



# Characterizing the livestock production system and the potential for enhancing productivity in Pulipeli village, Gwanda District, Zimbabwe: Female focus group discussion

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# 1. Introduction

Gender feed assessment tool (G-FEAST) is a farmer-centred diagnostic approach, through the use of forms and spread sheets, to collect and analyse data. The assessment methodology provides a systematically and rapid assessment of feed resources at the site level to develop a strategy for improving feed supply and use through technical and organizational interventions. The main objective is to identify the gender aspects in households that affect animal feeding practices and feed intervention uptake.

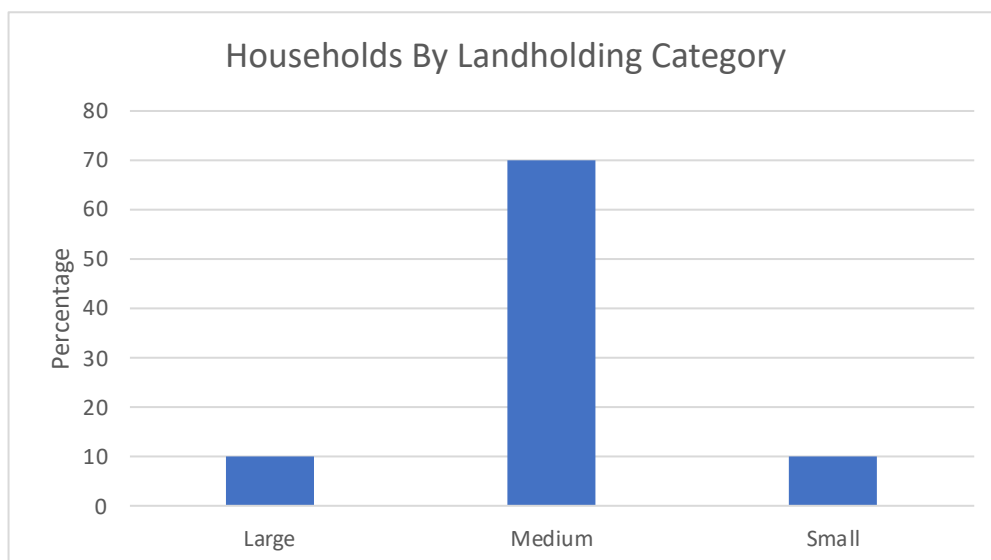
Pulipeli village is located in Silonga ward 15 in Gwanda district of Matabeleland south province. The village is located 207 km southern of Bulawayo. The village's main livelihood sources are livestock production, vegetable sales and remittances. The village has two seasonal dams and one perennial dam. The farmers practice extensive livestock production and inefficient irrigation system. The main livestock species kept in the area are goats, cattle and poultry.

This report focuses on a female gendered focus group discussion, which was held at Pulipeli shopping centre on 21 April 2021. The study was conducted in partnership with agricultural extension service.

## 2. Farming systems

The farm sizes range from 1–6 ha. Small farm size ranges from 1–2 ha, medium from 2.1–3 ha and large from 3.1–6 ha. Most of the farmers (70%) are in the medium farm holding while small holding and large holding has 10% each (Figure 1).

Figure 1 Land holding sizes in Pulipeli village



The farming system in Pulipeli is generally communal mixed farming with good cropping and livestock interactions. Average farm sizes of 2 ha are under crop production. However, no fodder production is practised.

Table 1 depicts farm sizes by gender of the household head. It can be observed that across the three landholding categories, men and women own land. The largest proportion of female headed households fall in the medium-scale farms category whereby female headed households have on average 10 ha of land. This implies that women in Gwanda district have similar land rights as men.

Table 1 Land ownership by gender

Farm size	Males	Females
Small	20	80
Medium	60	40
Large	80	20

The common land tenure system is communal and the land is governed by the rural district council. Most farmers belong to the medium-scale farming sector which uses an average of 2 ha. The small-scale farmers have land less than a hectare for crop cultivation only. Women and men can equally own land. Grazing land is shared among all farmers in the community and no one has more rights over the other. The communal land tenure system has



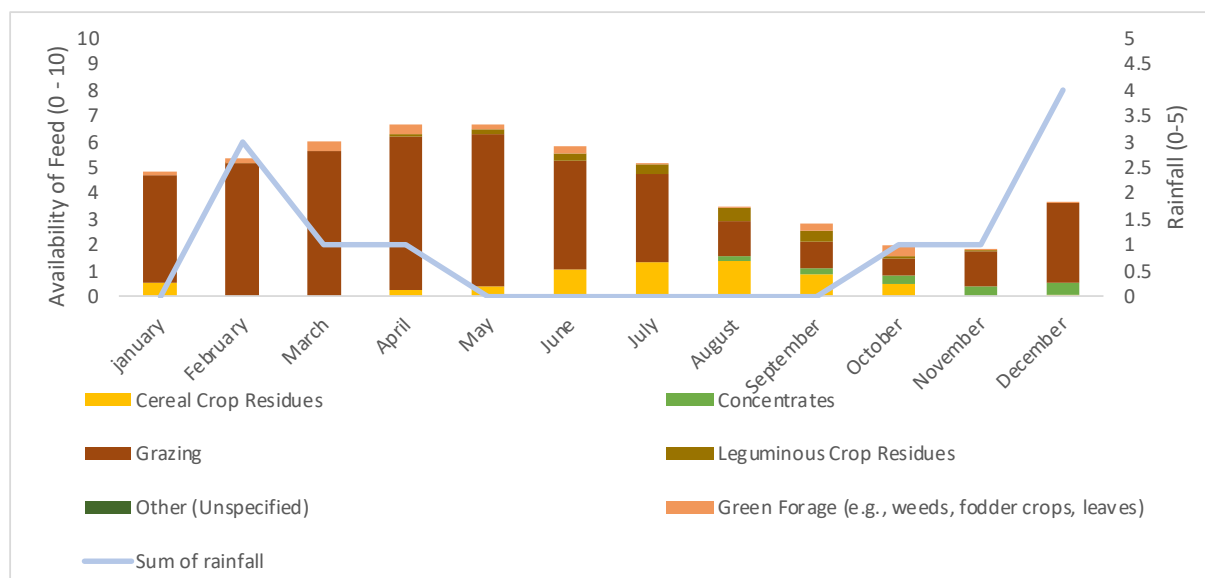
constraints as grazing is quickly finished due to large numbers of livestock and no one has control over numbers of livestock each farmer should have in that area.

The results indicate that women own most of the land, while in some households, the land is jointly owned by the men and their spouses. In a few households, some farmers own land that is less than a hectare. With respect to hired labour, it is available but not affordable to all households. The female headed households find it unaffordable to hire labour as they have limited resource to pay.

## 2.1 Rainfall and water availability

Rainfall levels are not adequate to support agricultural activities during the major cropping seasons. Farmers reported that over the years, unpredictable weather patterns have negatively affected rain fed agriculture. It has also threatened livestock production, which relies heavily on grazing of natural grasses and bushes. From May to October, the area does not receive any rainfall (Figure 2), thus the highest rainfall is received in the autumn season. There is no rainfall received in the winter season.

Figure 2. Pulipeli annual rainfall pattern



Water that is used for livestock is mainly available during the rainy season. The months of December to April are the months when Pulipeli receives high amounts of rainfall. The rest of the months are regarded as dry months.

The dam in Pulipeli is a seasonal dam and it usually dries out in July. People and livestock travel an average of 2 km to access water. After July when the seasonal dam had dried up, livestock travel about 5 km to the Siloya dam which is perennial. Pulipeli household members also rely on 2 perennial boreholes in the village. These two boreholes serve both livestock and domestic use. However, when these boreholes are not functional, the livestock and people travel long distances to access water since the one functional borehole left will be overwhelmed.

## 2.2 Irrigation

Sixty-five per cent of the households have access to irrigation. Farmers irrigate vegetables in their gardens during the dry season. However, there are constraints that were highlighted as affecting people's access to irrigation. It was noted that men are mostly excluded from the irrigation schemes due to their many commitments both within and out of Pulipeli village. Some of the commitments include looking for jobs locally and internationally (particularly South Africa). Women are said to be the ones who are more active in irrigation schemes due to the fact that they spend more time at home than men. It was also noted that there is a stereotype which links gardens to women and cattle to men. Distance from homesteads to irrigable gardens is another deterring factor as some have to travel for more

than 5 km. People from other villages other than Pulipeli are not allowed to use the water from the dam for irrigation despite the fact that they are close to the dam.

People use bucket irrigation system which is labour intensive, hence, old people are constrained. Overall, the area under irrigation is reduced due to high labour requirements of the bucket system.

The major crops grown in the irrigation plots include tomatoes, leaf vegetables, green mealies and onions. A few people once grew forage lablab near a perennial Siloya dam.

The village has four cropping season that is winter, summer, autumn and spring (Table 2).

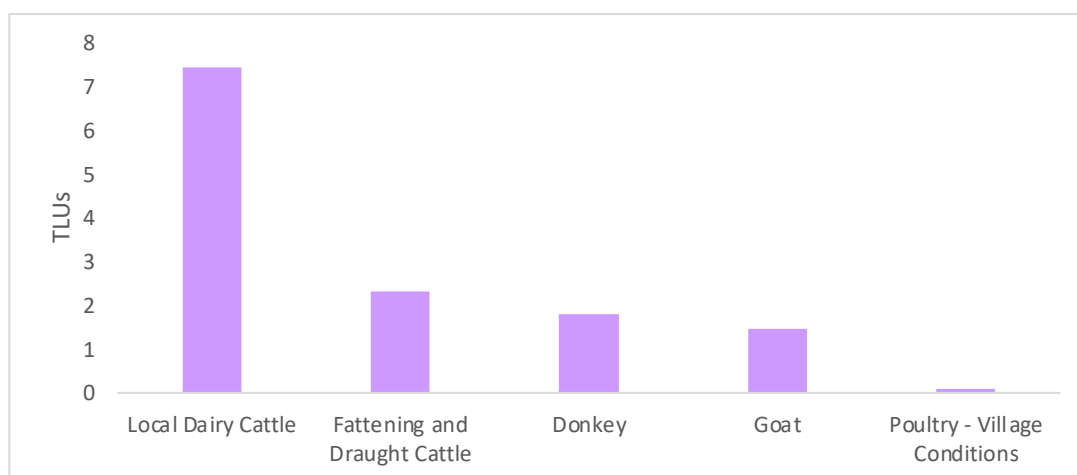
Table 2 Seasons experienced in Pulipeli village

Season	Farming activity
Spring	Weeding, planting of late crops, pest and disease control and water conservation
Winter	Harvesting, processing preservation and marketing
Summer	Land preparation, dry planting, fertilization, inputs procurement
Autumn	Planting, fertilization, weeding, pest and disease control

### 3 Livestock production system

Livestock reared in Pulipeli include cattle, goats, donkeys and poultry (Figure 3). The livestock kept by most households are goats and cattle where 90% of the households practice goat breeding. Cattle are kept for meat, milk and calf production. Donkeys provide draught power while goats are used for meat and milk production. Poultry is kept for egg, meat and income.

Figure 3 Average household livestock holdings by category in Tropical Livestock Units



Extensive livestock production system is practised. The animals rely on open grazing with minimum supplementation. There is no well-defined breeding program but they depend on the bulls. The rangeland is low yielding due to overgrazing caused by uncontrolled grazing practised in the area. Decision-making on livestock sales varies from species to species. Large stock (cattle) sale is decided by men, small stock such as goats and sheep is mainly joint decision and poultry sales are decided by women.

There is no credit available for agricultural projects for both males and females. The credit available from informal sector like village savings and lending is for household use and paying fees on hospital bills. All of the farmers are willing to access loan for agricultural activities but they lack collateral.

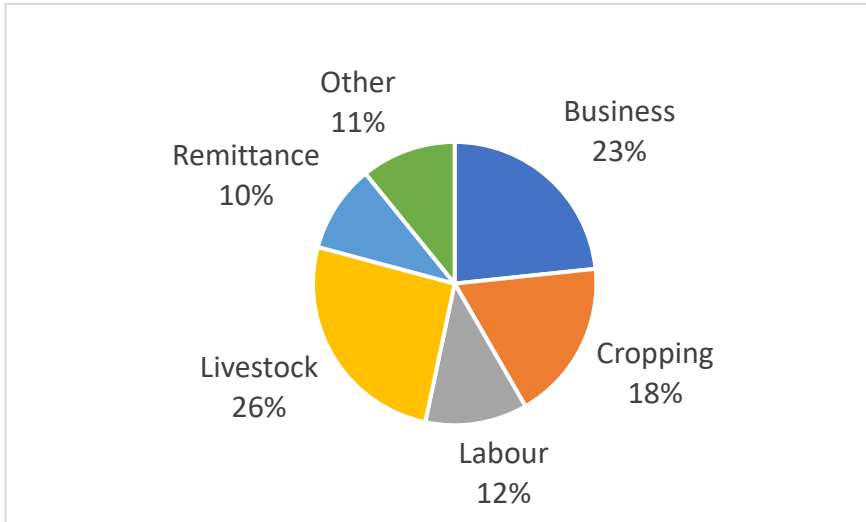
Inputs are sometimes available at the local market mainly in Gwanda town which is 80 km away. It costs about 700 Zimbabwean dollar (ZWD) to go to Gwanda from Pulipeli (USD 1 = ZWD 361.9000 on 25 June 2022). There is a resident extension officer and veterinary officer who resides 3 km away from the village and provide free of charge service to farmers.

About 90% of the community members belong to a cooperative and farmer organization where most of the members are members of irrigation schemes. Women are the majority members of the association.

### 3.1 Major income sources

Livestock sales are the major household income in the village. Remittance is the least income source in the Pulpeli village (Figure 4). The major source of income for women is cropping and vegetable sales from the garden produce. The men make decision on the high-income earners of the household like livestock sales, while women control cropping and vegetable sales.

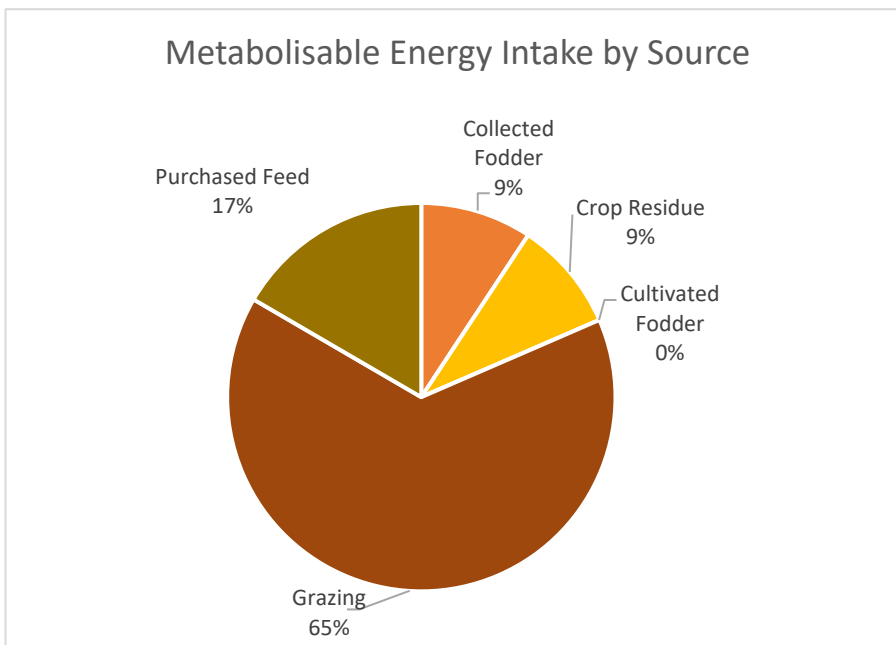
Figure 4 Average household income by activity category



### 3.2 Major feed sources

The major feed source is grazing and the least is cultivated fodder (Figure 5). Grazing availability is seasonal. It is mostly available during the autumn season when the highest rainfall is received. During the winter and summer season there is scarcity of feed such that there is need to supplement livestock using concentrates or crop residues. Purchased feed is unaffordable to some of the farmers as it is expensive and is not readily available at the local market. During the winter season, there is a decline in the rangeland nutritional value in terms of crude protein and metabolized energy; hence there is deficit on the animal dietary requirement.

Figure 5. Major Feed Sources



## 4. Major problems

The main challenges faced by farmers in livestock production include stock theft, livestock predation, feed and water scarcity and poor access to inputs and output markets (Table 3).

Table 3. Main challenges in livestock production

Main problem	Who is affected most? (small/medium/large farms; men/women; MHH/FHH; etc.)	Proposed farmer solutions	Ranking in women FGD
Stock theft	Everyone	Police to assist	1
Poor market access	Everyone	Have local auctions conducted	2
Poor access to water for both livestock and humans	Everyone	Have more boreholes drilled and dams constructed	3
Feed scarcity especially during dry season	Everyone	Growing fodder crops	4
Bull system and inputs	Everyone	Provide bulls and AI	5

### 4.1 Potential interventions

Training farmers on fodder production, processing and feeding. Assist them with fodder seed as starter packs

- Drilling more boreholes in the villages to improve water availability
- Training farmers on water harvesting
- Establishing auction floor sales where farmers can sell their livestock monthly or fortnightly.

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