Livelihood Profile
Tessaoua District

South-Central Livelihood Zone September 2007[1]

Zone Description

This zone reflects the agro-ecological divisions made by the Tessaoua Service Agriculture, where three zones are distinguished: the South, Centre and North. It is the Central Zone which is represented here, by a set of villages selected for the HEA study in locations which were not too near the border of the South Zone or of the North Zone, i.e. not in potentially intermediate areas. In effect the villages were in the southern part of the Centre Zone as defined by the Service Agriculture. [2]

With a population of about 200,000 and some 70 people per square kilometre, the South-Central Livelihood Zone is considerably more densely populated than the North Settled Livelihood Zone which is the other zone in the present HEA study. This means that room for any extensive grazing is constrained, and that substantial livestock ownership requires substantial ownership of land from which crop residues can be used for fodder (requiring therefore substantial crop cultivation). Animal husbandry also often requires at least cattle to be taken away to far northern grazing during the main cultivation season, usually by a collective arrangement between owners and a herder from the village, or with Fulani (Peuhl) herders from the vicinity. Grazing constraints are one big feature distinguishing the agricultural zone from the agro-pastoral zone; another is the smaller landholdings per capita in the agricultural zone, with smaller production of staples per capita assuming satisfactory rainfall in each zone.

Most of the villages in the zone are within 50 km of the country's main west-east metalled road, and there is a substantial network of motorable rural roads, whether laterite or sand. Thus beyond the main wet period, i.e. from late September, villages have reasonably good access via local markets and traders to the main trading axis for grain and livestock. Of almost equal significance is the fact that the villages are also within easy reach of the Nigerian frontier, with a main crossing point at May'Adua, along which route livestock are marketed into Nigeria, and migrant workers use bus and truck transport to get to Nigerian destinations.

The dominant crop of the zone is the staple millet (pearl millet -*Pennisetum glaucum)*, which is also the main traded product by volume. Millet outweighs the only other significant cereal, sorghum, by a factor of about five to one according to the information from the study. The ubiquitous third staple crop is cowpea (niébé), which is also a major marketed crop together with groundnuts, the cash-crop proper. Far smaller amounts of sesame and hibiscus seed are also produced, often by women on their own piece of land, both for use in sauces and for sale. The cereals and cowpeas are usually relatively evenly intercropped, whilst there is a tendency for groundnuts to be either grown on separate patches, especially if the soil is subject to ploughing, or intercropped with a small proportion of millet. A range of vegetables are produced in the wet season, including okra, cucurbits and tomatoes; but there are very limited ground-water resources, and so swamp-based or irrigated gardening in the dry season is rare by comparison with the South Zone. As is typical in the sahel, rainfall performance varies widely from year to year and so, therefore, does crop performance. There are no available statistics of traded commodities by zone, but within the normally expected range of production conditions Tessaoua as a whole is better described as a self sufficient area in a satisfactory year, rather than a net exporter of grain. Depending on the year, better off farmers in the Southern zone may put more cereal on the market than in other years, but in general the overall area does not appear to be a net exporter. Exporting grain in some months of the year does not mean that this is a surplus area; households purchase back cereals later on. The North Zone tends to have better productive potential than this zone when there is good rain, but still appears to be only just self sufficient in a good year.

Official livestock numbers are not available by zone. For the district as a whole, the national livestock survey of 2004 would give a little under 4 head of cattle per household, as well as 8 goats and 5 sheep. Given that there are some 3.3 smallstock to one head of cattle in the district, and cattle are on average at about 8 times the price of smallstock, the cattle are by far the most valuable livestock asset of the district. But from the village point of view that rather depends on who you are. In the present study the wealthier two socio-economic groups own virtually 100% of the cattle, and the few poor households that own a cow or ox are quite untypical. The poorer groups do on balance own smallstock, although in very small numbers: the wealthier groups own over 90% of the smallstock. There are also donkeys and a few horses and camels; donkeys number only around 0.4 per household on average,

[1] Field work for this profile was undertaken in September 2007. The information presented refers to October 2006-September 2007, a generally good year by local standards. 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 2012)
[2] The area included in the field study extended west into the Gazoua area of Aguie Département, in which two of the eight survey villages were located.

meaning that the majority of households have none. Oxen are used occasionally for ploughing, but it is their transport function which is more important, specifically pulling carts; this adds greatly to their value to their owners as well as to the poorer households to whom oxen are lent. In the end however, it is the massive Nigerian demand for meat that dominates the price of all cattle as well as smallstock. Livestock are Niger's major export.

Markets

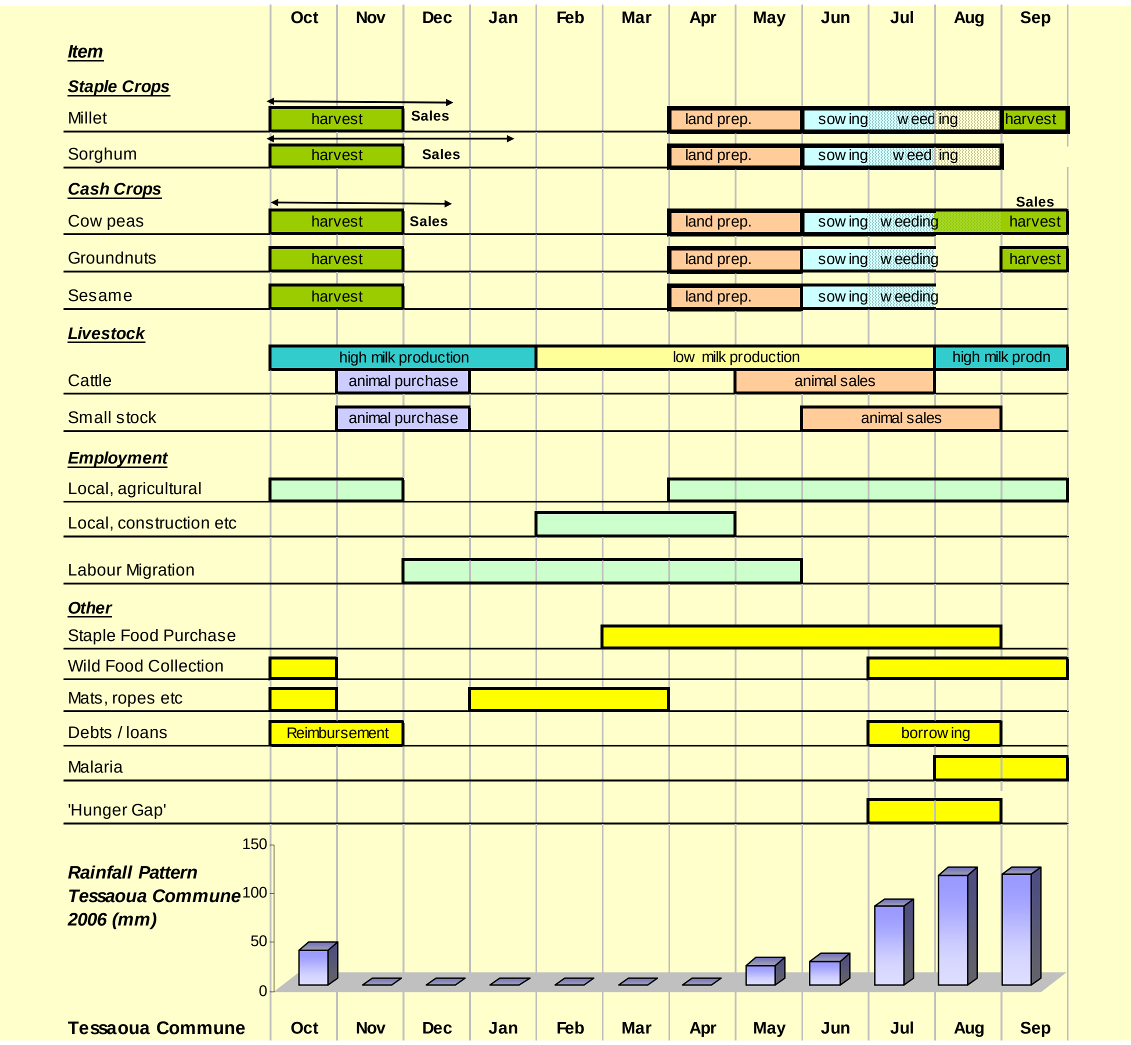
In deficit years the South-Central Livelihood Zone sells grain out of the district in the months after harvest only to buy grain in again from outside in greater quantities and at higher prices later in the year. This is the aggregate result of what a great number of households do on the market each year. Although they are nowhere near self-sufficient in grain, they must sell early to pay off credit and for other pressing requirements, only to buy later in bigger quantities at higher prices. In modern Niger, the market mediates no only a highly monetised local rural economy but the outreach of people into Nigeria and beyond. Money earned from local casual work or small-scale activities, as well as from migrant work or the sale of livestock destined for export, is exchanged on the local market for grain. So crucial is this for the majority of people that in 2005, a year of generally poor but by no means universally disastrous production in the Tessaoua area, it is arguable that the record prices of millet and sorghum created a food crisis for reasons largely extraneous to the local economy.

Crops and livestock are primarily bought and sold through the local primary markets such as Toki where they are traded on to the collecting markets including Koona, Maijirgui, Madobi, Gazaoua, and Baoudeta. From there the produce goes to Tessaoua and eventually feeds the markets in the North (Arlit or Agadez) or West (Niamey).

Koundomawa is an important livestock collection market used by households within the zone and in fact within the wider region including Zinder. From there, most livestock will eventually end up in May'Adua just across the border in Nigeria and hence on to other markets within Nigeria, especially in the south.

The period of main inward flow for the local markets depends on the commodity being sold. For cereals and cash crops this is from the end of September up to December, just after the harvest when prices dropped as low as 200-250 Fr / tia for millet. Prices are at their peak during the outflow period which runs from the time of planting, when farmers need to purchase seed up to just prior to the next harvest; between May and September. In 2007, millet prices rose to 300-400 FCFA per tia. For livestock the main inflow months are May and June while the outflow months are October to November, coinciding with when people traditionally sell or purchase animals. In 2006, the festival of Tabaski fell in December therefore during this month the price of shoats increased. For example a fattened sheep for slaughtering cost around 30,000 -50,000 FCFA in December 2006 compared with 15,000 to 25,000 FCFA for a sheep in May 2007.

Seasonal Calendar



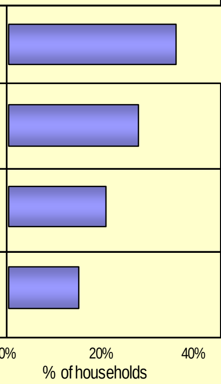
Agricultural activities occupy much of the year, although some months (June to September) are busier than others. For the poorer households, this provides them with the opportunity to earn cash and sometimes food in return for working on the fields of wealthier land owners. This limits their ability to cultivate their own fields, however small they may be, and thus their yields are generally low.

The harvest of millet is spread out over 2-3 months, starting with the harvest of what key informants called ‘petit mil’ and which they described as mature but incomplete grains which have developed more quickly and will not develop any further. This smaller grain is available 2-3 weeks before the main millet harvest and serves the valuable function of ending the hunger gap. (It has a somewhat bitter taste and to minimise this it is often roasted on the stalk before pounding.) Sales of the main crops start almost immediately after the harvest due to the need to reimburse loans and to pay for other household essentials. Harvest time is also when people can think about purchasing livestock, which may have to be later sold to purchase food during the hunger gap, once stocks are depleted.

Almost as soon as the harvest is stocked in the granaries, one or two men from each poorer household head off to Nigeria in search of work for 3-5 months, usually returning in time for preparing the land for the next season. Men from wealthier households may also migrate temporarily but they are not trying to make ends meet, nor do they have to return in time for the start of the agricultural season. In their case, the main purpose of migration may be for commercial activity (including purchase of clothing and other items which they sell back home), but for young men it is also an adventure. For poorer workers, on the other hand, it is an often uncomfortable necessity, and they say that they are regarded in Nigeria as particularly low in the social and economic order, often receiving insults and harsh treatment.

Local employment in the village or in neighbouring villages includes both agricultural labour and such activities as brick-making and house construction. Temporary work migration, especially in the agricultural off-season, is an important income earning strategy employed by many households. People (almost all men) migrate to both rural and city-based work in both northern and southern Nigeria. Within Niger daily paid work is available on construction sites / making bricks / small scale trade etc in the big towns such as Maradi, Konni, or Niamey or Agadez (labour for Irish potato or onion growers).

Wealth Breakdown



	Wealth Groups Characteristics			
	HH size	Land area cultivated	Livestock Holding	Work animals and cart ownership
Very Poor	7	0.8 ha	0-1 shoats through 'kiyo'. 2 hens*	–
Poor	7	1.5 ha	2 shoats plus 1 through 'kyo', 3 hens	0-1 ox 'on loan'
Middle	10	4 ha	3 cattle (1-2 reproductive cows), 11 shoats, 9 hens	0-1 ox, 1 cart
Better-off	15	7 ha	10 cattle (5 reproductive cows), 25 shoats, 15 hens	1-2 bulls, 1 donkey, 1-2 carts, 0-1 horse

** including chickens and guinea fowl*

Key informants in the villages defined wealth determinants chiefly on the basis of land cultivated and livestock holdings. They described the main characteristics of the four main wealth groups, as summarised in the table above. As the villagers themselves frequently observe, the increasing rural population brings increasing problems of land shortage. However, it is clear that livestock play an important role within the economy of the middle and better off households. In addition to earning income through animal sales, or adding quality to the diet through milk, these households benefit from better yields thanks to their oxen-pulled ploughs and their easier access to manure. Ownership of a cart and an animal to pull it also provides opportunities to earn cash from transporting goods. Key informants from poor and very poor households explained the procedure of obtaining the loan of a shoat through *'kiyo'*; how they first had to convince the owner of the animal that they would be able to feed it and take care of it. The system seems to vary from village to village but essentially the poorer household takes care of the female animal (usually but not always a goat) and in return is given one offspring out of every 3 or 4 born. They do not have any control over when the mother animal is sold, but they do receive a share of the sale price. The benefit for the poorer households is that this enables them to have some possibility of acquiring an animal, which they would not be able to afford to purchase themselves plus a small share of the income from the sale. The owner on the other hand has someone taking care of their livestock without charge. Outright ownership of at least a couple of sheep or goats makes an important economic difference to the poor compared with the very poor, as well as the fact that they cultivate almost twice as much land per person. Their productive potential is greater, although it appears from discussion with key informants that unfavourable debt repayment limits their cash flow.

Key informants often explained that many poorer households either rent their land to the better off or use it as collateral to secure a loan. This clearly demonstrates how their pressing need for cash obliges them to effectively reduce their productive capabilities. On the other hand, where the poorest households had had to sell off too much of their land, it was explained that the better off would 'freely' lend fields for cultivation for a season. However further investigation revealed that this was not without cost: while often infertile fields would be handed out, sometimes it would be land which had become very overgrown. The 'beneficiary' of this 'free loan' would thus be required to put in extra labour to clear the land before planting. At the end of the season the better off landowner would reclaim their now-usable field and offer another 'difficult' one for the following year.

It is clear, when considering the graphs in the following sections, that the wealthier households depend on their income from the sale of their livestock and from commercial activities to pay labourers to work on their land, to build for them and to transport their goods to and from the fields and for the market.

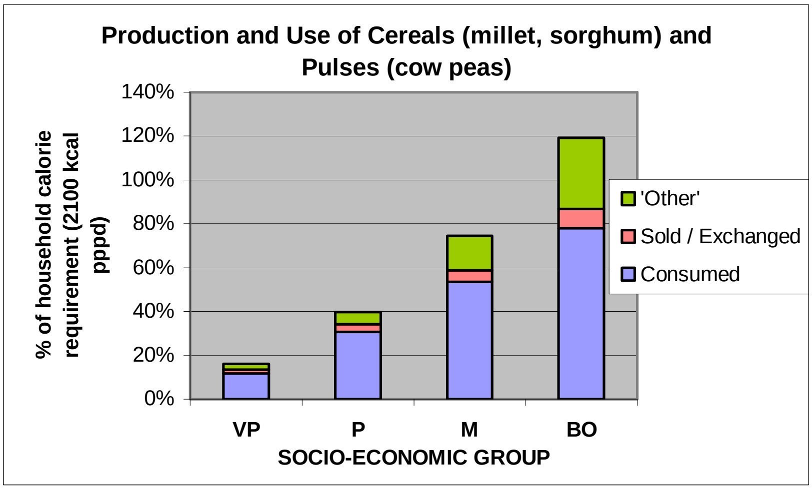
Sources of Food

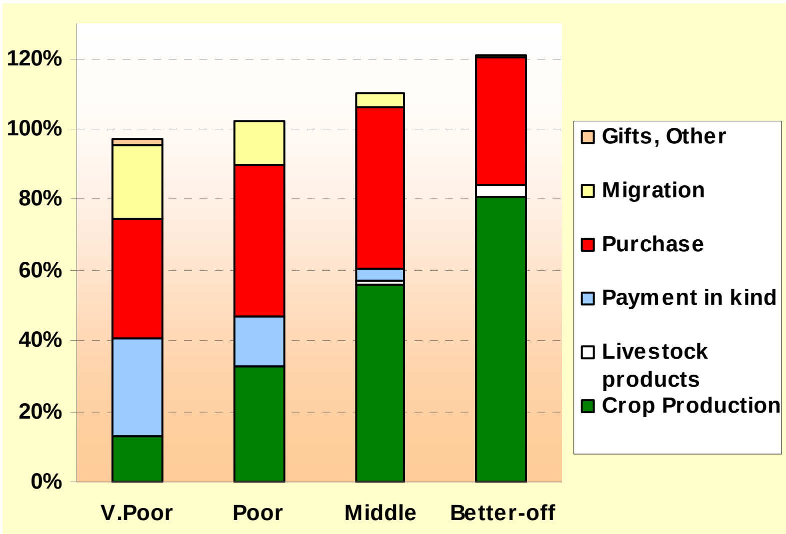
The first graph shows two things. One is how far the staples produced by typical households in each wealth group could meet the basic food requirement of those households if all of it were consumed by them. The other is what the households actually do with the produce. Thus the Better Off produce more than enough to feed themselves, but apart from sales they use a considerable part of it for other purposes, including supporting children from very poor families, paying labourers directly in grain, and *zakat*[1] contributions. The second graph shows that they also buy grain, to make up the balance of household requirements and/or to make payments–in-kind to workers.

By contrast, the Very Poor only produce 17% of their requirement, but even so they must use some for sale to cover immediate needs, including debt repayment, and some for purposes such as direct repayment of a food loan, or a contribution to a baptism celebration. They obtain a little over 60% of the food they eat from the market and from payment-in-kind for their labour.

The Poor show a similar pattern, but produce more than twice as much food as the Very Poor; and they depend much more on purchases than upon in-kind food payments. The Middle obtain some 56% of their consumed food from their own harvest and purchase most of the rest.

Migration for work, largely to Nigeria, contributes significantly to the home food budget of the poorer groups, not only in the sacks of grain that migrants may bring back, but in the meals saved by the absence of the household member. For instance, this last accounts for fully 9% of the food budget of Very Poor households; and since they do not even then quite manage to reach their overall requirement, the 9% is of crucial importance. This illustrates both their deep poverty and their extreme vulnerability to any shock which might reduce their access to food from any source. Even the Middle group are vulnerable to major hikes in the price of staples, and the market crisis of 2005 made them considerably poorer.



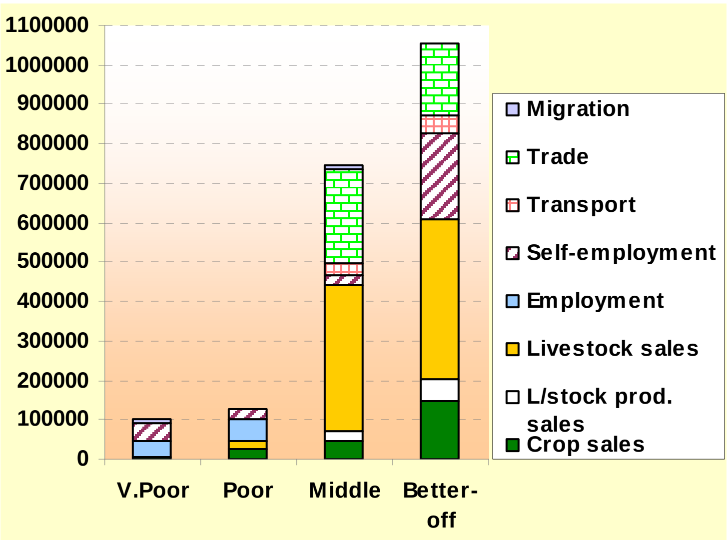


Sources of the basic food consumed by typical households

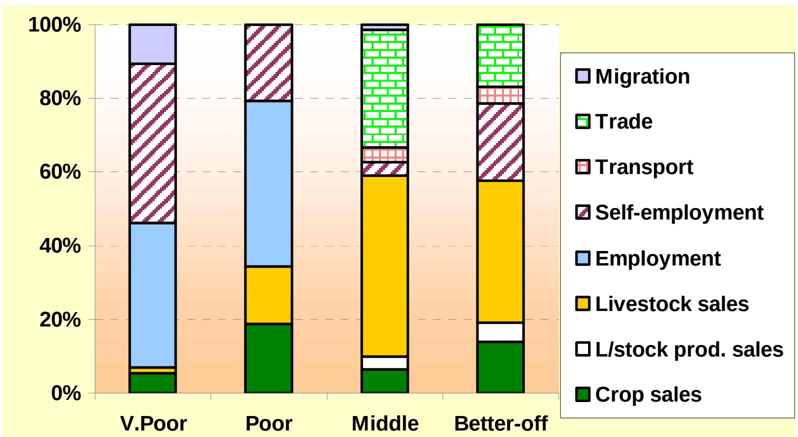
In this graph, food access is expressed as a percentage of minimum food requirements, taken as an average food energy intake of 2100 kcals per person per day.

Finally, the consumption of products from their animals – essentially milk – by the wealthier groups is modest but significant for dietary variation and quality, and especially significant for weaning babies. If the poor want to drink milk, they must buy it (as wealthier people do to supplement their own production). But sometimes purchase of milk is actually an economy, because when added in small quantities to the millet based porridge – often bought by the small calabash ladle containing some 10 centilitres - it stretches farther than other ingredients in terms of cost versus palatability: these are the calculations of poverty.

Sources of Cash



The graph above shows the median of the sources and amounts of cash income in the reference year for typical households in each wealth group.



The graph above shows the proportions of cash income from the different sources for each wealth group

The first, striking thing about the comparison of incomes between wealth groups is the skewed nature of the picture: one half of the population has cash income between seven and ten times higher than the other half. The second striking thing is the balance of the sources of cash. In a zone usually characterised by agriculture, livestock is by far the biggest money earner, and together with trade it eclipses the earnings from crop sales. This is because the huge Nigerian demand for livestock, and the resulting market prices, add much value to this part of household production, whilst the grain market is if anything affected by net importation from Nigeria.

Most of the crop income is from groundnut sales, which account for 75% of crop income for the Better Off, 71% for the Middle, 67% for the Poor, but only 25% for the Very Poor who can hardly afford to buy the seed, let alone spare the extra labour involved in groundnut production. Groundnut production has been affected in recent years by disease as well as rainfall factors, and this has in turn affected the proportion of incomes derived from crops.

This is not to diminish the importance of the agricultural sector: as seen in the preceding section, their own harvest provides the greater part of direct food consumption by better off and middle households, and they also use the grain to pay for labour directly. In turn, the provision of labour for crop production gives the Poor and Very Poor a big part of their living.

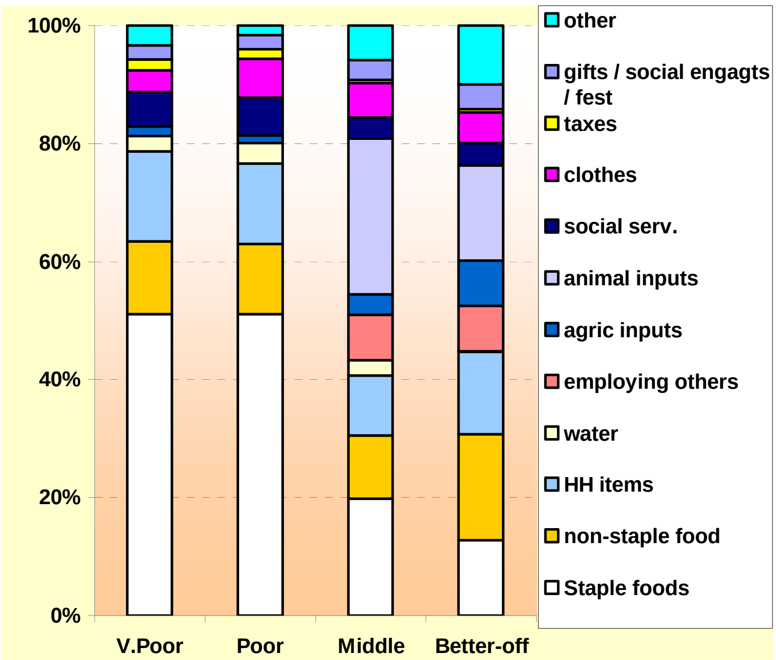
There is obviously a direct relationship between the skewed land and livestock holdings of the wealthier half of the population, and the skewed income.

There is also a direct relationship between livestock ownership and land-holdings, as the traditional, communal grazing areas progressively disappear under the spread of cultivation. The amount of crop residues available to a household plays an important part in determining how many livestock they can feed, since the purchase of fodder is expensive even for the wealthy. Gathering grass to stall-feed livestock is time-consuming, and that is a spur to the redistribution of livestock keeping via the *kiyo* system described above. Such money as the Very Poor make from livestock, as well as an important part of the livestock earnings of the Poor, derive from the convenience for wealthier households to engage the labour of poorer people in this way.

Although this zone is near the border with Nigeria, cash earnings brought back from migration are not a big feature. Migrants from this zone find it economic to spend earnings in Nigeria to buy cheap grain (often sorghum) and transport it home, and this is reflected in the Sources of Food graph above.

It is noteworthy that the Poor, although they have a very low level of income by comparison with their wealthier neighbours, do nevertheless have a significant proportion of earnings from both crops and livestock. This differentiates them from the Very Poor in an important way: the difference is that the Poor still have a major stake in their own farming and herding, modest as it is; the Very Poor are essentially rural workers, getting little from the land they do cultivate for themselves because it is both very small and often of poor quality, especially the land they borrow from the Better Off. It follows that for planning development interventions, different assumptions need to be made for the Poor and the Very Poor. It also follows that without some form of major intensification of land use, the increase in the rural population will mean that the proportion of Very Poor versus Poor will rise; or else the local definition of both will shift, so that 'Very Poor' will mean landless, and Poor will mean something like the Very Poor of today.

Expenditure Patterns



The graph provides a breakdown by wealth group of the proportions of cash expenditure according to category.

It is not surprising to see that both the Very Poor and the Poor spend half of their income on basic food. But this masks a difference: the Poor get more of the balance from their own harvest, whilst the Very Poor get more of the balance from payments-in-kind for their labour. Nevertheless, they are both highly market-dependent, and both tend to buy grain month by month from as early as January, when prices are already rising.

The Middle group also need to buy basic food, but this only represents one-fifth of their income (unless there are major price hikes as in 2005). As we have seen in the Sources of Food section, the Better Off could easily get by for their own basic food without any market purchase, but they follow their own strategy of storage, sales and purchases, including payments-in-kind to labourers. Both the Better Off and the Middle spend money on imported/processed staples: rice and pasta or couscous to add variety to their diet.

The expenditure on non-staple foods and household items look roughly similar as between the different wealth groups. But it should be noted that these are *proportions* of expenditure, and thus the absolute amounts are very different, in line with the great differences in cash available as shown in the income graph above. The wealthier households have a more varied and higher quality diet than the poorer households, regularly buying milk, meat, vegetables and condiments, as well as stimulants (tea, kola nuts).

A notable difference lies in investment in production: the poorer groups spend only a little on agricultural inputs (including seed when they have not been able to save any) and nothing on livestock inputs, given their very small holdings and usual incapacity to purchase even a goat. They are more likely to acquire goats via their share of the young under the *kiyo* arrangement. The wealthier groups spend a good proportion of their cash on production, especially on livestock: but the livestock figure includes not only veterinary and fodder costs but also the purchase of livestock, e.g. typically for both group a cow or ox to replace an older one sold, and a sheep perhaps for slaughter at a festival if there is not an appropriate male in their flock. In this respect, the level of expenditure by the Middle in particular appears to indicate ongoing investment in recovery from the losses in the 2005 crisis. Agricultural expenditure by the Better Off does not often include major use of chemical fertilizers, whose price has become uneconomic at least for grain production. But it does include paying for use of land (usually through a rental / mortgage type of arrangement, or far more rarely, buying outright) from poorer owners, and this may be up to 5% of their total annual expenditure – a sign of the critical population pressure on the land and of the possibly progressive accumulation of land-use in wealthy hands.

Expenditure on social services combines school costs and health costs. As a rule, the Poor and Very Poor spend about twice as much on education as on health. This is usually just on food for snacks, pens, exercise books etc. for attendance at the local primary school, but it amounts to 4-5% of their total income: a real sacrifice on extremely hard-pressed budgets, and a sign of their high motivation in educating their children, very much including girls these days. The proportion of income of the Middle and Better Off going on education is less, at around 2%, but in absolute terms comes to some four times the amount of cash spent by the poorer groups. Part of this expenditure is simply on providing better food to eat at school in the general absence of a school meals programme, giving their children an advantage in concentration on lessons. But another part of the expenditure for some wealthier households is on sending their children away to secondary school where there is no local establishment. This usually means providing both food and rent in some form, and is an expense which most poorer households cannot afford; and so poorer children tend to be excluded from secondary education which is the real passport out of the village and into the wider economy. Even when village children do get to attend secondary school, they often fail and drop out because of the poor quality of instruction they have received at the primary school.

Hazards

The main hazards facing farmers within this zone are summarised in the table below:

Crop	Late rains (especially the 'planting rain') and false starts of the 'planting rain' leading to multiple reseeding. Insufficient rain overall Poor spread of rain Insects (borers, caterpillars, worms, crickets)
Livestock	Insufficient grazing land Insufficient / Lack of fodder Poor quality fodder (e.g. if poor rainfall prevented proper development of the plants) Livestock diseases Insufficient water points

When faced with these problems, people respond in a number of ways, depending on their capacity, the problem and the timing. For example if the planting rains are inadequate or are followed by a lengthy dry spell, farmers re-seed their fields. The men from the poorer households are more likely to migrate in search of work earlier than normal, before waiting for the harvest.

If there is insufficient quality fodder then those with livestock and the means purchase grass and supplement for their animals earlier and in greater quantities than normal. The poorer households, without animals, can often benefit from selling off their crop residue / collecting grass etc for sale. As there is competition with the Fulani herders to feed their animals, the price of fodder rises during such times.