Oxford Policy Management

KENYA HUNGER SAFETY NET PROGRAMME

Monitoring and Evaluation Component

Baseline Report

Oxford Policy Management (OPM)

Institute of Development Studies (IDS)

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All opinions expressed, and any mistakes, remain the responsibility of the authors.

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Abbreviations

ASAL	Arid and Semi-Arid Lands
CBT	Community-Based Targeting
DFID	Department for International Development
DR	Dependency Ratio
FGD	Focus Group Discussion
HH	Household
HSNP	Hunger Safety Net Programme
IDS	Institute of Development Studies
KII	Key Informant Interview
KES	Kenya Shillings
M&E	Monitoring and Evaluation
MoE	Ministry of Education
MOEST	Ministry of Education, Science and Technology
NGO	Non-Governmental Organisation
OMR	Operational Monitoring Report
OPM	Oxford Policy Management
PMT	Proxy Means Test
PPR	*Peste des Petits Ruminants*
QPS	Qualitative Panel Survey
SRS	Simple Random Sampling
SP	Social Pension
TLU	Tropical Livestock Unit
WFP	World Food Programme

Currency conversion

Current exchange rate (as of June 2011) £1 = KES 144

Average for the period of the baseline survey: £1 = KES 117

Errata

This report contains an error in relation to the calculation of the proportion of households without any member with a National Identity Card reported in section 3.6. This has been corrected on p. vii and p. 107 below. The actual proportions of households containing no members with a national ID are very low at under 1% with no significant differences by targeting mechanism, treatment or beneficiary status.

Executive summary

Introduction

The Hunger Safety Net Programme (HSNP) operates under Kenya's Ministry of State for the Development of Northern Kenya and Other Arid Lands delivering regular cash transfers to poor and vulnerable households with the overarching goal of contributing to extreme poverty reduction in Kenya. It operates in what were, at the time the programme was designed, the districts of Mandera, Marsabit, Turkana and Wajir. The HSNP is one element within a broader DFID-funded social protection programme, the purpose of which is to support the establishment of a government-led national social protection system delivering long-term, guaranteed cash transfers to the poorest and most vulnerable 10% of Kenyan households. Apart from high levels of chronic poverty, this arid and semi-arid region has also suffered in recent years from a succession of droughts – the year 2010/11 was the driest on record – and from high and rapidly rising food prices, especially in 2007/08. Phase 1 of the HSNP runs from 2008 to 2012. It covers 60,000 beneficiaries in 150 out of 434 secure sub-locations, and is delivered by a number of contracted service providers.

The HSNP covers 51% of households in the study area as a whole. In each HSNP sub-location, one of three mechanisms was implemented to select eligible beneficiaries:

- **Community-based targeting (CBT):** The community collectively selected households they consider most in need of transfers, up to a quota of 50% of all households in the community.
- **Dependency ratio targeting (DR):** Households were selected if individuals under 18 years old, over 55 years old, disabled or chronically ill made up more than a specified proportion of all household members.
- **Social pension (SP):** All individuals aged 55 or older were selected.

This baseline report presents the results of the first year of quantitative and qualitative fieldwork for the evaluation of Phase 1 of the HSNP. The report includes information on the situation of selected and non-selected households from the evaluation areas of the programme, before any payment was made to the households. A separate report provides a detailed analysis of the targeting effectiveness of the programme,[1] while a third examines operational effectiveness.[2] Subsequent rounds of fieldwork will generate data on the impacts of HSNP transfers on beneficiary households and communities, and will be presented in follow-up impact evaluation reports.

Methodology

Quantitative and qualitative fieldwork for the HSNP M&E baseline survey was conducted in 48 sub-locations, stratified by greater district (Mandera, Marsabit, Turkana, Wajir), by HSNP status (treatment and control), and by targeting mechanism (CBT, DR, SP). The survey covered 5,108 households and 245 communities. The quantitative survey results provide information that is representative of the study populations in the four districts. Qualitative methods included focus

[1] Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

[2] Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Payments Monitoring Report, June 2011.

group discussions (FGDs), key informant interviews (KIIs), and a qualitative panel survey (QPS) of beneficiary and non-beneficiary households.

Characteristics of households in the programme areas

Demographics

One in four households surveyed is female-headed, but this rises to one in three among HSNP beneficiaries and 42% of those selected by CBT, as they are more likely to be nominated beneficiaries for projects that target the poorest and involve provision of transfers for household use. Analysis by household consumption levels suggests that this perception is accurate: 31% of the poorest quintile households, but only 19% of richest quintile households, have female heads.

One-third of households surveyed are headed by an older person, but this rises to almost half (45%) of HSNP beneficiary households, mainly because of categorical targeting of over 55-year-olds for the SP. Poorest quintile households have older heads, on average, than the richest (52 years vs. 39 years), and are more than twice as likely to contain individuals aged 55 years or older (51% vs. 24%). Poverty is thus clearly associated with old age, which provides some support for the SP as a trial targeting mechanism, although the targeting analysis shows that it is an imperfect proxy.[3]

HSNP households are larger (5.7 members) than average (5.5 members), partly because of selective targeting of households with high dependency ratios. Disaggregating household size by wealth confirms that the richest quintile households are significantly smaller (4.8 members) than average.

This is a young population – almost half are under 15 years old and two-thirds are under 25. Almost one household in five is caring for one or more orphans (18%), but this is higher among poorer than richer households, and peaks at one in four (28%) of those selected for the HSNP by CBT.

There are more males than females in this population – the sex ratio is 1.04, but is much higher among children and older persons. Among young adults (20–40 years old), however, women substantially outnumber men, possibly due to male outmigration for work, although this requires further investigation.

Less than 1% of HSNP households contain no member with a national identity card. There are no significant differences by targeting mechanism, treatment or beneficiary status.

Poverty

Households spend close to 80% of their consumption expenditure on food, which is an indicator of high levels of poverty and vulnerability among this population and national surveys show very high levels of poverty in these districts. Total monthly household consumption expenditure per adult equivalent is significantly lower among CBT and SP households. This provides evidence that these two targeting methodologies – but not DR as it is currently implemented – are benefiting the poorer households in this population. In both CBT and SP locations significantly more selected households receive external support than non-selected households.

[3] Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

The wealthiest quintile consumes almost five times as much as the poorest, per adult equivalent per month (KES 3,996 vs. KES 868), which indicates an appreciable degree of income inequality within the study population. This is confirmed by the ratio of total asset values between the top and bottom quintiles, which stands at 7 to 1. Wealthiest quintile households also allocate a higher proportion of their much larger budget to education and health (10% against 7% by the poorest).

Food security

Sources of food among the surveyed population are dominated by market purchases (55%), followed by food aid (30%), with self-production contributing relatively little (5–15%, depending on the season). This is an important finding, as a high dependence on markets for food means that prices are a critical determinant of food security outcomes, and food prices are generally much higher in programme areas compared with the rest of Kenya.

Food aid emerges as the second most important source of food. External assistance is clearly necessary for consumption smoothing in this marginal and food-insecure area. However, decades of food aid have not helped local people to achieve enhanced food security – a fact which was one motivation for introducing the HSNP cash transfers as an alternative to food aid.

Our findings also suggest that the conventional view of food shortage seasonality – with the annual hungry period occurring in January to March, before the long rains – needs to be reassessed. In this context, 'coping strategies' have become a regular adaptation to an increasingly unpredictable and risky environment. Even in the wealthiest quintile, some 40% of households report going entire days without eating.

Livelihoods and income

Livelihoods in the Arid and Semi-Arid Lands (ASAL) districts are dominated by livestock production. However, pastoralism and related livestock-based activities have been severely disrupted by the recent sequence of droughts (alongside other shocks), and local people with too few livestock for viability are relying increasingly on other sources of income and food. Livestock production makes the highest aggregate contribution to total net cash income (but then only 39%, reflecting diversified livelihood strategies), and this is highest among households selected as SP beneficiaries (53%).

Because of limited employment opportunities and low education levels, alternative livelihood activities tend to be unskilled and generate low returns to labour – e.g. casual labour, firewood collection for sale, charcoal burning. Crop cultivation is practised by a minority of households surveyed (only 7%), reflecting the limited availability of cropland and water supplies for farming in these districts. The challenge for policy-makers is two-pronged: on the one hand, support must be provided for more productive livestock-based livelihoods; on the other hand, livelihoods must be identified and promoted that generate higher and more stable returns, for families that have already dropped out of pastoralism or are trapped in unviable livestock-based activities and cannot switch to farming or agro-pastoralism.

Mean total cash income is 30% lower in selected than non-selected households, while *per capita* cash income is 38% lower in HSNP households. Across the evaluation areas, net cash income (total and *per capita*) is lowest in Turkana and highest in Mandera. By targeting mechanism, cash incomes are significantly lower, compared to non-selected households, in selected SP households

(30% lower *per capita*) and especially in CBT households (42% lower *per capita*). Conversely, cash incomes are actually higher in selected DR households than in non-selected households.[4]

Informal transfers are significant – possibly more significant than are formal transfers. One in four households reported giving cash or in-kind support to relatives or friends, while 37% reported receiving such informal support. Food aid is also shared. However, this sharing behaviour is declining over time. Interestingly, although poorer households are more likely to receive informal transfers, the value of transfers received by richer recipients is significantly higher, possibly reflecting differential access to remittances from outside the local community.

Assets

Livestock ownership is generally low, and declining. A sizeable proportion of households – both 'dropouts' from pastoralism and those pursuing other livelihoods – do not own livestock at all (30%), and only half of all households surveyed (53%) reported livestock production as a livelihood activity. Among those who do own livestock, herds and flocks are generally shrinking over time. This could be part of a regular 'boom and bust' cycle – the so-called 'dynamic disequilibrium' that is normal and adapted for in livestock-based economies – or it could reflect a long-term trend of decline. More analysis will be needed to establish i) which households are likely to recover and accumulate livestock in coming years (and the impact evaluation will assess the role of HSNP in facilitating restocking), ii) which households have little prospect of re-establishing viable herds and are vulnerable to becoming destitute 'stockless pastoralists' with few alternative livelihoods, and iii) which households lost their livestock some time ago and are not able to restock and are already destitute.

The average value of non-livestock assets owned by the surveyed population is equivalent to just over GBP 209 per household. This sounds quite substantial, but relatively few of these assets are economically useful, because few of the activities that the majority are pursuing – livestock herding, firewood sales, charcoal burning, petty trading – require productive assets to generate income.

Land ownership is low, at just 9% of households, as would be expected given the dominance of livestock in local livelihood systems. A very slight trend is observable, of more households coming into farming, but this is constrained by the limited land available for cultivation.

Education

Literacy levels within the surveyed population are extremely low. Low literacy is closely linked in the development literature to the causal factors of acute malnutrition, including poor child-care practices (uneducated women are less likely to feed their children well) and restricted livelihood opportunities (it is very hard for illiterate people to secure well paid employment, either in the programme area or by travelling to urban centres such as Nairobi).

On the other hand, there has been a dramatic and positive change in school attendance within a single generation – only 15% of adults completed primary school, but 53% of children currently attend school (57% of boys and 48% of girls, so gender differentials are significant). Since large numbers of households are settled (see figures on 'mobility' below), it is not clear whether people are choosing to settle in order to access education and other services, or whether people are settling because they have lost herds – and one advantage of being settled is easier access to services such as education. So, even though livestock numbers are low and probably falling, a

[4] Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

positive side-effect is improved education and more diversified future livelihood options. This is a very important and possibly transformative dynamic.

Health

Individual health status is generally better among mobile population groups in the survey area, as predicted by the literature, though education outcomes are worse. Health status is worse among poor households – almost three times as many households reported illness in the poorest quintile (34%) compared with the richest quintile (13%). Nearly 50% of those who were sick in the past three months did not seek treatment, for a range of reasons including cost, long distances, poor-quality health services and a reported preference for self-treatment. Access to formal health care therefore seems to be constrained. On the other hand, immunisation rates are impressively high, at 82%, which is a positive finding. However, among mobile households, immunisation rates are halved, at 39%.

Water, housing and amenities

Access to scarce water is a crucial determinant of wellbeing in northern Kenya, affecting both livelihoods and human health. Only 13% of communities surveyed have access to private or communal piped water (with wide variation, from 48% in Marsabit to 0% in Wajir). Almost half of households (43%) derive their drinking water from unsafe sources (e.g. unprotected wells, or dams), with potentially serious health risks from water-borne diseases. One-third of these households (36%) have to pay for their drinking water and one in four (23%) have to walk for more than an hour each way to their main water source.

There is some difficulty in disentangling 'traditional' housing from 'poor-quality' housing in the programme area, especially among mobile pastoral groups. Nonetheless, there is an observed association between housing characteristics and poverty, with poorer households being more likely to have sand or earth floors and walls made of natural materials, while richer households are much more likely than the poor to have a toilet at their home.

As might be expected in this arid and sparsely populated region, many people in the HSNP programme area live in remote communities, far from urban centres and basic amenities. Average walking times range from one and a half hours to the nearest primary school, to one and three-quarter hours to the main place where they buy their food (which is comparable to the one hour each way for travelling to the HSNP paypoint – which is often a shop), to four hours to the district centre.

Mobility and migration

This baseline survey has established the mobility status of households in the study area. Seven in 10 households say that they are permanently settled (73%), almost two in 10 are partially mobile (17%) and only one household in 10 is fully mobile (10%). These figures are representative of the study areas, but not of the HSNP districts overall. The programme only operates in secure areas, whereas mobile pastoralists are often found in insecure localities, where conflicts over grazing and other natural resources are common. Partially mobile households (where one or more members migrate with livestock while the rest are settled) are the poorest category. Further analysis is needed to explain this finding.

Finance

The majority of households surveyed (89%) have no cash savings. Of those who do, 54% keep their savings at home and 41% deposit them in the bank. This finding is significant, because it

suggests there is potential for increased uptake of financial services by HSNP beneficiaries. The majority of households do not borrow cash, either because they prefer not to owe money out of fear they will not be able to repay it (40%), because they are not creditworthy (27%), or because they cannot find anyone with money to lend to them (25%). However, 60% of respondents do purchase on credit – mostly food and basic supplies. It seems likely that the HSNP will contribute to financing these informal credit arrangements. This hypothesis will be followed up in the HSNP impact evaluation.

1 Introduction

The first phase of the DFID-funded HSNP (2008–2012) aims to deliver regular cash transfers to 60,000 poor and vulnerable households in 13 ASAL districts within the greater Mandera, Marsabit, Turkana and Wajir districts in northern Kenya. The programme operates under the Ministry of State for the Development of Northern Kenya and Other Arid Lands and is delivered by a number of contracted service providers.

This baseline report presents the results of the first year of quantitative and qualitative fieldwork for the evaluation of Phase 1 of the HSNP, undertaken between September 2009 and October 2010. The findings include detailed information on the situation of selected and non-selected households from the programme areas, before any payment was made to the households.[5] Subsequent rounds of fieldwork will provide information on the impact of the transfers on the beneficiary households, and this will be reported in follow-up reports.[6]

This introduction briefly describes the HSNP, outlines the approach being used in the monitoring and evaluation (M&E), sets out the structure and contents of the baseline report, and notes what further results will be presented in follow-up reports.

1.1 HSNP overview

The HSNP delivers long-term, regular, guaranteed cash transfers to poor and vulnerable households. It is one element within a broader DFID-funded social protection programme, the goal of which is to reduce extreme poverty in Kenya. The purpose is to support the establishment of a government-led national social protection system delivering long-term, guaranteed cash transfers to the poorest and most vulnerable 10% of households in Kenya.

The project is in two phases. The principal objective of Phase 1 is to implement a cash transfer programme in Mandera, Marsabit, Turkana and Wajir that will:

- successfully target the poorest and most vulnerable households; and
- reduce food insecurity and promote asset retention and accumulation in these households.[7] This would be evidenced by:
    - Household consumption expenditure sufficient to cover adequate food intake for all members of the household;
    - Reduced reliance on food aid;
    - Reduced rates of malnutrition;
    - Increased mean value of assets held by the household; and
    - Increased livestock holdings.

[5] Transfers to non-evaluation sub-locations began in February 2009.

[6] Two complementary reports to this baseline report provide an assessment of: (1) the HSNP's targeting performance (i.e. Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011); and (2) the HSNP's operational performance, compiled from ongoing monitoring of programme operations (i.e. Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Payments Monitoring Report, June 2011).

[7] It is anticipated that the programme will also have positive impacts on a range of indicators of wellbeing and wealth, such as resilience to shocks, health and education uptake, and access to financial services and resilience.

- Contribute to the evidence base on the impact of cash transfer programmes and inform the development of a scaled-up cash transfer programme in Phase 2. Specifically, it should identify:
    - the most effective mechanism for targeting the poorest and most vulnerable households;
    - whether the Phase 1 programme is effective in reducing food insecurity; and
    - the likely cost of a scaled-up programme.

A second Phase of HSNP is under preparation and is due to start in 2012 and continue for five years.

Phase 1 selected 60,000 beneficiaries to receive regular cash transfers every two months for three years.[8] At the time of writing, payments have so far been delivered to 56,000 households. The initial value of the cash transfer was KES 2,150 every two months – which was 75% of the value of the World Food Programme (WFP) food aid ration in 2006.[9] The transfer value is planned to increase to KES 3,000 in 2011 to bring the HSNP in line with other cash transfer programmes in Kenya.

Overall, Phase 1 is operating in around 150 sub-locations[10] out of a total of 434 secure sub-locations in the four greater districts. The evaluation is taking place in 48 out of the total of around 150 sub-locations.[11]

Targeting started in October 2008 and is due to end in July 2011. In each of the sub-locations where it operates, the programme implemented one of the following three mechanisms for selecting beneficiaries for inclusion in the programme:

CBT: The community collectively selects households they consider most in need of the transfers up to a quota of 50% of all households in the community.

DR: This selects households in which household members under 18 years, over 55 years, and disabled or chronically ill make up more than a specified proportion of all household members.

SP: This selects any individual aged 55 or over.

Transfers for selected households under CBT and DR targeting are of the same value for any size of household: KES 2,150 per household. The SP selects individuals, and each individual identified by the programme as being aged 55 or over receives KES 2,150. This means some households in SP areas receive multiple transfers if they contain more than one member aged 55 or over.

[8] A further 9,191 households were selected using the same targeting mechanism and were randomly selected into the control group. These households will start to receive transfers two years after selection.

[9] Due to subsequent food price inflation, when the programme started this was worth around one-third of the WFP food aid ration.

[10] A sub-location is a geographical area corresponding to a specific official administrative unit. Each district is subdivided into divisions and these in turn are subdivided into locations. The programme is being implemented by sub-location, with the targeting taking place within each sub-location in which the programme operates.

[11] The programme is being implemented slightly differently in the non-evaluation sub-locations, and this report describes the programme as it operates in the sub-locations where the evaluation is being undertaken.

The targeting process took place only once in every programme location, and took place over two months in each location. There will be no graduation or retargeting in Phase 1, although households and individuals will leave the programme if they choose to leave, move out of the HSNP area, or die. Targeting and subsequent case management are implemented by the HSNP Administration Component led by Oxfam GB.[12]

Selected households and individuals are given a Smartcard with which they or two nominated representatives can collect cash at any time from a range of paypoints (mainly *dukas* – small shops) across the four districts. If beneficiaries do not wish to collect the cash, it will remain in their account as a saving (no interest paid). The payments system is designed and implemented by the HSNP Payments Component (Equity Bank) in coordination with Financial Sector Deepening Kenya.

A 'Social Protection Rights' component provides a mechanism though which individuals can express grievances over the targeting process during the two-month period, and complain about any aspect of the programme's operation during the three years of Phase 1 payments. A Citizens' Service Charter sets out the programme's standards. The HSNP Social Protection Rights Component is led by HelpAge International.

A Management Information System records information on the targeting and case management process, and is currently being developed to include the payments and complaints made. By the end of Phase 1 it will contain records of each household and individual who registers for the programme and each household and individual who is selected by the programme.

Evidence on targeting, impact, cost, and programme effectiveness is generated principally by the HSNP M&E Component, led by Oxford Policy Management (OPM). The results from the first year of this fieldwork are presented in this report.

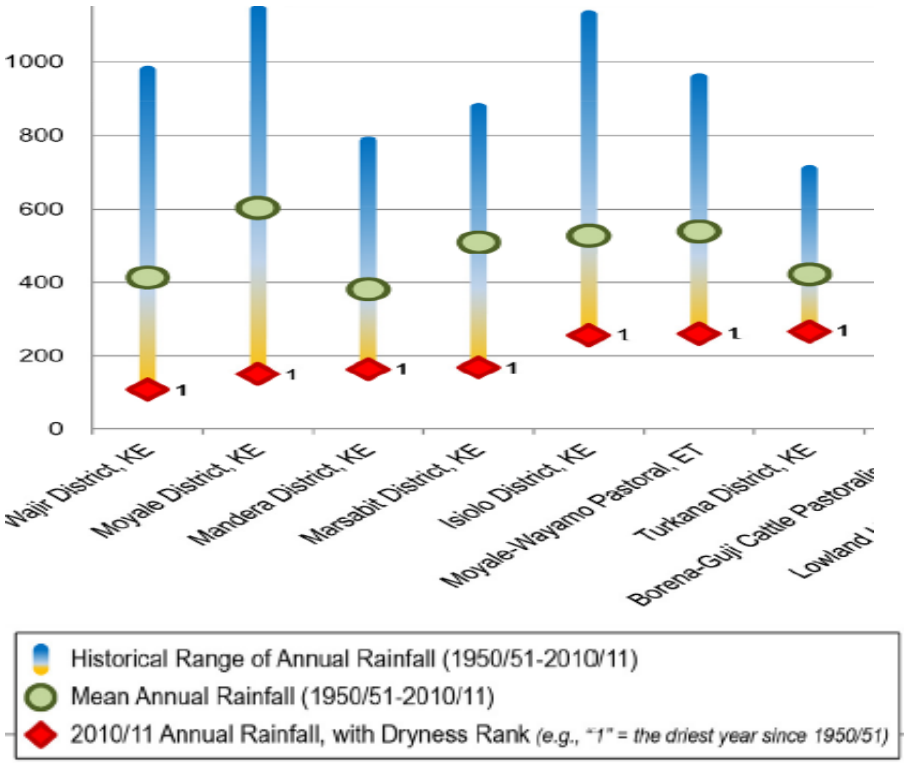
The five HSNP Managing Consultants are coordinated by the HSNP Secretariat. The Secretariat is also responsible for taking final programme decisions, maintaining close links with and approval from the Government of Kenya, and informing DFID about programme progress.

1.2 The Northern Kenya Context

Two related factors are extremely significant for the HSNP: drought and food prices. Northern Kenya has faced recurrent droughts in recent years – in 1999, 2000, 2004, 2005/6, and more recently in 2007/9 and 2011. The HSNP was conceived in the aftermath of a protracted drought emergency in the ASALs of northern Kenya. A complete failure of the short rains in late 2005 caused an estimated 30–40% livestock losses. 3.5 million people were declared in need of emergency assistance in 2006/7. Rainfall in 2010/11 was the lowest or second lowest on record since 1950 in pastoral areas across the Horn of Africa (FEWS NET, 2011).

[12] For further details on targeting, see Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

Figure 1.1 Rainfall in 2010/11 compared to historical totals since 1950/51 (mm per annum)



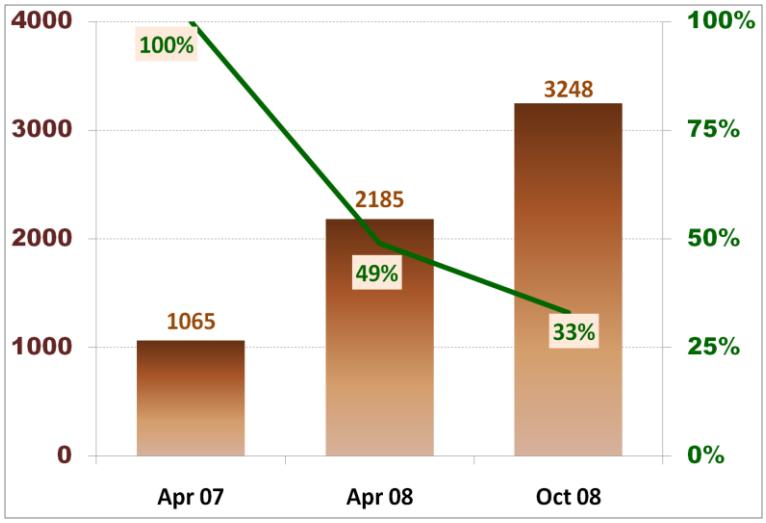
Source: FEWS NET (2011)

According to estimates by FEWS NET, total rainfall in the pastoral areas of northern Kenya in 2010/11 was the lowest since rain data was first collected in 1950/51. Figure 1.1 confirms that average rainfall in the HSNP programme areas is very low in Wajir, Mandera and Turkana, and slightly higher in Marsabit. But in all four greater districts, 2010/11 (1 June – 31 May) was the driest year since records began in 1950/51, 60 years ago.

Food aid is the standard response to food insecurity in northern Kenya, but the HSNP aims to move away from continual emergency food aid by reducing extreme poverty and vulnerability with cash transfers, building on evidence from many countries that cash transfers can achieve multiple positive impacts and are appropriate in pastoral areas where market dependence is high. The Kenya Food Security Steering Group (KFSSG) reported that 65% of food in pastoral areas derives from market purchase, higher than for any other rural group (KFSSG, 2008). However, the food price crisis of 2007/08 raised the cost of living dramatically, especially in northern Kenya where transport costs and thin markets make food prices higher than the national average. The pastoral terms of trade (meat: cereal price ratio) declined sharply, and it was estimated that poverty among pastoralists in northern Kenya had increased by 23% between 2007 and 2008, "due to the rise in prices" (KFSSG, 2008: 31).

This food price inflation also had an unforeseen effect on the purchasing power of HSNP cash transfers. Initially set at a level that would purchase a minimum food basket, the real value of this cash declined by two-thirds in just 18 months between April 2007 and October 2008 (see Figure 1.2). One implication of high food prices is that a higher proportion of HSNP cash transfers might be allocated to purchasing food, so the impacts of HSNP on a range of secondary indicators (e.g. investment in education, livestock and other assets) could be more limited than anticipated. This will be assessed in the impact evaluation.

Figure 1.2 Cost of basic food basket and real value of HSNP cash transfer, 2007–2008



These contextual conditions also have implications for this baseline report. For one thing, it is likely that people who are affected by drought and high food prices would report lower than average incomes, production, consumption, and expenditure, and higher than average poverty levels, food insecurity, and adoption of coping strategies (though the context of 'average' is problematic in such highly variable environments). On the other hand, data collection for this report was undertaken between September 2009 and November 2010, and 2009/10 was a good rainfall year. So our data collection straddles a good and a bad year, with ambiguous implications for some of the indicators presented in this report.

1.3 Monitoring and evaluation approach

The overall objectives of the M&E component are to:

1. **Assess targeting performance**: Has the programme succeeded in identifying and enrolling its target population?

2. **Assess programme impact**: Has the programme had a positive welfare impact on beneficiary households and their communities?

3. **Assess operational performance**: At an operational level, is the programme functioning effectively and in line with its design?

4. **Assess cost-effectiveness**: Is the programme operating efficiently? Do the programme's impacts justify its cost?

Answering these questions is intended to inform national social protection policy development and the potential scale-up of the programme, i.e. should the programme be scaled-up and what features of the design and implementation might need to be modified or strengthened?

The overall M&E strategy and key monitoring indicators for the HSNP are outlined in the M&E Strategy Document, which was developed in consultation with the Secretariat and other Managing Consultants at the beginning of the programme (HSNP Monitoring and Evaluation Strategy (OPM, IDS and RS, 2009).

The evaluation is based on a community-randomised, controlled design, which makes the findings of the impact evaluation extremely robust. Sub-locations were randomly selected for inclusion in the evaluation, after exclusions on the grounds of insecurity. Following the beneficiary selection process, half were randomly assigned to be 'treatment' sub-locations and receive the programme payment immediately after the baseline survey had taken place in that sub-location. The other half was assigned to be 'control' sub-locations, where selected households will begin to receive transfers after two years.

This report and the evaluation as a whole draw principally from the quantitative survey and qualitative fieldwork. The quantitative survey comprises:

- A household panel survey conducted on an annual basis (baseline, year 1 follow-up, year 2 follow-up) covering 5,280 randomly selected households in the 48 evaluation sub-locations, also sampled at random.
- Quantitative community interviews conducted annually (baseline, year 1 follow-up, year 2 follow-up) in the same 48 randomly sampled sub-locations.[13]

The data gathered in the quantitative survey provides the basis for the targeting analysis and assessment of the situation of households in programme areas that are set out in this report. It will also provide the basis for both the impact evaluation and the assessment of the operational performance of the programme.

The data analysis was undertaken using analytical weights that are the inverse of households' selection probabilities, given that the sub-location was selected for inclusion in the study population. The estimates presented in this report are therefore representative of the study population – that is, those sub-locations selected for inclusion in the study – rather than the entire population of the districts covered by the HSNP. Since the programme operated differently in some respects in the non-evaluation sub-locations, the findings also represent the programme as it operates in the evaluation sub-locations. Further details of the quantitative evaluation survey design and sampling strategy are provided in Section 2.

This report also draws on the findings from the qualitative fieldwork. This is conducted each year in four treatment sub-locations in each district. In each sub-location, FGDs and interviews are conducted with beneficiaries and non-beneficiaries, as well as other key members of communities (elders, chiefs, teachers, doctors, religious leaders, labourers, minority groups, farmers, young people, and other locally important individuals and groups). In addition, a panel of beneficiaries and non-beneficiaries is being interviewed each year to track the impact of the HSNP on their lives.

This report sets out the results from the baseline data collection. Follow-up reports in 2012 and 2013 will provide information on programme impacts, cost-effectiveness and operations.

1.4 Scope of the M&E baseline report

This baseline report provides information on various aspects of the situation of households in programme areas that will form the baseline for the impact evaluation.

[13] The respondents for the community interviews are a mixed-gender group of community members (Chief, elders, and others).

1.4.1 Interpretation of the tabulations presented in this report

The report presents tabulations of indicators based on a standard set of disaggregation criteria:

By beneficiary status (selected vs. non-selected): The key dimension of disaggregation in all the tabulations of household-level indicators is beneficiary status. This enables a comparison of the characteristics of households that were selected through the targeting process (across both treatment and control areas), with those households not selected. This is generally shown for selected versus non-selected households overall, as well as for each of the three targeting mechanisms individually.

By (former) district: this shows variations across districts. However, it is important not to read too much into the district-level figures, as households are sampled from only a small number of areas in each district and are not representative of entire district populations, nor are they weighted to be representative at the district level. Rather, they are representative of the segment of the study population falling within each district. For this reason, the district disaggregations are not always presented, though differences in the study population by district are mentioned in the text when relevant.

Caution should also be taken in interpreting Marsabit results. According to the Kihbs data, Marsabit has similar poverty levels to Turkana. However, many of the estimates suggest that Marsabit is better off. This may be due to the very high numbers of sub-locations that were categorised as too insecure for the HSNP to operate there, which resulted in a high number of sub-locations being located around the district centre.

By treatment status (randomisation check): this compares selected households in treatment areas (treatment group) with those selected in control areas (control group). Since the targeting process was identical in treatment and control areas, any differences are due to the random allocation of the programme. For a robust impact evaluation, it is desirable that the treatment and control groups are as similar as possible. In the text, results of the randomisation check are only reported if this is not the case – in other words, if there is a significant difference between the treatment and control groups.

By targeting mechanism (randomisation check): The targeting mechanism (CBT, SP or DR) that was implemented in each evaluation sub-location was randomly allocated before the targeting process was implemented. This was to underpin a rigorous assessment of the relative targeting effectiveness of the three mechanisms.[14] Since the allocation was random, any differences observed between the populations of CBT, SP and DR sub-locations are due to chance (since the number of sub-locations allocated is quite small). The tabulations reveal that there are in fact significant differences between these populations: by chance, the households in CBT areas are relatively better off and the households in DR areas are relatively poorer.[15] For this reason, the analysis compares, for each of the three mechanisms, the characteristics of selected households with those households not selected but in the same type of area.

All tables also present the 'overall' estimate, and the number of observations over which this is calculated. Where relevant, indicators are also disaggregated by key dimensions such as gender, age and mobility status – whether a household is partially or fully mobile, or settled.

[14] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

[15] Since they were undertaken as a check to inform the analysis, the overall 'by targeting mechanism' randomisation checks are usually not presented.

Significance tests have been performed on almost all the estimates presented in this report. Differences between the means across the various dimensions of disaggregation are indicated by asterisks (*) as follows:

- **Treatment/control group estimates:** asterisks on the estimate of a treatment group mean indicate that this estimate is significantly different from the control group estimate presented in the column immediately to its right.
- **District estimates:** asterisks on the estimate of a district mean indicate that this estimate is significantly different from the pooled mean across the other three districts.
- **Targeting mechanism sub-location estimates:** asterisks on the estimate of a targeting mechanism sub-location mean indicate that this estimate is significantly different from the pooled mean across the two other targeting mechanisms. For example, the asterisks would indicate whether the mean of an indicator (e.g. average household size) in CBT sub-locations is significantly different to the pooled mean across the SP and DR sub-locations.
- **Selected/non-selected estimates:** asterisks on the estimate of the selected households' mean indicate that this estimate is significantly different from the non-selected households' estimate presented in the column immediately to its right.

Three asterisks (***) indicate a difference is statistically significant at the 99% confidence level; two asterisks (**) indicate significance at the 95% level; and one asterisk (*) indicates significance at the 90% level.

1.4.2 Assessing the situation of households in programme areas

Drawing on quantitative and qualitative data, this report presents information on the situation of households in programme areas. These findings will form the baseline for the analysis of impact that will be presented in follow-up reports, using data collected from ongoing follow-up surveys. The structure of these findings mirrors the expected impacts of the programme, but also allows for unexpected findings. The analysis in this report covers a wide range of social and economic indicators collected at baseline.

1.5 Report structure

This report is organised around data collected in quantitative and qualitative fieldwork in the HSNP programme areas of northern Kenya. The next chapter explains the methodology that was designed and used for data collection, including the sampling strategy and a technical exposition on sampling weights. Chapters 3 to 12 present findings from the data analysis.

Chapter 3 focuses on household demographics – household composition, labour capacity, social characteristics like marital status, characteristics of the main provider, intra-household decision-making processes, and ownership of a national identity card. Chapters 4 and 5 present data on poverty and food security. 'Objective' poverty indicators are derived from household spending and consumption levels, but these are complemented by self-reported 'subjective' indicators. The food security chapter describes local diets and food sources, then considers problems related to seasonal food availability and high food prices, and responses to food insecurity including food aid and coping strategies.

Chapters 6 and 7 turn the attention to livelihoods, income and assets. Livelihood activities in the programme area are followed by an assessment of income derived from these activities. Transfers between households also contribute to income and consumption, and this chapter concludes with an examination of children's contribution to livelihoods, and the other work that children do. Assets in the ASAL districts of northern Kenya are dominated by livestock,

but we also consider productive assets and consumer goods, as well as land ownership, which is especially important for farming families.

Chapters 8 and 9 consider education and health from the perspective of both outcomes – adult literacy, education levels, health status and immunisation – and services – accessibility and costs of schooling, access to health services. Chapter 10 considers the crucial issue of access to water, as well as quality of housing and access to amenities and services such as shops, schools and clinics.

Chapter 11 establishes the mobility status of households in HSNP areas – whether they are fully mobile pastoralists who migrate with their animals, partially settled and partially mobile, or fully sedentarised. Chapter 12 describes saving and borrowing behaviour, including purchasing on credit, among the surveyed households.

Finally, the Annex presents most of the tables of data that are reported in the main text, with findings disaggregated by targeting mechanism and by district.

2 Methodology

This section describes the evaluation methodology and sampling strategy for the quantitative and qualitative fieldwork for the HSNP M&E baseline survey, which was conducted in 48 sub-locations, 12 each in Mandera, Marsabit, Turkana and Wajir. Half of these are 'treatment sub-locations', where HSNP cash transfers were delivered immediately after registration of beneficiaries, and half are 'control sub-locations', where HSNP cash transfers will only be delivered two years after the baseline survey was carried out. The stratified random sampling procedure also ensured an equal number of sub-locations for each HSNP targeting mechanism: CBT, DR, and SP. The total sample size for the household survey was 5,108 households. A total of 245 community interviews were also conducted. Qualitative fieldwork was conducted in the same sub-locations as household and community surveys. Methods included FGDs, KIIs, and QPSs of beneficiary and non-beneficiary households.

2.1 Overview

The HSNP quantitative survey is taking place over the four districts of Mandera, Marsabit, Turkana and Wajir. The evaluation is being implemented in 48 randomly selected sub-locations in each district (around one-third of the total project area). The sub-locations were selected from a sample frame of all secure sub-locations in each district. The evaluation sub-locations are split evenly between the districts, with 12 evaluation sub-locations in each.

The programme applied a staggered roll-out, with sub-locations being brought into the programme on a month-by-month basis. The evaluation was also staggered, with the baseline survey taking place just after targeting in each evaluation sub-location every month, e.g. sub-location 1 (District 1) was surveyed in month 1, sub-location 2 (in District 1) in month 2, etc.[16] The quantitative survey was carried out simultaneously in all four districts, in order to allow targeting and impact to be reliably compared across districts.

As a result of this methodology, the baseline survey was originally designed to take place over the course of 12 months, but due to various contingencies actually took place over 14 months (Sept 09–Oct 10). This design allows seasonal variations to be both analysed and, for the targeting and impact analysis, averaged out across the sample of households covered by the quantitative survey. The sequence in which the sampled evaluation sub-locations are targeted and surveyed was determined randomly (see below for more details).

The original intention was to select a sample representative of all secure sub-locations in each district.[17] Sub-locations were implicitly stratified by population density (households per square km), to ensure the sample was spread across both populous and sparsely populated sub-locations, and explicitly stratified by 'greater' district. In this manner, in each district, 12 sub-locations were selected using probability proportional to size, with implicit stratification by population density such that there is an even number of selected sub-locations per new district. Sub-locations were then sorted within new districts by population density and paired up. Control and treatment sub-locations were paired up so that both the treatment and

[16] During the course of the study design, the official designation of the administrative areas known as 'districts' in Kenya changed. For the purposes of simplicity, we use 'district' to refer to the 'old' designation, and 'new district' to refer to the new designation.

[17] During analysis it was discovered that sub-location weights were arbitrarily confounding study results due to differing population sizes and poverty levels between districts. For this reason it was decided to exclude sub-location selection probabilities from the construction of the household weights. This means that the sample is representative of all evaluation sub-locations only, and not of all secure sub-locations across the four districts. The rationale for this decision is elaborated in Section 2.3.

control sub-locations were equivalently spread throughout the year, i.e. at least one treatment and one control area per month (for each district). The reason sub-locations were sorted (within each new district) by population density before pairing them up was to ensure that similar sub-locations were matched together, with one of the pair being control and one being treatment. This measure is designed to reduce as far as possible significant variations between the characteristics of the control and treatment groups. The sub-location pairs were then sorted randomly and assigned a two-month slot. For each pair, the order within the two-month slot was also sorted randomly.

In all the evaluation sub-locations, the HSNP Admin component implemented the targeting process. In half the sub-locations, the selected recipients started receiving the transfer as soon as they were enrolled on the programme – these are referred to as the **treatment sub-locations**. In the other half of the evaluation sub-locations, the selected recipients will not receive the transfer for the first two years after enrolment – these are referred to as the **control sub-locations**.

The households in the treatment sub-locations selected for the programme are referred to as the **treatment group**. These households are beneficiaries of the programme. In control sub-locations, the households that were selected as eligible for the programme are referred to as the **control group**. These households are also beneficiaries of the programme but will only begin to receive payments two years after registration. Note that the targeting process was identical in the treatment and control sub-locations.

The following population groups can thus be identified:

- **Group A:** Households in the treatment sub-locations selected for inclusion in the programme.
- **Group B:** Households in control sub-locations selected for inclusion in the programme but with a delayed payments.
- **Group C:** Households in treatment sub-locations that were not selected for inclusion in the programme.
- **Group D:** Households in control sub-locations that were not selected for inclusion in the programme.

The comparison of trends in groups A and B over time provides the basis for the analysis of the impact of the HSNP. The sample included units from groups C and D to provide information on the population as a whole, in order to assess the extent to which the programme had selected the poorest households.

The sampling strategy for the quantitative survey has been designed in order to enable a comparison of the relative targeting performance of three different targeting mechanisms.[18] These are:

- CBT;
- SP; and
- DR.

In the evaluation sub-locations, for both the DR and SP targeting mechanisms, two different selection processes were implemented: (i) an on-demand approach, whereby households applied for the programme at a temporary 'desk' set up in the community during the targeting phase; and (ii) a door-to-door (or census) approach, whereby the HSNP Administration field-

[18] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

staff visited each and every dwelling in the sub-location to collect the application information from all households. The survey design also allows for a comparison of the relative targeting effectiveness of the targeting approach.

For both the treatment and control sub-locations, there were an equal number of CBT, SP and DR sub-locations. For the SP and DR evaluation sub-locations, half were randomly allocated census targeting and half on-demand targeting. Note that no census targeting was used in the non-evaluation sub-locations, so census targeting was only implemented in 16 sub-locations in total.

The breakdown of evaluation sub-locations is as follows:

Table 2.1 Breakdown of evaluation sub-location sample

Targeting mechanism	Treatment	Control	Overall
CBT	8	8	16
SP	8 [4 census] [4 on-demand]	8 [4 census] [4 on-demand]	16 [8 census] [8 on-demand]
DR	8 [4 census] [4 on-demand]	8 [4 census] [4 on-demand]	16 [8 census] [8 on-demand]
Overall	**24** **[8 community]** **[8 census]** **[8 on-demand]**	**24** **[8 community]** **[8 census]** **[8 on-demand]**	**48** **[16 community]** **[16 census]** **[16 on-demand]**

The intended evaluation survey sample sizes are presented in Table 2.2 below (with the letters in the cells matching groups A–D as listed), broken down by targeting mechanism, treatment and control areas, and district. They were based on the expected sampling error for point estimates, differences and the difference-in-differences estimates for key indicators.

Table 2.2 Intended sample size, by population group

	Targeting mechanism	Treatment	Control	Total	(by district)
Selected	CBT	480	480	960	(4×240)
	SP	480	480	960	(4×240)
	DR	480	480	960	(4×240)
	Total	**1,440** **[Group A]**	**1,440** **[Group B]**	**2,880**	**(4×720)**
Not selected	CBT	320	320	640	(4×160)
	SP	320	320	640	(4×160)
	DR	320	320	640	(4×160)
	Total	**960** **[Group C]**	**960** **[Group D]**	**1,920**	**(4×480)**
Total		**2,400**	**2,400**	**4,800**	**(4×1,200)**

Source: HSNP M&E Baseline Evaluation Survey, Households Questionnaire, Sep 2009–Oct 2010. Notes: Due to the risk of sample attrition a 10% buffer was factored in, i.e. an additional 480 households were sampled (5,280 in total), spread evenly across sub-locations.

Inevitably, not all sampled households could be identified and/or interviewed. Some households could not be found, while others refused to be interviewed. Many of these households were replaced from a randomly selected replacement list in each sub-location (see Section 2.2 below). In some sub-locations, the intended sample size for either of the four household types (groups A, B, C or D) could not always be attained for a variety of reasons.[19] The final sample sizes were therefore slightly lower than intended at baseline.

The actual number of households interviewed by population group and district in the baseline survey are presented in Table 2.3 below**Error! Reference source not found.**. A total of 5,108 households were interviewed and included in the baseline sample for analysis, corresponding to 97% of the intended sample. This sample included a total of 28,069 individuals, of whom 11,856 were children under 18. The most frequent reasons that households were not interviewed at baseline included: that they were absent for an extended period; the household was known but not found; the household was unknown and not found; or the beneficiary has already been interviewed as a member of another household (see Table A2.1a).

In addition to the household survey, interviews were conducted with community groups. Communities were defined by settlements or groups of settlements within a sub-location.[20] A settlement was defined as a concentration of households (more than one family) living in the same area and sharing access to common resources, shops, etc. Settlements were sometimes grouped together into a single community interview as was appropriate based on size and geographical proximity. A community interview was conducted for all communities that at least one interviewed household stated they were either in or closest to at the time of interview. In this way, each household can be linked with a particular community. A total of 245 community interviews were conducted at baseline. Table 2.4 below contains a breakdown of the number of community interviews conducted by district and treatment and control areas.

Due to missing data, 64 out of 5,108 completed household interviews at baseline are not linked to any community-level data.

Table 2.3 Community interviews conducted at baseline by district and treatment and control areas

District	Treatment	Control	Overall
Mandera	23	22	45
Marsabit	28	28	56
Turkana	51	55	106
Wajir	18	20	38
All districts	**120**	**125**	**245**

Source: HSNP M&E Baseline Evaluation Survey, Community Questionnaire, Sep 2009–Oct 2010. Notes: community questionnaires were conducted in every community for which at least one household interview was attached. A community was defined as a settlement or a sub-section of a settlement if that settlement had been segmented due to its size. Due to missing data, a small proportion of households are not linked to any community data.

[19] These reasons included: security issues; migration of households; lack of numbers of either of the household types; and lack of replacements.

[20] Settlements may be either permanent or non-permanent, larger or smaller, formal or informal collections of households.

2.2 Household sampling

Because targeting was conducted in both treatment and control areas, households were sampled in the same way across treatment and control areas.

Beneficiary households (groups A and B) were sampled from HSNP administrative records. Sixty-six beneficiary households were sampled using simple random sampling (SRS) in each sub-location.[21]

Non-beneficiary households (groups C and D) were sampled from household listings undertaken in a sample of three settlements within each sub-location. These settlements were randomly sampled. The settlement sample was stratified by settlement type, with one settlement of each type being sampled. Settlements were stratified into three different types:

- **Main settlement** (the main settlement was defined as the main permanent settlement in the sub-location, often known as the sub-location centre and usually where the sub-location chief was based. As there was always one main settlement by definition, the main settlement was thereby always selected with certainty).
- **Permanent settlements** (permanent settlement is defined as a collection of dwellings where at least some households are always resident, and/or there is at least one permanent structure).
- **Non-permanent settlements**

If there was no non-permanent settlement a second permanent settlement was sampled. If there was no other permanent settlement (apart from the main settlement) then a second non-permanent settlement was sampled. If there were neither enough permanent nor non-permanent settlements, then all remaining households were listed from the main settlement. Note that by definition there can only be one main settlement per sub-location.

Large settlements (over approximately 300 households) were segmented into segments of approximately 100–150 households, and segments were then sampled using SRS. Within settlements or segments, all households were listed.

During the listing, beneficiary households were identified and then dropped from the sample frame. Non-beneficiary households were then identified as being either residents of the sub-location or non-residents. The non-beneficiary sample was then stratified as follows:

Table 2.4 Stratification of non-beneficiary sample by settlement type and residency status per sub-location

Settlement type	Residency status		Total
	Resident	Non-resident	
Main settlement	18	2	20
Permanent	13	1	14
Non-permanent	5	5	10
TOTAL	**36**	**8**	**44**

Note: An additional three non-beneficiary households were randomly selected per sub-location for the qualitative study. In cases of scarcity of non-beneficiary households, the quantitative sample was prioritised over the qualitative sample.

[21] In a couple of sub-locations this was not possible due to insufficient numbers of beneficiaries in the programme records. Up to 16 households were also randomly sampled for qualitative household interviews from the programme beneficiary lists. In cases of scarcity of beneficiary households, the quantitative sample was prioritised over the qualitative sample.

If there was an insufficient sample frame for any of the above strata there were defined procedures to make replacements.

In total, 44 non-beneficiaries should have been sampled in each sub-location; however, in a couple of sub-locations this was not possible due to insufficient numbers of non-beneficiaries being present in the sub-location.

The remaining households for each group (As and Bs, Cs and Ds) were placed on a replacement list and used to replace non-completed interviews. For non-beneficiary households, the replacement list was also stratified by settlement and residency so that replacement households were as far as possible drawn from the same 'category' as the households that were being replaced, according to the logic of:

1. Same residency status, same settlement
2. Same settlement, different residency status
3. Same residency status, different settlement
4. Different settlement, different residency status

2.3 Sampling weights

The sampling weights produce estimates for all households living in sub-locations covered by the evaluation (i.e. the study population). They do not provide estimates for any larger population.

The decision not to make study results representative of the entire population of secure sub-locations within each district was taken once it was established at the analysis stage that differences in population sizes and poverty rates between districts were complicating the interpretation of the study results. In particular, weighting up sub-locations to represent entire districts (with quite different total populations) was making it difficult to interpret differences across targeting mechanisms, as it was impossible to separate the element of the difference that was caused by district-level factors and that which was caused by factors actually pertaining to the targeting mechanism. Because a key element of the study was to report on the effectiveness of the three different targeting mechanisms, it was decided to exclude sub-location selection probabilities from the construction of the weights and thereby prevent district-level factors from impinging on results. The result of this is to make the sample representative of the evaluation sub-locations (the study population), rather than trying to use it to provide estimates for whole districts.

This decision was further augmented by the consideration that the programme had been operating in a different way outside of the evaluation areas. Due to this, results in any case would not have shown how the programme was performing across all secure sub-locations across all four districts, but only how the programme would have performed had it been operating in all sub-locations as it was in evaluation sub-locations.

Weights are given by the inverse probability of being selected by strata. For beneficiaries (groups A and B), the weights are given by:

$w_i = N_i / n_i$

where n_i is the number of beneficiary households interviewed in the ith sub-location and N_i is the number of beneficiaries listed in the HSNP administrative data for that sub-location.

For non-beneficiaries (groups C and D), the weights are given by:

$w_{ijk} = 1 / [(a_{ijk}/A_{ijk}) *(1/b_{ij})*(1/c_{ij})]$

where A_{ijkl} is the total number of non-beneficiary households of residency status k in the selected segment of the selected type j settlement in sub-location i, and a_{ijkl} is the number of these households that were interviewed. b_{ij} is the total number of segments in the selected type j settlement in sub-location i (often $b_{ii} = 1$). c_{ij} is the total number of settlements of type j in sub-location i.

The communities interviewed in the sample were a function of the settlements to which households declared they were closest to at time of interview, and the extent to which they were geographically clustered. As such, defining weights for community-level data is difficult. In practice, often community information has been read down to household level and analysed with household weights. The exception to this is for community-level indicators, where community weights were approximated by the sum of the household weights across the households linked to that community interview.

2.4 Qualitative fieldwork

Qualitative methods were used to: provide complementary data on the same topics covered by the household surveys; to triangulate and add depth or texture to the quantitative findings; to explore levels of analysis that are not easily captured in household-level surveys, such as intra-household issues and market impacts; and to explore additional issues of interest not specifically addressed in the quantitative survey, such as social relations within communities. Three qualitative instruments were used: FGDs, KIIs, and QPSs of beneficiary and non-beneficiary households.

FGDs were conducted in each selected community with male and female elders, male and female beneficiaries, male and female non-beneficiaries, and one of the following social or economic groups: young women or men, farmers, casual workers, ethnic minorities and traders, disaggregated by gender. Selected participatory methods were also used, including community mapping and wealth ranking.

KIIs in each sub-location included the chief or assistant chief, relief committee member, rights committee member, local HSNP paypoint operator, local trader, and one of the following: local NGO worker, vetting committee member, teacher, health centre worker, religious leader, and community leader.

For the **QPS**, eight households were selected from the household roster compiled by the quantitative team in each sub-location. These comprised six HSNP beneficiaries (three male and three female respondents) and two non-beneficiaries (one male and one female respondent).

Themes discussed included local livelihood systems, migration patterns, poverty and vulnerability, coping strategies, social structures and institutions, access to health and education services, markets, gender and intergenerational relations.

3 Demographics

HSNP households are more likely than average to be female- than male-headed, especially those selected by CBT, suggesting that female-headed households are perceived by their neighbours as more vulnerable. HSNP households are also more likely to be headed by an older person, mainly because of categorical targeting of SPs. HSNP households are larger than average, partly because households with high dependency ratios are deliberately targeted. Ranking households by poverty (proxied by consumption spending) confirms that poorer households are more likely to have female or older heads and are larger than average. This is a young population with a large number of orphans. Males outnumber females, especially among children and older persons. Finally, many households have no member with a national identity card, including almost half of all SP households.

3.1 Household composition

Three-quarters of all households surveyed are male-headed (75%), while one in four is female-headed (25%) (see Table A3.1a). However, households selected into the HSNP are significantly more likely to have female heads – one-third overall (33%), and highest for CBT (42%). This appears to be due to several factors: i) women are usually food aid beneficiaries because they take care of food within the household; ii) they are more likely to be around to participate in projects; and iii) men can be less inclined to admit to being poor and in need of support. One-third of households are headed by older persons (33%), but significantly more selected households are older-headed (45%), mainly because of targeting of SPs, whose households are mostly headed by a pensioner (83%). Very few households are headed by children under 18 years of age (0.1%). Across the districts, Marsabit and Turkana have higher proportions of female heads (30% and 28% respectively) than Mandera and Wajir (23% and 18%) (see Table A3.1b).

The mean household size is 5.5, but is significantly higher among selected households (5.7) than non-selected households (5.3), implying that larger households in these communities may be more vulnerable. Unsurprisingly, DR households are the largest of all (5.9 members). By district, Turkana has the smallest households and Wajir the largest (and the difference is statistically significant), closely followed by Mandera. Qualitative fieldwork revealed that household sizes vary substantially around the average. Responses from the QPS indicate that a 'typical' household contains just parents and their children, but some households are more complex, as we learned in Turkana:

> *According to Turkana, a household is made of a man with woman or wives and children, there must be livestock for it to be a household* (male elder, Turkana)
>
> *I also live with my brother's family, three children, a husband and wife. These are my other people, but it's all my family* (male non-beneficiary, Turkana)

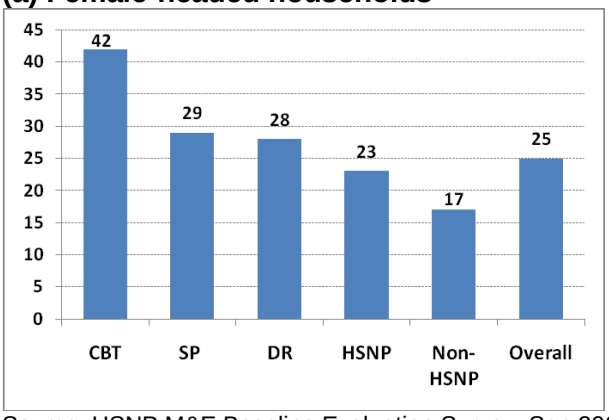
This is a young population. The mean age of the population is 22 years, but is significantly higher in SP households – not surprisingly – at 28 years.[22] One-third of all individuals enumerated are under 10 years old (33%), almost half are under 15 (48%), and two-thirds are under 25 years old (67%). Almost one in five households (18%) are caring for orphans.[23] This figure is double in households selected for the HSNP (24%) compared to non-selected households (12%), and is highest in CBT households (28%) (see Figure 3.1 below), which

[22] Note that this is the mean age for all individuals in households containing a Social Pensioner, not the mean age of Social Pensioners.
[23] An orphan is defined as any child <18 with one or both biological parents missing or deceased.

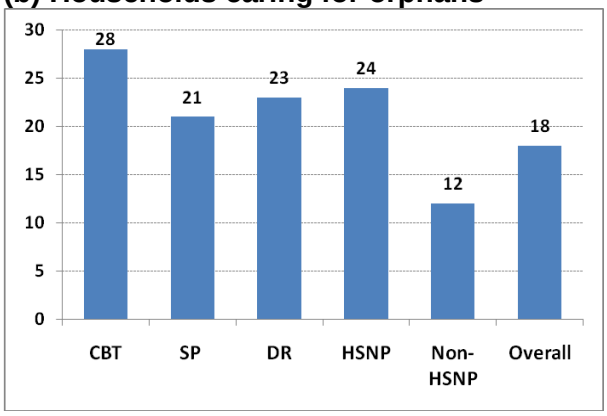
suggests that households caring for orphans are recognised by their neighbours as likely to be vulnerable and in need of support.

Figure 3.1 Female-headed households and households caring for orphans (%)

(a) Female-headed households



(b) Households caring for orphans



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Fewer than one in 10 individuals are over 54 years old (9%), the qualifying age for the SP, and men over 54 exceed women over 54 by 10% (see Table 3.1). HSNP households contain twice as many older persons as non-selected households (0.7 vs. 0.3), with a heavy concentration in SP households (1.29), as expected.

The average number of children under 18 per household is 3.1. This figure is significantly higher in DR households (3.6), as expected, and significantly lower in SP households (2.7). One possible demographic consequence of the HSNP is that families will reallocate children to older relatives who receive HSNP cash transfers, meaning this figure could rise and will be monitored in the impact evaluation. By district, Mandera and Wajir have the largest households and therefore the highest average number of children.

There are more males (51%) than females (49%) in this population, and the sex ratio stands at 1.04 – i.e. 104 males per 100 females (see Table 3.1). Across the world, gender ratios tend to favour females because of their longer life expectancy, but in South Asia and among some pastoralist groups in the Horn of Africa gender ratios are skewed towards males. In Somali Region, Ethiopia, for instance, there are 105 men for every 100 women (Devereux 2010: 685). Our findings from northern Kenya are corroborated by Kenya's census data.

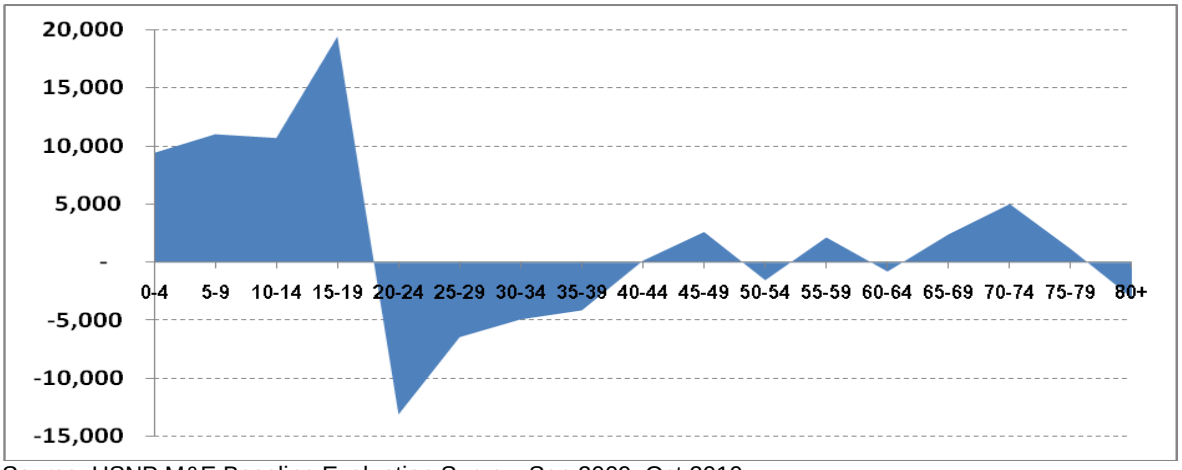
Table 3.1 Population age-sex distribution by gender

Age cohort	Males	Females	Total	M/F
0-9	17.2%	15.8%	33.0%	1.08
10-19	14.2%	12.3%	26.6%	1.16
20-29	5.8%	7.1%	12.9%	0.82
30-39	4.6%	5.1%	9.7%	0.89
40-49	2.9%	2.7%	5.6%	1.07
50-59	2.8%	2.8%	5.6%	1.02
60-69	1.9%	1.8%	3.7%	1.06
70+	1.6%	1.4%	3.0%	1.14
55+	4.8%	4.4%	9.2%	1.10

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Disaggregating the population data by age group reveals a more complex pattern. Males outnumber females under the age of 20 and after the age of 40, but females in their 20s and 30s outnumber males substantially (see Figure 3.2). This pattern is similar to the age-sex disaggregation of population in neighbouring Somali Region, Ethiopia, and in other African countries. In Somali Region, the dominance of females among young adults was explained by male outmigration in search of work. However, explaining this issue in the HSNP programme area requires further investigation. HSNP households contain significantly more females than non-HSNP households, especially those selected by CBT (51%), which may indicate that women and girls are perceived as more vulnerable than men and boys. Turkana is the only district to have more females than males overall.

Figure 3.2 Males minus females by age cohort, HSNP evaluation population

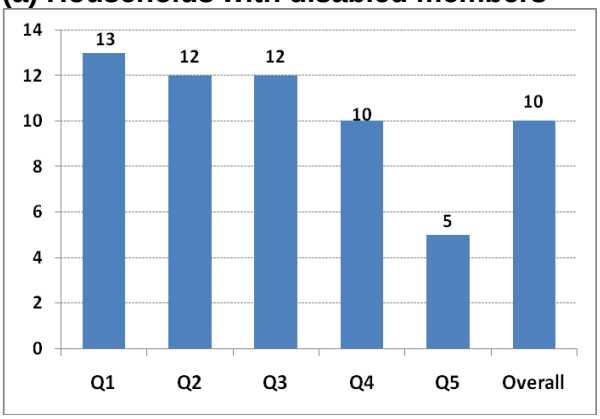


Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

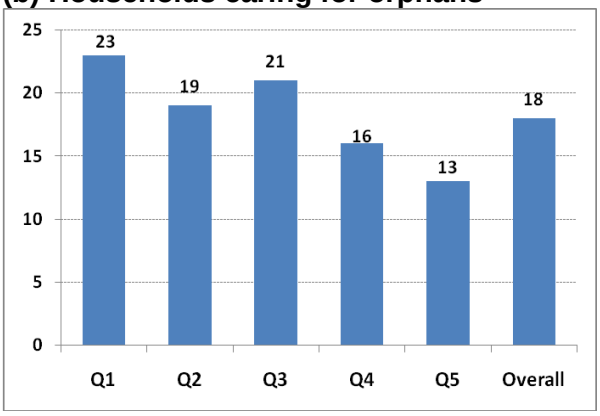
Disaggregating demographic indicators by consumption expenditure quintile reveals that poorer households are no more likely than richer households to contain chronically ill members, but households in the wealthiest quintile are significantly less likely to contain disabled members (5% of households versus 10–13% of households in the other four quintiles) (see Figure 3.3a). This suggests that disability might be a driver of poverty in the study area. Poor households are also more likely to be caring for orphans, while wealthier households are significantly less likely to contain orphans (see Figure 3.3b).

Figure 3.3 Households with disabled members and orphans, by consumption expenditure quintile (%)

(a) Households with disabled members



(b) Households caring for orphans

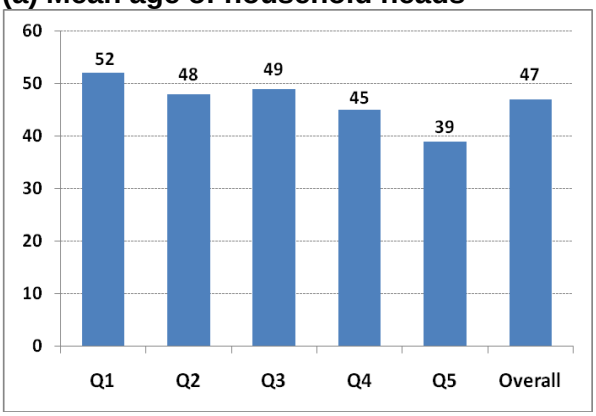


Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

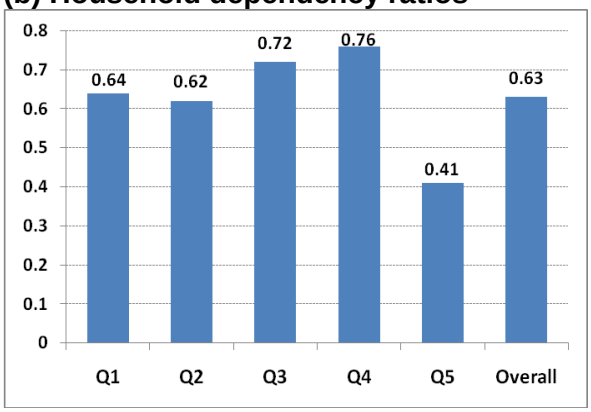
Poorest quintile households have older household heads than richest quintile households (52 years vs. 39 years) (see Figure 3.4a), and are more than twice as likely to contain individuals aged 55 years or older (51% vs. 24%). So, poverty is associated with old age. Poor households are significantly more likely to be female-headed (31% in the poorest quintile vs. 19% in the richest quintile), they have higher dependency ratios (see Figure 3.4b), and their heads are more likely to have no formal education (94% of poorest quintile household heads versus 61% of richest quintile household heads). All of these gaps between rich and poor are highly statistically significant. However, it should be noted that households in quintile 5 differ significantly from quintiles 1 to 4 on most characteristics in Table 3.2, suggesting that the richest households might be qualitatively different in other ways as well, which will be explored later.

Figure 3.4 Mean age of household heads, and household dependency ratios, by consumption expenditure quintile (%)

(a) Mean age of household heads



(b) Household dependency ratios



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Table 3.2 Population information by consumption expenditure quintile

Indicator	Poorest → Richest					Overall	
	Q1	Q2	Q3	Q4	Q5	Esti-mate	N[1]
Mean household size	5.8	5.7*	5.7	5.5	4.8***	5.5	5,105
Mean number of adult equivalents per household	4.7**	4.5*	4.4*	4.2	3.6***	4.3	5,105
Proportion of households with one or more chronically ill members	5.0	7.4	7.2	6.7	6.7	6.6	5,105
Proportion of households with one or more disabled members	13	12	12	10	5***	10	5,105
Mean age of household head	52***	48*	49***	45**	39***	47	5,105
Proportion of household heads with no formal education	94***	88*	90***	78*	61***	82	5,105
Proportion of households containing at least one single or double orphan	23***	19	21**	16*	13***	18	5,105
Proportion of households with a female household head	31***	28	28	21***	19***	25	5,105
Proportion of households containing any members aged 55+	51***	43	48**	37*	24***	40	5,105
Mean household dependency ratio (dependents/ total members per HH)	0.64	0.62	0.72	0.76	0.41***	0.63	5,105

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%.

Household size does not vary much across mobility status categories (5.5–5.7 members) and there are no significant differences between them (see Table 3.3). There are slightly more men than women in partially mobile households (gender ratio of 1.4), but not significantly so. Partially mobile households have significantly fewer young children (0.9) and significantly more elderly members (0.65) compared with other categories. Interestingly, a significantly higher proportion of partially mobile households have elderly household heads (43%), compared with 35% of fully mobile households and 30% of permanently settled households.

All categories have household members who are over the age of 55 years, which counters assumptions that elderly members do not migrate. In fact, permanently settled households have significantly fewer elder members (0.45%).

Fully mobile households are less likely to care for orphans (11%), compared with settled households (20%). There are very few child-headed households in the sample (0.1% overall).

There are significantly fewer chronically ill members in partially mobile and fully mobile households (5% and 4%, respectively) compared with settled households (7%). Disabled members are found in households across all categories (8–11%), with no significant differences between them.

Table 3.3 Household composition by mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Estimate	N
Mean household size	5.5	5.7	5.5	5.5	5,108
Mean sex ratio per HH	1.3	1.4	1.3	1.4	5,032
Mean number of children (<6) per HH	1.0	0.9**	1.1	1.0	5,108
Mean number of children (<18) per HH	3.1	3.1	3.2	3.1	5,108
Mean number of elderly (>54) per HH	0.45***	0.65***	0.50	0.49	5,108
% of HHs……					
➢ caring for orphans	20***	17	11***	18	5,108
➢ with female household head	29***	18***	12***	25	5,108
➢ with child household head	0.1	0.2	0.0**	0.1	5,108
➢ with elderly household head	30***	43***	35	33	5,108
➢ containing at least one chronically ill member	7**	5*	4**	7	5,108
➢ containing at least one disabled member	11	10	8	10	5,108

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Fully settled defined as the whole of the household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals.

3.2 Household labour capacity

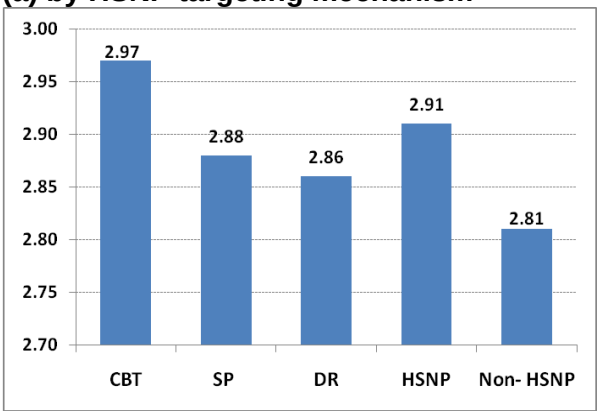
The dependency ratio (dependents/total household members) is high in this population, at 0.64 (**Error! Reference source not found.** Table 3.2), meaning that two out of three household members depend on the third member for their sustenance (e.g. one working-age adult with two children under 18 years old or two working-age adults with three children and a parent over 54 years of age). The dependency ratio is significantly higher among HSNP households, at 0.69 compared to 0.58. Interestingly, the ratio is highest not among DR households (0.69), but among SP households (0.73). Since SP households have fewer children than average, this is not entirely surprising, as many of these pensioners are single-person households, and 14% have no members aged 18–54 years, against 4.8% in DR households and 4.5% in the full sample (see Table A3.2a). Interestingly, households selected by CBT are most likely to be single-person households (2.7%, against 1.9% of SP households and 1.2% of the full sample).

Intriguingly, there are no statistically significant differences across categories in household labour capacity. The labour capacity index is a refinement of the dependency ratio. Instead of assuming that all individuals below or above working age are unable to work, a value (between 0 and 1) is assigned to the labour contribution of each household member, and these are summed (rather than calibrated between 0 and 1 as with the dependency ratio). The mean labour capacity index is actually marginally higher for HSNP households overall (2.9) than for non-HSNP households (2.8) (see Figure 3.5a) and this differential is replicated for each targeting mechanism. Differences in labour capacity across districts are statistically significant and reflect differences in household size, with households in Wajir being largest and having the highest mean labour capacity (3.02), and households in Turkana being

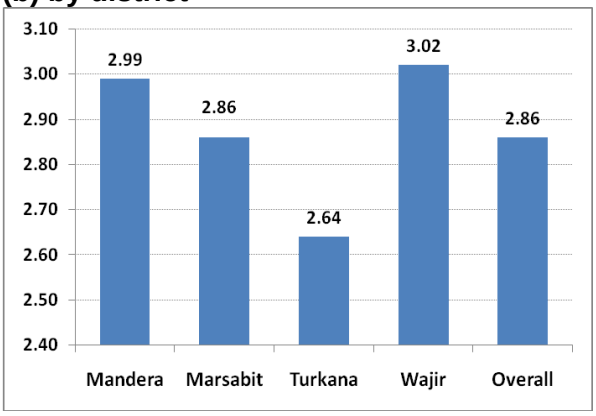
smallest and therefore having the lowest mean labour capacity (2.64) (see Figure 3.5b, Table A3.2b).

Figure 3.5 Mean household dependency ratios

(a) by HSNP targeting mechanism



(b) by district



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

The dependency ratio of partially mobile households is 0.65, significantly higher than the other two mobility categories, which means that partially settled households have more members who are dependants than those able to work (see Table 3.4). Fully mobile households also have a higher dependency ratio (0.65) than the average of all three categories (0.65), although this is not significant. Permanently settled households have a significantly lower dependency ratio, suggesting that a high dependency ratio is not the optimal method for selecting poor settled households. The labour capacity index is also significantly different across these categories, being highest for partially mobile households (2.99). This indicates that labour constraints may be a driver of poverty in partially mobile households.

About 29% of all children under 15 and 34% of children under 18 are reported as working, meaning that their main or other activity is either paid or unpaid work (including unpaid domestic work). The issue of child work is covered in detail in Section 6.4. A high proportion of older persons (>54 years) – three-quarters – are engaged in paid or unpaid work. Differences in the frequency of working between older persons in HSNP and non-HSNP households are not significant, nor between older persons in households selected under each of the three targeting mechanisms and those not selected. Partially mobile and fully mobile households have a significantly higher proportion of older people who are working (83% and 88%, respectively), compared with settled households (74%).

Table 3.4 Labour capacity by mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Esti-mate	N
Dependency ratio	0.63**	0.65**	0.65	0.65	5,108
Mean labour capacity index	2.84	2.99**	2.76	2.86	5,108
% of children <15 working	25***	39***	39**	29	13,195
% of children <18 working	29***	45***	44***	34	15,455
% of older persons (>54) working	74***	83***	88***	77	2,972

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller

sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Dependency ratio is defined as the number of people who are dependents (children (<18), people aged 55+, chronically ill or disabled people (18–54) divided by the total number of household members. (4) Fully settled defined as the whole of the household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals.

3.3 Social characteristics

Two-thirds of adult males (>18 years old) are married (65%) and this figure does not vary much by district. However, there is a pronounced difference between HSNP selected and non-selected households – the marriage rate of adult males is 59% in the former and 72% in the latter. This is driven by CBT and SP households, where marriage rates are significantly below average, for reasons that are not clear. Among SP households we might speculate that many household members are elderly widowers whose wives have died (see Table A3.3a). Polygamy was reported by 16% of married men, with each wife and her children staying in a separate house within the homestead and keeping separate cooking arrangements. Among these men, the average number of wives is 2.3, suggesting that men with more than two wives are rare. The practice of polygamy is significantly more common in Turkana (30%) than elsewhere and significantly less common in Marsabit (7%). Only 1% of children aged 11–18 have ever been married or in a consensual union. This figure is highest in Wajir (3%). Declining polygamy appears to be driven by sedentarisation/urbanisation. Only 14% of married men in permanently settled households are polygamous, compared with 18% of men from partially mobile households and 24% of men from fully mobile households.

Most communities are ethnically homogeneous. A small proportion of households (8.1%) belong to a minority ethnic group, i.e. not the dominant ethnic group in their community. These households are almost entirely from Marsabit, where the level is 33%. This is because there are several tribes in Marsabit (Gabbra, Boran, Rendille and Samburu), compared with only one tribe in Mandera (Somali), Wajir (Somali) and Turkana (Turkana) (see Table A3.3b).

The vast majority of children under 6 years of age do not have a birth certificate. Only 6% of children under 6 have one. Across districts, no children under 6 years have a birth certificate, compared with Mandera, where 17% have one. Both figures are significant. However, it is possible that birth certificate ownership may be under-estimated because most households provided health cards as official birth documents.

3.4 Main provider characteristics

Table A3.4a provides information on the “main provider” in households surveyed – defined as the person whose income provides the main source of support for the household. This person is not necessarily resident in the household, for example if they are the son of an elderly mother who lives alone or in polygamous households where the husband spends more time in the household of one wife than another.

Not surprisingly, the average age of main providers is almost double that of the population overall, at 43 years. This does not vary much across districts, but is significantly higher for HSNP selected households (46 years) than non-selected households (40 years). This is largely attributable to the inclusion of SP households in the programme, since the average age of main providers in these households is 53. (The fact that this is lower than 55, the age of eligibility for SP, indicates that the main provider is often a younger working adult in these

households.) However, DR targeting shows the same pattern – main providers in selected households are significantly older than those in non-selected households.

One in four main providers is female (24%), with wide disparities across districts, from 35% in Turkana down to 14% in Wajir (see Table A3.4b). HSNP households are significantly more likely to have female main providers than non-HSNP households (31% vs. 18%). By targeting mechanism, the proportion of female main providers is higher than average among DR households (26%) and highest of all among CBT households (39%), which corroborates other evidence reported earlier that those who provide for their families are generally perceived as more vulnerable and in need of support.

Overall, women take the position of main budget decision-maker in more or less the same frequency (or marginally less) as for the position of main provider. 28% of HSNP households have a female main budget decision-maker compared to 17% of non-beneficiary households. This difference is driven by a large difference among CBT households, where the figures are 36% and 22% respectively.

In a small number of cases (7.5%), the main provider does not actually live in the household. This could include families where one person has migrated to an urban area and is remitting some income every month, or where older persons are supported by adult children who have moved out. The proportion is more than double in HSNP selected households (10%) than in non-HSNP households (4%). Across districts, Marsabit has the highest rate of non-resident main providers (11%), while Mandera has the lowest (4%) (see Table A3.4b). The figure is higher than average for all targeting mechanisms, but especially high for SPs, 15% of whom have main providers living elsewhere. This finding could be interpreted as endorsing the HSNP's targeting strategy: the HSNP is reaching people who depend on others for their subsistence.

One in three main providers (31%) are providing support for other households, but only one household in 10 (11%) reported receiving regular support from someone outside of their household. A significantly higher proportion of beneficiaries report receiving regular support (14%) than non-beneficiaries (8%). The difference is most pronounced in SP households, where the figures are 18% and 7% respectively. There is also a significant difference in CBT households, where the figures are 13% and 7%.

The level of education among our study population is strikingly low. Overall, 79% of main providers are illiterate and 80% have no formal education (see Section 8). There is some regional variation in this figure, with Marsabit having the highest levels of education of the main provider (see Table A3.4b). Beneficiary main providers have significantly lower levels of education than non-beneficiaries. Disaggregating by targeting mechanism, the significance only remains true for SP targeting, where selected individuals are older and hence less likely to have been formally educated.

In cases where the main provider lives in the household, in almost one household in eight (13%) the main provider is not the household head, which suggests that this distinction is significant and presumably has an effect on intra-household dynamics. For instance, if the household head is nominally the oldest man, but he is not working and the main provider is his wife or daughter, this could create tensions over control of household income. The gap is greatest in SP households, where one main provider in four (25%) is not the household head. Across the districts, the highest incidence of the main provider not being the head of household occurs in Turkana (18%). This might be because there are more women main providers in Turkana, but a relatively lower proportion of them are also household heads (see Table A3.4b).

In fact, there is a lower proportion overall of female household heads than female main providers, reflecting the extent to which men retain control and dominant status within the household even when women are the main source of income. In female-headed households a woman is most likely to be the main provider, but there are some absent main providers who are very often male. In male-headed households, women are sometimes main providers but the status of household head is retained by a man.

3.5 Intra-household decision-making

The main budget decision-makers in HSNP selected households tend to be significantly older than average, at 47 years compared to 40 years in non-selected households, and 43 years in the full sample of 5,108 households. There are no significant differences across districts, where the average age of the main budget decision-maker is constant at 43–44 years (see Table A3.5a).

As expected, SP households have the oldest main decision-makers by far, at 54 years – slightly below the eligibility age of 55 years, because the main decision-maker is often not the pensioner but a younger adult within the household. In fact, the main budget decision-maker in selected SP households is the household head in less than two-thirds of cases (63%), and in only just over half of SP households (56%) is the main budget decision-maker also both the main provider and the household head. Selected DR households also have significantly older than average main decision-makers, at 46 years.

HSNP households are also more likely to have female main budget decision-makers: 46% against 36% in non-selected households, and 41% in the full sample. Again, selected SP households have more female main decision-makers than average, at 46%, but households selected by CBT have the highest proportion of all, at 50%. This suggests that communities tend to identify households headed or dominated by women as more likely to be vulnerable and in need of support.

There are dramatic differences across districts in the percentage of main budget decision-makers that are female, which ranges from just 25% in Wajir to 56% in Mandera – both significantly different from the full sample estimate of 41%. In 80% of households in Wajir, the main decision-maker is also the main provider and household head, but in Mandera this is true in only 58% of cases – again, significantly above and below the full sample estimate of 70%. Across the full sample, in 80% of households the main budget decision-maker is also the main provider for the household, but in Turkana this is significantly higher, at 94%, while in Mandera it is significantly lower, at 62% (see Table A3.5b).

Decision-making responsibility and power within households rests with both women and men, depending on household composition and the type of decision. Women are more likely to be responsible for day-to-day domestic and household decisions, while men are responsible for 'major' decisions regarding livelihoods, sizeable purchases, mobility, and so on. In some cases, husbands and wives consult each other, but men usually have ultimate authority about important decisions.

> *Because the man is the head even if the woman gets money from somewhere still she has to give the husband to decide on its expenditure. It is okay with us because a man needs to make sure that we are in check. … Men don't make decisions on food. … Men have the last say and if they are not there then the first-born son.* (female beneficiary, Turkana)

> *When a man sells a goat, he brings all the money to a wife and tells her to give him his share and keep the rest of money to spend on family needs.* (female non-beneficiary, Turkana)

When men get older they are more likely to transfer responsibility for decision-making to their sons than to their wives.

> *I handed over all the responsibilities to my sons because of my age, but they do consult me when in need.* (male non-beneficiary, Mandera)

Several respondents in Mandera and Turkana suggested that women are increasingly involved in household decisions, and some claimed that joint decision-making is becoming common. In Turkana, women were often named as the main provider, even if a man was present in the household.

> *My daughter is the main breadwinner and what I do is just complement her efforts.* (male beneficiary, Turkana)
>
> *No one else apart from me [is the main provider]. I am the one who collects firewood, weaves mats and does casual work. My children are all young and my husband is old. He used to have animals but now that all animals died, he just stays at home. They all wait for me to bring food.* (female beneficiary, Turkana)

Gendered control over decision-making is related to gendered roles and responsibilities within the household, which often seem very patriarchal.

> *No man appears in the kitchen. The mother and her girls work in the kitchen. All those roles have not changed. Every person has his own defined role as the girls have their roles and every other member has a defined role. Nobody crosses the line.* (male beneficiary, Turkana)
>
> *From dawn till dusk we carry out different activities which we can say are a lot compared to men. We wake early in the morning to prepare breakfast, take our children to school, fetch water, collect firewood* (female beneficiary, Mandera).
>
> *80% of the domestic chores are done by women. So, their work is not easy* (male non-beneficiary, Mandera).

In some cases, though, traditional roles are becoming less rigid, as men seem more willing to take on domestic tasks that are conventionally assigned to women.

> *There are things that each one of us does when the other is not around, like him taking care of children when I am not around, and fetching water when either me or our children are not around.* (female beneficiary, Marsabit).
>
> *When a woman visits her parents, the husband cooks for the children and if he has an elder son or daughter, they assist in household chores. … If you compare the previous years with now, men can also cook, fetch water and take care of children* (female non-beneficiary, Turkana).

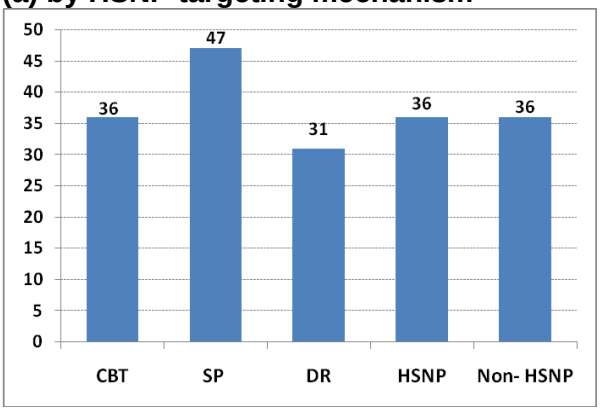
3.6 National identity card ownership

National identity cards are important in the HSNP context for two reasons. First, card ownership is a requirement for all Primary Recipients, who are the ones entitled to have their photo, name and fingerprints on the Smartcard. Beneficiaries without national identity cards are required to nominate a representative (Primary Recipient) to collect the transfer on their behalf. Second, the date of birth on the card is used to select those aged 55 years or above for the SP (even when the date of birth on the card is incorrect). Potential beneficiaries without cards are seen by a vetting committee.

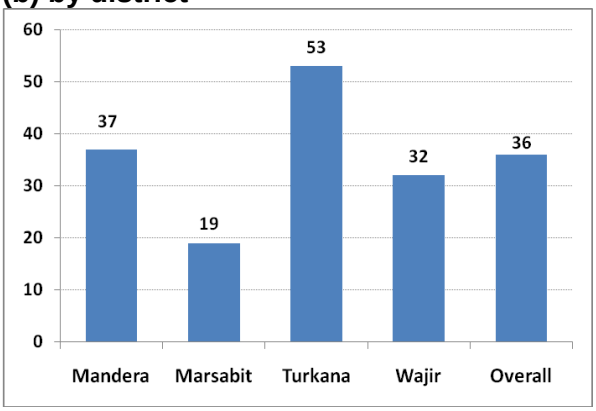
More than one in three households (36%) have no member who has a national identity card. This is a high proportion, and is a concern given their importance in the implementation of the HSNP. This figure is significantly higher for selected SP households (47%) – which is not unexpected, since older people are less likely to have registered their status formally – and significantly lower for selected DR households (31%) (see Figure 3.6a). National identity card ownership varies significantly across districts, being highest in Marsabit, where 81% of households have at least one member with an ID card, and lowest in Turkana, where this figure is only 47% (see Figure 3.6b).

Figure 3.6 Households with no national identity cards (%)

(a) by HSNP targeting mechanism



(b) by district



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Almost nine in 10 main budget decision-makers (88%) have a national identity card. Across the three targeting mechanisms, the proportion of main budget decision makers without a card ranges from 9% to 13%. Across the districts, however, the range is much wider. In Marsabit, only 2% of household main budget decision-makers do not have a card, but in Turkana the proportion is significantly higher, at 27%. In Mandera and Wajir, the proportions are closer to the sample average of 12%. This suggests that under-registration is a serious concern in Turkana.

4 Poverty

Most consumption spending by surveyed households goes on food, which is an indicator of high levels of poverty and food insecurity. There is substantial wealth inequality within this population, in terms of both consumption spending and value of assets owned. Subjective or self-reported poverty is well correlated with measured indicators of poverty, and reveals a sharp downward trend of increasing and deepening poverty in recent years.

4.1 Household consumption and expenditure

The survey interviewers collected information on households' consumption and expenditure in the recent past, including both food and non-food consumption. Households estimated the quantities and value of food consumed over the preceding seven days, including food that was purchased, home produced, or received as a transfer. Expenditure on other items was collected using longer recall periods of between one and 12 months, depending on the item. This consumption measure is adjusted for the demographic composition of the household using a measure of the number of 'adult equivalents'. It provides a standard money-metric measure widely used across Africa (including in Kenya) to assess household welfare and poverty levels.[24]

The mean value of consumption per adult equivalent is around KES 2,078 per month in the population as a whole (see Figure 4.1). Not surprisingly, food is the main consumption item. The food share varies significantly by district, from a low of 70% in Mandera to a high of 84% in Turkana. However, it forms consistently around 78% of consumption expenditure in selected and non-selected households, for each of the targeting mechanisms.

On the other hand, total monthly household consumption expenditure per adult equivalent and monthly food consumption expenditure per adult equivalent provide evidence in favour of the effectiveness of two of the targeting methodologies. The values of both are significantly lower among selected groups compared to non-selected groups for both CBT and SP households, resulting in a significant difference overall between selected and non-selected households. It appears from this finding that the HSNP is selecting the poor effectively, and that CBT and SP targeting methods are better at doing so than is targeting by DR.[25]

This same pattern is seen in several other indicators. In both CBT and SP locations, significantly more selected households receive external support compared to non-selected households, and significantly fewer selected households have any cash savings. Another significant result is that selected households in SP target areas are more likely than non-selected households to be in debt, due to buying on credit rather than borrowing money.

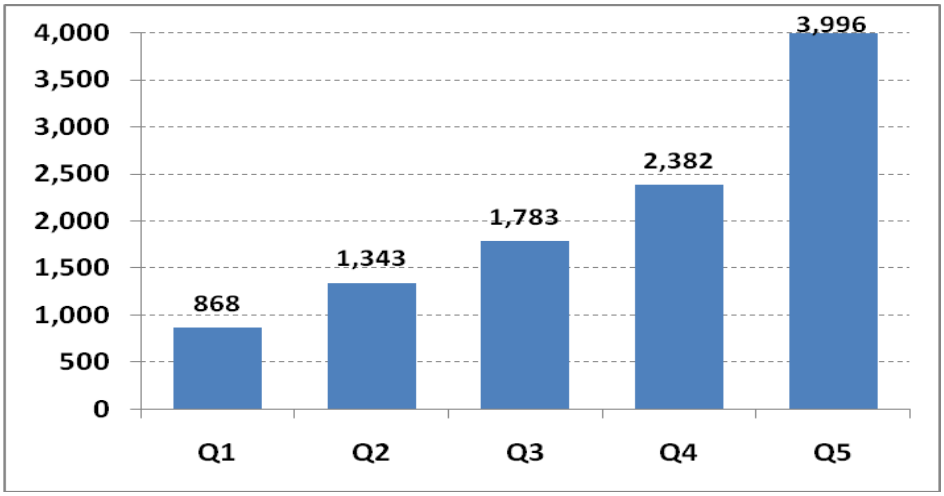
Mean monthly expenditure *per capita* on health and mean monthly expenditure per child on education are both significantly lower in Turkana than in other districts. Spending on health care accounts for around 1% of total per adult equivalent expenditure on average, and spending on education per child is roughly 5% of the latter. Overall, 11% of households are receiving external support, not including food aid (see Table 4.3).

[24] While collecting this data has its challenges, particularly in the study districts, it is generally regarded as the most reliable money-metric welfare measure in developing countries.

[25] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

Figure 4.1 disaggregates several indicators of household welfare by consumption expenditure quintile. The bottom three quintiles report significantly lower mean monthly consumption expenditure per adult equivalent than average (KES 2,074), while the two wealthiest quintiles spend significantly more than average. The wealthiest quintile spends almost five times as much as the poorest per adult equivalent (KES 3,996 vs. KES 868), which indicates an appreciable degree of income inequality within the study population.

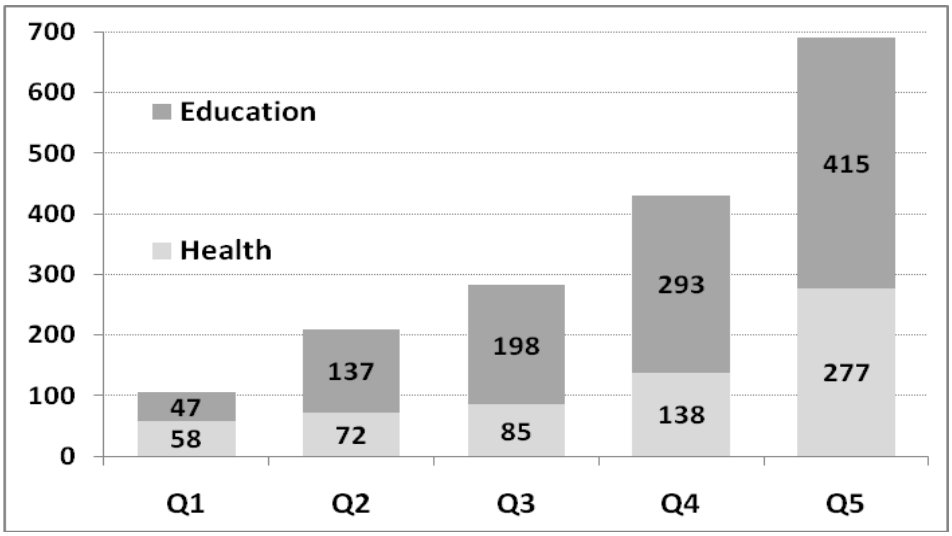
Figure 4.1 Mean monthly total consumption expenditure per adult equivalent, by quintile



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Poorer households spend a significantly higher proportion of their total consumption budget on food – over 80% – but even the wealthiest quintile spends over 70% on food, which is an indicator of widespread poverty across the population. Wealthier households also spend significantly above the average – and many times more than the poorest – on education and on health services (see Figure 4.2). Wealthier households also allocate a higher proportion of their budget to education and health – peaking at 10% by the richest quintile, against 7% by the poorest.

Figure 4.2 Mean monthly household spending on education and health, by quintile



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

The mean value of domestic goods owned by households rises by consumption expenditure quintile, as does the value of all productive assets. The ratio of total asset values between the top and bottom quintiles is 7 to 1, confirming there is a high degree of wealth inequality within the survey population. As discussed in the assets section, poorer households are more likely to own livestock, implying that many wealthier households derive their livelihoods outside pastoralism (Section 6.1 confirms that the highest income-earners in the sample are public sector employees, teachers, health professionals and other salaried workers), but wealthier livestock owners have more tropical livestock units (TLUs) than poorer livestock owners. Less than one household in 10 owns any agricultural land (9%) and poorer and richer households are equally likely to own land, suggesting that pursuing farm-based livelihoods is not a robust predictor of either relative poverty or relative wealth.

Table 4.1 below shows the distribution of households by consumption quintiles, which are defined such that across the study population as a whole 20% of households belong to each quintile. Taking the first column as an example, that of the treatment groups, we see that 6.8% of the households sampled in Mandera have consumption expenditure which places them in the poorest quintile of the sample. The trend in the column is for this proportion to increase as we move into higher quintiles. This increase shows that the study population in Mandera is better off compared with the overall sample.

Recalling that the district-level figures are representative only of the study populations within each district and not of the entire district, the study population in Turkana seems particularly poor, with 42% of the population in the bottom quintile of the overall sample compared to only 6.4% in the top quintile. The severity of poverty is Turkana can be explained by the facts that it is the driest district in the ASAL, which limits livestock ownership, and it has the fewest opportunities for cross-border trade because it is effectively landlocked. The sample in Marsabit is the next poorest. The samples in Mandera and Wajir are both significantly better off than the overall sample and have 6.8% and 5% respectively in the bottom quintile (see Table A4.1c).

Comparing the three targeting mechanisms, there appears to be a significant difference, although it is much smaller than that between districts. The SP sample has the most even spread across quintiles. The CBT sample has fewer people in the bottom three quintiles, and a fairly high proportion (28%) in the top quintile. The DR sample, on the other hand, has a higher proportion in the bottom two quintiles, and a low proportion in the top quintile (14%).[26]

[26] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

Table 4.1 Distribution of households by consumption expenditure quintile (%)

Indicator (proportion of HHs in each	By (greater) district				By targeting mechanism (for whole pop)			By treatment status		Overall	
	Mandera	Marsabit	Turkana	Wajir	CBT	SP	DR	(type A Treatment group HHs)	(type B Control group HHs)	Esti-mate	N
Q1 (poorest)	7***	19	42***	5***	18	19	24	23	22	20	5,106
Q2	14***	25**	25***	14***	16**	21	24	21	25	20	5,106
Q3	21	19	15***	27***	16**	24*	22	22	24	20	5,106
Q4	23	20	12***	28***	23	20	17	17	18	20	5,106
Q5 (wealthiest)	36***	17	6***	27	28**	17	14	17	13	20	5,106

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Comparing households by mobility status, a number of indicators suggest that the poorest households are the 'partially mobile' – those where some members move with livestock and other members stay behind. The pattern of higher poverty among partially mobile households is reflected in the distribution of households by consumption expenditure quintile, which shows that a significantly higher proportion of households that are partially mobile fall within the poorest three quintiles (23–29%) compared with those who are permanently settled (19%) and those who are fully mobile (10–25%).

The highest proportion of fully mobile households are in the fourth quintile (29%), but many still fall in lower quintiles – not all fully mobile households are well-off.

Table 4.2 Consumption expenditure distribution (quintiles) by mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Estimate	N
% HHs in Quintile 1	19	29**	10***	20.0	5,106
% HHs in Quintile 2	19	26**	19	20.0	5,106
% HHs in Quintile 3	19*	23	25	20.0	5,106
% HHs in Quintile 4	21	12***	29**	20.0	5,106
% HHs in Quintile 5	23**	9**	17	20.0	5,106

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Consumption quintiles are defined according to the distribution of consumption expenditure over the study population such that each quintile contains 20% of the population. (4) Fully settled defined as the whole of the household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals.

Finally, the higher poverty amongst partially mobile households is confirmed by the household consumption expenditure figures (see Table 4.3). Total monthly consumption per adult equivalent is KES 1,601 in partially mobile households, which is significantly lower than consumption by permanently settled households (KES 2,207) and fully mobile households (KES 1,955). The same pattern is repeated in mean monthly food consumption expenditure per adult equivalent.

Partially mobile households spend a significantly higher proportion of their total consumption budget on food (81%), whereas mobile households spend a slightly lower proportion (77%), but the difference is significant. Fully mobile households also spend a very high proportion on food (80%).

Table 4.3 Household welfare by mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Esti-mate	N
Mean total monthly HH consumption expenditure per adult equivalent	2,207***	1,601***	1,955	2,078	5,106
Mean monthly food consumption expenditure per adult equivalent	1,631*	1,303**	1,556	1,567	5,106
Mean food share of consumption expenditure (%)	77**	81**	80	78	5,106
Mean monthly health expenditure *per capita*	27***	14***	10***	23	5,106
Mean monthly education expenditure per child (6-17years)	125***	39***	31***	100	3,929
% HHs receiving external support (not food aid)	11	10	12	11	5,108
% HHs which currently have any cash savings	14***	3***	2***	11	5,107
% HHs currently in debt due to borrowing money	12**	6**	8	10	5,107
% HHs currently in debt due to buying on credit	53	54	66***	54	5,107

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Fully settled defined as the whole of the household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals.

4.2 Subjective poverty

The baseline survey looked at households' current poverty status and causes of poverty through a subjective lens, in addition to the objective measurement of poverty using statistical data, as discussed above. Subjective perceptions of poverty come from comparisons people make with other individuals in their communities with respect to wealth, access to resources, and so on. Subjective or self-assessed poverty is a useful indicator because it complements and triangulates measured indicators (such as income or income proxies) and because it can draw attention to other dimensions of poverty (such as vulnerability or food insecurity).

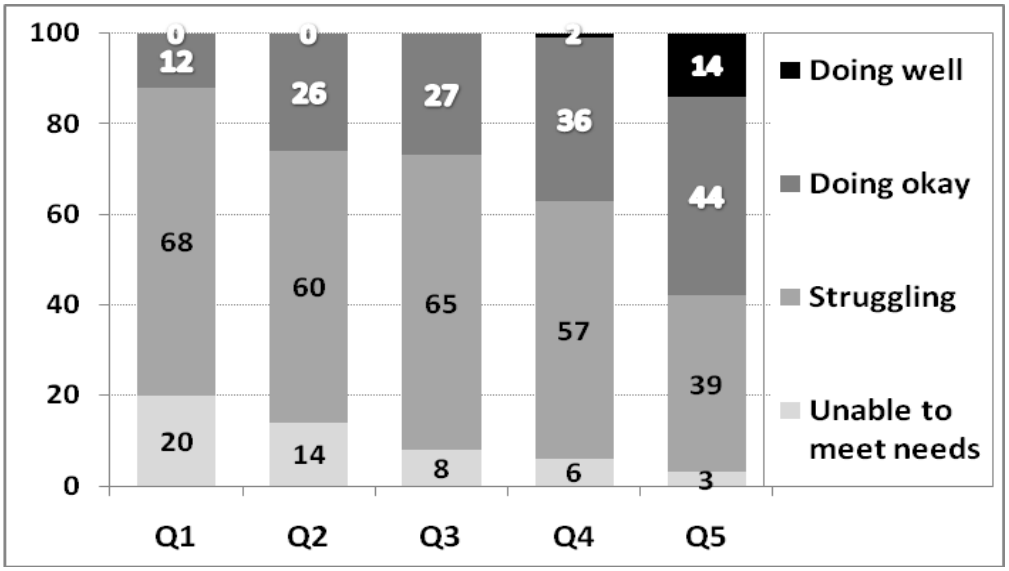
Overall, around two-thirds (68%) of households reported that they were struggling or unable to meet household needs at the time of the interview, with HSNP selected households significantly more likely to be struggling and unable to meet household needs than non-

selected households. Selected households were also more likely to state that they were doing worse now than in the past (see Table A4.2a).

There is a particularly significant difference in self-perceptions of poverty between selected and non-selected households in CBT communities. Around 72% of households selected in CBT areas indicated that they were struggling or unable to meet their basic needs compared to only 40% of non-selected households in these areas, implying that communities are relatively effective at identifying households that are vulnerable to food insecurity. A higher proportion of selected households (39%) compared to non-selected households (26%) in these communities also assessed their situation as worse now than in the past. A cross-district variation in self-perceived poverty is also notable. As shown in the Annex (see Table A4.2b), a significantly higher proportion of households in Wajir perceived themselves as poor compared to households in the other districts. Households in Wajir are also more likely to be doing worse now than in the past. Finally, there was no significant difference in these indicators between the control and treatment groups.

In order to compare 'objective' indicators of poverty against a 'subjective' proxy, Table 4.4 on the next page disaggregates self-reported poverty assessments by consumption expenditure quintile. The results confirm that subjective assessments are well correlated against household spending. For instance, 94% of households that classify themselves as "doing well" are located in the top two spending quintiles. The proportion of households self-reporting as "doing just okay" rises steadily from quintile to quintile (from 12% up to 44%), while the proportion that are "struggling" falls (from 68% down to 39%). Only 3% of top quintile households claim that they are "unable to meet household needs". Conversely, 88% of poorest quintile households are either "struggling" or "unable to meet household needs" (see Figure 4.3).

Figure 4.3 Subjective poverty assessment by consumption expenditure quintile



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Table 4.4 Subjective poverty assessment by consumption expenditure quintile

Indicator	Poorest ➔ Wealthiest Q1	Q2	Q3	Q4	Q5	Overall Estimate	N
Proportion of households reporting that they are "doing well"	0***	0***	1**	2	14***	3	5105
Proportion of households reporting that they are "doing just okay"	12***	26	27	36**	44***	29	5105
Proportion of households reporting that they are "struggling"	68***	60	65***	57	39***	58	5105
Proportion of households reporting that they are "unable to meet household needs"	20***	14***	8**	6***	3***	10	3966

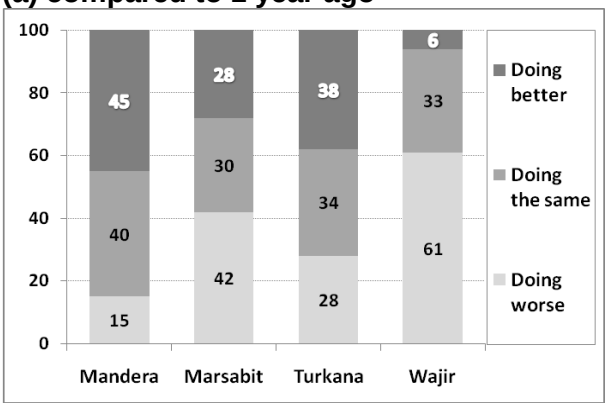
Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Consumption quintiles are defined according to the distribution of consumption expenditure over the study population such that each quintile contains 20% of the population.

Interestingly, subjective perceptions of poverty (from comparisons people make with other individuals in their communities with respect to wealth, access to resources, and so on) showed little difference between those who move and those who are settled: 71% of partially mobile households, 70% of fully mobile households, and 66% of fully settled households, consider themselves to be poor. These numbers are high, but lower than the 'official' poverty levels for these districts derived from the KIBHS 2005/06 survey data, which exceed 80%, and slightly higher than the US$ 1.25 poverty headcount in our sample of 65%.

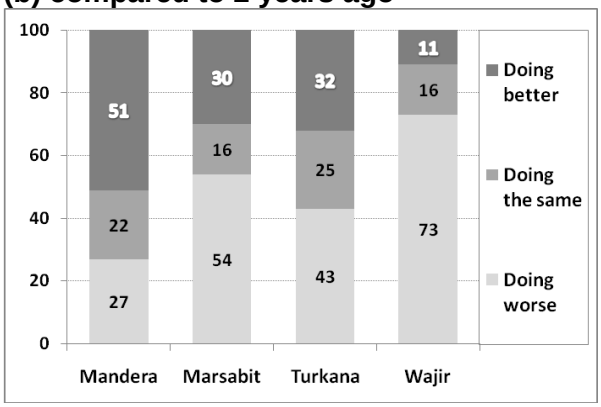
Some 36% of households reported that they were in a worse condition that one year ago, and almost half said that they were in a worse condition than two years ago (see Figure 4.4). Of those respondents who stated that they were doing worse now compared to the past, 83% indicated a loss or reduction in household assets as the main reason for being worse off (see Table A4.2c). Over 77% of respondents attributed the cause for being worse off to drought. There were no statistical differences between recipient and non-recipient households overall with respect the reasons and causes for being worse off. The proportion of households indicating drought as the reason for being worse off was significantly higher in Wajir compared to other districts.

Figure 4.4 Self-reported changes in household wellbeing, by district (% of households)

(a) compared to 1 year ago



(b) compared to 2 years ago



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

However, there appears to be a significant difference between households in the treatment and control groups, with 79% indicating loss or reduction in household assets (including livestock) as a reason for being worse off compared to 90% in the control group.

Of those households stating that they were better off now than before, a majority of them (61%) indicated an increase in household assets as the reason, although there were no significant difference between recipient and non-recipient households (see Table A4.2d). It is interesting to note that the proportion of households doing better, which give increase in assets as a reason for doing better, is significantly lower for recipient households in CBT communities. There was no significant difference between treatment and control groups.

Qualitative fieldwork also generated useful information about local people's perceptions of poverty – how poverty is understood, who is poor and not poor, why people are poor, and recent trends in poverty in the study area.

Wealth-ranking exercises in surveyed communities revealed consistent patterns. First, most communities identified four distinct wealth categories – rich, middle, poor and 'very poor'. Each group is distinct from the others on several characteristics, from consumption patterns to livestock ownership to livelihood profiles to housing (see Table 4.5 below). 'Rich' people are often defined by their ownership of livestock and assets ("at least 50 goats, 10 cows, three donkeys"; "a donkey cart"; "a shop"; "sometimes a truck"). Conversely, poor people are defined by their lack of assets ("he doesn't have any livestock"; "has totally nothing").

One community in Marsabit drew a distinction between two types of poor people: "The poor who are disabled or are too old to fetch for themselves, and the poor who are able-bodied and can engage in meaningful activities like casual labour" (female elders FGD, Marsabit). The second category was also described as "the searching poor".

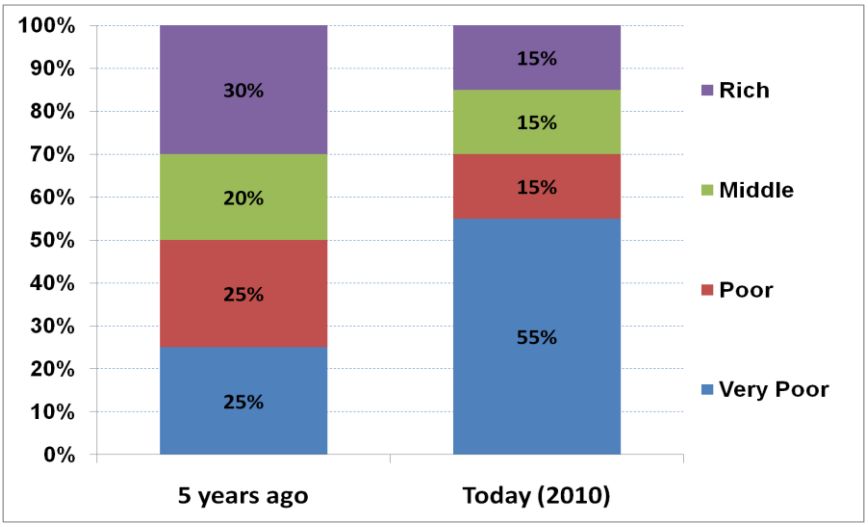
Table 4.5 Characteristics of different wealth groups, Mandera

Rich	**Poor**
Eat three times every day Have 40 goats + 10 cattle Have jobs or businesses Live in permanent houses	Eat once a day Have chickens + 2 goats Sell charcoal or firewood Live in grass houses
Middle	**Very Poor**
Eat twice a day Have 10 goats + 4 cows Their business is livestock Live in semi-permanent structures	Sometimes do not eat at all Have no animals Survive on food aid Live in shanty houses

Source: HSNP M&E Baseline Evaluation Survey, Qualitative Study, Sep 2009–Oct 2010.

A second consistent finding is that in several localities the 'very poor' category is either new or has increased dramatically in recent years. Similarly, in every locality, communities report that there has been a downward shift in economic mobility within the last five years, as observed in a contraction of wealthier groups and an expansion of poorer groups. (See Figure 4.5 from Mandera, which shows that the 'rich' group in this community halved from 30% to 15% in five years, while the 'very poor' group more than doubled, from 25% to 55% of local households). It must be emphasised that these are subjective findings; the numbers are indicative of general trends and perceptions rather than measured absolute changes.

Figure 4.5 Wealth ranking in Mandera



Source: HSNP M&E Baseline Evaluation Survey, Qualitative Study, Sep 2009–Oct 2010.

Qualitative fieldwork also revealed that people identify many causes of poverty, and many reasons for why economic stress has intensified in northern Kenya in recent years.

1. ***Poverty is related to drought***
   - *"We lost our livestock in the severe drought"* (male elder, Mandera)
   - *"Long time ago my family was rich because I had a lot of livestock – that's why my family is big – but now since the drought came my family is living in a poor situation"* (male beneficiary, Turkana)

2. ***Poverty is related to old age***

- *"I was better when I was not old. Now I am old and not capable of doing anything"* (female beneficiary, Mandera)

3. ***Poverty is related to ill health***
   - *"I categorise myself as poor because of my health problem – I only depend on relief food or any other assistance"* (female beneficiary, Marsabit)
   - *"During the rainy seasons, people and animals fall sick and die"* (male beneficiary, Turkana)
4. ***Poverty is gendered – widows are poorer than married women***
   - *"Life in the past was good as compared to the present, because I used to have herds of livestock when my husband was still alive, but nowadays we rely on food aid"* (female beneficiary, Turkana)
5. ***Poverty is exacerbated by lack of savings***
   - *"The poor are much affected by drought because they don't have savings like the others"* (female elders, Marsabit)
6. ***Poverty is related to food price inflation***
   - *"What worsened [from 5 years ago] are the food prices"* (male non-beneficiary, Turkana)
   - *"If we used to spend 100 shillings those days now we use 250 shillings a day"* (female beneficiary, Marsabit)
7. ***Poverty is caused by livestock raiding***
   - *"These days many rich people have become poor due to cattle rustling"* (female elder, Turkana)
8. ***Poverty is related to seasonality***
   - *"The dry season is much worse because we can lose our life to starvation"* (male beneficiary, Turkana)
   - *"When the rain comes we get milk from the animals and we can sell to buy food, while during the drought the animals are weak and give no milk and some even die"* (female beneficiary, Wajir)
9. ***Good times are related to rain, food aid, and employment***
   - *"All is good when it rains"* (female beneficiary, Marsabit)
   - *"Hunger goes away when there is plenty of rainfall and when we receive food aid"* (female beneficiary, Mandera)
   - *"If one's child gets a job"* (male elder, Mandera)

5 Food security

Diets in northern Kenya are dominated by cereals, milk and pulses (e.g. beans). Dietary diversity – an indicator of food security – is lowest among SP households. The most important source of food for the survey population is market purchases, which means that food prices – which are higher and more variable in northern Kenya – are an important determinant of household food security. It also means that the purchasing power of HSNP cash transfers needs to be closely monitored. Food aid is the second most important source, but while food aid might be needed to protect subsistence in the short-term, it cannot be seen as a long-term strategy for promoting food security in this region. Self-production of food is very limited, because opportunities for farming are very constrained in this ASAL area. Although seasonal food insecurity is significant, 'coping' and adaptation in this marginal and risky environment are needed all year round by all households, even the wealthiest.

5.1 Diets

The main food groups consumed in northern Kenya are cereals (maize, bread and pasta), minor foods (salt, spices, oils, fats and sugar), milk products, pulses (e.g. beans), legumes and nuts, and less frequently meat. The prices and availability of these items have critical consequences for wellbeing, and adverse price and availability conditions or changes force households to alter their normal livelihoods or rely on food aid or other support.

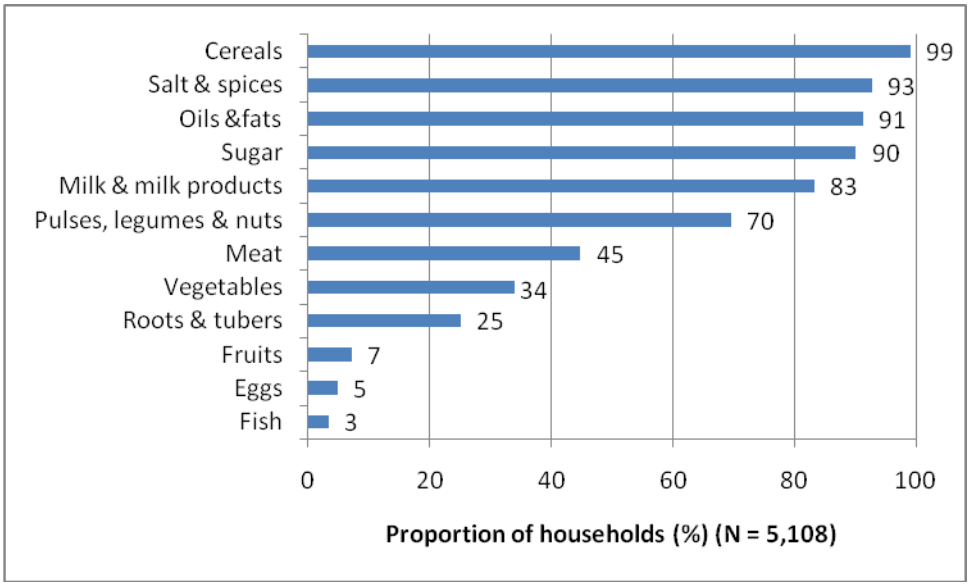
A more diverse diet is associated with higher food consumption, and dietary diversity is therefore often used as a proxy for household food security (see Table A5.1a). Empirical studies have shown that simply summing the number of food groups consumed by a household can reflect whether the household is food secure or food insecure (Hoddinott and Yohannes, 2002).

Figure 5.1 provides an overview of the average diet in the study area, by showing the types of food consumed by households in the seven days preceding the interview. Different food items consumed have been aggregated into 12 food groups and ranked, where consumption of at least one food item from a specific group counts as the household having consumed that food group.

Cereals (e.g. maize, bread and pasta) are eaten almost universally, with consumption rates well above 90% across all household categories. Oils and fats and sugar are also important sources of calories (they are eaten by 80–100% of households). Milk and milk products were consumed by 70–90% of households and pulses (e.g. beans), legumes and nuts consumed by 60–70%. Meat was consumed by only 45% of the full sample, vegetables by 34% of households and roots and tubers by 25% of households. These figures are rather lower than might be expected, but not as low as for fruits, eggs and fish, which are each consumed by less than 10% of households. From this, we can conclude that diets in the study area are dominated by cereals, milk and pulses or legumes, with meat being an occasional item (although meat consumption can increase when livestock are dying from drought).

Diets vary across districts (see Table A5.2b). Fish is only consumed in Turkana (11% of households). Turkana also has the highest meat consumption (56%), with almost twice as many households eating meat there compared to Wajir (29%), where meat consumption was lowest. Pulses and legumes and roots and tubers are most widely consumed in Marsabit. Sugar consumption is much lower in Turkana, possibly because tea and coffee are consumed by fewer people in Turkana than in the other districts.

Figure 5.1 Dietary diversity for all households in the last 7 days



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

To the extent that diet is a robust indicator of a household's relative poverty or wellbeing, a comparison across targeting mechanisms can reveal which mechanism is most effective at identifying poor households. Meat consumption is often considered an indicator of relative wealth (however, meat consumption was sometimes high due to consumption of animals that have died from drought), and it is interesting to observe that meat is the only food group with a significant overall difference between selected and non-selected households. Looking in more detail, we find that this difference is significant within both SP and CBT households, but not for DR households.

A small number of other food types are consumed significantly less by selected households than by non-selected households for one of the three targeting types, but there appears to be no systematic pattern in these results. However, in terms of broad trends, DR targeting stands out: 11 of the 12 food groups are consumed *more* by households selected using DR targeting, suggesting they actually eat better than other households, which raises questions about whether this targeting mechanism is selecting poorer households.

Dietary diversity scores are a simple means of assessing household food security status. Simply summing the number of different food groups consumed is a surprisingly robust indicator of household wellbeing. In Table A5.1a, the mean dietary diversity score represents the average number of food groups consumed in the last seven days, and its value can range from zero (no food groups consumed) to 12 (all food groups consumed). The average dietary diversity score across all 5,108 households is 6.5. By district, dietary diversity is highest in Marsabit (7.1), and lowest in Turkana (5.7) (see Table A5.1b). These differences are statistically significant.

Across targeting mechanisms, selected SP households have the lowest dietary diversity (6.0). Further, SP targeting is the only targeting mechanism where dietary diversity is significantly lower for selected households. Selected CBT households also have lower diversity than their non-selected counterparts, but this difference is not significant. On the other hand, although the difference is again not significant, DR households have *higher*

dietary diversity scores than non-selected households – another indicator that DR targeting might not be selecting the poorest households.[27]

Although the food groups are not directly comparable, a study from Haiti in 2005 classified dietary diversity as being 'low' if households consume less than four food items a day, as 'borderline' if they consume five or six food items a day, and as 'high' if they consume seven or more items a day (WFP, 2005). By this classification, most households in the HSNP study area have borderline dietary diversity.

Dietary diversity is usually a robust indicator of a household's relative poverty or wellbeing. However, a comparison across mobility categories could reveal lifestyle differences in the project area (see Table 5.1). Overall, partially mobile (5.6) and fully mobile (5.3) households ate significantly less food groups than permanently settled households (6.8). Permanently settled households ate significantly more eggs, fruit, roots and tubers and vegetables than mobile households. However, it is likely that fully mobile households find it harder to access these products because they live in such remote areas, rather than not eating them because they are poor.

Meat consumption is often considered an indicator of relative wealth, and it is interesting to observe that meat is eaten by more permanently settled households (48%) than by those who migrate (36% of partially mobile and 35% of fully mobile). This is significant.

Milk has traditionally been a core food group for mobile pastoralists and its availability is used as an indicator of food insecurity. Milk consumption was high across the categories (82–90%) and the differences were not significant:

Table 5.1 Dietary diversity by mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Esti-mate	N
% households that consumed in the last 7 days:					
cereals and cereal products	99	98	99	99	5,108
eggs	6***	0.9***	1***	5	5,108
fish	4	1	0	3	5,108
fruit	10***	0.6***	0.1***	7	5,108
meat	48*	36	35*	45	5,108
milk and milk products	82	86	90	83	5,108
oils or fats	93**	84**	89	91	5,108
pulses, legumes or nuts	74**	70	35***	70	5,108
roots and tubers	34***	4***	0.2***	25	5,108
salt or spices	93	90	94	93	5,108
sugar	91	85	90	90	5,108
vegetables	45***	6***	2***	34	5,108
Mean dietary diversity score (between 0 and 12)	6.8***	5.6***	5.3***	6	5,108

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Fully settled defined as the whole of the

[27] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals. (4) Dietary diversity score = number of food groups consumed by the household (maximum possible is 12).

5.2 Food sources

This section provides information on the reliance of households in the programme area on cereal markets and how they are affected by market volatility, resulting in periods of acute hunger.

Contrary to the popular perception that rural households in Africa produce their own food to meet most of their needs, most actually depend heavily on the market for at least part of their food supplies. This is made clear in Table A5.2a, which shows that purchase is the primary source for foodstuffs for around 55% of households at all times of year. Self-production is the primary source of food for only 15% of households even in rainy seasons, and for less than 5% of households outside rainy seasons. Food aid is the primary source of food for around a third of households. In agricultural areas, farmers interact with markets through sale of crops at harvest time and purchasing (sometimes the same crop) during lean periods. However, in pastoral areas, which are too arid for significant crop production, the relationship with the market is different: households rely on markets for the outflow of livestock products and the inflow of food commodities.

Consumption of cereals has increased substantially in the programme area over the past 20 years. Little *et al.* (2008) report that even herders depend on purchases of grains, sugar and other foods, especially in dry seasons when pastoral foods are in short supply. The change in diet away from purely livestock-based consumption gives favourable terms of trade to livestock producers, because selling livestock allows about five times as many calories to be purchased in the form of cereals as if the meat was consumed (Degen *et al.,* 1998). But while the calorific terms of trade (livestock/cereals) generally favour livestock producers, they vary over time due to fluctuations in both livestock and grain prices (Little, 2010).

Livestock markets vary according to rainfall and pasture conditions, as well as other reasons.[28] Food commodity markets are vulnerable to seasonal price hikes, which alone play an important role in causing hunger (Devereux *et al.,* 2008). While there are risks in both markets, the challenge for pastoralists is that the prices of commodities are highest when conditions are most difficult and livestock prices plummet. In fact, the effect of market volatility (in both cereal and livestock markets) in the programme area is such that it is a good predictor of acute malnutrition (de Matteis, 2006).

Respondents were asked to provide information on the food shortages that they experienced throughout the year. As all districts use calendars other than the Gregorian and recall was difficult over a 12-month period when details of specific months were requested, it was not possible to ask questions about food availability by month. Instead, the year was divided up into four periods, clustered around the rains. There are two rains in the north of Kenya, the long rains, which usually span April to June and the short rains, which span October to December. The periods in between the rains completed the four clusters, as shown below.

During the Short Rains	Before the Long Rains	During the Long Rains	Before the Short Rains
October - December	January - March	April – June	July - Sept

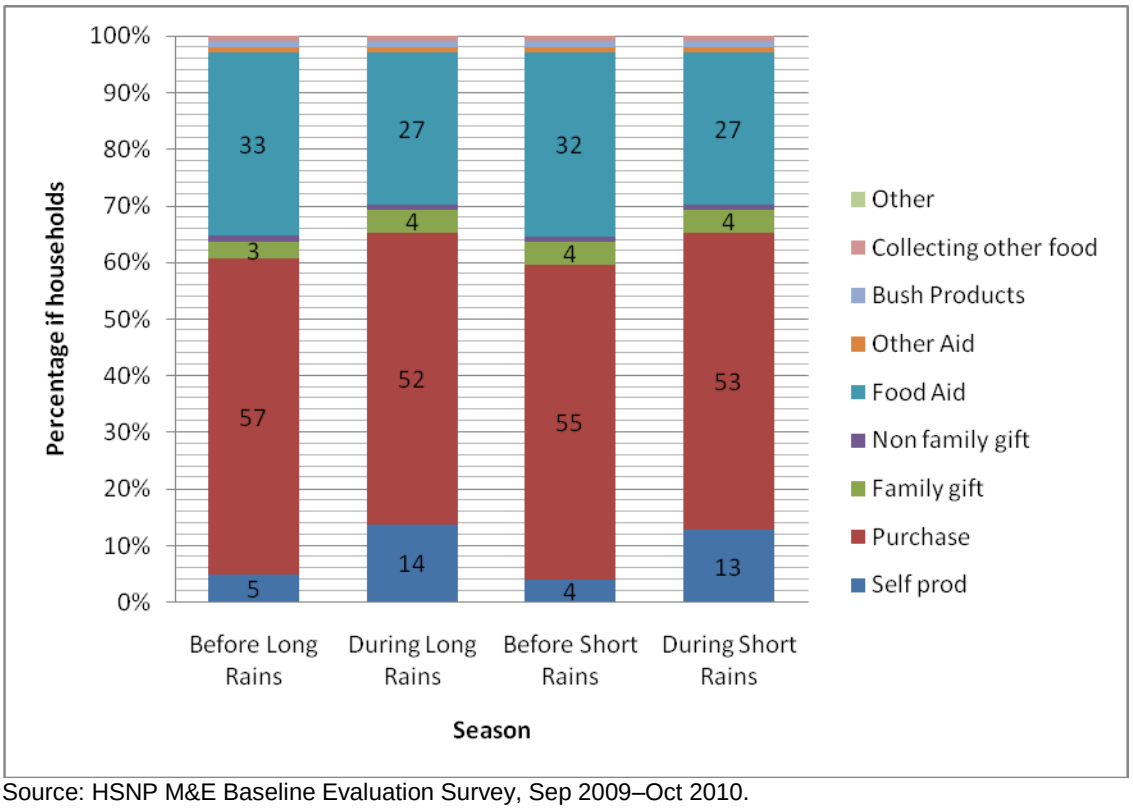
[28] See Barrett and Luseno (2004) for a comprehensive analysis of price risk in livestock markets.

The usual 'hungry period' in the north of Kenya falls between January and March and is the period before the long rains. This was reflected by findings that 38% of households indicated that the most acute food shortage was before the last long rains, more than for any other season (see Section 5.3 below).

At all times of year, purchase or barter was the primary food source for more than half of households, and food aid for more than 30%. During the rains, however, relatively more households relied on their own production (but only up to 15% of all households) and relatively fewer households relied on food aid (but only down to 30% of all households). During the dry seasons, only 5% of households obtained food primarily from their own production, and around 35% primarily from food aid. The proportion of households obtaining food primarily from purchase/barter remained stable at around 55%, and other sources of food remained primary only for a small proportion of households. A very small proportion of households indicated their primary source of food to be gifts from relatives (around 3%) and a much smaller proportion (less than 1%) indicated receiving gifts from other households.

These findings – particularly the fact that relatively few households relied on their own production to fulfil their dietary needs directly – confirm the vulnerability of households to price hikes in cereal markets in a region where prices are already above the national average. They also underscore households' reliance on food aid at all times of year – and only slightly more during lean seasons (see also Table A5.2a).

Figure 5.2 Primary food source by season



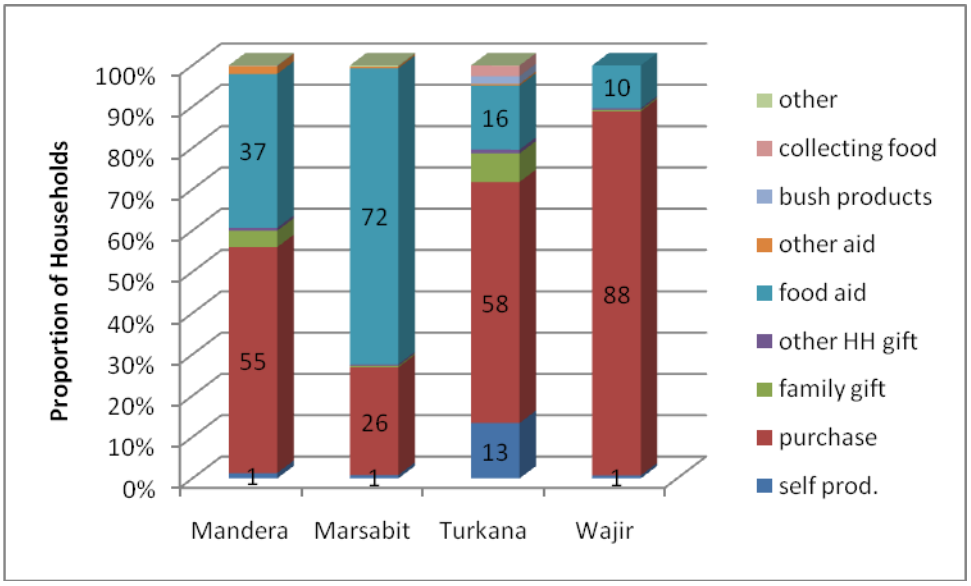
Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Figures 5.3 and 5.4 show that there are significant variations in this aggregate picture by district (see also Table A5.2c). In Wajir, 88% of households primarily purchased or bartered food and only 10% primarily received food aid. In Marsabit, in contrast, 26% of households primarily purchased or bartered food, and 72% of households relied on food aid. This high use of food aid as a primary source of food in Marsabit tallies with data presented below showing that 91% of households in Marsabit receive food aid, but only 50% in Turkana (see

Section 5.4 for more discussion on food aid). In Turkana, a significantly greater proportion of households relied on their own production as a primary source of food (13% of households, compared to between 0.7% and 1.3% of households in other districts), and on gifts from relatives (7%, compared to 0.4% in Wajir and Marsabit).

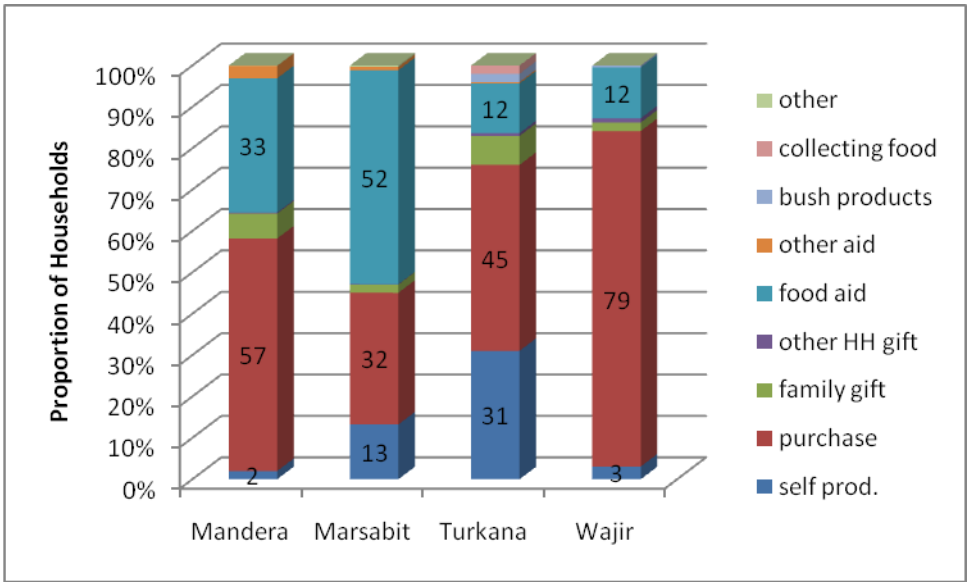
This pattern was broadly sustained in other seasons. In Turkana, a significantly higher proportion of households normally relied primarily on own production and on gifts from relatives. In Wajir, a significantly higher proportion of households relied primarily on purchasing or bartering. In Marsabit, a significantly higher proportion relied primarily on food aid (households in Marsabit received more food aid compared with other districts – see Section 5.5).

Figure 5.3 Primary food source before the last long rains, by district



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Figure 5.4 Primary food source during the last long rains, by district



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

These three food sources (purchase, food aid and own production) were also typically the secondary source of food for most households (see Table A5.2b). Own production again was most common even as a secondary source of food in Turkana. Just under half of households in Mandera and Marsabit indicated purchase as their secondary source of food in most seasons, and food aid was most commonly the second source of production for more households in Wajir. Obtaining gifts from relatives was the secondary source of food for around a quarter of households in Turkana throughout the year (see Table A5.2e).

Reliance on different food sources also varied by beneficiary status. Significantly more households selected for the programme relied on food aid (between 31% and 39% depending on season) as their primary food source compared with those not selected (around 25%), and significantly fewer households selected by the programme relied on purchased food (48%–51%) compared with those not selected (47%–63%). Interestingly, significantly more CBT households (69%) relied on purchased food during the long rains and significantly fewer relied on food aid (22%), compared with SP and DR. This pattern was repeated across other seasons, but was not always significant.[29]

The data on food source present some occasional differences by randomisation of treatment status, but only in isolated cases.

Interestingly, market purchase is the primary source for foodstuffs for both permanently settled and fully mobile households, but partially mobile households follow a quite different pattern (see Table A5.2d). They rely mainly on food aid throughout the year, with market purchase of food being secondary, followed by own production. This reliance on food aid is in line with data presented below, showing that significantly more partially mobile households received food aid and over a longer period than permanently settled and fully mobile households.

Partially mobile households keep their livestock far from town during the dry season, which is why they rely less on livestock products during these periods (6% before the long rains and 7% before the short rains). During the rains, the livestock come back to town, so the owners have access to livestock foodstuffs and the proportion of households relying on own production increases (24% both during the last long rains and the short rains).

Mobile households are always found with their herds, yet their reliance on livestock products is lower than on both purchased food and food aid. This finding is supported by other studies in the Horn of Africa that have found pastoralists relying increasingly on purchased cereals and other non-livestock sources of food (see Devereux 2006 on Somali Region, Ethiopia). In addition, herds have not been productive during the survey period due to lack of grazing and water, and *Peste des Petits Ruminants* (PPR).

5.3 Seasonal food availability

At any time of year, over 50% of households in the sample reported experiencing a food shortage (see Table A5.3a). Food shortages affected a higher proportion of households during dry periods, mirroring the lower proportion of households using their own production as a primary food source during these periods. During dry periods, food shortages seem to affect every household equally: there were no differences by beneficiary status. During the rainy seasons, however, selected households were significantly more likely to have a food shortage (58% compared to 53% during the long rains and 56% compared to 47% during the short rains).

[29] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

There were substantial variations in the proportion reporting food shortages by wealth quintile and by district. Households in poorer wealth quintiles were significantly more likely to be short of food, particularly during the dry periods when 80% of households in the poorest quintile were short of food (compared to just over 40% in the richest). During the rainy seasons, the differences were still present but more muted (61% to 66% of the poorest and 38% to 41% of the richest households reported food shortages) (see Table A5.3b).

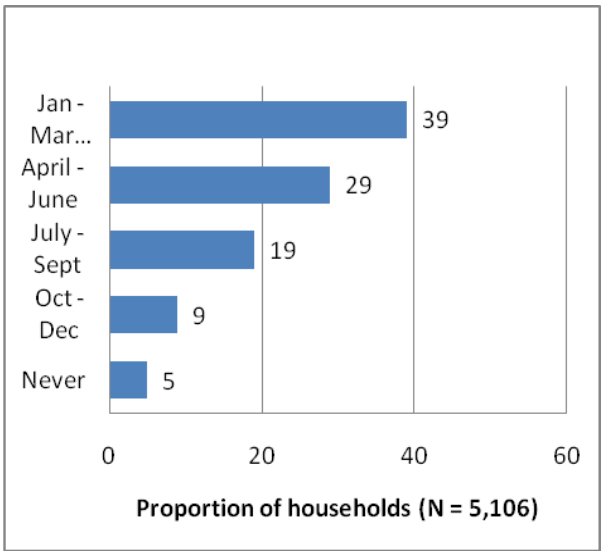
Households in Turkana were significantly more likely than in other districts to be short of food in every season, and households in Mandera significantly less likely, with the biggest variations during the dry seasons. For example, before the last long rains, 85% of households in Turkana reported food shortage, but only 31% in Mandera. Households in Wajir tended to be short of food, most strikingly during the last long rains, when 83% of households were short of food (see Table A5.3c).

As stated above, the usual 'hungry period' in the north of Kenya falls between January and March and is the period before the long rains. The findings confirm that the most severe food shortage is experienced during this period (39% households) (see Figure 5.5a). Although it is worth noting that 29% of households also reported the most acute food shortage during the long rains (April to June), which suggests a carry over from the hunger season (it takes time for things to get better).

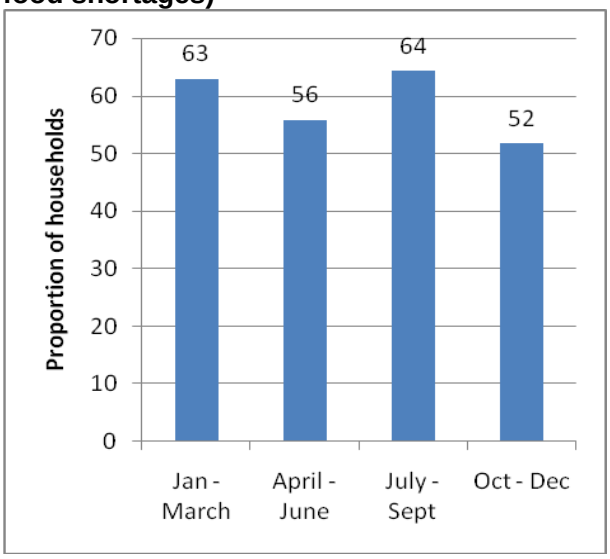
Although there is a specific period when food shortages are most severe (Jan to March), there are widespread food shortages experienced throughout the year. The food shortages are most prevalent before the rains (63–64% of households reported a food shortage before the long rains and short rains). However, 52–56% of households experience food shortages during the rains, reflecting the widespread food insecurity in the project area (see Figure 5.5b).

Figure 5.5 Seasonal food shortages and period of most acute hunger

(a) Period of most severe hunger



(b) % Households who experienced a food shortage during each season (prevalence of food shortages)



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

During the Short Rains	Before the Long Rains	During the Long Rains	Before the Short Rains
October - December	January - March	April – June	July - Sept

This is reflected in the qualitative findings:

> *"During the dry period we experience severe starvation and that gives us enough misery"* (female beneficiary, Turkana)

> *"The major problems we face are lack of food and water during drought seasons but all is well during the rainy season"* (female non-beneficiary, Marsabit)

> *"My main fears are security, food shortages. The main fear of insecurity is tribal clash, raiding; this use to exist both during rainy and dry season, but food shortage mostly come during dry seasons"* (male non-beneficiary, Marsabit)

The period of most acute food shortage varied significantly across the four districts. This may reflect the different rainfall patterns across the districts, as well as differences between the previous years and the reporting year.[30] Turkana and Marsabit showed similar patterns of food shortage, with the majority of households indicating that the worst period was before the last long rains (41% and 79%, respectively). The second period of shortage was before the last short rains (26% and 10%, respectively). In Wajir, the hardest period by far was during the last long rains (77%), followed by the period before the last long rains (12%). However, in Mandera, the worst period for households was before the last short rains (34%), followed by during the last long rains (25%).

As with coping strategies, there were very few differences between those selected and those not selected for the programme in terms of periods of acute food shortages. Significantly fewer households that were selected (3%) had no period of acute shortage compared to those not selected (6%).

Unsurprisingly, significantly more households in the bottom two quintiles reported that the period of greatest food shortage was before the long rains (49% and 44%, respectively). However, 25% of households in the wealthiest quintile also reported food shortage during this time, although for the wealthiest group, the period of greatest shortage was during the long rains (36%). The qualitative data provided an indication of the levelling effects of drought.

> *"We are so much affected by abject poverty our life stocks are all wiped away by drought both the rich and the poor are equal"* (trader, Marsabit)

> *"Due to this prolonged drought the living standards for many of our families are extremely low. Many animals have died and for quite long time we have stopped planting due to famine. In many areas each and every family are in the same situation, you cannot tell one is better than the other"* (male beneficiary, Marsabit)

Only 5% of households reported that there was no acute period of food shortage for their family. This also varied significantly by district, with 10% of households in Mandera claiming not to have had any period of food shortage compared with 0.4% of households in Wajir.

Hunger is related not only to seasonal changes but also to health.

> *"You can get food only when you are healthy. When sick and incapacitated to work makes your family starve"* (male beneficiary, Turkana)

[30] Respondents were asked to recall food shortages over the last 12 months.

As described above, during the dry season partially mobile households generally keep their livestock far from town, where there is grazing. Therefore, the livestock are not around during the hungry period (January to March) and for 53% of partially mobile households, this is the time of severe food shortages. For mobile households, the period of acute food shortages was during the long rains (55% of households). This is likely to be due to the time lag between the rains arriving and the sale of animals that are ready for slaughter, which means that cash to purchase food is only available at the end of the long rains (see Table A5.3d).

5.4 Food prices

Prices are much higher in the programme area compared with other parts of Kenya because cereal markets in pastoral areas are dependent on trade inflows, are poorly integrated and carry substantial transaction costs. The high costs are attributed to a combination of a poor trade infrastructure, rising fuel prices and long distances from the maize production areas. According to the Short Rains Assessment 2010,[31] the price of maize ranged from KES 18–22 in the key growing areas, to KES 20–30 in the marginal agricultural livelihood zones and KES 30–45 in pastoral markets, between September 2009 and December 2010. The high prices found in the HSNP programme area are in line with this assessment report. The mean price of maize in Wajir was KES 30 per kg, KES 33 in both Mandera and Marsabit and a significantly higher average of KES 45 per kg in Turkana (see Figure 5.2 and Table 5.2).

In addition, prices increase along the trade flow. A study in Turkana in 2006 found that the average rate of increase between source markets out of the district and Lokichoggio (the most remote major market in Turkana) is around 40–50%, with peaks of up to 80% in some commodities such as beans (de Matteis, 2006). Such average rates can increase at final markets such as Lokitaung, where the highest prices were recorded.

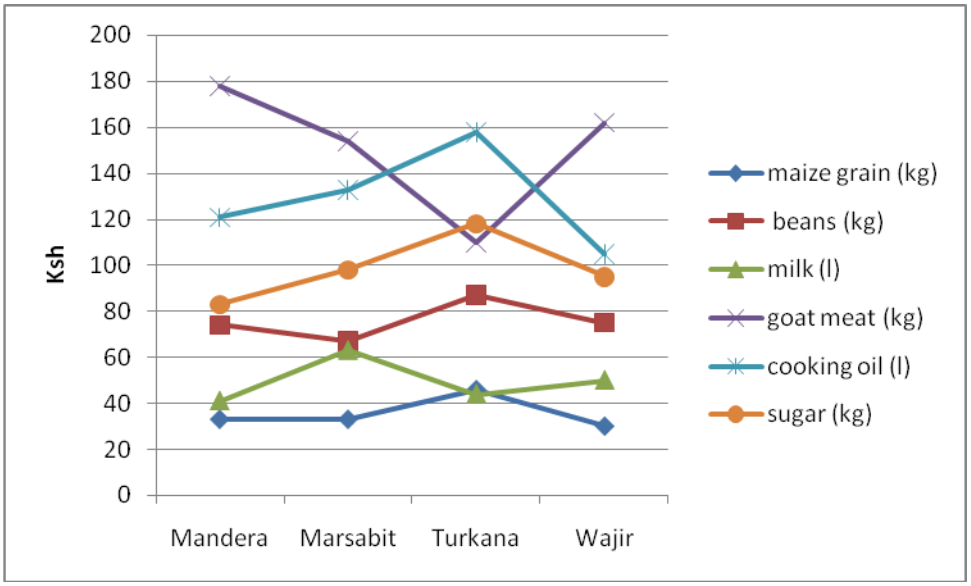
Price increases were noted in the qualitative research:

> *"In the past the cost of commodities was at least cheap even people were not more and the prices were not high like this. In the past you would afford KES 10 flour and KES 20 too. Nowadays, KES 10 is like you don't have money not mentioning KES 5"* (female non-beneficiary, Turkana).

The same pattern was recorded for other commodities not produced in the area, with all prices significantly higher in Turkana – KES 87 per kg beans (KES 66 in Marsabit and KES 76 overall), KES 158 per litre of oil (KES 105 in Wajir and KES 129 overall) and KES 117 per kg of sugar (KES 83 in Mandera and KES 99 overall).

[31] Government of Kenya, Kenya Food Security Steering Group.

Figure 5.6 Prices of main food commodities, by district

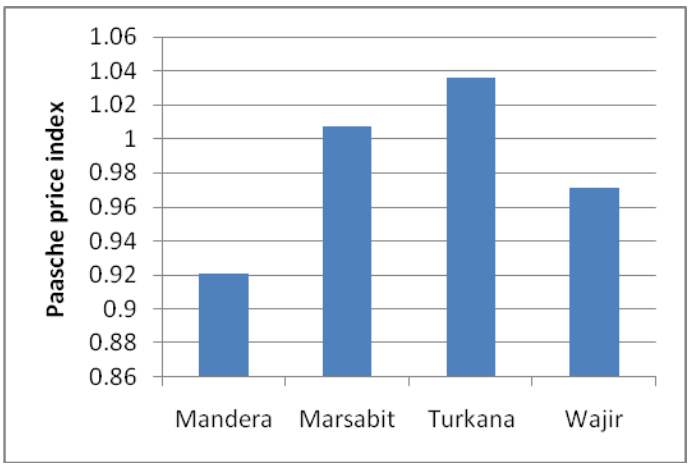


Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Livestock products do not follow this pattern. The price of milk was significantly higher in Marsabit (KES 63 per litre) compared with KES 41 in Mandera and KES 44 in Turkana. This was probably because sample sites were close to Marsabit Town, so transport costs from rural areas drove up the price. Goat meat was cheapest in Turkana (KES 110 compared to an average of KES 151), reflecting the low value of Turkana livestock compared with meat from the north east (KES 178 per kg in Mandera).

The Paasche price index was calculated to measure food and non-food price levels for each sub-location (see Figure 5.7). These were then averaged across by districts and treatment and control groups. It is constructed taking into account the price of items in the consumption bundle and the budget share of each item in household consumption in each sub-location. It therefore allows for different consumption patterns in different places. The index provides a guide to relative prices, with a higher index meaning higher prices. The index confirms that overall prices are significantly higher in Turkana (1.036) and significantly lower in Mandera (0.921).

Figure 5.7 Paasche Price Index, by district



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Table 5.2 Food prices by district, major commodities

Indicator	By (greater) district				By treatment status		Overall	
	Mandera	Marsabit	Turkana	Wajir	(type A Treatment group HHs)	(type B Control group HHs)	Estimate	N
Mean price of maize grain (kg)	33	33	46***	30***	35	37	36	48
Mean price of beans (kg)	74	67***	87***	75	78	74	76	48
Mean price of milk (l)	41**	63***	44	50	48	51	49	48
Mean price of goat meat (kg)	178**	154	110***	162	150	152	151	48
Mean price of cooking oil (l)	121	133	158***	105***	131	127	129	48
Mean price of sugar (kg)	83***	98	118***	95	98	99	99	48
Paasche price index	0.921**	1.007	1.036**	0.971	0.976	0.992	0.984	48

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%.

5.5 Food aid

Relief assistance has been provided in the north of Kenya since the 1930s (Lind, 2007). It has become the primary response to both chronic and transitory food insecurity for people who live in ASAL areas. They require assistance every year to meet their basic food and non-food needs. Between 1999 and 2010, the government and the WFP have jointly undertaken emergency programmes every year except one.[32]

It has been argued that food aid delivered to northern Kenya is largely supply-driven and so quantities of relief do not necessarily reflect food insecurity or household requirements.

Overall, 70% of households interviewed were food aid recipients (see Figure 5.8a and Table A5.5a). Of those, households that were selected for the programme were significantly more likely to receive food aid (76%) compared to those households that were not selected (63%). This result was driven by SP households, 91% of which received food aid compared to 67% of households who were not selected for the programme in SP sub-locations. CBT beneficiaries were also significantly more likely to receive food aid (72%) compared to those not selected (60%). In some sub-locations, committees responsible for CBT targeting purposefully selected households for HSNP that were not food aid recipients in order to share the resources as widely as possible, whereas in other sub-locations this was not the case – it seems not to have been the case overall.[33]

Food aid was reasonably well targeted by wealth (see Figure 5.8b). Households in the poorest quintile (Q1) were significantly more likely to receive food aid (78%) compared with the other quintiles. 52% of households in the wealthiest quintile received food aid. However,

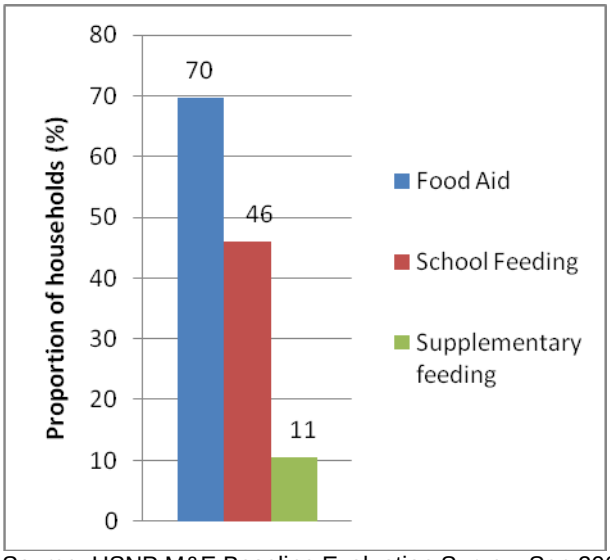
[32] Kenya Joint Assistance Strategy 2007-2012.

[33] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

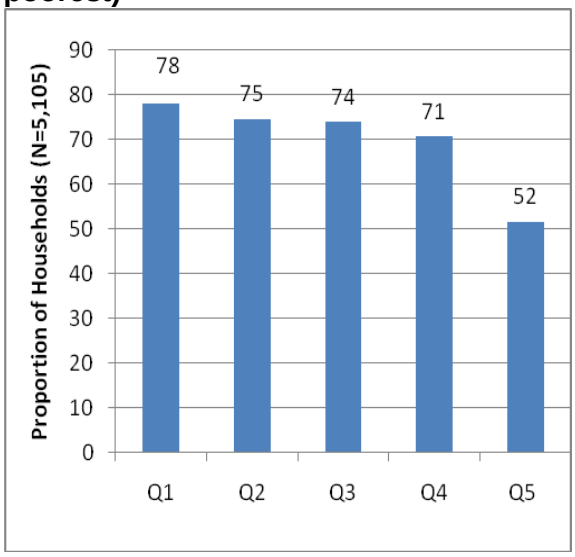
it should be noted that household consumption levels will in part reflect the effect of the food aid and some households may have been moved into higher quintiles as a result of receiving it (see also Table A5.5b).

Figure 5.8 Food aid received and by quintile

(a) Food transfers received by HH



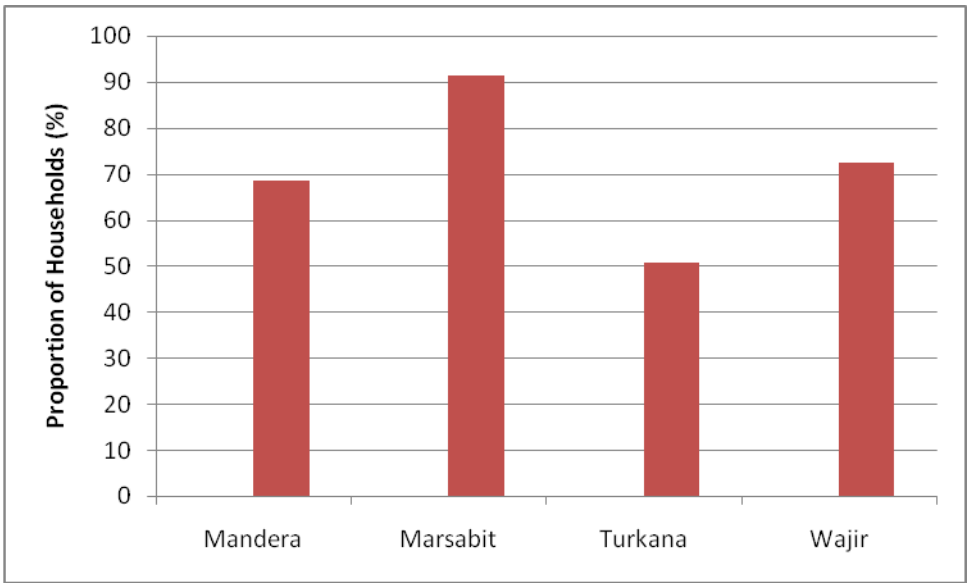
(b) Proportion of households receiving food aid by consumption quintile (Q 1 is poorest)



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Unexpectedly, significantly more households in Marsabit received food aid (91%) compared with Turkana (51%) (see Figure 5.9). Food aid recipients in Marsabit also received food aid for more months (7) than in Turkana (5.5) or on average (6.3). However, households in Turkana that received it appeared to receive a larger amount than the other three districts, although WFP claim to have distributed the same ration sizes across districts. The mean monthly amount was worth KES 1,586, compared with KES 674 in Mandera and KES 1,157 overall (see Table A5.5c).

Figure 5.9 Proportion of households receiving food aid, by district



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

There was a difference by randomisation status: while 69% of households in treatment locations received food aid, 85% of households in treatment locations received food aid, significant to 10%.

Respondents were asked about receipt of school feeding. This included WFP school feeding, as well as any other kind of meals that children receive at school, including boarding school. If this is adjusted to account for households without children, we find around half of those households with children receive some kind of school food (again, see the Annex tables A5.5a to A5.5c for more detail).

Significantly more partially mobile households receive food aid compared with the other two mobility categories (see Table 5.3). 87% of partially mobile households received food aid for seven out of the 12 months prior to the survey, which suggests that their poverty levels are recognised by relief committees. There was very little difference between the mean monthly value of the food aid received across the categories (KES 1,157 overall).

Significantly fewer fully mobile households (24%) received school feeding, compared with permanently settled (50%) and partially mobile (44%) households. This is likely to be because there are fewer children from fully mobile households at school (see Section 8.2). The mean value of the school food received is also significantly lower for fully mobile households (KES 763 per month), compared with that received by permanently settled households (KES 1,172).

Table 5.3 Food aid by mobility status

Indicators	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Esti-mate	N
Food aid					
% HHs receiving food aid	66***	87***	69	70	5,107
Mean number of months food aid being received	6	7	6	6	3,966
Mean monthly value of food aid *(as reported by respondents)*	1,162	1,104	1,241	1,157	3,966
School feeding					
% HHs receiving school feeding	50**	44	24***	46	5,107
Mean number of months of receiving school feeding	8	8	8	8	2,345
Mean monthly value of school feeding programme *(as reported by respondents)*	1,172**	811	763**	1,092	2,345
Supplementary feeding					
% HHs receiving supplementary feeding	11	11	6**	11	5,107

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Fully settled defined as the whole of the household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals. (4) There are insufficient observations for the mean number of months and value of supplementary feeding received to be disaggregated by mobility status.

5.5.1 Food aid and HSNP compared

Qualitative fieldwork also provides information on food aid. Respondents typically commented on the delays in getting the food aid as well as the inadequate amounts of food aid they received.

During the discussions, respondents were also asked to compare the HSNP assistance to the current food aid programmes within their respective districts. Across all districts, two main categories of views emerged. First, the majority of respondents expressed a feeling of indifference when comparing HSNP to other food aid programmes because they believed both programmes were good or that they had yet to see the benefits that the HSNP would bring and therefore could not compare.

> *I think both of them are important, because you use the money to buy food or save the money if you get the food* (trader, Mandera).
>
> *Until we see what we will get from HSNP we are not ready to compare it with relief food* (female beneficiary, Marsabit).
>
> *With HSNP we can't comprehend anything because we still haven't received their money* (male beneficiary, Marsabit).

Second, there were some respondents who said outright that they preferred HSNP because the *"cash gives us choice on what to buy"* (male beneficiary, Marsabit).

> *I think HSNP is better because with the money you can afford you anything and it will help you do so many things like improving your businesses or even save* (Relief committee member, Mandera).
>
> *Speaking from experience I think money is better because most of the time when foodstuffs are given people tend to sell them at a cheaper price so that they get money to buy other things and the other thing is that food given are of low quality and quantity* (trader, Marsabit)

5.5.2 Food aid and livelihoods

Although many people mentioned receipt of food aid as a source of livelihood, it does not generally appear to affect overall choice of livelihood strategies adopted or undertaken, i.e. most people explained it was too little to meet needs and they still needed to work at other activities. This is in keeping with the quantitative findings that food aid was the primary – but not only – source of food for around a third of households:

> *It doesn't make much difference because we still need something else* (casual labourer, Mandera)
>
> *Even this food does not allow [stopping other work] because it is one type of food. Initially they would bring lentils, rice and other foods and now you have to work hard and provide for other family needs* (male beneficiary, Turkana)
>
> *No, we do our activities as normal. It doesn't affect it because what we get from the relief people is the food and we still need something to buy sugar and salt* (female beneficiary, Mandera)
>
> *We don't leave our usual farming because of getting food aid. We usually balance between food for work and our farms. We can work for the food for work program and slot the evening on our farms. We appreciate the fact that the programme is helping us and it's the stepping stone for success in our farms. We cannot depend on aid always*

because we are wary of what may happen to us when they stop the aid. Our farms are the priority (farmer, Turkana)

Everybody knows very well that food aid is there for a little time and it can disappear anytime. So everybody continues with daily chores to supplement food aid (female beneficiary, Turkana)

Only in a few cases did respondents mention that people would not do other work or activities and rely solely on food aid:

There are times we leave the casual jobs available and we relax because we do not know when the food aid will stop. When food is available in my house, I will not struggle in selling few animals I have. I will allow them to stay for future options (female beneficiary, Marsabit)

However, most respondents across the districts did explain that the actual distribution and receipt of food aid can affect people's daily routines due to its location and/or its duration:

Nobody remains to take care of some animals. Sometimes the wife might have a small child and it makes life difficult for her and me (male beneficiary, Turkana)

When the food comes we leave other work for that day and attend to the food (female beneficiary, Turkana)

Small businesses and traders can be affected both negatively and positively by food aid distribution. In some cases, sales in kiosks or stores decline in particular goods, especially those being distributed, although opportunities also increase in some cases:

Businesses do get affected a lot during this time because people receive many things like cooking oil, maize, beans. They only buy little things like tea leaves that are not distributed to them by World Vision (Paypoint operator, Turkana)

Food aid makes business slow because when food aid is distributed the commodities sell slowly and others even expire on the shelves (trader, Marsabit)

Business does not get affected that much because we do sell to people who pass by this place using buses as they are travelling (local trader, Turkana)

It does not affect much. You know relief brings maize so as a businessman you bring other commodities like wheat flour, sugar and many others that people need then. (Paypoint operator, Turkana)

5.6 Coping strategies

The objective of the HSNP is to reduce extreme poverty and vulnerability. Poverty and vulnerability overlap but are not the same. Pastoral areas have a number of significant risks that are inherent to the production system, but vulnerability derives from the inability to cope with these risks, both over the short and long term. Chronic poverty, under-provision of public services and political marginalisation leave pastoralists vulnerable to these risks.

According to the subjective poverty assessment, drought was cited as the main reason for households being worse off than in previous years, due to loss of livestock. Droughts are a regular feature of pastoral life and it is not the drought itself that makes people vulnerable but the inability to cope with it (Devereux, 2006), such as through constraints on mobility and an inability to restock after a drought due to poor social networks. Increasing frequency of drought over the last two decades has put coping mechanisms under strain. Every year in the 1990s bar 1995 was considered a disaster in the programme area and this pattern has

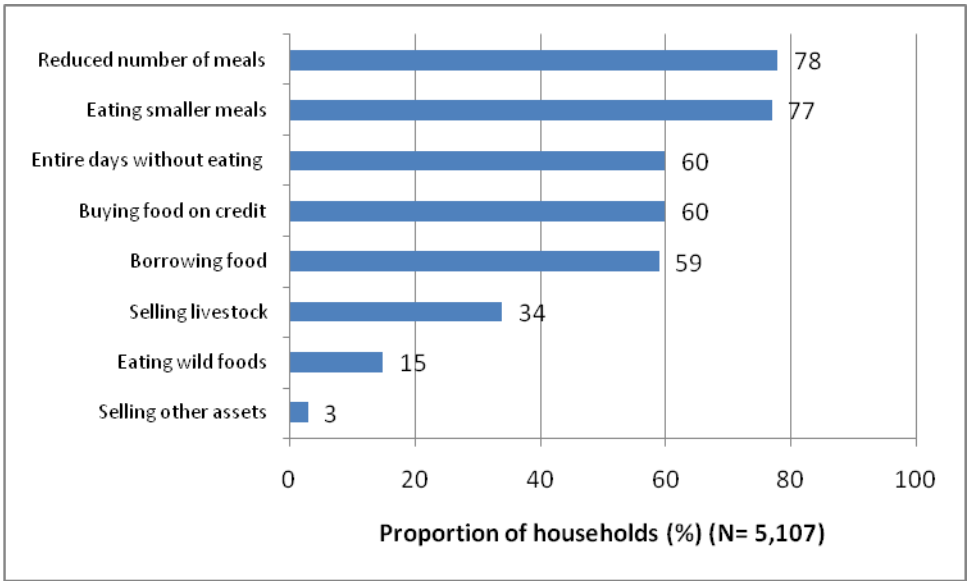
continued over the last decade, with major droughts in 1999/2000, 2004/6, 2007/9 and 2010/11.

Competition for grazing land and water is intense and conflict and raiding are long-standing risks in the programme area. During times of drought, the best grazing land is found on the international borders[34] and families organise themselves to exploit these resources, which is a highly risky but necessary activity if herds are to survive. Animal disease also has an impact on food security and livelihoods. For instance, between March 2006 and April 2008, 1.5 million sheep and goats were lost to PPR, a viral disease outbreak that started in Turkana and spread rapidly across the ASALs.[35]

Households were asked a series of questions about their behaviour over the past 30 days to determine coping strategies in use (see tables A5.6a, A5.6b and A5.6c in the Annex). The responses were highly variable between districts, varied very slightly between those not selected and those selected for the programme (mainly in terms of selected households reducing consumption more) and varied very little between targeting methods. These findings are very interesting. They suggest that variations in key indicators may be more significant across districts than across targeting mechanisms, in other words, that geographic location is a more important determinant of wellbeing outcomes than are demographic characteristics at the household level (such as the presence of an older person or a high dependency ratio).

Coping strategies are a tool usually used for describing households that are suffering acute shocks. In some parts of the programme area, the continual exposure to multidimensional risks have resulted not in coping, which is a short-run fall-back mechanism, but struggling on a daily basis to eat an adequate diet. The result may be new livelihood systems less productive or resilient than those they replace, as well as more so (DFID, 2004). The most common 'coping strategies' recorded were to reduce the number and size of meals eaten (78% and 77% of households, respectively). A staggering 60% of households went entire days without eating any solid food and 34% of households had sold livestock in order to purchase food (see Figure 5.10).

Figure 5.10 Coping strategies in use by households in the preceding 30 days



[34] The HSNP programme borders Somalia, Ethiopia, Sudan and Karamoja in Uganda.

[35] Kenya National Assembly Official Record (Hansard), 29 April 2008.

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

In Turkana, 74% of households borrowed food or relied on help from relatives, which was significantly more than in Mandera (38%) and Wajir (51%), and the average (59%). 19% of households in Turkana were helped by relatives two to three times a week, which was significantly more than households in the other three districts – 12% in Marsabit, 8% in Mandera and 2% in Wajir. Only in SP areas were those selected for the programme helped by relatives, which is significantly more than households who were not selected (14% of SP households borrowed food two to three times a week compared with 10% of households not selected). The importance of this strategy is reflected in the qualitative research:

> *I do borrow money from friends and relatives who are willing to help. Repayment may depend on if I get work* (male beneficiary, Turkana)

Overall, 40% of households never bought food on credit; this result was driven largely by Turkana, where 61% of households never bought food this way, because they have less access to credit due to the extremely high levels of poverty.[36] By comparison, a significantly small proportion of households never bought food on credit in Wajir (10%)of over the last 30 days.

Qualitative findings indicate that borrowing can have long-term dangerous consequences:

> *What I usually do is go to the mission and seek for assistance. In the mission they offer women money for loans. I was given KES 5,000, then later you pay and also credit from the neighbour then pay later. It's a big problem for me because the lender came telling me to pay the remaining amount or he reports me to the police* (female non-beneficiary, Turkana)
>
> *I do sometimes borrow from neighbours, like KES 1,000 or 500. It is very hard to pay back; sometimes I am forced to give my goats in exchange* (male non-beneficiary, Mandera)
>
> *It's better to be in my pathetic situation instead of taking debt that I can't afford* (female beneficiary, Mandera)
>
> *The disadvantage is that if you borrowed from people, they don't care if you are able to return them or not, so you are forced to pay them even if you are not willing* (male beneficiary, Marsabit)

In some cases, it can be hard to borrow:

> *There is no one to borrow money from but I take food on credit then pay later after selling firewood or brooms. It's not easy to get cash in this community unless you are doing something reasonable* (female beneficiary, Turkana)

Consumption of wild food is common in Turkana, where a highly significant proportion of households relied on this source of food as a contribution to their diet (45%). Of those households that did consume wild foods, 16% did so two to three times a week and 8% did so four or more times a week.[37] Conversely, wild food consumption was significantly lower in the three other districts, where only 2–4% of households ever ate wild food, although this could also be due to cultural differences.

[36] The main reason given for not accessing credit was that no-one would lend to them because they do not have any money.

[37] A 'Household Economy Assessment' of Northeast Turkana estimated that up to 60% of Turkana pastoralists receive around a third of their calories from wild food and a further quarter rely on them heavily during certain seasons (Levine and Crosskey, 2006).

The highest proportion of households that reduced the number of meals consumed in the last 30 days was in Turkana (95%). A significantly high proportion of households had reduced the number of meals two to three times a week in both Turkana (40%) and Marsabit (43%). Those eating smaller meals followed a very similar pattern. However, in CBT sub-locations, households selected for the programme were significantly more likely to eat smaller meals than those not selected (26% of those selected ate smaller meals two to three times a week compared with those not selected – 17%).

Overall, 60% of all households went entire days without eating solids. This was driven largely by Turkana (76%) and Marsabit (71%). In Turkana, 30% of households went without eating two to three times a week. In CBT sub-locations, a significantly higher proportion of households that were selected for the programme went without eating for whole days compared with those not selected (62% and 43% respectively). In DR sub-locations, households were significantly more likely to go entire days without eating (69%) compared with SP (61%) and CBT areas (52%).[38]

Overall, 44% of households sold livestock to buy food. This was driven largely by Wajir, where 66% of households had sold livestock to buy food in the last 30 days, compared with significantly fewer households in Mandera (8%) and Turkana (23%), possibly because of the broader cultural value of livestock, particularly in Turkana. The majority of households (97%) had not sold any other assets to buy food and this varied very little but significantly between districts. In Wajir, 5% of households had sold assets other than livestock compared with only 1% in Mandera. This could be because of the relatively low sales value and small market for these items within the local community.

There were few significant differences in coping strategies by randomisation status.

Coping strategies show a slightly mixed picture by mobility status, with partially mobile households being worse off on some strategies and fully mobile being worse off on others. Interestingly, both categories are worse off than permanently settled households.

Partially mobile households (64%) borrowed food more frequently than permanently settled (57%) and fully mobile households (58%), although this was not significant. Significantly more fully mobile households had bought food on credit in the last 30 days (77%), compared with partially mobile (57%) and permanently settled households (59%). There was no difference between categories on consumption of wild foods, with use of this coping strategy fairly low for all households (15% overall).

A significantly higher proportion of both partially mobile and fully mobile households reduced the number and size of meals eaten over the previous 30 days, compared with permanently settled households: 88–89% of partially and fully mobile households had reduced the number of meals, and 74% of permanently settled households. The pattern was very similar for those eating smaller meals. However, significantly more partially mobile households (79%) had gone entire days without eating and 28% of those had done so two to three times a week. Figures for permanently settled and fully mobile were remarkably similar, with 56-59% of households having gone whole days without meals and 11–12% doing so two to three times per week.

Both partially and fully mobile households had sold significantly more livestock (62% and 79% respectively) to buy food than permanently settled households (21%). Fully mobile households had sold slightly more livestock than partially mobile households, for example the 32% of fully mobile households had sold livestock once a week, compared with 23% of

[38] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

partially mobile households. Fully mobile households had sold slightly more assets (other than livestock) than the other two categories, but there were very few fully mobile households who had done so (5%).

6 Livelihoods and incomes

Although northern Kenya is perceived as a pastoralist region, there are many other ways of earning income, and these are becoming increasingly important, as livestock-based livelihoods have been severely compromised by recurrent droughts. Despite remaining the most common livelihood activity, livestock production generates relatively low incomes. The most lucrative activity (public sector worker) generates more than 50 times as much income as the lowest (collecting bush produce). Selling firewood, charcoal burning and casual labour are all common ways of earning a living that generate low incomes because they are competitive and require low skills. Wealthier households have access to more lucrative livelihood activities, but they also earn more than poorer households from pursuing low-income activities. The ethos of sharing and mutual support is confirmed by many households who reported receiving food or cash transfers from relatives and friends, but there is a perception that informal social support mechanisms are declining over time.

6.1 Livelihood activities

Households were asked about the cash income that they had obtained in the preceding 12 months from each of the livelihood activities that they had been involved in. They were asked to estimate their net income, that is, after any associated costs had been removed.[39]

The ASAL region of northern Kenya is dominated by pastoralism, and livestock production – rearing, herding and selling animals and animal products – is reported as the most common livelihood activity in our sample. However, 36 other activities were also recorded (see Table A6.1a). Ranking and clustering these activities by the average income each generates reveals a wide disparity between very low-income activities (under KES 12,000 per month) to very high-income activities (over KES 100,000 per month).

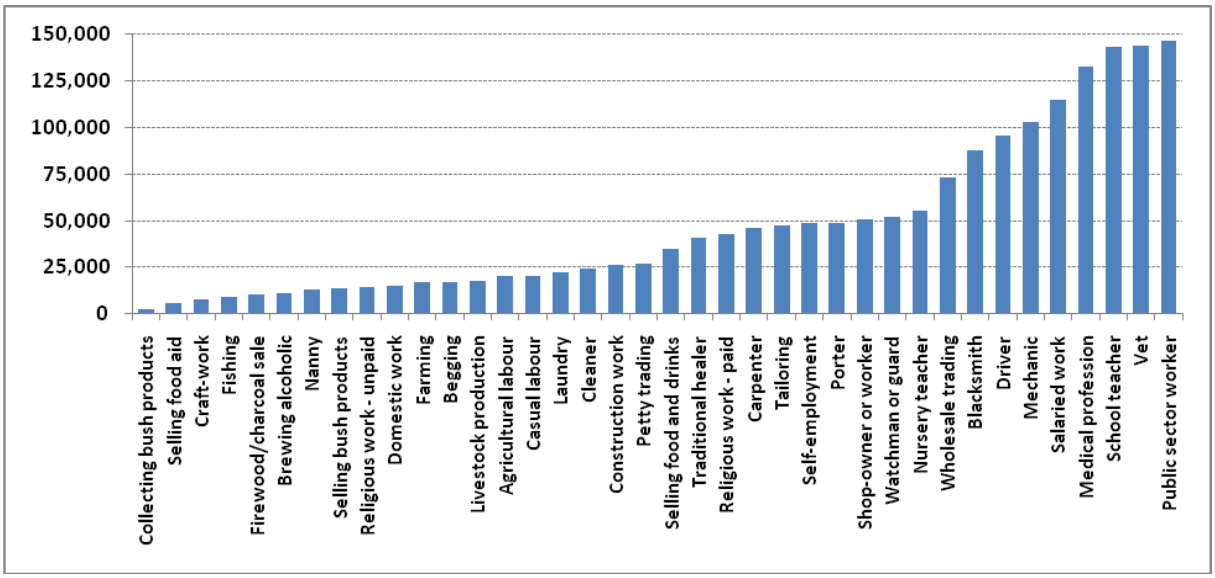
- Cluster 1 (>KES 100,000): public sector worker, vet, primary or secondary school teacher, medical professional, mechanic, other salaried worker;
- Cluster 2 (KES 50,000–100,000): driver, blacksmith, wholesale trader, nursery school teacher, watchman or security guard, shop-owner or worker;
- Cluster 3 (KES 40,000–50,000): porter, self-employed worker, tailor, religious worker, carpenter, traditional healer;
- Cluster 4 (KES 20,000–40,000): food or drink vendor, petty trader, construction worker, cleaner, casual labourer, agricultural labourer;
- Cluster 5 (KES 12,000–20,000): livestock producer, farmer, beggar, domestic worker, unpaid religious worker, bush products seller, nanny;
- Cluster 6 (<KES 12,000): alcohol brewer, firewood or charcoal seller, artisanal fisher, craft-worker, food aid seller, bush product collector.

The least lucrative activity is collecting bush produce (15 households in this sample of 4,807 households, each earning just KES 2,686), while public sector employees (59 in this sample)

[39] Since this is cash income, it excludes the value of the consumption of home-produced items and receipts in kind. For that reason, and because it is often difficult to collect comprehensive and accurate income data in developing countries, average cash income levels are well below the total consumption levels reported in previous sections.

earn over 50 times more than this (KES 146,861 on average) (see Figure 6.1). Many activities are pursued by very few households (e.g. there are only four carpenters, three blacksmiths and one vet in our sample), so these income estimates are indicative rather than definitive (see Table A6.1b).

Figure 6.1 Mean monthly net income earned by livelihood activity

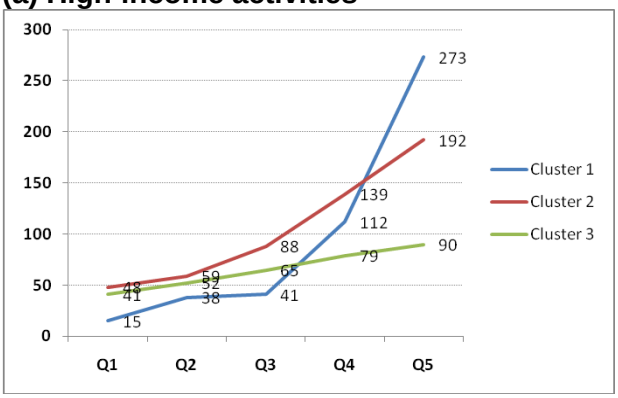


Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

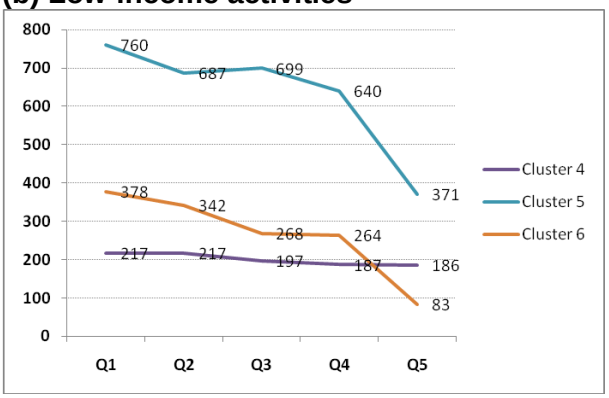
Wealthier households have access to more lucrative livelihoods. For higher-income activities that earn above KES 40,000, increasing numbers of households do these activities in each wealth quintile from Q1 (poorest) to Q5 (richest) (see Figure 6.2a). For example, only eight households in the poorest quintile (0.8%) had a member in salaried employment, compared to 151 in the richest quintile (16%). Conversely, for lower-income activities that earn less than KES 40,000, fewer households do these activities in each wealth quintile from Q1 to Q5 (see Figure 6.2b). For example, the 302 poorest quintile households sell firewood or charcoal (31%), compared to 67 in the richest quintile (7%). But the richest households also earn almost three times more than the poorest from firewood sales (KES 16,961 vs. KES 6,285).

Figure 6.2 Number of households pursuing high- and low-income livelihood activities, by wealth quintile

(a) High-income activities



(b) Low-income activities



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

By far the most common activity is livestock production, which is practised by over half the households (58.3%). Interestingly, the numbers are relatively constant at between 500 and 600 (out of 960) for wealth quintiles 1 to 4, but falls to 304 in quintile 5. This is consistent with the fact that livestock production is not a high-income activity, generating KES 17,500 per household, less than half the mean income over all activities of KES 47,000. (Again, richer livestock producing households earn much more than poorer households: KES 26,000 in Q5 versus KES 8,000 in Q1.) Despite being a dominant livelihood activity across all locations, livestock production has been disrupted in many areas by drought and conflict, and rural people are increasingly reliant on secondary sources of income and food, particularly casual labour, firewood collection and selling, charcoal burning, and receipt of food aid.

There are 10 times more livestock producers than crop farmers in the sample (2,801 vs. 277), but neither is a lucrative livelihood – farmers earn slightly less than livestock producers (KES 16,800). It is intriguing that farming and begging reportedly generate almost the same level of income, possibly because farming is mostly for home consumption rather than income generation. Farming is constrained by lack of arable land, but livestock production is popular because livestock serve many other functions in pastoralist societies apart from generating income, including being sources of food and a store of value in the absence of savings facilities and insurance markets.

Apart from livestock production, only 10 activities provide a livelihood for more than 2% of households. Only three of these 11 activities generate above average incomes: salaried work, wholesale trader, and shop-owner or worker. The other eight activities generate considerably less than average income: livestock production and farming, selling firewood or charcoal, selling other bush products (e.g. wild food), casual labour, construction work, petty trading, and craftwork (mats, baskets, etc.). This suggests that access to lucrative livelihoods is constrained, perhaps by a need for capital (wholesale trader or shop-owner) or for literacy and skills (salaried work). Conversely, low-income livelihoods have low entry barriers – most are manual work requiring low skills or literacy and no capital (e.g. firewood collection) or only limited working capital (petty trading) and skills that are transmitted within communities (e.g. craftwork).

Only 20% of households are engaged in selling firewood or charcoal, with similar proportions across selected and non-selected households, but both activities contribute more to income now than in the past. Prices paid by buyers for charcoal are low, at KES 100–150 for a large sack, and some places are seeing reduced tree cover as a result. Again, this activity is most significant in Turkana, where 46% of households surveyed are engaged in charcoal burning, compared to only 8% in Mandera, 5% in Marsabit and 11% in Wajir. Charcoal burning and collecting fuelwood have been described as “distress activities” or “coping strategies” in Turkana, rather than preferred livelihood activities (Lind, 2007: 25), although there are ready markets in the towns and local refugee camps, so one indicator of positive HSNP impact might be that the prevalence of these activities falls among beneficiary households.

Crop farming is a minority occupation in the study area (only 7% of households), because of limited availability in most areas of arable land or irrigation for cultivation. The figure is lower in Wajir than in other districts, because Wajir does not have rivers that can provide irrigation. This is statistically significant. Farming is for household consumption and sale for income. Cultivation has been adversely affected by recent droughts, and Miraa has recently become a popular cash crop, especially in Marsabit, as it is more drought resistant than other food crops (such as maize) and earns a much higher income. Farmers also complain about the variability of prices they are paid for their crops by traders in different markets and at different times of year:

"We sell [our harvest] both to the local people who don't have farms and those who come from far and we exchange for money or livestock. The prices during the time of harvest are about 30 shillings for a kilo but may rise to 70 shillings during the dry period. This is due to unscrupulous businessmen and peasants who exploit us during the dry season when we have no food at all. We have even been complaining to the authorities about it but nothing has been done" (farmer, Turkana)

"There is no specific place that we can sell our produce. We just sell to greedy people who buy from us at low prices and when our stocks are depleted they again sell to us at very high prices" (farmer, Turkana)

"If you can transport your produce to better markets like Lokichar or Lodwar, you will reap the benefits but when you do not have that capacity then you will have to face the low prices of the local traders" (farmer, Turkana)

About one in four households (28%) have members who are employed. HSNP households are less likely to have employed members (24%) than non-selected households (32%), which seems appropriate. By targeting mechanism, employment is significantly lower in selected SP households (15%) than non-selected SP households (31%), and in selected CBT households (27%) than non-selected CBT households (39%). However, there is no significant difference for households targeted by DR. By district, households surveyed in Marsabit are significantly more likely to have an employed member (42% compared to 17% in Turkana).

Compared to formal employment, casual labour is a precarious and unreliable source of income. Across locations it was seen as a second choice activity, adopted mainly when other sources of livelihood have failed. Many respondents stated that casual labour is undertaken when there is no other option:

We don't have alternative means of earning a living because it's the lack of other opportunity which forces us to be casual labourers (casual labourer, Mandera)

They [casual labourers] engage in casual labour because they have no farms of their own or livestock to herd and as such this is their only source of livelihood (casual labourer, Marsabit)

Box 6.1 Perceptions of casual labour, Kokiselei, Turkana

Now it *[casual labour]* has become like, here is something to do so we rush there, here are some culverts to be repaired we rush there, here is some *shamba* to be ploughed we rush there. …

Our stomachs will not accept to stay without food. Even you, you are here because you want some food. Without food, you cannot come here to do this job because some of us did not go to school that is why someone can call you to dig the latrine and you just accept to do it.

… we live here surviving with termites and we do not have an alternative. Because the only thing we depended on is our animals and when animals perished, the government came with relief but now it is like we survive on "termites". This "termite" would be wild fruits like *Eng'omo*, *Edapal*, *Ebei*, any tree you carve and take where the government seems to be and sale it with your own price. …

… Because if you have not decided to wake up and go look for something, even this job, it is just when it comes. The owner comes and we are called the same way, for example, you came and called us and they say 'there is a job. There is a job'. We then become happy a job has been found and we can now get something to eat because we have stayed for long before getting enough termites just roaming and doing nothing, and when we come like now at least we say we have done a job and we will eat.

Casual labourers, Kokiselei, Turkana

Qualitative data indicate that where people had started small trading activities or businesses, the initial capital they required often came from selling livestock, particularly in Mandera and Marsabit. Other sources of start-up capital were relatives and savings from other small-scale activities (e.g. charcoal burning). In Turkana, for instance, respondents mentioned the latter, but not selling livestock, as a source of capital.

Livelihood diversification is interpreted in the literature as a risk-reducing strategy, especially in contexts of high livelihood vulnerability. Among pastoralists, however, diversification often signifies a failure of livestock-based activities to generate a viable livelihood (Lind, 2007). A simple measure of livelihood diversification is the number of livelihood activities undertaken by household members. On average, households surveyed are undertaking between 1.3 and 1.5 activities, variously defined (total activities, distinct activities, income-earning activities, livelihood categories). HSNP households pursue marginally (but not significantly) fewer livelihood activities than non-selected households. There is a significant difference in the number of activities undertaken by district: households in Turkana pursue significantly more activities (between 1.6 and 1.8) than in the other three districts (between 1.2 and 1.4). This can be taken as a crude indicator that economic stress is higher in Turkana than elsewhere in the programme area.

As expected, nearly all fully mobile households engage in livestock production and many of them also trade (17%). A similar pattern is found for partially mobile households. However, the story is different in permanently settled households, where only 38% are involved in livestock production, 36% are employed and 39% are engaged in sales:

Table 6.1 Livelihoods by mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Esti-mate	N
% HHs engaging in livestock production	38***	93***	97***	53	4,807
% HHs engaging in other agriculture activities	9**	2**	1**	7	4,807
% HHs engaging in employment activities	36***	8***	4***	28	4,807
% HHs engaging in self-employment activities	7***	2***	1***	6	4,807
% HHs engaging in crafts activities	6	1	3	5	4,807
% HHs engaging in services activities	4**	2	1***	3	4,807
% HHs engaging in sales activities	39***	23***	17***	34	4,807
% HHs engaging in other activities	2*	1	1**	2	4,807

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Fully settled defined as the whole of the household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals.

6.2 Income from livelihood activities

Table A6.2a displays the proportion of total net cash income derived by households from different categories of livelihood activities. These figures tend to follow the ranking of livelihood activities given above. Livestock production makes the highest contribution to total income (53% of households, 39% of income), followed by selling (34% of households, 23% of income), and employment (28% of households, 23% of income). No other activity or livelihood category contributes more than 4% to total income.

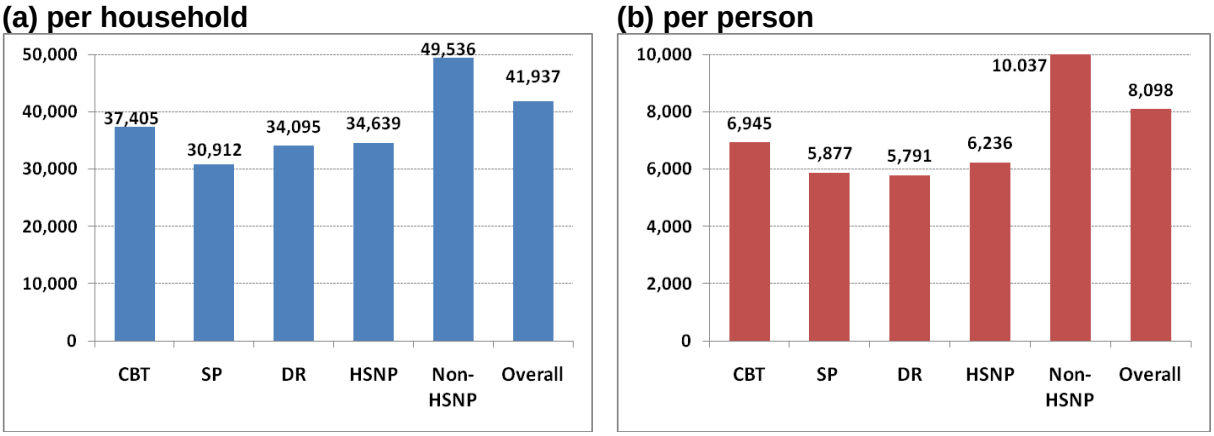
The share of livestock in total net cash income does not vary significantly between households selected and not selected for the HSNP. However, differences are evident across targeting mechanisms in that SP households derive half their cash income from livestock (53%), which is significantly higher than the average. Conversely, SP households derive significantly below average proportions of their cash income from employment (11%). CBT households derive a significantly higher proportion of their income from sales (36%), compared to other household types (total average of 23%).

Across the districts, households in Wajir have a greater contribution to total net cash income from livestock (54% against an average of 39%) and self-employment (8% against an average of 4%), and this is significant. However, other agriculture is significantly lower in Wajir (1% against an average of 4%). Households in Marsabit derive a significantly higher proportion of their cash income from employment (36% against an average of 23%) and a significantly lower proportion from sales (10% against an average of 23%). Households in Turkana derive a significantly above average proportion of income from sales (36%) and below average from employment (12%). Mandera appears closer to the average on all categories of livelihood.

Gendered divisions of livelihood activities might be breaking down in northern Kenya. Women in Marsabit told us that, *"According to our culture men are supposed to look after livestock,"* and men in Mandera reported that selling vegetables in the market is specifically a women's job, but that women cannot do charcoal burning. However, women in Turkana noted that: *"Because of the hardships in this area, there is no segregating of jobs. Men and women provide labour for payments and even do farming together."* Men in Turkana agreed: *"Anybody can do any role. … Both can contribute much to the family."*

Table A6.2b presents data on cash income earned per household, disaggregated by livelihood category. Across the 4,800 households that reported earning cash income (which constitutes 94% of the full sample of 5,108 households), the average (mean) total cash income amounts to KES 41,937. Mean total cash income is 30% lower in HSNP households than in non-selected households (KES 34,639 vs. KES 49,536), and this is statistically significant (see Figure 6.3a). Mean cash income *per capita* is 38% lower in HSNP households (KES 6,236 vs. KES 10,037), and this is also significant (see Figure 6.3b). Median incomes are substantially lower than mean incomes, since the distribution of income is skewed towards the right by a relatively small number of very high income earners. The gap between selected and non-selected households is narrower for median incomes, reinforcing the conclusion that mean incomes are capturing high levels of income inequality, which are concealed by median incomes.

Figure 6.3 Mean net cash income per annum (KES), by HSNP targeting mechanism



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

There is wide variation in household income across targeting mechanisms. Interestingly, mean cash incomes are significantly lower than average in SP households (27% lower on the *per capita* measure) and, particularly, in CBT households (42% lower) compared with the unselected households in the same populations. This suggests that these targeting mechanisms are effective at identifying households that are poorer than average in cash income terms. In DR households, incomes are higher than in non-selected households, although the differences are not significant. Overall, it seems from these data that a high DR is a less effective mechanism for identifying the poorest households.

Across the districts, mean net cash income (total and *per capita*) is significantly lower in Turkana (KES 12,860 per household against an average of KES 41,937) and higher in Mandera (KES 71,060). This differential is not substantially narrowed if we consider median incomes instead: in Turkana, median cash income per person is KES 1,275; in Mandera it is seven times higher, at KES 9,125. Although a significantly higher proportion of households in Turkana engage in livestock production, mean cash income from this source is significantly lower than in other districts (at only KES 3756 against an average of KES 17,544). Median livestock income is KES 13,000 compared to a mean of KES 42,000, suggesting that there are some higher earners.

6.3 Transfers

Households were asked about the transfers they received from various sources, and that they gave to other households, in the three months preceding the survey. Informal cash and in-kind transfers – that is, from other households – are larger and more widespread than formal transfers, excluding food aid and the HSNP. This is found in both the quantitative and qualitative baseline research. In the previous three months, 38% of households reported receiving informal cash transfers, at an average value of KES 2,824, and 37% reported receiving informal in-kind transfers, at an average value of KES 458 (see Table A6.3a). The mean value of informal cash transfers is therefore comparable to that of the HSNP. By contrast, in the same period only 3% reported receiving formal transfers from the government and 8% reported receiving formal transfers from NGOs or religious institutions. These formal amounts were much smaller than those from informal transfers, at around KES 1,350.

A smaller proportion of households reported giving informal transfers (around 25%) than receiving, and those that did reported giving lower amounts (KES 2,162 for cash transfers)

than the mean receiving amount. This suggests that a substantial proportion of the value of informal transfers is received from individuals or households outside the community.

Formal transfers are often shared with non-recipients, both as a religious duty (either Islamic or Christian) to help the less fortunate (i.e. those not receiving food aid) and as a reciprocal relationship. This was common in each of the four districts, whether formal support was significant or not. These quotes are instructive:

> *Should I see a person with a problem, I will share it with him/her. If a villager in need comes to me, I will give him at least a kilo, though its nature is actually small* (female beneficiary, Mandera).

> *We believe unity is strength, therefore we need each other in times of difficulties. Like sometimes your neighbour has nothing to cook for his/her children today, so you help him/her as much as you can because tomorrow you might have the same problem and need help* (male beneficiary, Mandera).

> *We were not affected at all because those who were registered were our neighbours, relatives, brothers and sisters and we will seek assistance from them whenever we need them* (male non-beneficiary, Mandera).

> *Yes we do, especially when a needy person steps at your door and he or she is starving you share what you have. He or she can be your neighbour and his or her children are hungry then you can't sit around and watch his or her children die, share the little you have. Sometimes your relative and friends come for help. I always give the little that I have with them. They also assist me when I am in trouble* (female beneficiary, Marsabit).

> *[People] seek divine intervention from the unseen powers to bring the end to the suffering they are going through. They may also get help from friends and relatives or get help from the church faithful who make special contribution for them* (female non-beneficiary, Turkana).

> *When you get this food, you have to share it with relatives such as your in-laws, cousins, uncles among others. You then distribute in small ratios of half kilograms to them and when you see that it is little, you deny others and ask them to look for from other people, and then they go there. … They observe and when it gets finished they stand up and go. They also understand you are not Oxfam and that you have also begged from somewhere. It's generally when hunger comes and they also know that you were also hungry then they decide to seek some* (male non-beneficiary, Turkana).

Informal transfers can decline if there are crises that affect entire communities. As elders in Marsabit noted:

> *Due to this famine, it is like we are sailing in the same boat, we are all in a desperate situation. Nobody is better than the other, so nobody is in a position to help the other* (male elder, Marsabit).

There is some qualitative evidence that informal transfers are declining over time, and it will be important to assess the impact of the HSNP in this matter:

> *Traditionally our grandfathers used to share food to everybody unconditionally. These days even a brother may deny you food if you ask frequently* (female beneficiary, Turkana).

It helps others who don't have the ability to help themselves get help and it also enhances good relations. It may be bad because it may make people despise others (female beneficiary, Turkana).

The quantitative survey allows us to compare transfers received by selected and non-selected households. Selected households might be expected to receive more transfers if they are poorer. Overall, selected households are slightly more likely to receive assistance from other households but the differences are not statistically significant. Selected households do, however, receive more aid from NGOs or religious institutions – receiving an average of KES 1,556 compared to the KES 1,208 received by non-selected households. This may indicate similarities in targeting implementation to that of the HSNP.

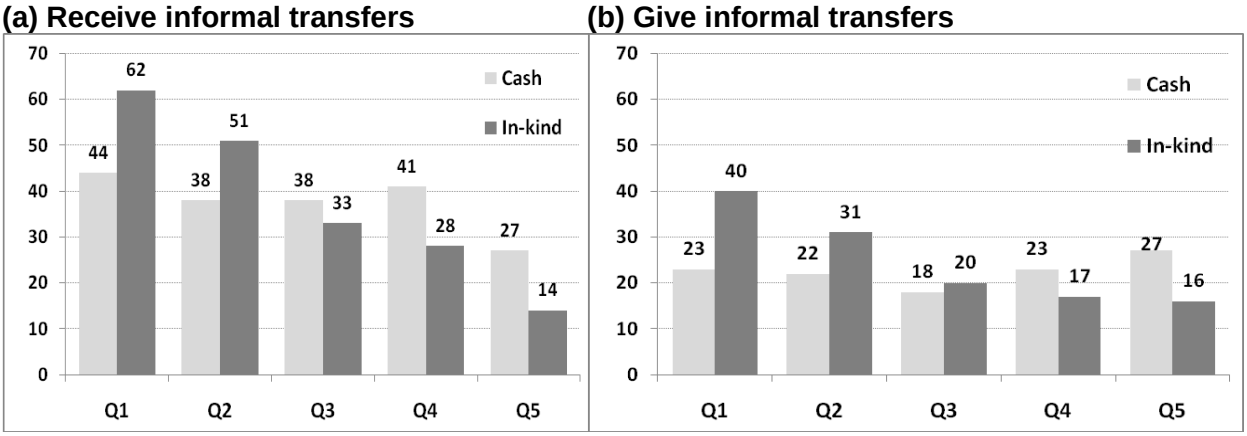
Selected households are, overall, less likely to give informal transfers than non-selected households. 18% of selected households give informal cash transfers and 22% give informal in-kind transfers, compared to 27% and 28% of non-selected households. This may reflect their more straitened circumstances.

Table A3.6b disaggregates transfers received and given by consumption expenditure quintile. As we might expect, poorer households are more likely to receive informal cash transfers or remittances, but less than half of poorest quintile households (44%) and more than a quarter of households in the richest quintile (27%) are recipients of cash transfers. However, poor households are significantly more likely, and wealthy households are significantly less likely, to receive informal in-kind transfers (62% vs. 14% in the poorest and richest quintiles, respectively).

In fact, for those households that receive informal transfers, the average value of cash received in last three months actually *increases* across quintiles, from KES 864 per household in the poorest quintile to KES 5,822 – seven times that amount – in richest quintile households. The estimated value of in-kind transfers received also rises by quintile, though less dramatically – from KES 386 to KES 871 per household. This suggests that informal transfers occur mainly among horizontal rather than vertical wealth networks – in other words, poorer households tend to receive informal support from relatives and friends who are also poor, whereas better-off people transfer or remit cash to their equally well-off relatives and friends.

Fewer households reported giving cash or in-kind transfers (22–25%) than receiving such transfers (37–38%), which might indicate that this is a generally poor population where most households – even the less poor – are net recipients of informal assistance. Wealthier households are no more likely to give informal cash transfers, and are significantly *less* likely to give informal in-kind transfers, than the poorest households in this sample. Only 16% of wealthiest quintile households, but 40% of poorest quintile households, give in-kind transfers (see Figure 6.4b). Poorer households are more likely to transact in non-monetary commodities, while wealthier households are more likely to transact in cash. The average value of informal cash donations (KES 2,162) is much higher than the average value of in-kind donations (KES 371). However, the mean value of both cash and in-kind transfers given by donor rises significantly by quintile.

Figure 6.4 Donors and recipients of informal transfers, by quintile (% households)



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Very few households reported receiving any formal aid – excluding food aid and HSNP – from government agencies in the last three months (just 3% of households), or from NGOs or religious organisations (8% of households). Households in the top two quintiles are significantly less likely to receive formal aid from any of these sources, but households in the bottom three quintiles (the poorest 60%) are all equally likely to receive formal aid.

Aggregating across all households shows the net effect of these patterns on overall transfers received. Better-off households both receive and give significantly larger amounts of cash than poorer households, reflecting the fact that they have more cash available. The average value of in-kind transfers received is highest for the poorest quintile, reflecting their dependence on non-cash support, although it is much lower than the average cash receipts of the richest households.

Permanently settled households (40%) were significantly more likely to receive informal transfers in the form of cash over the three months prior to the survey, compared with partially mobile (32%) and fully mobile (28%). The amounts transferred to fully settled households (KES 2,995) were also higher than to partially mobile (KES 1,879) and fully mobile households (KES 2,880), but this was not significant. Fully mobile households (10%) were less likely to give cash support to other households, compared with the other categories, but the amount given was very high (KES 4,539). Nearly half of partially mobile households (45%) received in-kind transfers (usually food) and, interestingly, significantly fewer fully mobile households (20%) received in-kind transfers, although they were worth much more (KES 639) compared with the other two categories (KES 443-449). In-kind transfers given by sampled households to other households were fewer and smaller but followed similar patterns, with significantly fewer fully mobile households (13%) giving a mean of KES 448, compared with 27% of partially mobile households giving an average of KES 270 (see Table A6.3c).

6.4 Child work

UNICEF draws a useful distinction between *child labour*, referring to “work that is hazardous or detrimental to a child”, and *child work*, referring to “any work activities done by children that are not necessarily considered harmful [including] activities done in support of family business, paid work and chores” (UNICEF Botswana, 2010: 7). In the HSNP programme area, many children are doing various kinds of work, but most of it is not “hazardous” and it is “detrimental” only in cases where it prevents the child from attending school (but there are

also many other reasons why children are not in school), so the term “child work” is preferred to “child labour” here.

Almost one household in three (31%) reported having one or more children for whom paid or unpaid work is their main activity (see Table A6.4a). This proportion is higher among households selected for the HSNP (33%) than among non-selected households (29%), but not significantly so. By targeting mechanism, the proportion of households with working children is highest in DR households (41%) and in SP households (39%). This finding is consistent with evidence from other countries that working children are more likely to come from poorer households, because child labour is associated with poverty.

Nonetheless, less than one child in five is reportedly doing paid or unpaid work as their main activity: 19% of 5–17 year-olds, 17% of 5–14 year-olds, and 14% of 5–12 year-olds (see Table A6.4b). The figures are slightly higher for boys than girls: 21% vs. 17% among 5–17 year-olds. Most of these boys are doing livestock herding, and most of the girls are doing unpaid domestic work, though almost as many are also looking after animals. Conversely, 58% of children aged 5–17 are attending some kind of educational institution (school, nursery or *duksi*) as their main activity.

By district, children are most likely to be working as their main activity in Turkana (38% of households) and in Wajir (37% of households), and are least likely to be working in Mandera (20% of households). Not every child in these households is working, however: 28% of 5–17 year-olds in Turkana and 22% in Wajir, but just 9% in Mandera.

Children in mobile households are significantly more likely to be working than children in settled households (see Table A6.4c). Close to half of children in fully mobile households (44%) and one in three children aged 5–17 years in partially mobile households (34%) are reportedly engaged in paid or unpaid work as their main activity, compared to just 12% of children in permanently settled households. Not surprisingly, the main work that these children are doing is livestock herding.

Quantitative and qualitative data confirm that boys and girls have clearly defined roles within the family, contributing to both productive activities and domestic reproduction from a young age. Girls assist with domestic chores such as preparing meals, while boys are more often assigned to take care of livestock. In general, the contribution of children to these functions has declined as school attendance has increased, but many school-going children continue to do this unpaid work before and after school, at weekends and during vacations.

7 Assets

The HSNP aims to protect household assets, which include livestock, farm tools and land. Livestock ownership is low and declining in this population, due mainly to recent droughts, and many former pastoralists now own no animals at all. HSNP cash transfers could support restocking or at least maintenance of flocks and herds, or it could support a transition into alternative livelihoods. Many households own quite substantial non-livestock assets, such as farm tools. Land ownership is restricted to relatively few households, because livestock rather than crop farming dominates local livelihoods.

7.1 Livestock

Large areas of the arid districts of Kenya are suitable only for nomadic livestock production. Pastoralists/agro-pastoralists own about 50% of the national cattle and small ruminant herd and 100% of the camel population. Overall, this constitutes about 70% of the national livestock herd and contributes about half of agricultural GDP (agricultural GDP provides 25.7% of overall GDP).[40] Despite these contributions to national production, the populations who live in the arid districts are the poorest in the country.

In order to understand the complex relationships and causes of poverty in pastoral areas, Little et al (2008) highlight the need to distinguish between those who are involved in the pastoral production system and those who live in areas where pastoralism is the primary economic activity. However, most writing tends to focus either on pastoral dropouts (stockless ex-pastoralists in and around towns in pastoral areas) or on mobile pastoralists, with little attention paid to those who have never been pastoralists. Moreover, there is little evidence on the proportion of households falling into each category and those between the two (see Section 10).

Distinguishing between different groups is important when considering how beneficiaries may utilise and benefit from the HSNP. Little et al suggest that standard poverty approaches (income and expenditure) are useful for quantifying poverty amongst those who have limited to no involvement in the pastoral economy but are not useful when describing poverty amongst active pastoralists. They suggest that poverty amongst the latter is better defined by livestock ownership, although this does not provide a measure that is comparable with non-pastoralist households. Ownership of livestock is nevertheless the key measure of wealth for pastoralists.

The baseline survey found that 70% of all households in the sample own livestock (see Table A7.1a). This is higher than the proportion who reported livestock production as a livelihood activity (53%), suggesting that earning income is not the only reason for keeping animals.

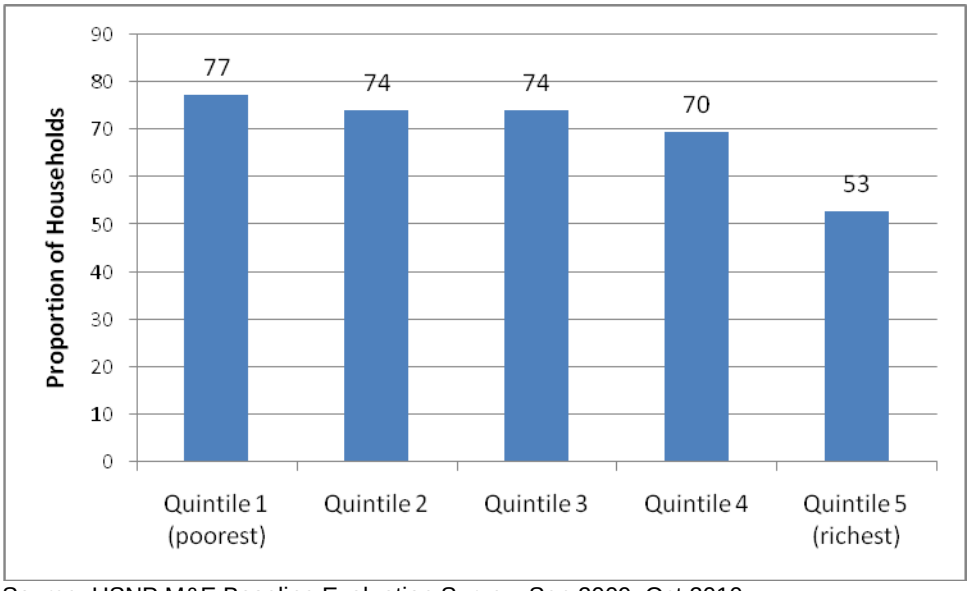
There was no overall difference in ownership between selected and non-selected households. However, households selected for the SP (82%) are significantly more likely to own livestock compared with households without social pensioners (72%). This is the same trend as land ownership (see next section), which suggests that older people own more livestock and land than younger households, and which may reflect historical ownership patterns. By far the most commonly owned and most numerous animals are sheep and goats, the cheapest types of livestock.

[40] ASAL Policy and FAO Livestock Sector Brief, Kenya 2005.

Livestock ownership does not vary significantly by district. Herd sizes are largest in Mandera (12 TLUs per household), meaning that fewer households engage in livestock keeping, but those who do, keep larger herds. The opposite pattern is found in Turkana, where a large proportion of households keep livestock but herd size is significantly smaller than the other three districts (six TLUs per household).

Livestock ownership varies significantly by quintile (see Figure 7.1 and Table A7.1b). Interestingly, households in the wealthiest quintile are significantly less likely to own livestock (53%) than in the other quintiles (between 70% and 80%). Households that fall into the wealthiest quintile tend to be formally employed, either in salaried work, public sector work (including teachers) or are shop owners. Herd size, however, does seem to be correlated with wealth, as livestock owners in wealthier quintiles have significantly larger herds than poorer livestock owners, though the difference is not large.

Figure 7.1 Livestock ownership by wealth quintile

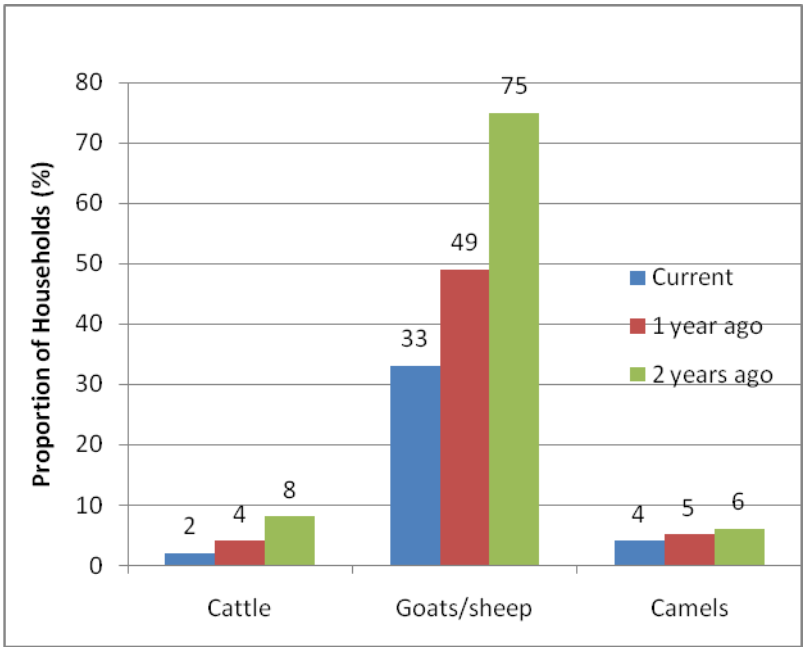


Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Households were asked about their ownership of animals one and two years prior to the survey. Their reports suggest that herd size is declining, apparently very rapidly – a 100% decrease in the average number of goats/sheep, camels and cattle owned over the last two years – as Figure 7.2 below shows. This appears to present an alarming state of affairs. However, there are two caveats that are useful to note when interpreting these data. First, pastoral enterprise is always faced with the possibility of rapid growth and decline and this may reflect the natural 'boom and bust' inherent in pastoral systems.[41] Second, it is notoriously difficult to obtain accurate livestock figures from herders who, understandably, seek to protect their wealth from outsiders. If respondents tended to understate the current number of livestock more than past numbers, this would also contribute to the apparent decline.

[41] This is exemplified by McPeak (2005), who reports that the livestock population in Marsabit declined by 51% between 1993 and 1991.

Figure 7.2 Mean number of livestock owned by household and main provider



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

There is a significant difference in livestock ownership between treatment and control groups and targeting mechanisms. Households in treatment groups are less likely to own livestock (61%) than in control groups (80%), significant to 10%. Significantly fewer households in CBT areas owned livestock (58%) compared with households selected by SP (76%) and DR (79%).[42]

The survey results suggest that the average number of livestock owned is low. There is extensive literature on viable herd sizes for pastoralists in East Africa[43] and viable herd sizes are given at a minimum of 3.5 TLUs[44] per person. The herd sizes in the programme area are all under this minimum 3.5 per person, with an average of 1.8 TLUs per household member. Other authors say that what is viable is dependent on the wider economic and livelihood system, as well as patterns of mobility rather than actual herd size *per se* (Devereux and Scoones), and that there are very few 'pure' pastoral settings today and simple notions of 'viability' are inappropriate.

The baseline survey showed that households in the HSNP districts depend on a wide range of livelihood sources, not just pastoralism (see Section 6), so this would suggest that a simple cut-off may be inappropriate. Nevertheless, given the importance of pastoralism to many households and the local economy and limited scope for alternative livelihoods (aridity, remoteness, insecurity etc.), these low herd sizes may be an important factor in the observed poverty levels. It is also possible that livestock ownership has been under-reported (since divulging information about herd size is culturally sensitive for many in the ASALs) and that this is part of a boom and bust cycle of ownership and a consequence of livestock diseases (for instance the outbreak of PPR between 2006 and 2008). These issues require further investigation.

[42] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

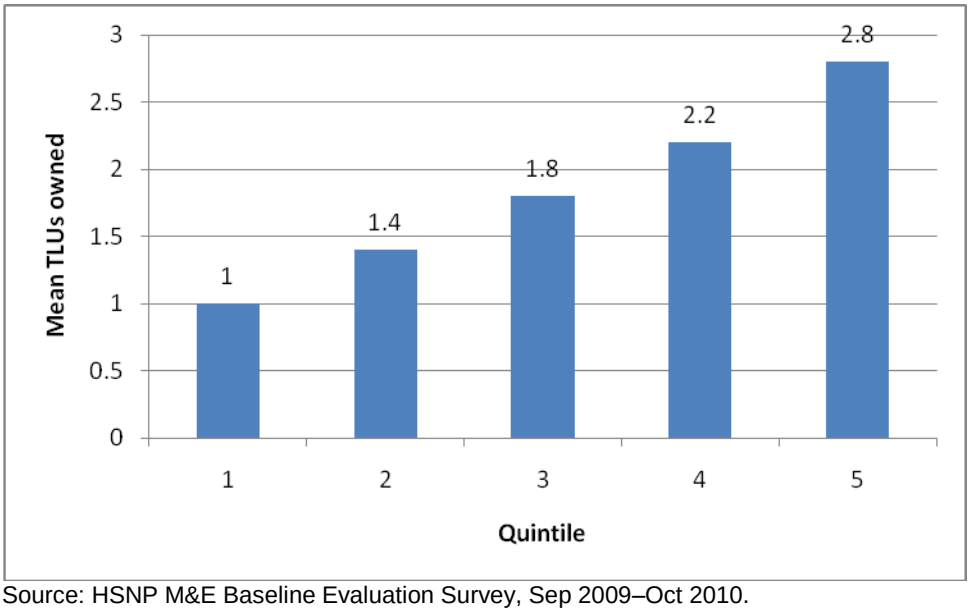
[43] See Sandford (1983) and Little (2006).

[44] A TLU is 250kg liveweight of any domestic herbivore. In this study, one average head is: cattle = 0.7TLU, camel = 1 TLU and sheep and goats = 0.1 TLU (source: FAO).

Significantly fewer TLUs *per capita* are owned by households selected for the programme (1.5) compared with those not selected (2.2). This is driven only by DR households, as there is no significant difference in mean TLUs *per capita* between those selected and those not selected in CBT and SP sub-locations.[45] There is a significant difference between districts, as stated above. The mean TLUs per person in Mandera are 2.4, compared with 1.2 in Turkana (see Table A7.1c).

The mean TLUs owned *per capita* also vary significantly across the poverty quintiles (see Figure 7.3). Households in the poorest quintile own 1 TLU *per capita*, compared with 2.8 TLUs *per capita* in the wealthiest quintile, and these differences are statistically significant.

Figure 7.3 Mean livestock TLUs *per capita*, by quintile



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

As expected, the mean number of sheep/goats owned by households is much higher than ownership of camels and cattle[46] (30, three and two, respectively). However, the cattle and camel ownership figures suggest that few households own these species; the medians show a slightly different picture of camel and cattle ownership, being zero for both species. Sheep and goat ownership is significantly lower in Mandera (average of 23 per household), where camel ownership is significantly higher than in other districts (average of six per household). Cattle ownership is significantly lower in Turkana (average of one per household), which is the driest of the four districts.

Herd diversification is a common strategy throughout Africa's rangelands. It is a risk-mitigation tactic because it allows herders to avoid sweeping losses when a single species is affected by drought or disease (Little 2003). Wealthier households are better able to diversify herds with more value stock. They own significantly more cattle (3.4) and camels (4.8) per household than poorer households. Interestingly, sheep/goat ownership does not vary across the wealth quintiles, despite often being used as a key criterion in poverty-targeting programmes in the area.

[45] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

[46] Cattle are the species most sensitive to heat stress and shortage of water and camels are generally owned by wealthier households.

A range of livestock tenure arrangements exist in pastoral societies, including outright ownership as well as a number of loaning and sharing arrangements. These arrangements are part of the support networks that pastoralists build in order to help them to retain their assets.[47] Both livestock assets and social assets need to be managed effectively so that households can deal with fluctuations in their livelihoods. The most sharing took place with goats/sheep, whereby over a third of all sheep and goats (18 on average) were reared on behalf of another household. Significantly more sharing took place in Mandera and Wajir compared with Turkana and Marsabit. Livestock sharing enables both post-drought restocking (which might be reciprocated in a future crisis) and helps risk management during a crisis by facilitating access to a wider geographic spread of pasture and water by enduring that livestock are spread among a wider number of herds.

Interestingly, livestock ownership between partially mobile and fully mobile households does not differ greatly in terms of small stock but is significantly different in terms of camel ownership. This is what drives the significant difference in TLUs *per capita* – 3.5 for fully mobile households and 2.1 for partially complete.

Table 7.1 Livestock ownership by mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Estimate	N
Mean number of goats/sheep owned by HH and main provider	26***	40**	50***	33	3,778
Mean number of camels owned by HH and main provider	2***	5	9***	4	3,778
Mean number of cattle owned by HH and main provider	2*	3	3	2	3,778
TLU *per capita* for livestock owned currently by HH and main provider	1.3***	2.1	3.5***	1.8	3,778

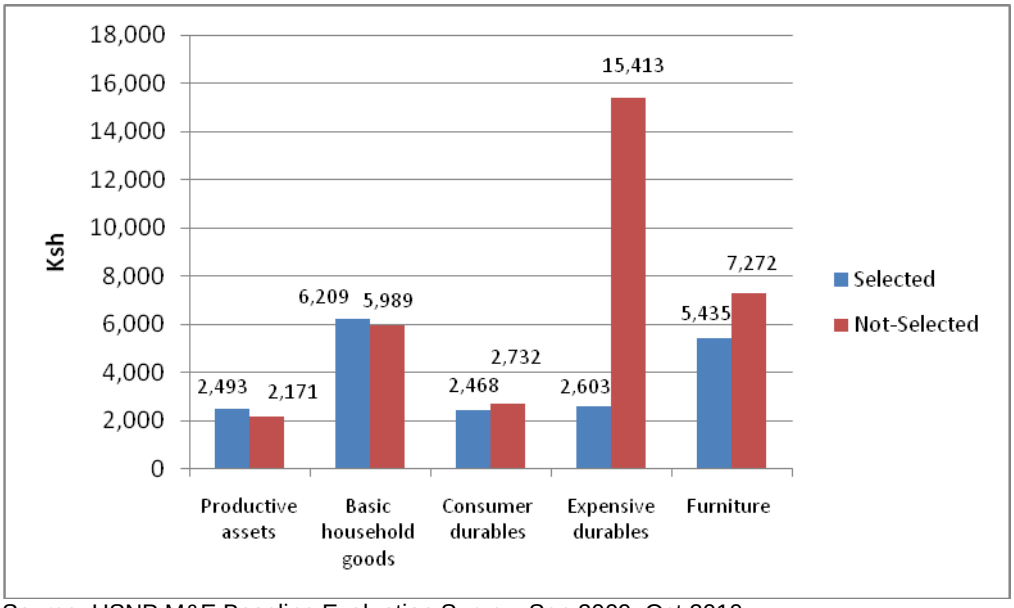
Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Fully settled defined as the whole of the household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals.

7.2 Productive assets and household goods

The overall mean value of household assets is KES 26,179 (£209) (see Table A7.2a). While the reported values of the assets held by selected and non-selected households differ substantially (KES 19,208 and KES 33.576, respectively), the differences are not statistically significant. There is a difference between households selected (KES 13,615) and not selected in CBT sub-locations (KES 49,942) but again the differences are not significant. Overall household asset ownership varies by district, with the mean value of assets in Turkana (KES 10,148) being one fifth of those in Marsabit (KES 49,389) and this was significant (see Table A7.2b). This reflects the overall poverty rates in Turkana.

[47] Pastoralists have access to support networks and relations through exchanges of animal assets. This acts as a buffer against a volatile environment. The poor are often isolated from such networks.

Figure 7.4 Assets owned by HSNP beneficiaries and non-beneficiaries



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Households were asked about their ownership of productive assets, which included water drums, agricultural tools, animal carts and *pangas* etc. The overall total value of these types of assets was KES 2,337 and it hardly varied across the targeting mechanisms and according to programme selection. This was probably because most people did not farm and therefore did not own most of these assets, although most households own *pangas* and some own water drums. Households in Wajir had significantly more productive assets compared with other districts (KES 4,019), which is driven by animal cart ownership.

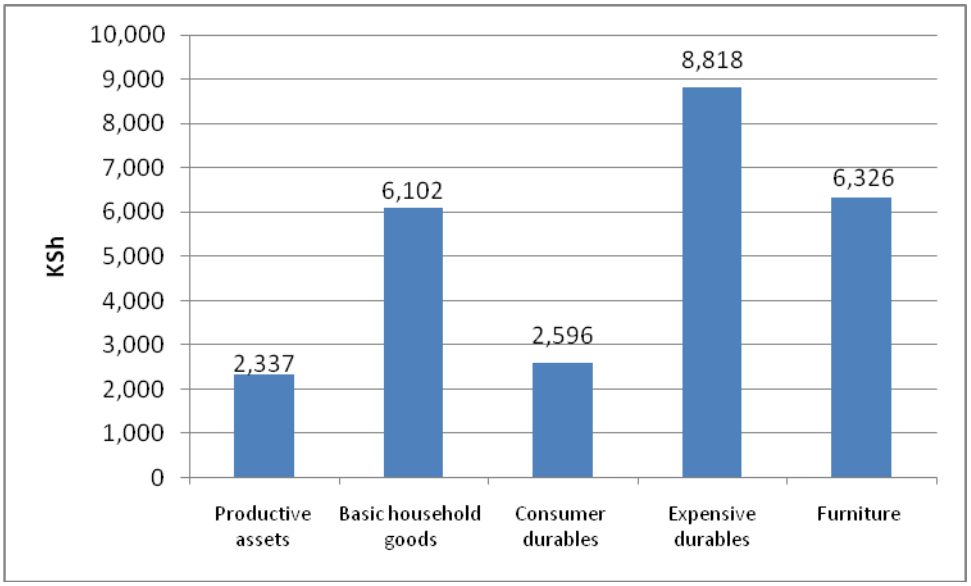
Basic household goods (*jikos*, stick beds, skins, mosquito nets, gourds, mats, jerry cans, etc.) owned were worth an average of KES 6,102 (£49). Interestingly, households selected by DR were significantly more likely to own these goods (6,755) than households not selected by DR (KES 5,814). The value of household goods in Turkana was significantly less (KES 4,033) than Wajir (KES 7,602).

The average value of furniture (modern beds, stools, chairs etc.) was KES 6,326 (£50), being significantly lower in households selected by the SP (KES 1,953) and by CBT (KES 3,560). Turkana residents also owned very little furniture (KES 603) compared with other districts, particularly Wajir (KES 10,042).

Consumer durables included mobile phones, radio, jewellery, bicycles, watches and paraffin lamps. The total mean value of these items was KES 2,596 and, as with ownership of furniture, households selected by the SP (KES 665) and by CBT (KES 1,492) were significantly less likely to own them. Significantly fewer households in Turkana also owned consumer durables (KES 1,197).

Households were asked about ownership of 'expensive durables', which included cars, computers, satellite dishes, TVs etc. Although ownership was considerably less in selected households (KES 2,603) than non-selected households (KES 15,413), the difference was only significant in DR households.

Figure 7.5 Mean value of all assets



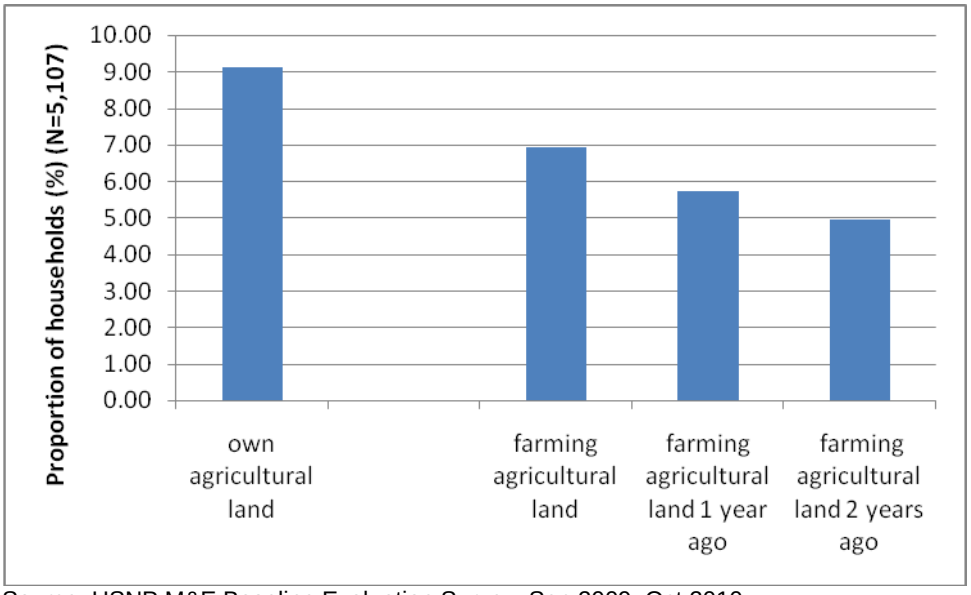
Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

7.3 Land ownership

As would be expected in an ASAL area, only 9% of households in the sample group own agricultural land and the average plot size is small (see Table A7.3a). Land ownership varies slightly but not significantly across districts; the highest proportion of land-owning households is in Marsabit (15%) (see Table A7.3b). The only statistically significant difference was that more land is owned by SP beneficiaries (14%) compared with those not selected in SP sub-locations (8%).

Not all land owned is being farmed, as the proportion of households currently farming agricultural land is lower than land ownership (7%). This is likely to be due to a lack of inputs, including water, seeds and fertiliser. Retrospective reports by households suggest that there is a slight trend for more households farming now than two years ago in the sample areas, despite the lack of rain in the region. One year ago, 6% of households were farming and two years ago it was 5%. This increase is both for irrigated and non-irrigated farming. There is some indication from the qualitative data that households start farming when they have lost their livestock through drought, disease and raiding: *"everybody has since resolved to start farming and there is even more influx due to cattle rustling"* (farmer, Turkana).

Figure 7.6 Land owned and farmed, currently, 1 year ago and 2 years ago



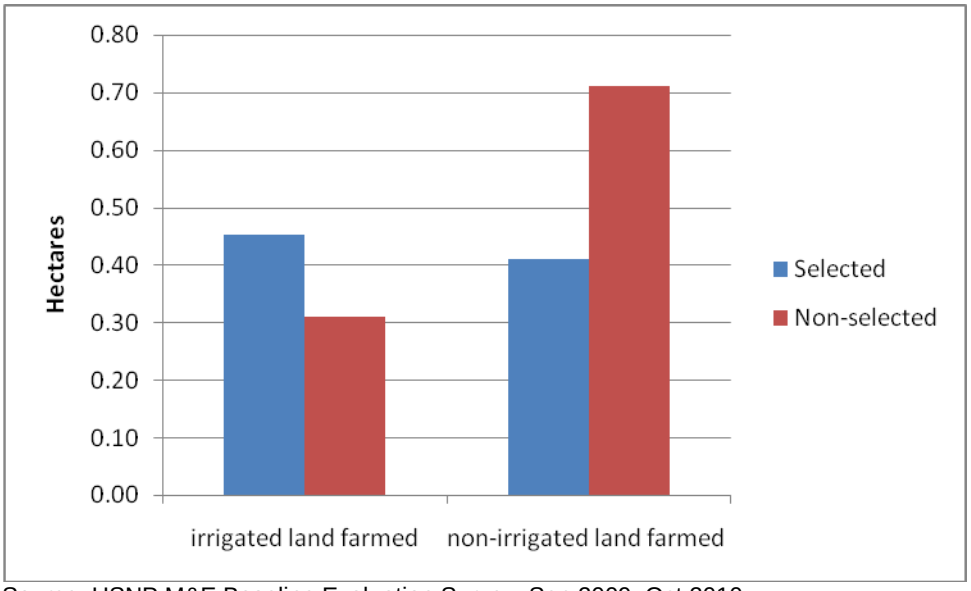
Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

The limit to the number of households who engage in farming is likely to be due to the allocation of cultivable land as well as the lack of rain: *"I have the will to do farming but I am yet to be allocated land"* (female beneficiary, Turkana).

Although slightly more households are farming, the plot sizes being farmed are very small (see Figure 7.7) and are declining slightly. For those households who farm, the mean size of irrigated land currently under use is 0.4ha, whereas it was 0.5ha two years ago. The mean non-irrigated farm size currently under use is 0.6ha, compared with 0.7ha two years ago. This is likely to be due to the poor rains:

> *"We use our farm. By cultivating land we earn our living, this has turned to be impossible these days due to prolonged drought. Now we just depend on help from the government and other humanitarian agencies"* (male non-beneficiary, Marsabit)

Figure 7.7 Mean size of land currently being farmed



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Although all plot sizes are small, they appear considerably smaller for non-irrigated land in Wajir.[48] This suggests that farming in Wajir is only done on the land around the homestead rather than on a separate tract of land, as in Marsabit. In both cases, the area of land farmed has decreased over the last two years, probably reflecting poor rains.

In both CBT and DR sub-locations, those selected for the programme farm smaller non-irrigated plots than those not selected, but all the plot sizes are very small.[49] Small plot sizes mean that the harvests are small. There are other problems with farming, which include floods (crops are usually grown on the banks of dry river beds prone to flash floods during the rains), disease, theft and conflict with wildlife.

Once harvests are gathered, farmers also face problems marketing their produce. Challenges include selling when prices are low and buying when they are high, as well as transport to reach markets where produce can be sold at higher prices:

> *"There is no specific place that we can sell our produce. We just sell to greedy people who buy from us at low prices and when our stocks are depleted they again sell to us at very high prices"* (farmer, Turkana)

> *"If you can transport your produce to better markets like Lokichar or Lodwar, you will reap the benefits but when you do not have that capacity then you will have to face the low prices of the local traders"* (farmer, Turkana)

Access to better markets is a particular problem for women, who traditionally do not travel far from home:

> *"The only challenge is that we women who are the main farmers are not widely travelled and thus we have not explored markets for our produce. We strive to sell our produce locally"* (farmer, Turkana)

[48] Small sample sizes for land-owning households mean that disaggregated numbers may not be reliable.

[49] Again, small sample sizes for land-owning households mean that disaggregated numbers may not be reliable.

8 Education

The HSNP aims to improve children's access to education by contributing to meeting the costs of schooling. Literacy levels are very low in the HSNP programme area, and illiteracy constrains livelihood options and contributes to undernutrition. However, school attendance has increased rapidly in the current generation, to over half of all children surveyed, which is important because it gives these children opportunities for more diversified future livelihoods.

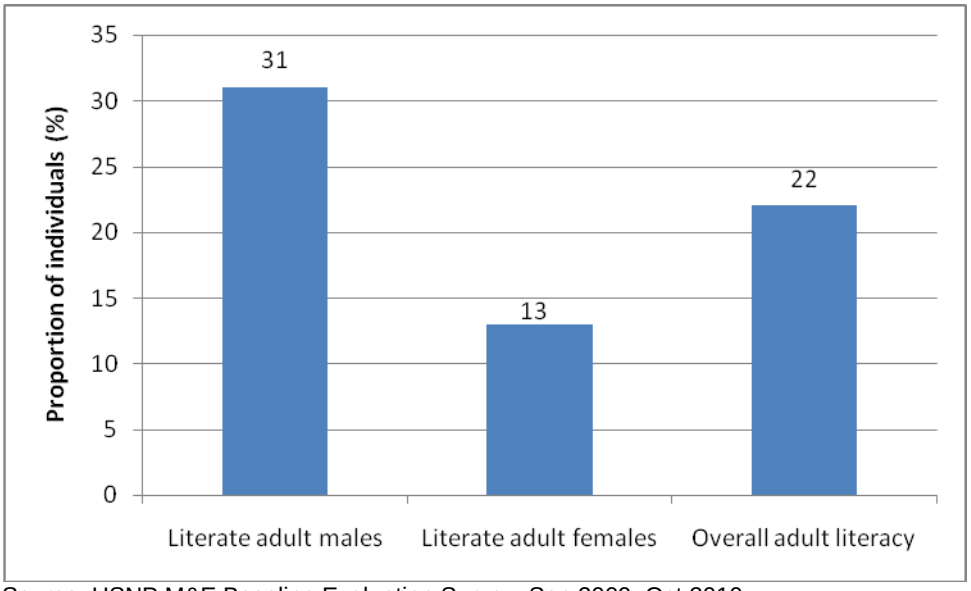
8.1 Adult literacy levels and levels of education

8.1.1 Adult literacy

Most adults in the sample are illiterate, and attended school considerably less than children now. Adult literacy rates are set out in Table A8.1a. Only 22% of adults in our sample are literate. Women (13%) are less likely to be literate than men (31%) and this is statistically significant. 25% of male household heads and 10% of female household heads are literate.

There are no significant differences in adult literacy by beneficiary status. 20% of men heading selected households are literate, compared with 29% of non-selected male household heads. Literacy is particularly low amongst SP households, where only 15% of selected households headed by men have a literate household head.

Figure 8.1 Adult literacy



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Between the four districts, Marsabit has slightly better adult literacy figures (see Table A8.1b). Literacy appears worst for women in Mandera, but overall worst in Turkana. Literacy rates are lowest in Turkana (15%) and highest in Marsabit (33%), and this difference is significant. 5% of female-headed household heads are literate in Mandera, compared to a 10% average.

Literacy rates are significantly lower in both partially and fully mobile households. They also vary by gender. Women in fully mobile households are only 1% literate and only 3% in

partially mobile households, compared with those who are 17% permanently settled.[50] Men's literacy rates are slightly better, with 10% literacy for the fully mobile, 12% for partially mobile and 40% for the permanently settled. All these figures are statistically significant:

Table 8.1 Illiteracy rates by mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Estimate	N
Proportion of adult men (18+) who are literate	40***	12***	10***	31	6,329
Proportion of adult women (18+) who are illiterate	17***	3***	1***	13	6,285

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Fully settled defined as the whole of the household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals.

8.1.2 Adult levels of education

These low adult literacy rates are related to low levels of schooling when the individuals were children (see Table A8.1c). Only 15% of adults completed primary school, 7% completed secondary school, and only 22% ever attended primary school. This makes clear the substantial improvement in primary enrolment for the current generation of children: 47% of current 6–12 year-olds have attended primary school, although this still means that more than half have never been to school and does not compare well with national figures. The KIBHS (2005/6) reports that 93.4% of the population aged 6–17 years had attended school for at least one school term.

Men are far more likely to have attended or completed primary and secondary school than women. Only 8% of women have completed primary school (compared to 21% of men), and 3.6% of adult women have completed secondary school (compared to 11% of men).

Selected households have marginally fewer adults who completed secondary school (5% compared to 9% in non-selected households) and who ever attended primary school (20% compared to 25%). This is statistically significant. As with illiteracy, these differences are driven by the SP households, where adults in selected households are significantly less likely to have attended completed primary and secondary school. However, there are no significant differences between households for the other targeting mechanisms.

As with illiteracy, adults in Marsabit have significantly better attendance and completion rates and adults in Turkana significantly worse. In Marsabit, 24% of adults completed primary school while in Turkana this proportion is only 6% (see Table A8.1d).

Adult illiteracy and education levels are significantly different by wealth quintile. Adults in households in the poorest quintile are significantly more likely to be illiterate and less likely to have completed schooling. Table 8.2 below indicates that while 86% of adults in the poorest quintile are illiterate, this falls to 65% in the richest quintile. Similarly, while only 8% of adults in the poorest quintile completed primary school and 3% secondary, in the richest quintile

[50] The very low levels of literacy may contribute to the extremely high rates of acute malnutrition in the programme area.

these proportions are 27% and 16% respectively. On several of these indicators there is a noticeable difference between the fourth and fifth quintile, for instance almost twice as many adults in the fifth quintile have completed secondary school compared to adults in the fourth quintile. This is one of many areas where a small proportion of the survey population appears to be substantially better off than the rest.

Table 8.2 Adult illiteracy rates and levels of education by quintile

Indicator	Poorest → Richest				
	Q1	Q2	Q3	Q4	Q5
Literacy Rates					
Proportion of adults 18+ that are literate (%)	14***	19	18**	27**	35***
Proportion of male-headed households with a literate head (%)	12***	22	15***	27	45***
Proportion of female-headed households with a literate household head (%)	4***	8	8	18**	17
Levels of Education					
Proportion of adults 18+ that have finished primary school	7.9**	11**	11**	18*	27***
Proportion of adults 18+ that have finished secondary school (Form 4 leavers)	3.3***	4.4**	4.8**	8.7	16***
Proportion of adults ever attended primary school	15**	19*	18**	27*	35***

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Consumption quintiles are defined according to the distribution of consumption expenditure over the study population such that each quintile contains 20% of the population.

These extremely low adult literacy rates (especially for women) are related to low levels of adult schooling set out in relation to mobility in Table 8.3 below. Only 1% of women in fully mobile households and 3% in partially mobile households have ever attended primary school and even fewer women actually completed Standard 8 (0.5% and 1%, respectively). These findings are significantly lower than the proportion of women living in permanently settled households who have ever attended primary school (18%) and who completed Standard 8 (10%). Overall, only 4% of women have completed Form 4.

Men are twice as likely to have attended and completed school compared to women. 39% of permanently settled men have ever attended primary school and 28% completed Standard 8. 11% of partially mobile men and 8% of those who are fully mobile have ever attended primary school. Secondary school completion is also higher, with 15% of permanently settled men having finished Form 4, although only 3% of partially mobile and 0.4% of fully mobile men did so.

Table 8.3 Adult levels of education by mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Estimate	N
Proportion of adult men (18+) who have ever attended primary school	39***	11***	8***	30	6329
Proportion of adult women (18+) who have ever attended primary school	18***	3***	1***	14	6285
Proportion of adult men (18+) who have finished primary school	28***	6***	3***	21	6329
Proportion of adult women (18+) who have finished primary school	10***	1***	0.5***	8	6285
Proportion of adult men (18+) who have finished secondary school	15***	3***	0.4***	11	6329
Proportion of adult women (18+) who have finished secondary school	5***	0.5***	0.2***	4	6285

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Fully settled defined as the whole of the household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals.

8.2 School attendance

Households reported on whether children were currently attending school. Just under half (47%) of children under the age of 18 are currently *not* attending formal school, including nursery, primary and secondary (see Table A8.2a). There are no significant differences by district in formal school attendance (see Table A8.2b). Boys are more likely to be in formal education than girls (by around 10%). There is no significant difference by beneficiary status, except that children in selected DR households are more likely to attend formal school.

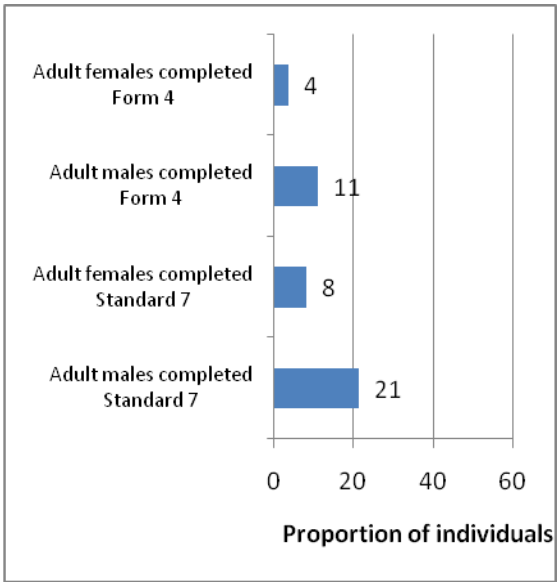
Children's primary education indicators are considerably better than adults' (see Figure 8.2), but remain very poor as set against goals of universal primary education: only 45% of 6–12 year old children are currently attending primary school. The fact that 45% of 13–17 year-olds are also currently attending primary school indicates many late starters and/or repeaters. Only 8% of 13–17 year-olds are in secondary school, which could reflect the fact that secondary school fees are relatively high but primary schooling is virtually free. The gender gap remains for children, though it is smaller than that for adults: 48% of 6–12 year old boys are currently attending primary school, compared to 43% of girls; 9% of 13–17 year old boys are currently attending secondary school, compared to 6% of girls.

There are no significant differences by beneficiary status. In DR areas, 6–12 year-olds in selected households are more likely to be attending primary (42%) than their counterparts in non-selected households (34%). This is consistent with the finding that DR targeting was not very effective at selecting the poorest households.[51]

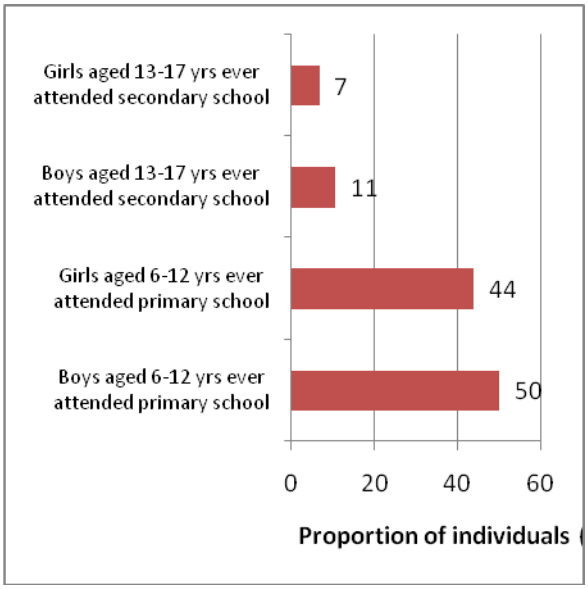
[51] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

Figure 8.2 Adult school completion compared with current children's attendance

(a) Proportion of adults who have completed primary and secondary school



(a) Proportion of children who have ever attended primary and secondary school



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Attendance is strongly related to wealth (see Table 8.4). Children in the poorest quintile (40%) are significantly less likely currently to attend formal school than children in the richest (68%). This pattern is sustained for attendance at *duksis* and *madrasahs.* A much lower proportion of children in the poorest quintile are attending primary school (34% of 6–12 year-olds) than in the richest quintile (56%). This is statistically significant. This pattern is similar in secondary school, such that only 2% of 13–17 year-olds in the poorest quintile are attending secondary school, while 17% of 13–17 year-olds in the richest quintile are attending.

The proportion of children who have ever attended primary or secondary is similarly lower in poorer households.

There is a significant difference by randomisation status that will need to be addressed in the impact analysis: 51% of children aged 6–12 in our treatment sample are currently attending primary school, compared to 38% in our control sample, significant to 10%.

Table 8.4 Current school attendance by quintile

Indicator	Poorest ➔ Richest					Overall	
	Q1	Q2	Q3	Q4	Q5	Esti-mate	N1
Current attendance							
Proportion of children currently attending school (excluding *duksi* and *madrasah*)	40***	49	51	62***	68***	53	10,540
Proportion of children attending *duksi* or *madrasah* only	2.9***	6.7	8.7	8.4	10	7.1	10,540
Proportion of children aged 6-12 years currently attending primary school	34***	43	44	53**	56**	45	6,631
Proportion of children aged 13-17 years currently attending secondary school	2.4***	4.6**	7.1	14**	17**	7.9	3,909

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Consumption quintiles are defined according to the distribution of consumption expenditure over the study population such that each quintile contains 20% of the population.

As well as current attendance, the questionnaire also asked about whether children had *ever* attended school, and if not the reasons for never having attended. Over half (53%) of 6–12 year-olds have never attended primary school, and 92% of 13–17 year-olds have never attended secondary school (see Table A8.2c). Again, boys are more likely to have attended than girls, and children in selected DR households are more likely to have attended than non-selected households. Mirroring patterns in adulthood, children in Marsabit are more likely to have attended school, and 13–17 year-olds in Turkana significantly less likely (1%).

Levels of schooling have changed substantially in one generation, with nearly half of all children currently attending school. As expected, these figures vary significantly by mobility, with 55% of boys and 53% of girls aged 6–12 from permanently settled families currently at primary school. School attendance for mobile children is lower, particularly for girls. 35% of boys and 26% of girls aged 6–12 from partially mobile families are in primary school. As expected, there are fewer children from fully mobile families at primary school (19% boys and 11% girls), although 17% of boys and 9% of girls attend *duksi* or *madrasah*.

The figures for secondary school are much lower. Only 11% of permanently settled boys and 3% of those from mobile families are currently in secondary school. Fewer girls attend secondary school – 8% from permanently settled families, and 1–2% from mobile households (see Table 8.5).

Table 8.5 Children currently attending school by mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Esti-mate	N
Proportion of boys (aged 6-12) currently attending school (excluding *duksi* and *madrasah*)	55***	35***	19***	48	3499
Proportion of girls (aged 6-12) currently attending school (excluding *duksi* and *madrasah*)	53***	26***	11***	43	3132
Proportion of boys (aged 13-17) currently attending school (excluding *duksi* and *madrasah*)	11***	3***	3**	9	2131
Proportion of girls (aged 13-17) currently attending school (excluding *duksi* and *madrasah*)	8***	2***	1***	6	1778
Proportion of boys (aged 6-17) currently attending *duksi* or *madrasah* only	7	7	17**	8	5630
Proportion of girls (aged 6-17) currently attending *duksi* or *madrasah* only	6	3**	9	6	4910

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Fully settled defined as the whole of the household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals.

8.2.2 Reasons for missing school

There are intriguing differences in reasons given for not attending school between the survey questionnaire and the qualitative interviews. According to the household survey, among the children who never attended school, household labour requirements are the most common reason for not going to school (22%). By contrast, only 2% of all children are reported not attending because of cost, and only 4% of all children do not attend because of a belief that education is not important. Girls are more likely than boys to not attend for all these reasons. Children in DR households are significantly less likely to miss school because of household labour requirements, which is somewhat counter-intuitive and reflects the problems identified with DR targeting.[52] Children in Turkana are significantly more likely to miss school because of household labour requirements (38%) and children in Mandera significantly less likely (14%).

The correlations between consumption levels and reasons for never attending school are interesting. There is no difference in the proportion of children who have never attended due to cost by wealth quintile (see Table A8.2d). However, children in poorer households are significantly more likely never to attend school because of labour requirements (33% of children in the poorest quintile compared to 9% in the richest quintile). Children in the richest quintile are also significantly less likely than the average to not attend school due to a belief that education is not important.

Table 8.6 below provides a rough indication of the relative importance of the different constraints to access to education, derived from the qualitative fieldwork.[53] Here, education

[52] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

[53] The table shows the frequency (i.e. the number of sources – QPS, FGD, KII – in which an issue was raised) with respect to factors explaining constraints to education raised across all four districts.

costs emerge as the most common constraint, with looking after livestock (one form of household labour requirement) a distant second, followed by illness and pregnancies, while other issues such as early marriages and migration were also mentioned occasionally. One reason for the contradiction between quantitative and qualitative findings could be that this issue was asked about or discussed slightly differently by each method. For instance, the need for household labour could be interpreted as an indirect cost, as households with sufficient resources could hire extra labour and send their children to school. These reasons are discussed below in turn.

Table 8.6 Constraints to access to education

Constraints to education access	Number of sources (QPS, FGD, KII) where the issue was raised
Cost of schooling	36
Looking after livestock	12
Ill health	8
Pregnancy	7
Early Marriage	4
Migration	2

Source: HSNP M&E Baseline Evaluation Survey, Qualitative Study, Sep 2009–Oct 2010

Costs of schooling

This was the main factor inhibiting access to education for children. Despite the roll-out of free primary education, in practice households still incur costs in relation to uniforms, school supplies, examination fees, and other charges. Such costs increase when children reach secondary level where free education and school meals are not available. This is partly responsible for much lower secondary enrolment rates. One respondent in Mandera said: *"My children go to school now but maybe if they get to secondary school and there is no money then it is obvious they will not go to school"* (female elder, Mandera). It is evident from the above interrelating discussions that whilst respondents may wish to participate in education, poverty is an issue of concern. When respondents were asked how they deal with costs associated with education, references were made to a number of coping mechanisms, including making distress sales of livestock, help from family members, etc.

Looking after livestock

Many children miss school or drop out entirely because they have to help their families to look after livestock. This probably reflects both household economic needs and normal cultural practice. For example, one respondent said: "*some members of this community are still stuck to the things of the past; they value keeping animals more than education, and that was why they allow children to follow animals rather than educating them"* (teacher, Marsabit).

Ill health

As is common throughout the world, illness is another factor explaining why children may miss days of school. The following comment is typical of comments raised in relation to health as a constraint to education: "*When my children are ill, they stay back from school… and there is no money for treatment"* (female beneficiary, Turkana).

Early marriage and pregnancies

Particularly for girls, early marriages and pregnancies were identified by respondents as constraints to access to education. Although not explored fully in discussions, within broader

literature, poverty is a major factor underpinning early marriage. In poor households, a young girl may be regarded as an economic burden. Sending girls away to marry reduces demands on households' income. Other factors such as socio-cultural values and religion also encourage early marriages. Early marriage restricts school attendance because it is hard to combine duties in marriage with school attendance. In addition, in a KII with a teacher in Turkana it was mentioned that some schools often have a policy of refusing to allow married, pregnant girls and new mothers to return to school. The typical belief is that these girls are a bad example to other pupils.

8.2.3 Attitudes to education

Despite some common misgivings that pastoralists do not value education, quantitative evidence indicates that few children miss school because of this reasoning. This was reflected in the qualitative research, where respondents were very positive about education overall. It was generally considered to be an asset of great value to the individual, their family and the wider community. No pattern emerged in the data with respect to differences in gender or age groups, nor were there any differences between districts when discussing the importance of education (see Table A8.2e).

The benefits of education were expressed in various ways. First, the economic benefits were most widely acknowledged. Education was regarded as being able to uplift an individual and their community's economic standard, by improving and securing job prospects and eventually leading to an increase in earnings. In this regard, respondents equated education with some notion of "*investment for the future",* where *"after completing school one gets employment that helps oneself and one's parents"* (female beneficiary, Marsabit)

Nearly all of the economic benefits referred to by respondents addressed opportunities for paid employment. Unsurprisingly, respondents did not refer to benefits of education on livestock rearing or other common pastoral livelihoods, as pastoralists have long expressed the view that modern education does not support livestock keeping. Adult respondents expressed sentiments that education would provide their children with a better life than they had. One respondent from the FGDs said:

> *"We believe knowledge is necessary in life. Our children are the only hope we have in our lives, to improve our lives by working for us and they will also help themselves in future not to live in poverty like us"* (male elder, Mandera)

Second, in describing the benefits of education, respondents allude to some notion of enlightenment and that education was important to understand the complexities of the modern world:

> *Education is important because it enables you to listen and think differently* (male beneficiary, Mandera)
>
> *Education is a light – an illiterate man is the same as a donkey loaded with honey* (male beneficiary, Mandera)

Third, education was also considered useful because children are fed at school. The Ministry of Education, in conjunction with the WFP, has been running school feeding programmes in government schools in ASAL districts since 1980. Experiences indicate that this programme and others operating in the project area have encouraged parents to send their children to school (MoE, 2008). During the FGDs with male and female elders in Turkana, education was seen as important for its contribution towards household food rations: *"We take them to school so that they can eat there, since there is no food at home"* (female elder, Turkana). This resonates with other studies where it has been found that school feeding programmes

have positive impacts in influencing access and retention in education.[54] Quantitative data suggest that the vast majority of children attending school receive food, except in Mandera (see Section 8.4.3 below).

In discussing the potential benefits of education, respondents generally did not differentiate between males and females. The majority of respondents acknowledged that children of both sexes should be given equal access to education – at least in theory. However, KIIs with teachers confirm the quantitative finding of a greater enrolment ratio in practice for boys compared to girls. Traditionally, boys have been given priority in terms of access to education due. However, also in line with quantitative results, the general perspective was that this gap was narrowing as a result of greater social awareness about the importance of girls' education as well as the introduction of free primary education.[55]

Interestingly, the main barrier to school attendance is not reported as cost (1–2% overall). The contribution of children to the household labour pool is much more of a factor, particularly among fully mobile households, where 55% of girls do not attend school because of this reason (compared with 38% of boys). There is some evidence of low prioritisation of education in mobile families (10% of girls in fully mobile families), which is often linked to poor access to schools as well as likelihood that children will not return to look after the household livestock if they attend school.

Table 8.7 Constraints to access to education by gender and mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Esti-mate	N
% of boys (aged 6-17) who have never attended school due to cost	1	4	1	1	5630
% of girls (aged 6-17) who have never attended school due to cost	2	5	0.6**	2	4910
% of boys (aged 6-17) who have never attended school due to household labour requirement	13***	34***	38***	20	5630
% of girls (aged 6-17) who have never attended school due to household labour requirement	17***	40***	55***	25	4910
% of boys (aged 6-17) who have never attended school due to belief that education is not important	2*	4	7	3	5630
% of girls (aged 6-17) who have never attended school due to belief that education is not important	4***	9**	10**	6	4910

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Fully settled defined as the whole of the household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals.

[54] http://home.wfp.org/stellent/groups/public/documents/newsroom/wfp225966.pdf

[55] In 2003, the Government of Kenya introduced Free Primary Education, which pegged KES 1020 per child to support instructional materials, co-curricular activities and support wages of non-teaching staff (MOEST 2003).

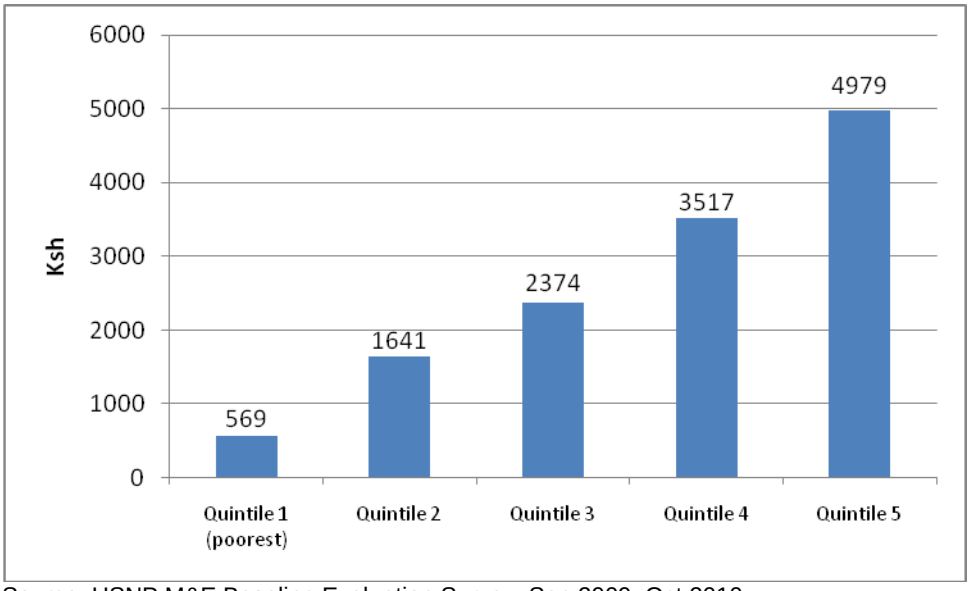
8.3 Supply of and spending on education

8.3.1 Household spending on education

Mean total annual household expenditure on education is KES 2,616, but richer households spend much more on education than poorer ones (see Figure 8.3). Households in the richest quintile spend around KES 5,000, whereas those in the poorest spend only KES 570 on education (see Table A8.3a). Households in Turkana spend considerably less on education (KES 1,231) than the average, probably reflecting both the lower levels of schooling and the higher levels of poverty there. There are no significant differences by beneficiary status, which is somewhat surprising.

The average expenditure on education per household member currently attending school is KES 157 per child per month. Differences between selected and unselected households are not significant.

Figure 8.3 Mean annual household expenditure on education



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

8.3.2 Supply of education

Around half the communities surveyed contain a government primary school, but only 13% contained a secondary school. In nearly all communities (95%), most people use a government primary school. 77% of communities with a government primary said that most people were satisfied by the education provided by it.

There are significant differences by district in education supply (see Table A8.3c). Wajir has the best indicators of education supply and perceptions of education, and Marsabit the worst. In Wajir, 74% of communities have a primary school within their community (and this is always a government institution). 99% of communities were satisfied with this. In Marsabit, by contrast, only 28% of communities had a primary school within the community. Only 33% of communities were satisfied with the government primary school most people used. However, this may be due in part to higher expectations, recalling the better educational outcomes in Marsabit.

Qualitative fieldwork also provided evidence on education services. Respondents made references to the availability of nursery, primary and secondary schools at varying distances

from their homes. In a region with a relatively high degree of mobility and low population density, a range of innovative education services such as low-cost boarding schools and mobile schools have been introduced as a means of increasing access to mainstream education. However, respondents did not mention these, perhaps because they are not yet very common.

In addition to mainstream education, qualitative respondents noted that children attend *duksis* or *madrasahs,* an Islamic-based system of education where children are taught to recite the Qur'an (*duksi*) as well as Arabic, Islamic law and other subjects (*madrasah*). Traditionally, these are taught by a single teacher known to the community and are flexible to accommodate different learning levels while avoiding conflict with children's roles in the community, such as taking care of livestock. It is interesting to note that *duksis* and *madrasahs* (where 7% of children were enrolled) were not typically seen as substitutes for formal education. This signifies the wider acceptance of mainstream education in the study communities. As respondents put it:

> *"First of all, the school is important because our children study there. Our children can now speak the language we as their parents don't know. But Madrasas contribute to enlightening them on the side of religion"* (male elder, Mandera)

8.3.3 School feeding

School feeding is very common, with 80% of those children currently attending school receiving it (see Table A8.3a). There is no significant difference in the proportions of those children who are in school who receive school feeding by beneficiary status. School feeding seems to be given to most schoolchildren in most districts, except in Mandera, where only 52% of school children receive it. School feeding is much more common among poorer students: 96% of schoolchildren in the poorest quintile receive school feeding, compared to 55% in the richest, although WFP claim that the ration is calculated by child rather than by poverty (see Table A8.3b).

9 Health

Cash transfer programmes in other countries have been shown to increase access to health care by poor families. Self-reported illness is much higher in poor households in the HSNP programme area, but access to health care is constrained by cost, distance, poor quality of services and a preference for self-treatment. Immunisation rates, however, are high.

9.1 Health status and health-seeking behaviour

9.1.1 Acute illness

Out of a sample of 28,069 people, 23% (21% of males and 25% of females) had suffered some kind of illness[56] or injury in the three months prior to the survey. In general, there were no significant differences in the prevalence of illness/injury between selected and non-selected households (see Table A9.1a). Sickness varied significantly across the districts, with a very high proportion in Turkana (57% males and 58% females), compared with 4–15% in the other three districts (see Table A9.1c). The levels are so high in Turkana that it raises questions as to whether the question was interpreted differently by respondents or interviewers.

Strikingly, sickness over the last three months was significantly greater for those in the poorest quintile (34%) compared with those in the wealthiest quintile (13%) This will partly reflect the higher levels of illness reported in Turkana, which is poorer (see Table A9.1b), but it is well established in the literature that poverty and ill health are interrelated in a two-way relationship, and poor health and nutrition are implicated in the intergenerational transmission of poverty. Some of the pathways from illness to poverty were identified by our respondents:

> *"Poor health causes death and poverty, because you have to pay for medicines and other medical expenses, like moving patients from one health facility to the other in search of better or specialised treatment or attention"* (health worker, Lorengelup).
>
> *"Illnesses distract us from our economic activities"* (female elder, Turkana).

The qualitative data provided information on the kinds of diseases that are a problem. In all communities, malaria was reported to be the most prevalent disease. Furthermore, diseases are seasonal. According to one respondent, *"Malaria is more rampant during the rainy season. There is also diarrhoea during that time as there are so many flies. And during the dry season people suffer from coughs and cold. When there are a lot of strong winds, eye infections are common"* (health worker, Turkana).

9.1.2 Immunisation

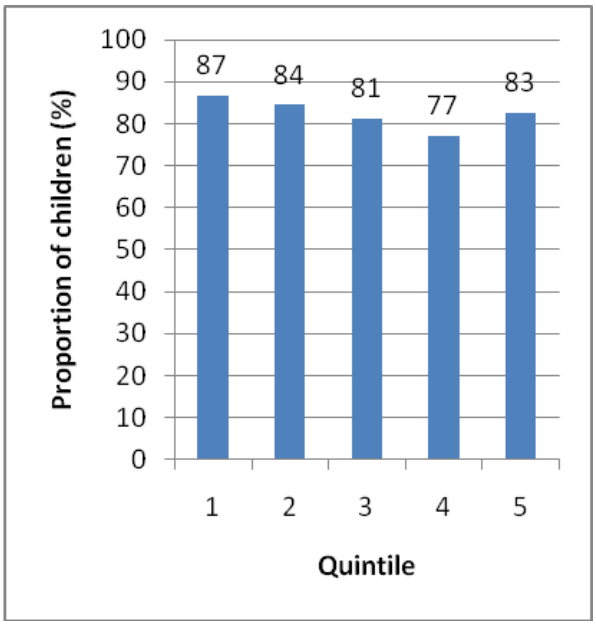
The survey collected data on immunisations, and immunisation rates are high but not universal. The majority of children under 6 years included in the survey (82%) have been immunised with the BCG vaccination against tuberculosis and with very little difference between girls and boys (84% of boys and 81% of girls). Children in selected households are more likely to have been immunised that those in non-selected households, significant to 10% (see Table A9.1a). Immunisation varied by wealth quintile, with children of households in Quintile 4 being less likely to have been immunised (77%). Immunisation in the poorest households was the highest (87%), although this was not significant (see Figure 9.1a).

[56] The kinds of illness that were suffered in the last three months include: malaria, diarrhoea, respiratory infection, eye infection, skin infection, pregnancy issue.

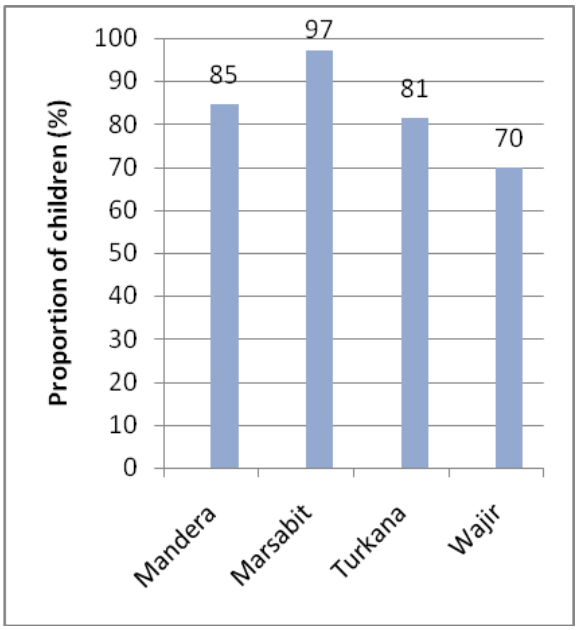
There were significantly more children in Marsabit (97% boys and 98% girls) who had BCG immunisation protection compared with the other three districts (see Figure 9.1b). This is likely to be because the majority of the Marsabit M&E sites were around town, giving people better access to immunisation campaigns.

Figure 9.1 Proportion of children aged 5 years or less who have been immunised (BCG)

(a) Immunisation by wealth quintile (Quintile 1 = poorest)



(b) Immunisation by district



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Immunisation rates were significantly higher for children in permanently settled households (90% for boys and 85% for girls), compared to fully mobile households, where rates of immunisation were less than half (40% for boys and 38% for girls), as they are harder to reach through immunisation campaigns:

Table 9.1 Immunisation rates by gender and mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Esti-mate	N
% of boys who have been immunised (BCG)	90***	83	40***	84	1,893
% of girls who have been immunised (BCG)	86**	83	38***	81	1,773

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010. Notes: (1) The 'N' column denotes the overall sample size. The sample sizes for the disaggregated estimates in other columns are based on smaller sample sizes. (2) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Section 1 of the report: *** = 99%; ** = 95%; * = 90%. (3) Fully settled defined as the whole of the household (all members, including head) is permanently settled. Partially mobile defined as some members of the household are permanently settled and others move around in order to herd their animals. Fully mobile defined as the whole household moves around in order to herd the animals.

9.1.3 Health-seeking behaviour

Of those who were sick in the last three months, just under half (41% males and 49% females) did not go to a formal health care provider (see Table A9.1a). There were no significant differences between selected and non-selected households. Significantly more people in Wajir (72%) sought formal medical attention compared with the Turkana (49%) (see Table A9.1c). This may be due to both better health supply (significantly fewer communities in Turkana have a health facility), as well as demand-side issues (e.g. cost, different healthcare preferences, etc.). Causality is hard to pinpoint here since healthcare preferences are influenced by health supply, experience with health care, and wealth.

According to quantitative data, 29% of ill people self-treated rather than went to formal health care. However, it is not clear whether this was related to the lack of severity of the illness (which was the reason cited in 20% of cases for not seeking formal health care), health supply, cost or something else. The qualitative data indicated that the majority of respondents preferred to seek medical attention from formal health facilities rather than using traditional medicines, particularly for complex diseases. This was because formal health facilities provide better diagnoses and deal with complex cases and therefore they have a higher success rate for any kind of treatment. However, it was also acknowledged that, *"some people try to administer local medication to every disease, and then when things persist then they come to the hospital"* (health worker, Turkana).

A fifth of ill people did not use formal health care because they could not afford it (18% of ill males and 22% of ill females).[57] Cost was a barrier for significantly more selected households compared to those not selected (25% compared with 16%). This result appears to be driven by CBT households, where 20% of people did not access health care because of cost compared with 9% of households who were not selected. This is consistent with the finding that CBT targeting was more pro-poor than the SP and DR mechanisms.[58] As would be expected, cost was less of a barrier to wealthier households, although 14% of households in the richest quintile still gave cost as a reason for not seeking formal healthcare, which reinforces the finding reported earlier that some of the 'richest' households are still close to the poverty line, since most of this population is poor or extremely poor.

The influence of cost on health care-seeking behaviour was highly variable across the districts. It was significantly higher in Marsabit, where 45% of people who did not seek formal health care cited cost as the reason. This was significantly lower in Turkana (14%), where people were more likely to self-treat an acute illness than visit a service provider (although as noted above this may result from both supply and preferences).

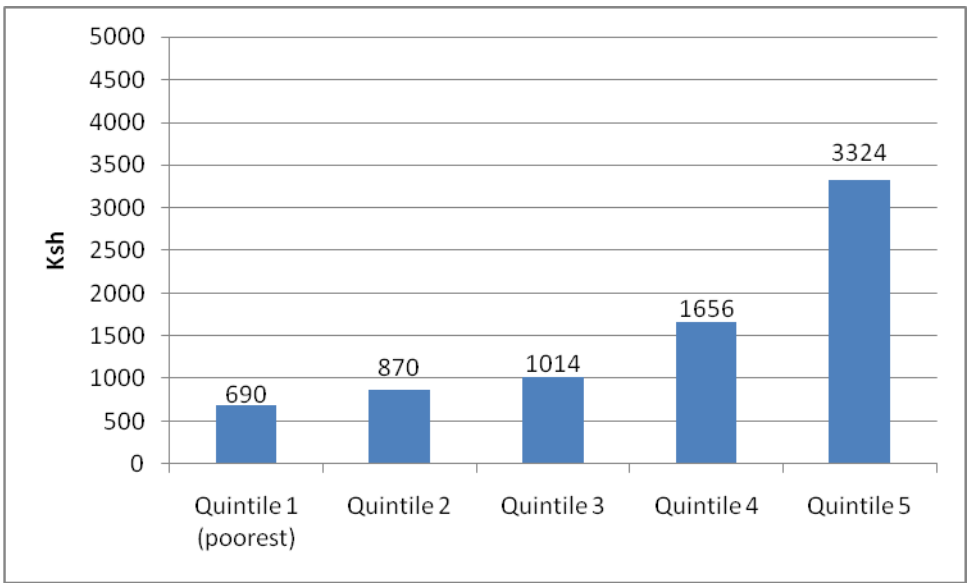
Qualitative data confirmed that cost was a major constraint to accessing health care (58 out of 80 sources). This manifests itself in several ways: cost of transport, cost of consultation and cost of admissions. It was not possible to infer from data which of these represented the greatest barrier, although previous studies name transport cost as being the greatest barrier to health-seeking behaviour amongst nomadic communities (Lynch 2005). Respondents most often tried to overcome high cost levels by making distress sales and taking credit. Respondents also referred to distance as a constraint to accessing health care. There are several possible dimensions to the issue of distance, including lack of transportation, high transportation costs, and the location of health services.

[57] The main reason for not going to a formal health care provider was because the sickness was self-treated. Other reasons were the illness not severe enough and the service provider was too far away.

[58] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

Mean expenditure per household on health care[59] per annum was KES 1,511 (see Figure 9.2 and Table A9.1a). This varied significantly across the districts, with the lowest expenditure in Turkana (KES 679) per household per annum). Households in poor quintiles spent significantly less on health than those in richer quintiles (KES 690 in the poorest compared with KES 3,324 in the richest).

Figure 9.2 Mean spending on health care per annum (nominal terms)



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Fully mobile pastoralists report less sickness than partially mobile and permanently settled households (see Table A9.1d), which is in line with the literature on the adverse health effects of sedentarisation for pastoralists (see Fratkin et al. 2006). However, fully mobile and partially mobile households are significantly less likely to visit a health care provider when they are sick (fully mobile – 60%; partially mobile – 57%), although this is only partially due to costs (fully mobile – 12%; partially mobile – 20%) and more to do with distance from health centres (fully mobile – 40%; partially mobile – 28%). Nearly half of the fully mobile households (44%) have to walk for more than four hours to reach a functioning health facility (see Table A9.1d).

Sickness is greater in permanently settled households, although not significantly so (22% men and 26% women). More seek health care than mobile households (62% men and 56% women). The main reason for not attending a formal health care provider is due to self-treatment (35% men and 34% women). However, it is not clear whether this was related to the lack of severity of the illness (which was the reason cited in 18–23% of cases for not seeking formal health care), health supply, or something else.

9.2 Access to health services

A very high proportion of communities (75%) did not have any kind of health facility within the village (see Table A9.2a). This was significantly higher in Turkana (88%) compared with Wajir (40%), which explains why people have to travel long distances in order to access health care. Nearly one-fifth (17%) of the survey population have to walk four hours or more

[59] This included medicines, medical supplies, transport to and from health facility, consultation and treatment fees (including gifts), laboratory and diagnostic test fees, visits to traditional healers and other expenditure.

to reach their nearest functioning health facility (see Table A9.2a). This is significantly higher in Turkana, where it rises to 30% of people, compared with 10% in Marsabit, mirroring the availability of health facilities. A significantly lower proportion of households in the richest quintile (10%) had to walk for four hours or more to reach the nearest functioning health facility compared to 18–19% of poorer households (see Table A. 9.2b).

The kind of health facility used varied significantly across the districts, probably depending on availability of services. Of those who visited health care providers in the last three months, a majority of them used a government facility (71%) (see Table A9.2c). This was very high in Wajir (87%), compared with Marsabit (41%). The proportion that visited a non-governmental health facility was much lower (24% overall); only 10% of people used this kind of facility in Wajir compared with 58% in Marsabit.

10 Water, housing and amenities

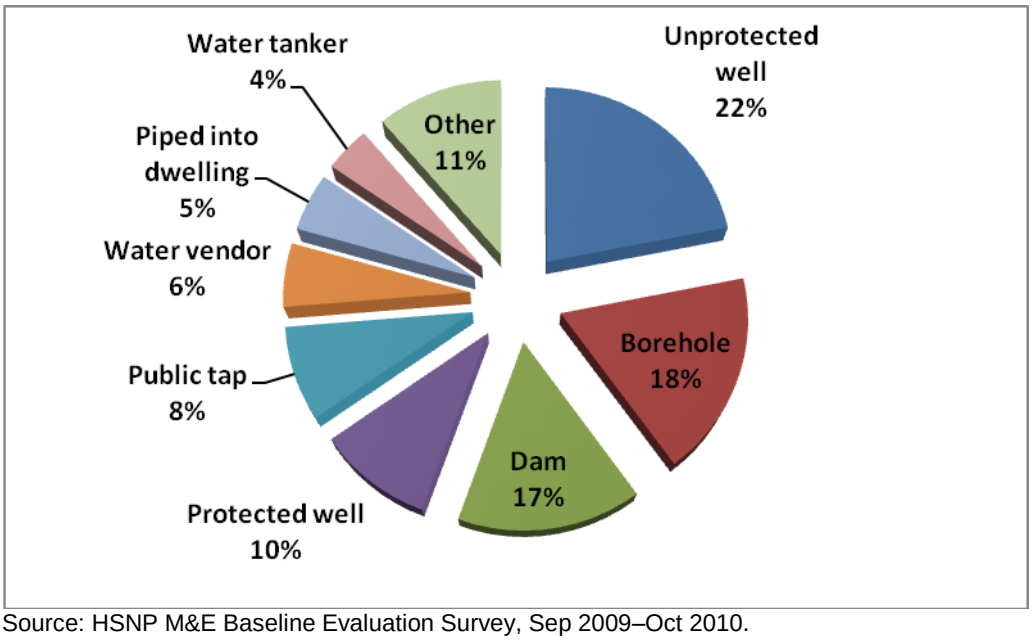
Lives and livelihoods in northern Kenya are highly dependent on reliable access to water. Very few households in survey communities have access to safe (e.g. piped) drinking water, while large numbers depend on unsafe sources (e.g. unprotected wells, open dams, etc.). Many families have to pay for their drinking water. Poorer households tend to have low-quality housing, made from natural materials like sand and wood, while wealthier households are more likely to have a toilet in their home. Remoteness from urban centres and basic amenities (water-points, schools, shops) means long walking times for many households, also to the nearest HSNP paypoint.

10.1 Access to water

Access to water is a vital determinant of household and community wellbeing in the ASAL districts of northern Kenya. Figure 10.1 (see also Table A10.1a) reveals that households access their drinking water from a wide variety of sources – as many as 12 sources are identified, which are ranked by popularity. The most commonly mentioned main sources of drinking water are unprotected well (22% of the sample), borehole (18%), dam (16%) and protected well (10%). No other source was named as the main source by more than 10% of households.

Only 5% of households mentioned piped water into their dwelling, and 8% named public taps, which suggests that only one household in eight (13%) has access to piped water, either private or communal. Almost half the households (43%) derive their drinking water from sources that are considered unsafe – unprotected wells or springs, dams or pans – which have potentially serious health risks.

Figure 10.1 Main source of drinking water (% of households)



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

There are few significant differences between selected and non-selected households in access to drinking water – which is not surprising since water supplies tend to operate at community rather than household level – except that DR households are more likely to source their drinking water from a protected well.

More than one-third of households (36%) have to pay for their drinking water. Almost one in four households (23%) has to walk for more than two hours to and from their main source of drinking water (see Table A10.1b).

At the community level (see Table A10.1c), only one in three communities has a borehole (31%), one in four has a well (24%), and one in five has piped water (22%), is located on a river (21%) or uses a tanker or mobile water vendor (20%). Smaller numbers are located near a pan, pond, dam or lake.

Moreover, significant differences emerge in sources of drinking water across districts. Communities in Wajir are most likely to use wells, one in three has boreholes and some use pans or dams, but no Wajir community surveyed has access to piped water or a river or lake. Communities in Turkana are most likely to have access to a river or borehole. Piped water is most prevalent in Marsabit (48% of communities), but there are no open water sources – rivers, ponds, dams or lakes. Communities in Mandera have the highest access to water tankers or vendors.

10.2 Dwelling characteristics

Table A10.2a in the Annex presents the characteristics of household dwellings. Surveyed households live in small dwellings, with just 1.5 to 2 rooms on average. Walls are typically made of natural materials (87%), and sand or earth floors are the norm (88%). Electricity as a source of lighting is very rare (7%) and only a quarter of homes have a toilet facility (24%). (Note that this refers to toilet within a household; it does not reflect where households may have access to an external toilet facility.) One-third (32%) use collected firewood as their main source of cooking fuel. It is clear that the study population is living in very rudimentary conditions.

Since there is not very much variation between households in these indicators, they do not provide much information on the effects of the targeting process. However, the significant results do all point towards selected households being worse off than average. Looking at the general trends, targeted households in CBT and SP localities have worse dwelling characteristics than their non-selected counterparts, whereas in DR localities this trend is reversed.[60]

Considerable differences are observed in housing characteristics at the district level (see Table A10.2b). Turkana has by far the highest rate of dwellings with natural-material walls (99%), whereas the rate in Marsabit is lowest (76%). The same pattern is true for sand/earth floors. However, the average number of rooms per household is highest in Turkana, which might be a result of the less cost-intensive construction methods applied. The Marsabit sample has the highest proportion of homes with electricity (13.5%). Around half the households sampled in Mandera and Marsabit have toilet facilities and half do not (50%), but in Turkana and Wajir almost all homes have no toilets (95%).

Disaggregating these indicators by consumption expenditure quintile produces the expected trends. Poorer households are more likely to live in homes with sand/earth floors and poor-quality walls, and considerably less likely to have a toilet. Since more than 80% of homes have earth floors and poor-quality walls, these are not robust indicators of poverty. However, having a toilet is strongly associated with being better off – just one in four homes have one, but they are found in 56% of top quintile homes but only 9% of bottom quintile homes.

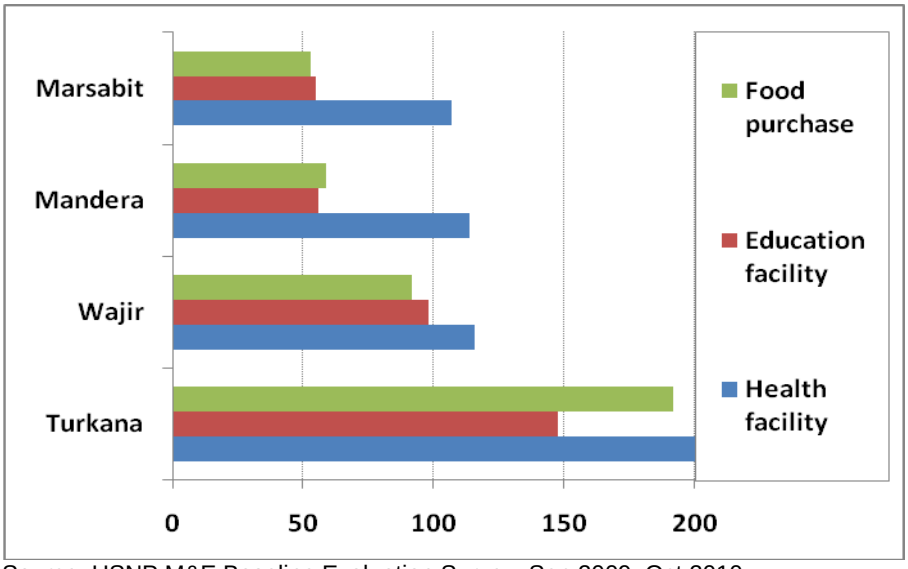
[60] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

10.3 Access to amenities

This section investigates the 'remoteness' of households, in terms of their access to basic amenities such as shops, schools and clinics. Information is given both for mean time spent travelling to and from key amenities, showing the average situation, and for those having to spend more than four hours travelling, showing the extreme situation. Results are provided for both household level and community level. The former allow us to compare differences between selected and non-selected households for the three targeting mechanisms.

The main conclusion to draw from Table A10.3a is that the households and communities in question are very remote. The average time household members spent walking to and from the main place where they buy their food is 1 hour 45 minutes, and 16% of households spend more than four hours walking. This compares to 1 hour 33 minutes and 13% to the nearest primary school, and 2 hours 20 minutes and 21% to the closest health facility (see Figure 10.2). Communities are on average four hours away from the greater district centre, 3 hours 15 minutes from the nearest Post Office or place to send or receive money, and two hours away from a place where basic supplies can be bought. Most of these times vary significantly by district; the study population in Mandera is the least remote and that in Turkana is the most remote. Most (74%) of communities have a shop (again this is highest in Mandera, at 90%, and lowest in Turkana, at 50%), and among communities with at least one shop the average number of kiosks/*dukas* is 11 (see also Table A10.3b).

Figure 10.2 Average return walking time to nearest amenities, by district (minutes)



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Almost all communities have an access road (only 2% do not), but for 81% of communities this road is made of mud/dirt. This latter figure has considerable regional variation, ranging from 62% in Marsabit to 95% in Turkana. Unfortunately, it also has significant variation between treatment and control groups: 70% of control groups have mud/dirt access roads compared to 91% of treatment groups (see Table A10.3c).

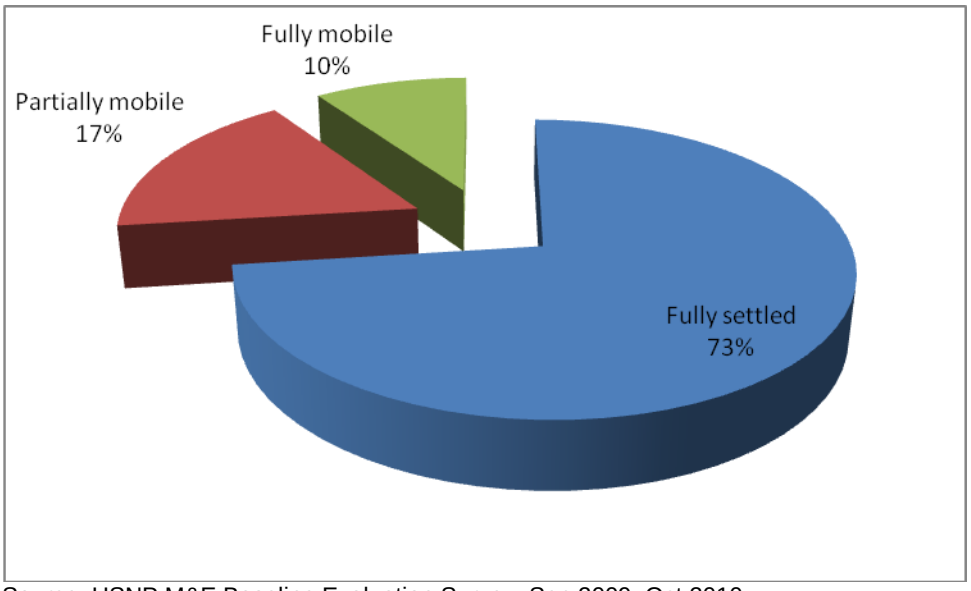
11 Mobility and migration

Although livelihoods in northern Kenya are dominated by pastoralism, only a small minority of families (one in 10) are fully mobile herders who migrate with their animals. The majority of households are either fully settled (seven in 10) or partially settled and partially mobile (two in 10). This has changed over time, as conflict, drought, food aid delivery and other factors have reduced mobility and encouraged sedentarisation. The poorest households are those that are partially mobile, for reasons that are unclear and require further investigation.

11.1 Household mobility

In our sample of 5,108 households, three-quarters (73%) of households are fully settled, one in six (17%) are partially settled, and only one in ten (10%) are fully mobile (see Table A11.1a). This is an important finding because it suggests that 90% of households in the ASAL districts can be easily reached by public services, including social transfers. This runs contrary to the view often expressed that pastoralists are inaccessible to governments because of their mobility.

Figure 11.1 Mobility status of all households



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Overall, there is no significant difference in the settlement pattern between HSNP and non-selected households, although selected households are more likely to be partially settled than non-selected households. The only significant difference in mobility between categories is among households where the SP targeting mechanism was applied. These households are less likely to be fully settled (64% vs. 80% among non-selected households), and more likely to be partially settled (25% vs. 13%).[61]

The following are typical of comments that emerged when respondents were asked about their migratory patterns:

[61] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

In times of drought, we have to move to look for pasture for our livestock, but if it is normal poverty, we can't move out (Male beneficiary, Badasa, Marsabit).

Migration in this area is determined by factors such as climatic changes, diseases … when the rain comes, households return to their ancestral areas (Male elders, Kokisele, Turkana).

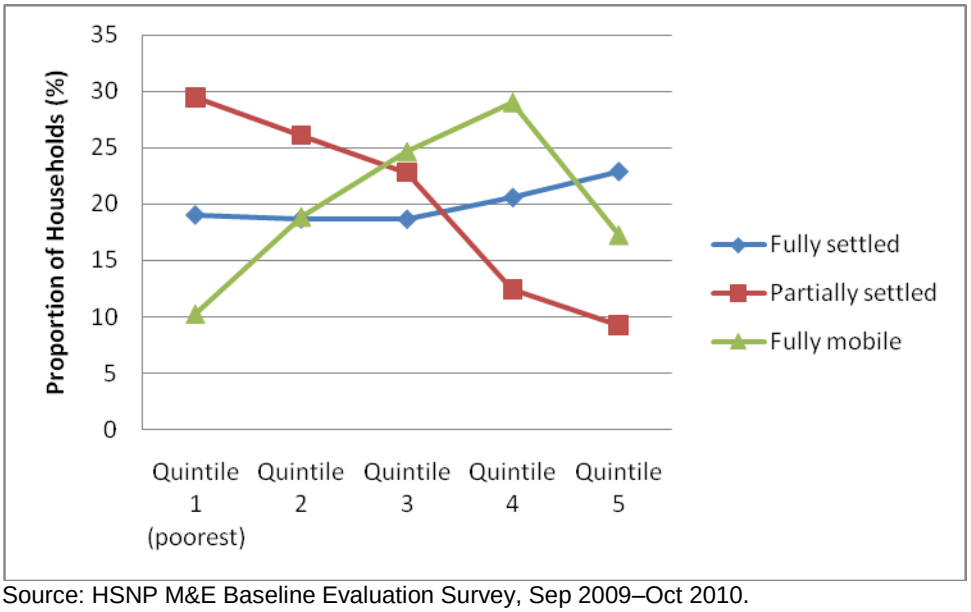
The rising cases of cattle rustling in this area force the pastoralists to move and graze their livestock in communities (Male elders, Kalemungrok, Turkana).

It has been argued that only wealthy households migrate, which means that those left behind in settlements are all poor. However, the picture is more complex. Wealthier households are slightly more inclined to be fully mobile (14% of households in Quintile 4) rather than partially mobile (11% in quintile 4), but there are fully mobile households that span all quintiles (for example, 5% in the poorest and 9% in the second quintile) (see Table A11.1b).

Significantly more of the poorest households have some members who move with livestock while others stay behind (25% in quintile 1), compared with wealthier households (11% in quintile 4), which suggests that this is a strategy adopted by poorer households who have smaller livestock herds that don't warrant the whole family to move (see Section 11.2 below).

There are relatively high proportions of permanently settled households across the quintiles (all over 68%). However, significantly more of the wealthier households (84%) are permanently settled. As noted earlier, a higher proportion of individuals in the wealthiest quintiles have salaried jobs, so they are more likely to be sedentary and less likely to depend on livestock for their livelihood.

Figure 11.2 Mobility status by quintile



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

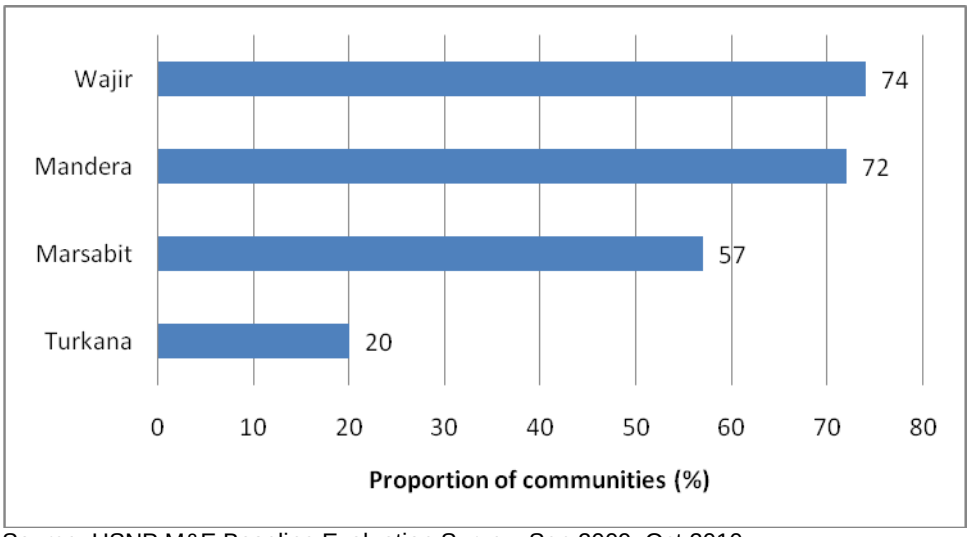
A quarter of households in Wajir are fully mobile, compared with Marsabit (3%), Turkana (5%) and Mandera (8%). This is significant. There are more partially mobile households in Marsabit (25%), compared with Mandera (13%). Wajir (14%) and Turkana (17%), but this is not significant (see Table A11.1c).

11.2 Community migration patterns

A 'community questionnaire' was administered in each village where a household interview took place. This questionnaire collected quantitative data on a range of topics that were community-wide, including migration. In total, the questionnaire was administered in around 245 permanent and non-permanent settlements across the M&E sub-locations.

Overall, just over half of the villages had mobile pastoralists living among them (see Table A11.2a). As expected, this varied significantly across districts, with mobility being much more prominent in Wajir and much less so in Turkana. Only 20% of villages in the sample in Turkana had mobile pastoralists, compared with 72–74% of villages in Wajir and Mandera. In Marsabit, 57% of villages had mobile pastoralists, despite the sample being clustered around Marsabit Town. The proportion of mobile pastoralists per village also varied significantly across the districts. In Wajir, mobile pastoralists formed the majority of people in a third of villages, compared with Turkana, where only 0.5% of villages had a majority of mobile pastoralists:

Figure 11.3 Communities with a population of mobile pastoralists (%)



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Although high numbers of pastoralists still migrate with livestock, whether the whole household moves or splits (some members stay and some move) is useful information for planning delivery of the HSNP. Households generally split, with some members herding and other staying behind. This is a relatively recent phenomenon that pastoralists have adopted in part because herd sizes have declined and in part to send children to school, to collect food aid or attend to businesses etc. However, in Wajir, around a third of households moved together.

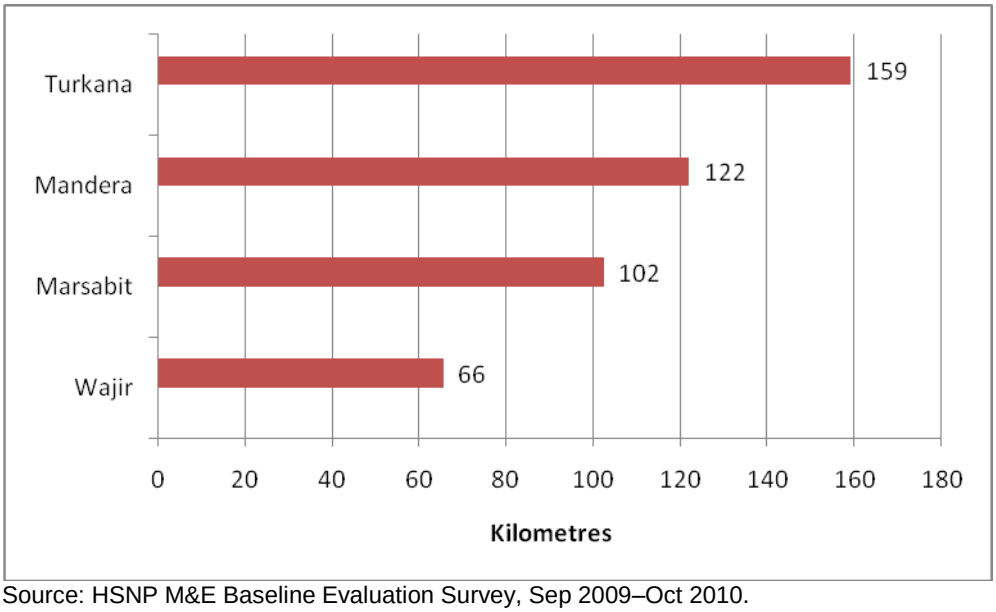
Those who migrated with the livestock were generally young men or warriors, although young married couples also migrated in Turkana (46%). A high proportion of children moved with livestock in both Mandera and Turkana, although in Mandera more boys herded than girls. Women were also mobile herders in Mandera, less often in Turkana and hardly at all in the other two districts.

Although households split, a majority of migrations in Turkana (78%) comprised big groups because of the insecurity threat of raiding. Around half the migrations recorded in Mandera moved in large groups, whilst people tended to migrate in smaller groups in Wajir (73% of

migrations) and Marsabit (67% of migrations), where the security threats are less severe. Hardly any households or household members moved individually.

Migrations lasted an average of four months and this varied slightly by district, with longer migrations in Marsabit (six months, which was significant) (see Table A11.2b). Despite these longer migrations, pastoralists only travelled an average of 100km from their 'home' community, compared to Turkana, where pastoralists travelled an average of 160km in four months. Migrations in Wajir were significantly closer to home (66km), probably due to the greater number of boreholes that have been established, meaning pastoralists don't have to travel so far in search of water (see Figure 11.4).

Figure 11.4 Mean distance of a migration by district (km)



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Another interesting finding that may be relevant for the HSNP is that there is regular communication[62] between those who migrated and those who remained behind, which could facilitate service delivery (see Table A11.2c). On average there is communication three times a month. There is significantly less in Turkana (once per month), probably because pastoralists migrated further, and significantly more in Wajir (four times a month) for the opposite reason, that pastoralists were closer to the 'home' village. This communication not only involves an exchange of news but also of resources. Food aid is delivered from the 'home' village to the pastoralists (84% of migrations), as well as cash (48%), medicine (41%) and tobacco in Turkana, while milk, livestock and animal fat (Turkana only) are sent from the grazing areas to the village. If pastoralists sell livestock, they also send cash back to the village.

[62] Communication is in the form of people visiting each other rather than contact by phone (the vast majority of grazing sites are not covered by a mobile phone network).

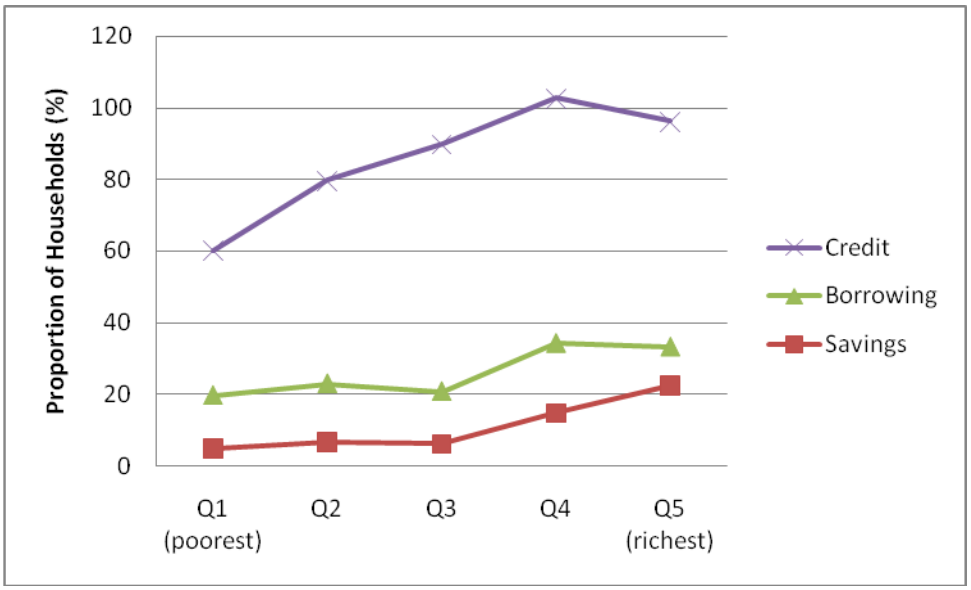
12 Finance

Formal financial services (savings, credit and insurance markets) are very limited in northern Kenya. Few households surveyed have cash savings, and even fewer have savings deposits in a bank. Similarly, most households choose not to borrow or cannot access either formal or informal loans, but more than half the respondents do buy food and groceries on credit. It is hypothesised that HSNP cash transfers will contribute to these informal credit arrangements.

12.1 Savings

The vast majority of households in the sample have no cash savings (89%) (see Figure 12.1 and Table A12.1a). The proportion of households who save is significantly lower in households selected by the programme (5.5%) compared with those who are not selected (17%). In both CBT and SP sub-locations, the proportion of selected households who save is significantly lower than among those who were not selected; there is no difference between these groups under DR.[63] Surprisingly, the proportion of households with cash savings is significantly higher in Turkana (16%), compared with Wajir (1%). However, the mean cash savings per household in Turkana is significantly lower, as described below. The low rates of savings may be related to the high proportion of the Wajir sample that is fully mobile (25%), compared to an overall average of around 10%.

Figure 12.1 Savings, borrowing and credit



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

According to the qualitative data, people have trouble saving because of the high poverty levels in the programme area, which make it difficult for people to put money aside:

> *[Our income] is not even enough for food let alone savings. In fact we borrow from people to buy things like pens and exercise books for our children* (female beneficiary, Mandera)

In addition, pastoralists have traditionally saved through accumulation of livestock, rather than keeping cash savings. One respondent in North Horr, Marsabit said:

[63] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

> *It is very rare to see people of this village saving money because we are all poor and we don't deal with money but livestock, our savings are in the form of livestock and they are all gone. Right now everybody is poor all season. Personally I don't have anything except God. I believe everybody else is like me because I can see my people* (female beneficiary, Marsabit).

Although significantly more of the wealthier households save (23%), it is interesting to note that there are still households in the poorest quintile (5%) that manage to save cash (see Table A12.1b). Qualitative data revealed that this low savings prevalence does not reflect a lack of will to save. Most respondents recognised the benefits to savings, and saved whenever possible:

> *Savings are important for many reasons, like you can plan for the future, pay school fees, or even help your relatives when they are in need* (male beneficiary, Mandera).

Of those households who save, the mean savings total KES 27,327. The most common place to keep savings is at home (54%); 41% keep their money in a bank or formal savings institution and only 3% keep their money with an informal savings scheme (see Table A12.1a). Further disaggregation by beneficiary status, district and wealth are not possible because the sample of savers is too small to provide reliable results. However, the impression is that savers in Turkana saved considerably less than those elsewhere, particularly in Marsabit (see Table A12.1c). Savers in Turkana were also more likely to keep their savings at home, while those in Marsabit were more likely to keep their money in a bank or formal institution. Again, this is not surprising given that the majority of the Marsabit sample was located near town, while the Turkana sample is very rural.

Very few mobile households have any cash savings (3% partially mobile and 2% fully mobile), compared with permanently settled households (14%) and this is significant. Interestingly, those fully mobile households who do save are more likely to keep their money in a bank (60%) than at home (29%), whereas fewer permanently settled households (42%) keep their savings in a bank compared with keeping them at home (54%). The majority of partially settled households keep their savings at home (67%). Among the few fully mobile households who saved, cash savings average KES 20,276 in, which is twice that of partially mobile households (KES 10,449). Permanently settled households have significantly more savings – KES 28,420. This is the same pattern as mean household consumption expenditure (see Table A12.1d).

No significant differences were found between treatment and control groups, suggesting that the sample will form a good basis for investigating the impact of the programme on these indicators during the follow-up survey.

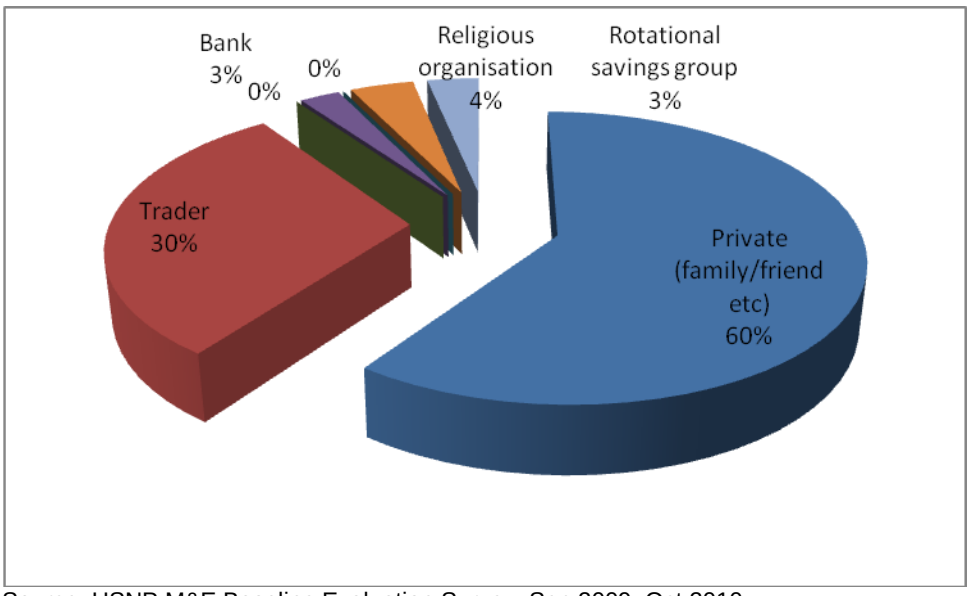
12.2 Borrowing

The majority of households did not borrow any money in the last 12 months (85%), as households tend instead to purchase things on credit. The main reason reported by respondents for not borrowing was because they preferred not to owe money (40%), followed by not being creditworthy (27%) and there not being anyone with money to lend (25%). One respondent in Mandera said: *"It's better to be in my pathetic situation instead of taking debt that I can't afford"* (female beneficiary, Mandera). Another said that: *"Sometimes people refuse to lend you money when you needed it the most"* (female beneficiary, Turkana).

The survey shows that the majority of loans were taken from family, friends or neighbours on a personal basis, with around one-third coming from traders and a few percent from religious organisations and banks (see Figure 12.2). This pattern of sources of loans is not surprising

given that loans were mostly used for food and basic needs purchases. Around one-third was used equally for education, health and basic supplies (batteries, etc.).

Figure 12.2 Sources of borrowing cash



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

There is little difference in the frequency of borrowing across quintiles, although the wealthiest households were significantly less likely to borrow (11% of households) (again, see Table A12.1b). This is perhaps because borrowing tends to be a response to distress rather than done to facilitate investment. Of the 662 households that did borrow money, the majority (68%) were still in debt at the time of the interview.

The proportion of (all) households that were in debt at the time of the interview did not vary much by quintile. One respondent from Mandera suggested why so many loans were still outstanding: "*I do sometimes borrow from neighbours, like KES 1,000 or 500. It is very hard to pay back; sometimes I am forced to give my goats in exchange*" (male non-beneficiary, Mandera).

Selected SP households (10%) borrowed money significantly less than households that were not selected (22%) (see Table A12.1a). Significantly fewer households in Mandera borrowed money (5%) while significantly more had borrowed money in Turkana (30%) (see Table A12.1c).

12.3 Credit

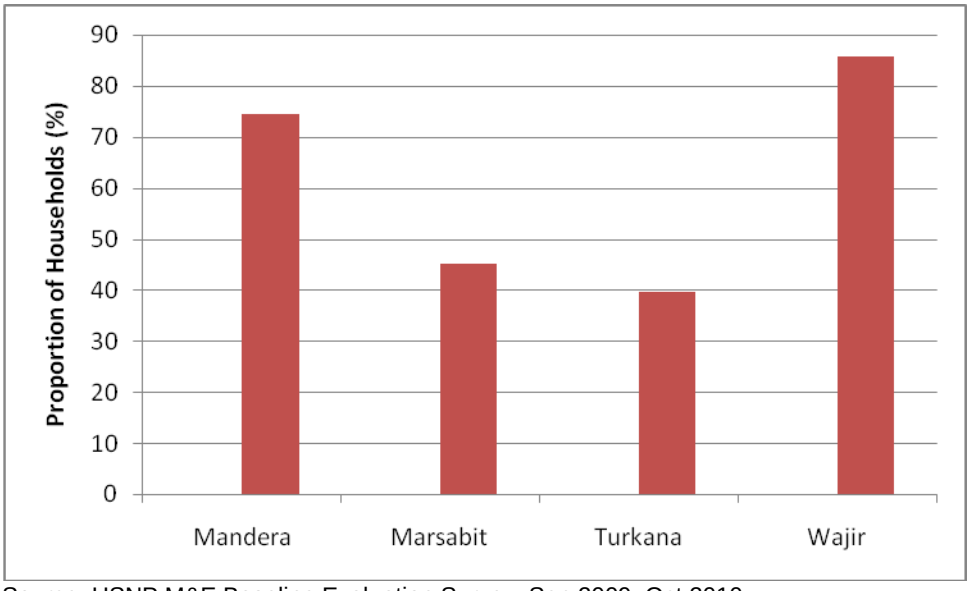
Obtaining goods on credit is more common than taking cash loans. Some 60% of all households had purchased on credit in the three months prior to the interview (see Table A12.1a). However, only 40% of households in the poorest quintile purchased on credit in the preceding three months (see Table A12.1b). This is probably due to the difficulties that poorer people have in repaying credit, so they prefer not to take it, and because creditors may be less willing to grant it.

There were no significant differences in the proportion of households purchasing items on credit between those selected for the programme and those not selected. However, selected

households who had purchased credit had a significantly higher outstanding amount than non-selected households. This was driven principally by CBT and DR households.[64]

Credit-taking behaviour varied significantly between districts (see Figure 12.3 and Table A12.1c). People purchased on credit most frequently in Wajir and then Mandera. In Wajir, 86% of households purchased on credit and had an average of KES 4,949 still outstanding at the time of the interview. By contrast, only 40% of households in Turkana took credit and had an average KES 194 outstanding at the time of the interview. Low credit rates in Turkana seemed to be based on supply rather than demand: the main reason for not taking credit in Turkana was that people would not lend (52%), whereas this reason applied to only a very small proportion of households elsewhere (0% in Marsabit, 6% in Mandera and 7% in Wajir). The vast majority of all credit taken was for food and basic needs (94%). This was the case in every district.

Figure 12.3 Proportion of households taking credit by district



Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

Interestingly, significantly more permanently settled households (17%) had borrowed money in the last 12 months compared to mobile households (10%), but more fully mobile households were in debit (81%) and for higher amounts (KES 2,813). A significantly higher proportion of fully mobile households took credit (74%) over the last three months and had higher debt (KES 3,581) compared with the other two mobility categories:

[64] See Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

Table 12.1 Savings, borrowing and credit by mobility status

Indicator	By mobility status			Overall	
	Fully settled	Partially mobile	Fully mobile	Esti-mate	N[1]
Savings					
Proportion of households who currently have cash savings	14***	3***	2***	11	5,107
Total household cash savings, among households saving (KES)	28,419*	10,449**	20,276	27,327	431
Proportion of households who save their money with a bank or formal institution	42	33	60	41	431
Proportion of households who save their money with an informal savings scheme	3	0**	7	3	431
Proportion of households who save their money at home	54	67	29	54	431
Borrowing					
Proportion of households who have borrowed money in the last 12 months	17*	10*	10	15	5,107
Proportion of households in debt	68	63	81	68	662
Household debt at time of interview	2,570	2,052	2,813	2,527	662
Credit					
Proportion of households who bought something on credit in last three months	58	57	74***	60	5,107
Total credit outstanding, among households who bought on credit	3,525	2,922	3,581	3,431	3,144

Source: HSNP M&E Baseline Evaluation Survey, Sep 2009–Oct 2010.

13 Conclusion

This report has presented findings from the quantitative and qualitative data collection of the HSNP M&E component. The findings include baseline information on the study population and checks on the similarity of programme and control areas, intended to identify important characteristics of the study population that will help readers understand the livelihoods and living conditions of the population in those districts. This conclusion outlines key findings in each of these areas as well as some overall conclusions on welfare in northern Kenya.

Demographics

One-quarter of households surveyed, and one-third of HSNP beneficiaries, are female-headed, and female-headed households are poorer than male-headed households. Older-headed households are also poorer than average, and almost half of HSNP beneficiary households are headed by older persons – especially SP households, which are clustered in the lower wealth quintiles. HSNP households are larger than average, and larger households tend to be poorer than small households. The gender ratio in this population is skewed towards males, notably among the young and the elderly, but among young adults there are many more women than men, for reasons that are unclear.

Poverty

By any measure, poverty in the HSNP programme area is extremely high. Monthly consumption per adult equivalent averages just over KES 2,000 (£15–17). Calculations presented in the M&E Targeting Report[65] – based on our consumption expenditure data – reveal that 65% of households surveyed fall below the US$ 1.25/day poverty line, while 78% survive below the food poverty and 85% are living below the absolute poverty line. Surveyed households spend most of their budget on food purchases, which is another robust indicator of poverty. This confirms that people in the programme area are heavily dependent on the market for their food, which means that their wellbeing is directly affected by fluctuations in food prices. HSNP cash transfers will boost household income and consumption spending, but are also vulnerable to a decline in their real value if food prices rise. Across districts, average cash incomes are highest in Mandera and lowest in Turkana. By targeting mechanism, households selected through CBT have the lowest incomes, while incomes of SP households are also lower than average, but selected DR households have incomes slightly above average. Overall, total and *per capita* cash incomes in HSNP beneficiary households are statistically significantly below average. Inequality within the surveyed population is high – the ratio of spending between the top and bottom quintiles is 5 to 1, and the ratio of asset values is 7 to 1.

Food security

As noted above, households in the evaluation area are highly market-dependent for their food which leaves them vulnerable to food price variability. Prices are generally higher in local markets than elsewhere in Kenya, which is because of distances and the thinness of markets and because the recent global food crisis reduced the purchasing power of HSNP cash transfers. For these reasons, and since one motivation for introducing the HSNP is to strengthen household food security and reduce chronic dependence on food aid, the purchasing power of HSNP transfers should be monitored continuously.

[65] The Kenya Hunger Safety Net Programme Monitoring and Evaluation Component HSNP Targeting Effectiveness Evaluation Report, December 2011.

Livelihoods

Severe droughts have undermined traditional livestock-based livelihoods in the ASAL districts of northern Kenya. Livestock rearing contributes less than half of total cash income in our surveyed households. With low education and skills levels, and limited alternative employment opportunities, many households are supplementing or replacing their income from livestock with income from secondary activities such as charcoal burning and petty trading, which yield low returns to labour. Crop farming is a minority occupation, due to land and water constraints. The obvious lesson for policy-makers is that supporting viable livelihoods in this region requires promoting both livestock-based activities and alternative activities for those who can no longer make a sustainable living from pastoralism.

Assets

Although the majority of households own livestock, large numbers do not, and herds and flocks are generally declining in the aftermath of recent droughts. There is an urgent need for further analysis of herd dynamics. Is there a trend towards large numbers of herders losing their animals and dropping out of livestock-based livelihoods altogether? Are those who remain in pastoralism just surviving, or are they accumulating and thriving? The HSNP is likely to have very different impacts on the livelihoods of pastoralists and ex-pastoralists, so a differentiated analysis will be required. Surveyed households own quite substantial (non-livestock) assets, but mostly these are not productive assets, and local livelihood options – such as rearing livestock, or selling firewood and charcoal – require very few capital assets anyway. Fewer than one in 10 households owns land, because cultivable land is limited and very few families are engaged in farming. There is little potential for policies to assist herders to settle and become farmers or agro-pastoralists.

Education

Very few adults in surveyed households completed primary school (15%), which has resulted in low literacy levels and contributed to poverty – for instance, an inability to secure well paid work outside pastoralism. In a context where livestock-based livelihoods are under stress, investment in educating the next generation should be prioritised by families as well as the government. It is therefore encouraging that approximately half of all school-age children in surveyed households are currently attending school, and that the gender gap between boys and girls is narrowing, although more effort should be put into raising enrolment towards 100%.

Health

Chronic and acute illnesses are both correlated with poverty in our surveyed population. Only half of people who were reported as sick in recent months sought treatment, partly because of the cost, inaccessibility and perceived low quality of local health services. Immunisation rates are also much lower among mobile populations than among settled households. The use of HSNP cash transfers for spending on health care will therefore be closely monitored, since improved health is expected to contribute both directly and indirectly to poverty reduction.

Water, housing and amenities

Access to safe water is constrained in northern Kenya. Very few communities have access to piped water, and almost half draw their drinking water from unsafe sources. One-third of households have to pay for drinking water, and it is likely that some HSNP cash transfers will be allocated to buying water. Mobile pastoralists have qualitatively different housing to settled families, which means that generalisations should be drawn with caution. However,

the data confirm that poorer households have lower quality housing. Only wealthier households have a toilet, while it is mainly the poorest whose floors are made of sand and whose walls are made of branches or plastic materials. Delivering services – including the HSNP – in the ASAL districts is challenged by long distances and remoteness of rural communities. On average, people in our survey households live more than an hour's walking time (one way) from schools and shops – which are often designated as HSNP paypoints – and up to four hours from their district centre.

Mobility and migration

Survey data reveal that most households in the programme area are permanently settled (73%), while some are partially mobile (17%) and a small minority are fully mobile (10%). Since the HSNP operates only in secure areas, these figures might underestimate the actual proportion of households in the districts as a whole that are partially or fully mobile.

Finance

Most households surveyed do not have cash savings, but many of those who do deposit their savings in a bank. This suggests that there is scope for HSNP households to take advantage of the financial services provided to beneficiaries through the programme. Most households also buy their food and groceries on credit. Whether the HSNP provides potential for beneficiaries to increase their access to credit or allows them to reduce their indebtedness will be assessed in the impact evaluation.

Overall

It is clear from the data presented in this baseline report that most households in the HSNP programme area are chronically poor and are also under severe stress. This is reflected in low incomes and consumption levels, low and probably declining asset-holdings (especially livestock), widespread adoption of damaging 'coping strategies', low literacy rates, and limited livelihood options. Food security has been undermined in recent years by recurrent droughts and food price inflation, in an area with very limited farming and high dependence on market purchases for food needs.

In this context, the introduction of targeted cash transfers through the HSNP has the potential to perform an important consumption enhancing or stabilising function in the poorest households. On the other hand, secondary impacts (in terms of investment in education, assets, livelihoods, etc.) might be limited by the depth of food insecurity and the falling purchasing power of cash over time. These primary and secondary impacts will be carefully assessed during the impact evaluation. This baseline report has also raised a number of intriguing findings that are difficult to explain without further data collection and analysis. These issues will also be investigated in the following phase of monitoring and evaluation activities, to improve our understanding of the challenges faced by people living in this difficult environment, and the opportunities that the HSNP provides to assist people to overcome some of these challenges.

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