

Livelihood Profile

Karamoja Region, Uganda

Abim Simsim Groundnuts Sorghum Livestock Livelihood¹ Zone

May 2010²

Zone Description

The Abim Simsim Groundnuts Sorghum Livestock Livelihood Zone is an agriculturally-based zone that extends across all of Abim District and a small part of Moroto District.³ The main ethnic group in the area is the Labwor. The projected 2010 population for the livelihood zone is 61,100.⁴

The zone is hilly, with mountains that drain water into lowlands, where crops are produced. The zone has sandy and black clay loam soils in the plains and alluvial soils along river courses that support a wide variety of crops. Average annual rainfall is between 700 - 1000 mm. There is one long rainy season lasting from March/April to September/October, with a drier spell typically occurring during June/July. Compared to the rest of Karamoja Region, the zone is a high potential area for crop production due to good soils and higher rainfall amounts.

In typical years the main food sources are households' own crop production, supplemented by purchased food, payment in kind (in exchange for labour), and wild foods. Rainfed crop production is the norm, leaving households vulnerable to years when rains are poor. The vegetation in the highlands and lowlands is host to a number of wild foods that local households depend on, particularly wild yams, shea nut fruit and oil from the nuts.

The main crops are sorghum, millet, beans, cowpeas, pigeon peas, groundnuts, sweet potatoes, sesame and sunflower. Maize and a variety of cucurbits (cucumber, water melon and pumpkins) are grown on a small scale. Cassava, a recent introduction in the area, is gaining importance as farmers grow to appreciate its tolerance to drought. Sorghum, beans, cowpeas and sunflower are often intercropped in the same field. Groundnuts, sweet potatoes and cassava are planted as pure stands; cassava can be intercropped with beans in the early stages. Some fruit trees, especially mangoes, are owned by households. Cultivation is mainly done by oxen and hand hoes, with poorer households generally using hand hoes and better off households using oxen. It is not typical for households to apply manure or fertilisers.

For the most part, crops are grown for consumption, although some (sorghum, groundnuts, sesame, sunflower and



¹ This is the Karamoja part of a larger livelihood zone that is shown on the map and was identified in a national zoning workshop in 2009 (organised by FEWS NET): South Kitgum Pader Abim Simsim Groundnuts Sorghum Livestock Livelihood Zone (UG21).

² Field work for the current profile was undertaken in May 2010. The information presented refers to August 2008 – July 2009, a relatively bad year by local standards (i.e. a year of below average production and rural food security, when judged in the context of recent years). Provided there are no fundamental and rapid shifts in the economy, the information in this profile is expected to remain valid for approximately five years (i.e. until 2015).

³ According to the Uganda livelihoods zoning map completed by FEWS NET in 2009, this zone includes Kacheri sub-county, Kotido District. However, this assessment concluded that Kacheri should actually be included in the neighbouring agro-pastoral zone (Karamoja Livestock Sorghum Bulrush Millet Livelihood Zone).

⁴ Uganda Bureau of Statistics estimates put the projected 2010 population of Abim at 55,300; and Apeitolim Parish, Lokopo Sub-county, Moroto District at 5,800.

cassava) may be sold at harvest time to generate the cash needed to pay for school fees or medical expenses. Seasonal food shortages occur from May through July. During this time, most households depend on purchased food while waiting for crops to mature in August.

Cattle, goats, a few sheep and pigs are the main livestock reared in this zone. Some poultry is also kept, but in very small numbers. The livestock sector was severely undermined by raiding, but has slowly started recovering since 2006. Before herds were decimated, households used cattle for milk and oxen for ploughing. Households with sufficient means have tried to re-stock, first by acquiring oxen/bulls from neighbouring Kotido, followed by purchases of milking cattle. Re-stocking efforts have occasionally been boosted by the government and some agencies that have provided breeding stock. Sheep and goats are tethered near the homes during the wet season to prevent them from damaging crops. They are let free in the dry season from September/October to March/April; this freedom results in high conception rates, leading to the majority of births occurring in March and April. Water for livestock is from the seasonal rivers and a few boreholes. Unlike in the agro-pastoral and pastoral zones, goats and sheep in this part of the region are not milked.

Crop sales and livestock sales (mostly goats, sheep and to a lesser extent poultry) are the main income sources. In typical years before the raids, cattle were also sold. In addition, households depend on local agricultural labour and migrating to neighbouring districts to find work (especially in bad years), charcoal and firewood sales, and brick making.

Drought is the main threat to food security in this livelihood zone. Households experienced poor rainfall during the last three years, resulting in food aid deliveries. Food aid was targeted to 'extremely vulnerable individuals' (EVIs) in 2008 and extended to the general population in 2009. Children in primary and secondary schools received relief food through school feeding programs.

Key informants reported that access to health services is inadequate, with a lack of health facilities, drugs and trained staff. There were also concerns voiced about inadequate school facilities, especially at the secondary level.

Markets

Markets play an important role in the livelihoods of this zone, providing opportunities for households to exchange livestock and crops for needed cash. Sub-county markets located within the zone operate as often as twice a week. Major crops sold in the markets include sorghum, maize, groundnuts, sweet potatoes, cassava, sesame, beans, imported vegetables and fruits. Dried small fish, clothes, utensils, and hygiene products are also found in weekly markets. Households time their purchases of most items with market days. In times of crop shortages, the large traders supply local markets with food commodities originating from Lira, Kitgum, Acholi, Lango, Pader, Soroti and Mbale. Specialised livestock markets are organised weekly at the sub-county level; unlike other areas of Karamoja that export livestock beyond the region's boundaries, local goats, sheep, pigs and poultry are mainly sold *within* the zone.

The local population travels to markets mostly on foot, along a fair network of earth roads. Roads become impassable in the wet season and access can also be hindered by occasional insecurity. The government has put in place several army units along the trading paths to mitigate insecurity. Mobile telephone networks have provided an opportunity for traders to access information about local demand and prevailing prices, making it possible for traders from supply areas like Mbale, Soroti, Acholi, Kitgum, Lira, and Pader to know beforehand the commodities in demand on market days.

Seasonal Calendar

The zone has one long rainfall season starting in March/April and ending in September/October, with intermittent dry spells in June/July. Land preparation for sorghum and maize can commence as early as February. Land preparation for sesame, groundnuts, sunflower, sweet potatoes, cow peas and millet takes place in March. Land preparation for beans and cassava is carried out mostly in May. Most crops are planted in March/April followed by weeding. The hunger season is from May to July; this is when food stocks run out and households depend more heavily on purchased food until August, when the main harvests start to come in. It is during this period that poorer households increase their reliance on casual labour and self-employment to earn the much needed cash to purchase food.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainy Seasons	Dry		Wet			Dry Spells		Wet		Dry		
Legend	LP = Land Prep P = Planting W = Weeding GC = Green Consumption H = Harvest											
Crops												
Sorghum		LP	P	P	P	W	W	GC	GC	H	H	H
Maize		LP	P	P	W	GC	GC	H	H			
Millet			LP	P	W	W	H	H				
Sesame			LP	P	W	W	GC	GC	H	H		
Beans					LP	P	W	GC	H			
Cow peas			LP	P	P	W	GC	H	H			
Pigeon peas			LP	P	W	W		GC	GC	H	H	
Ground nuts			LP	P	P	W	GC	H	H			
Sunflowers			LP	P			H	H				
Cassava	H	H	H	LP	P	W	W					
Sweet Potatoes			LP	P	P	W	H	H				
Peak crop sales												
Other												
Livestock sales	low		high	low	high	low						
Livestock diseases	low					high			low			
Peak livestock births	low											
Peak milk production	low											
Peak charcoal sales	low											
Firewood sales	high		low						high			
Agricultural labour	low											
Pole cutting/sales	low											
Grass sales	low											
Brick laying	low											
Hunger season/food purchase	low											

July marks the start of the harvest for short maturing crops like sunflower; long maturing crops, like sorghum, are harvested through December. Most maize is consumed green. Cassava is usually harvested in February to May of the year after planting. Crop sales typically take place immediately after harvesting. Sorghum, maize, millet and groundnuts are stored in granaries without threshing/shelling.

Poultry are sold throughout the year; goats, sheep and cattle are sold mostly during the hunger season and at the start of school terms in March, May and September. Charcoal sales occur from March to September, during the wet season, when there is increased demand for charcoal by town residents. Households typically make more charcoal than necessary in the dry season to stock so they can sell it during the wet season when prices are highest. Peak firewood sales take place in the dry season. Brick making operations are possible during the dry season only.

Wealth Breakdown

The amount of land *cultivated* – as opposed to the amount of land *owned* – is the key determinant of wealth in this zone; and this, in turn, is determined by the number of oxen and ploughs a household owns. Only better off households, with oxen and ploughs and the means to hire extra labour, are able to take advantage of the available land. Poorer households are limited to the amount of land they can cultivate using hand hoes. An additional constraint - insecurity - kept some households in the reference year from cultivating fertile land located far from their homes. The effect of insecurity was, however, limited mainly to the peripheral areas (bordering the other districts of Karamoja) and did not affect the interior parts of the zone or those bordering Acholi and Lango sub-regions.

As previously mentioned, raiding has decimated the livestock population, and so households in this zone have very low numbers of livestock compared to the rest of Karamoja Region. As a result, better-off households only invest in purchasing oxen for ploughing, as opposed to purchasing cattle for breeding, as was the case before. There has also been an increase in the rearing of pigs, which are not targets for raiders. Goats and pigs are important sources of cash, especially in bad years and when cash is required at a short notice.

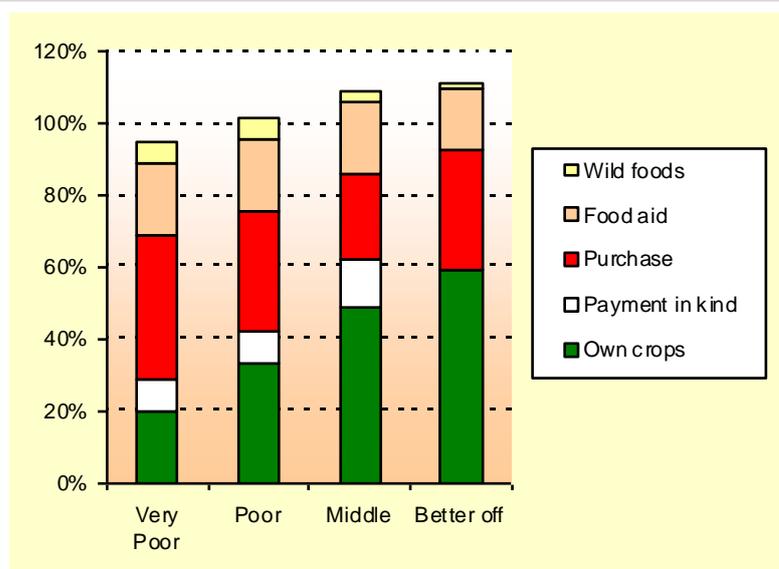
		Wealth Group Information			
		HH size	Land area cultivated (acres)	Livestock	Ploughs
Very Poor		6-8	0.5 - 1	oxen: 0; goats: 0-2; pigs: 1	0
Poor		6-8	1 - 1.5	oxen: 0; goats: 1-4; pigs: 2-3	0
Middle		6-8	1.5 - 2.5	oxen: 0 - 2; goats: 2-6; pigs: 3	1
Better-off		7-9	2.5 - 3.5	oxen: 1 - 3; goats: 5-15; pigs: 2	1

0% 10% 20% 30% 40%
% of households

Note: The '% households' figure represents the mid-point of a range.

Sources of Food: a bad year (2008 - 2009)

As shown in the graph to the right, households in this zone relied on five sources of food in the reference year, a relatively bad year: own crops, payment in kind, purchased food, food aid, and wild foods. The consumption year runs from August to July. Although green consumption of some crops may begin as early as June/July, August usually marks the beginning of the consumption year because harvesting of crops like sorghum, maize, millet, sesame, groundnuts, beans, and sweet potatoes starts during this month. In the reference year purchases and own crops (mainly sorghum, millet, sweet potatoes, cowpeas, beans and sunflower) were the main sources of food for all wealth groups.



The graph shows food access as a percentage of minimum annual household food requirements, assuming an average requirement of 2100 calories per person per day.

Most of the food crops produced were consumed, unlike in good years when a portion of the crops are sold. The total contribution of own crops to annual food needs ranged from about 20% for the very poor to about 60% for the better off.

Purchases contributed 20 – 40% of annual food income, with better off households needing to buy less than poorer households since they managed to produce more of their own crops. All groups purchased sorghum, beans, groundnuts, sesame, dried small fish, oil and vegetables. In addition, the poorer and middle groups supplemented their calorie intake by purchasing cheaper maize and cassava. Neighbouring areas of Acholi and Lango supplied the food purchased from the markets. Meat was purchased only by middle and better off groups.

Poorer and middle households relied on payment in food in exchange for labour ('payment in kind') to make up about 10 - 15% of annual food needs. Usually this is payment in exchange for agricultural work, but it can also be for brick-laying and construction work. Some households reportedly migrated for short periods of time to neighbouring districts (Lira and Pader) to work in exchange for sorghum, maize, and sometimes cassava.

Relief food aid was received by all wealth groups and included school feeding during school terms. Relief food covered approximately 20% of households' annual food needs and included cereals, pulses, oil, corn soya blend (CSB) and salt.

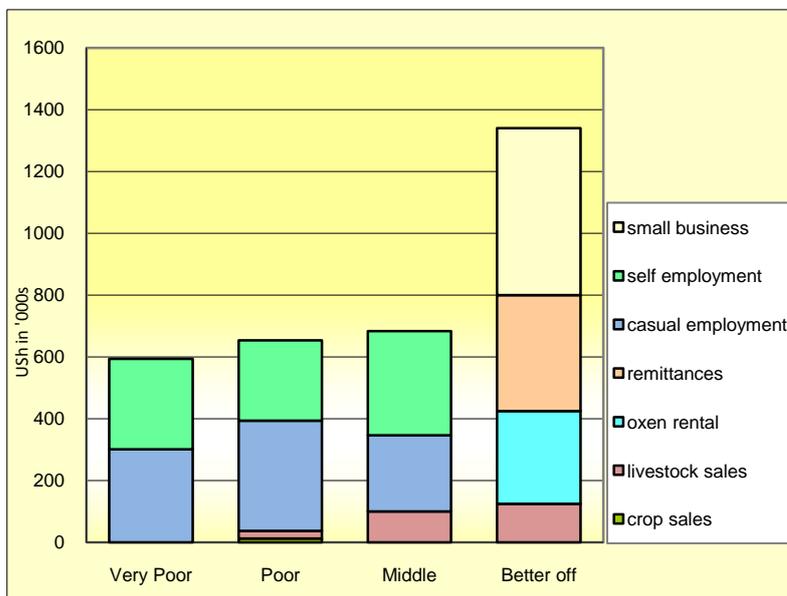
Wild foods, including wild vegetables, yams, and shea nut fruits and shea nut oil, also contributed.

Sources of Cash: a bad year (2008 - 2009)

Because of the small amount of crop production in the reference year, crop sales were extremely limited. The main sources of cash income for poorer households and middle households in the reference year were casual labour and self employment. Better off households relied on livestock sales, renting out oxen, remittances and income from small businesses.

'Casual labour' refers mostly to agricultural labour (sometimes in the neighbouring districts of Pader and Lira), domestic labour - like fetching water - and house construction.

'Self employment' includes firewood and charcoal sales, sales of building materials (poles, ropes, bamboo) and handicrafts. The better-off participated in mixed businesses that included brick-making, quarrying, charcoal sales, brewing and petty trade. Remittances were a significant source of income for the better-off. This was largely used to meet school fees.

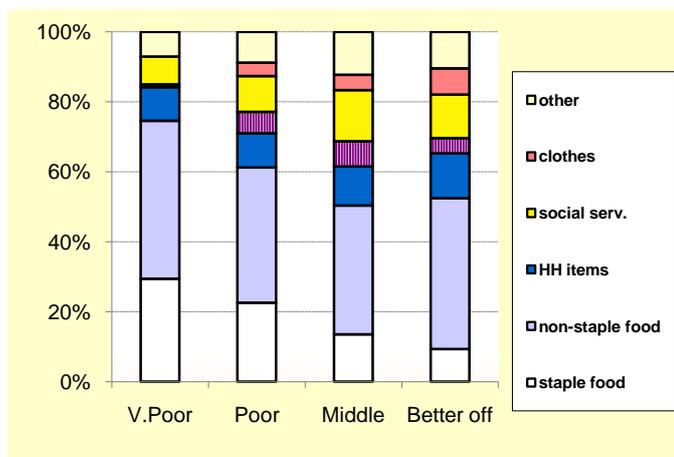


The graph shows a breakdown of annual cash income by wealth group in US\$.

Annual income US\$	550000-650000	600000-700000	650000-700000	1000000-1500000
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Expenditure Patterns: a bad year (2008 - 2009)

All groups purchased food in the reference year. In relative terms, poorer households had to spend more of their income on food than better off households, who could rely on more of their own crops. Although the proportion of expenditure on non-staple foods is similar across all groups, the very poor spend a larger portion of their available income on this item compared to the poor and the middle groups. In absolute terms, the better off spent more than double what other household groups spent on non-staple foods. The better off were the only households to purchase meat.



The graph provides a breakdown of expenditure in relation to total annual income by wealth group.

Expenditure on household items (salt, soap, kerosene and grinding), inputs (mainly seeds), social services (health and education), clothes and other items increased with wealth. The category 'other' includes beer and tobacco.

The better off spent significantly more (in absolute terms) on agricultural inputs, including the purchase and maintenance of ploughs, hiring of agricultural labour, and seeds. Better off households spent more on education than other groups. Very poor households did not have enough money to purchase inputs.

Hazards

Insecurity is a chronic hazard undermining both crop and livestock production. Livestock raids have led to the loss of all types of livestock in the past. In addition to the loss of livestock, human lives are often lost during the raids. Insecurity prevents households from cultivating productive land that is located in insecure areas, reducing overall production. Insecurity also limits access to wild foods and game.

Livestock diseases diminish income that can be realized from livestock sales, in addition to reducing milk and meat yields. Diseases that threaten livestock production are East Coast Fever (ECF), rinderpest, *contagious bovine pleuropneumonia* (CBPP), foot and mouth disease (FMD) for cattle and recently *peste des petits ruminants* (PPR) for goats. Poultry is often attacked by Newcastle disease.

Prolonged dry spells/drought are a persistent threat, and have led to crop failures in the last three years resulting in food insecurity throughout the zone and the whole of Karamoja Region.

Flooding: The last serious flooding was reported in 2007. Normal seasonal water-logging occurs in low lying areas.

Weeds affect crop production yearly especially in years of good rainfall. The *striga* weed has affected sorghum production in the last two years and if not controlled will continue to reduce sorghum yields in future.

Coping Strategies

To reduce the risk of attacks, households cultivate lands that are near their homes. Several households usually herd their animals together to form a united front against potential raiding. People organise and move in large groups when going to the markets. Key informants reported that the increased emphasis on pig rearing was a response to cattle raids.

In an effort to combat livestock diseases the government and its development partner agencies have been providing vaccinations for livestock free of charge. Better off households usually purchase drugs to treat their livestock. There have also been distributions of seeds and planting materials and tools by government and development partners to encourage and raise the levels of production. The government is also promoting alternative income sources, especially pig raising, apiculture and aquaculture to enable the communities cope with the loss of livestock due to insecurity.

When communities are suffering food shortages, they look for more labour opportunities in addition to selling firewood, charcoal, poles, bamboo, and other construction materials. Some members of the households will temporarily migrate to nearby districts in search of labour and be paid in kind with grain.

The better off may sell their goats, sheep and even cattle to get income in order to access food in bad years. Increased collection of wild foods is an option exploited by many people in the zone during periods of food insecurity.

Key Parameters⁵

The key parameters listed in the table below should be monitored to provide warning of potential losses to the local household economies, either through ongoing monitoring systems or through periodic assessments.

Item	Key Parameter – Quantity	Key Parameter – Price
Crops	<ul style="list-style-type: none"> • Sorghum • Cassava • Millet • Groundnuts • Cowpeas • Pigeon peas • Beans • Sesame • Sweet potatoes 	<ul style="list-style-type: none"> • Sorghum • Cassava • Millet • Groundnuts • Cowpeas • Pigeon peas • Beans • Sesame • Sweet potatoes
Livestock production	<ul style="list-style-type: none"> • Goats (herd size) 	<ul style="list-style-type: none"> • Goat prices
Other food and cash income	<ul style="list-style-type: none"> • Agricultural labour (availability) • Oxen hiring • Construction labour • Brick making • Remittances • Firewood • Charcoal • Building materials 	<ul style="list-style-type: none"> • Daily casual labour rates • Oxen hiring • Firewood • Charcoal • Building materials

⁵ Key parameters are food or income options that make up at least 5% of any two wealth groups' annual sources of food or income; or 10% of any one wealth group's annual food/cash income.