or shop) and the least common specified place is on at a service outlet (3.18%).

Table 10 present the full results, including the number and share.

Table 10: Location of Limpopo Province agricultural work-force

	Number	Share %
In the owner's home/On the owner's farm	45,409	72.47
In someone else's home / Private household	3,435	5.48
Inside a formal business premises such as factory or shop	6,480	10.34
At a service outlet such as a shop, school, post office etc.	1,990	3.18
On a footpath, street, street corner, open space of field	4,300	6.86
No fixed location	1,042	1.66
Total	62,656	100.00

Source: Own calculation from Labour Force Survey 2007

The occupation of agricultural workers, as classified by Statistics South Africa, is expressed in Table 11. As can be seen through Table 11, the elementary occupation dominates (74.19%), while clerks are in the minority (0.23%). It can be seen that only 17.14% of workers in the agricultural sector in Limpopo is classified as skilled agricultural workers.

Table 11: Occupation of Limpopo agricultural work-force

	Number	% share
Technicians and associate professionals	1,548	2.47
Clerks	141	0.23
Service workers and shop and market sales	175	0.28
Skilled agricultural and fishery worker	10,727	17.14
Craft and related trade workers	830	1.33
Plant and machinery operators and assemblers	2,728	4.36
Elementary occupations	46,421	74.19
Total	62,570	100

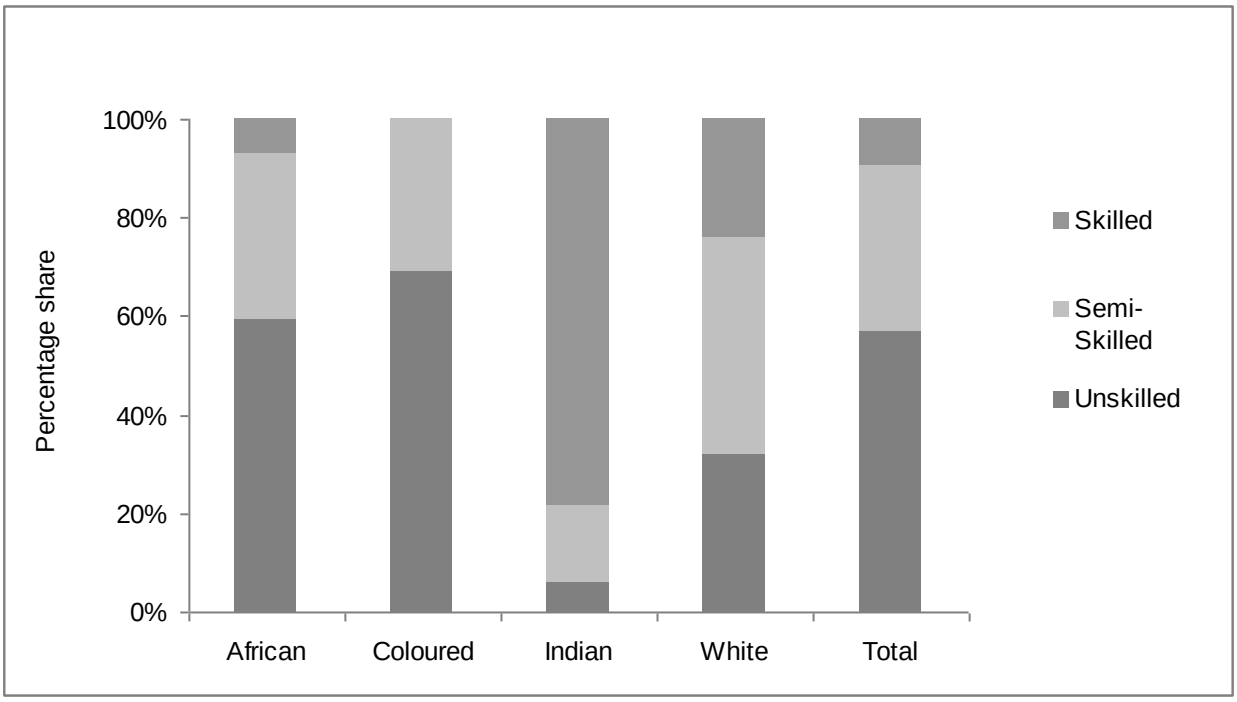
Source: Own calculation from Labour Force Survey 2007

3.5.3. Skills level

The occupation of workers is an indicator of the skills level of the individual. Workers working in a legislative, senior official, manager or professional occupation are classified as skilled workers by Statistics South Africa. Semi-skilled workers are technical and associated professionals, clerks, and service and sales workers. The rest, skilled agricultural and fishery workers, craft workers, plant and machine operators and assemblers, elementary occupation and domestic workers, are classified as unskilled labour.

The subsequent figures were obtained for the skills level in 2007 of every population group in the non-agricultural sector:

Figure 12: Skills level of Limpopo non-agricultural work-force in 2007

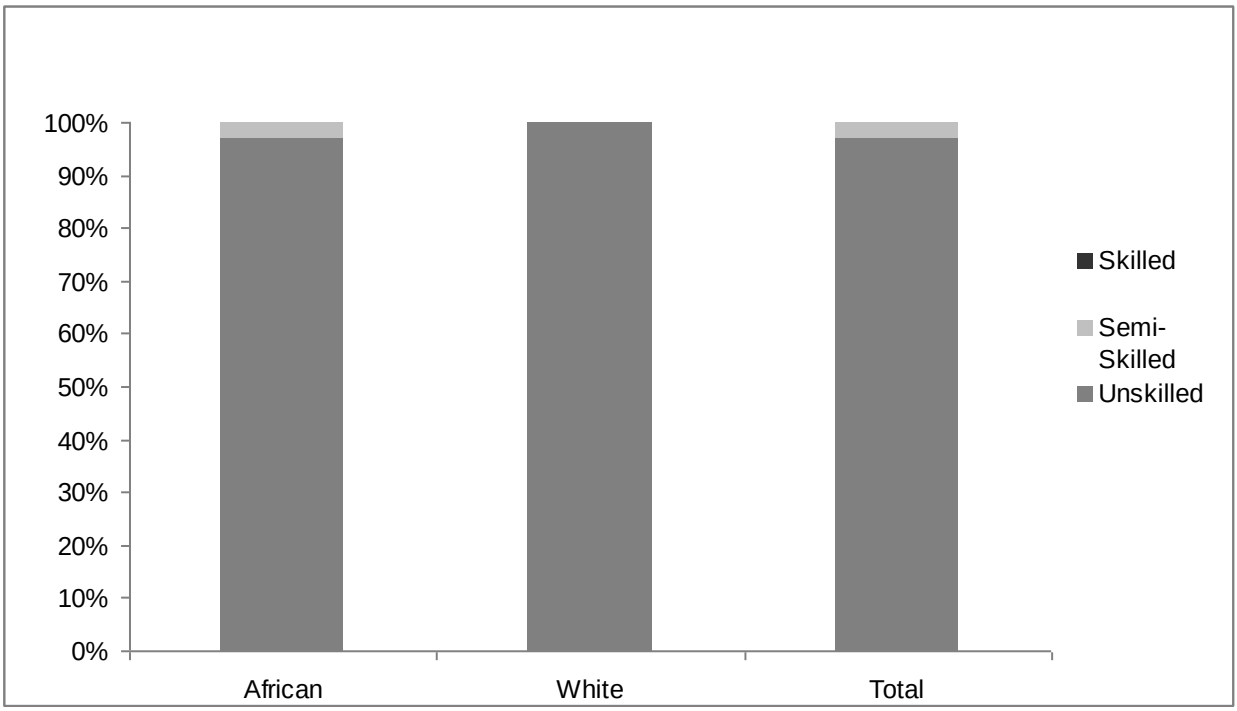


Source: Own calculation from Labour Force Survey 2007

Figure 12 represents the skills level for every population group for the non-agricultural sector in 2007. There is a clear distinction between African, Coloured, Indian and White workers, with 68% of White workers being skilled or semiskilled workers and 40% of the African workers being skilled or semiskilled workers. It is interesting to note that Almost 80% of Indian non-agricultural workers are skilled whilst there are no skilled Coloured workers. Another observation is that 60% of the African non-agricultural workers are unskilled and only 7% are skilled.

Looking at the skill levels of agricultural workers in Figure 13, a completely different picture emerges, more so because the comparison is only between Africans and Whites due to the fact that Coloureds and Indians are play a negligible role in the agricultural sector of Limpopo. Almost none of the African workers are skilled (0.29%), while 100% of White agricultural workers are unskilled. The whole sector is also more dominated by unskilled labour, compared to the non-agricultural sector.

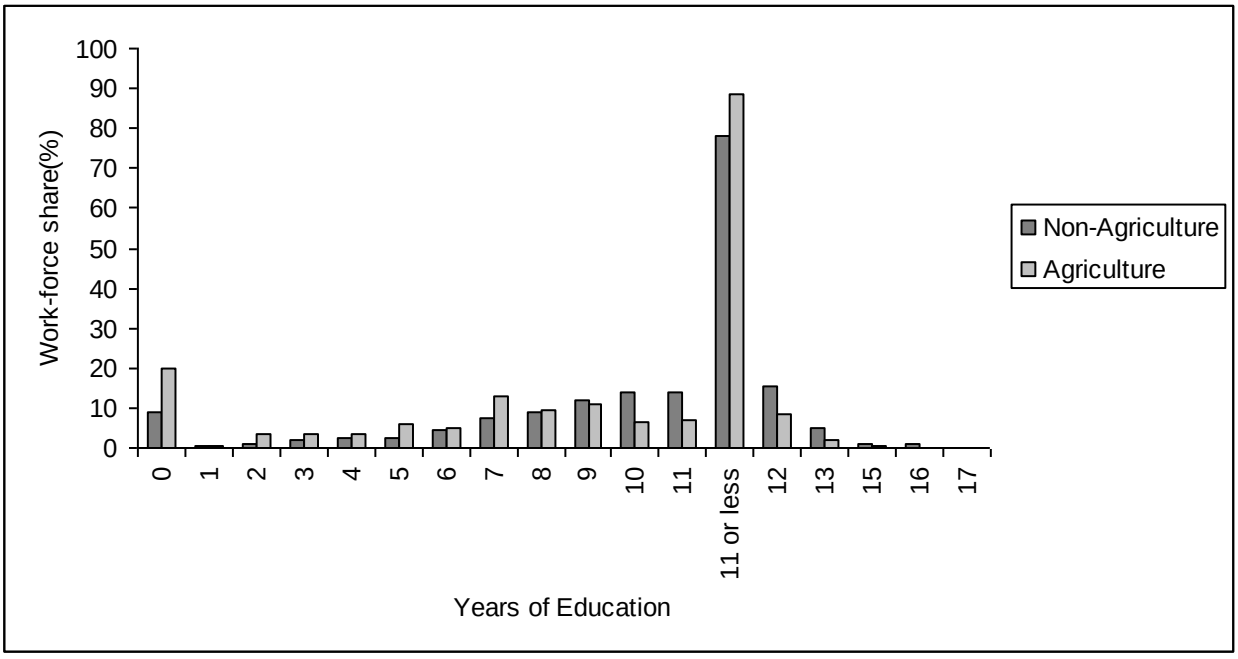
Figure 13: Skills level of the Limpopo agricultural work-force



Source: Own calculation from Labour Force Survey 2007

Examining the education level of agricultural workers and non-agricultural workers, the following bar graph (Figure 14) contains the information:

Figure 14: Highest education received for agricultural and non-agricultural workers



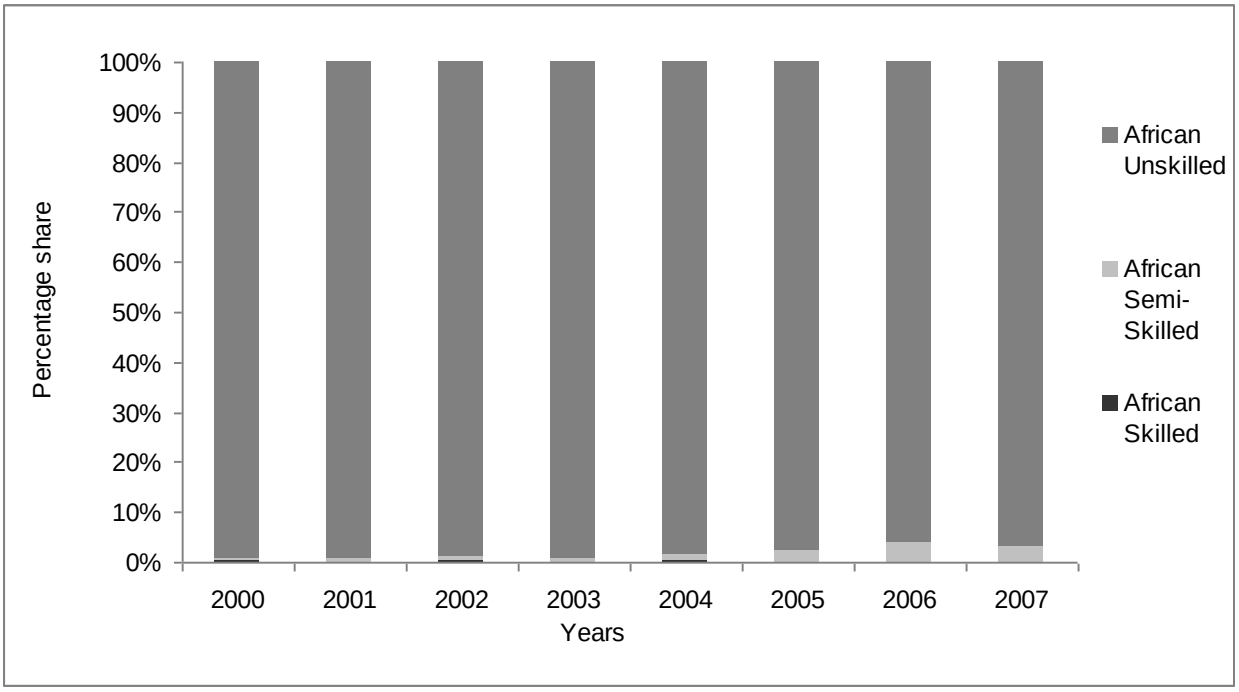
Source: Own calculation from Labour Force Survey 2007

The graph clearly shows that the majority of agricultural workers do not have a matric qualification (88.76%), although they received some high school education. Only a small portion

received more than 12 years of education (1.28%). The non-agricultural work-force has a higher share of matriculant workers (15.29%) and workers with post-matric education (6.54% compared to 2.74% of agricultural work-force). This clearly indicates that the agricultural work-force has less formal education than the non-agricultural work-force.

Looking at the skills level trend through years 2000 till 2007, the subsequent figures illustrate each population group's skills:

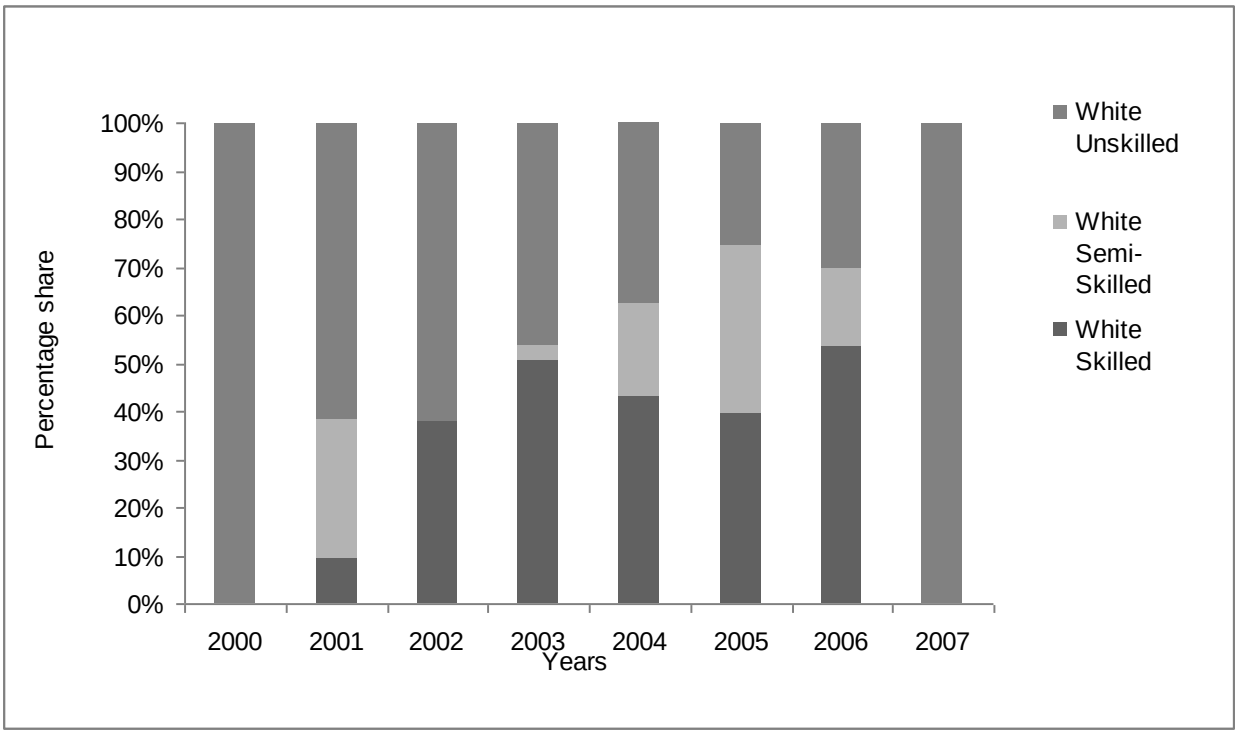
Figure 15: Skills level for Africans in the agricultural work-force



Source: Own calculation from Labour Force Survey 2000-2007

The skills level of the African population group in Limpopo has shown an almost negligible increase in the share of semi-skilled labour since 2000, yet there are still no skilled African workers recorded (Figure 15). The majority of workers remain unskilled. This is a major source of concern, indicating that the African agricultural workers remain unskilled.

Figure 16: Skills level of White agricultural workers



Source: Own calculation from Labour Force Survey 2000-2007

In 2007 there were no skilled White workers recorded in 2007. Figures for previous years indicate that there are skilled White workers in the agricultural sector of Limpopo, therefore the omission of these in 2007 could be because of small sample size. There is a definite skills gap between race groups in the Limpopo agricultural sector, with the Whites as the only notable skilled group. According to the National Scarce Skills list of 2007 (Department of Labour), farm managers are rated as one of the most scarce skills in South Africa, while agricultural technicians, plant operators, crop farm workers and livestock farm workers also appear on the list. This indicates that there is definitely a need for skilled agricultural workers.

4. Income

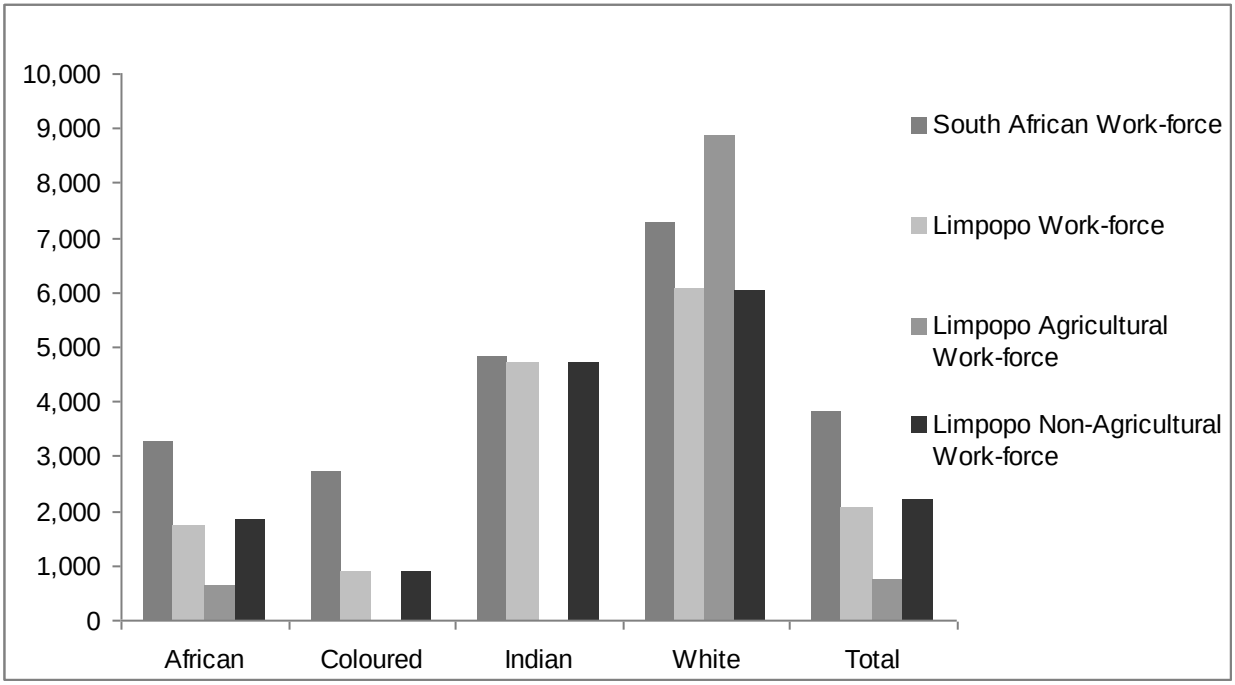
4.1. South Africa and Limpopo

Respondents were asked about their income, and as explained previously, it was reported in either actual values or income bands. A value was dictated to each band by using the Interval Regression method as indicated in 2.3.2. Three different reporting measures were used to seek variation and to verify for consistency. The first figure reports the results for the earnings for the working individual. The second figure represents the per capita household earnings while the last figure embodies the median incomes for working individuals. The first and second figures' income is an average and all three were adjusted for the consumer price index (CPI) making it

real incomes. Therefore all values are in 2000 prices to have consistency when comparing from 2000 to 2007.

The subsequent figures represent the results of the analysis in 2007. It must be remembered that earnings used were total salary of main job, therefore excluding any remittances, social grants or payments in kind. Home consumption from home production is also excluded. Comparisons are made between the South African, Limpopo, Limpopo agricultural and Limpopo non-agricultural work-forces.

Figure 17: Real mean monthly income from main source by race for 2007

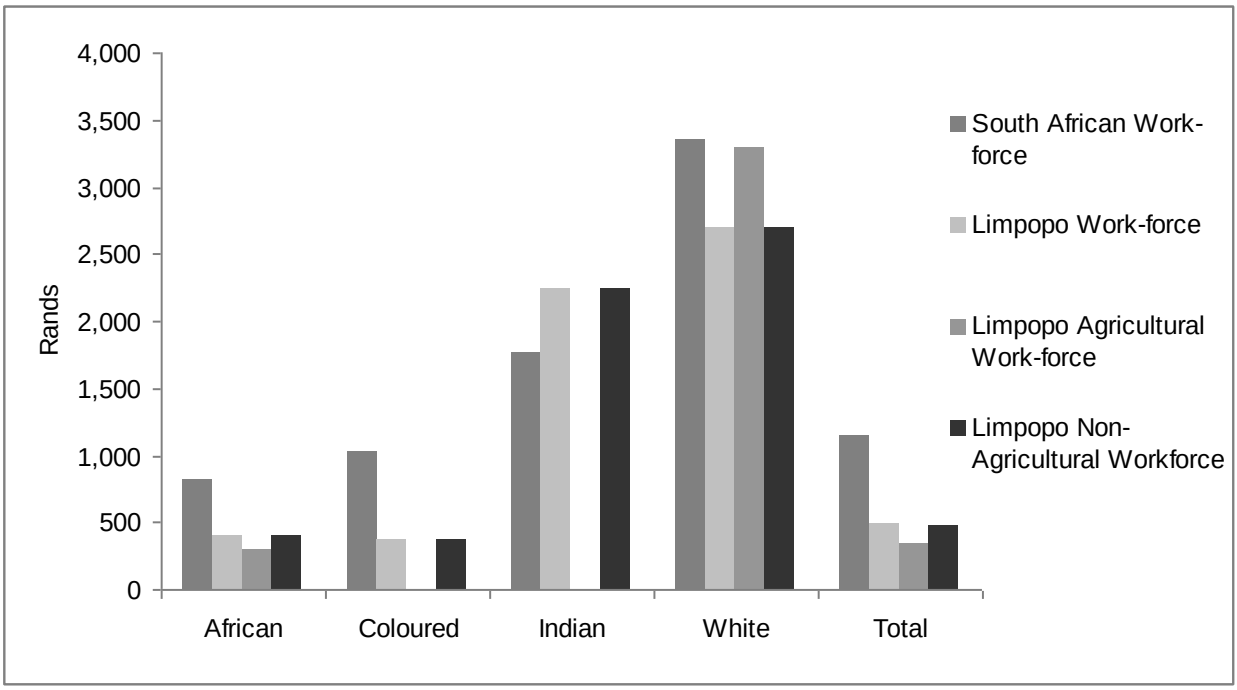


Source: Own calculation from Labour Force Survey 2007

In Figure 17, the mean monthly income for Africans in South Africa is R3 284, for Limpopo it is R1 718 50% and Limpopo agriculture it is R630. For Whites it is R7 286, R6 082 and R8 850 respectively. This suggests that Whites in Limpopo agricultural sector earn more than their counterparts in the whole of South Africa. Overall the agricultural households of Limpopo receive a lower income, excluding the White population whose income far outstrips that of Limpopo. The non-agricultural household incomes are similar than to the provincial average across all races.

Looking at the mean real household income per capita for 2007, a similar pattern as the individual income is found. Household earnings are thus divided by household size, disregarding other income sources.

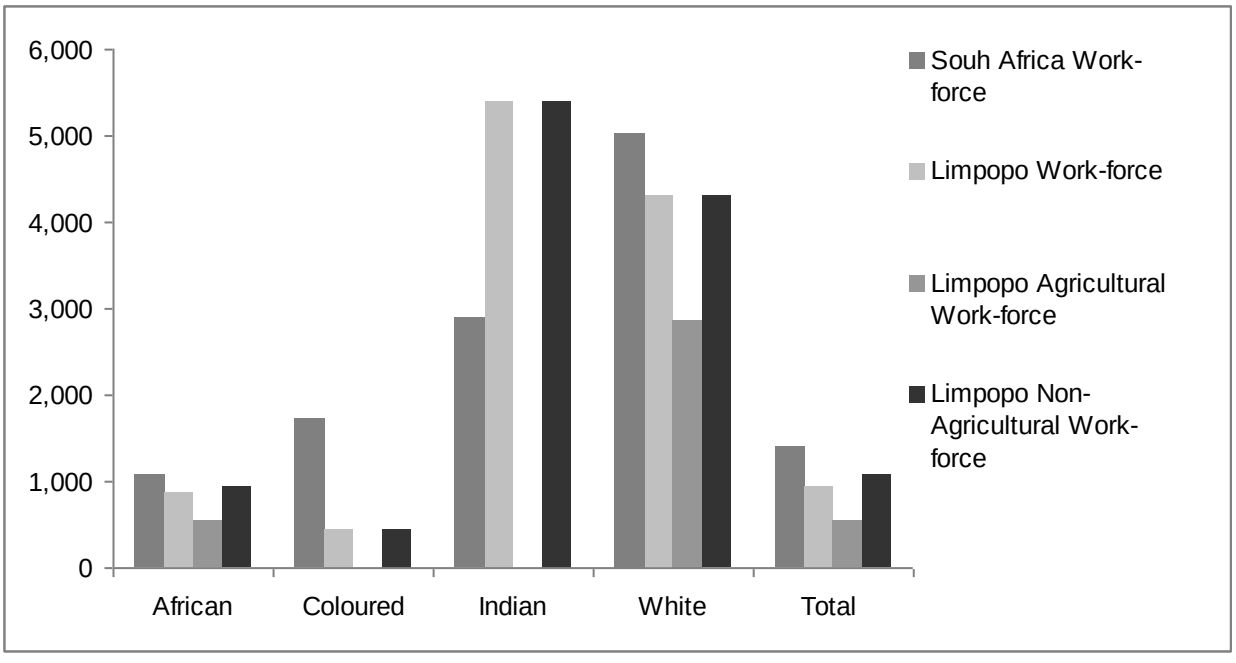
Figure 18: Mean monthly real household income per capita by race for 2007



Source: Own calculation from Labour Force Survey 2007

In Figure 18 again the agricultural sector's mean household income per capita is very low for Africans and high for Whites. The non-agriculture Limpopo and South African household incomes display the same patterns as the individual incomes, with Whites earning the most on average and Africans earning the least.

Figure 19: Monthly median income for individuals by race for 2007



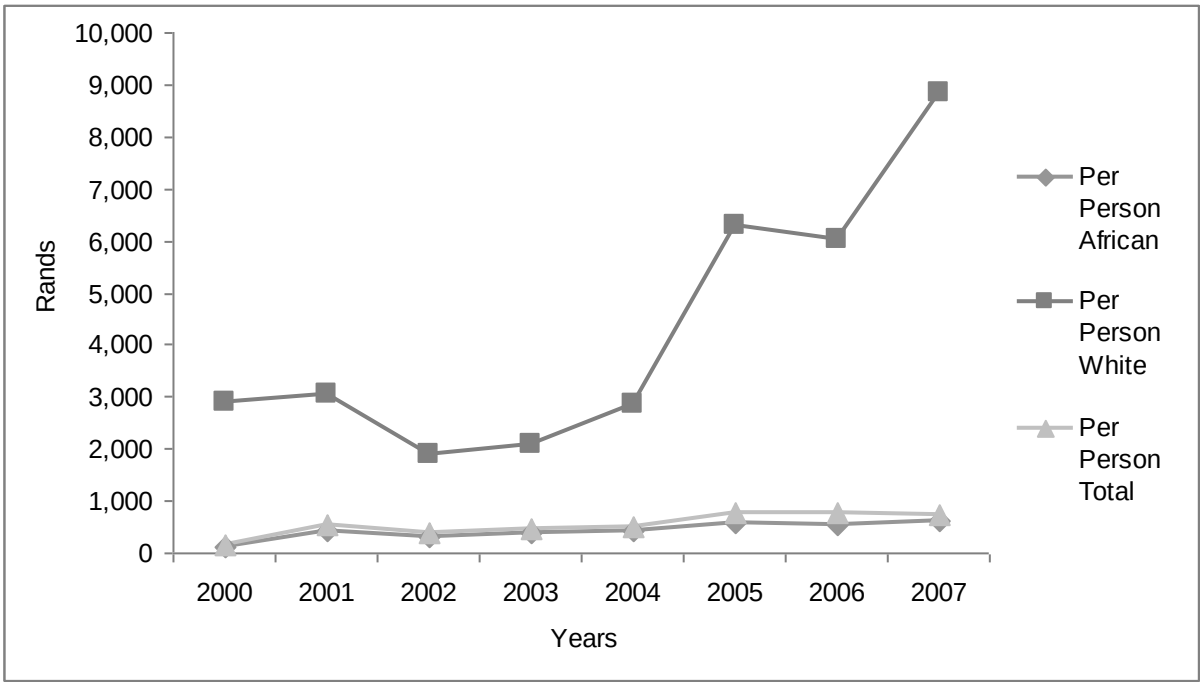
Source: Own calculation from Labour Force Survey 2007

The median incomes are illustrated above in Figure 19 to correct for any measurement error with regards to mean incomes. The mean can be influenced by outliers, and in a country like South Africa with the high inequality, median better reflects the true nature of profiles. Median represents the 50th percentile, meaning 50% of the individuals receive equal or less than the mentioned income. Hence this figure shows a lower income across all population groups. The trend remains the same, with Whites earning the most and Africans earning the least. Indian non-agricultural households also have the highest median income, and Limpopo is doing financially worse than South Africa concerning all races' incomes.

4.2. Limpopo agricultural work-force

Taking a closer look at the agricultural work-force in the Limpopo over time, the subsequent figures were obtained:

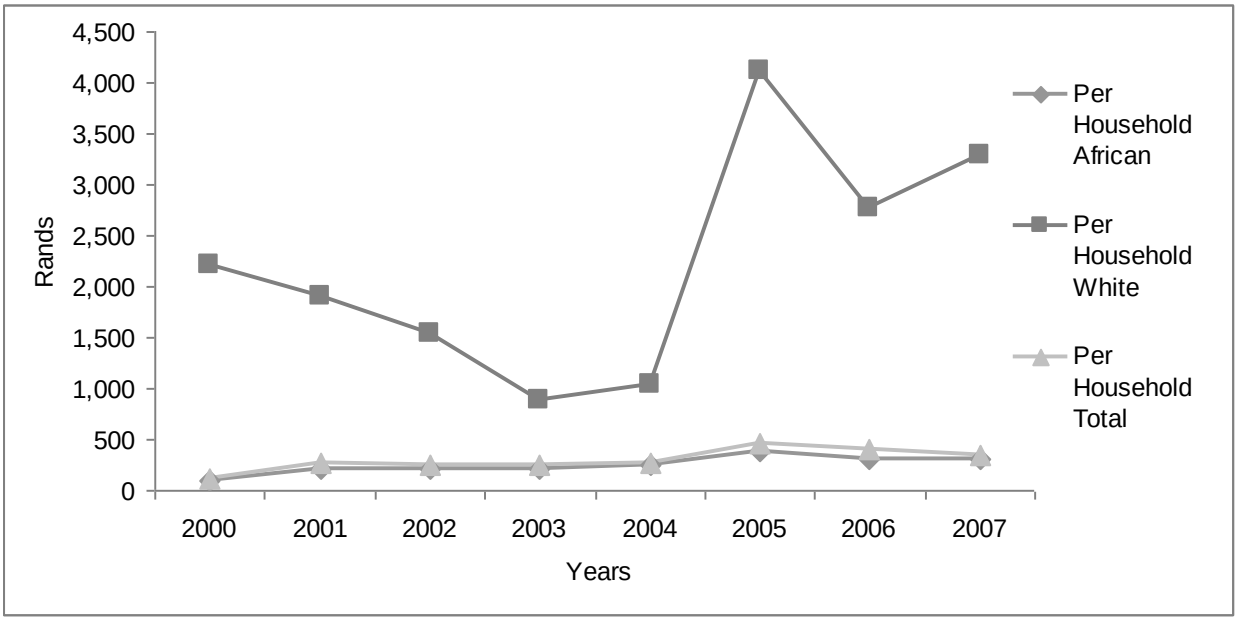
Figure 20: Real monthly mean income for individuals working in agriculture from 2000



Source: Own calculation from Labour Force Survey 2000-2007

Above figure (Figure 20) clearly indicates the huge difference between the White population's mean incomes compared to that of the African population. The African population's average income remains stable and alike over time, whereas the White's income increases significantly over time. The African income profile drives the total income profile.

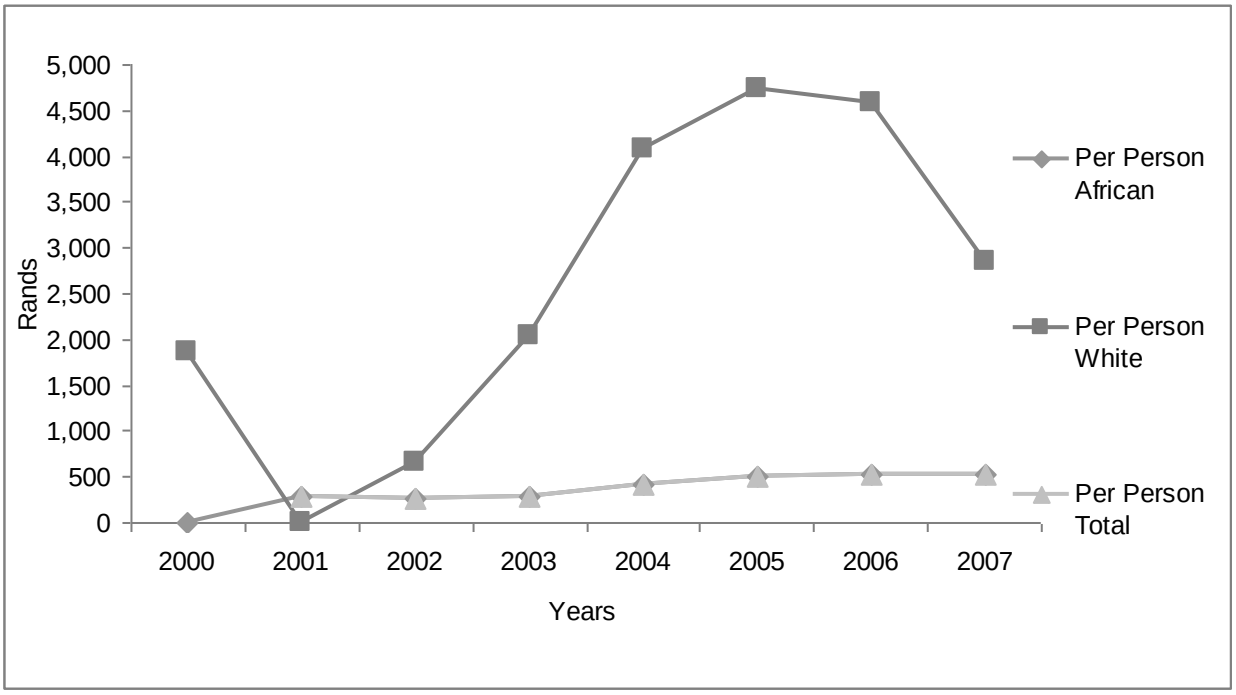
Figure 21: Real mean household income per capita for all agricultural households since 2000



Source: Own calculation from Labour Force Survey 2000-2007

The household earnings are presented above (Figure 21) for all agricultural households, thus all households that have a member / members in the agricultural sector. The figure signifies a similar trend than the individual earnings profile with the African income profile increasing slightly over time. This indicates that households are very much dependent on the agricultural individual earnings within the household

Figure 22: Monthly median incomes of individuals in agriculture since 2000



Source: Own calculation from Labour Force Survey 2000-2007

Compared to the mean income, the median income in Figure 22 also shows a wide disparity between the income of Whites and Africans. The conclusion from above three figures is that there is a significant difference between the incomes of the White population and the income of the African population in the Limpopo agricultural sector.

4.2.1. Beneficiaries from agricultural activities

Considering the number of beneficiaries of the agricultural workers, the following table and figure were obtained. Beneficiaries were defined as the number of people in a household with an agricultural employee amongst them. But there are two different reporting measures. The first measures all beneficiaries, thus all individuals that get affected by agricultural activities, meaning a household with four members, all employed, will be beneficiaries if only one works in the agricultural sector. The second reporting measure is that of beneficiaries living in agricultural households where agricultural income is more than 50% of household income, thus as reported in Section 2.2.1.

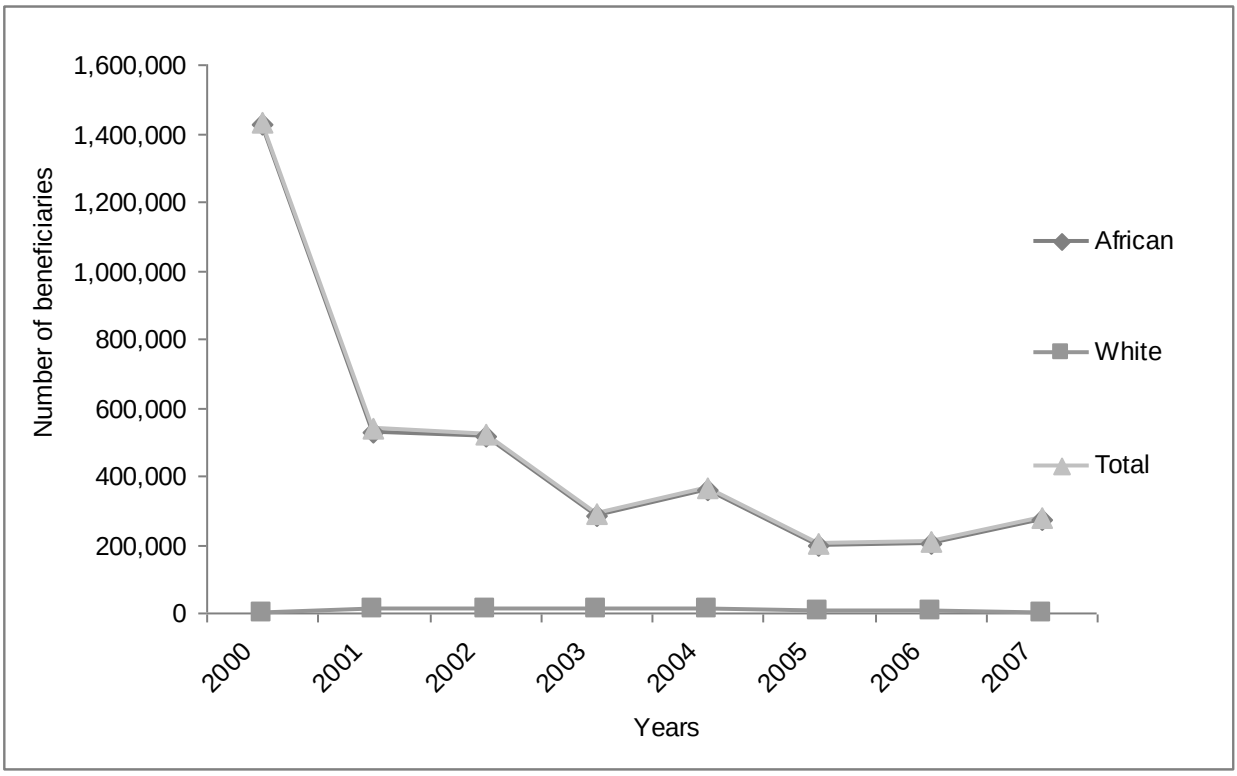
Table 12: Number of beneficiaries in 2007

	All		**More than 50%**	
	Number	**Share (%)**	**Number**	**Share (%)**
African	274,232	99.15	211,267	98.90
White	2,358	0.85	2,358	1.10
Total	276,590	100	213,625	100

Source: Own calculation from Labour Force Survey 2007

Table 12 indicates that the African population has the highest number of beneficiaries in the Limpopo agricultural sector, dominating by 99.15% and 98.9% respectively. Figure 23 shows a huge decrease in the number of African beneficiaries from 2000 to 2001 which levels out and increases slightly from 2006. The number of African beneficiaries decreased from 1.428 million in 2000 to around 274 232 in 2007, while the number of White beneficiaries remained insignificantly low over this period, with a maximum of 10 600 in 2001. The total number of beneficiaries increased from 210 151 in 2006 to 276 590 in 2007.

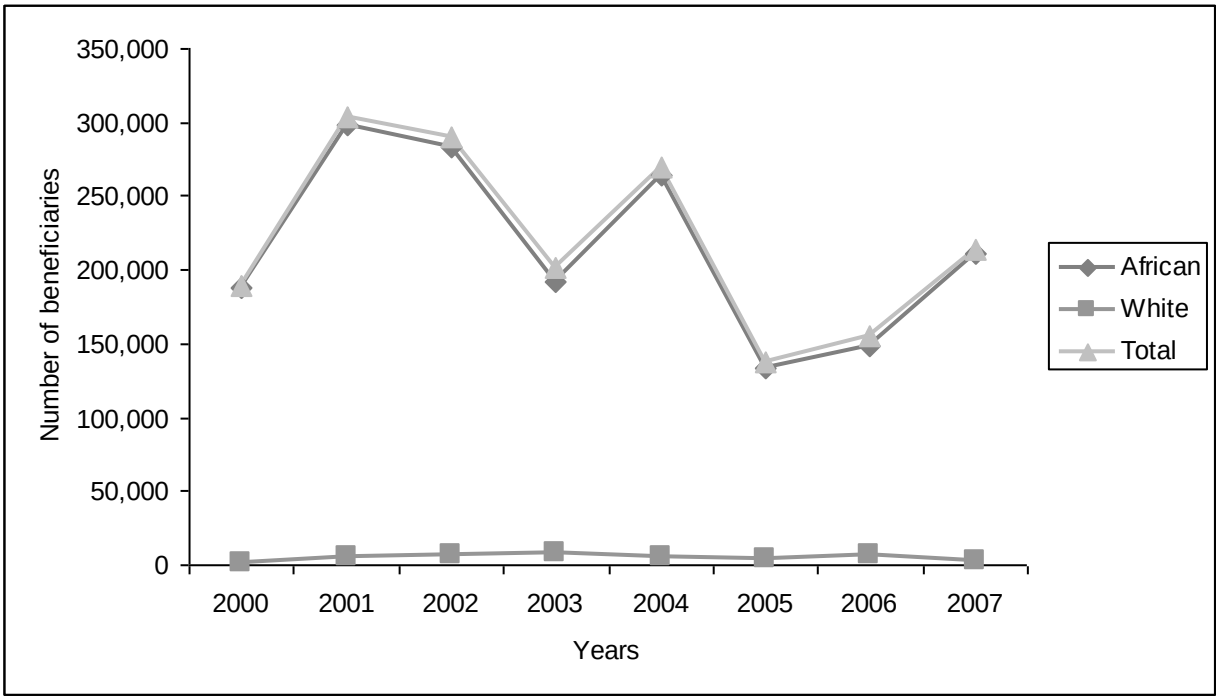
Figure 23: Number of all beneficiaries from 2000 till 2007



Source: Own calculation from Labour Force Survey 2000-2007

Taking incomes from other industries into consideration, Figure 24 indicates the number of beneficiaries in households that obtain more than half of their household income from agricultural activities. A different trend can be observed. The White beneficiaries stay constant, like in Figure 23, but the total number of beneficiaries and the number of African beneficiaries varies year on year. Its highest peak is in 2001 with 303 613 and 298 196 respectively, while the lowest point is in 2005 with 136 895 and 132 796 beneficiaries respectively. In 2007 there were 213 625 members in households who derived more than 50% of their household income from work in agriculture.

Figure 24: Number of beneficiaries in agricultural households with more than 50% income share



Source: Own calculation from Labour Force Survey 2000-2007

In general, the number of beneficiaries in all household who derive income from work agriculture declined over time, whilst the number of beneficiaries in households who derive more than 50% of the household income from work in agriculture, varied across time.

5. Poverty indices of Limpopo agriculture

5.1. Theory

Poverty, as defined by the *Concise Oxford Dictionary,* "is the state of lacking adequate means to live comfortably and the want of things or needs indispensable to life (Govender, Kambaran, Patchett, Ruddle, Torr and Van Zyl 2007:118). A welfare indictor, usually either income or expenditure, is used to rank individuals or households.

Chambers (1988) claims that there are five dimensions of poverty namely:

1. 'Poverty proper' where a lack of adequate income or assets for generation of income are identified;

2. Physical weakness as a result of under-nutrition, disability or sickness;

3. Isolation, physical or social, because of location, access to goods and services;

4. Vulnerability to become more poor and risk to crisis;

5. Powerlessness within the existing economic, political, cultural and social sphere.

The first step regarding poverty analysis is to decide on a poverty (living) indicator to use, example income or expenditure, and which poverty dimension will be analysed. Next is to decide on a poverty line which separates the poor and non-poor. Woolard and Leibbrandt (1999:8) state that the point where the line is drawn is usually arbitrary. This can mean that one individual might be classified as poor; while another earning R1 more is qualified as not poor. But a poverty line needs to be drawn to analyse the nature of poverty.

Analysis of the poor usually entails measures of poverty. One of the most common measures to use is the Foster-Greer-Thorbecke class of poverty. The measure can be written as

$$P_\alpha = \frac{1}{n}\sum_{i=1}^{q}\left[\frac{z - y_1}{z}\right]^\alpha \qquad \text{for } \alpha \geq 0 \qquad (5)$$

Where *z* represents the poverty line, y_1 is the living indicator (i.e. income or expenditure) and *α* symbolizes the aversion to poverty parameter. By adjusting *α*, different classes of poverty can be identified. The headcount ratio, which gives the number of people living under the poverty line, is represented by α=0. Adjusting the value to 1, a poverty gap index is achieved, which indicates the depth of poverty; thus the average inequality amongst the poor. The last index is α=2, which illustrates the severity of poverty. This option gives the most poor a higher value (weight), and therefore the severity of the poverty gap can be observed. All three measures are expressed in percentage terms, hence α=0 will offer the percentage number of people living under the poverty line, α=1 will provide the inequality for those living under the poverty line, thus between the most poor and the least poor in percentage terms where 1 is equal to perfect inequality and 0 perfect equality. The last measure, α=2, can be analysed the same as the previous measure, but the poorest weights more.

5.2. Poverty indicators from Labour Force Surveys

The living indicator used in the analysis of the Labour Force Survey data is that of per capita household earnings. These earnings were adjusted with consumer price index to achieve real earnings (in 2000 prices) over the years. The data was adjusted for per adult equivalent as proposed by die OECD equivalence scale where household size is equivalent to:

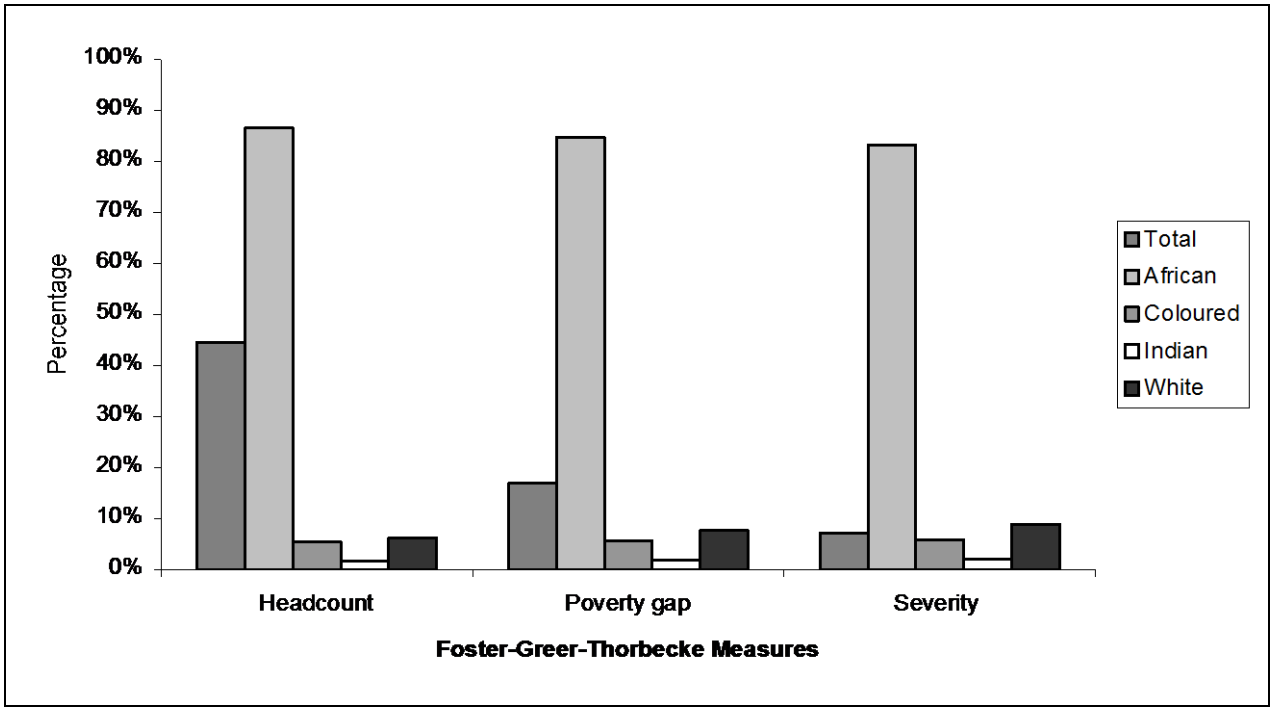
$$E = 1+0.5(A) + 0.3(K) \qquad (6)$$

Where a value of 1 is assigned to the first household member, 0.5 to additional adult members (*A)* and 0.3 to each child under the age of 15 (*K)*.

A poverty line of R 322 per adult equivalent per household per month in 2000 basis year terms was used; this poverty line was decided on by the South African Government as the 'official' poverty line. The advantage is that a 'national' poverty line was decided on, but to its disadvantage it cannot be compared with international standards.

The Foster-Greer-Thorbecke class of poverty indices were used, and the following figures illustrate the results obtained in 2007. The total rate for respectively South Africa, Limpopo and the agricultural households in the Limpopo is given together with each population group's share towards the total.

Figure 25: Poverty rate for South Africa and shares of population groups

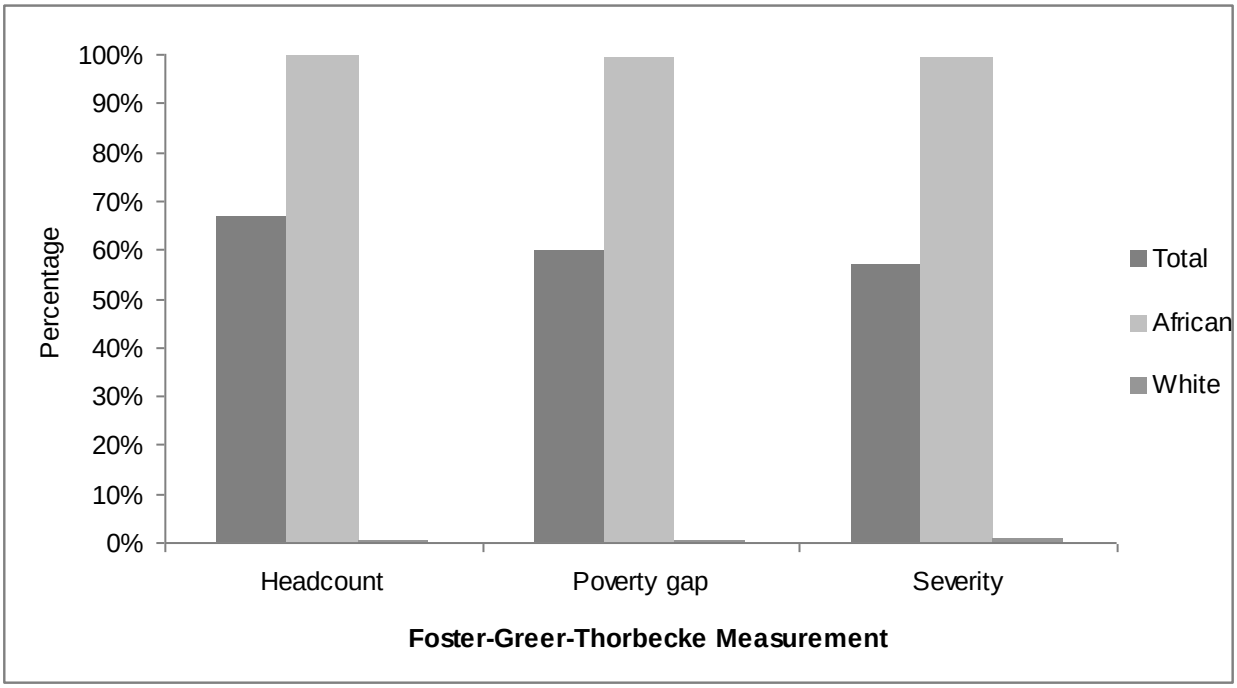


Source: Own calculation from Labour Force Survey 2007

In Figure 25 the total headcount ratio, poverty gap ratio and severity rate of individuals in South Africa are 44.57%, 16.88% and 7.15%. The African population has the highest share in the total for all classes of poverty (86.63%, 84.81% and 83.3%) and the Indians the lowest (1.7%, 1.8% and 1.9%). According to the headcount ratio 44.57% of the people in South Africa live below the poverty line. Africans comprise 86.63% of the people living below the poverty line and Indians comprise only 1.7%. This translates into 21 million people (44.57% of 47 million) in households earning less than R322 per month per adult equivalent (2000 values) with 18 million that are African and 361 164 of the Indian population group. The poverty gap of 16.88% gives an indication of the average inequality between those living below the poverty line, while the severity index of 7.15% gives and indicates the severity of poverty by given a greater weight to the most poor.

Looking at Limpopo in Figure 26, Africans still dominate the poverty measure, but by a far greater share than for the national average. Of the individuals recorded as living below the poverty line (headcount ratio), 99% are Africans and only 1% are Whites. The total poverty rates for the different measures in the Limpopo province are respectively 67%, 60% and 57%. This corresponds to just over 3.8 million people that are living below the poverty line according to the headcount ratio.

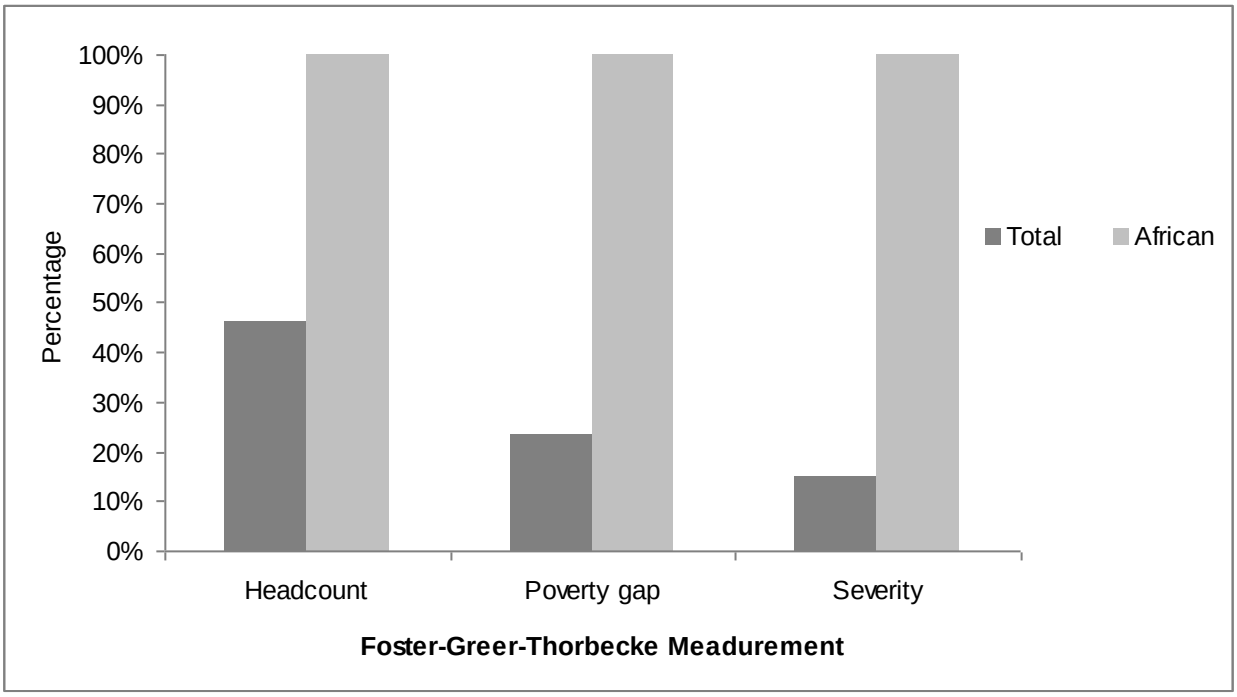
Figure 26: Poverty rate of the Limpopo and shares of population groups



Source: Own calculation from Labour Force Survey 2007

The Limpopo agricultural households (more than 50% of income from agricultural activities) were also analysed in Figure 27 and the results shows a similar pattern as that of the rest of the Limpopo. There are no White agricultural household in Limpopo recorded that live below the poverty line. The poverty rates are 46.3%, 23.50% and 14.80% for the respective measures. This translates into around 24 457 agricultural households that are living below the poverty line. It must be kept in mind that poverty profiles can be lower due to the sub sample used. The sub sample only takes households which earn between 50% and 100% of their income from agricultural activities. Thus all households with zero to 50% incomes form agriculture are not regarded, excluding the households of lower income agricultural workers that contribute less than 50% to the household income.

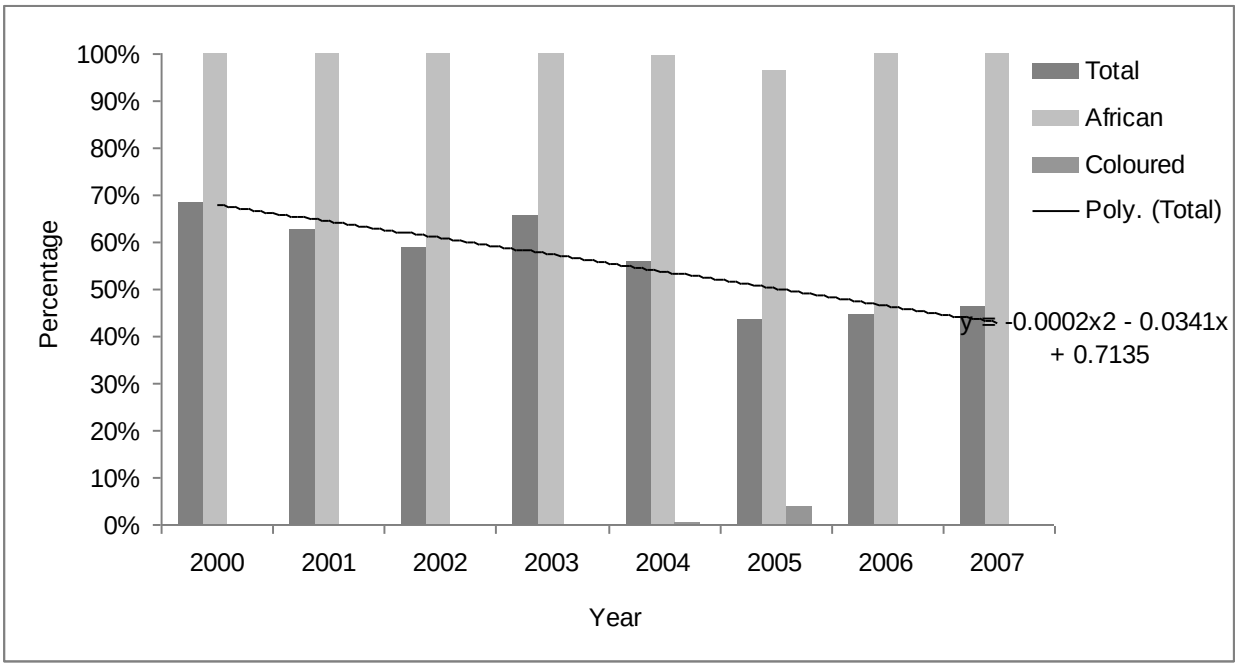
Figure 27: Poverty rate for the Limpopo agricultural households and shares of population groups



Source: Own calculation from Labour Force Survey 2007

Investigating the trend over years (2000 till 2007) of the Limpopo agricultural households, the subsequent figures were obtained:

Figure 28: Poverty headcount by year for Limpopo agricultural households

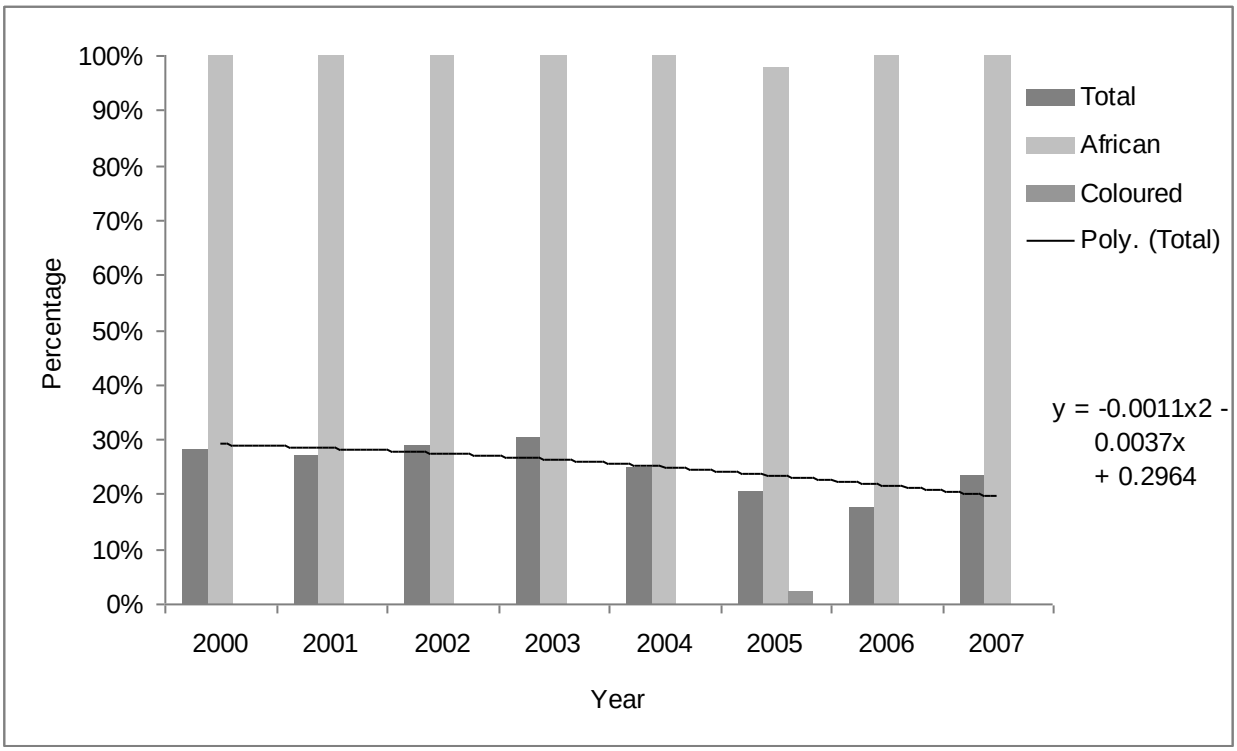


Source: Own calculation from Labour Force Survey 2000-2007

Above figure (Figure 28) indicates the headcount ratio of individuals in the Limpopo agricultural households and the share of African and Coloured households towards the total headcount ratio. It is clear that African individuals contribute the most to overall poverty dominating each year. There is also a slight decrease in total poverty from 68.17% to 46.29%, as the trend line indicates over time.

The next figure (Figure 29) indicates the poverty gap ratio:

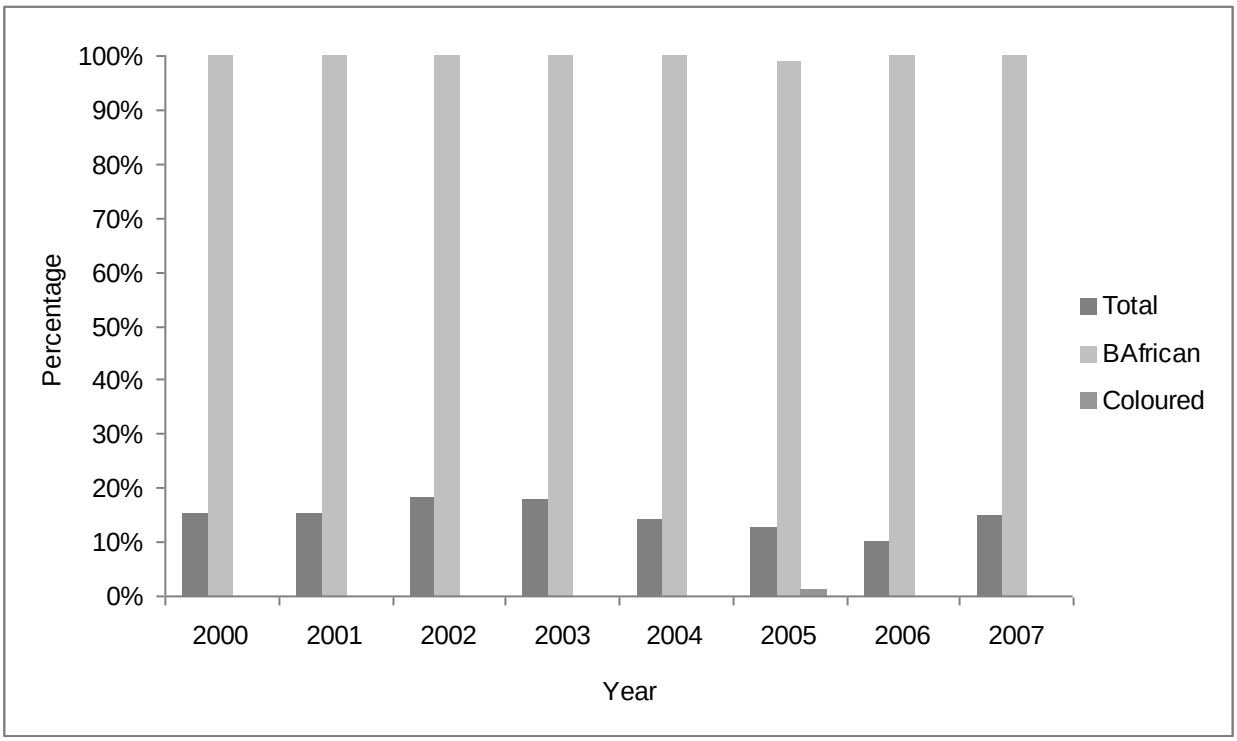
Figure 29: Poverty gap by year for Limpopo agricultural households



Source: Own calculation from Labour Force Survey 2000-2007

The poverty gap ratios over time indicate that individuals in African households have the highest inequality amongst the poor in the province with the highest share in the poverty gap measurement. The total poverty gap increased until 2003 (30%) after which it decreased to 23%. This signifies the decrease of inequality within the households living below the poverty line. The Coloured and African households living below R322 per month per adult equivalent are thus more equal resulting in less extreme poverty. The gap between the extremely poor and those living just below the poverty line has decreased.

Figure 30: The severity of poverty by year for Limpopo agricultural households



Source: Own calculation from Labour Force Survey 2000-2007

Again, a similar trend can be seen in Figure 30 as the previous figure with increases and decreases. Total severity of poverty has some up and down movement since 2000 and African individuals are the dominant population group in this poverty measure. The low poverty gap and severity of poverty in the Limpopo agricultural households can be connected with inequality in the next section. It will be stated that within group inequality is relatively low compared to between group inequalities. Figures indicate that poverty according to the three measures declined from 2000 till 2005, but since then it has increased again till 2007.

6. Inequality within the Province

6.1. Theory

Inequality is regularly measured with regards to income, and represents the distribution of income in a population or population sub-group. The poverty gap described in Section 6 is an example of such an inequality measure within a sub-group, in this case between the poor populations. There are various ways to measure income inequality, although most common is to provide summary statistics of the income distribution (Govender et al. 2007:127). Therefore the share of poorest 10% to the total population's income can be measured. Another measure is that of the Lorenz curve and Gini coefficient. The Lorenz curve plots the cumulative percentage of households against the cumulative percentage of incomes, creating a cumulative density

function. The Gini coefficient ranges from 0 to 1, with 1 being perfectly unequal and 0 perfectly equal. The Gini coefficient is derived from the Lorenz curve. The area between the Lorenz curve and the hypothetical perfect equality line divided by the area underneath the line reflects the Gini coefficient. Another measure is the Theil index which was developed by the econometrician Henri Theil, which can be written as follows:

$$T_T = \frac{1}{n}\sum_{i=1}^{N}\left(\frac{x_i}{\ddot{x}} * \ln\frac{x_i}{\ddot{x}}\right) \quad (7)$$

With x_i the income of the *ith* person, *N* the number of people and $\ddot{x} = \frac{1}{n}\sum_{i=1}^{N} x_1$ the mean income. The first part in the brackets can be seen as the individual's share of aggregate income, and the second part is the individual's income relative to the mean. The Theil index is equal to 0 if there is no income inequality (thus 50:50 distribution), equal to 0.5 if the distribution is 74:26, equal to 1 if it is distributed 82:18, equal to 2 if the distribution is 92:8, and 4 if it is distributed 98:2 (Wikipedia). Thus the higher the Theil, the skewer the income distribution.

6.2. Inequality measures from Labour Force Surveys

Investigating the 2007, the following table represents the Gini and Theil inequality measurements by race for South Africa, the Limpopo and the Limpopo agricultural households. Per capita household earnings are used as reference throughout this section:

Table 13 : Gini and Theil measures of inequality for 2007

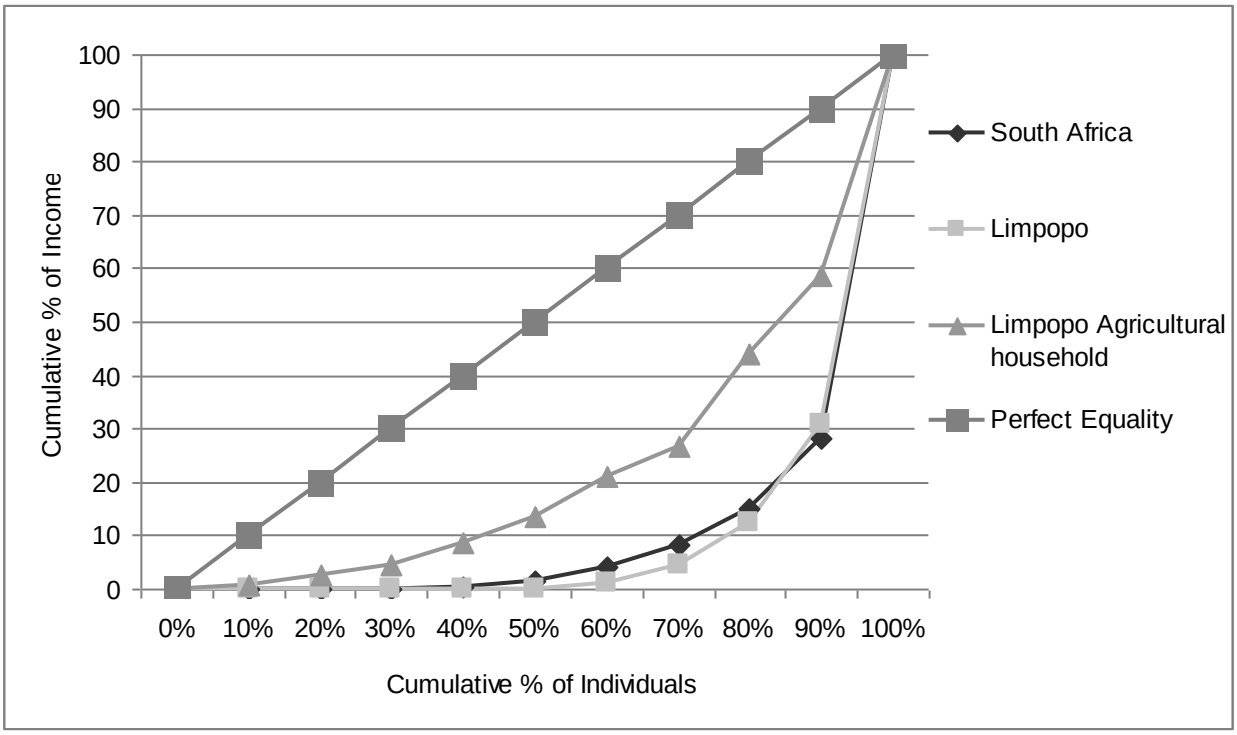
	South Africa		**Limpopo Province**		**Limpopo agriculture**	
	Gini	**Theil**	**Gini**	**Theil**	**Gini**	**Theil**
African	0.79	3.19	0.65	0.78	0.53	0.49
Coloured	0.55	0.56	0.07	0.01		
Indian	0.57	0.6	0.35	0.23		
White	0.47	0.4	0.41	0.29	0.13	0.32
Total	0.75	2.25	0.66	0.81	0.57	0.62

Source: Own calculation from Labour Force Survey 2007

In Table 13, the African population with a Gini of 0.79 and Theil of 3.19 have the highest inequality amongst themselves in terms of income in South Africa. The White subgroup has the lowest inequality with 0.47 and 0.4, meaning the income disparity amongst the subgroup is mostly equal and the average for South Africa is 0.75 and 2.25. In the Limpopo Province, African subgroup dominates even in agriculture with the highest income inequality than the other subgroups or race. However, the White subgroup has the lowest, meaning the income in agriculture is mostly equal among them. Income inequality is lower amongst agriculture households in Limpopo compared to inequality for all households in Limpopo.

Looking at the Lorenz curve in Figure 31, Limpopo agricultural households have the lowest inequality, while it is less clear whether South Africa or Limpopo has the highest inequality.

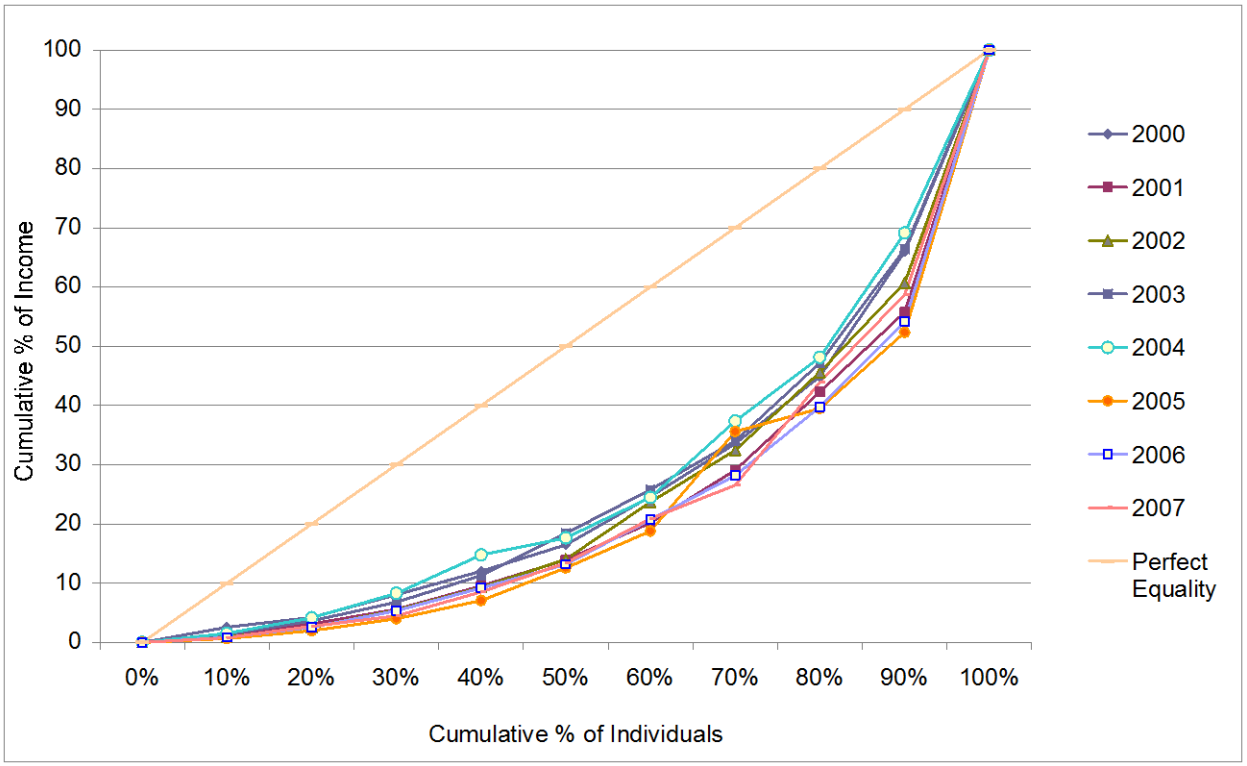
Figure 31: Lorenz curve for individuals in South Africa, Limpopo and Limpopo agricultural households in 2007



Source: Own calculation from Labour Force Survey 2007

The following 2 figures represent the Lorenz curve and Gini coefficients for the Limpopo agricultural households from 2000 till 2007. It is evident from the picture that income inequality seems to be a persistent problem. It can be further observed in Figure 32 that there was no significant change over time in terms of income distribution and none of the components moved towards perfect equality, meaning income disparity remains large over time.

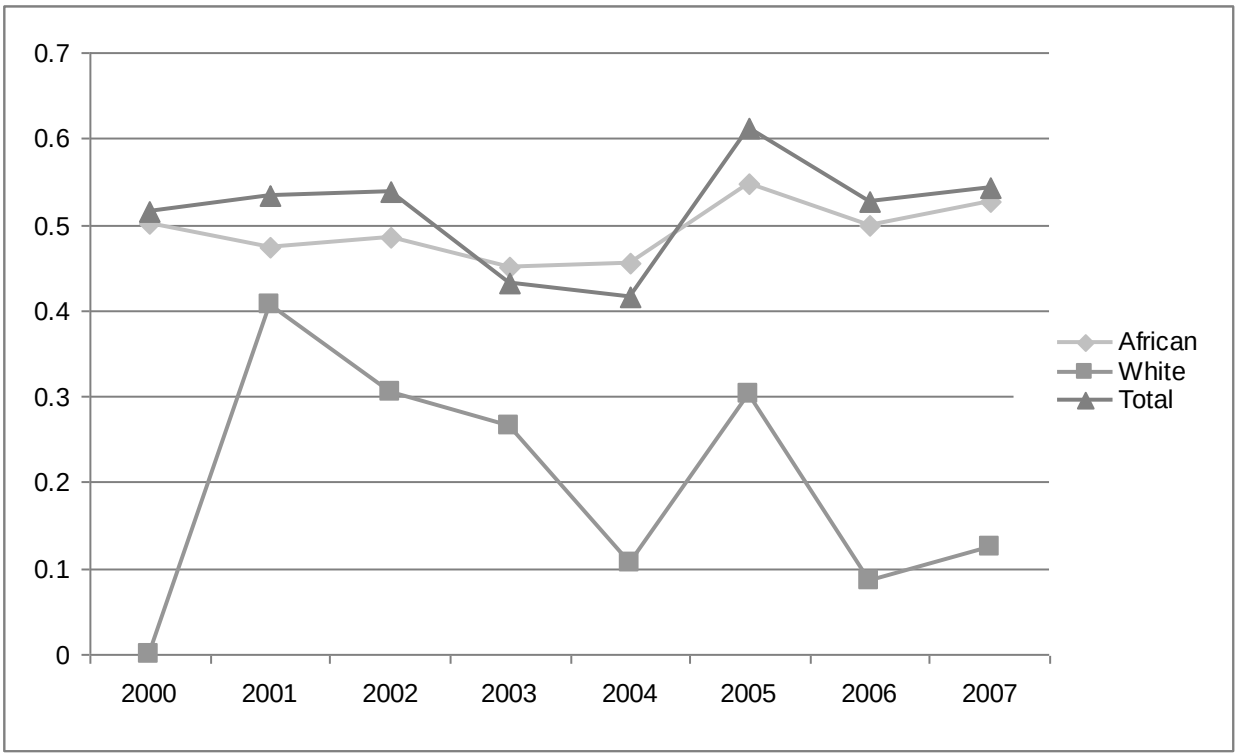
Figure 32: Lorenz curve for Limpopo agricultural households by year



Source: Own calculation from Labour Force Survey 2000-2007

The Gini coefficient in Figure 33 shows a slight upward movement comparing 2000 and 2007. The Gini coefficient for Africans increased from 0.50 to 0.53 while that of Whites also shows an increase from 0 to 0.13. The up and down movements of the African and White households counteracts each other which creates a more smooth trend in the total inequality. This is corresponding to above figure of the Lorenz curves where there is no significant change in inequality over time.

Figure 33: Gini coefficient for Limpopo agricultural households by year



Source: Own calculation from Labour Force Survey 2000-2007

Inequality within the Limpopo agricultural households since 2000 has not decreased which indicates that there is still a large gap between the rich and poor within the agricultural sector.

7. Conclusion

The Limpopo agricultural sector is a vital player in the economy of the Limpopo Province and therefore this paper analysed the trends associated with the sector with regards to demographics, poverty, income and inequality. The Labour Force Survey provided the necessary data to compute the required results, ranging from the year 2000 till 2007. The paper indicated that the African population is dominant in this sector, while the Whites are the least in South Africa. The total number of individuals in respective economic segments, i.e. South Africa, Limpopo and Limpopo agriculture are also provided together with statistics such as age structures and employment figures.

The skills level of the agricultural sector is worrisome, and the impact of low skill levels reflects in the income profiles. Incomes are lower across the board except for that of the White population. Unemployment rates are being driven by the high unemployment within the African population in both South Africa and the Limpopo. This reflects in the high share of the Africans in the total poverty rate throughout the country. Share of total poverty levels are extremely high amongst the Africans in the Limpopo agricultural sector, reflecting the need for poverty alleviation.

Income inequality paints a rather grim picture indicating that equality has not increased over the past 7 years for the agricultural sector. The sector is also characterised by more between-race inequality and not so much by within-race inequality as the rest of the country.

This report provides an in-depth look at the agricultural sector of the Limpopo. Policy decisions and redistribution policies of provincial level need to take these data into account to promote the economic growth of the Limpopo and also to enhance the living standard of the people of the Limpopo

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