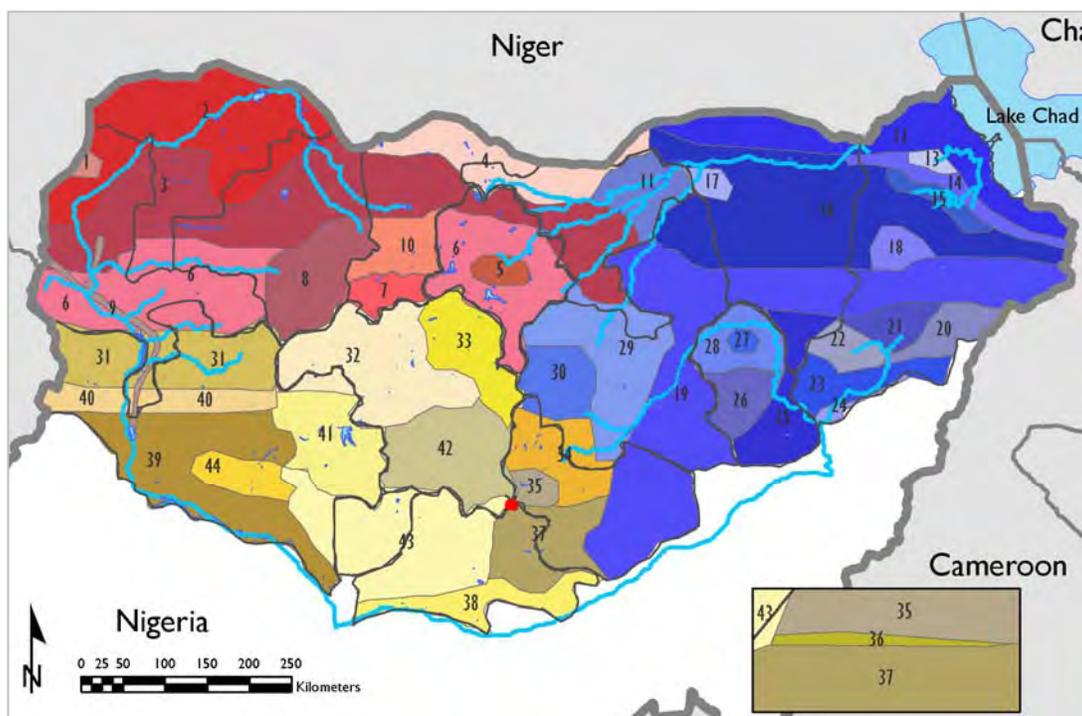




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PRELIMINARY LIVELIHOODS ZONING: NORTHERN NIGERIA

**A SPECIAL REPORT BY
THE FAMINE EARLY WARNING SYSTEMS NETWORK**

February-March 2007

This report was prepared for review by the United States Agency for International Development. It was produced by Chemonics International Inc.

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THE FAMINE EARLY WARNING SYSTEMS NETWORK**

**Famine Early Warning Systems Network (FEWS NET) IQC
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CONTENTS

- Acronyms i
- Acknowledgments iii
- Background 1
 - Livelihoods Analysis in FEWS NET3
 - Livelihood Zoning in Northern Nigeria: Main Considerations4
- The Findings: The zoning map and a discussion of general trends 7
 - Crop production7
 - Livestock production9
 - Market considerations10
 - Orientation10
- Livelihood Zone Descriptions 12
 - Mainly NorthWest Region12
 - Mainly North East Region13
 - Mainly North Central Region15
- A Preliminary Look at Livelihoods in Select Zones 18
 - The NW Millet and Sesame Zone20
 - North Central Yam and Maize Livelihood Zone23
 - The NC Ginger, Sorghum, Maize, and Tubers Livelihood Zone26
 - The NW Irrigated Rice, Wheat, and Vegetables Livelihood Zone29
 - Niger River Flood-Plain Rice and Sorghum Livelihood Zone32
 - Fulani Nomads35
 - Agro-pastoral (i.e. settled) Fulani37
 - Peri-Urban39
- Annex A: Documents Consulted 42
- ANNEX B: FEWS NET & Partners: Presentation and Discussion Round-Table on the Livelihoods Work 46
- ANNEX C: FEWS NET Livelihoods Zoning Workshop Participant List 47
- ANNEX D: FEWS NET Nigeria Northern States Livelihoods Zoning Workshop Agenda 49

ACRONYMS

ADP	Agricultural Development Program
DFID	Department for International Development
FAMARD	Federal Ministry of Agriculture and Rural Development
FEWS NET	Famine Early Warning Systems Network
HEA	Household Economy Approach
IITA	International Institute for Tropical Agriculture
LGA	Local Government Areas
LZ	livelihood zone
NAMIS	Nigeria Agri-Market Information Services
NGO	non-governmental organization
PCU	project coordination unit
PrOpCom	Promoting pro-poor opportunity through commodity and service markets
UNDP	United Nations Development Programme

ACKNOWLEDGMENTS

The livelihoods assessment work by FEWS NET in Nigeria was made possible only by USAID's interest and funding and was greatly enhanced by the cooperation and goodwill of national partners, most notably at the federal level by the project coordination unit of FAMARD, and at the regional level by the ADP of the Ministry of Agriculture. Their support gave us the courage to set about our task of understanding and differentiating rural livelihoods in a huge and complex country.

As the leading consultant, I would like to add that the FEWS NET Country Representative, Tahirou Yahaye, has not only been instrumental in pushing for the livelihoods work to be established, but has been at the center of all the technical and field aspects of the zoning work.

BACKGROUND

This report provides the results of a livelihood zoning project conducted in Nigeria in March and April of 2007. As presented below, livelihood zoning is the first step in the design of a livelihoods-based food security monitoring system. The objective of a zoning project is to group people into coherent areas where people share similar livelihood patterns — market systems, options for obtaining food, and methods to secure income. This is essential for being able to interpret how people will be variously affected by hazards, such as drought or market failures. For instance, people living in an area dominated by pastoralism will be affected by drought in the short term and long term in ways that vary considerably from those living in an agricultural area. Understanding these differences is at the heart of accurately predicting where and when food shortages and famine will occur and thereby helping governments and international agencies to prevent humanitarian disasters.

PRODUCT	WHAT IT IS	WHAT IT HELPS YOU DO
Livelihoods-based Food Security Monitoring Systems		
Livelihood Zoning	A map of areas within which people share broadly the same patterns of livelihood	understand how people in an area will be affected by different hazards (drought, market failure, floods, etc.) design a livelihoods-based sampling frame for assessments target assistance geographically customize indicators for livelihoods monitoring systems
Livelihood Profiles	A snap shot of the livelihood options (food and cash sources) of different households (poor, middle, rich) in the livelihood zone and the hazards to which households are vulnerable	All of the above plus: understand how different household types (poor, middle, rich) will be affected by different hazards design a seasonally-specific monitoring system for more precise and efficient results help interpret trends in monitoring information by season and household type
Livelihood Baseline	A detailed quantified breakdown of household livelihood options (food, cash, and expenditure patterns) for different wealth groups in the livelihood zone, highlighting market linkages, and constraints on/opportunities for economic growth	All of the above plus: predict whether people will be able to meet their basic survival requirements and/or protect their livelihoods in the short, medium and longer term provide essential information for guiding policy and program decisions in areas such as social protection, agricultural policy, service/needs provision, development planning, market program design, etc.
One-off Targeted Livelihoods-based Assessments		
Local Livelihoods-based Emergency Assessment	A customized analysis utilizing livelihood baselines to determine	prioritize assistance on the basis of actual needs

	how a population has been affected by a specific hazard or set of hazards, linking information about the specific changes in environment to information about how people normally live and how they typically cope with hazards	highlight most appropriate types of assistance (in-kind food or non-food; market-based transfer, etc.) determine assistance requirements in relation to both a basic survival line, as well as a livelihoods protection line determine specific indicators to monitor in order to know when and by how much to revise needs estimates
Local Livelihoods Baseline Assessment	A detailed analysis of local livelihoods to answer a specific set of decision-maker questions related to any number of areas, including but not limited to: conflict and livelihoods; local economic growth opportunities; market-based livelihoods programming; labor markets and livelihoods; health and food security; HIV/AIDS and livelihoods; etc.	determine how to best support and help expand people's livelihoods avoid unintended consequences of poorly designed policies or programs identify synergies between local livelihood growth opportunities, government priorities, and decision-maker initiatives

FEWS NET livelihoods products are designed to concisely answer specific decision-maker questions related to food and livelihood security in countries with a significant risk of severe hunger and livelihoods degradation. The first set of products contributes to the longer-term development of food security analysis and monitoring systems based on national livelihoods. These products provide the building blocks for national-level systems that are able to project precise, defensible, evidence-based estimates of annual food and livelihood needs. The second set of products — one-off, targeted, livelihoods-based assessments — are custom analyses designed to help specific decision-makers answer pressing questions on a wide range of subjects related to how people are surviving, how changes will affect them, and what can be done to support them most appropriately, given the range of policy and program options available.

In Nigeria, the March 2007 livelihoods zoning project was designed to take a first look into the northern area of the country as a starting point for potential further work in the country. Those findings are presented here. Profiling or baseline work are logical next steps if additional functionality is required of the livelihoods-based food security system in Nigeria. But the zoning results presented here are useful even now as a basis for understanding how people in different parts of the north will be affected by various hazards (drought, market failure, floods, etc.) and for interpreting existing monitoring information on crop production, prices, or any range of other indicators. In addition, the zoning information can be used to customize indicators within zonal boundaries for more precise monitoring outputs, and future one-off assessments can use the zoning as a logical, livelihoods-based sampling frame.

LIVELIHOODS ANALYSIS IN FEWS NET

Livelihoods analysis among rural populations in developing countries has grown via two main strands since the early 1990s. The first has been the product largely of NGOs, such as CARE International, using Rapid Rural Appraisal techniques to establish the context of village-level programs, often related to food security. The second strand has been more squarely in the realm of food security. It originated in the need to assess acute food insecurity — actual or threatened

— in order to guide donor and government decisions regarding food aid needs. This more specific focus required quantified results, which were a particular feature of the Household Economy Approach (HEA) first developed by the NGO Save The Children UK then also taken forward by the Food Economy Group. The quantified livelihoods information has been recognized as applicable far beyond food aid decisions. Starting in 2000, FEWS NET took on the Food Economy Group as its permanent sub-contractor for Vulnerability and Livelihoods Analysis. Since then, FEWS NET has run or been prominent in livelihoods zoning and profiling in ten African countries as well as a handful of countries in Central America and Central Asia.

Since at least the mid-1980s, there has been an understanding that increasing rural food security is not simply a matter of increasing food production, and that famine early warning is not only the crucial measurement of reduced food production. There is also the “demand” side — the capacity of farmers and herders to buy food. Generally, the poorer people are in rural Africa today, the more they purchase market staples and the less they depend on their own harvests. Food security analysis has become as much about people’s sources of cash as about their production of food.

The assessment of food security at the village level requires the assessment of the whole household economy and a holistic view of livelihoods. In countries such as Ethiopia, Malawi, and Niger, FEWS NET has promoted HEA to contribute directly to famine early warning by government. But elsewhere, whether in Guatemala or in Afghanistan, it is the analysis of livelihoods security that has been of most interest. This is also likely to be the case in Nigeria. Food security is an issue, but its interpretation in the documents seen has less to do with acute failures (triggered by drought or flood, for instance) and more to do with chronic poverty factors that affect access to sufficient calories and micronutrients. As noted during the fieldwork for this zoning exercise, with the exception of the far northeast, villagers have expressed strikingly little concern with acute climatic problems that cause production failure in one year or another. Instead, they have been vocal about yearly problems, such as access to fertilizers, endemic pests



in crops, declining cash crop prices, or the effects of rising fuel prices in the marketing of their produce.

Such concerns are relevant to the program priorities of USAID and other agencies. It is hoped that livelihoods analysis initiated by FEWS NET will contribute usefully to further decisions regarding policy and practice.

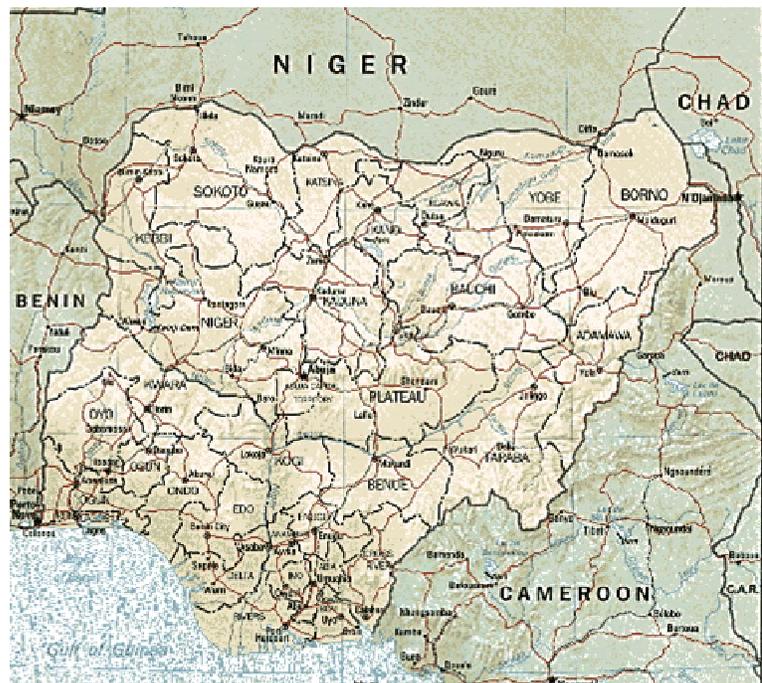
LIVELIHOOD ZONING IN NORTHERN NIGERIA: MAIN CONSIDERATIONS

The task of livelihood zoning is to create a map of economic geography that shows the varied contexts in which livelihoods are pursued. Livelihood zones (LZs) are rarely exactly aligned with administrative boundaries, since the latter are the result of political and social decisions and influences which reflect more than local economy. Exceptions tend to be where administrative boundaries are defined by a major physical feature, such as an escarpment, that also naturally forms the boundary between livelihood zones. Livelihood zone maps are always superimposed upon administrative maps so that the populations within the zones can be identified easily.

In rural areas of most developing countries, livelihoods are based overwhelmingly on the primary production of food and cash crops along with livestock, even outside pastoral and agro-pastoral areas. Therefore, agro-ecology dominates the zoning. Other elements may impinge, such as isolation from roads and markets, or proximity to large cities, irrigated plantations, or mining operations that offer substantial casual employment. Finally, both local culture and government policy decisions can contribute to differences in zoning. One group of people may specialize in a cash crop for which another group has the conditions to grow, but perhaps not the tradition or skill. More often, official initiatives or major projects substantially affect economic decisions by local people regarding what they grow or where they go to offer their labor.

Mountainous countries will usually have considerably more zones than flatter territories, given that altitude creates more acute ecological changes over a smaller space than does latitude. Northern Nigeria is substantially differentiated by latitude — especially in the states on the northern side of the Niger and Benue rivers that fall within the current zoning.

Nigeria shows a dramatic rise in the rainfall volume and associated growing season duration, from some 500 millimeters per annum and 90 days in the far northeast to as much as 1500 millimeters and 200 days in parts of the southern



Source: www.lib.utexas.edu

end of the region. However, the agro-ecological picture is far more detailed than a few rainfall bands. The Jos Plateau is the major feature of elevation, and it has its own climate; there is also the less dramatic but vast, slightly elevated area encompassed by the Kaduna, Bauchi, Gombe, Kano and Katsina states.

These features create a drainage system that feeds the Niger and Benue rivers and along the way provides water for irrigation schemes as well as moisture for some of the widespread *fadama* cultivation. The Niger floodplain in Niger State is another extensive cropping area that contributes to the drainage system. With these two sources available, the use of surface water forms an important, though not dominant, feature of Northern Nigeria's crop production.

Another factor is the different soils of the region and their effects on what crops farmers can plant and expect reasonable returns from. But a consideration must also be given to the influence of market demand on production choices, whether for staple foods including cereals and pulses, yams and cassava; or for cash crops such as groundnuts, cotton, sesame seed (*beniseed*), and spices. Livestock are produced, depending on ecological and market conditions, by specialists such as Fulani herders as well as ordinary farmers. For the poorer farmers, the husbandry of a few goats or sheep and some poultry provides an income which, although likely very modest, is essential to their survival budgets.

All of these factors are likely to result in a pattern of some complexity, which livelihood zoning must reflect. Nevertheless, for reasons of practical utility, livelihood zoning tends to be done with a broad brush rather than a fine pencil, noting substantial differences rather than small niches. Generally, a zone is likely to contain tens of thousands of people rather than some hundreds.

Finally, around every large city is a population group that can be categorized as “rural” — in the sense that this population lives beyond the municipal boundary and does some farming — but is highly affected by its proximity to the urban economy. These people are near to the big market for products and receive relatively high prices, taking into account their reduced transport costs. They are well placed for petty trade — hawking, most notably — and well positioned to partake in the urban employment economy, whether in casual labor in portering, transport, or construction. They may find contractual work in a factory or in domestic service. All of these jobs are also performed by migrant workers, who come into the urban sphere seasonally. But permanent residents around cities tend to have longer engagements with the urban economy, reflected in the structure of household income.

Given these factors, it is possible to define the “peri-urban” livelihood zone, especially around such large cities as Kano, Maiduguri, Kaduna, and Abuja. This zone has not yet been formalized in the current exercise, however. This zone was presented in the context of Kano, but further work needs to be done to define the distinguishing characteristics, including the rough radius of the zone around the city. And another factor needs to be resolved: how and whether to include the numbers of urban people who exploit land for cultivation within the municipal limits — especially producing vegetables for market through small-scale irrigation or on *fadama*-type land.

THE PROCESS OF LIVELIHOOD ZONING IN NORTHERN NIGERIA

The steps taken in the zoning of 15 states of northern Nigeria were as follows.

1. A review of relevant available data from secondary sources (see Annex A) was carried out. Before the livelihood zoning exercise, an overview was commissioned from Professor Janice E. Olawoye of Ibadan University, and FEWS NET Nigeria staff carried out an additional literature search. However, the review of documentation was a continuous process given that certain documents, including maps, are only easily found at the state level. Before and during the Kano workshop (see number 3 below) and in travel, the two field teams were searching constantly for additional documentation to add to the information offered by key informants.
2. A presentation of the approach and plan was made to partners in Abuja on February 9, with representatives from PCU, National Bureau of Statistics, National Population Commission, NAMIS, FAMARD Early Warning System, Central Bank, UNDP, DFID, USAID Market Project, PrOpCom, Nigerian Meteorological Services, and Save the Children U.K. (See Annex B.)
3. The Livelihood Zoning Workshop was held in Kano on February 13 and 14, featuring 31 key informant participants from partner agencies including PCU, ADP, MISTOWA, state chambers of commerce, IITA, and the state ministries of agriculture and health. This produced the first draft livelihood zone map. The participants were given an introduction to the Household Economy Approach, especially as it attaches to livelihoods zoning; then the map was built up by stages, using available maps and documentation but above all, the knowledge and judgment of the participants, who providing the essential discussion and synthesis needed for the process. The workshop timetable is provided in Annex D.
4. Between February 15 and March 3, a tour of eight of the states was conducted by two teams, composed of the FEWS NET country representative, an international and a local consultant, and colleagues from the PCU. After coordinated work in Kano State, one team went to Borno, Gombe and Nassarawa states and the other went to Katsina, Zamfara, Kaduna and Niger states. They also sought information on the 15 neighboring states that were not visited. The main task of the teams was to verify and modify as necessary the draft map. But given that this was the first field activity of FEWS NET Nigeria, the teams took the opportunity to gain initial, indicative information for the livelihood profiling, which is the expected next step for this project. In the states visited, meetings were held with the ADP, agricultural and marketing associations, and university and institute specialists. In addition, about half of the available time was spent visiting villages in the various livelihood zones.
5. Upon return to Abuja, the two teams cross-referenced the livelihoods map with the modifications found during the field visits. A debriefing meeting was held with USAID.

THE FINDINGS: THE ZONING MAP AND A DISCUSSION OF GENERAL TRENDS

The map in Figure 1 shows the preliminary boundaries of the livelihood zoning in northern Nigeria. As stated earlier, livelihood zones tend not to align exactly with the boundaries of bigger administrative units, and as the map indicates, many of the larger local government areas (LGAs) are divided between two livelihood zones. The 44 identified rural livelihood zones cover the entirety of the rural areas of the 15 states considered (including those of the Federal Capital Territory). They are tabulated in Annex E, while the lists of livelihood zones with their constituent LGAs are available on a separate spreadsheet. The map represents a doubling of the number of zones identified on the first draft map, which offered some broader livelihood zones to cover the same territory. Following the tour of states, the draft map was not so much overhauled as added to — its basic propositions remained valid overall.

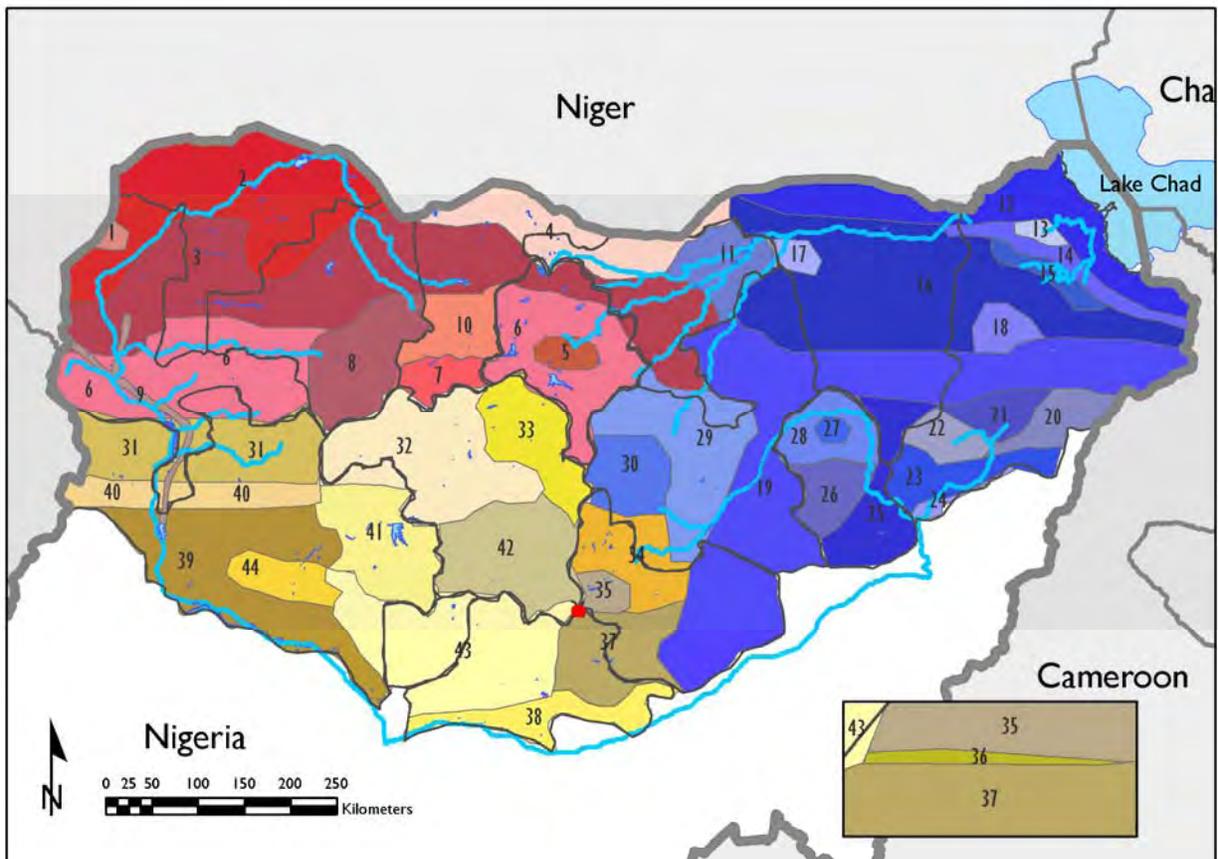
CROP PRODUCTION

The region of study has four very broad bands of crops, allied essentially to levels of rainfall. From north to south, the crops are millet, sorghum, maize, and tubers (principally yam and cassava). Sorghum is the dominant cereal in the country, in terms of staple consumption and demand in processing industries — especially from breweries, which are mostly located in the south. From the start, the team appreciated that there are no “pure” zones of a given staple; for instance, in nearly every area where millet is grown, some sorghum is grown as well.

The first sketching during the Kano workshop reflected the north-south crop breakdown, so the team began almost with a template of the four areas dominated by these crops. The subsequent work, both at Kano and on the field trips, was a matter of superimposing other features. For example, distinguishing one millet-based area from another, or factoring in irrigation, which changed the story more drastically.

A striking feature was the sheer diversity of production. The naming of the livelihood zones became a matter of stating only the dominant crops rather than the whole crop mix; nowhere could a zone name sum up all the crops grown and fruits picked. It also became increasingly clear that the crop mixes reflected not only rainfall levels and soil types, but the farmers’ sense of business, given their use of cash crops. Therefore, the livelihoods map is oriented toward primary production but also heavily reflects market factors. And the market is by no means only internal to Nigeria: The cereal trade extends widely, across the borders to the Sahel countries to the north; and agricultural products are exported to Europe, Asia, and the United States through powerful trading associations. In turn, change in international market conditions affect profit margins for many northern Nigerian farmers.

Figure 1: Map of the Livelihood Zones of Northern Nigeria



- Selected Rivers
 - Bodies of Water
 - States within northern Nigeria
- Livelihood Zones**
- | | | |
|---|---------------------------------------|---|
| North West | 13: NE Rice and Chili Peppers | 30: NE Rice and Sweet Potatoes |
| 01: NW Fishing and Rice | 14: NE Fishing, Maize and Cowpeas | North Central |
| 02: Rima Sokoto Irrigated Rice, Millet and Vegetables | 15: NE Wheat and Chili Peppers | 31: NC Maize and Sorghum |
| 03: NW Millet, Cowpeas, Groundnuts and Cotton | 16: NE Millet and Cowpeas | 32: NC Maize, Groudnuts and Rice |
| 04: NW Millet and Sesame | 17: NE Yobe Lowland Rice | 33: NC Maize Dominant, Sorghum and Tubers |
| 05: NW Irrigated Wheat and Vegetables | 18: NE Millet, Cowpeas and Groundnut | 34: NC Yams, Cassava and Sorghum |
| 06: NW Sorghum, Cowpeas and Groundnuts | 19: NE Sorghum, Millet and Cowpeas | 35: NE Rice, Sweet Potatoes and Cotton |
| 07: NW Cotton, Maize and Rice | 20: NE Maize and Sorghum | 36: NC Sweet Potatoes Dominant |
| 08: NW Cotton, Groundnuts and Mixed Cereals | 21: NE Sorghum, Groundnut and Cowpeas | 37: NC Sorghum, Sesame and Rice |
| 09: Niger River Rice Dominant | 22: NE Maize, Cotton and Soybean | 38: River Benue Fishing Dominant |
| 10: NW Cotton and Maize | 23: NE Vegetables and Maize | 39: Niger River Floodplain Rice, Sorghum |
| North East | 24: NE Rice, Maize and Sorghum | 40: NC Maize and Yams |
| 11: Hadejia Valley Mixed Economy | 25: NE Sorghum, Cotton and Cowpeas | 41: NC Yams, Maize and Sorghum |
| 12: NE Fishing Dominant | 26: NE Maize, Cowpeas and Cotton | 42: NC Ginger, Sorghum, Maize and Tubers |
| | 27: NE Special Grazing Area | 43: NC Cassava and Sorghum |
| | 28: NE Maize and Groundnut | 44: NC Rice, Sorghum, Melon and Cassava |
| | 29: NE Sorghum, Maize and Cowpeas | |

Source: FEWS NET Nigeria, July 2007

Most of the livelihood zone names consist of both food and cash crops, and where only cereals or tubers are mentioned, this signifies that the food crop is also the cash crop in some measure. Because farmers are very sensitive to market factors, the results show some shifts in production from period to period, even year to year. The shifts may be triggered by:

- Local bumper harvests, resulting in low prices
- Government policies aimed at boosting production when marketing conditions and/or demand are poor
- Bumper harvests in neighboring Sahel countries, resulting in low cross-border market demand
- Decreased demand from international markets (e.g. for cotton, cassava, etc.)

Production shifts of major staple crops (sorghum, millet, maize, and tubers) very rarely translate into fundamental changes in the production pattern of a zone. For example, the NE Sorghum, Millet, and Cowpea livelihood zone will remain such despite some fluctuations in relative volumes of production. Markets conditions have an effect, but consumption preferences and environmental constraints mitigate these shifts.

However, changes in the cash crop element of livelihood zones may be more drastic or long term, and it is the market that determines these changes. A case in point is cotton industry, whose demise linked to difficulty in selling cotton on the international market. The result, notably in Gombe and Niger states, has been a major decrease in cotton production for a period of several years and possibly permanently. The most notable example of market effects is the groundnut industry, for which northern Nigeria had been famous. That export industry is now a shadow of its former self —local processing has disappeared in the south of the country, and the days of groundnut “pyramids” waiting for train shipment south to the export market are over. Despite those drastic changes, groundnuts remain a ubiquitous crop among the farmers of northern Nigeria, sometimes rivaling cowpeas in volume.

LIVESTOCK PRODUCTION

Regarding livestock, there are considerable challenges to zoning. The keeping of cattle, small ruminants, and poultry as well as equines is common throughout northern Nigeria, while pig farming is more prominent in the south. The commercial poultry production sector is enormous but largely limited to urban/peri-urban areas, although some farmers have small backyard enterprises of several dozen hens. In rural areas, few localities have one predominant type livestock or depend on livestock keeping as the center of the economy. Livestock is not generally included in the zone names because the same pattern holds throughout the zones, and livestock are rarely a distinguishing factor.

However, one group of people in particular — the Fulani — are great specialists in cattle-keeping. In effect, the herding Fulani constitute a general livelihood zone themselves, and although this cannot be represented in mapping terms, some attention was paid to them in the fieldwork. Although they compose about 15 percent of the Nigerian population overall and are not the majority in any area, they own approximately 80 percent of the cattle and handle a part of the rest, taking on animals for grazing through agreement with non-Fulani owners.

Most Fulani are settled in villages alongside the Hausa or other majority ethnic group, or in hamlets around larger villages. Some of the young men take animals seasonally to far grazing in “transhumant” mode. A minority of Fulani are nomads. Typically, non-Fulani settled farmers purchase their milk from local Fulani; wealthier households with a few cattle often put their efforts into fattening oxen rather than milk production.

For centuries, there has been a system of agreements between farmers and neighboring herders that cattle will consume the crop residues of the farmer and in return drop manure on the field. Manure is increasingly precious today, as the government-subsidized chemical fertilizers are far from meeting demand, and black market supply is increasingly expensive. Pastoral households have long been vulnerable to the encroachment of cultivation on pasturelands, and rapid urbanization has also taken over grazing areas and strained water resources. Pastoralists are particularly constrained by dense human settlement when they move in the dry season into the lush environment of southern Nigeria. Then they also face problems with farmers as they move to the north at the commencement of the rainy season, because they lack agreed-upon livestock routes or “corridors.” All of these factors result in a reduction of milk production, which has a negative impact on the nutritional status of children.

MARKET CONSIDERATIONS

Paralleling Nigeria’s northwest/northeast climatic differences are the major trade routes through the north. The trade routes have two main axes: Katsina/Kano and south, including routes from central and western Niger as well as Burkina Faso and Mali, to some extent; and through Maiduguri to the south, including the connection with Chad and eastern Niger.

Generally for both trade routes, the pattern is for grain, pulses, groundnuts, and cotton to go south, whether for consumption in central and southern parts of the country or for export; while manufactured/imported goods come in from the south. The tubers of north-central areas, both yam and cassava, also form part of the southward trade. Small and large livestock, and including poultry, join the southward trade whether by truck or, in the case of cattle especially, on the hoof. Some of the livestock originates from across the border in Niger and even more distant Sahel areas, for which Nigeria is a crucial market. In return, and especially when there are production problems in the Sahel, grain from northern Nigeria goes into Niger. Some grain and pulses also flow back into Nigeria, in response to the huge demand of Nigerian markets when there are local production problems. During the rainy season, limited numbers of Nigerian-based livestock move onto the pastures of central and eastern Niger. The direction of the cross-border trade is also influenced by the relative strength of the naira and the CFA franc in a given season.

Nigeria offers a major demand for labor from the Sahel countries, whether as rural workers in the northern half of the country or as workers in cities from the far north to the far south of Nigeria. There is a far smaller reverse flow of rural labor from Nigeria across the border into southern Niger, if the harvest is substantial.

ORIENTATION

To aid orientation, livelihood zone names are usually given a prefix denoting the political region: NW for Northwest, NE for Northeast, or NC for North Central. The political region divisions

coincide with general ecological differences. Even for similar crop mixes, especially sorghum and millet, there is a difference in production conditions between the west and the east, while in north-central areas, tubers are concentrated and there is more extensive maize production than further north. However, these are the general conditions, with substantial exceptions and local special environments (notably the Plateau area) that are also reflected in different livelihood zones.

Although Nigeria is the most crowded in the south, rapid population growth in central areas of the country is translating into pressures on land and a huge demand for food and goods. Despite a recent boost in production for many major crops, Nigeria is still a major importer of food, with rice very prominent.

With regard to food insecurity specifically, the problem is most pronounced in the extreme northeast, in Borno and Yobe states, where environmental and macroeconomic conditions are unfavorable. Rainfall is 600 millimeters per year or lower, and desertification, low productivity, and poorly diversified economies are more evident than elsewhere. Poorer households with minimal livestock have to depend on the production of just one or two food crops. Their grain reserves last five to six months at best, and they must resort to seasonal work migration to earn the money to buy the balance of food as well as other essentials. Poorer households tend to suffer a “lean season,” especially in July and August, before the increased market availability of maize and tubers from further south and the local main harvest in October/November. Food insecurity is attenuated by the dynamic market system and the diversity of pulses, vegetables, and fruits. Acute food insecurity brought on by rain failure is neither as frequent nor as severe as in the Sahel countries to the north.

LIVELIHOOD ZONE DESCRIPTIONS

MAINLY NORTH WEST REGION

NW Millet, Cowpeas, Groundnuts, and Cotton

NW Millet and Sesame

NW Sorghum, Cowpeas, and Groundnuts

The Northwest region accommodates two wide belts of dominant staple cereals, millet and sorghum, that grade into each other via varying mixes. The other common associated cash crops that further distinguish the local economy are cowpeas, which are grown in surplus; groundnuts; cotton; and sesame. Among all the livelihood zones defined for the 15 states, NW Millet, Cowpeas, Groundnuts, and Cotton has the largest number of LGAs.

This zone is a very general mix of food and cash crops, stretching across Sokoto, Kebbi, Zamfara, Katsina, Kano, and Jigawa states, with associated husbandry of sheep, goats, and cattle. That pattern is echoed in a large Northeast LZ, NE Millet and Cowpea. In the Northwest, the NW Sorghum, Cowpeas and Groundnuts LZ runs second to the NE Millet and Cowpea LZ in size. However, considering the 15 states as a whole, the LZs with a major emphasis on sorghum rather than on millet are in ascendancy.

This area is at the heart of the groundnut cultivation for which northern Nigeria used to be particularly known.

NW Cotton, Groundnuts, and Mixed Cereals

NW Cotton and Maize

NW Cotton, Maize, and Rice

NC Maize and Sorghum

These zones represent the transition from emphasis on sorghum to maize, together with some upland rice. Maize production increased in response to market demand, which translated to favorable prices as a cash crop as well as use as a staple. But recently, the maize market has been adversely affected by the bird flu outbreaks, as maize is the staple of the poultry industry. This may herald a short-term or longer-term shift in production away from maize and towards products with more stability in market demand.

The longstanding cash crops are groundnuts and cotton. Cotton is grown widely in the northwest, albeit in modest amounts and not as generally as groundnuts. There is one extensive area in which cotton had been cultivated in some concentration, as reflected here with different crop mixes. Moisture requirements put this choice area south of the main millet band and into the sorghum-dominated band — in fact, it separates the two parts of the NW Sorghum, Cowpeas, and Groundnuts LZ. But state investment policy (including processing plants) and international market prices have also influenced the geography of cotton, shrinking it in recent years. In particular, this fall has meant that significant cotton cultivation no longer extends into northern Niger State, as it did in former times. Thus, with the NC Maize and Sorghum LZ, the name of money-earner maize appears where cotton would have been before.

Rima-Sokoto Irrigated Rice, Millet, and Vegetables

Niger River Rice Dominant

NW Fishing and Rice

NW Irrigated Wheat and Vegetables

Hadejia Valley Mixed Economy

These zones represent the manipulation of river water on large and small scales. The decades-old irrigation schemes, based mainly on the Rima-Sokoto complex, dominate the northern half of Sokoto State, extending upriver into the northwest of Zamfara State and downriver far into northern Kebbi State. Although rice comes first, both as a staple and a cash crop, a variety of other crops are grown in drylands as well as the irrigated areas. Rainy season cultivation of drylands centers on millet, sorghum, and cowpeas, while vegetables are an important product of the irrigated soils (or soils retaining residual moisture) in the cooler dry season months. The irrigated areas also favor substantial secondary cropping of maize, sweet potatoes, and cassava. Recently, farmers have shifted some effort where possible from millet to maize because the market demand for maize has brought attractive prices.

A narrower, river-bound rice irrigation economy defines another zone through southern Kebbi State: Along the Niger River, as it enters Nigeria and feeds the great Kainji Lake/reservoir before descending into Niger State and its floodplain area. Elsewhere, in Kano State, a concentrated, local irrigation scheme from the Kano River produces both wheat and rice for the large Kano market as well as the trade markets to the south.

River and lake fishing is a minor activity in many locations around the whole of northern Nigeria. But in the Northwest region, Kebbi State has three areas where fishing is a dominant activity, with rice and dryland cereals cultivation alongside. The areas are on the tributary to the Sokoto River in Arewa-Dandi LGA, on the Ka River in Danko/Wasagu LGA in far southeast Kebbi State, and on the Niger River in Yauri LGA in southern Kebbi State.

MAINLY NORTH EAST REGION

NE Special Grazing

Although the great majority of the population of the northeast are sedentary farmers, the greater part of the area is noted for livestock — especially cattle, the majority of which are in the hands of local Fulani and Arabic-speaking pastoralists and agro-pastoralists. The Northeast region overall is both drier and less densely populated than the Northwest region, and has more extensive grazing resources. The lands are also used seasonally by large numbers of incoming herders from Niger and Chad, many on their way to central and southern Nigeria. They join local herders in supplying the main markets, including Maiduguri, with livestock for transport south to satisfy the huge meat demand of the south of Nigeria.

Land-use encroachment problems between farmers and herders has been at the root of ethnic conflict in recent years, possibly exacerbated by increased inward migration of livestock during bad years in the neighboring Sahel. As stated earlier, such widespread pastoralism is not possible to identify geographically as a livelihood zone. However, a few areas and reserves have particularly dense grazing resources and no competition from farmers, thus offering important

seasonal grazing for herders. Two of these areas are identified as NE Special Grazing in Gombe and Bauchi states, and they could be joined by a third area in the far south of Kano State.

NE Fishing Dominant

NE Fishing, Maize, and Cowpea

NE Wheat and Chili Pepper

NE Rice and Chili Pepper

NE Yobe Lowland Rice

The Lake Chad area, together with the Komadugu River that flows into it, determines the livelihood geography of the northeast extremes of the region, bordering Chad and Niger. The LZs in question are listed above, roughly in order of their proximity to the lake and river edges. Clearly, the dominance of fishing is related to the river proper and to the swampy, watered areas which grade into the lake (Lake Chad itself is beyond the national border). Cultivation of maize and cowpeas is added to the fishing economy by degrees, so that the line is blurred between dominant fishing and fishing, maize, and cowpeas.

Irrigation or residual moisture in the dry season allow extended cultivation of valuable cash crops, with chili peppers being the most lucrative per unit of area. Wheat, rice, and sweet potatoes add to local diets and are highly saleable, although main markets are somewhat distant. One further LZ distinguished by irrigation is part of the Hadejia River drainage area originating in Jigawa State in the Northwest region. The Yobe lowland rice LZ lies downriver from the Hadejia Valley Mixed Economy LZ and some distance upriver from the confluence with the Komadugu River on the way to Lake Chad. A substantial number of households have left the harsh environment of southern and central Borno and migrated to the Lake Chad and Komadugu areas, both to sell their labor for seasonal agricultural activities and to pursue their own cultivation where they can.

NE Millet and Cowpea

NE Millet, Cowpea, and Groundnut

NE Sorghum, Millet, and Cowpea

These LZs mirror the millet-to-sorghum transition of the Northwest, but under climatic conditions that are generally drier. In particular, the average annual rainfall band of less than 600 millimeters goes appreciably further south than in the west — nearly up to the latitude of Maiduguri City. Toward the northern frontier, average annual rainfall diminishes to closer to 300 millimeters. This does not apply in the same way to temperatures, which are similar in the east and west but are somewhat cooler in a large central area. Low soil productivity and desertification are major constraints to the production of most cash crops, resulting in low production and limited agricultural diversity.

The two most extensive LZs are NE Millet and Cowpeas and particularly NE Sorghum, Millet, and Cowpeas, with a denser population towards the south. A far smaller LZ, NE Maize, Cowpeas, and Groundnut, is something of a niche area for groundnuts as a cash crop, although, as in the greater part of northern Nigeria, groundnut cultivation is ubiquitous among LZs. But

compared to the west, cotton cultivation is not favored in this drier set of zones. This general area is noted for cattle as well as small livestock.

NE Sorghum, Maize, and Cowpea

NE Sorghum, Groundnut, and Cowpea

NE Sorghum, Cotton, and Cowpea

NE Maize and Groundnut

NE Maize, Cowpea, and Cotton

NE Maize, Cotton, and Soybean

NE Vegetables and Maize

NE Maize and Sorghum

This set of zones embodies the transition in staples production from sorghum-based to maize-based, but with a substantial addition of upland (rainfed/*fadama*) rice. The pattern essentially shifts from north to south, and therefore from less to more annual rainfall, but the pattern is by no means regular. Local conditions ranging from soil to government investment and market influences result in a concentration of maize north of a concentration of sorghum (as seen between south Borno and south Bauchi, for example). Gombe is known for its production of cowpeas, but usually, the major surplus is not well matched by seasonal market demand, which causes extensive dips in prices.

This overall area has some especially productive areas for groundnuts as well as areas of extensive cotton cultivation, even though market conditions (notably in Gombe State) have discouraged farmers and government in cotton investment. The lack of access to subsidized fertilizers, and sometimes to fertilizer at any price, has hampered production of cotton as well as groundnuts — two principal cash earners. As shown in the next section, farmers live by cash as much as by consuming what they produce.

Nevertheless, an impression gained from the information taken so far — but certainly subject to further inquiry — is that the dependence of households on earning money by working for others is less in this general area than in the same latitudes in the Northwest. The dependence on work migration to cities and the south seems markedly less.

MAINLY NORTH CENTRAL REGION

NE Rice and Sweet Potato

NE Rice, Sweet Potato, and Cotton

NC Sweet Potato Dominant

NC Sorghum, Sesame, and Rice

NC Maize, Groundnuts, and Rice

The bunching of these zones is not based on a dominant crop; neither sweet potatoes nor the mainly upland rice are universal. What distinguishes these zones is that they lie on the edges of the North Central big tubers production areas but are still either cereal-based or based on sweet potato production with associated cereals. They are far enough south to be within the Guinea

savannah and higher rainfall areas, and maize and rice are common cereals with greater or lesser amounts of the ubiquitous sorghum. The main sweet potato area is the highland area of Plateau State, where in the higher reaches there is also substantial Irish potato production. But with the exception of the NC Maize and Sorghum LZ in north Niger State, almost all of the area, whether in Kaduna or Bauchi State, is on the elevated part of northern Nigeria that forms the main drainage area feeding most of the far northern rivers.

NC Maize Dominant, Sorghum, and Tubers

NC Ginger, Sorghum, Maize, and Tubers

NC Maize and Yams

NC Yams, Maize, and Sorghum

NC Yam, Cassava, and Sorghum

NC Cassava and Sorghum

Here are the zones where yam and cassava are crucial crops, often more for selling than for consumption. Cereals often remain the main staple, with maize and sorghum sharing the honors, although maize is generally dominant. These areas are markedly more densely populated than further north, and it appears that cultivating tubers is an efficient use of smaller landholdings as farmers decide to make their relative investment in staple and cash crops. The trade in tubers is toward the nearer big cities, including Kano, Kaduna and Abuja, but also to the south of the country. Cassava has a long production history here, which recently was boosted through a government initiative associated with export to China and elsewhere. However, the purchase did not match the increased production, and farmers faced a glut in the local markets.

The general area of these zones covers quite a wide latitude; between north Kaduna and north-central Niger states on the one hand, and the more southerly zones on the other, there is a difference in the volume of rainfall which influences the balance of cereals and tubers, as well as the choice of tubers, cassava being more adapted to drier areas. Generally, cereals are dominant in the north, and the mix is more balanced or in favor of tubers in the south. Subsidiary consumption and cash crops are widely grown, including cowpeas and groundnuts. In addition, one quite large zone in southern Kaduna State produces ginger as a specialty and the dominant cash crop, aimed for marketing across Nigeria via specialist “agents” who often buy from farmers directly at the village gate.

NE Rice, Maize, and Sorghum

River Benue Fishing Dominant

Niger River Floodplain Rice and Sorghum

NC Rice, Sorghum, Melon, and Cassava

These four LZs, directly associated with the Niger and Benue rivers or main tributaries, form the southern boundary of the territory studied. The NE Rice, Maize, and Sorghum zone is characterized by irrigated rice along the Hawal River and other tributaries to the Benue River via the Gongola River. However, this zone features much dryland production, with maize leading the familiar mix of cereals, cowpeas, and groundnuts. Further west along the great Benue River itself is an economy based on fishing, although a mix of crops, including tubers, forms a secondary

production activity.

The other two zones are in Niger State. The big LZ is Niger River Floodplain Rice and Sorghum, which includes the lowest reach of the Kaduna River as it approaches its confluence with the Niger River. The economy is dominated by the effects of a 15-day flooding in September of a wide area north of the river bank, which allows extensive cultivation of rice; while the non-flooded elevations are used principally for sorghum, and a second cassava crop is planted in the dry season on the plain using residual moisture in the soil. Secondary crops include cowpeas with melon (for melon-seed) and groundnuts as cash crops to accompany the sales of rice. Rice is also consumed locally, but sorghum is usually the principal staple, together with cassava. The NC Rice, Sorghum, Melon, and Cassava LZ is a fringe area of the floodplain producing the same crops but with more of a balance in importance between rice and sorghum, and a particular emphasis on melon seeds as the principal cash crop.

A PRELIMINARY LOOK AT LIVELIHOODS IN SELECT ZONES

In this section, illustrative information on livelihoods within the zones is presented. It should be stressed that this is only indicative information and not the result of a full profiling procedure. Some featured subjects in the illustrations do not have a ready explanation, so guidance for further inquiry is provided. The information was obtained during brief village visits to help the team's first-base understanding of how people in contrasting areas live. The data refer to the most recent year's consumption cycle: from the beginning of one harvest to the beginning of the next, and a year of satisfactory rains overall.

Five of these eight cases represent named livelihoods zones on the map. Two further cases are of agro-pastoral and pastoral Fulani, who live throughout the northern states of Nigeria and whose economy is of general importance because they own or care for the great majority of cattle. The eighth case is a characterization the peri-urban phenomenon.

The illustrations show the four pillars of household economy analysis (HEA) in a given livelihood zone. The pillars include the wealth breakdown between households, how households at different wealth levels acquire food, how they earn the cash they need to spend, and on what they principally spend their cash. These core data are the subject of the next practical step in the HEA field process after zoning (see "The Process of Livelihood Zoning In Northern Nigeria," page 5), whether through a livelihoods profiling exercise or through a more detailed, full baseline survey.

The wealth group breakdowns shown here are according to villagers' own ideas of key elements of wealth. The breakdowns are three-way: "poor," "middle," and "better off." This serves to indicate key differences between households, but in more formal fieldwork, at least a four-way breakdown is normal, to allow a view of the finer differences. In the illustrations to follow, the instances in which the "middle" wealth group is the largest often indicate quite a wide range of wealth, including what might be called "upper poor." "Poor," therefore, represents the least wealthy minority that is economically active.

"Sources of food" is enumerated as estimated percentages of the basic food consumption of households, seen in food energy terms: How many calories come directly from their own fields and livestock, how much is bought on the market, and how much comes from direct food loans or gifts. For the "poor," the distinction between food loans and food gifts is often blurred. In the event of a poor harvest when they cannot repay the food lender (who might be a relative, for instance), the loan may be tacitly converted into a de facto gift. This may be a first contribution to food security in a bad year.

"Sources of cash" is enumerated as estimated percentages of the total household cash income (which, in a full baseline, is enumerated in absolute cash terms item by item). This information is notable for several reasons. First, the poorest often do not produce even half of their basic food, and they depend on cash for their basic food security. Second, both the type and the diversity of cash sources tell much about different livelihood levels and security. They indicate clearly how dependent poorer households are on selling their labor, while wealthier households can rely on selling crops (especially cash crops) as well as livestock. Third, the cash story provides a clue to the local interdependence of households at different wealth levels. For instance, poor people

need better-off employers, but better-off people need poor laborers on their fields and as animal keepers if they are to maximize their production and sales.

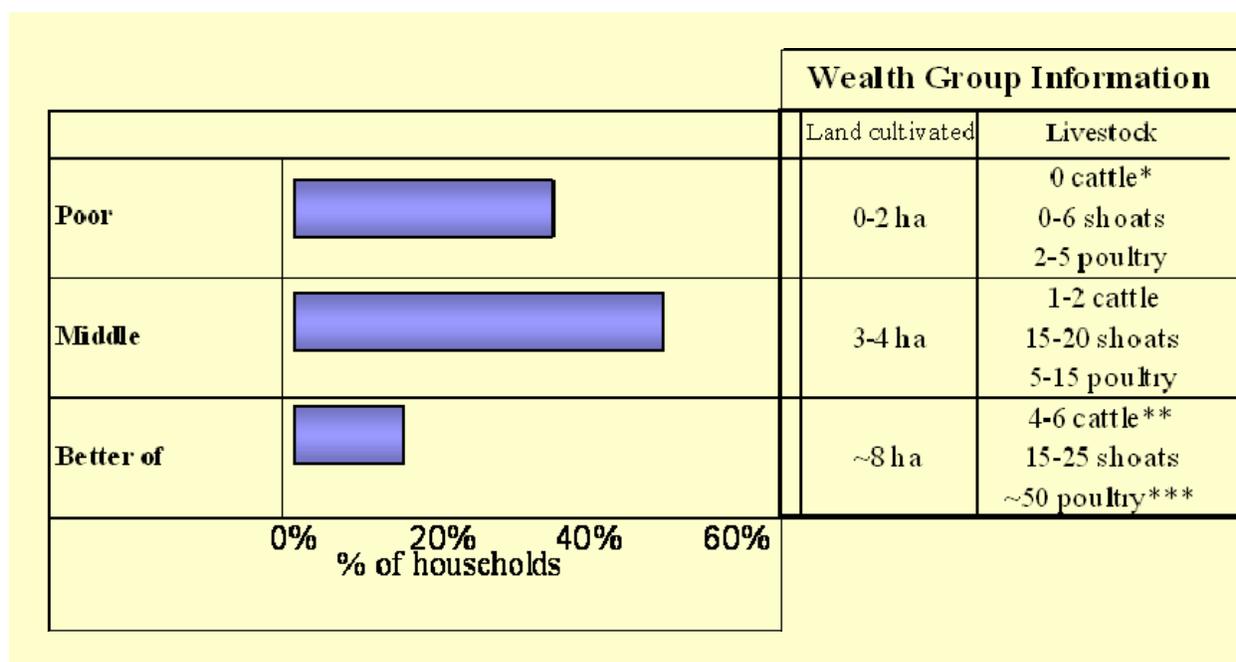
The patterns of expenditure indicate what essentials different households must to spend cash on to survive — notably their relative need to buy staple food — as well as on what necessities households can afford to spend their cash. For instance, the ability or inability to pay for farm inputs, especially fertilizer, is a key to the constraints of poverty. Villagers stated repeatedly that it is not simply ownership that determines how much land is cultivated, but also the ability to cultivate it (given the labor available and the ability to hire) and especially to make a profit after the household's food consumption.

The proportion of income that rural Nigerians spend on services, especially school and medical costs, is striking. Middle group households who are far from wealthy may spend 20 percent of their income on school costs. And it is highly unusual to find even a very poor household with children that chooses to spend nothing on education. The poorest household may sacrifice 10 percent of its hard-earned and badly-needed income on schooling, which is considered an investment in the future.

NORTHWEST MILLET AND SESAME LIVELIHOOD ZONE

Katsina State, Zango LGA, Bulungudi Village

This far northern zone, in the Sahel savanna ecological belt, generally features good conditions for sorghum-based zones, as in the Sudan savanna belt. In fact, even this far north, the split between millet and sorghum on a given farm may be 60/40. In this relatively dry ecosystem, yields tend to be lower than further south. Cowpeas are universally important, and sesame (beniseed) is an especially successful cash crop, although many farms cultivate groundnuts more. Unlike many sorghum-based areas, there is very little *fadama* land here, and vegetables are not common cash earners.



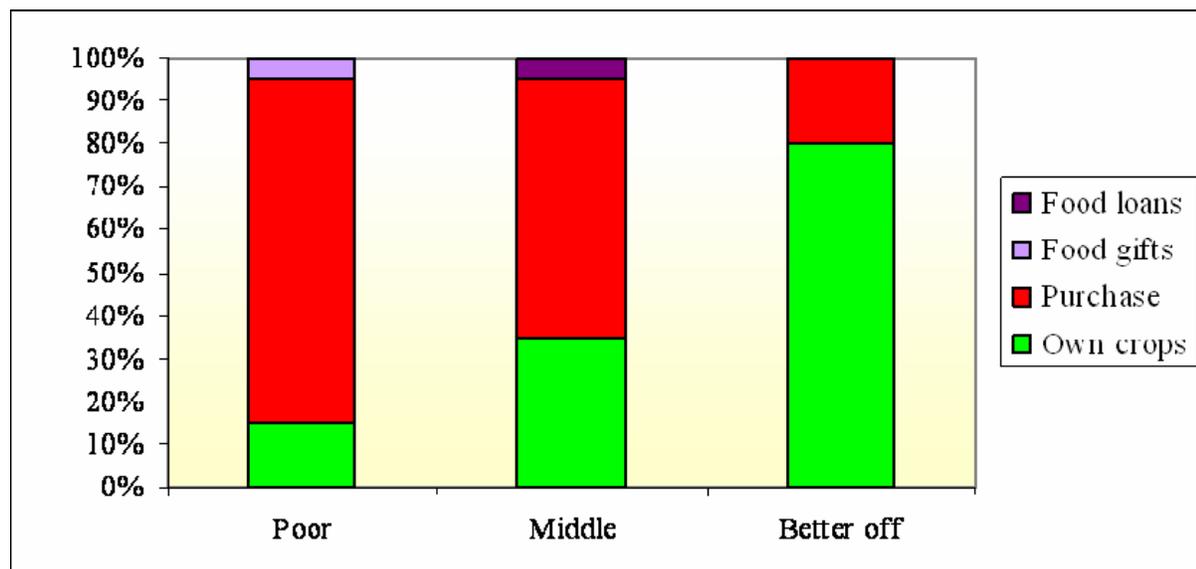
* Poor households often take one or more oxen from better off kin or neighbours for fattening. The proceeds from eventual sale are divided 50-50 between the parties, or 2/3 to 1/3 in favour of the poor keeper.

** The better off keep cattle essentially for fattening (or have them kept by poorer farmers). They buy milk from the surrounding Fulani herders.

*** This figure reflects backyard commercial operations and is unlikely to refer to a majority of the better off, who nevertheless keep some poultry for home use.

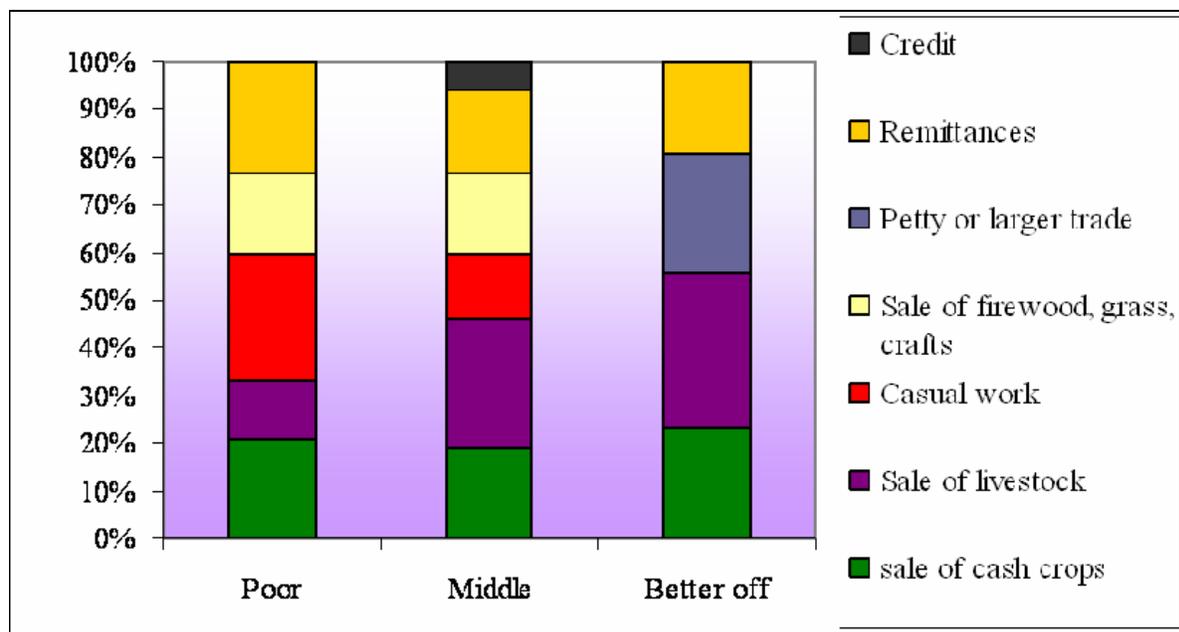
For the poor group, their landholdings are not sufficient to grow enough food for the year, even if they grow no cash crops. For the middle group, whether they fulfill their food requirements from their fields or invest more in cash crops is more of an opportunity cost decision. The extent of their food purchasing bespeaks the value they place on cash crop production, even at the price of borrowing food from better off people or traders to tide them over till the end of the consumption year. The better off can far more easily cover all needs, but choose to buy preferred grains such as rice.

Sources of annual basic food for typical households in three wealth groups



The “sale of livestock” earnings reflect the general importance in this zone of livestock production, including the high value of fattened oxen. Even a half-share of one animal can make up a significant part of a poor household’s budget. The dependence of poor households on selling their labor is actually less here than in some other livelihood zones, while remittances are an unusually important feature across all wealth groups, from family members who may be working permanently as far south as Lagos. This is not an area where surplus grain is produced for sale. The better off are able to capitalize on profitable trade activities, including across the nearby border with Niger.

Sources of annual cash for typical households in three wealth groups



The following is a ranking of annual expenditure for households in middle (majority) wealth group. The rankings are in order of perceived amount spent per year.

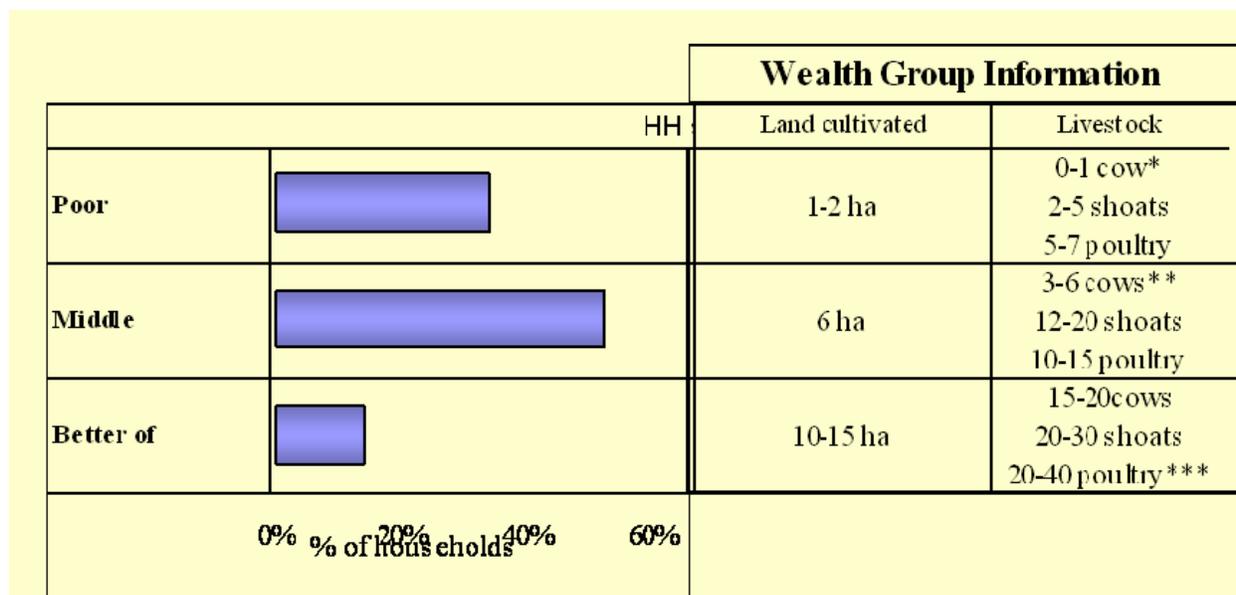
1. Staple food purchase
2. Condiments and household items
3. Clothes purchase
4. School costs
5. Inputs for farming
6. Ceremonies

Not surprisingly, staple foods are the number one cost to middle households. But it is noteworthy that the daily or weekly purchase of relish, spices, and household items (e.g. fuel for light) accounts for the second highest expenditure.

NORTH CENTRAL YAM AND MAIZE LIVELIHOOD ZONE

Niger State, Shiroro LGA, Zari Village

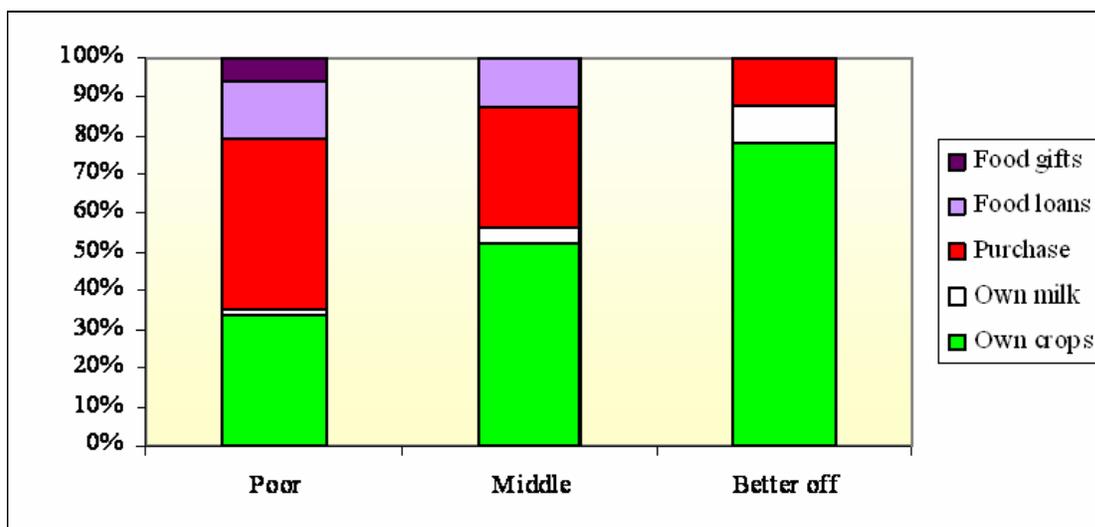
In this relatively productive zone in the Guinea savanna ecological belt, sorghum often runs a close second to maize in cereals production. Cassava is often an important secondary crop to the yams, and groundnuts are ubiquitous.



This wealth breakdown indicates approximately a tenfold difference in assets between the poor and the better off as well as a considerable gap between the average middle group assets and the poor. Rural communities today are very far from homogeneous in their wealth profile.

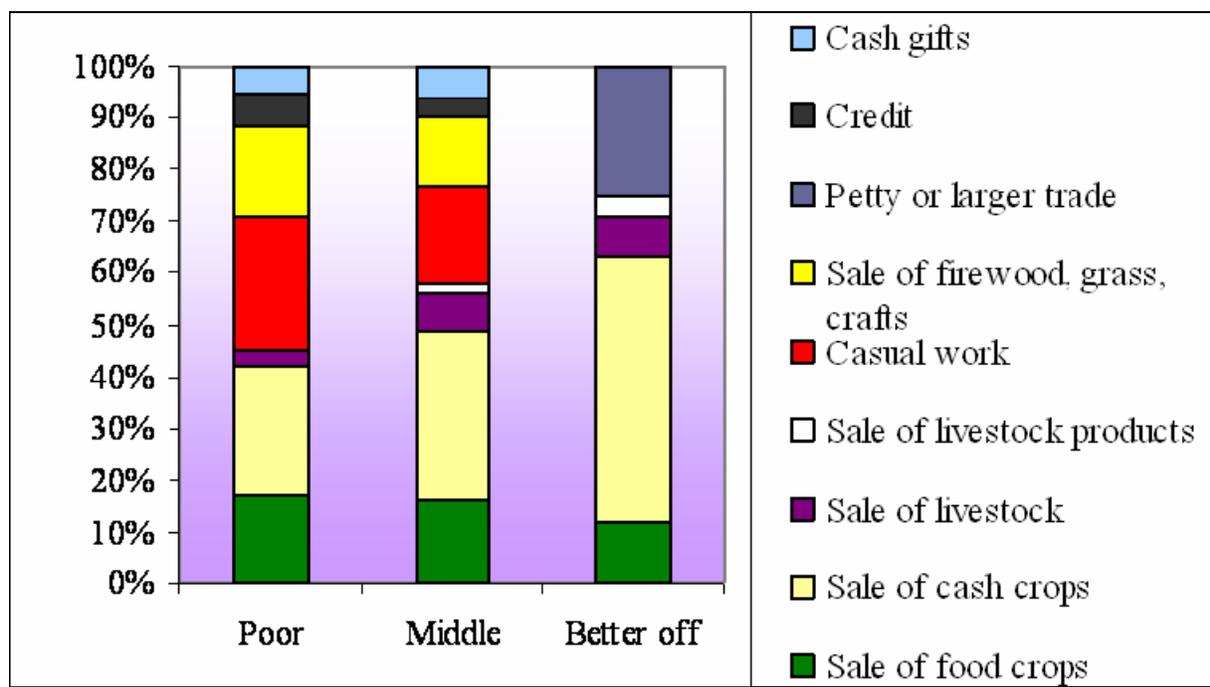
The middle group's capacity to feed themselves from their fields appears underreported here, given their land holdings, unless a remarkable proportion of the land is invested in cash crops. Here, as elsewhere, the relative consumption of milk — something of a luxury in non-pastoral communities, but an important addition to dietary quality — might almost be taken as a proxy for the wealth breakdown.

Sources of annual basic food for typical households in three wealth groups



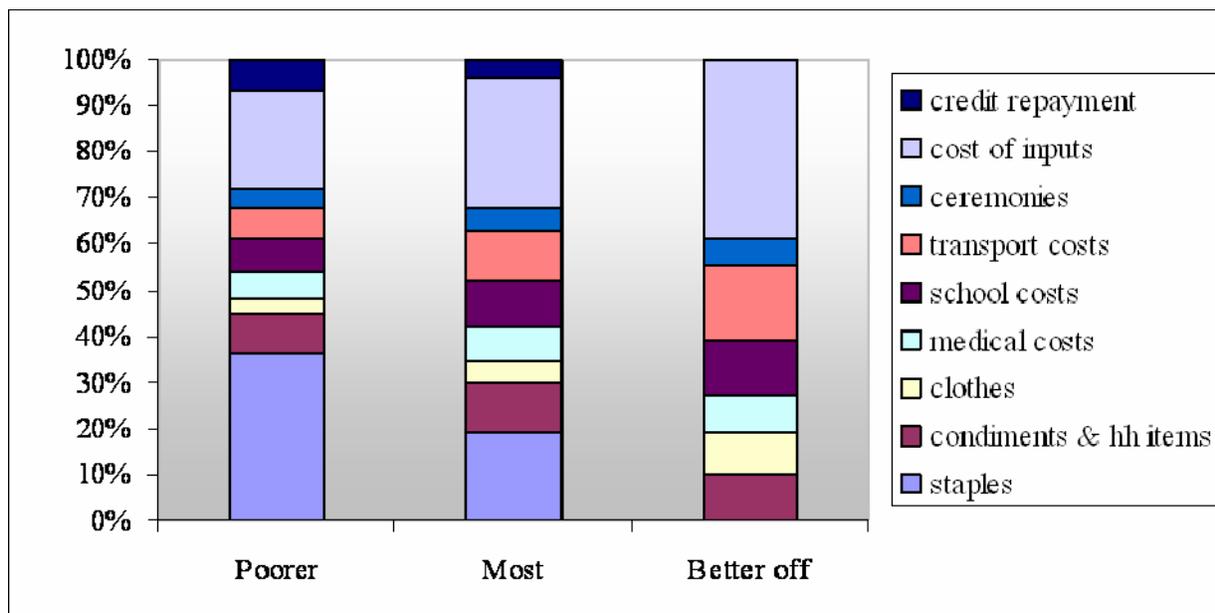
Notes: Poorer HHs offer labor to the creditor if they can't pay back from their harvest.
 Better off HH are able to feed from their fields for the entire year, but purchase preferred foods such as pasta and meat.

Sources of annual cash for typical households in three wealth groups



The cash crop is mainly yam; cassava and groundnuts are raised as well. Tubers are consumed little by households in comparison with the staples maize, sorghum, and cowpeas, which are sold to market much less overall. In this zone, sales of livestock and livestock products offer an unusually small part of income overall, even for better off households.

Proportions of categories annual expenditure for typical households in three wealth groups



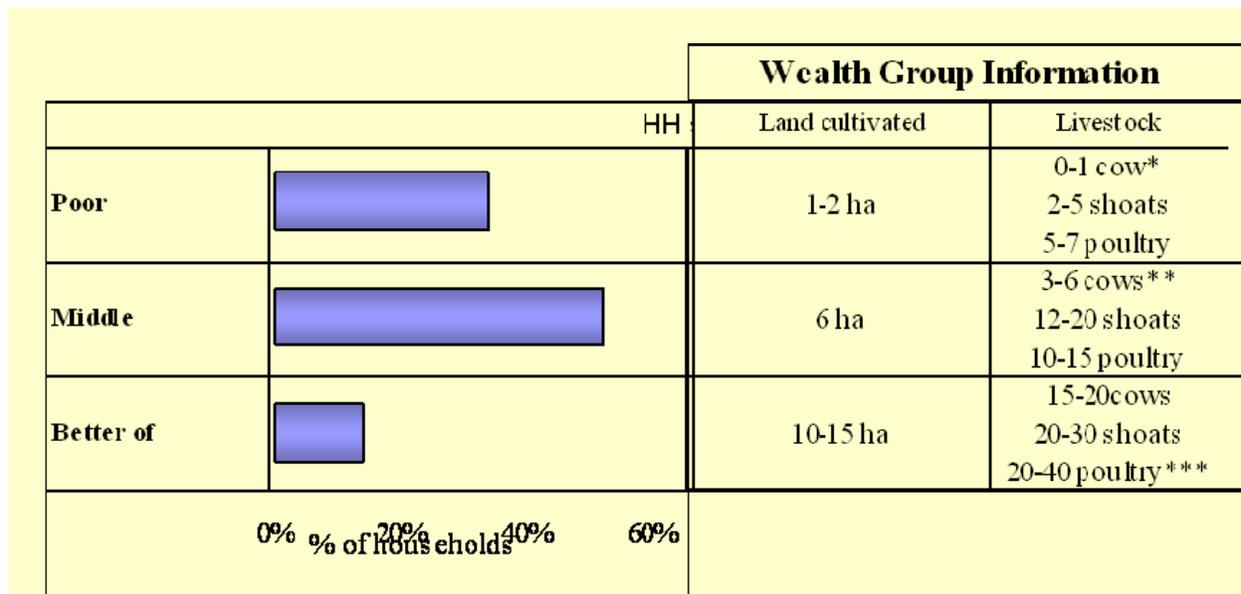
The investment in inputs, mainly fertilizers, is considerable across the board. But whether tuber cash crops or cereals demand more inputs is unclear. For the better off, inputs will often include paying for labor. Transport costs are connected mainly to bringing tubers to the collection markets, from which trader “agents” take them to Abuja, north to Kano, and south to Lagos.

School costs are significant for all groups, but given the difference in absolute expenditure between the groups, the poor are more likely to be paying for local primary education and other groups will be paying for secondary and further education away from home.

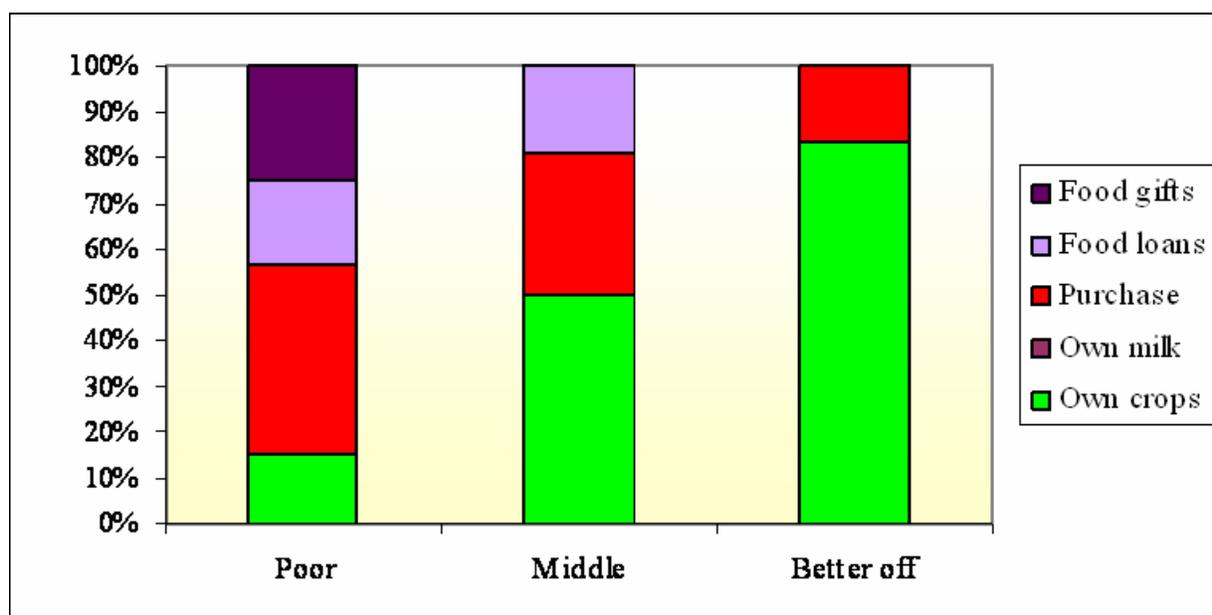
NORTH CENTRAL GINGER, SORGHUM, MAIZE, AND TUBERS LIVELIHOOD ZONE

Kaduna State, Kagarko LGA, Dogon-Kurmi Village

This zone covers a relatively densely populated part of the Guinea savanna belt. Although the this zone is distinguished for its major emphasis on ginger as the prime cash crop, it also notable for the very wide mix of produce it supports. Cereals include millet and rice; tubers include what was claimed to be the premier cultivation of cassava in Kaduna State; and pulses are the ubiquitous cowpeas, soya beans as a cash crop, and groundnuts. However, there seems to be comparatively little room left for livestock husbandry.

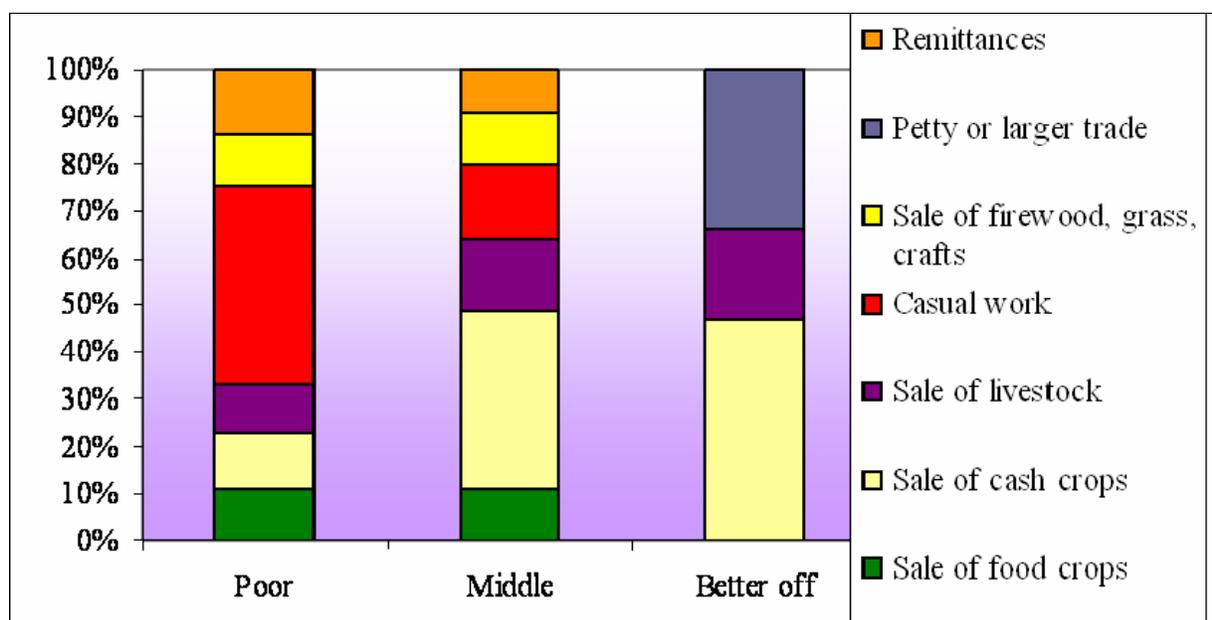


Sources of annual basic food for typical households in three wealth groups



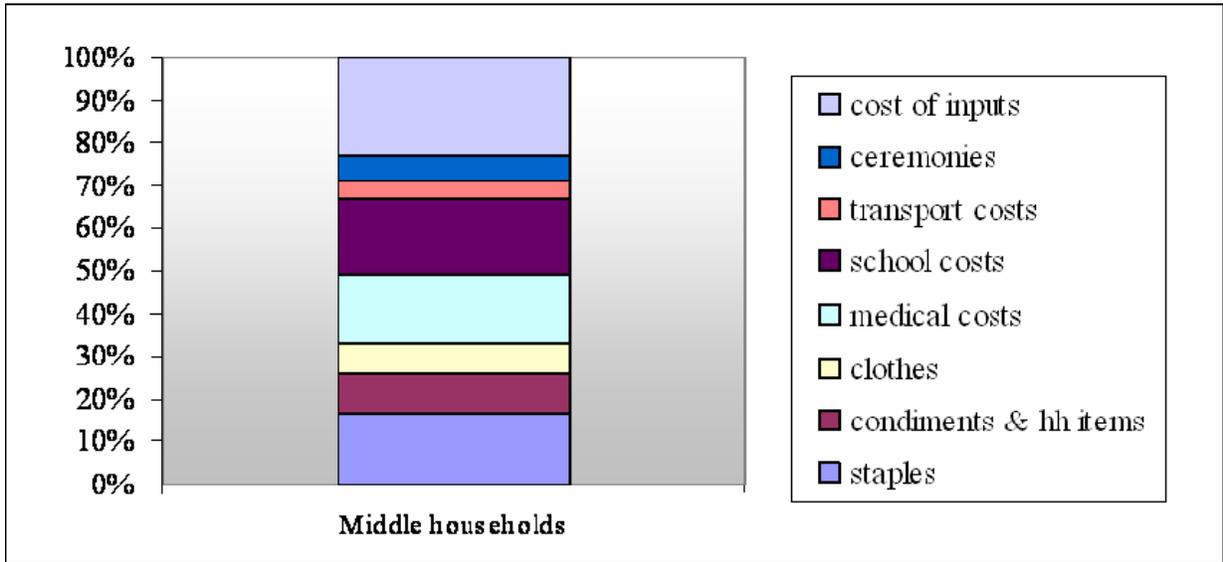
One message received here is that the poor are significantly food insecure, given that they rely unusually heavily on private food gifts. These claims may have been exaggerated to make a point about their marginal situation, but it bears further investigation. The food loans system is also of interest. It may reflect the heavy investment of land in cash crops, which leads to households borrowing food. They borrow to tide them over until the next period of high market prices before the harvest, when they can either repay from their harvests or buy the now-cheaper food on the market with the new cash from selling their cash crops.

Sources of annual cash for typical households in three wealth groups



The pattern here is typical across many livelihood zones, from the high dependence of the poor on working for others (serving producers of cash crops requiring much labor) to the better off building on their success with cash crops and livestock by reinvesting in trade.

Proportions of categories annual expenditure for typical households in the middle (majority) group

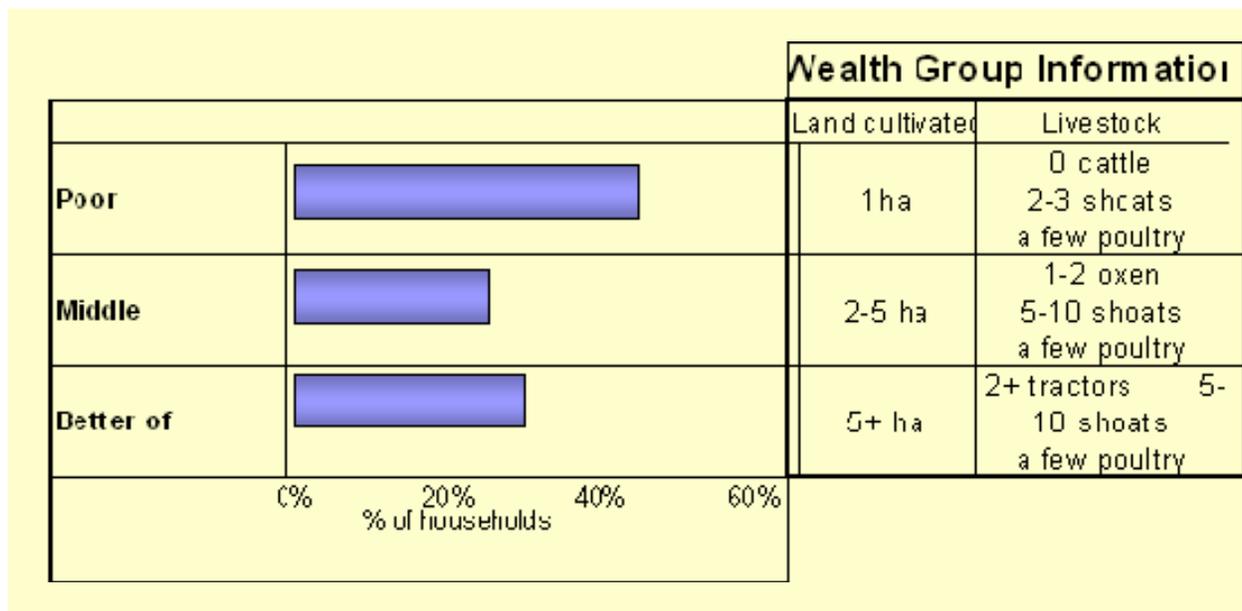


Here, school costs are somewhat higher than staple food costs and not far from input costs. Combined with medical costs, they form the biggest chunk of expenditure by households — which are poor by most standards. This is a stark reminder of how the lack of effective public services places the heaviest burden on ordinary rural people.

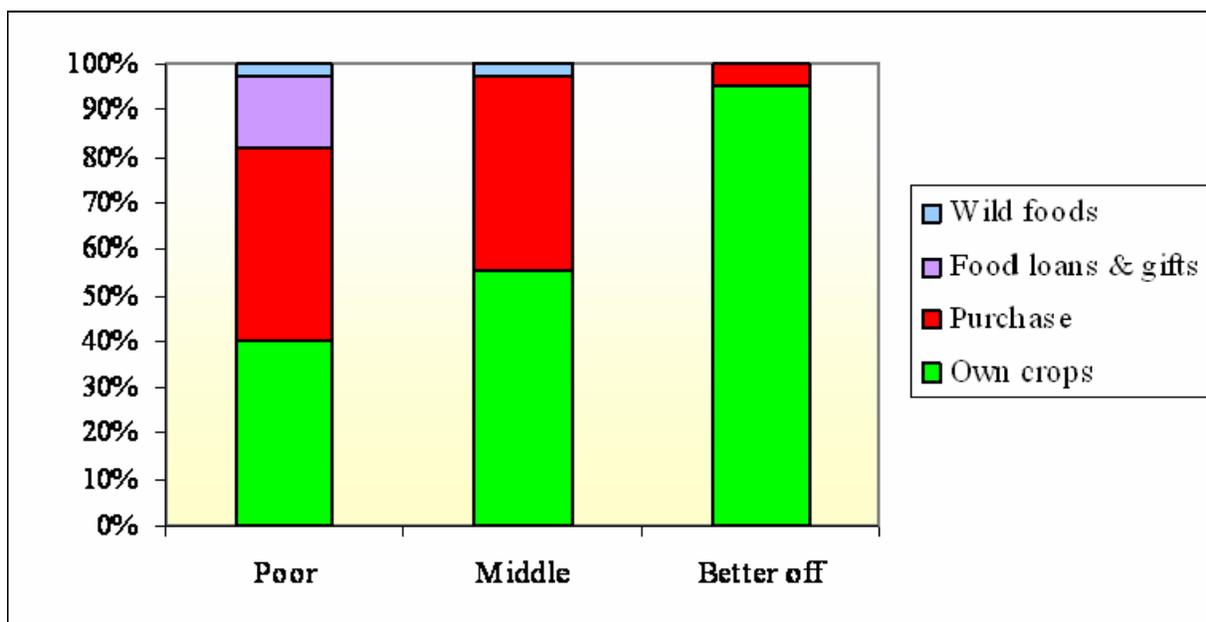
NORTHWEST IRRIGATED RICE, WHEAT, AND VEGETABLES LIVELIHOOD ZONE

Kano State, Kura LGA

This zone includes eight LGAs that are dominated by the irrigation scheme from the damming of the Kano River. Despite the lack of access to government-supplied cheap fertilizer (which sells at more than double price on the black market), this zone features substantial cultivation of rice and wheat as well as sorghum, maize, and millet for home consumption. Cowpeas are an important cash crop, but vegetables have a special advantage because the nearby city of Kano offers a constant market for perishables. As with any concentrated area of irrigation, rather few livestock are kept, although animals from nomads or nearby communities come in for seasonal grazing. Better-off people often have one or two tractors, which is an indicator of the profits being made in this area, but the poor do not appear to be in a better position than elsewhere.

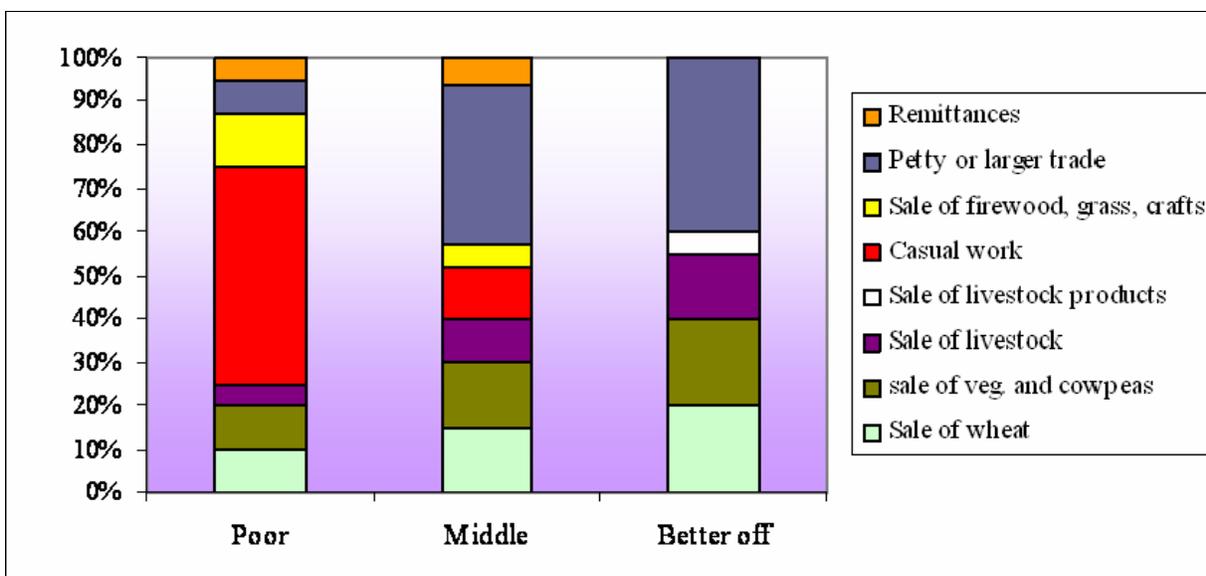


Sources of annual basic food for typical households in three wealth groups



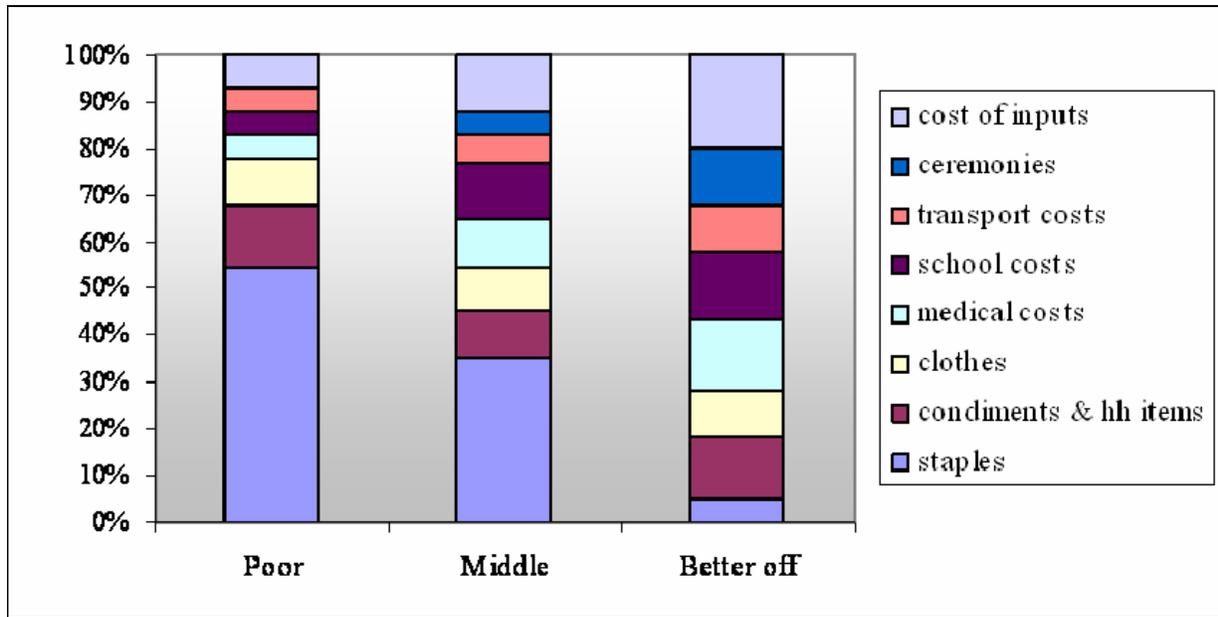
The opportunity cost situation of irrigated production favors cash cropping, and usually just the better off here cover their cereals requirement. The poor are locked into a cycle in which they never generate enough food or cash to get them beyond the need for yearly food loans. The question that arises is: What would get them out of that cycle? Is the problem a lack of land, or rather an inability to profit directly from irrigation, due to lack of household labor or cash for tractor hire or fertilizers?

Sources of annual cash for typical households in three wealth groups



The exceptionally heavy dependence of the poor on casual labor income is typical of irrigated areas elsewhere. But in this zone, there is not always enough employment to see them through the year, and many travel away seasonally to work in cities — not only Kano but Abuja, Lagos, and Niamey, the capital of the Niger Republic. By contrast, the middle and better-off groups are able to invest in trading activities at different levels, undoubtedly aided by their position near Kano city and the main highway south to Kaduna, Abuja, and beyond.

Proportions of annual expenditure for typical households in three wealth groups



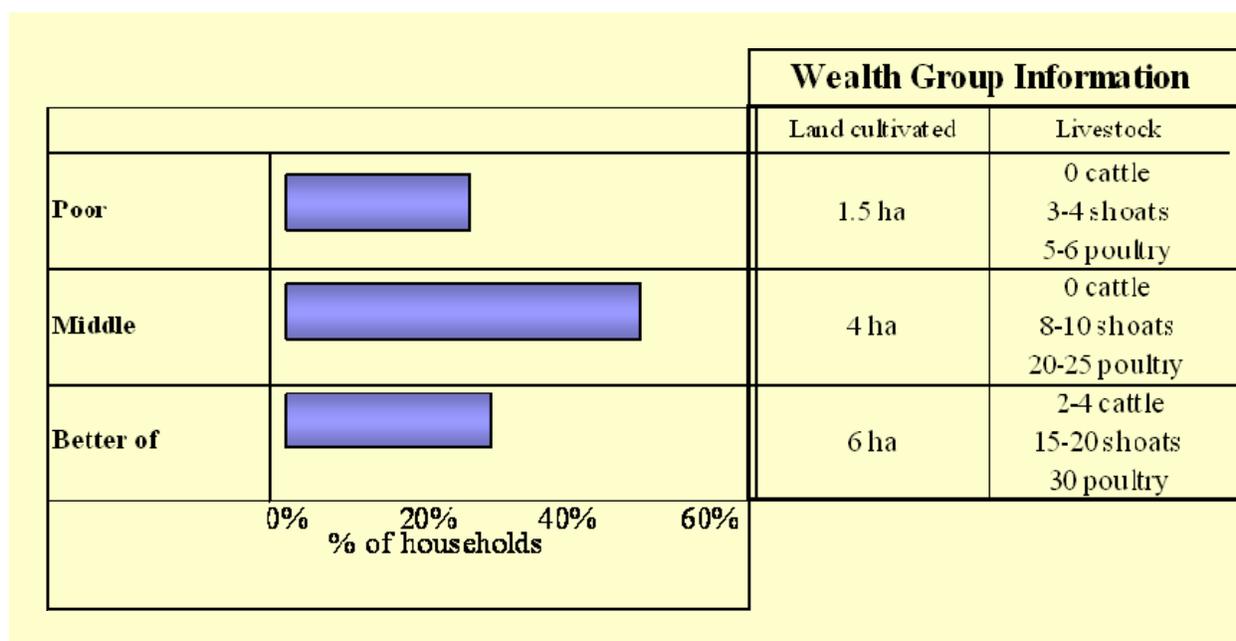
In what is a relatively wealthy area, it is striking that the poor must spend nearly 80 percent of their cash income on the basics of survival: food staples, condiments, essential household items, and clothing. Paying for school and medicine takes up half of what is left. At the other end of the spectrum, the better off spend only 20 percent of their income on farm inputs — but that percentage is from a relatively sizeable income, even compared with the better off in other livelihood zones.

NIGER RIVER FLOOD-PLAIN RICE AND SORGHUM LIVELIHOOD ZONE

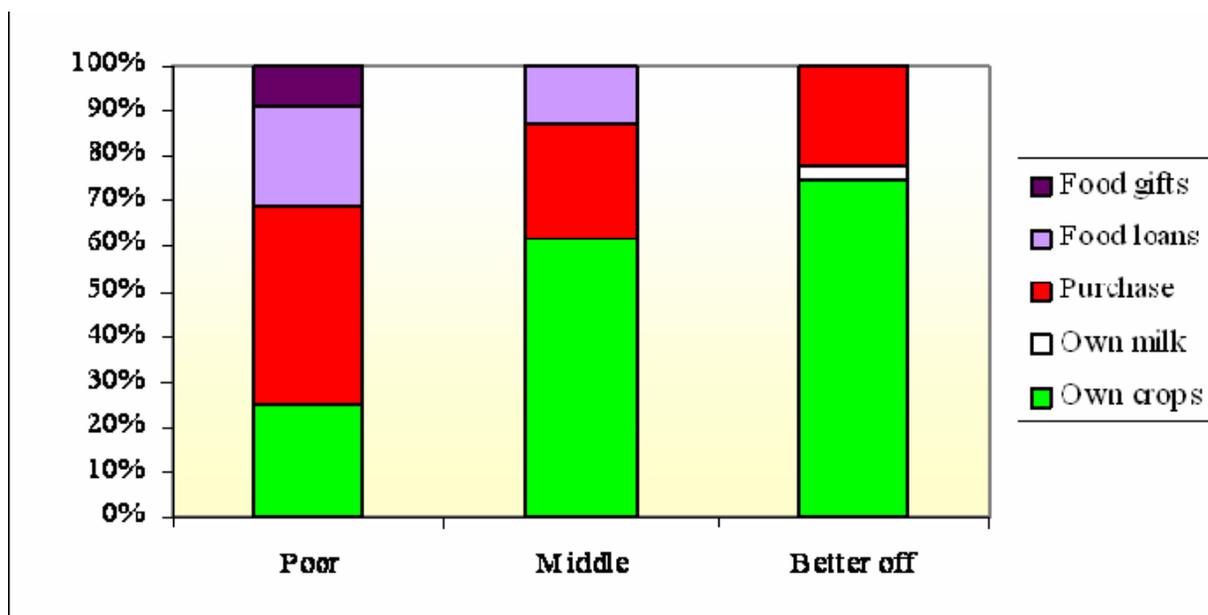
Niger State, Lavun LGA, Mawogi Village

This major area, extending from the northern bank of the Niger River, is dominated by the phenomenon of the annual 15-day flood in September. The flooding covers lower-lying land extending some 400 kilometers along the river course and up to 40 kilometers “inland” to the north. This cycle allows the cultivation of rice, which is planted during the rains preceding the flood and then boosted by the floodwaters. On unflooded elevations, substantial amounts of sorghum are grown, while cassava is grown partly with residual moisture in soils in the dry season.

This zone is notably lacking in livestock, so that wealth differences are essentially defined by the amount of land that households are able to cultivate by hand, and the quality of that production. This system depends on available labor and ability to pay for inputs.

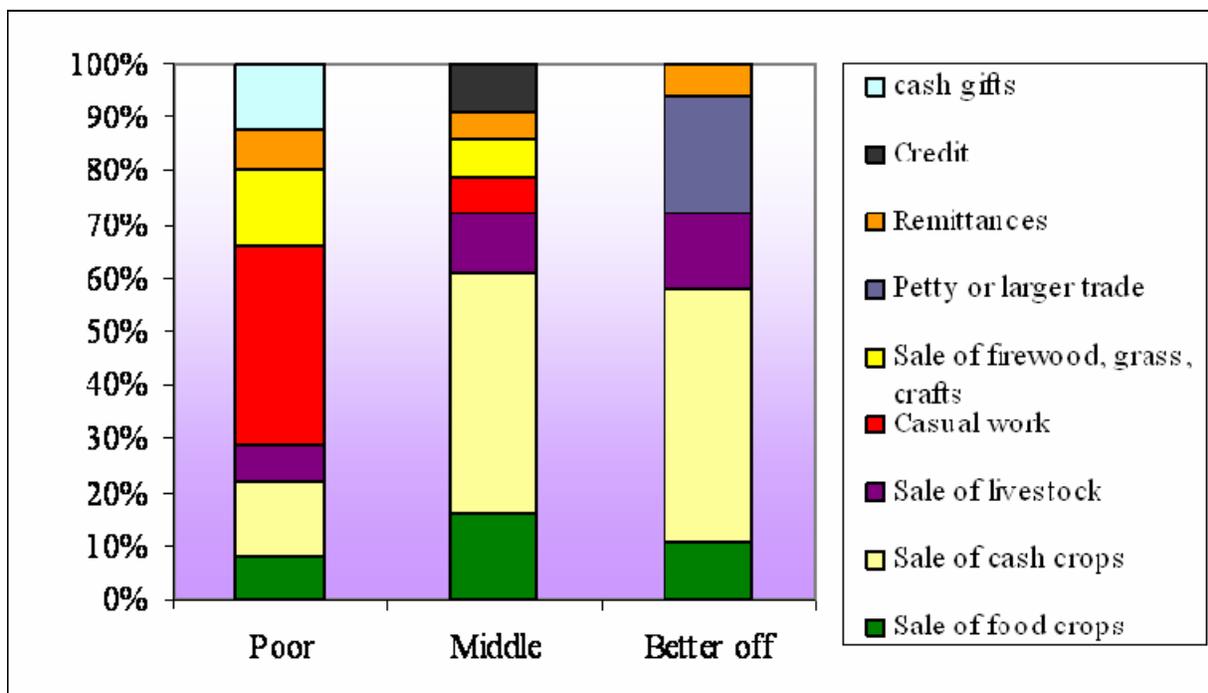


Sources of annual basic food for typical households in three wealth groups



Sorghum is the main staple consumed, followed by rice, cassava, and cowpeas. Self-sufficiency therefore depends mainly on the amount of non-flooded land cultivated. The biggest effort of households in all wealth groups tends to be rice cultivation.

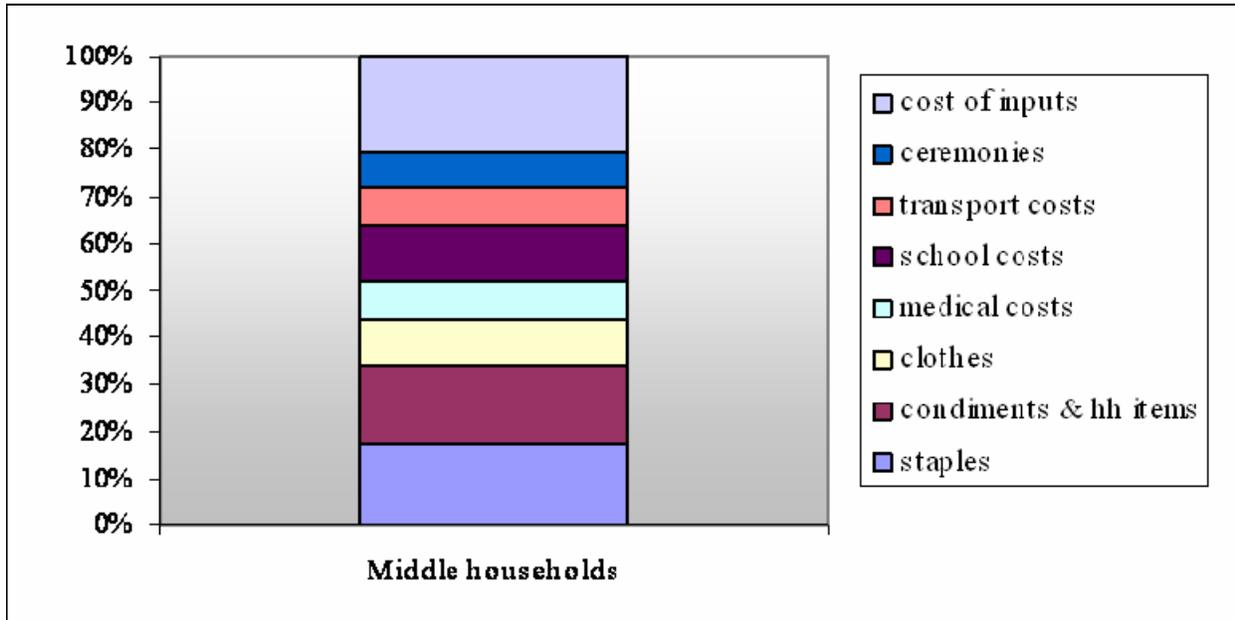
Sources of annual cash for typical households in three wealth groups



Relatively little sorghum or cassava is marketed. Rice provides the middle and better off with the majority their principal income, but melon-seed sales are also significant, given the major market

in Nigeria. Most of the casual labor by the poor is carried out on local farms; those who migrate for work tend to be people with very little land to keep them local.

Proportions of categories annual expenditure for typical households in the middle (majority) group



Farm inputs, mainly fertilizer, constitute the single biggest expenditure. More than 10 percent of income goes toward school costs; but in a bad year, when rain or flood is unsatisfactory and cash crop income reduces, it is difficult to see enough “slack” in this budget to make up the gap. No doubt ceremony costs are reduced; but the apparent next casualty is schooling — which is not a “right” when public provision is so far from satisfactory.

FULANI NOMADS

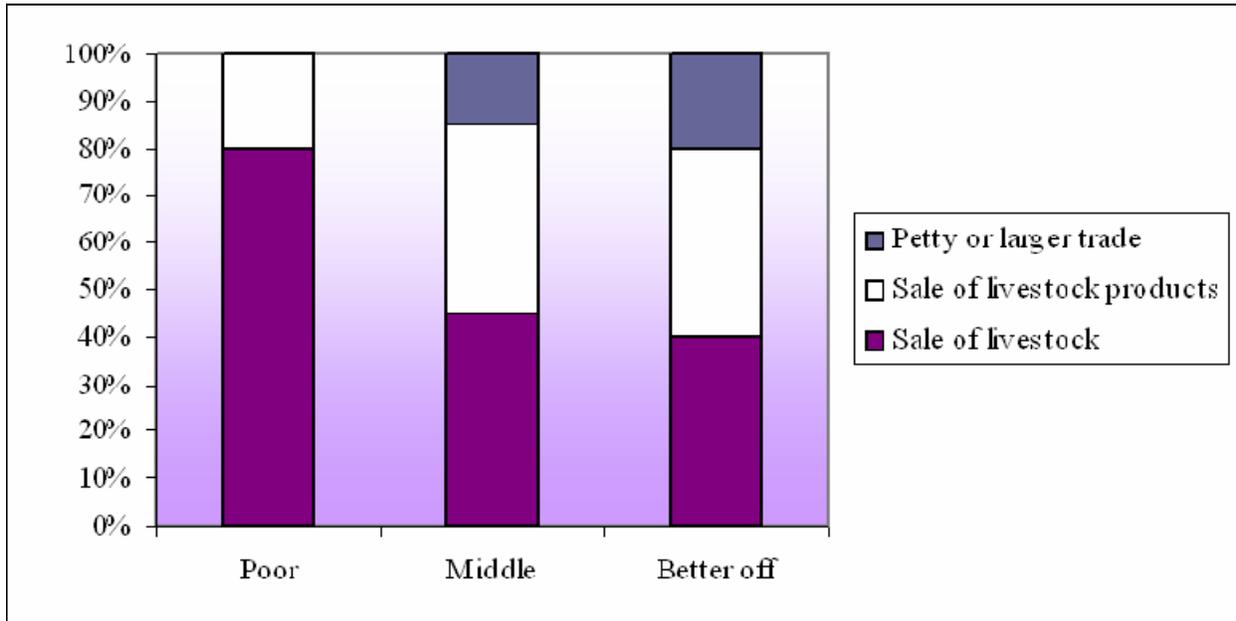
This group practices no cultivation, but the picture below is not of a fully nomadic community. The better-off are settled and they give their livestock, except for a number of milking cows, to others to maintain. Their milk consumption is very high by agricultural population standards. Yet they do not drink as much milk as they would if they were always with their main herds, and in west and east Africa today, it is difficult to find pastoralists who get the majority of their calories from milk. Many nomads principally consume grain, which they must purchase.

Expenditures appear to be principally veterinary or other livestock-related costs, but why this should impinge so much on poor household budgets is unclear. It is interesting to note that at least some expenditure in all groups goes toward schooling (though less than agricultural communities in this survey), which means that households in the middle and poor groups manage to leave some children in settled circumstances during the school terms – possibly by arrangement with the better-off settled.

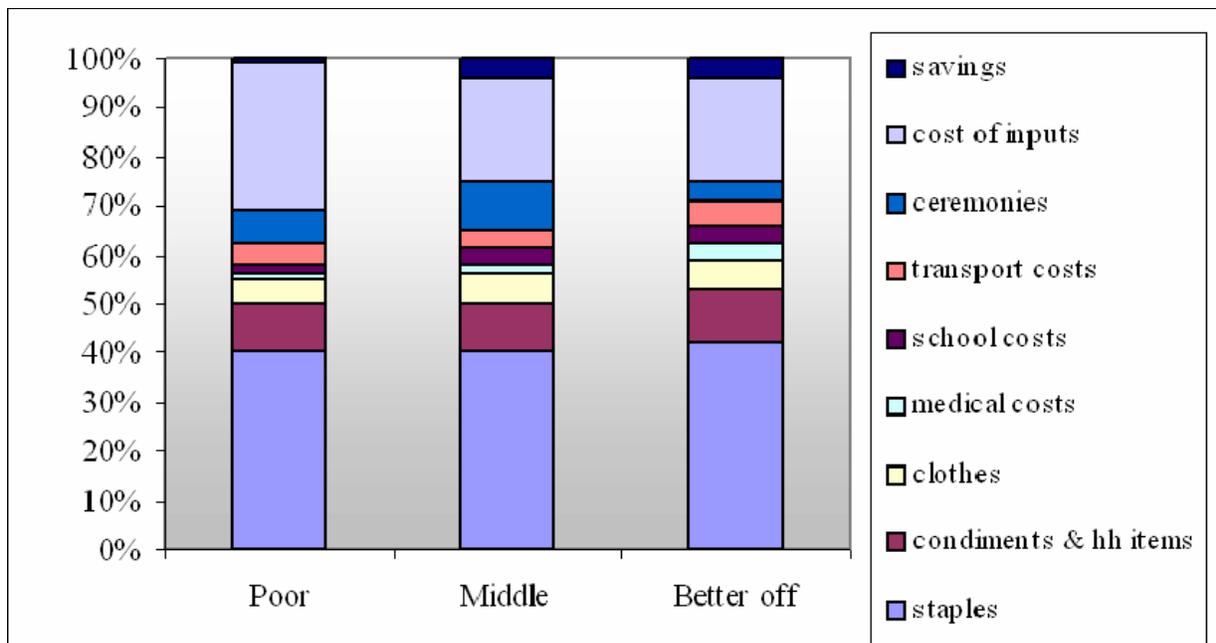
Sources of annual basic food for typical households in three wealth groups



Sources of annual cash for typical households in three wealth groups



Proportions of categories annual expenditure for typical households in the middle (majority) group

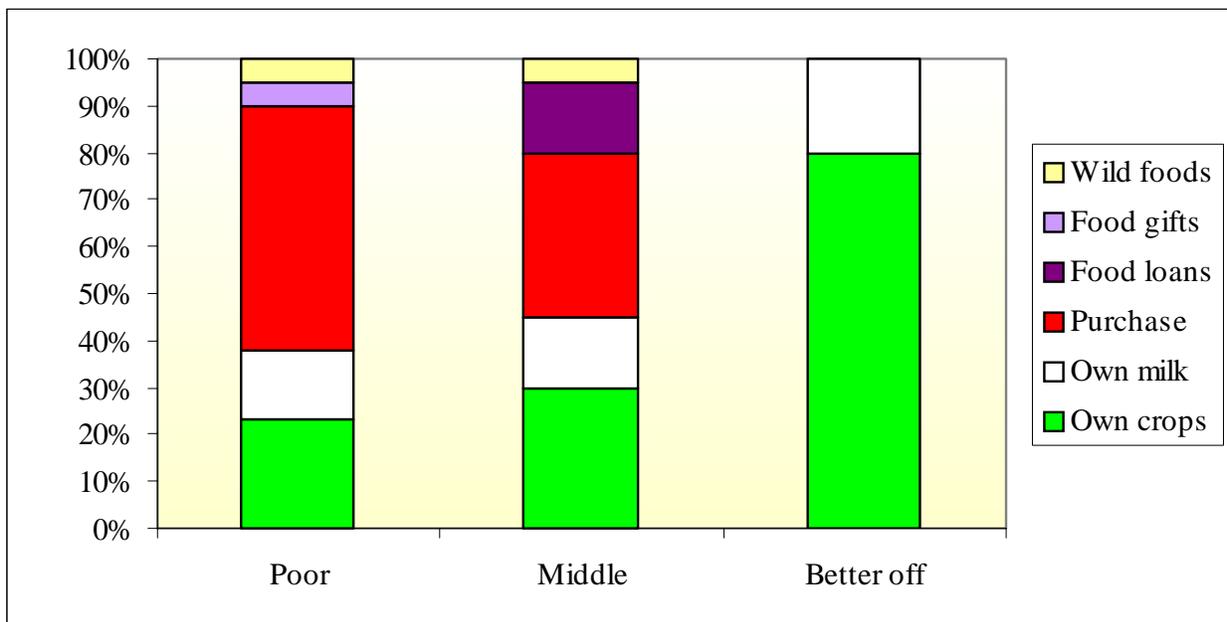


AGRO- PASTORAL (I.E. SETTLED) FULANI

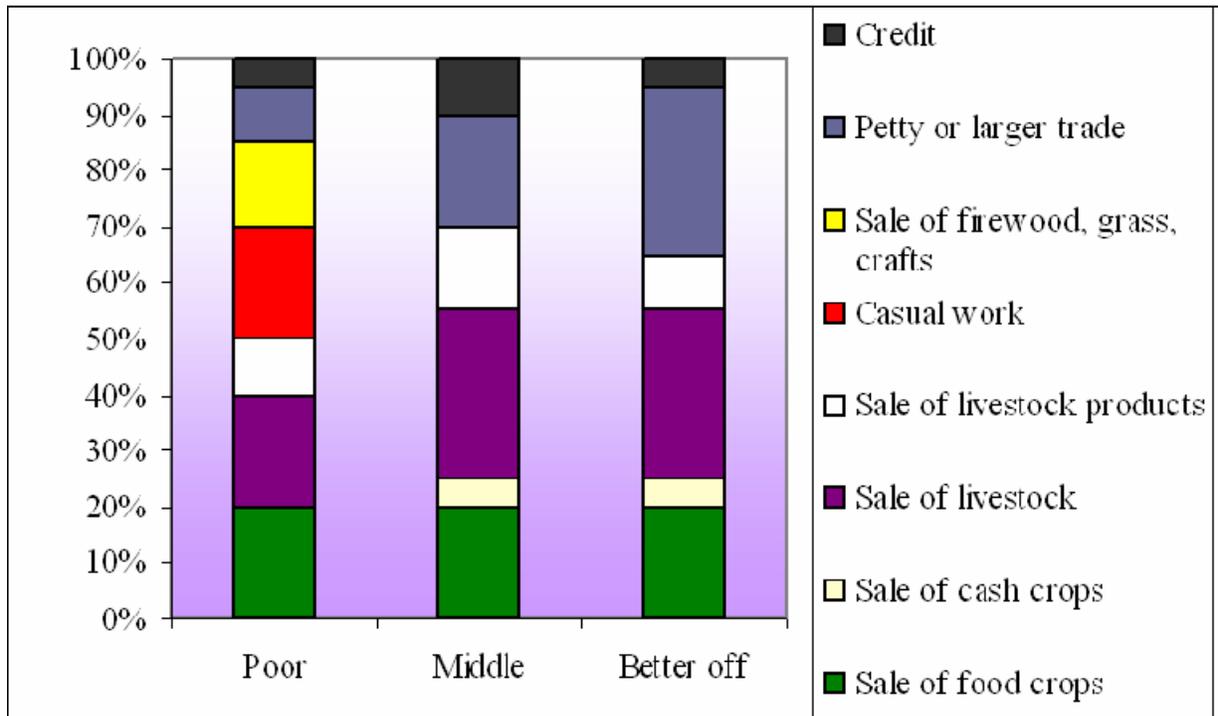
Gombe State, Jere LGA, Helmari Village

Most pastoral Fulani are settled rather than nomadic, and the graphs below show the substantial role of agriculture. But the significance of pastoral work is confirmed both by the unusually high consumption of milk, even by poor people; and the sales of livestock and livestock products, which provide up to 45 percent of cash income and a particularly striking 30 percent of income even for poor households (some of it coming from the milk or progeny of borrowed animals). This bespeaks an economy substantially based on cattle, for the Fulani are the principal owners of cattle in northern Nigeria.

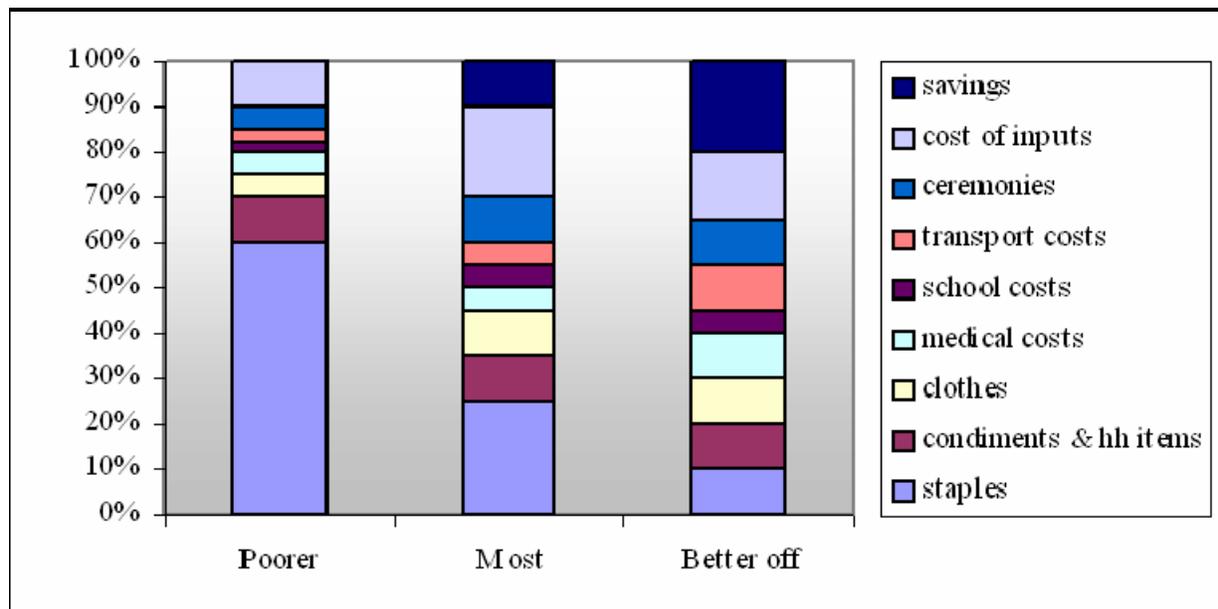
Sources of annual basic food for typical households in three wealth groups



Sources of annual cash for typical households in three wealth groups



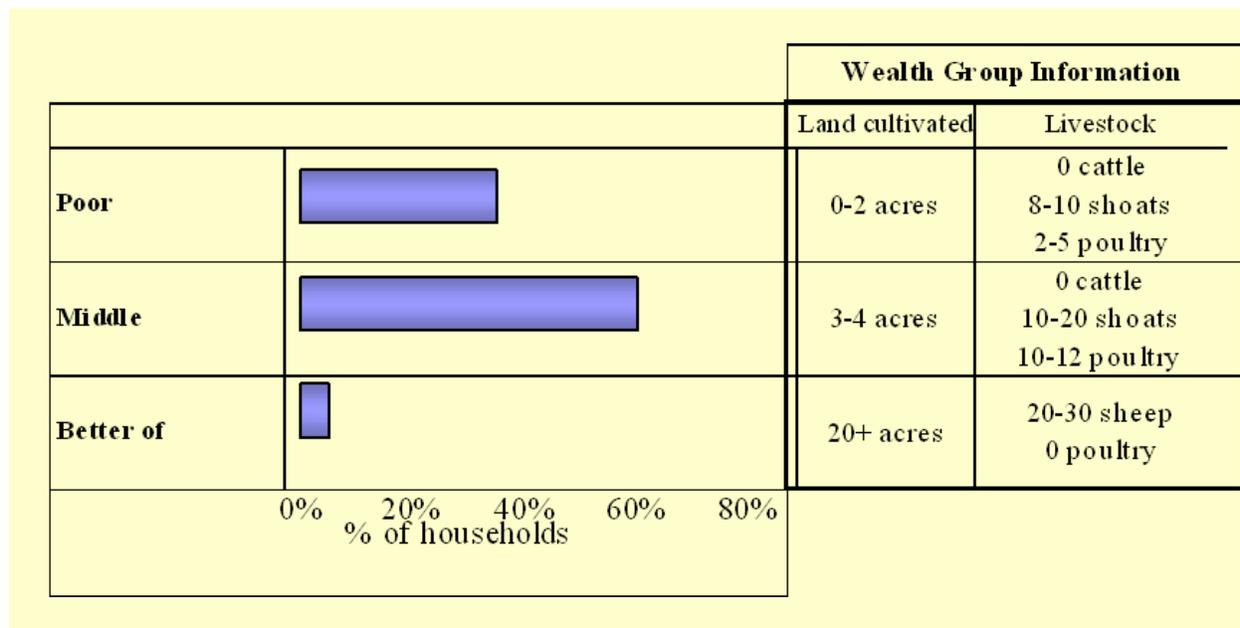
Proportions of categories of annual expenditure for typical households in three wealth groups



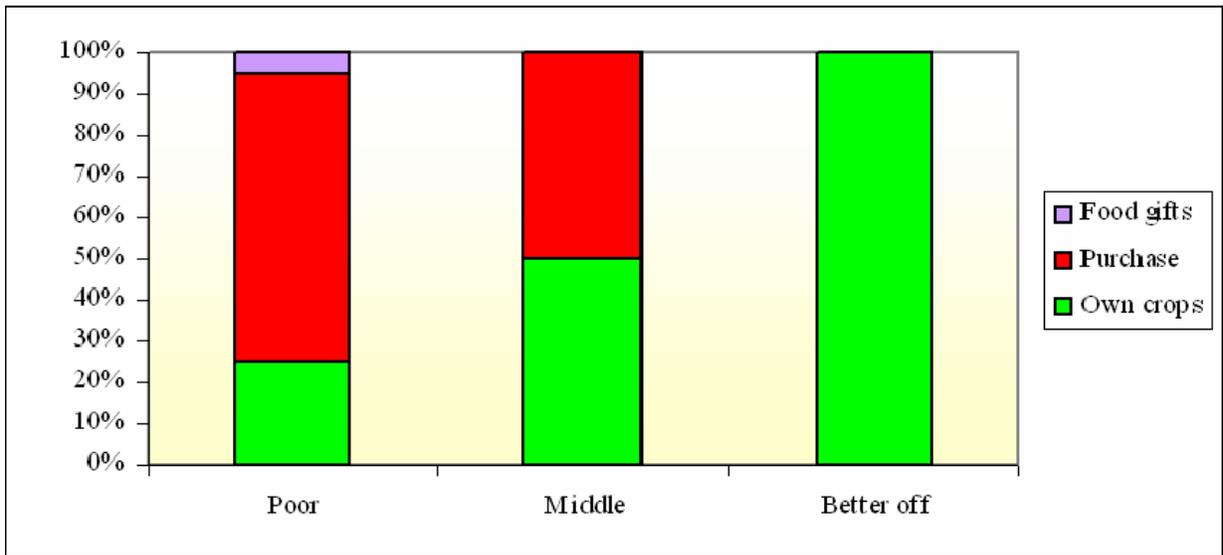
PERI-URBAN

This location is approximately eight kilometers beyond the municipal boundary of Kano City. Nearer still are two factories (a major plastics plant and a sacks and bags facility) constructed beyond the municipal boundary for perhaps land-cost reasons. The factories are the source of much contractual employment for the villagers. The picture taken from the information below is certainly different from all the other rural zones and examples. However, it is not clear why the better off form such an unusually small minority. Perhaps the more successful establish themselves in the city, while these people remain on the land and live substantially off it. Both the middle and better off earn an unusually high proportion of their income from trade, although the distinction between them (petty trade versus larger operations) is surely finer than the reality. The poor depend on employment to a far higher extent than in any rural area, and without some modest income from the sale of farm produce, they would have a basically urban profile.

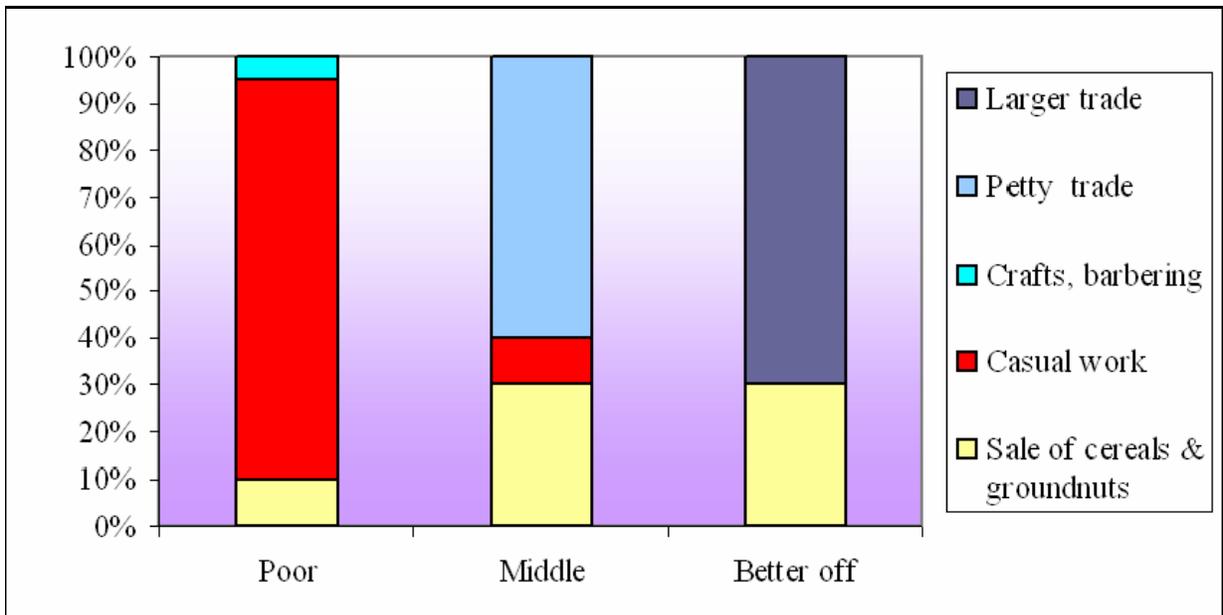
However, sales of livestock are missing from the income picture, and this would have to be rectified with further inquiry. The lack of poultry was reported to be due to a recent bout of disease, which they were confident was not avian flu. Normally, the better off would tend to maintain backyard poultry operations with a stock of 50 to 100 animals, to profit from the city demand for eggs and birds.



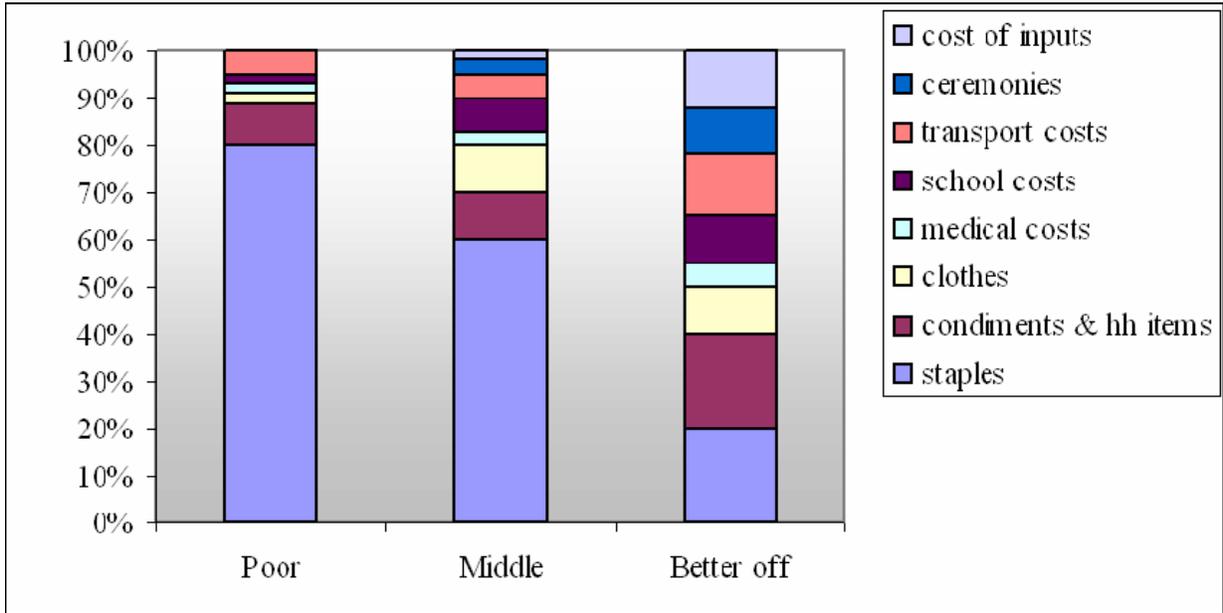
Sources of annual basic food for typical households in three wealth groups



Sources of annual cash for typical households in three wealth groups



Proportions of categories annual expenditure for typical households in the middle (majority) group



ANNEX A

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ANNEX B

FEWS NET & PARTNERS: PRESENTATION AND DISCUSSION ROUNDTABLE ON THE LIVELIHOODS WORK

FewsNet Office, Abuja, February 9, 2007

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ANNEX C

FEWS NET LIVELIHOODS ZONING WORKSHOP PARTICIPANT LIST

Tahir Guest Palace, February 13-14, 2007-10-29

Facilitators: Julius Holt and Yahaye Tahirou with Lawan Habib Yahya, national consultant

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ANNEX D

FEWS NET NIGERIA NORTHERN STATES LIVELIHOODS ZONING WORKSHOP AGENDA

February 13 — 14, 2007, Tahir Guest House Conference Hall, Kano

Tuesday, February 13

Time	Agenda
8.30 – 9.30	<ul style="list-style-type: none">- Workshop opening- Introduction of participants- Workshop aims, process and norms
9.30 – 10.30	<ul style="list-style-type: none">- Introduction to the Household Economy Approach
10.30 – 11.00	Refreshment break
11.00 – 11.30	<ul style="list-style-type: none">- Livelihood Zoning: principles, process
11.30 – 12.30	<ul style="list-style-type: none">- Preliminary discussion of ecology, economy and livelihood groups in Northern Nigeria
12.30 – 2.00	Lunch break
14.00 – 15.00	<ul style="list-style-type: none">- Initial brain-storm on the shape of the zone map
15.00 – 15.20	<ul style="list-style-type: none">- Arranging working groups
15.20 – 15.40	Refreshment break
15.40 – 17.00	Group work on drafting the LZ map

Wednesday, February 14

Time	Agenda
8.30 – 10.30	Group work continued — establishing LZ boundaries
10.30 – 11.00	Refreshment break
11.00 – 12.30	Plenary: consolidating the map; recording outstanding boundary issues
12.30 – 1.30	Lunch break
14.00 – 14.30	— Plenary: Introduction to the LZ description format
14.30 – 15.30	- Group work: filling the LZ description format
15.30 – 15.50	Refreshment break
15.50 – 16.30	- Group work on the LZ description format concluded
16.30 — 17.00	- Plenary: workshop evaluation; closing remarks
