

South Africa Livelihood Zone Profile

59201 – Lowveld Open Access Mixed Farming (ZALCM)

Zone Description

This livelihood zone covers parts of Limpopo and Mpumalanga. In Vhembe District in Limpopo, the zone comprises of rural villages in Mutale, the lowveld eastern part of Thulamela, and the south-eastern lowveld corner of Makhado. In Mopani District, the zone covers most of Greater Giyani (except for the towns, the National Parks and the Lowveld Open Access Irrigated Cropping zone (ZALOI/59302); the eastern and northern part of Greater Letaba; and the northern corner of Greater Tzaneen and a small section of Ba-Phalaborwa. In Mpumalanga, the livelihood zone lies in three parts of Ehlanzeni District: the eastern inhabited part of Bushbuckridge (excluding the National Parks); a narrow strip in Mbombela; and the south-eastern corner of Nkomazi at the confluence of the Swaziland and Mozambique borders.

Figure 1: Map of the livelihood zone

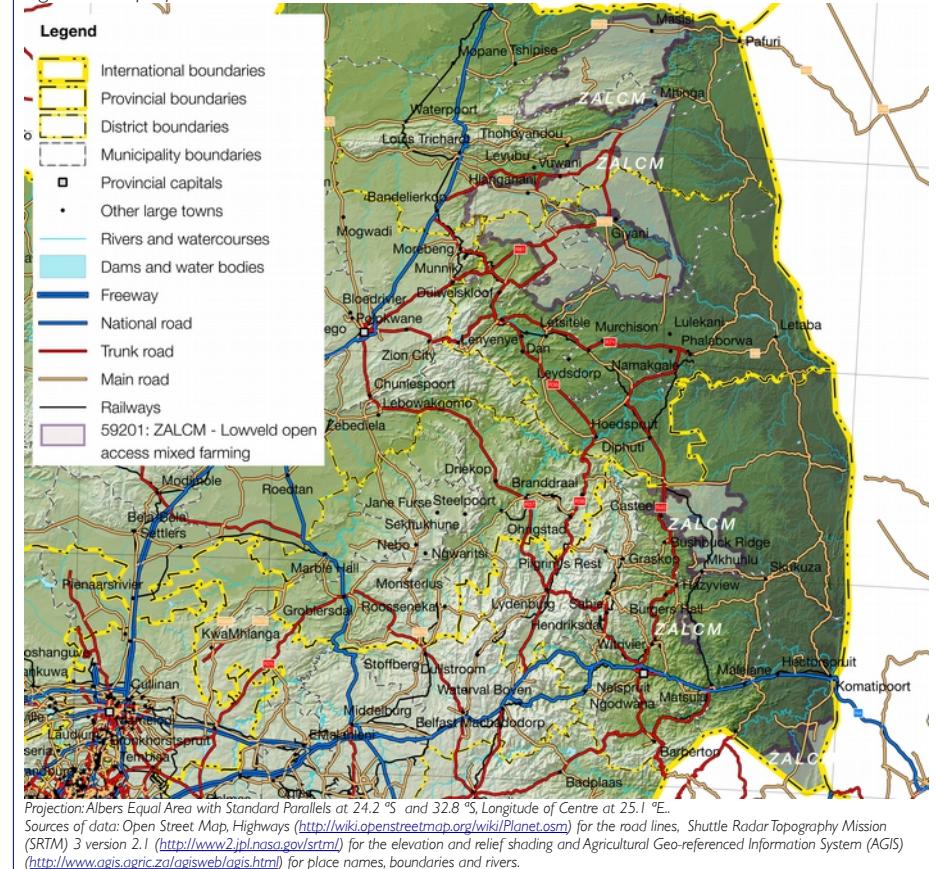


Figure 2: Livelihood zone location

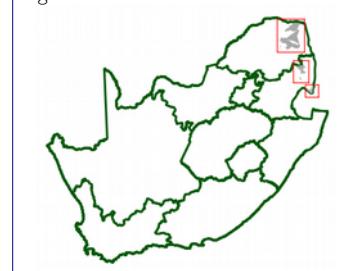


Figure 1 is a map of the zone and **Figure 2** shows the location. The Mutale District section is not well served by infrastructure: it is connected to Thohoyandou via district roads, while the R525 skirts the northern boundary and the R540 in the south passes through the middle of Thulamela. The R81 and the links to Greater Giyani and Greater Letaba with Polokwane, while the R529 connects Giyani to Tzaneen. The section of the zone in Bushbuckridge and Mbombela enjoys numerous short connections to the R40 that connects Nelspruit and Ba-Phalaborwa. There is also a railway line that runs through these sections. The Nkomazi section has a good road, the R571, which branches from the Pretoria/Nelspruit - Maputo (Mozambique) N4 highway at Komatipoort. The R571 continues over the border into Swaziland.

Temperatures in the livelihood zone vary from lows of 5°C in winter to highs of 38°C in summer. The mean annual rainfall is between 300-600mm. Rainfall is variable and the recent drought of 2015-16 has been devastating to farming.

Cattle and goats are important for livelihoods in the zone, which make use of the extensive grazing in the surrounding veld. Households also depend on casual labour, remittances and grants.

Table I - 2016 Population breakdown of districts and municipalities covered by the livelihood zone, based on the 2011 Census and annual projections

Province	District	Municipality	Pop. Est. in ZALOI	% of Admin Level
Limpopo	Capricorn	Molemole	692	0.60%
		Ba-Phalaborwa	7,526	4.69%
	Mopani	Greater Giyani	198,185	76.15%
		Greater Letaba	152,759	67.14%
		Greater Tzaneen	146,444	35.24%
	Vhembe	Makhado	223,233	40.13%
		Mutale	85,206	85.61%
		Thulamela	216,677	32.31%
Provincial Total			1,030,722	17.69%
Mpumalanga	Ehlanzeni	Bushbuckridge	285,138	50.52%
		Mbombela	5,175	0.84%
		Nkomazi	65,909	16.08%
Provincial Total			356,222	8.18%

Source: Statistics South Africa, Census 2011 | small area population data and district population projections

breakdown for each municipality.

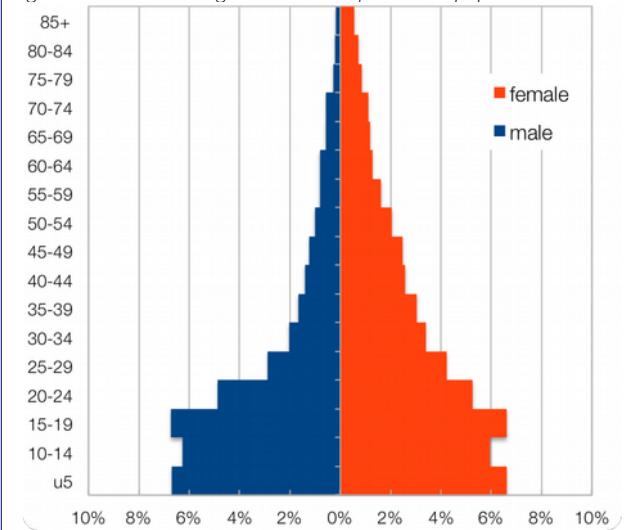
The age and gender pyramid for the livelihood zone is given in **Figure 3**. It is important to note the low proportions of adult men (males, including and above the 25-29 age band) in the livelihood zone as well as the high proportion of children (younger than 20). This unbalanced gender and dependency ratio is a consequence of men seeking employment outside of the zone, while women are more likely to remain, looking after family holdings, children and relatives. This is a continuation of the patterns during *apartheid*, when most of the zone was a part of the former *bantustans*, supplying labour to urban, industrial and mining areas. The persistence of this pattern leads to higher dependency ratios and shortages in the zone of human capital, which has impacts on productivity.

People in the livelihood zone speak many different home languages, including Tshivenda, Xitsonga, Sepedi and Siswati.

The livelihood zone contains the overwhelming majority of people in Greater Giyani (76%), Greater Letaba (67%) and Mutale (85%). Municipalities that still have high proportions of their populations in the zone are: Greater Tzaneen (35%), Makhado (40%), Thulamela (32%) and Bushbuckridge (51%). Nkomazi and Ba-Phalaborwa have significant minorities of their populations in the zone (16% and 5%, respectively), while Molemole and Mbombela have fewer than 1% of their populations in the zone.

The total population in the zone is 1,386,944 (projected to 2016 from the Census 2011) and this is 8.18% and 17.69% of Mpumalanga Province's and of Limpopo Province's total populations, respectively. **Table I** shows the

Figure 3: Gender and age breakdown of the zone population



Seasonal Calendar

Since this is a rural livelihood zone and rural life is determined by agricultural seasons, the information is organised by *consumption year*, which begins with the start of the main dry harvest and runs through to just before the next year's main dry harvest. In this zone, the main dry harvest begins in early May, so the consumption year begins that month and runs up until the end of the following April. The consumption year that interviewees preferred to use in describing their livelihoods is called the *reference year* and this runs from May

2013 to April 2014. It is recorded as a year that is neither very good nor bad but is 'typical', or occurs most frequently. The seasons are summarised in **Figure 4**.

After harvesting maize and beans through the autumn and winter months from May to July, land clearance and preparation begins in August and may continue up to November (spring). Depending on the onset of the summer rains, planting will commence from October and finish by December. In order to spread risk, more than one planting is undertaken. Weeding (a period of intense activity and one in which work opportunities increase) takes place from December to February, with some crops being eaten green over March and April. The three main crops grown during this period are maize, groundnuts and beans.

Figure 4: Seasonal calendar

Activity	Who?	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Maize	(Land Preparation)	Both											
	(Planting)	Both											
	(Weeding)	Both											
	(Green Cons)	Both											
	(Dry Harvest)	Both											
Groundnuts	(Land Preparation)	Both											
	(Planting)	Both											
	(Weeding)	Both											
	(Harvest)	Both											
Beans	(Land Preparation)	Both											
	(Planting)	Both											
	(Weeding)	Both											
	(Harvest)	Both											
Vegetables		Both											
Casual Labour (crop fields)		Both											
	(domestic work)	Female											
	(herding)	Male											
	(public work)	Both											
Off-Farm Employment		Both											
Livestock	(heat and birth)												
Livestock sales		Male											
Purchases	(lower prices)												
	(higher prices)												
Labour migration		Both											
Annual Hunger													
Health	(influenza)	Both											
	(diarrhoea)	Both											

Meanwhile, vegetables are grown from February to October, using residual moisture and irrigation, but not during the peak-labour period for rain fed agriculture in November to January. Casual labour increases during spring and summer with work in preparing fields, weeding and harvesting. Herding work is available all year round but public works breaks off in December and for much of January. Employment outside of the villages takes place in autumn and winter.

Food prices escalate somewhat towards the end of the year, while diseases such as influenza affect people more in the cold winter months, with diarrhoea being more often in the wet summers.

Wealth Breakdown

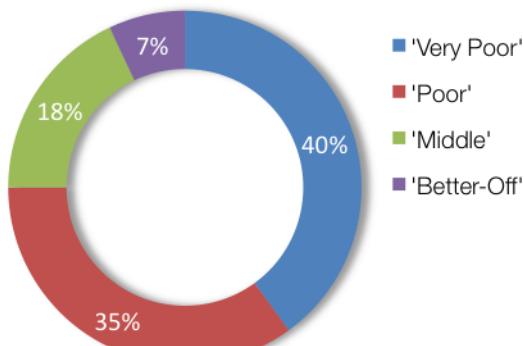
Wealth in this livelihood zone is determined primarily by two factors:

1. Employment, a result of education and good social connections; and
2. Livestock, especially cattle.

Ownership of a business, such as a spaza shop, bakkie or taxi can also be a determinant but land holdings, which increase only marginally from poor (1 Ha) to rich (2 Ha), are not a determinant.

The wealthiest households, described as the 'better-off', are those with permanent work and a salary of approximately R10,000 per month, which is slightly more than the 'middle' who earn approximately R9,000. What distinguishes the 'better-off' from the 'middle' are livestock: the 'better-off' have herds of 15 to 200 head

Figure 5: Wealth breakdown in the lowveld open access irrigated cropping livelihood zone



Source: Survey output, October 2016

of cattle and 12 to 150 goats compared with 10 to 50 head of cattle and 10 to 40 goats for the 'middle'. 'Poor' and 'very poor' households depend instead on social grants and again what distinguishes between the two wealth groups is livestock: the 'poor' have 3 to 10 head of cattle and up to 20 goats, while the 'very poor' may still have up to 7 head of cattle and up to 10 goats.

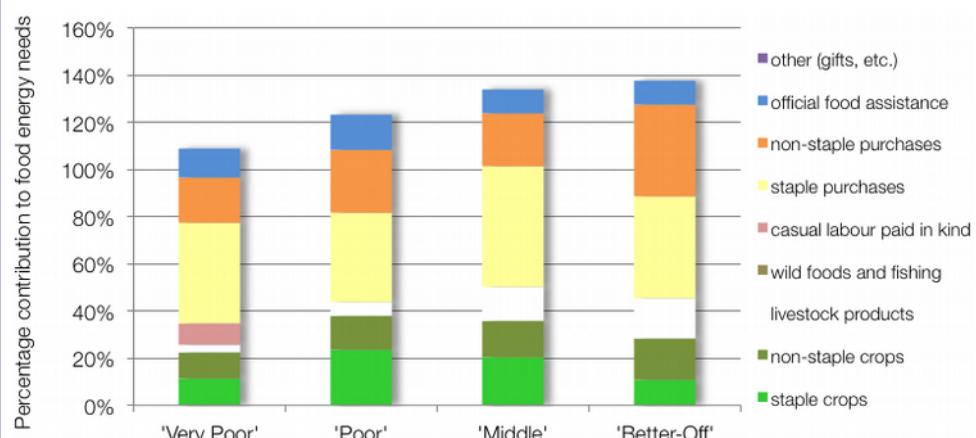
In interviews key informants in the villages tended to estimate larger household sizes, so field teams recorded values in excess to those reported in other surveys, especially the census. The difficulty is in the interpretation of 'household': where this study is investigating the dynamics of assets, food sources, cash income sources and expenditure patterns, which may go beyond a smaller, nuclear household to a somewhat larger 'family' unit. Household sizes are thus 7 to 10 people, which is the basis of the livelihood strategies below and which allows for the sharing of different resources (such as pensions) that would otherwise be confined to a much smaller unit. The values in the study here can be scaled to the appropriate household sizes in other surveys.

It must be noted that outside of the 'normal' or 'typical' households that are presented in this analysis are exceptions: for example, single mothers without relatives or support structures, abandoned elderly people or orphans. These people have specific needs and are captured by other surveys such as the census and the Continuum snapshot survey below.

Sources of Food

Sources of food are expressed in terms of contribution to the minimum human food energy needs, which is 8,800 kJ/person/day. Wealthier households may consume considerably more than this, for example 12,144 kJ/person/day, which is 138% of minimum food needs. Some of this consumption may be wasted, for example

Figure 6: Sources of food (expressed as percentage of minimum average food energy needs) for each wealth group



when food is thrown away or incompletely eaten. Even the poorest households may consume slightly more than the minimum requirement, for example 101%, or 8,888 kJ/person/day. **Figure 6** shows the contributions to food energy for each of the main food sources. Bear in mind that the bars *do not* represent quartiles; the numbers of people and households in each wealth group vary considerably.

Crops play a significant role in household food access, contributing between 22% and 38% of food energy needs. Food crops grown are green maize, maize, beans, water melons, groundnuts, round nuts (bambara nuts) and pumpkin. Interestingly, the trend across wealth groups shows an initial increase from the 'very poor' to the 'poor' and then a gradual decline up to the 'better-off'. This is because the 'very poor' lack the capital (human, financial) for investing in crop production, while the wealthier households are able to purchase and prefer more luxury and diverse food items. The 'poor' derive the most from their crops, followed by the 'middle', obtaining 24% and 20% of their food needs from staple crops only.

Livestock are a significant and important food source with milk making up a proportion of food energy needs that rises steadily with wealth from 3% for the 'very poor' to 17% for the 'better-off'.

Food purchases contribute 62% to 82% of food energy needs, rising with increasing wealth. The contribution to food energy from staple food purchases varies from 38% to 51%. This does not follow any trend with wealth. Non-staples increase from 19% for the 'very poor' to 39% for the 'better-off'.

Food aid, mostly from school meals, is constant across the wealth groups.

Sources of Cash Income

Cash incomes vary considerably across wealth groups, with the 'better off' earning R 302,250 per annum, almost nine times more than the 'very poor', who earn only R34,040 per annum. **Figure 7** shows this distribution—it must be noted that the bars in the figure are not quartiles, they represent wealth groups and wealth groups are not distributed evenly (see **Wealth Breakdown**, above).

The main sources of cash income in the zone are: formal employment for the 'middle' and 'better off' and cash grants

Figure 7: Sources of annual cash income by wealth group

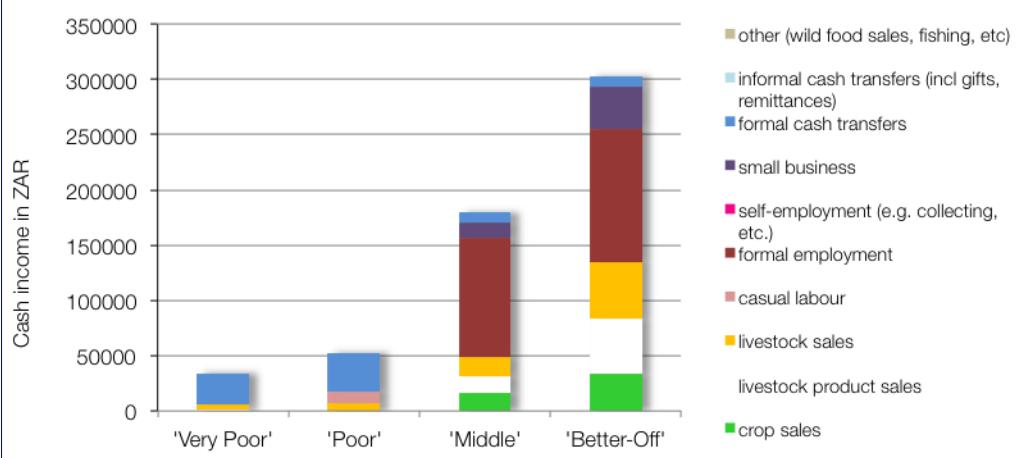
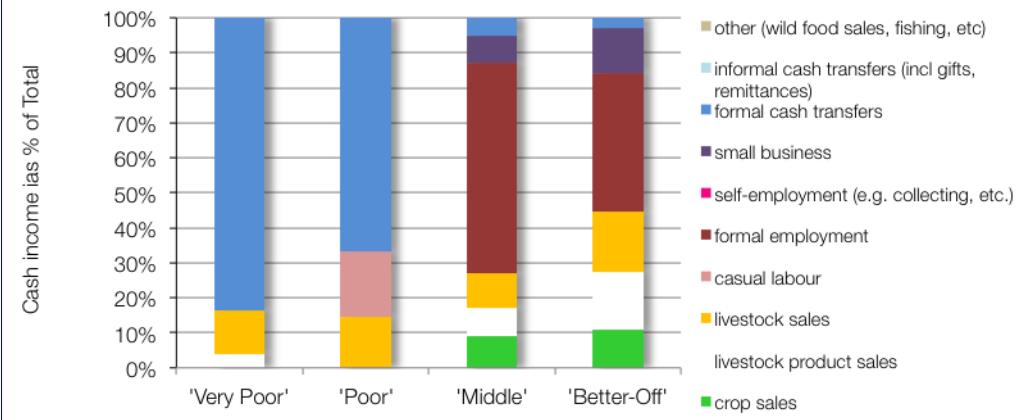


Figure 8: Sources of annual cash income as a percentage of total, by wealth group



for the 'poor' and 'very poor'. This is in keeping with most surveys that ask for the main livelihood source. This is also apparent when income sources are divided by the total to get proportions, which are shown in **Figure 8**.

However, the point is to understand how *all* livelihood sources come together to make up an income and this is interesting because for the 'better-off', almost half of their cash (45%) is earned from farm activities, crops and livestock. In fact, this is what distinguishes them from the 'middle' (cash from employment is quite similar in each wealth group). This does make the 'better-off' more vulnerable to environmental shocks such as drought, while the 'poor and' and 'very poor' are vulnerable to policy changes, inflation and price shocks.

Grants make up 84% and 67% of cash income for the 'very poor' and 'poor', respectively. The remainder of their cash comes from casual labour (mostly domestic work and agricultural piece work), and the sale of animals or animals products.

Expenditure

Absolute expenditures are shown in **Figure 9** and this varies across wealth groups in line with incomes. As with income, it is usually more instructive to obtain proportions of total expenditure, rather than absolute values. This is done by dividing the expenditure item by the total and the results are graphed in **Figure 10**.

It is clear that social services such as health, schooling and taxes occupy a large proportion of expenditure for the 'middle' and 'better-off' (31% and 22%, respectively). Agricultural inputs are also an important expense for these two wealth groups, costing around 14% to 15% of their income. Both social services and inputs are insignificant expenditures for the 'very poor' and 'poor'.

The 'very poor' and 'poor' spend most of their money on food instead (they spend 51% and 32% on both staple and non-staple food, respectively).

Figure 9: Annual cash expenditure, by wealth group

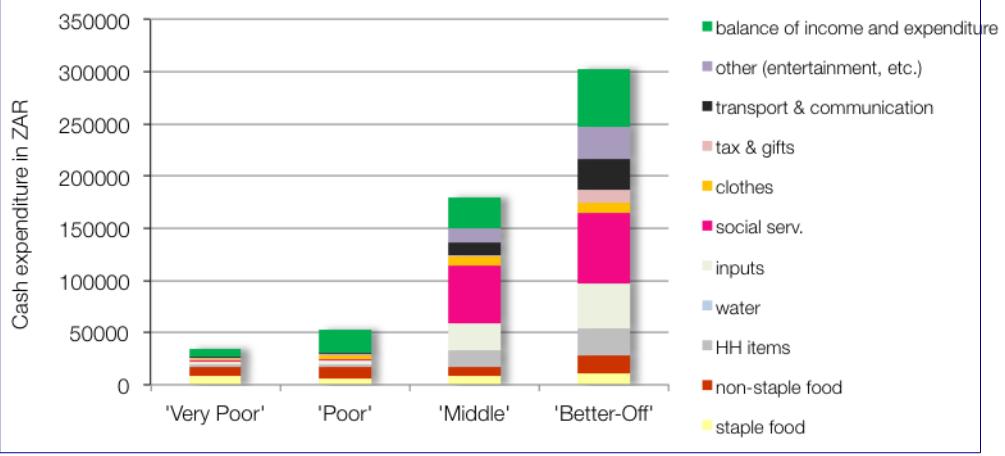
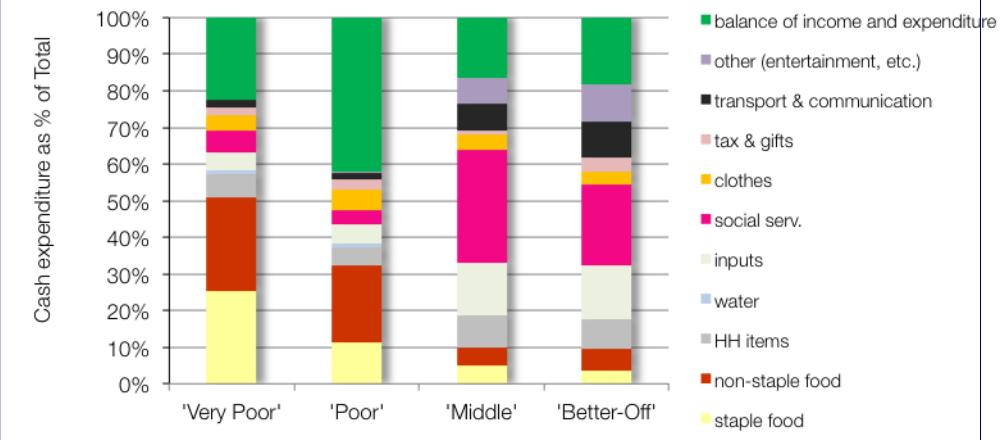


Figure 10: Annual cash expenditure as a percentage of total, by wealth group



Hazards, Vulnerabilities and Response Strategies

Since 'poor' households are dependent on markets for up to half of their food, they are most vulnerable to market-related shocks. These 'market shocks' may consist of: escalating food prices, eroded grants (for example, when they are not adjusted to match consumer inflation) and job losses.

'Better-off' households in particular are vulnerable to drought as failed crops can wipe 11% of their cash and 28% of their minimum requirement in food energy (they usually eat 38% more than their minimum requirement, so this loss would not leave them below the minimum requirement line—they would still be at 110% of their food energy requirement). However, a severe drought event that impacts on livestock as well is devastating to this

wealth group because it will remove a further 17% from their food sources and 34% from their cash income, effectively making them 'middle' or even 'poor'.

This is precisely what occurred in 2015-2016. Land that was previously productive is now lying fallow due to the drought. Most of the community members, especially the 'very poor' and 'poor', are selling their livestock because the grazing has been destroyed.

Theft is also a problem especially in Nkomazi (Mbuzini) which is located on the border fence of Mozambique. According to community members, cross-border theft of livestock and other assets such as cars can occur even in the presence of border guards.

Response strategies households may engage in under stress are: switching expenditure, seeking more casual work (usually outside of the village) or selling off assets or belongings.

Household Hunger Score

Table II - Household Hunger scale indicator

No to Little Hunger	Moderate Hunger	Severe Hunger			
Count	Percent	Count	Percent	Count	Percent
75	70	30	28	2	2

Source: Survey Output 2015

The majority of the households (70 percent) experience no to little hunger and two per cent of households had severe hunger in this livelihood zone. Only 28 per cent of the households reported a moderate hunger situation – see **Table II**.

Dietary Diversity and Food Consumption Score

The largest number, 40 percent of sampled households, have medium dietary diversity scores indicating that they consume four to five food groups during the day before the survey. 29 Percent of households have the highest dietary diversity (at least six food groups) and there are 31 percent of households with the lowest dietary diversity indicating that they consume three or fewer food groups.

Figure 11: Dietary Diversity Scores

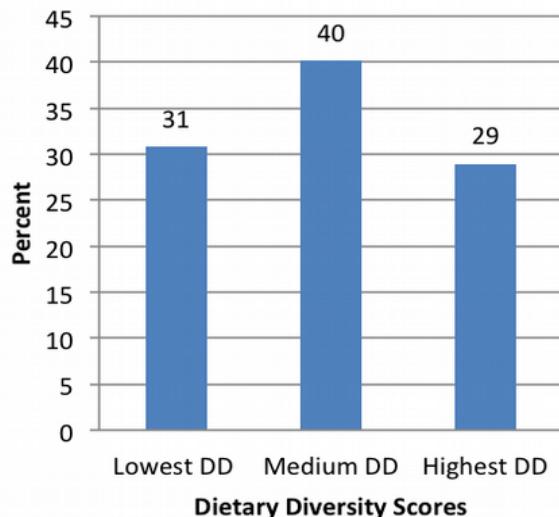
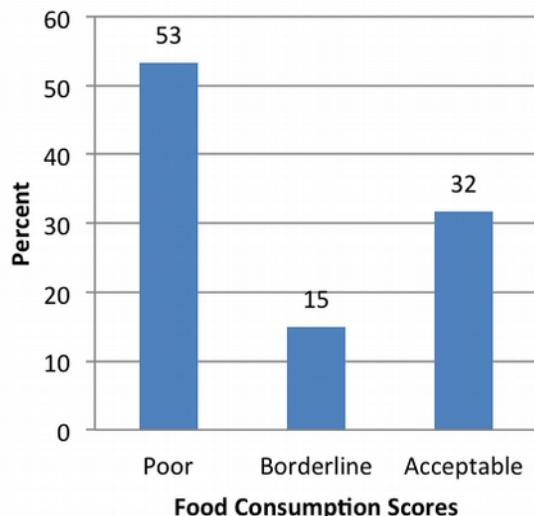


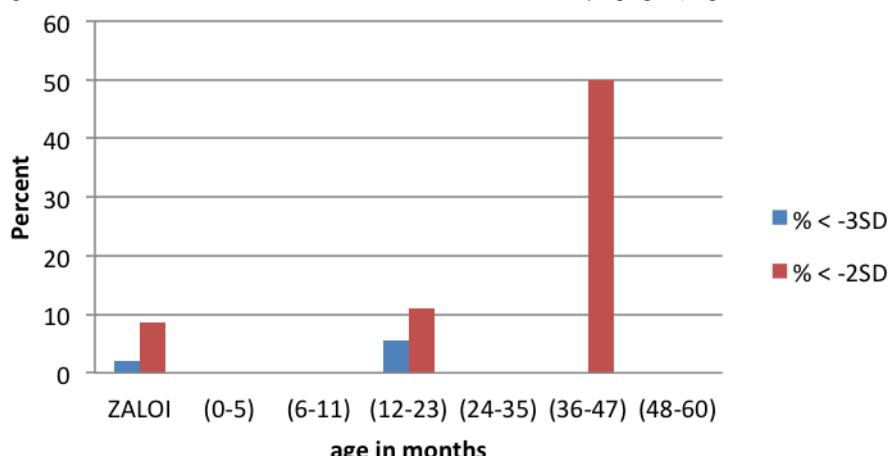
Figure 12: Food consumption scores



The majority of households – 53 percent – were consuming poor diets. While 20 percent of the households were within an acceptable consumption pattern, 15 percent of the households were within borderline consumption pattern.

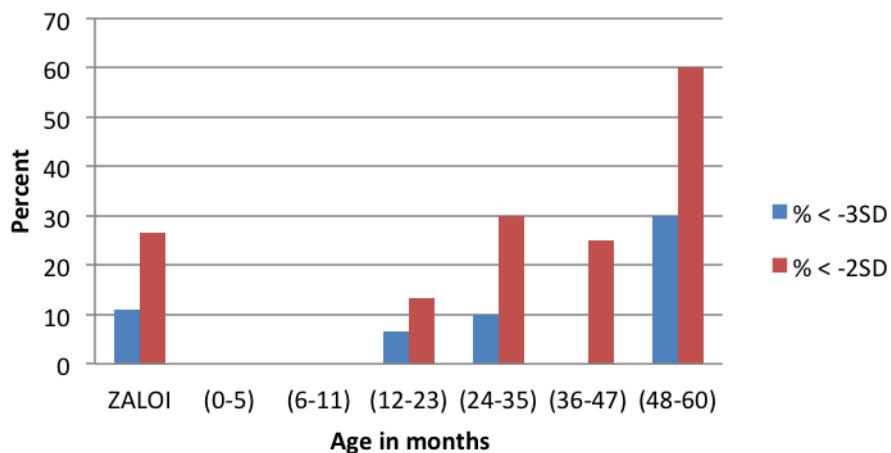
Nutrition and Anthropometry

Figure 13: Prevalence of severe and moderate acute malnutrition by age grouping



Acute malnutrition is predominant in the 36-47 months old children in the livelihood zone (Figure 11). About nine percent and two per cent of under-five children were moderately and severely malnourished, respectively in the livelihood zone. The missing of figures in the other age group categories were not picked up in the sample of the livelihood zone.

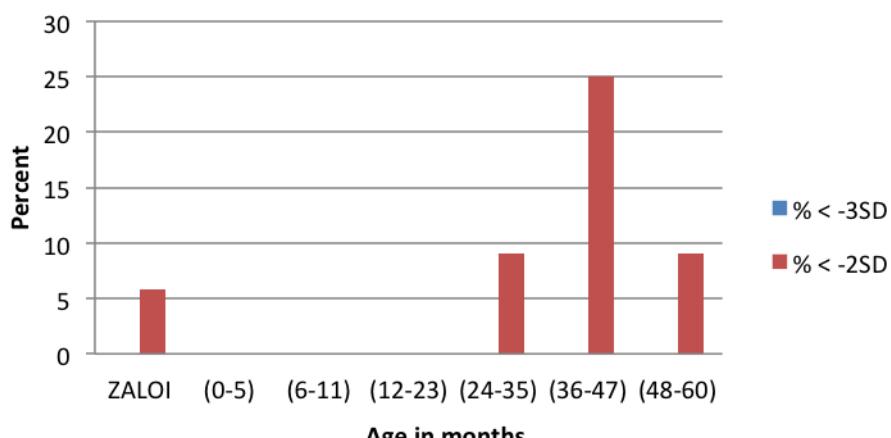
Figure 14: Prevalence of severe and moderate stunting by age grouping



The prevalence of severe and moderate stunting is 27 per cent and 11 per cent, respectively in the livelihood zone (Figure 12). There is a high prevalence of severe and moderate stunting among under-five children within 48 to 60 months of age seconded by children who are 24 to 35 months old. The trend of moderate and severe stunting is increasing as under-five children increase their ages

from 12 months to 60 months. The results also indicate that there were no moderately and severely stunted under-five children with 0 months to 11 months in the livelihood zone.

Figure 15: Prevalence of severe and moderate underweight by age grouping



The prevalence of moderate underweight was six per cent in the livelihood zone (Figure 13). There is a high prevalence of moderate underweight (25%) among under-five children within 36 to 47 months of age seconded by children who are within age categories of 24 to 35 months and 24 to 35 months old. The results indicate that there is a zero prevalence of severe underweight in the livelihood

zone. The results also indicate that there were no moderately and severely underweight under-five children with 0 months to 23 months in the livelihood zone.

Conclusions and Recommendations

As already mentioned, food and cash income from livestock products is low for the numbers of animals present. To increase production, herds would need more and better management, an investment that would need to be justified through better returns. These returns could be increased by, for example, support to dairy marketing and greater provision of services and infrastructure to encourage production. Crop farming yields could also be improved through greater service provision and market support, though crops are constrained by environmental factors. This increased productivity will unlikely benefit all but a few households directly, but will create additional new possibilities through increased work opportunities. For many 'poor' and 'very poor' households, grants will remain the main source of income for some time to come.

Figure 16: Detailed map of the Limpopo section of the livelihood zone showing the sampled sites, other livelihood zones, administrative areas down to enumeration small areas, and infrastructure

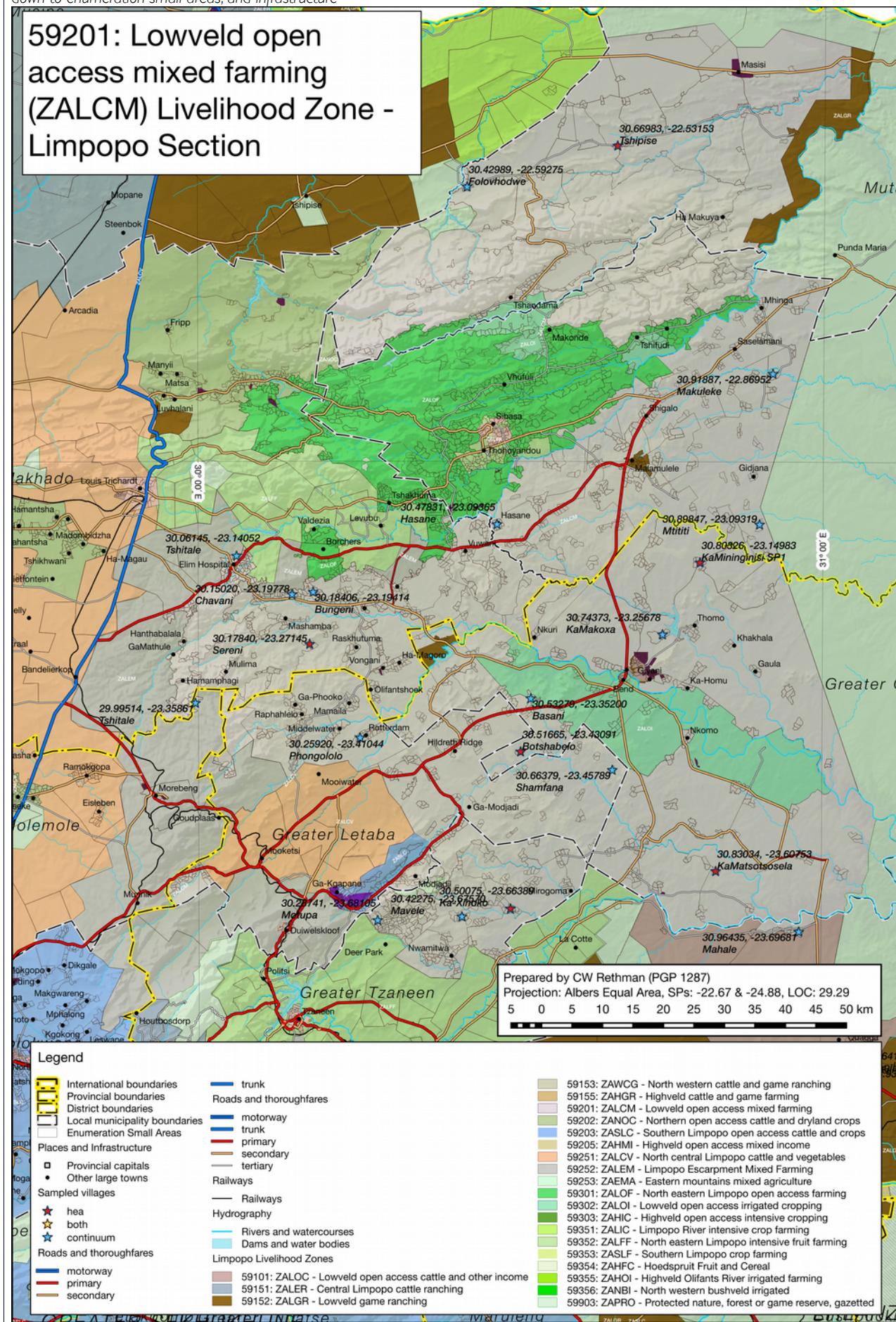


Figure 17: Detailed map of the Mpumalanga section of the livelihood zone showing the sampled sites, other livelihood zones, administrative areas down to enumeration small areas, and infrastructure

