Dakoro Livelihood Profiles

Katsinawa Agropastoralists 2008[1]

The Context

The central subjects of this profile are a Fulani group whose ancestors migrated into Niger around one century ago from an area in what is now Katsina State in Northern Nigeria. Hence they call themselves Katsinawa. Villagers said their forebears left Nigeria because of population pressure on the land, for cultivation as well as grazing. Some said that their ancestors were pure pastoralists; others said that their ancestors had always practiced both herding and cultivation with equal importance. When they set up their current villages, up to 80 years ago, the area was still uninhabited by any other settlers and was populated by many wild animals. Although the Katsinawa are in the majority, there are some households in the villages from other groups, especially Farfarou Fulani and a few Touareg. In this northern sahelian area there is a gradation amongst agropastoralists from those who practice cultivation regularly alongside herding and depend on their harvest for perhaps 50% of their livelihood, to those who practice cultivation opportunistically depending on the quality of the rains and their exact circumstances. In order to achieve a clear contrast with pure pastoralists, the Katsinawa were chosen for this study as representing the numerous agropastoralists who are strongly and permanently dependent on cultivation.

This profile complements another, describing the Bororo Pastoralists further North in Dakoro who were studied at the same time as the Katsinawa Agropastoralists, and which is referred to in the text, along with profiles of two Hausa groups studied in Tessaoua last year[2].

This population inhabits a central band of Dakoro District where rainfall is sufficient to support millet-based agriculture but where there are still extensive pastures. The Fulani share this territory with Hausa farmers who are on the whole far more dependent on cultivation than on livestock. What the Fulani here all share in common, and what essentially differentiates them economically from the Hausa, is that they take their livestock to seasonal grazing away from the home area, especially in crop-growing season. Among the Katsinawa, this is done by only some members of households, whilst the rest remain on their land, where they still mainly live in the wood and mat shelters suitable for herders on the move. The seasonal movement of herds -'transhumance'- allows the Fulani to keep considerably more animals than the Hausa, amongst whom it is rare for people to move with livestock unless pushed by drought, and who indeed often contract Fulani to take their cattle to far grazing. It is transhumance that underpins agropastoralism.

Amongst the Fulani, the Katsinawa identify themselves as people who are permanently settled into agriculture even though they may consider themselves primarily as herders by heritage or vocation. As one informant said: "Even if one of us possesses a hundred or more cattle, he will never leave off agriculture to become a pastoralist". In this they are different from other, local agropastoral Fulani including the Farfarou who may have been originally pastoralists practicing little or no cultivation in northern Nigeria and when they first came to Niger, but whom circumstances, notably competition for pastures and the ravages of periodic drought, have forced to depend more heavily on agriculture. These express the intention – perhaps never actually to be realised – of building up enough herds to take on a purely pastoral life, or at least a life where the 'agro' is highly subservient to the 'pastoral'. Although one may characterise different groups in this way, it is something of a generalisation. There are, no doubt, some Katsinawa households who lean towards pure pastoralism, and some Farfarou or others who are actually successful cultivators and intend to remain as such. And probably all agropastoral villages contain households who were pure pastoralists but were knocked permanently out of the pastoral system by misfortune.

The reason for selecting the Katsinawa among all the various subgroups of Fulani to study, was that they represent a particular point along the continuum between pure pastoral and sedentary livelihoods among the Fulani. Of the many Fulani practising various degrees of agriculture with livestock, the Katsinawa are those for whom these two activities are equally important. The Bororo (discussed in the accompanying profile) represent the other, pastoral end of the continuum.

The long and severe droughts peaking in 1972-73 and 1983-84 were the greatest general misfortunes in the last generation, and 1984 is still what people refer to if asked when was the last real catastrophe. The most recent crisis year was 2004-05, when drought effects were compounded by unprecedented cereal-price hikes resulting from

[1]Field work for this profile was undertaken in February 2008. The information presented refers to the reference year 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 2013).

[2] Please see Holt and LeJeune (2007) *Report on the Household Economy Survey of Two Livelihood Zones of Tessaoua District*, with the accompanying two profiles from September 2007: *Tessaoua South Central Livelihood Zone* and *Tessaoua North Settled Livelihood Zone*. These reports are all available from Save the Children (UK).

wider regional causes, and people lost or were forced to sell large numbers of livestock.

The main cereal here is millet, usually intercropped with cowpeas, including the 'petit mil' ('little millet') amounting to some 5-7% of the crop: this is the stunted plants which were not weeded out and which produce heads with smaller but still edible seeds. Sorghum is grown in favourable places, amounting to 10-15% of overall cereals production. Cowpeas, a valuable food as well as very small-scale cash crop, amounts to 8-12% of the total volume crop production. Cultivation is almost all done by hand-tilling, and plough-oxen are rare.

The main livestock consist of cattle, sheep and goats. Cattle, of course are the high-value animals: poorer households possess 5-8 smallstock per head of cattle, for wealthier households it is 2 or 2.5 smallstock per head of cattle. Cow's milk is not only drunk fresh or soured at home but is converted into cheese as a less perishable product that can be sold in the weekly market and indeed then sold on to more distant customers. Butter is produced nearly exclusively for home consumption, some of it used in cooking, some used on hair to make it soft and shining. There is considerable gifting of milk: perhaps one-third of a wealthier household's milk will go to a poor neighbour without their own cow in milk, and milk is also sometimes given to poor Hausa households in the neighbourhood. At least a couple of donkeys are essential for any household, even amongst the Very Poor, for drawing and carrying water from wells which are rarely next door to the dwelling, as well as field crops and other loads. Only Better Off households will possess a camel, sometimes used for riding as well as for burden.

What the graphs and explanations below clearly show, is that the Poor and Very Poor households are particularly vulnerable to an increase in prices of staple food (millet).

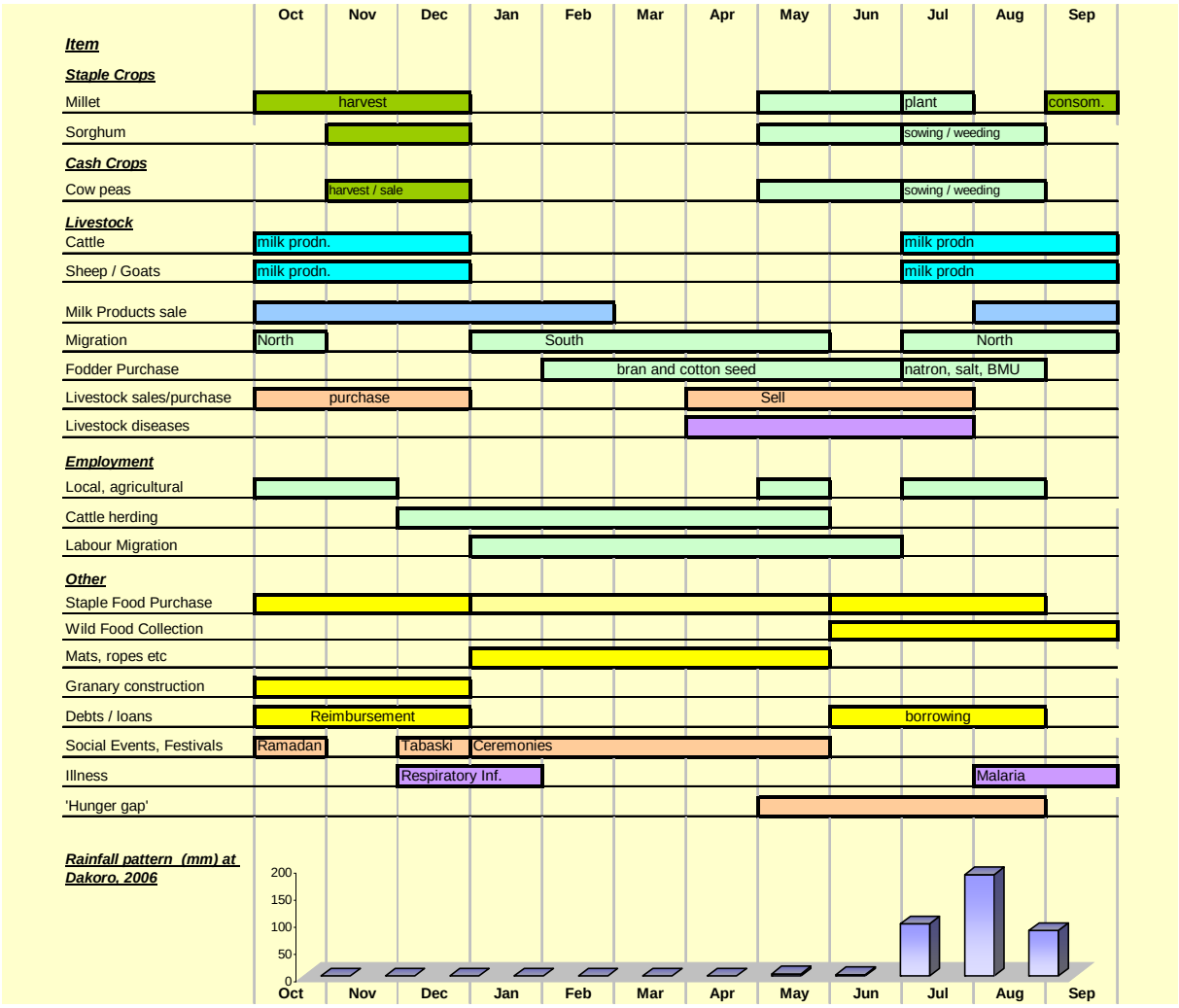
Markets

Households sell very little of the grain they produce, and so the vital selling market is for livestock and livestock products. As all households need to buy substantial extra grain every year, the market for grain is equally vital, and the terms of trade of grain for livestock have the greatest influence upon household budgets. The overall direction of the principal livestock trade is southwards, to the regional capital Maradi, and then mainly on into Nigeria via the border market at Jibiya, although some stock is traded locally for slaughter or raising, whether at Maradi or via other main Niger markets on the Maradi-Niamey axis. Locally in Dakoro District, animals are traded at main weekly markets, e.g. Gandou and Sakabal (a particularly important livestock market, like Sabon Machi to the south) and markets at towns on the main road south: Dakoro Town, Aje Koria and Kornaka. The main motor transport for the Nigerian trade is from Maradi, and whilst some smaller-scale trucking is done from Dakoro town and points south, many animals reach Maradi on the hoof: droving is an occupation for some village men. But some animals are sold by herders during the southward grazing migration. The diagram on the last page of this report represents the agropastoral marketing network.

The grain market serves not just local agropastoralists and farmers but the whole district, so that Dakoro market, for instance, provides a staging post for traders who take the grain on to answer the high demand from Bermo – a pastoralists' market. There is some selling of cereals and cowpeas out of the district to northern pastoralists, or southwards onto the wider regional market; such groundnuts as are marketed seem to be consumed locally. Grain prices are heavily influenced by local production, even though the District must be a net importer in any year (even if it exports a little at harvest time), from the south of Maradi region and even from Nigeria (which is the source also of yams and cassava flour). At the time of survey, February 2008, there was a strong sentiment amongst both villagers and traders that during the coming months grain prices would increase well above 2007 prices and perhaps beyond the limit of reasonable affordability cited at 500-550 FCFA per measure (the *tia,* which in the market holds some 2.5 kg of millet). But even traders seemed to have only vague knowledge of inflationary factors beyond at least Maradi region, e.g. the northern Nigerian harvest shortage or the wider international market pressure due to the wheat shortage.

Seasonal Calendar

This calendar represents both the agricultural and animal husbandry activities that fill the agropastoral year. We can discern three main periods. June to September is a hard time of year even though the rains bring some relief from the fierce heat of April and May: there is some heavy physical activity, especially in preparing the fields, and poorer people are under food stress because any harvest stocks have run out, grain prices are peaking, and animals are still recovering from the dry season lack of pasture and are in relatively poor state and fetch relatively low prices. And malaria peaks in August and September. But at least milk production begins to improve from the animals left behind from the northern migration (in itself perhaps to be considered a hardship for the members of the household who are involved). This is when the poorer households typically have to borrow food or cash – and it is a peak time for grain purchase. The other peak time for purchase – at more favourable prices, is around January when some cereal and sugar, at least, has to be bought for the people taking animals on the southward, dry season grazing migration. In addition the herders sell a few smallstock during this transhumance to get further supplies.



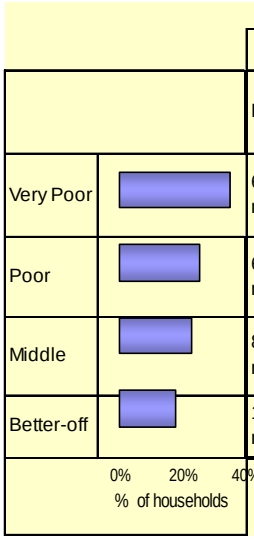
From October to January the crops in the fields are harvested (from late September households consume some millet straight from the fields without waiting to stock it); the livestock are in relatively good condition, and are back from migration, and there is peak milk consumption. People are able to get better prices for their animals, and poorer households can begin reimbursing their debts. From January to May there are relatively few agricultural activities, leaving people free for community events and ceremonies such as weddings. But some members especially of Very Poor Households now go out of the village in search of temporary work in urban centres or in Nigeria; some find less distant work looking after livestock for wealthier agricultural households, including amongst the Hausa farmers. These months are also when people make mats and ropes for their own use and for sale

When the harvest is in, the livestock are allowed to feed on the remaining stalks and this helps to maintain milk production. Households tend to purchase fodder for selected animals among their herd from February until there is sufficient grass again. In January, part of the household migrates south (in a bad year well into Nigeria) with all but

a few animals in search of pasture. This journey takes up to a month, the herd rests for two to three months before heading back north to the home area. Migration has to be carefully managed during the rains because herders are taking their livestock through the agricultural zone in order to keep them away from growing crops, and by the same token there is a growing risk of conflicts on the way between herders and the settled (mainly Hausa) farmers, especially when customary migration 'corridors' have been taken over by cultivation.

Wealth Breakdown

The first thing to say is that both the livestock holdings and the land holdings are substantial given the wealth status of each group: if we compare the Very Poor here with the Very poor amongst north-sahel Hausa farmers in Tessaoua district, for instance, we find that their land holdings are roughly similar, whilst the latter hold no cattle at all and less than five smallstock, including those on loan. By comparison, the Very Poor Katsinawa possess far greater assets in livestock - and to own any cattle at all is a significant security. The similarity in land holding and the difference in livestock holdings is reflected up the wealth scale. But at the top end it is a little less marked: some 14 cattle and 35 shoats amongst the Better Off Hausa with average household size of 14-15, compared with around 20 cattle and 40+ shoats amongst the Better Off Katsinawa for every 10 household members. The Better Off Hausa come near to an 'agropastoral' image, except that they do not usually practice transhumance and indeed, as mentioned above, commonly contract Fulani to take their livestock to far grazing.



Wealth Group Information

	HH size	Livestock owned (per 10 household members)	Additional Livestock (Habbanayé rec'd) / household	Land owned and cultivated (ha) per household
Very Poor	6 to 8 members	1-2 cattle, 10-15 sheep/goats, 2-3 donkeys, 3-5 poultry	0-1 cow, 1 goat, 0-1 ewe	1.5-2.5 ha cultivated of 2-3 ha owned
Poor	6 to 9 members	4-5 cattle, 20-25 sheep/goats, 3-4 donkeys, 6-7 poultry	1-2 cows, 1 goat, 1 ewe	2-2.5 ha cultivated of 3-4 ha owned
Middle	8 to 12 members	13-17 cattle, 35-40 sheep/goats, 4 donkeys, 0-1 camels, 10 poultry	0-1 cows, 1-2 ewes	3.5-4 ha cultivated of 4-5 ha owned
Better-off	12 to 16 members	15-25 cattle, 40-45 sheep / goats, 3-4 donkeys, 1 camel, 10 poultry	0-1 cows, 0-1 ewes	6-7 ha cultivated of 8-9 ha owned

* 'Habbanayé' refers to a common form of loan of animals between households. Usually the household borrows a young female and keeps it until it has produced at least one female calf or kid or lamb, of which the household takes ownership. Habbanayé loans can last up to three years; the returned animal may then be loaned to another household. When the animal is returned, it may be accompanied by a young animal (not from the loaned female) as a token of thanks, but this is not obligatory This 'solidarity' between rich and poor is a principal way for poor people to build up a flock or herd, or even to remain at all in the pastoral system after drought losses. There is also some loan of animals between wealthier households.

On average amongst Katsinawa, poorer households are smaller than wealthier households (although this is only a tendency: there are also some very large households amongst poorer people). Taking this into consideration, there is still a marked distinction between wealthier and poorer in livestock holdings, but much less in land holdings and areas cultivated. On this basis the Katsinawa as a whole are properly described as 'agropastoralist' in terms of substantial involvement on both the 'agro' and pastoral sides; but the poorer households are certainly more 'agro' than pastoral economically, whatever they may feel in terms of heritage or aspiration. But again, it is not just land area cultivated that matters but also access to labour and the capacity to cultivate at the correct time. The poorest households are usually employed cultivating the land of their better off neighbours, and therefore they often plant relatively late in the season, which has a negative effect on their harvest.

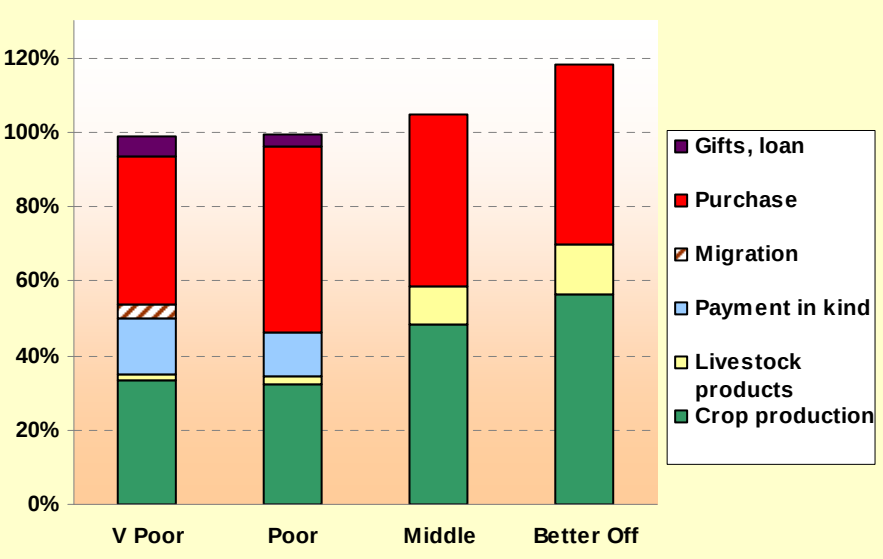
Sources of Food

As noted in the previous section, the wealthier do not use very much more land *per capita* than the poorer. This is reflected in the fact that there is not a very great differential between them in terms of dependence on consuming their own staple crops: some 33% of food calories come from this source for the poorer as against around 50% for the wealthier (amongst Hausa farmers the difference is far greater). Given that the wealthier are able to employ labour, it is not surprising if their yields are somewhat greater than for the poorer cultivators. But in fact the difference was not great: in the reference year (a reasonably satisfactory crop year for some villages but a relatively disappointing year for others – a typical situation in the sahel): the poorer got on average some 270kg per hectare for grain and cowpeas together, the wealthier around 315 kg/ha. The main difference is in the amount of land cultivated and the timing of agricultural activities and that is where the hired labour comes in.

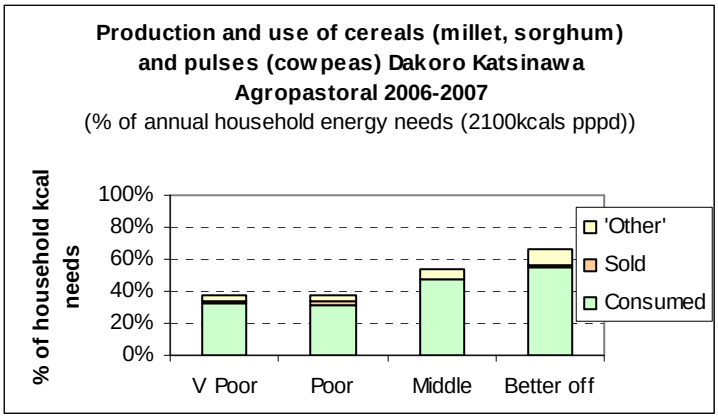
All wealth groups are firmly dependent on the market for 40-50% of the calories they eat, and this comes overwhelmingly from millet purchase. If the Very Poor actually buy less grain from the market than the others, this is because they get a good amount of grain directly as payment for their casual work, and also because they receive gifts of grain from wealthier kin or neighbours. The payments-in-kind and the gifts also explain the apparent over-consumption of food by the Better Off and to a lesser extent the Middle households: they are the principal employers and gift-donors, paying and giving grain as well as cash. but it is no doubt true that they not only drink substantially more mil than poorer households but also eat somewhat more calories overall.

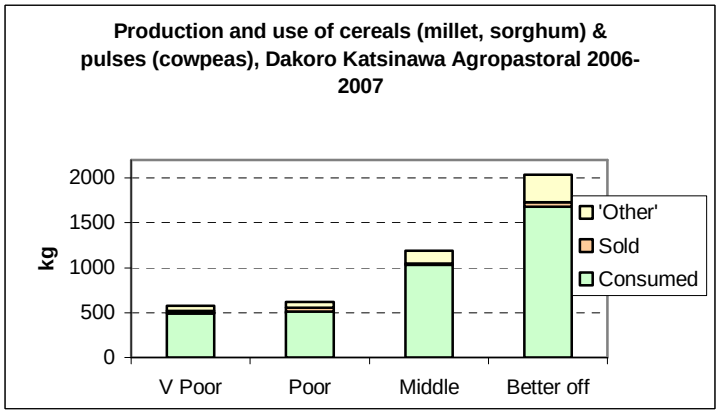
The level of consumption of milk (by far the greatest component of 'livestock products') is almost a proxy for wealth, and here the consumption of the poorer, at some 2% of their overall calorie intake, is very modest, although it is sometimes supplemented by gifts of milk from wealthier neighbours.

Sources of the basic food consumed by typical households



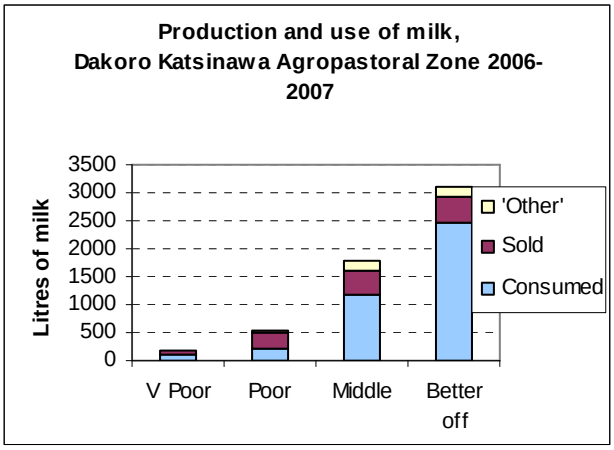
In this graph, food access is expressed as a percentage of minimum food requirements, taken as an average food energy intake of 2100 kcals per person per day.





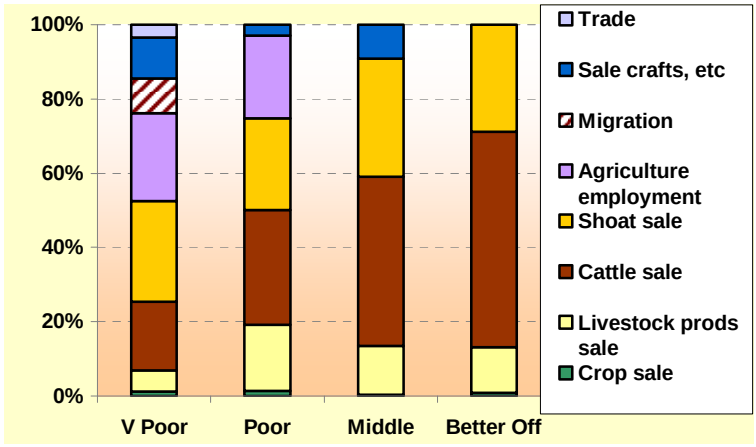
But since young children are favoured with such milk as is available, this amount can make a major impact on their nutritional health, notably at the time of weaning. On the other hand, for the Middle and Better Off households as a whole, milk gives around 10% and 14%of total calories in the year, adding very greatly to the quality of their diet.

This marks them as pastoralists, however *agro*-pastoral their overall economy is: even Better Off Hausa farmers in the northern sahel of Tessaoua District, for instance, do not gain more than about 5% of their calories from milk.

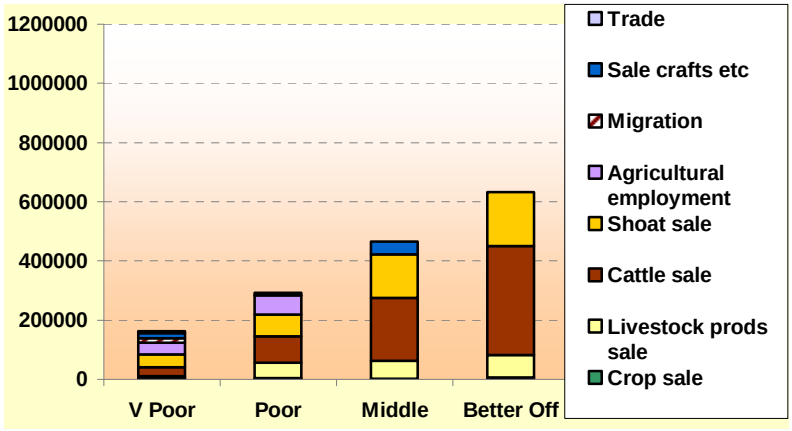


Finally, the phenomenon of work migration is perhaps surprisingly absent here by comparison with the Bororo pastoralists further north. Apart form a modest engagement by the Very Poor, it seems that local production, and local employment on agricultural production in particular is sufficient to allow people not to seek work elsewhere. The seasonal journey away from home that does occur regularly is for some members of the household to take the livestock north and south for far grazing. This usually entails longer treks and somewhat longer time periods than for the pure pastoralists to the north, which may further restrict the possibilities of additional work migration.

Sources of Cash



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



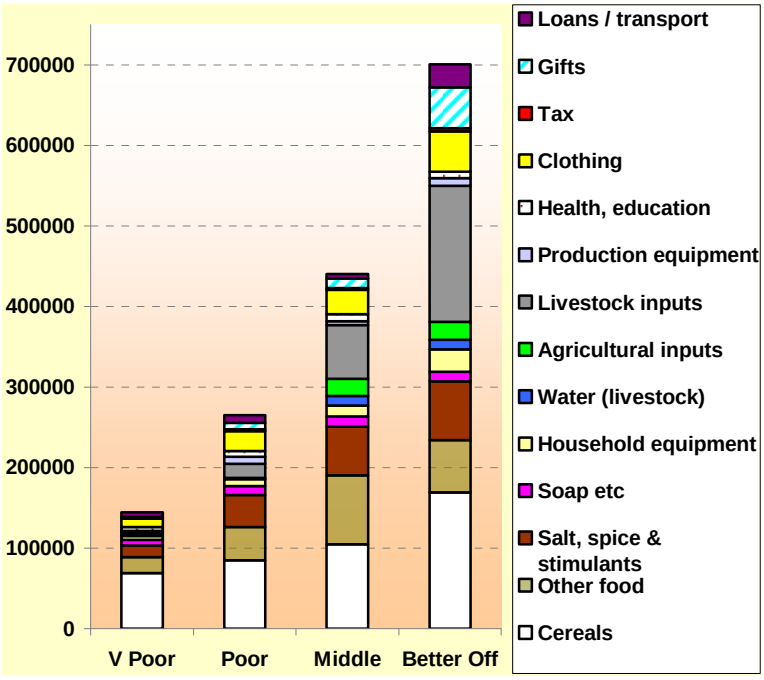
The graph above shows the median of the sources and amounts of cash income in the reference year for typical households in each wealth group.

It is notable that crop sales form a very small part of cash income even in a satisfactory year for production, and even for the Better Off. It seems agropastoralists grow crops for consumption, whilst by comparison even Very Poor Hausa farmers in the north sahel of Tessaoua District get some 35% of their cash from crops if the rains are satisfactory. The difference lies in the role of livestock: the Better Off and Middle Katsinawa make nearly all of their money from animal and dairy sales, whilst even the Very Poor get some 50% of their cash from animals, and the Poor nearly 75%. Amongst Hausa farmers in the north sahel, the Poor get only about 15% of their cash from livestock. In terms of production and its benefits, the Katsinawa have the right to identify themselves as pastoralists first, cultivators second.

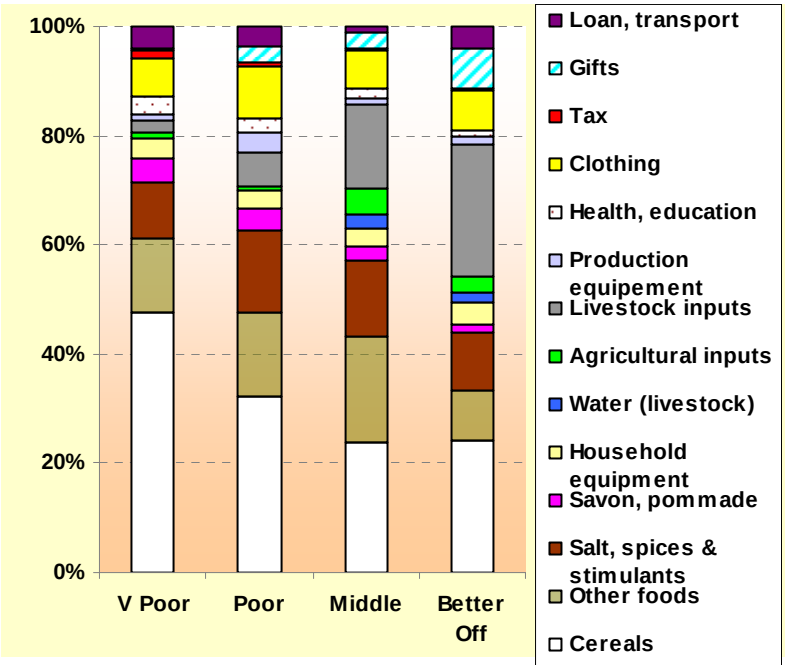
But the Poor and especially the Very Poor need far more than their own production in order to survive. They make up much of the rest of their cash through local agricultural employment, and if we add the in-kind payments they receive, it is clear that employment forms the greater part of their livelihoods. They also make and sell handicrafts such as ropes and mats, whilst in addition the Very Poor get a little under 10% of their cash from work migration: employment again.

If we take into account the larger households of the Middle and especially of the Better Off, the differential in cash incomes is not huge: per capita, the Better Off earn just twice as much as the Very Poor. In this way too, the Katsinawa are rather pastoralists than farmers: as is said about the Bororo pure pastoralists, it is need that generates income, rather than opportunity. They retain the latent 'opportunity' in their livestock, but they only realise their cash value when they need to, to fund the normal requirements of life which are modest even for the Better Off – and to survive the bad times.

Expenditure Patterns



The graph provides a breakdown by wealth group of the absolute of cash expenditure during the reference year according to category.



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

Reflecting the levels of their crop production, there is a clear difference between wealth groups in the proportion spent on cereals and other foods. The poorest households spend over half of their annual income on food; and this is not a function of household size as the poorer households here also tend to be smaller. The Very Poor spend a greater proportion of their income on purchasing food than do the Poor, but they actually purchase a slightly lower percentage of household annual calorie needs (40% compared with 50% for the Poor). This apparent anomaly is due to the difference in absolute expenditure (and of course income) between the wealth groups. On the basis of the average budgets here, the Very Poor spent just over 12,500 FCFA per person on cereals and other foods over the year compared with just less than 17,000 FCFA per person in the Poor households.

'Household equipment' consists of a variety of other, basic household items including paraffin for lamps, torch batteries, and utensils. The absolute amount spent on these, as on salt, spices and stimulants (green tea, kola nuts), and on soap and cosmetics, increases with wealth: they are part of the quality of life.

As regards payment for water, this is overwhelmingly for the herds. When the livestock are taken south for grazing, their route is determined by water points. Where there is a long standing social or family connection, the herders may have free access to water; but otherwise they may have to pay 1000 FCFA to water their herd as they pass through, or a total of 10,000 to 20,000 FCFA (depending on the size of the herd) at a water point around which they spend a lengthy time. Clearly it is the Better Off and Middle households who have significant water costs because they have numbers of livestock. Poorer households tend to combine their animals with other herds and thus it is less typical that they will have to pay for water on migration. (The ponds in Nigeria are often free of charge.)

By and large villagers have free access to water, using their own donkeys, ropes and vessels for drawing it from the communal well. Households have other livestock expenses, including fodder during the dry season for those not on migration (and in a bad year even for those), salt/natron, vaccinations, treatments and tethering ropes. As expected, expenditure on care of animals increases with wealth, which is so much based on numbers of animals owned, and constitutes the most important expense for Better off households – just as livestock constitute the overwhelming source of their income. Thus annual costs of livestock inputs range from just over 3,000 FCFA for Very Poor households to over 150,000 FCFA for the Better off, who also pay for contracted herders. The wealthier households are also more likely to invest in extra fodder to fatten up some animals for later sale rather than simply to maintain them over the dry season.

All households invest in agriculture, notably purchasing small quantities of seeds (particularly cowpeas) and pesticides. There is a large difference in absolute expenditure for the Middle and Better off households compared with Poor and Very Poor which represents the cost of employing people to work in the fields. Typically, the employed labour comes from within the village but at times of increased requirement extra workers are employed from surrounding Hausa villages.
Expenditure on 'social services' combines health care and education, but in the villages visited it was rare to find schools or children who were sent to schools elsewhere. Thus the expenses in the graph are essentially on modern and traditional health treatment.

Hazards

The abiding hazard which almost defines the north sahel is lack of rain. For cultivation, this means late onset of the season, further shortening an already very short season for crop cultivation; and/or staggered onset when germinated seeds dry up, and fields must be reseeded – sometimes twice; poor spread of rain through the season, so that what looks on paper like a favourable seasonal total of precipitation in fact masks damaging breaks in precipitation – sometimes for two or three weeks at critical times in the crop cycle; and finally, early cessation of showers in September, so that the grain fails to mature properly. Against this, excess rainfall leading to water-logging, or mould or sprouting on mature heads, is a rather minor hazard.

Lack of rainfall evidently affects the quality of grazing for the year, and late onset of the first rains can extend the lean season to dangerous lengths, prompting an unusual migration of herds southwards to better favoured areas. However, grazing and browse are less vulnerable than crops to the vagaries of the north sahelian rainfall regime – which is after all why the area was primarily used by pastoralists until land hunger in the south pushed cultivation to the current northern limits of viability. Nevertheless, so patchy is the rainfall performance in the sahel as between one locality and another that in the same year crops in the district may be satisfactory whilst pastures to the north, upon which the agropastoralists partly depend, may be poor.

There is a more positive way to look at this, however, and one which partly explains why wealthy Fulani continue to invest in cultivation even though their wealth in livestock dwarfs what they can get from their fields. Spreading their production between cultivation and livestock actually means covering a large geographical space, including the geography of grazing migration. Livestock offer purchasing power when crops fail; but crops offer at least a saving on annual food purchase as well as some degree of relief in the rarer times when pastures, not crops, fail – including crop residues for the livestock.

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

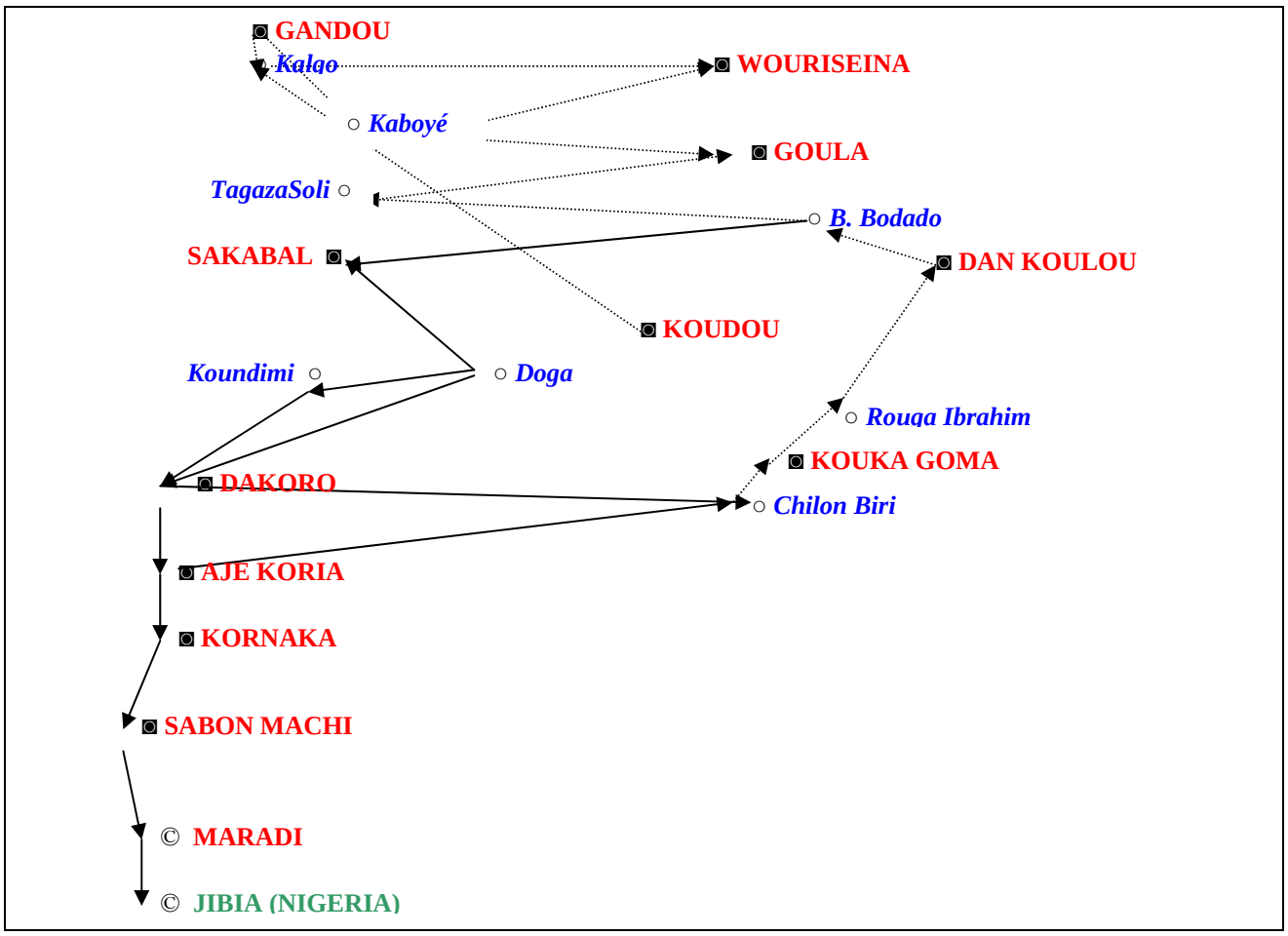
Crop	Drought / insufficient rain, crop pests (birds, rats, crickets, caterpillars), crop diseases, sandstorms, soil degradation
Livestock	Insufficient rain, Livestock diseases (e.g. foot and mouth, respiratory diseases), insufficient fodder/pasture, theft of animals

When faced with these problems, people respond in a number of ways, depending on their capacity, the problem and the timing. The main ways are shown in the following table of villagers' judgements of the quality of the five recent years. Since rainfall performance typically differs from one locality to another in the sahel even within a limited area, only for the crisis year of 2004-05 do judgements from different villages coincide completely.

Year	Seasonal performance	Event	Response
2006-2007	2-4	Poor to middling rain, insufficient to good grazing, poor to good harvest	Sale of animals and labour
2005-2006	3-4	Medium to good year	Sale of animals, Oxfam projects, solidarity
2004-2005	1	Drought, Lack of grazing, low price of animals, shortage of cereals, poor harvest, livestock deaths, locusts, expensive cereals	Household migration to the South Humanitarian assistance Purchase of cereals and fodder at high price Sale of labour
2003-2004	2-5	Middle / good crop production, good pasture	
2002-2003	3-5	Middle to good crop production 'similar to 2003-4'	Strategic management of harvest / sale of animals / food purchase

Markets

The diagram below shows the markets frequented by the agropastoral HEA study villages, Dakoro:



Key: ◙ Regular Market
○ village/settlement studied
← Trade Route, normal year
… Trade Route, bad year
© Large commercial centre