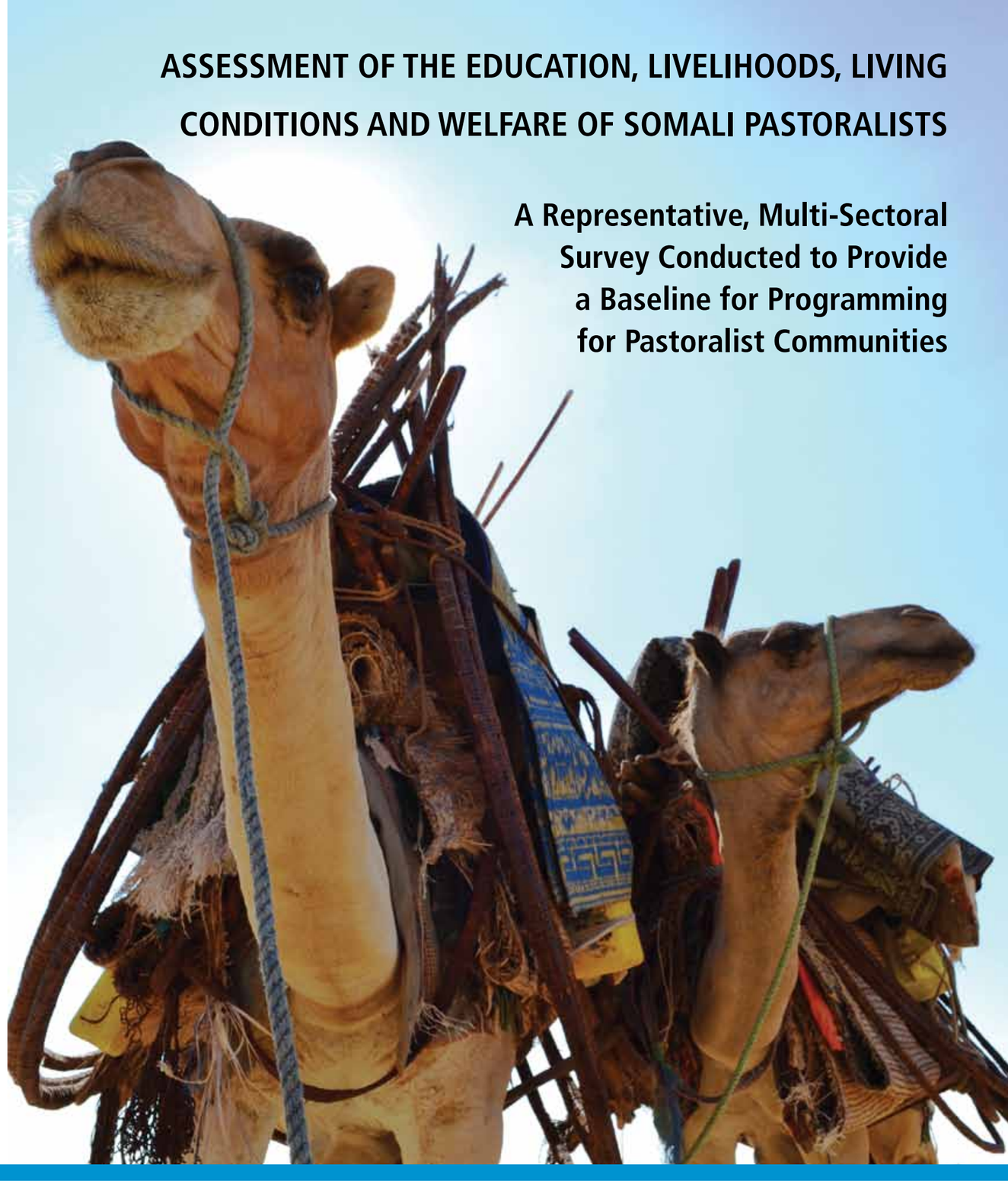
ASSESSMENT OF THE EDUCATION, LIVELIHOODS, LIVING CONDITIONS AND WELFARE OF SOMALI PASTORALISTS

A Representative, Multi-Sectoral Survey Conducted to Provide a Baseline for Programming for Pastoralist Communities



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Adeso
African Development Solutions

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A Representative, Multi-Sectoral Survey Conducted to Provide a Baseline for Programming

Roy Carr-Hill and David Ondijo
With assistance from Dr. Marla Stone
for Adeso December 2011

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FOREWORD

The non-sedentary lifestyle of pastoralists translates to a unique set of development needs as well as vulnerabilities to environmental changes and conflict. For many years, we have been working closely with pastoralists and pastoralist drop-outs, and we remain committed to improving livelihoods and enabling communities to stand on their own feet. Our work with pastoralist youth in the North of Somalia, though moderate in terms of the numbers addressed, has taught us that through evidence-informed and locally-tailored interventions we can have a positive and sustainable impact.

Research, including situational assessments, form a vital part of Adeso's (formerly Horn Relief) strategic planning, programming, and advocacy work. When seeking to develop successful and innovative programs or interventions, comprehensive information on the needs of beneficiaries is indeed of paramount importance. Among other things, it allows for planning that is based on evidence as opposed to assumptions, and it facilitates the appropriate targeting of locations, activities, and beneficiaries. Situational assessments such as this one also provide benchmarks upon which progress can be monitored and impact evaluated at the end of a program's life span.

This report presents the findings of a situational assessment of pastoralists which was carried out in six regions of the greater Somali territory over a 2-month period. The analysis captures up to date information about the needs of pastoralists, focusing on why they are, or aren't, accessing services and what they would see as the most appropriate organization of services for their circumstances. This in turn helps bring to the fore the complexities, challenges and opportunities that exist in providing quality services such as education, health, water, hygiene and sanitation, and secure livelihoods for these communities. It is our hope that the data presented here will be used to inform the design of program and project interventions that can reach greater numbers and wider areas, and further contribute to improving the livelihoods of pastoralists.

Several people and institutions participated in this study and their contributions are highly appreciated. These include the Planning, Monitoring and Evaluation Section within UNICEF, particularly Sicily Matu, other representatives from UNICEF's program sections (Education, Health, WASH, Nutrition and Child Protection), ILO, FSNAU, MMM Learning and Development, Save the Children and Africa Educational Trust (AET), all of whom provided input and feedback for the study from inception to the end. Gratitude is extended to CISP who provided both material and logistical support in one of the study sites.

A special thank you goes to our consultants, Roy Carr-Hill, David Ondijo and Marla Stone, who designed the study, analyzed the voluminous data and compiled this report. I would also like to take this opportunity to highlight the support provided by Adeso's Nairobi and field staff, whose assistance was paramount to the success of the study. In particular, I would like to thank Deqa Saleh and Ibrahim Shire, who coordinated training and fieldwork activities, and Morris Kolubah who played an instrumental role by coordinating the finalization of this report.

Finally, we are grateful to all the household respondents, head teachers, elders, members of focus group discussions and all key informants for providing the vital information upon which this report is based. The funders, DfID and UNICEF, also deserve recognition and thanks for their foresight in funding this critical study.

Degan Ali
Executive Director, Adeso

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF BOXES

TERMS AND ABBREVIATIONS

Abe	Alternative Approach To Basic Education
Aet	Africa Educational Trust
Aids	Acquired Immunodeficiency Syndrome
Bbc	British Broadcasting Corporation
Bcg	Bacille Calmette-Guérin (Tuberculosis Vaccination)
Cisp	Comitato Internazionale Per Lo Sviluppo Dei Popoli
Dfid	Department Of Foreign International Development
Dpt	Diphtheria Pertussis And Tetanus Vaccination
Fgd	Focus Group Discussion
Fgm	Female Genital Mutilation
Fsnau	Food Security And Nutrition Analysis Unit
Go	Gedo
Gdp	Gross Domestic Product
Go	Gedo
Hiv	Human Immunodeficiency Virus
Htp	Harmful Traditional Practices
Ilo	International Labour Organization
Mics	Multi-Indices Cluster Study
Mj	Maroodi Jeex (W. Galbeed
Muac	Measurement Of Upper Arm Circumference
Nfi	Non-Food Items
Ngo	Non Governmental Organization
Ors	Oral Re-Hydration Solution
Psa	Pastoralist Situational Assessment
Sm	South Mudug
Sn	Sanaag
Tba	Traditional Birth Attendant
Td	Togdheer
Unep	United Nations Environmental Program
Unicef	United Nations International Children's Fund
Unocha	United Nations Office For Coordination Of Humanitarian Assistance
Voa	Voice Of America
Wash	Water Sanitation And Hygiene Cluster

OPERATIONAL DEFINITIONS

ABE: Alternative basic education in which older pupils who are unlikely to otherwise attend

primary school matriculate through accelerated primary education in levels I – V, allowing them to complete the 8 years of primary school in 5 years; those who finish are eligible to sit for the primary exam to qualify for secondary education.

Boarding school: A school located in a settlement where pastoralist children are accommodated in a dormitory or with relatives while their family members migrate.

Pastoral dropout: A former pastoralist who, because of livestock losses or other reasons, has left the nomadic life for a more sedentary life and no longer relies on livestock for income.

Household: A cluster of people who eat from the same food basket.

Integrated Quranic School (IQS): An Islamic school that has subjects from formal education integrated into the curriculum, often in afternoon classes.

Qur'anic school: An informal school that exclusively teaches Islamic religious education.

Mobile school: A school that consists of a teacher (usually from the community) and some limited education materials that moves with the troop to allow children to attend lessons during migration.

Nomads: Pastoralists who move from one place to another with their animals, rather than settling permanently in one location.

Pastoralists: People who rely on livestock rearing as the main source of their livelihood; for the purposes of this paper, pastoralists are typically nomadic.

EXECUTIVE SUMMARY

INTRODUCTION

The protracted conflict in Somalia has lead to complex humanitarian and livelihoods crises. This is characterized by increased socio-economic vulnerability and worsening poverty, with almost 50% of the population in urgent need of humanitarian assistance. Pastoralists who account for 65% of the Somali population are worst hit by this crisis. Their non-sedentary way of life translates to a unique set of development needs as well as vulnerabilities to environmental changes and conflict. However, because of the dearth of information about them, these needs cannot be adequately addressed. It is against this background that a survey was conducted to gather in-depth information about livelihoods and services for pastoral and agro-pastoral groups in representative regions. The study objectives included identification of inter-linkages between needs and vulnerabilities so as to correspondingly come up with holistic, multi-sectoral, programmatic approaches for pastoralist communities.

METHODOLOGY

The study was carried out in six regions of the greater Somali territory representing the main livelihood zones. Regions selected were Togdheer for camel pastoralists, South Mudug and Galgaduud for shoats (sheep and goats), Sanaag for mixed animal pastoralists, Gedo largely for cattle pastoralists and agro-pastoralists, to a small extent, and Maroodi Jeex for agro-pastoralists. Three sub-sites within each site were further identified as locations for data collection. At each of the sub-sites the enumerators traveled to different sampling points each day. Multiple techniques used for data collection were household surveys, key informant interviews, and focus group discussions. The overall sample size for the study was 6652. For a holistic view of the pastoralist lifestyle, the study incorporated multi-sectoral factors in education, health, WASH (water, sanitation and hygiene), livelihoods, nutrition, and to a small extent social protection.

SURVEY FINDINGS

General Characteristics of Pastoralist Households

A household was operationally defined as a group that eats from the same food basket. A total of 6652 households were interviewed in the six sites surveyed. A typical Somali household has approximately 6 members out of which 2.8 are adults (18 years and older), while the rest are children. Overall there were equal numbers of men and women in the household, about 1.4 of each. There were slightly more boys than girls in the households with an average of 1.8 and 1.6, respectively.

Education of Adults

Twelve percent (12%) of all interviewed adults (18 years and older) confirmed attendance of formal education, with males having a higher proportion of 14% compared to women with 9%. However, there were wide variations across the six regions with attendance being higher in agro-pastoral areas compared to pure pastoralist areas. The average grade attained by adults who have been to school is Grade 6. Over a quarter (28%) of respondents reported that they had been to a Qur'anic school, but again with wide variations across the regions. Less than 3% of respondents and less than 2% of other adults overall have attended a mobile school, an Integrated Qur'anic School, an intensive course, an ABE course or a vocational training course. Only 7% of respondents confirmed that such opportunities were offered to them, indicating that low education intake is largely due to unavailability. Many of the few who were offered education opportunities were unable to take them up. Learning information through other means such as radio or community meetings is also low.

Education of Children

Formal schooling for children aged 6-17 years has been taken up by 22%, with boys' enrolment higher at 24% than girls at 19%. There were wide regional variations from under 10% in South Mudug and Galgaduud to over 40% in Maroodi Jeex (W. Galbeed) and Togdheer Compared to overall adult education, this is a 10% increase over one generation. Average grade reached is Grade 3, which is significantly below the ideal of Grade 6.5.

Although general school attendance is still low, there has been an increase of about 10% for both males and females over one generation. The average time to school for all sites was 57 minutes, but again, with significant regional variations. For those who paid fees, the average annual fee and other education expenses was US $121. The low enrolment is mainly due to

lack of schools, lack of learning and teaching materials, constant migration and high cost of education.

Forty four percent (44%) of parents overall reported that one or more of their children had been to a Qur'anic school, which is a substantial increase over one generation, possibly due to availability of these schools compared to formal schools. Four percent (4%) of parents overall reported that one or more children had been to an Integrated Qur'anic school and less than 2% of parents in households in any of the sites reported that any of their children had been to mobile schools, intensive courses, ABE courses, vocational training courses or to other types of non-formal educational possibilities. Low enrolment is largely due to unavailability of schools, especially for the pure pastoralists.

Sources of Information

Only 35% of respondents confirmed having radios, but over 80% of those with radios said they had batteries for the radios. Sixty percent (60%) of men, 43% of women and, 15% of children confirmed that they listen to radios regularly. News is the most important program as 87% of respondent confirmed that members of all age groups and sexes listen to such programs. The proportion listening to other programs varied greatly. On sources of information, less than 10% of respondents confirmed receiving information on education, health, water and sanitation from the wide range of possibilities from sources such as radios, community meetings, notice boards, and government representatives.

Health

Seventy five percent (75%) reported that they had access to health facilities, but it takes a one way walking journey of 4 hours to access such facilities, which essentially means that indeed such facilities are not accessible to most pastoralists. Consequently, most people seek medical services from unlicensed private pharmacies where they are sold drugs without prescriptions. Forty percent (40%) of mothers reported that their youngest children below the age 5 had diarrhea 2 weeks prior to the survey date. Fifty eight (58%) and 48% reported cough and fever, respectively, within the same period of time. In the both cases of these illnesses, most of the parents sought help from private pharmacies. A good proportion did not take appropriate action (no action/faith healing) when their children were sick.

Vaccination coverage is still low as less than 50% of mothers confirmed that their children had received some of the mandatory vaccinations against diseases such as polio, diphtheria and tuberculosis. Only 44% of mothers interviewed confirmed receiving antenatal care, with 43% confirming an anti-tetanus vaccination during pregnancy. Most births (90%) were reported to have taken place at home with 59% of those interviewed saying that they were assisted by a traditional birth attendant (TBA) during birth. Only 19% were assisted by a doctor, a nurse or an auxiliary midwife, while 3.5% were assisted by a community health worker. The remaining proportion said they were helped by a friend or relative (possibly without experience in delivery assistance). Of those who had given birth, 35% reported to have lost a child below the age of five over the period for total births, with average deaths of 0.7 for both boys and girls. This is an indication that child mortality rates are quite high in the area.

On HIV/AIDS, most (80%) respondents had heard of HIV/AIDS and a good number (54%) agreed that it could be transmitted from mother to baby either during pregnancy, delivery or breastfeeding. Most of those interviewed (62%) agreed that HIV/AIDS could be contracted through sexual liaison, and about two-thirds (62%) said that they knew how to protect themselves. On the other hand, quite large proportions had mistaken beliefs about modes of transmission such as by mosquitoes and witchcraft. This demonstrates wide variations in knowledge and attitudes about HIV/AIDS, which suggests inadequate or uneven programming from region to region.

Water, Sanitation and Hygiene

Only 20% of all those interviewed reported having access to toilets, while the remaining 80% use the bush as a toilet..

Most of those interviewed (77%) said they use water only to wash their hands, although about two thirds overall confirmed to have some kind of detergent. Nearly half (46%) overall had access to relatively secure water, although very few (4%) had access to piped water. Thirty five percent (35%) had access to boreholes and 7% had access to protected wells. But there were wide regional variations, with Gedo having the least number with access to safe drinking water. About 20% confirmed treatment of drinking water,

boiling being the method of choice for most (65%) of those interviewed.

Livelihoods

Overall, about a quarter (24%) said that they own land and practice agriculture, but that was mostly in Maroodi Jeex (W. Galbeed) where over four fifths own land and practice agriculture. Lack of rain and agricultural inputs are the main impediments to agriculture as confirmed by a majority of those interviewed.

Livestock rearing is a major livelihood activity among both pure pastoralists and agro-pastoralists. Eighty three percent (83%) of all those interviewed confirmed ownership of animals, although dominant livestock types vary across the regions. In terms of numbers, the overall average of camels owned per household is 8.1, cattle 7.4, goats 37.5 and sheep 27.3. The livestock numbers vary greatly across the regions for different types of livestock, with pure pastoralist areas having higher numbers of animals. These numbers are quite low for subsistence of households with an average of 6 members. Many pastoralists said their lives have become a continuous struggle. The main problems cited were drought and diseases which have resulted in massive loss of animals. Moreover, environmental degradation and restrictions of movement due to land demarcations in some areas have also affected production in some areas.

Less than 10% said that they had any non-agricultural/ pastoralist skills. However, nearly a quarter of households (22%) said that they were involved in manual labor, whilst about 15% overall said that they were involved in petty trading and 14% were farming as an alternative income.

Over half of households had sold livestock in the last 3 months to buy food and to buy non-food items, ranging from under 25% in South Mudug to nearly 80% in Gedo and Galgaduud. More than 25% had sold livestock to pay for services like health care or school fees. Borrowed food was a principle source of food over the last 3 months for an average of 78% of households, but with wide variations across the regions ranging from 39% in Maroodi Jeex to 95% in Sanaag.

The average annual income reported was US$ 890, varying between US$ 504 in Maroodi Jeex (W. Galbeed) to US$ 1,212 in Sanaag. Household debt is growing with 83% owing an average of US$ 406, about three times the monthly expenditure.

Nutrition and Coping Strategies

Overall 3.1% of households said that they had not eaten in the last 24 hours. Generally, children eat more times than adults with an average number of meals being 3 and 2 per day, respectively. Diet consists largely of carbohydrates (sorghum and rice) with animal protein-based food, fruits and vegetables having been eaten less than 1 day out of the seven days preceding the survey. Children's diets follow the patterns of adults, with low intake of proteins and vitamins. Most mothers (93%) said they started breastfeeding within 24 hours of birth and 42% said they breastfed or intend to do so for 2 years. Households respond to livelihood crises and food stress in various ways, but for most of them, reduction in the food consumed and borrowing food are some of the most frequently used coping strategies.

Protection

Elements of protection are seen in the form of social support, from those receiving monetary supports from relatives, to those depending directly on relatives as a coping strategy. Other than the normal household chores, paid child labour is low. However, corporal or verbal punishment of children is common as a way of trying to instil discipline. Many people still believe in harmful traditional practices such as FGM, but there are dissenting voices against such practices that are emerging.

Conclusion

The Pastoralist Situational Assessment (PSA) has provided good in-depth information within representative regions of the country from which we can make a number of conclusions. We can conclude that education attendance is still low. Access to modern health services is poor and most people seek help from private pharmacies. Antenatal and post natal vaccination coverage is low and child morbidity and mortality are relatively high. Human waste is not disposed of correctly and a good number of the populations use unsafe water. Livestock keeping is the major livelihood activity, although recurrent droughts and diseases have reduced productivity in recent years. Households find it hard to meet their basic needs, as well as acquire services, as expenditures are way above income. Cases of child malnutrition are still high as illustrated by the high proportion of malnourished

children from MUAC measurements in some regions such as Gedo. Feeding practices are poor as most people consume only carbohydrates. Cases of typical child labor are few, although children are engaged in a number of household chores in both domestic and livelihood support. In all sectors, there were quite large variations between the regions, but rarely were there substantial variations between livelihood patterns of the household within any one region. This means that any programming has to be largely region specific. To address the problems in pastoralists areas, respondents gave a number of suggestions are been captured in the recommendations below.

RECOMMENDATIONS

1. In order to improve school accessibility for pastoralist populations, boarding schools should be established in areas where such residential schools are feasible to allow children to remain in school when the rest of the family migrates.

2. Beside the structured residential schools, "live-in" approach should be explored in situations where they can be practical so that pastoral children can be hosted by families in places with schools as their households move.

3. In situations where boarding schools may not be practical in increasing accessibility for all the school-age children, mobile schools should be established to ensure continuity of learning even during migration.

4. To improve on quality of education, existing schools should be equipped with learning and teaching materials and teacher skills should be enhanced through workshops during the long school holidays.

5. Accessibility and quality of health services can be improved by establishing mobile health clinics and training community health workers for treatment of both humans and animals.

6. Quality of health services can also be improved by creating partnerships with private pharmacies to improve capacity of the investors in both human and animal health services.

7. In order to engage non-school going youth into gainful production activities, there should be skills training through vocational training centres and apprenticeships. This will also help in diversifying livelihood activities to complement pastoral production.

8. As a way of improving livelihood incomes, viable business opportunities and other alternative livelihood activities should be identified and enhanced in order to diversify household income sources.

9. In order to improve on households' income, fair and reasonable credit systems that may not require collaterals should be established to stimulate small scale enterprises.

10. In order to continue using the fragile rangelands effectively, pastoral communities should be discouraged from demarcating land and restricting movement on land they consider to be personal/private as this may not be compatible with pastoral production.

11. For sustaining pastoral production, there should be education on proper range utilization.

12. Environmental conservation and rehabilitation should be encouraged to improve on production.

13. In order to improve on child nutrition, nutrition campaigns should be carried out in order to educate mothers on good child feeding practices. This can be complemented by supplementary feeding programs for children less than five years old in areas where there are severe cases of malnutrition.

14. In order to improve on sanitation, pastoral communities should be supported in building toilets and awareness campaigns carried out to improve on their use.

15. There should be awareness creation on treatment of drinking water in order to minimize water borne infections.

16. Parents should be sensitized on alternative ways of disciplining children in order to minimize use of physical punishment and verbal abuse.

17. Parental sensitization on the negative impact of heavy child work loads on education should be undertaken.

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

The protracted, complex humanitarian and livelihoods crises among the Somali populations have resulted, among other problems, in increasing socio-economic vulnerability and worsening poverty. Almost 50% of its people are in need of urgent external assistance and close to 1.5 million are internally displaced, approximately 16% of the 7.5 million people living in the Somali territories (UNDP, 2005). Livestock and their products account for 80% of export income in normal years, but trade has been significantly interrupted by drought and international bans in the last decade. The cycle of drought in the last 4 to 5 rainy seasons has led to a significant loss of livestock, severely affecting the livelihoods of pastoral communities, with a rise in pastoral dropouts.

It is estimated that 65% of the Somali populations are pastoralists (FAO, 2005). Their non-sedentary way of life translates to a unique set of development needs, as well as vulnerabilities to environmental changes and conflict. Those needs and vulnerabilities are interlinked; correspondingly, support to the pastoral communities must be a holistic, multi-sectoral, programmatic response including livelihoods, environment, health, water and sanitation, protection and education sectors.

Regarding education, adults in the Somali territories have one of the lowest literacy rates in the world, ranging between 19% and 35% for rural and urban populations respectively (UNDP, 2002). The overall enrolment rate in primary schools is less than 30% (UNICEF, 2007) with significant gender and region based differences. While there has been some progress in recent years, there is also a marked divide between education provision, enrolment and quality between urban areas and rural areas. Unregulated private health service delivery dominates the health sector and estimates suggest 55%-80% of all health financing is private. There are also similar disparities in WASH, precarities of livelihoods and obvious lack of protection among the populations.

1.2 RATIONALE FOR THIS ASSESSMENT

In recent years, there have been a number of innovative approaches to formal and non-formal education (i.e. mobile primary schools and leadership programs for 15-25 year olds), which have been successful on a small scale. Given these encouraging results, it is evident that there is a need for an increased focus on the development of approaches specifically catered to nomadic pastoral needs. Support to the pastoralist communities, therefore, necessitates a deeper understanding of their specific needs for education, health, water, environment, protection and livelihood support and how all these are linked with their mobile way of life and practices in relation to livelihood and natural resources, as well as their coping mechanisms in the face of changing natural and conflict induced circumstances.

A small scale survey of pastoralists in Sanaag Region called the "Camel Caravan Research" was conducted in 2009 and 2010 as a culminating activity of Adeso's Pastoral Youth Leadership (PYL) program. This revealed significant trends about the declining pastoralist way of life. One such revelation was that, following the droughts in 2009, up to 80% of camels was lost. Results of the 2010 Camel Caravan Research were presented in a donor and stakeholder conference in November 2010, which generated the funding for this much more comprehensive PSA.

For the planning and development of successful, innovative approaches, a comprehensive situational analysis on the needs of pastoralists in the Somali territories needed to be carried out. In addition to meeting the current knowledge gaps, this analysis provides up to date information on the needs on the ground among pastoralists, bringing to fore the complexities, challenges and opportunities that exist

in providing quality services such as education, health, water/hygiene/sanitation and secure livelihoods for the pastoral communities. The data therein will benefit resource and program planning by governments, donors and implementing agencies.

1.3 OBJECTIVES OF THE PASTORALIST SITUATIONAL ASSESSMENT

The aim of the PSA was to collect in-depth information from a variety of pastoralist types about their livelihoods and state of services provision in order to:

- Provide a secure basis for the planning and development of successful approaches by governments, donors and implementing agencies (i.e. NGOs).

- Identify any unique sets of development needs, as well as vulnerabilities, to the changing environment and conflict.

- Identify inter-linkages between needs and vulnerabilities so as to correspondingly come up with holistic, multi-sectoral, programmatic approaches for pastoralist communities.

1.4 STAKEHOLDERS

The major stakeholders were the pastoralists themselves, the funders (DFID and UNICEF), the local ministries or other local authorities and aid agencies that will use the evidence from the assessment for their programming. The results of the assessment were presented to stakeholder groups in both the field and in Nairobi.

In order to provide guidance in the multi-sectoral approach, Adeso agreed together with UNICEF to set up a Technical Steering Committee to meet at intervals of between 4 and 6 weeks and give input and feedback to the study's consultants. The membership of the Technical Steering Committee was UNICEF (Education, Health, WASH Protection and Child Protection), FSNAU, MMM Learning and Development, Save the Children, International Labour Organization (ILO) and Africa Educational Trust (AET).

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

2.1.1 Purpose

The pastoralist population comprises the majority of Somalis, yet less information is known about them than other segments of the population. The purpose of this review is to briefly summarise what the literature says about pastoralists in the Somali territories that can provide a context to the findings presented in the rest of the report.

2.1.2 Pastoralist Production

Pastoralists are the people who rely on livestock rearing as the main source of their livelihood (Nori, 2010). In the case of Somali pastoralists, nearly all are nomadic, migrating to find water and pasture, but varying in the frequency of migration. Besides livestock production, some parts of the pastoral population have taken to crop production to supplement livestock rearing. The degree of integration with crop cultivation characterizes agro-pastoralists. Generally, pastoral systems greatly contribute to local food security and national economies of poor countries in areas where conditions allow for limited alternative land uses. But pastoral populations have seen the highest rate of failures in development policies and investments.

2.1.3 Contextual Background

Nearly all of the Somali territory is pastoral where 98% of the agricultural land is pasture (Behnke, 2006). Behnke identifies several different political entities covered by the Somali pastoral system, three of which are within the borders of the Somali Territories. In 2005, the UN estimated the population of the Somali territories at 10.7 million, and with a projected annual growth rate of about 2.3%, current total population would have been expected to be around 11.9 million. However, since the collapse of the government in 1991 and dramatic internal and external population displacement considered one of the fastest and greatest ever recorded on the African continent, there is little idea of what the real population may be at the moment. According to a World Bank (2006) report, 55% were pastoralists or agro-pastoralists, 24% crop farmers, 1% fishermen, whilst 21% engaged in services and 12% in light industrial work and crafts in 2004.

Despite differences and wide disparities, the territory covered by the Somali Territories is one of the few parts of Africa where the majority of the population share a common language, culture and religion (largely Sunni Muslim). It has a patriarchal, clan identity, which the collapse of the state has made more important as it offers protection and social, economic and political participation (Tripp, 2003).

2.2 SECTORAL ANALYSIS

2.2.1 Environment, Water and Sanitation

There is a lack of up-to-date environmental data, including natural resource management. UNEP (2005) describes three categories of natural resources in Somalia: marine resources, which have recently been decreased by consumption and export; surface resources and subsurface resources.

Areas of concern include deforestation, overgrazing, over fishing and soil erosion with inadequate financial and human resources to address these issues. This is compounded by the lack of political structure and droughts that have undermined many livelihoods (World Bank, 2007). Until recently, pastoralism was seen as the optimal use of the land, successfully sustained over generations. However, challenges are now emerging; accessing safe and reliable water sources are a cause for concern in most parts of the country. Although locally variable, it is nevertheless estimated that renewable freshwater is falling to levels which hamper well being and development. Sanitation facilities are also limited (UNEP, 2005).

2.2.2 Education

Education is viewed as a fundamental right, a means of empowerment and generally a social good. However, in terms of enrolment, attendance, achievement and transition to higher levels, this is not the case for nomadic populations. The Camel Caravan Research, a limited scope survey, found that 86% of pastoral children in Sanaag Region had not been to school (Adeso, 2010).

The rationale and ideology of service providers and nomads rarely agree, with mistrust between pastoralists and government officials, primarily over land loss. Rights are considered from an individual standpoint, whilst the basic productive unit of the pastoral economy is the household or group of households (Commonwealth Secretariat, 2007; Kralti and Dyer, 2006). Ministries of education need to change the way they include pastoralists in their education systems (Kralti and Dyer, 2009) and to help pastoralists become modern livestock producers.

The civil war exacerbated an already poor situation with widespread destruction of basic infrastructure. Two 'lost generations' have resulted, who, lacking skills and education, have been drawn into criminal activity. Primary school enrolment for 2003/4 was recorded as being only 20% and a later report by the World Bank (2008) gives an estimated gross enrolment rate as 15% for girls and 27% for boys. Qur'anic education reaches an estimated 50% of youth for two years; and pastoralist groups have traditionally travelled with a Qur'anic teacher. Reasons for dropout are seen as failing to recognise the needs and lifestyle of pastoralists, promotion of an authoritarian system, insufficient schools with those existing being ill-equipped, the yearly and daily timetable incompatible with pastoral life, the curriculum irrelevant, teachers rarely having a pastoralist background and having little respect for them.

Studies highlight a number of problems impacting on pastoralists in formal education programs. Chores and income generation are more important to household functioning than education and school is seen as having no immediate economic return, i.e. no income generating skills are taught, learners develop a dislike of manual work and children are alienated from family life (Adeso, 2010; Syong'oh 2002). Both graduates and school dropouts were reported to be more dependent on their families than those that never enroled and formal education was not seen to produce high enough returns to the family.

Other studies show how the school timetable is incompatible with pastoralist socio-economic dynamics. Education materials and approaches designed for pastoralists need to consider their seasonal mobility and schools adapted to fit the nomadic lifestyle by offering flexible timetables. Literacy and numeracy was seen as the highest priority in education and training by pastoralist groups surveyed by Africa Educational Trust (2007). Although children of pastoral dropouts have higher access to formal education, particularly in urban areas, their nutritional status is often diminished through a lack of easy access to the milk and meat they had when moving with the animals (Adeso, 2010).

2.2.3 Health

Maternal and prenatal mortality rates are very high; with easily preventable and treatable diseases still remaining major childhood killers and maternal and reproductive health services being extremely poor in the country. Underlying causes include poor infrastructure, human resources and poverty exacerbated by 20 years of conflict. Access to health facilities is extremely low at about 30%. Under-five mortality rate is 180 per 1000 live births and maternal mortality ratio is estimated at 1400 per 100,000 live births, which are amongst the highest in the world. No study has distinguished between pastoralists and rural settlers but it is estimated that these rates are higher in pastoralists.

Under fives malnutrition prevalence rates are 26%. Wasting rates (weight for height) show the short term effects of the conflict and drought at above 20% in some areas. Measures of long term malnutrition such as stunting (height for age) show rates of up to 37% in some areas that have a long term effect on growth and cognitive capacity. Gender based violence such as rape is a problem with 12% of adults and 8% of children claiming firsthand knowledge of a child rape victim (World Bank, 2006).

Traditional Birth Attendants, traditional practitioners, community health workers and retail pharmacies are distributed throughout the regions, but the workforce is small and under skilled and numbers of health workers have declined. Noor et al. (2009) record 45 public health facilities, 227 public health professionals

and 194 private pharmacies for approximately 0.6 million people in the three Somali zones of Somaliland, Puntland and Central South. Other surveys find that even where modern medicine is readily accessible, pastoralists favor faith healing, but whether it is the high cost of drugs, transport and lack of physical and financial access or to a preference for religious-based healing, is unknown (Adeso, 2010).

2.2.4 Livelihoods

Leonard (2009) notes how Somali business has undergone 'explosive growth' with Somalis now the dominant traders in the region, controlling major finance and transport systems. Menkhaus (2003) describes a "radically privatized, unregulated economy focusing mainly on commercial trade and the service sector", this supported mainly by remittances. Both the business community and civil society groups were more organized, willing to play a more direct role in social and political affairs.

Nevertheless, there is high dependence on livestock in the Somali territories; for example, livestock comprises 60 – 65% of Somaliland's gross domestic product (GDP) and livestock export provides 40% of their GDP (Tripp, 2003), supporting the import of essential foodstuffs (Behnke, 2006). Camels predominate in the north of the country and cattle in the south, with sheep and goats ranging throughout (Nori, 2010). It is commercialised, not merely subsistence, and very market orientated compared to other pastoralist systems (Holleman, 2002; UNEP, 2005). Southern parts of the Somali territories export substantial numbers of livestock, especially cattle, to Kenya via the key border market town Garissa (Somaliland Chamber of Commerce, 2009). Since the collapse of the formal government, (illegal) trade with Kenya and Ethiopia has increased (Nori, 2009). Border markets command higher prices than the national cattle market in transit trades (Little, 2005).

Other trade products include wheat flour, kerosene and sugar (from food aid), with large price spikes for critical foods like wheat flour and maize when unofficial cross-border trade was negatively affected either through trade embargoes or floods (Little, 2005).

In 2006, the Alive/LEAD e-conference discussed whether or how to support pastoralism, noting Somali pastoral livelihoods as more diversified and integrated with the cash economy than ever before, with the majority of households having access to at least one source of income not derived from livestock production and marketing. Additionally, this development in market exchange patterns has raised consumption of cereals and lowered the direct utilisation of animal products and enabled consistent population growth on rangelands. It is also recognised that some family members can be encouraged to exit whilst others continue the pastoralist way of life. Equity and rights rather than poor technology is seen as the reason for pastoralism poor performance (Alive/LEAD, 2006; Adeso, 2010).

There are two opposed views of the impact of climate change: either that pastoralists are the first to feel the effects through water points and rangelands drying out, or that they are best able to adapt to conditions of scarcity, so their way of life will increase (Najid and Crosskey, 2008).

However, the underlying causes of vulnerability are seen as political and social, not natural, although these trigger crises (Devereux, 2006). Agriculture is thought to have suffered more from the conflict than pastoralism, and displacement of farming communities has consequently impacted on local expertise and labour (UNEP, 2005). Twenty five to thirty per cent of pastoralists were estimated to be very vulnerable as herd sizes were less than 12.6 tropical livestock units per 6 member household, the minimum needed to sustain a family through drought (UNOCHA Pastoralist Communication Initiative, 2006). The most recent survey carried out by the Camel Caravan (Adeso, 2010) found 70% of respondents no longer had a single camel or pack camel and that 80% of all camels and pack camels had died due to drought.

2.2.5 The Role of Aid in Livelihoods

UNEP (2005) considers NGO activities, such as the building of simple rock dams by Adeso, provide effective environmental resource management. The health service is almost completely dependent on donor funding. There have been substantial investments in livestock and their products from donors. Food aid in the region has increased dramatically.

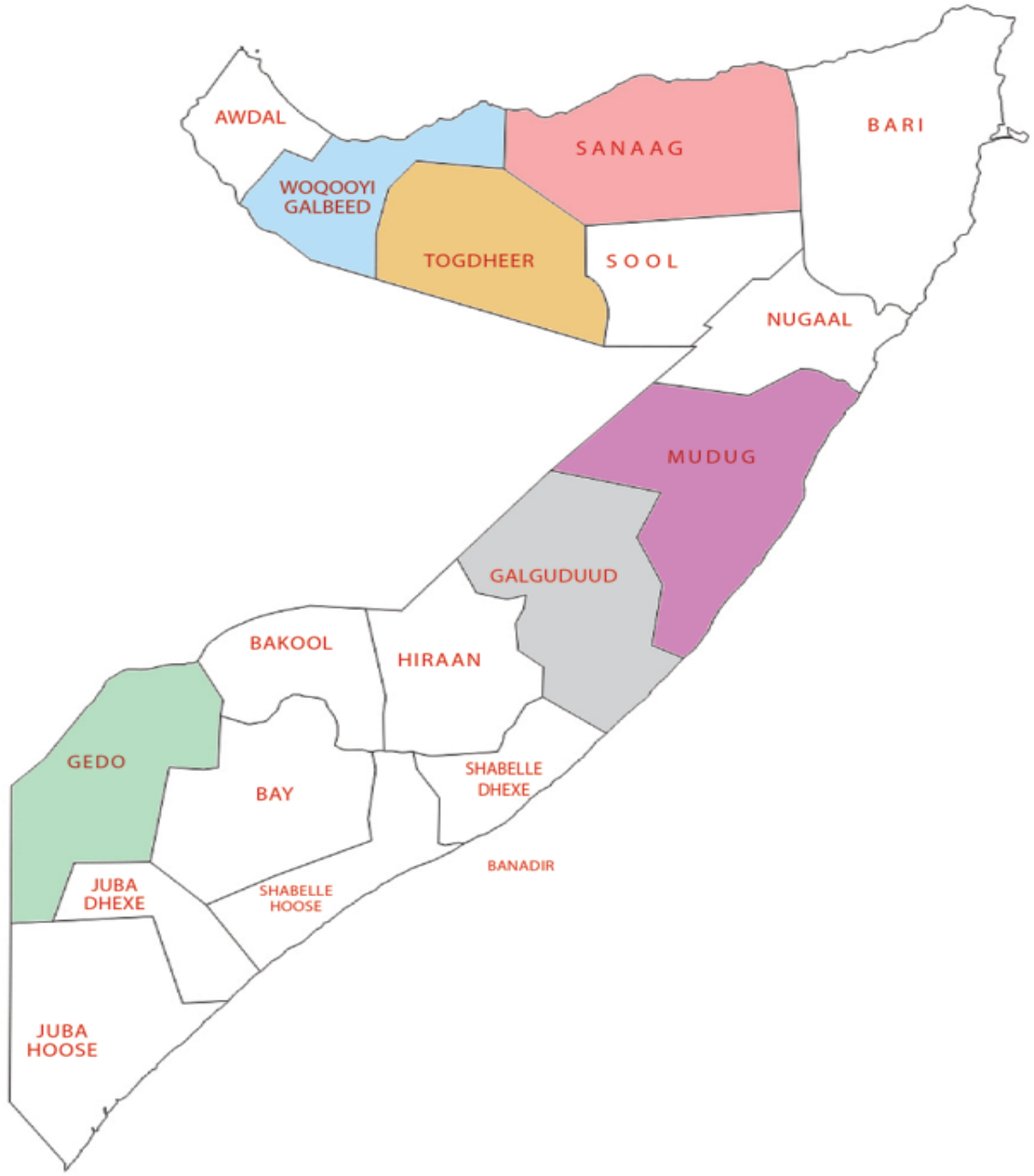
CHAPTER 3

METHODOLOGY

3.1 STUDY AREA

The study was carried out in Somali territories with samples being drawn from North, Central and Southern parts. Because it was not practical to collect data from all the different regions of the territories, six sites representing different pastoral and agro-pastoral livelihoods were selected (see figure 3.1). The shaded areas show sites from which samples were collected.

Figure 3.1: Map Showing the Six Study Regions



3.2 CHOICE OF SITES AND SUB-SITES, SAMPLING, SAMPLE SIZE

3.2.1 Choice of Sites and Sub-Sites

Eleven sites representing the main livelihood zones were identified in March after consultation with the Food Security and Nutrition Analysis Unit (FSNAU) as potential areas in which the survey was to be done. Six sites in 6 regions were chosen as representatives of the different livelihood zones: Togdheer for camel pastoralists, South Mudug and Galgaduud for shoat pastoralists, Sanaag for mixed livestock pastoralists, Gedo for cattle pastoralists and Maroodi Jeex (W. Galbeed) for agro-pastoralists. Three geographically distinct sub-sites were chosen in conjunction with the team leaders and enumerators to reflect the possible variations in livelihoods across the site; and additional questions were asked in order to obtain estimates of the size of each (type of) group. Details of sites and sub-sites chosen for each region are shown in Table 3.1.

TABLE 3.1: SITES AND SUB-SITES

Sites	Maroodi Jeex	Togdheer	South Mudug	Sanaag	Gedo	Galgaduud
Sub-sites	Wajaleh	Burco	Budbud	Badhan	Belet Hawa	Cadaado
	Baligubadle	Aynaba	Wisil	Hingalool	Dolooh	Caabudwaaq
	Darussalam	Oodwayne	Bitaale	Erigavo	Luuq	Dhusamarreeb

3.2.2 Sample Points and Sampling of Households

Ten or more sampling points at each of the sub-sites were chosen by the survey team in the field where the actual field work with pastoralists was carried out. At each sub-site, both grazing areas and trading centres were included. The precise selection of each sampling point (settlements and other meeting points) was decided in conjunction with local agencies and local officials, depending on where that particular group of pastoralists tend to congregate, the size of their group and, in particular, where they were likely to be just after the rains had started. At this stage, there were some considerations such as security that may have influenced the precise selection.

At each sampling point, if only a single sample were to be chosen, the resulting sample would almost certainly be restricted to the most articulate. It was therefore agreed that at each sampling point outside the settlements all households were to be interviewed. To avoid the same kind of bias within settlements, households were chosen using systematic random sampling.

3.2.3 Sample Size

The sample size was determined by using a sample size calculation assuming proportions of 0.5 for variables investigated within the population, at a 99.9% confidence level and a 0.05 margin of error. Due to the large number of variables from which estimates were to be made, standard deviations were expected to vary and so were the sample sizes for the same margin of error and confidence level. To solve this problem, the largest calculated sample size was taken for all variables

The budget available suggested a sample of about 850 households at each of the six sites. At each site, these were divided approximately equally between the three sub-sites. These sample sizes are always less than 1% of the estimated population sizes and so the finite population correction factor is never less than 0.995. With these sample sizes it would have been possible to detect at the usual 95% confidence level a between-site difference of about 4% and a within-site (between sub-site) difference of about 6% for a specific variable of interest with a value around 20%. However, given that the eventual questionnaire had 820 items and that there are a large number of possible breakdowns, we have adopted a much more cautious 99.9% confidence level and with that level, a between-site difference of about 10% and a within-site (between sub-site) difference of about 20% for a specific variable of interest with a value around 20%.

3.3 INSTRUMENTS

3.3.1 Rationale

The basis of data collection was a situational assessment among a large representative sample of households using a pre-coded Household Questionnaire. Additional information was collected from interviews with key informants, focus group

discussions and interviews of representative leaders of pastoralist groups at sampling points. Further information was gathered during dissemination meetings in the field where top government officials from the sectors involved were invited.

3.3.2 Coverage of Themes in Household Questionnaire

A household was defined in this study as a group of people who eat from the same food basket. The survey was multi-sectoral, although more attention was paid to the education sector. The instrument sought to cover the following information:

- Education: Interest was on description of formal and non-formal services available in the area, barriers to access and retention in school, expectation of parents about future for children, exposure of adults to any educational program and a brief assessment of literacy.

- Health: Focus was on access to and use of services, vaccination coverage, recent childhood illnesses and barriers to access and use of available health services.

- WASH: Principally sanitation facilities, principle water sources for drinking and cooking, water treatment practices were explored.

- Livelihoods: The survey queried herd sizes and dynamics, sources of income and food and expenditure patterns within the households.

- Nutrition: Of interest was dietary diversity, eating patterns and Middle Upper Arm Circumference (MUAC) measurements to quickly assess nutritional status of children where training support was possible.

- Social Protection: Issues examined included child labour and its compatibility with education for pastoral children, abuse of children, traditional safety nets and the security of migration patterns.

- Government and site officials: The focus was on the purpose of their program, the target groups, types of interventions and problems of taking methods to scale.

- Head teachers: Information from head teachers centered on schooling services provided, availability of teaching and learning materials and, challenges that schools face. Also asked were school performance and perception of pastoralists towards formal education.

- NGOs: The main points of interest were types of interventions offered, implementation strategies, target groups and challenges faced in their operations.

- Representatives of pastoralist groups: Principally, they were asked about the group profile; changes in living conditions over the last four rainy seasons; views about education, health and nutrition; and communication. These were mainly to address general questions such as land ownership and migration patterns, and to ask 'why' questions, where a closed household interview was not the most appropriate instrument and where, as in this case, the existing household questionnaire was already very long so that inclusion of open-ended questions was not appropriate.

- Focus group discussions (FGDs): These were on sensitive issues such as child discipline and child labour, security and harmful traditional practices. To ensure free expression of opinions, groups were divided into men, old women and young women. Besides the adult FGDs, similar discussions were held with small groups of between 6 - 12 children, mainly to seek their views on formal education.

3.3.3 Development and Language of Questionnaire and Other Tools

The survey tools (questionnaires, guideline questions for focus group discussions – FGDs and observation forms) were developed in English and then translated into Somali. All instruments were made available in English and Somali. Since the bulk of the structured questionnaire consisted of closed questions, for the purposes of data entry it did not matter which one was used. However, for the other instruments, the Team Leaders were asked to administer them where possible in English, but in cases where they could not do this the responses were recorded in Somali and then back translated into English by professional translators.

3.4 TRAINING AND DATA COLLECTION

The training was conducted in three phases as detailed in Table 3.2 below. The survey team for each site comprised of 15 enumerators and three team leaders who formed teams of three that collected data in the three sub-sites. Pre-test of the survey instruments was done during the trainings and necessary amendments done before mass production for actual fieldwork. For each of the sites, data collection commenced immediately after the training.

TABLE 3.2: TRAINING AND DATA COLLECTION SCHEDULE

Site	Training location	Training date	Actual dates of fieldwork
Phase I			
Maroodi Jeex (W. Galbeed)	Hargeisa	6th – 12th April	14th - 30th April
Togdheer	Hargeisa	6th – 12th April	14th – 30th April
Phase II			
South Mudug	Galkayo	17th – 23rd April	25th April – 10th May
Sanaag	Galkayo		26th April - 11th May
Phase III			
Gedo	Mandera (Kenya)	29th May – 6th June	8th – 23rd June
Galgaduud	Galkayo	29th May – 6th June	8th – 23rd June

3.5 DATA PROCESSING AND ANALYSIS

3.5.1 Data Entry

There was an attempt to enter the data at a central point for each of the sites. In Maroodi Jeex (W. Galbeed), the first site, it was rapidly realised that the quality of data entry was poor and so all the other questionnaires were shipped back to Nairobi to be entered by a qualified data entry team under the supervision of 1 of the 2 consultants and a Somali speaking data entry supervisor who helped with translation of the non-pre-coded answers.

The Household Questionnaire had 820 items and it was calculated that a competent data entry clerk working under reasonable conditions could enter the responses for 15 questionnaires a day. Given that the achieved sample size was, 6652 the number of data entry clerk days was estimated at 440 days. With 11 data entry clerks that translated to 40 days or 8 weeks. Data entry started in Nairobi at the beginning of May and was completed in mid-July. The data was entered first into Excel spreadsheets before being exported to SPSS for analysis.

3.5.2 Data Cleaning

In general, there were no obvious systematic mistakes affecting groups of questionnaires collected by specific enumerators or groups of data entered by specific data entry clerks. However, for a set of 130 questionnaires from Maroodi Jeex (W. Galbeed) there were some errors which appeared to have arisen during data entry that that data was re-entered.

There were several questions that involved estimation of quantities or percentages (i.e. hectares of land owned, cost of cereals in dollars). Unsurprisingly, these generated difficulties at both interview and data entry stages. In part these could be identified through values that were out-of-range detected by machine and checked back to the individual questionnaires. But, it also became evident that, for many of the percentage and value questions, there had been some confusion between a fraction and a percentage or between currencies being used in different regions and the US dollar, so these were solved by computer software.

3.5.3 Bases for Percentages

In general, for each item the base N, after taking into account out-of-range values, was the numbers of non-missing values. In several cases where there was a group of questions which should have been answered either Yes or No by the same people it was decided to use the least number of missing values for that group and adjust the responses for the other questions in the same group accordingly. In addition, there were several sets of linked questions (i.e. where one question should only have been answered by those who answered positively to a previous question) and those links have been taken

into account in presenting the base numbers in the tables, even though the number that is the basis for the percentages may be smaller.

3.5.4 Approaches to Analyzing Variability

It was assumed from the outset that the major dimension of variation would be according to livelihood activity. This can be defined either in terms of the activity of the household or in terms of the predominant activity of the locations/ sample sites. The actual survey was carried out in 6 sites, but within each of those sites enumerators went to 3 separate sub-sites. The actual interviews were conducted with pastoralist households in 10-12 locations, giving a total of about 200 locations throughout the Somali territories. A crucial question was therefore, the extent of variation between sites and between sub-sites compared to variation between households according to their own livelihood activity.

The basic analyses were simply the breakdown of all the responses on the 820 item questionnaires sites. These show that, for a large number of items, the number of valid answers was small and/ or the percentages of interest were small. Subsequent analyses by sub-sites, by a household's own livelihood activity and by income within site are therefore restricted to those items where there is sufficient variability or where the percentages of interest are sufficiently high.

3.5.5 Data Analysis and Presentation

Quantitative data was mainly analyzed by descriptive statistics using SPSS and Microsoft Excel software. Qualitative data were analysed by manual coding, sorting and sifting before inferences were drawn from the different coded responses. The qualitative data were then used for triangulation and explanation of results of the quantitative component.

CHAPTER 4

GENERAL INFORMATION ABOUT PASTORALIST

4.1 INTRODUCTION

A total of 6652 household questionnaires were completed in the 6 regions where samples were drawn. Split by sites, there were 1015 completed in Maroodi Jeex (W. Galbeed), 881 in Togdheer, 1092 in South Mudug, 1144 in Sanaag, 1491 in Gedo and 1029 in Galgaduud. Besides the household questionnaires there were 150 interviews with pastoralist leaders, 36 with head teachers and 20 with government officials in regions where a functional government exists. Focus group discussions were conducted with 30 groups of men, 30 for young women, 30 for old women, 20 groups of children and 20 for pastoral dropouts. Due to many levels of sub titles in some of the content areas covered, results for each sector are presented in their own chapters for clarity.

4.2 HOUSEHOLD STRUCTURE

4.2.1 Average Household Size and Sex Distribution

The typical Somali household has approximately 6 members. Between sites, there are some variations with the lowest of 5.8 members in South Mudug and the highest of 6.4 in Gedo. Site ranges were fairly similar as there was little variation in the mean divided by the standard deviation measure (about 2.4 for each site). The numbers of adults (overall mean of 2.8) showed a greater variation between sites (lowest 2.3 in Sanaag and highest 3.2 in Galgaduud). The within site variation was also large with the mean/standard deviation measure at 1.7 adults varying between a low of 1.5 in Sanaag and a high of 2.1 in Gedo. Overall, there were equal numbers of men and women in the household (about 1.4 of each), although slightly more men than women in Galgaduud (1.7 compared to 1.5) and slightly fewer adults per household in South Mudug (1.3 compared to 1.5).

There was slightly more variation in the numbers of children in the households (compared to the number of adults) with an overall mean of 3.4, ranging between a low of 2.8 in Galgaduud and a high of 3.9 in Sanaag. The within site variation was about the same, varying between 1.2 children per household in Galgaduud and 1.7 in Sanaag, for an overall mean of 1.5. There were slightly more boys than girls overall (1.8 compared to 1.6) and in every site, with the largest discrepancy of 0.3 in Galgaduud and the lowest of less than 0.1 in South Mudug. Table 4.1 shows site details of household composition.

4.1.2 Demographics of Respondents

Out of the 6652 respondents, 59% were females and 41% males, with proportion of females varying between 42% in Sanaag and 75% in Togdheer. For other areas proportions were 65% for Maroodi Jeex (W. Galbeed), 68% South Mudug, 58% Gedo and 51% Galgaduud. Of these respondents, 44% were male heads of households, 53% wives to heads of household, 1.4% a child in the house, 1.2 a grandmother in the house while 0.2% an adult relative in the house.

4.1.3 Responsibilities of Household Members

Generally, Somali men are expected to provide for their families and are therefore engaged in a number of activities that produce livelihoods. These include herding of livestock, farm work in agro-pastoral areas, casual labor and burning of charcoal. Besides these, men control the sale of livestock. Other roles include resolving disputes and conflicts between households over grazing and water resources, looking for better grazing areas for relocation during drought, and gathering information about the general livelihood and security situation through informal gatherings and community meetings.

TABLE 4.1: HOUSEHOLD COMPOSITION

		Size	No of adults		Men	Women	No of children		Boys	Girls
	N1	1A	1B	1C	1D	1E	1F	1G	1H	1I
Maroodi Jeex (W. Galbeed)	1032	6.05	2.94	1.54	1.48	1.45	3.15	1.31	1.68	1.44
Togdheer	874	6.03	2.69	1.74	1.36	1.31	3.38	1.51	1.77	1.59
South Mudug	1090	5.81	2.78	1.64	1.29	1.47	3.05	1.33	1.56	1.48
Sanaag	1138	6.16	2.32	1.51	1.19	1.11	3.88	1.74	2.04	1.83
Gedo	1487	6.41	2.69	2.11	1.36	1.31	3.77	1.68	1.97	1.78
Galgaduud	1008	6.05	3.22	1.69	1.73	1.47	2.84	1.18	1.56	1.28
Total/Average	6629	6.11	2.76	1.67	1.39	1.35	3.38	1.45	1.78	1.59

Key N: Sample number; 1A: Household size; 1B: Number of adults (18+) in household; 1C: (Mean/Standard Deviation) of number of adults (18+) in household; 1D: Number of men in household (18+); 1E: Number of women in household (18+); 1F: Number of children (<18) in household corrected; 1G: (Mean/standard deviation) Number of children (<18) in household corrected; 1H: Number of boys in household corrected; 1I: Number of girls in household corrected

Women are involved in herding of livestock, domestic chores like fetching water and firewood, cooking and petty trading such as sale of tea. In South Mudug and Sanaag women were also reported to be involved in making handcraft items like mats and traditional utensils. In agro-pastoral areas they work in the farms along with men. They are also involved in construction of shelters (traditional Somali aqal)

Boys help their fathers in herding animals, construction of animal enclosures, farm work and, in some cases, helping their mothers fetch water. Girls help their mothers in the household tasks of cooking, washing clothes, fetching water and firewood and tending to younger siblings. They are also involved in herding animals in grazing areas close to the homes.

4.3 FUEL AND MATERIALS USED IN HOUSING

4.3.1 Fuel Use

By far, the fuel most likely to be used was wood (89% of 3985 responses), with South Mudug lowest at 79% and Sanaag highest at 97%. However, 10% overall said that the fuel most likely to be used was charcoal, with 19% of those in South Mudug compared to 2% of those in Sanaag. The second choice of fuel (answered by 1491) was charcoal (36%, with variations between 24% in Sanaag and 56% in Togdheer) followed by straw/ shrubs/ grass (34% with variations between 12% in Togdheer and 64% in Sanaag)) and wood (22% with variations between 6% in Sanaag and 29% in South Mudug). Only 668 answered the question about the third most likely source of fuel with 41% saying straw/ shrubs/ grass and 22% saying wood.

4.3.2 Rooms and Materials of Floors, Roofs and Walls

Of the 4925 respondents (74% of all) who answered the question, 77% said their houses consist of only one room, varying between 64% in South Mudug and 95% in Gedo. Of the 4439 who answered the question about the types of materials for floors, 82% had natural earth floors, varying from 63% in South Mudug to 93% in Togdheer. Inversely only 12% had cement floors, varying between 4% in Togdheer and 30% in South Mudug. Of the same 4439 who answered the question about the materials used in roofs, 29% reported corrugated iron sheets (varying widely from only 3% in Gedo to 59% in South Mudug. Overall 34% reported thatch roofs, varying between 10% in South Mudug and 65% in Gedo, and 16% reported cardboard roofs, ranging from 6% in Sanaag to 30% in Maroodi Jeex (W. Galbeed). Fifteen percent (15%) had tented coverings for roofs, from 6% in Maroodi Jeex (W. Galbeed) to 27% in Togdheer. Of the 2320 who answered the question about walls, 28% reported stone, [varying between 4% in Maroodi Jeex (W. Galbeed) and Gedo and 77% in South Mudug], 25% said mud (varying between 7% in South Mudug and 95% in Gedo) and 19% reported planks [varying between 1% in Gedo and 72% in Maroodi Jeex (W. Galbeed)].

Those who did not answer the question about the number of rooms for sleeping but did answer the questions on floor materials were 448. Of those, 82%

said that they had natural earth for a floor varying between 63% in South Mudug and 93% in Togdheer. Of the 464 who answered the question about roof covering, 29% said corrugated iron sheets varying between 3% in Gedo and 59% in South Mudug, 34% said thatch varying between 10% in South Mudug and 65% in Gedo, and 15% said tented covering (5% in Gedo and 27% in Togdheer). Of those who answered the question about walls (299), 29% reported use of mud, 36% stones and 24% plunks. Details of regional variations are shown in table 4.2.

4.3.2 Transport

When asked if they had any means of transport at all, 16% overall had an animal-drawn cart (varying between 2% in Togdheer and 56% in Gedo), and 16% had a camel or horse or donkey (varying between 4% in South Mudug and 31% in Sanaag). Only about 1% had a bicycle, motorcycle or any other type of vehicle. Table 4.3 gives details of the purposes and frequencies of visits, as well as means of transport across the 6 regions surveyed.

TABLE 4.2: TYPE OF HOUSE AND MATERIALS USED FOR CONSTRUCTION

	Number of rooms			Floor materials (%)			Roof materials (%)				Wall materials (%)			
	N1	1A	1B	N2	2A	2B	3A	3B	3C	3D	N4	4A	4B	4C
Maroodi Jeex (W. Galbeed)	965	68	5.2	939	80	6.9	13	30	40	6	544	9	4	72
Togdheer	744	73	4.0	680	93	4.3	16	1	45	27	250	41	11	34
South Mudug	1044	64	5.6	1030	63	29.7	59	1	10	18	756	7	77	6
Sanaag	511	85	2.0	419	85	9.3	36	6	25	21	217	36	46	10
Gedo	921	95	0.4	665	92	.2	3	2	65	5	280	95	4	1
Galgaduud	757	79	3.2	706	90	4.7	42	1	24	19	273	49	39	3
Total/Average	4925	77	3.6	4439	82	11.7	29.3	1	34.0	15.2	2320	25	28	19

N1 No of respondents about rooms; 1A: One room only; 1B: Three or more rooms; N2: No of respondents on roofing material; 2A: Natural earth; 2B: Cement; 3A: Corrugated iron sheets; 3B: Cardboard; 3C: Thatch; 3D: Tent; N4: No of respondents on wall materials; 4A: Mud; 4B: Stone; 4C: Planks

4.4 CONTACTS WITH TOWNS AND TRANSPORT

4.3.1 Contact with Town

Overall, 90% of respondents said that someone in the household had been to the nearest town, with South Mudug households the lowest of 73%. Of those who had gone to the nearest town, about 6% overall had gone to see an official with little variations between sites, 65% had gone to buy items [varying between 40% in South Mudug and 78% in Maroodi Jeex (W. Galbeed)] and 70% to sell [varying between 38% South Mudug and 86% in Maroodi Jeex (W. Galbeed)]. About 85% of households had relatives in town, with the lowest figure of 73% in South Mudug. About a quarter overall (26%) went at least once a week to town to sell or buy [varying between 12% in South Mudug and 42% in Gedo), 55% at least once a month [varying between 44% in Galgaduud and 67% in Maroodi Jeex (W. Galbeed)], but 20% had not been to town in the last twelve months (varying between 3% in Gedo and 32% in South Mudug).

4.5 CHARACTERISTICS AND MOVEMENTS OF PASTORALIST GROUPS

Pastoralist leaders of different standings were interviewed to get information about their troops and patterns of movements for the group. Those interviewed included chiefs and village elders, both male and female, and heads of troops in cases of highly mobile pastoralist groups.

All the leaders interviewed said that their groups are based on kinship, coming either from lineage (belonging to the same sub clan) or as a result of marriage that can bring two families in different sub clans close together. Such kinship is also what determines the regular pattern of movement. In some cases, long association in some common grazing areas may also create cohesion among different groups.

TABLE 4.3: FREQUENCY OF VISITS, PEOPLE VISITED AND MEANS OF TRANSPORT

		Reason for going to town (%)		Relatives (%)	Frequency of visits to town (%)			Means of transport (%)	
	N1	2A	2B	3	4A	4B	4C	5A	5B
Maroodi Jeex (W. Galbeed)	1016	78	86	87	23	67	11	7	24
Togdheer	846	67	72	94	20	56	25	2	8
South Mudug	834	40	38	73	12	55	32	3	4
Sanaag	1031	65	72	87	21	50	29	9	31
Gedo	1422	811	76	89	42	55	3	56	10
Galgaduud	930	50	70	836	28	44	29	7	19
Total/Average	6079	65	70	85	26	55	20	16	16

Key: N1: No of respondents; 2A: Gone to town to buy livestock/ provisions; 2B: Gone to town to sell livestock/provisions; 3: Had relatives in nearest town; 4A: Been to town to buy or sell livestock/ provisions at least every week; 4B: Been to town to buy or sell livestock/ provisions at least every month; 4C: Not been to town to buy or sell livestock/ provisions for more than a year; 5A: Animal-drawn cart; 5B: Camel/horse/donkey

The leaders were asked to estimate the number of inhabitants within their temporary or permanent settlements as well as geographical range that people within such settlements use for grazing. Such settlements consisted of population of about 425 - 1800 people occupying an area between 25 – 50 km^2 and divided into several households of about six people.

Movement is one of the ways by which pastoral communities effectively utilize the fragile pastoral rangelands. The studies, therefore, sought to establish the extent and patterns of movements among pastoral communities. A majority of all the leaders interviewed confirmed that people in their settlements had moved in search of pastures within the last four biannual seasons. However, there were some variations across the regions, with more frequent movements confirmed in Togdheer, South Mudug, and Gedo. In Sanaag and Maroodi Jeex (W. Galbeed) there were relatively lower frequencies of movements within the same period, possibly due to the more sedentary lifestyle of agro-pastoralists in Maroodi Jeex (W. Galbeed) and good pastures in some parts of Sanaag. Some leaders from these areas especially in Sanaag reported that they have indeed hosted other people within the four biannual seasons. The lack of pasture and water resulting from prolonged drought was the major cause for movement in all the regions. In South Mudug, however, some leaders also said their groups moved as a result of insecurity. Accessing services such as health centres and schools were not cited by any leader as reasons for movement.

In most cases, there is no extensive consultation before a single household decides to move. As the elders put it, prevailing environmental conditions dictate the decision to move and it usually comes automatically when drought sets in. However, when there is conflict between communities consultations are usually held to ensure that household members only move to safe areas.

In normal seasons, the pattern of movement is regular when members of a given settlement move to specific common areas traditionally utilized for grazing during certain times of the year. In cases of prolonged drought they venture into other areas out of their regular grazing land. As part of traditional resource sharing, communities can move to any location for grazing and watering to save their animals in times of crisis. However, such extensive movements may be curtailed by conflicts over those resources.

In pure pastoralist groups the tendency is for all family members to move together, but this is mitigated by the situation. If the distance to be covered is too long, then weaker members of the community such as the elderly and children who cannot withstand the journey are left behind at strategic places, usually watering points, together with weak animals. In agro-pastoral areas, only strong males move with the animals, leaving behind women, elderly people, the sick and children to take care of farm land

CHAPTER 5

EDUCATION AND LEARNING

5.1 PASTORALIST EXPERIENCES WITH EDUCATION

5.1.1 Adults

5.1.1.1 Formal Schooling

Overall households reported that 14% of adult men (18+), varying between 5% in South Mudug and Galgaduud and 28% in Togdheer, had some formal schooling. For women overall the rate was 9%, varying from 3% in Galgaduud to 20% in Togdheer. For both men and women, the percentages in Sanaag and Gedo are similar to the overall average, but the percentages for the other 4 sites are significantly different from the overall averages. The base for the percentages in most households is >85% in each site. In every site, adult men have more formal schooling than adult women. The average grade attained by those who have been to formal schooling was overall about Grade 6, with the lowest in Galgaduud and Gedo at Grade 5.5 and the highest in Galbeed at Grade 7.1. The other sites had an average grade of 6. Variations by income tercile within site were only statistically significant in Gedo and Galgaduud for both men and women.

5.1.1.2 Formal Schooling and Non-Formal Education Reported by Respondent

In addition to completing the household grid where the respondent stated whether or not each adult in the household had been to school (which are the results reported in the preceding paragraph), the respondents were also asked directly about their experiences in formal and non-formal schooling. The levels reported are higher than those of other adults in the households. Overall 18% report that they themselves have had formal schooling, varying between 8% in South Mudug and 41% in Togdheer. Those percentages, together with 11% for Galgaduud, are significantly different from the overall average. When broken down by gender, overall 20% of men and 15% of women reported having gone to formal school and the variations between regions follow the same pattern. Ranging from 10% in Maroodi Jeex (W. Galbeed) to 52% in Gedo, respondents said they had attended a Qur'anic school, averaging 28% of respondents overall. Apart from Togdheer, the percentages for the other sites are significantly different from the overall average. When broken down by gender, overall 34% of men and 21% of women reported having gone to Qur'anic school and again the variations between regions follow roughly the same pattern. Less than 3% overall have attended a mobile school, an Integrated Qur'anic School, an intensive course, an Accelerated Alternative Basic Education (ABE) course or a vocational training course. Again these percentages are based on most households (>80%) in each region.

5.1.1.3 Formal Schooling and Non-Formal Education for Other Adults in Household

Overall 10% of other adults in the household have attended formal schooling, varying between 4% in South Mudug and Galgaduud and 18% in Sanaag. These percentages were significantly different from the overall average. Overall, 8% of the other adults have attended a Qur'anic school, ranging from 2% in Maroodi Jeex (W. Galbeed) and 3% in Togdheer to 16% in South Mudug, and these percentages were significantly different from the overall average. Otherwise less than 2% overall have attended a mobile school, an Integrated Qur'anic School, an intensive course, an ABE course or a vocational training course. These percentages are based on most households (>90%) in each region. In this case, it is noticeable that the percentages of formal schooling reported for other adults in the household here is lower than the levels recorded in the household grid (see section 5.1.1.1). Details of site variations on formal and Qur'anic education are shown in Table 5.1

TABLE 5.1: EDUCATION OF ADULTS

SITES	Formal schooling of adults (%)			No.	Respondents to formal and Qur'anic education (%)					Adults to formal and Qur'anic education (%)		
	N1	1M	1W	2	N2	2A		2B		N3	3A	3B
						M	W	M	W			
Maroodi Jeex (W. Galbeed)	904-938	19.3	10.0	3.0	23	21	11			981	13	2
Togdheer	764-795	27.7	19.5	2.3	221-246	49	36	30	28	829	14	3
South Mudug	846-1017	4.5	3.9	3.4	595-662	6	9	22	15	1027	4	16
Sanaag	832-870	13.0	8.8	3.0	658-674	20	12	50	38	830	18	8
Gedo	1399-1434	16.1	9.7	3.6	3331-48	40	24	55	46	56	9	8
Galgaduud	952-978	4.9	3.4	2.6	379-381	10	16	24	38	7	4	8
Total/Average	5697-6032	13.8	8.8	2.9	2792-2953	20	15	34	21	16	10	8

Key: N1: No reporting on formal schooling of adults in households; 1M: Calculated % of formal schooling of adult men; 1W: Calculated schooling of adult women; 2: Average grade attained in formal school; N2: No reporting on their own education: 2A % Respondents with formal schooling; 2B: % respondents having been to Qur'anic school; N3: No reporting on education of other adults in the household; 3A: % Other adults to formal schooling; 3B: % Adults to Qur'anic

5.1.1.4 Attendance of Other Types of Non-Formal Education by Respondents and Other Adults

Less than 3% of women listened to women's programs and less than 2% of men and women have listened to educational broadcasts, attended a skills training, a correspondence course, a self-study course, courses designed by the Ministry of Health, an adult literacy course or a leadership program. These percentages are based on most households (>90%), except for Togdheer where a large proportion did not answer any of these questions.

5.1.1.5 Reasons for Not Taking up Non-Formal Opportunities

Seven percent (7%) of respondents overall reported that either they or one or more of the adults in the household had been offered one or more of these education opportunities, but had been unable to take them up, with a low of 2% in Galgaduud and a high of 18% in Togdheer.

Of the 384 respondents who gave reasons for not taking up any of these opportunities, 71% said engagement with livelihood activities prevented them from taking up the opportunity, 59% said that they would have had to pay and lacked money, 43% indicated they were constantly migrating and 14% could not see the benefits of the program. Given the numbers involved, differences of less than 20% are not statistically significant, so the following commentary is therefore limited to only large differences. In Togdheer, 91% of respondents were more likely to cite engagement in livelihood activities, whilst 31% of respondents in South Mudug were not likely to. The only site different from the overall average citing 'having to pay' as a reason was Maroodi Jeex (W. Galbeed) where money was an issue for only 24%. Sixty five percent (65%) of respondents in Gedo were more likely to cite constant migration, whilst 16% of those in South Mudug were less likely to cite migration. Table 5.2 shows details of responses to these questions in all the sites.

5.1.2 Children

5.1.2.1 Formal Schooling

Formal schooling by boys aged 6 to 17 years has been taken up overall by 24%, 4% in Galgaduud and 48% in Togdheer households. Nineteen percent (19%) of girls aged 6 to 17 years overall are in or have completed formal schooling, varying between 4% for Galgaduud households and 40% of Togdheer households. Boys were always more likely to be attending or have completed formal school than girls, with the widest gap between boys and girls of 9% in Togdheer. Given the large samples, differences of more than 4% from the overall average are statistically significant so that there is therefore a clear difference between the lower take up of formal education in Galgaduud and South Mudug and the higher take up in Maroodi Jeex (W. Galbeed) and Togdheer. Variations by income

TABLE 5.2: REASONS FOR ADULTS NOT TAKING UP NON-FORMAL EDUCATION OPPORTUNITIES

	Ever offered opportunities (%)		Reasons for not taking up opportunities (%)				
	N1	2	N2	2A	2B	2C	2D
Maroodi Jeex (W. Galbeed)	995	5	50	72	24	27	12
Togdheer	700	18	106	91	66	28	6
South Mudug	1062	4	45	31	73	16	7
Sanaag	1018	6	55	60	56	60	10
Gedo	1199	11	109	74	67	65	31
Galgaduud	967	2	19	58	47	63	5
Total/Average	5941	7	384	71	59	43	14

Key N1: No. reporting on whether or not they were offered any of the programs, but unable to take up; 2: % offered alternative education opportunities; N2: No. reporting on reasons for not taking up opportunities; 2 A: % Engagement with livelihood activities; 2B: % had to pay and lacked money; 2C: % Constant migration; 2D: % Lack of perceived benefits

tercile within site were statistically significant in Galgaduud. The average grade attained to date by children was Grade 3 with little difference between the sites. Expected grade in case of 100% transition from Grade 1 to Grade 12 is Grade 6.5, which indicates that the transition rate is relatively low. The overall percentage of children attending boarding school was just over 3%, with none in South Mudug and Galgaduud, but 10% in Gedo. Details of regional variations on different aspects of children's' education are shown in Table 5.3.

5.1.2.2 Time and Frequency of Attendance

In Gedo 65 % of children who go to lower primary school attend in the morning, but in Maroodi Jeex (W. Galbeed) the rate is 98% and the overall average of morning attendees is 91%. Of those going to upper primary school, overall 88% go in the morning, varying between 50% in Gedo and 97% in Maroodi Jeex (W. Galbeed). Given the level and sample sizes, only the percentages in Galgaduud and Gedo are significantly different in that nearly all the other children in Gedo go all day, whilst all the others in Galgaduud go in the afternoon. On average, children go to school for 5.7 days a week, both in lower and upper primary, with only small differences between sites.

5.1.2.3 Travel Time to Formal School

The average time to school for those children who went to school in all sites was 57 minutes, but this varied widely from 16 minutes for those in South Mudug to 148 minutes for children in Sanaag households.

TABLE 5.3: FORMAL EDUCATION OF CHILDREN

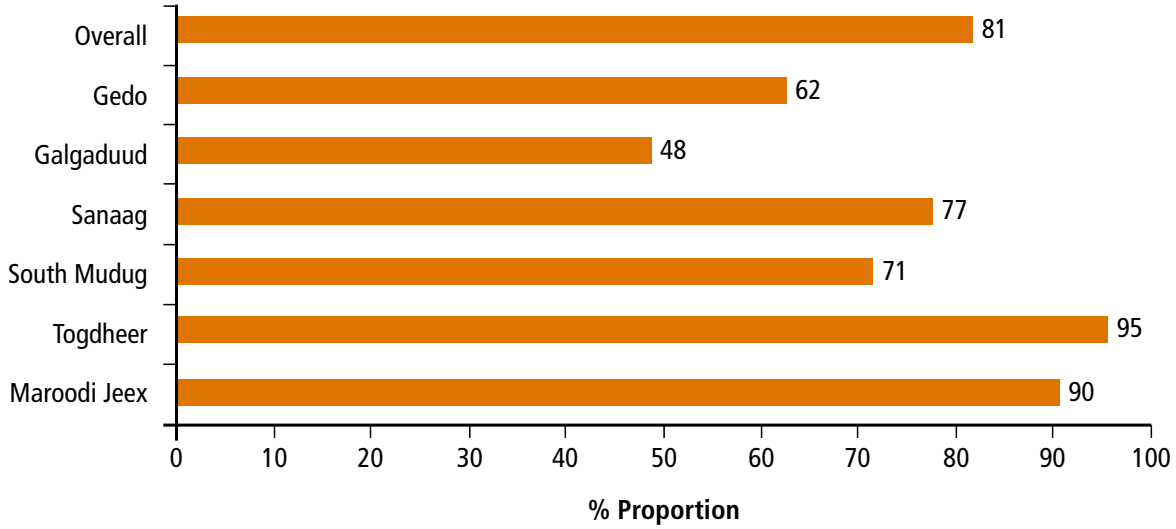
	Boys with formal educ. (%)		Girls with formal educ. (%)		Children boarding (%)		Av grade Level	Lower primary			Upper primary			Time to school (minutes)	
	N1		N2		N3			N4	4A (%)	4B (No.)	N5	5A (%)	5B (No.)	N6	6
Maroodi Jeex (W. Galbeed)	503	41.5	526	33.9			3.1		98	5.8	152	97	5.7	376	24
Togdheer	504	48.0	512	39.5	402	3	3.0	362	96	5.9	163	99	5.9	64	128
South Mudug	550	8.5	555	7.4	98	0	2.4	85	93	5.2	26	92	5.4	506	16
Sanaag	788	19.2	754	18.4	251	2	3.1	203	91	5.9	117	90	5.9	36	148
Gedo	997	15.2	952	14.0	184	10	3.1	164	65	5.2	86	60	5.2	48	89
Galgaduud	516	4.3	473	3.6	50	0	3.5	37	78	5.2	78	18	5.1	1	10
Total/Average	3858	23.7	3772	18.9	1382	3	3.0	1179	91	5.7	562	88	5.7	386	57

Key N1: No reporting on boys' formal education; N2: No reporting on girls' formal education N3: No reporting on grades and boarding; N4: No reporting on Lower Primary (LP); 4A: % Children to LP in morning; 4B: No. of days per week to LP school; N5: No reporting on Upper Primary (UP); 5A: % Children UP school in morning; 5B: No. of days per week to UP school; N6: N reporting on time to school; 6: Average minutes to school

5.1.2.4 Perception of Parents on Formal Education

Of those parents who had sent one or more of their children to formal schooling, overall 81% said that it was very useful, but with wide variations in the six regions surveyed as shown in figure 5.1 below.

Figure 5.1: Perception of Formal Education by Regions



5.1.2.5 Reasons for Not Sending Children to Formal School

Of those parents who had not sent their children for formal schooling, the main reason, cited by 45% for their boys and by 51% for their girls, was that schools were not available. This varied between under 20% in South Mudug to over 80% in Sanaag for both boys and girls and all the percentages except those for Galgaduud are significantly different from the overall average. Lack of money was the reason cited at 35% for boys and 38% for girls by parents overall, varying between 14% in Maroodi Jeex (W. Galbeed) and nearly 60% in Sanaag, but only those extreme values are significantly different from the overall average. Constant migration was the other reason given by parents at 17% for boys and 18% for girls varying between 3% in Maroodi Jeex (W. Galbeed) and 40% in Sanaag, but only those extreme values are different from the overall average. Finally, a lack of perceived benefits for sending children to school was reported by 13% of parents for boys and 11% for girls overall, varying between 1% for both boys and girls in Maroodi Jeex (W. Galbeed) households and by 12% of parents for boys and by 10% of parents for girls in Gedo households. Details for each of the regions are shown in Table 5.4.

TABLE 5.4: ATTITUDE TOWARDS FORMAL EDUCATION AND REASONS FOR NOT SENDING CHILDREN TO SCHOOL

	% Very useful			Reasons for not sending child (ren) to formal school (%)							
	N1		N2	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
				2A	2B	2C	2D	2E	2F	2G	2H
Maroodi Jeex (W. Galbeed)	306	90	697	21	22	14	14	3	3	1	1
Togdheer	332	95	281	24	28	29	36	15	15	2	2
South Mudug	63	71	863	18	20	41	44	4	5	3	5
Sanaag	218	77	740	81	84	57	60	39	42	3	3
Gedo	172	48	905	65	77	32	38	19	21	12	10
Galgaduud	38	62	624	49	57	28	31	20	21	10	8
All/Average	1129	81	4110	45	51	35	38	17	18	13	11

Key N1: N reporting on usefulness of formal school; N2: No reporting on reason for not sending children to school; 2A: % Schools not available (for boys); 2B: % Schools not available (for girls); 2C: % Lack of money (for boys); 2D: % Lack of money (for girls); 2E: % Constant migration (for boys); 2F: % Constant migration (for girls): 2G: % Lack of perceived benefits (for boys); 2H: % Lack of perceived benefits (for girls)

5.1.2.6 Access to Other Non-Formal Educational Possibilities

The detailed results about non-formal education for children are shown in Tables 5.5 and 5.6. Forty four percent (44%) of parents overall reported that one or more of their children had been to Qur'anic school, from 24% in Maroodi Jeex (W. Galbeed) to 58% in South Mudug. These percentages, together with 36% in Galgaduud and 53% in Gedo, were significantly different from the overall average. According to pastoralist representatives, apart from Sanaag where some leaders said that girls may also attend Qur'anic schools when there is opportunity, leaders from other regions reported the opposite.

and South Mudug. If restricted to parents who had taken their children to one of these alternatives, the overall percentage increased to 82% with little variance between sites.

5.1.2.7 Preferences for Other Non-Formal Education Possibilities

Regarding preferences for other non-formal education possibilities, overall 18% of parents said that they preferred a mobile school, varying between 4% of South Mudug households to 44% of parents in Galgaduud households. All the percentages, with the exception of that of Sanaag, are significantly different from the overall average. Overall, 70% of parents

TABLE 5.5: CHILDREN'S ACCESS TO OTHER EDUCATIONAL POSSIBILITIES

	Qur'anic schools		IQS	Other education possibilities very useful		Preferred form of education (%)			
	N1	(%)	(%)	N2	%	N3	3A	3B	3C
Maroodi Jeex (W. Galbeed)	904	24	3	314	70	351-771	18	50	2
Togdheer	631	48	13	452	85	76-352	18	76	17
South Mudug	886	58	1	451	75	441-831	6	67	1
Sanaag	984	41	4	349	81	162-489	33	74	3
Gedo	1145	53	6	559	55	313-804	49	82	6
Galgaduud	694	36	1	177	99	184-498	63	82	1
Total/Average	5244	44	4	2392	73	1527-3745	28	70	3

N1: No reporting on other educational possibilities; N2: No reporting on usefulness of other possibilities; N3: No reporting on preferred form of education; 3A: % Preferring mobile school; 3B: % Preferring Qur'anic school; 3C: % Preferring Integrated Qur'anic school

It is therefore apparent that even though such schools are not exclusively for boys, attendance of boys is more widespread compared to girls.

Four percent (4%) of parents overall reported that one or more children had been to an Integrated Qur'anic School, varying between 1% in South Mudug and Galgaduud households and 13% in Togdheer households. Togdheer's result was the only percentage significantly different from the overall average of 4%. Less than 2% of parents in any of the sites reported that any of their children had been to mobile schools, intensive courses, ABE courses, vocational training courses, or to other types of non-formal educational possibilities. Of those responding to the question, 73% of parents thought that these alternatives had been very useful, the percentage varying between 55% in Gedo and 99% in Galgaduud. All regional percentages were significantly different from the overall average, except in Maroodi Jeex (W. Galbeed)

TABLE 5.6: CHILDREN'S ACCESS TO OTHER EDUCATIONAL POSSIBILITIES

	Ever offered alternatives (%)		Reasons why parents were unable to take up the alternatives (%)				
	N1	1	N2	2A	2B	2C	2D
Maroodi Jeex (W. Galbeed)	764	5	32	55	22	34	16
Togdheer	604	14	57	80	86	36	5
South Mudug	629	5	29	36	72	18	0
Sanaag	843	3	18	82	89	87	0
Gedo	1036	1	101	67	62	66	25
Galgaduud	595	4	20	60	90	57	5
Total/ Average	4471	7	257	65	68	50	12

Key N1: No reporting on ever offered opportunities, but not taking them up; 1: % ever offered any of these programs, but unable to take them up; N2: No. reporting reasons for not taking up; 2A: % saying engagement with livelihood activities: 2B: % had to pay and lacked money: 2C: % Constant migration: 2D: % Lack of perceived benefits

said that they preferred a Qur'anic school, varying between 50% in Maroodi Jeex (W. Galbeed) and 82% in Gedo and Galgaduud. Overall 3% of parents said that they would prefer an Integrated Qur'anic School (IQS), with little variance across the sites. It is noticeable that the percentage preferring IQS almost exactly mirrors the percentage saying that they had sent one or more of their children to an IQS. Many of those replying to these questions had not sent their children to any of the possibilities. When restricted to parents of children where one of them had been to one of the alternatives, the percentage preferring a mobile school increased to 22%, with little variance in each site.

When parents were asked if their children were ever offered a chance for any of the alternative programs, 7% overall said that one or more of their children had been offered one or more non-formal possibilities. The percentages varied from 5% or less in Maroodi Jeex (W. Galbeed), South Mudug, Sanaag and Galgaduud to 14% in Togdheer. Only the Sanaag, Galgaduud and Togdheer are significantly different from the overall average.

When asking reasons why such opportunities for non-formal education were not taken up, the 257 parents who answered the question gave varied reasons. Across all sites, 65% said engagement with livelihood activity was a reason, and although the percentages varied from 36% in South Mudug to 82% in Sanaag and, given the small numbers, only South Mudug was statistically significantly different than the average. Having to pay and not having money was the reason stated by 68% of parents overall, varying between 22% of parents in Maroodi Jeex (W. Galbeed) households and 90% of parents in Galgaduud households. Together with the parents in Sanaag households, these 3 were the only percentages significantly different from the overall average. Constant migration was given as the reason by exactly half of parents, varying between 18% of parents in South Mudug and 87% of parents in Sanaag. Overall 12% of parents did not see benefits to any of these non-formal possibilities, ranging from none of the parents in Galgaduud and Sanaag households to 25% of the parents in Gedo households. The percentages of parents who were ever offered one of these possibilities and the number of positive cases were too small for further breakdowns. Below Table 5.6 details reasons for not taking up alternative education opportunities.

5.1.2.8 Fees and Other Costs for Primary Education

The results reported in Table 5.7 are based on 295 responses of parents who reported that at least one of their children had gone to school, excluding fees for any single item that was reported to be greater than US$ 100 and excluding amounts reported for 'other fees' because there were too few responses. On average, parents paid $9 for registration, $60 for annual fees, $28 for educational materials and $24 for meals, making a total average annual cost for education of US$ 121. The lowest fees were paid by parents in Maroodi Jeex (W. Galbeed) households who paid $6 for registration, $31 annual fees, $24 for educational materials and $10 for meals, making an average annual total of $71. The highest fees were paid by parents of households in Galgaduud who paid $15 for registration, $142 for annual fees, $22 for educational materials and $36 for meals, making an average annual total of US$ 215. These estimates are for both boys and girls, however the actual cost for girls, particularly those in upper primary, could be slightly higher if their sanitation requirements are factored in.

TABLE 5.7: PRIMARY SCHOOL FEES AND OTHER COSTS IN USD

	N	Registration	Annual	Materials	Meals	Total
Maroodi Jeex (W. Galbeed)	138	6	31	24	10	71
Togdheer	63	7	69	25	20	121
South Mudug	29	10	77	38	59	184
Sanaag	35	13	115	37	36	201
Gedo	33	15	75	35	61	186
Galgaduud	13	15	142	22	36	215
Total/Average	301	9	60	28	24	121

When compared by income tercile within sites there were wide variations in school fees paid between the bottom and top income tercile; for example, between $53 and $230 in Maroodi Jeex (W. Galbeed) and between $71 and $265 in South Mudug.

5.2 LEARNING ENVIRONMENT IN HOUSEHOLD

Details of results from all the sites for the learning environment for the child and the educational opportunities for the household are shown in Tables 5.8, 5.9 and 5.10.

5.2.1 Availability of Textbooks and Their Use

Thirty three percent (33%) of parents overall reported that they have textbooks in the home and all of them (100%) confirmed that the books are being or have been used by the children in the household. The proportions confirming textbooks availability is very similar for all the sites.

5.2.2 Availability and Use of Radios

Overall 35% of households confirmed ownership of radios, but with variations ranging from 22% in South Mudug households to 46% in Togdheer households. Of those with radios, 86% overall said they usually have batteries for their radio, varying between 73% in Gedo and 95% in Sanaag, and only those two extreme percentages are significantly different from the overall average.

When it comes to listening, overall 60% of men, 43% of women and 15% of children said they listen to the radio regularly. The percentages for men differ from 35% in Maroodi Jeex (W. Galbeed) households to about three quarters in Togdheer, South Mudug and Gedo households. For women, the percentages range from 25% in Maroodi Jeex (W. Galbeed) households to above 60% in South Mudug and Gedo households. Ten percent (10%) or fewer of children in Maroodi Jeex (W. Galbeed), South Mudug and Galgaduud households confirmed listening to the radio regularly, while 33% of children in Togdheer households gave positive responses. Only the mentioned percentages are significantly different from the overall averages.

Respondents were also asked about programs that different members of the households listened to. Restricting the calculations to those who said they listened regularly, information was provided by 692 males, 402 females and 118 children. The number of children was too small for the breakdown by site, so only the overall percentage is given; even for men and women there are only a few statistically significant differences. Moreover, as the between-site patterns are very similar for men and women, only the patterns for women are discussed in the text.

News programs: Ninety two percent (92%) of men, 89% of women and 76% of children confirmed that they listened to news programs, varying for women from 65% in Galgaduud to 96% in Gedo. Only the percentage in Galgaduud is significantly different (lower) from the overall average.

Discussion programs: Thirty three percent (33%) of men, 34% of women and 38% of children said listen

TABLE 5.8: TEXTBOOKS, LEARNING ENVIRONMENT IN HOUSEHOLD, PRESENCE AND USE OF RADIOS

	Textbooks (%)			Have radio and have batteries (%)			Listen to radio regularly (%)			
	N1	1A	1B	N2	2A	2B	N3	Men	Women	Children
Maroodi Jeex (W. Galbeed)	738	46	100	1021	28	91	715	35	25	10
Togdheer	640	55	100	812	46	92	400	74	62	33
South Mudug	298	23	100	1046	22	94	249	78	31	6
Sanaag	538	31	100	1062	42	95	556	63	47	12
Gedo	774	17	100	1346	45	73	707	73	63	25
Galgaduud	303	13	100	978	23	79	360	51	30	8
Total/Average	3291	33	100	6265	35	86	2987	60	43	15

Key N1: No. reporting on text books; 1A: % Have textbooks in the household; 1B: % Children use textbooks; N2: No. reporting on radios and batteries; 2A: % Have radio; 2B: % Have batteries; N3: No. reporting on listening regularly to radio;

TABLE 5.9: EDUCATION OPPORTUNITIES BY RADIO: NEWS, DISCUSSIONS, ANNOUNCEMENTS, SPORTS

	Number listening regularly (%)			News (%)		Discussion (%)		Announcements (%)		Sports (%)	
	Men	Women	Children	Men	Women	Men	Women	Men	Women	Men	Women
Maroodi Jeex (W. Galbeed)	175	111	48	92	84	22	28	20	27	17	23
Togdheer	71	46	16	96	91	39	41	31	23	29	22
South Mudug	124	28	7	88	82	16	7	5	13	10	0
Sanaag	81	61	12	96	87	42	35	16	14	6	7
Gedo	206	139	30	99	96	50	48	56	54	47	45
Galgaduud	35	17	5	91	65	23	8	5	8	18	0
Total/Average	692	402	118	92	89	33	34	28	32	24	25

TABLE 5.10: EDUCATION OPPORTUNITIES BY RADIO: NEWS, DISCUSSIONS, ANNOUNCEMENTS, SPORTS

	Family life (%)		Agriculture (%)		Home economic (%)		Health (%)		Religion (%)		Music/ entertainment (%)	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Maroodi Jeex (W. Galbeed)	21	26	25	25	18	25	40	32	69	63	25	41
Togdheer	29	19	31	23	27	19	52	48	84	90	45	58
South Mudug	0	41	0	0	5	15	9	0	47	35	13	37
Sanaag	13	12	6	7	13	14	62	53	81	78	14	17
Gedo	62	68	55	51	67	79	77	83	91	93	53	54
Galgaduud	23	63	5	0	24	53	52	67	81	83	24	61
Total/Average	21	40	28	28	31	42	52	54	75	77	30	44

to discussion programs, varying for women between 7%-8% in South Mudug and Galgaduud and 48% in Gedo. Gedo is significantly different (higher) from the overall average.

Announcements: Twenty eight percent (28%) of men, 32% of women and 45% of children reported they listen to announcements, varying for women from 8% in Galgaduud to 54% in Gedo, which is again the only significant difference (higher) from the overall average.

Sports programs: Twenty four percent (24%) of men, 25% of women and 47% of children were confirmed to listen to sports programs, ranging for women from none in South Mudug and Galgaduud to 45% in Gedo. The rate for women in Gedo is again significantly different (higher) than the overall average.

Family life programs: Twenty one percent (21%) of men, 40% of women and 34% of children listen to family life programs. The lowest rate for women was 12% for South Mudug and the two highest rates are 63% and 68% in Galgaduud and Gedo, respectively, all three being significantly different from the overall average.

Agriculture: Twenty eight percent (28%) of men, 28% of women and 36% of children were said to listen to agricultural programs, varying for women from none in South Mudug and Galgaduud to 51% in Gedo and only the rate for Gedo is significantly different (higher) from the overall average.

Home economics: Thirty one percent (31%) of men, 42% of women and 38% of children listen to home economics programs, with variations for women

ranging from 14%-15% in South Mudug and Sanaag to 79% in Gedo. Each percentage is significantly different from the overall average.

Health programs: Fifty two percent (52%) of men, 77% of women and 52% of children were said to be listening to health programs, varying for women between 35% in South Mudug and 93% in Gedo and both the extreme percentages are significantly different from the overall average.

Religion programs: This was the second most popular program after news for men and children with 75% and 72% respectively confirming they listen to religion programs. However, only 30% of women were said to listen the same programs. Despite this, variations between sites were still noted among women listeners ranging from zero in Galgaduud and 47% in Gedo. Again only the percentage in Gedo is significantly different (higher) from the overall average.

Music/Entertainment programs: Thirty percent (30%) of men, 44% of women and 4% of children reported listening to music/entertainment programs, varying for women between 17% in Sanaag and 54% in Gedo. Both percentages are significantly different from the overall average.

5.2.3 Sources of Information on Education Opportunities, Sanitation, Health Care Protection and Shelter

Respondents were asked about the most useful sources of information on education opportunities, health care, sanitation and water, protection and shelter, from among a choice of sixteen possible sources, and the results are shown in Tables 5.11 and 5.12. Less than 1% in any of the sites had learnt about any of these topics from the internet, a representative of a humanitarian organization, neighbors or a loudspeaker announcement. Less than 3% overall and less than 8% in any one site had learnt about any of these topics from television, newspapers, SMS messages from someone they knew or from a community or religious leader. Among those, for television, newspapers and SMS from someone they knew, the numbers involved were too small to generate significant differences, but for receiving information from a community or religious leader, the percentages in Gedo (about 7%) were slightly higher than the overall averages of 2%-3%. Again, although less than 3% overall, the percentage receiving information via an SMS from an organization for any of these topics in Gedo was about 10%, which is significantly higher than the overall average.

For each of the topics, the percentages who said that they had received information by phoning a help line in each site was 4%. Over half (57%) of those who said they had used a help line at all reported using it for all four topics such that its use is restricted to a specific, small group who use it widely, mostly in Sanaag (about 7%) and in Gedo (about 10%). For both sites, the percentage is significantly higher than the overall average. For each of the topics, the percentages saying they had received information from a friend or family member was 6% or 7%, with hardly any (less than 1%) in Gedo and Galgaduud, but 13% in Sanaag.

Between 8% and 12% of those in Gedo had received information this way and, once again, just under half (47%) of those who said that they had received

TABLE 5.11: SOURCES OF INFORMATION ON EDUCATION AND HEALTH CARE

	Sources of information on education (%)					Sources of information on health care (%)				
	N1	1A	1B	1C	1D	N2	2A	2B	2C	2D
Maroodi Jeex (W. Galbeed)	759	26	5	1	7	581	15	5	1	6
Togdheer	517	65	16	12	35	400	38	18	14	30
South Mudug	845	26	15	15	17	831	5	7	11	11
Sanaag	673	53	29	23	26	601	45	26	20	25
Gedo	837	84	9	26	19	700	75	8	24	16
Galgaduud	319	40	26	27	39	236	28	15	17	36
Total/Average	3950	49	16	17	22	3349	34	12	14	18

Key N1: No. reporting on sources of information on education 1A: % Radio; 1B: % Notice board; 1C: % Community meeting; 1D: % Government representative; N2: No. reporting on sources of information on health care; 2A: % Radio; 2B: % Notice board; 2C: % Community meeting; 2D: % Government representative

TABLE 5.12: SOURCES OF INFORMATION ON SANITATION AND WATER, PROTECTION AND SHELTER

	Sanitation and water (%)					Protection and shelter (%)				
	N1	1A	1B	1C	1D	N2	2A	2B	2C	2D
Maroodi Jeex (W. Galbeed)	553	13	4	1	5	550	10	3	0	3
Togdheer	383	33	18	14	30	348	23	6	14	20
South Mudug	823	3	8	11	10	827	5	8	11	9
Sanaag	593	44	25	10	26	578	40	26	20	26
Gedo	674	71	9	26	17	634	69	11	25	17
Galgaduud	229	24	16	16	34	226	24	14	19	36
Total/Average	3255	31	12	15	18	3165	29	11	15	16

Key N1: No. reporting on sources of information on sanitation & water; 1A: % Radio; 1B: % Notice board; 1C: % Community meeting; 1D: % Government representative; N2: No. reporting on sources of information on protection & shelter; 2A: % Radio; 2B: % Notice board; 2C: % Community meeting; 2D: % Government representative.

information from a friend or family member at all had received information about all four topics this way. The analysis below is therefore only of the remaining four named options (radio, notice board, community meeting or a government representative) where the percentages in each site for each topic are over 10%.

Education: Nearly half (49%) overall said that they had learnt about education opportunities from the radio, varying between 26% in Maroodi Jeex (W. Galbeed) and South Mudug and 84% in Gedo. About a sixth (16%) overall said that a notice board was a source, varying between 5% in Maroodi Jeex (W. Galbeed), 26% in Galgaduud and 29% in Sanaag. Not surprisingly, nearly twice as many of those reporting that they had formal education cited notice boards. About a sixth (17%) overall said that a community meeting was the source, varying between 1% in Maroodi Jeex (W. Galbeed) and 26% in Gedo and 27% in Galgaduud. Overall, 22% said that they had received information from a government representative, varying from 7% in Maroodi Jeex (W. Galbeed) to 35% in Togdheer to 39% in Galgaduud. All the extreme percentages in this paragraph were significantly different than the overall average.

Health care: Just over a third (34%) overall said that they had received information about health care from the radio, varying between 15% and 5% in Maroodi Jeex (W. Galbeed) and South Mudug, respectively, and 75% in Gedo. About an eighth (12%) overall said that a notice board was the source, varying between 5% and 7% in Maroodi Jeex (W. Galbeed) and South Mudug and 26% in Sanaag. Nearly twice as many of those reporting formal education cited a notice board. About 14% overall said that a community meeting was the source, varying between 1% in Maroodi Jeex (W. Galbeed) and 20% in Sanaag and 24% in Gedo. Overall 18% said that they had received information from a government representative, varying between 6% in Maroodi Jeex (W. Galbeed) and 30% in Togdheer and 36% in Galgaduud. All of the extreme percentages in this paragraph were significantly different from the overall average.

Sanitation and water: Just under a third (31%) overall said that they had received information about sanitation and water from the radio, varying between 13% and 3% in Maroodi Jeex (W. Galbeed) and South Mudug, respectively, and 71% in Gedo. About an eighth (12%) overall said that a notice board was the source, varying from 4% in Maroodi Jeex (W. Galbeed) and 8% in South Mudug to 25% in Sanaag. Not surprisingly nearly twice as many of those reporting formal education cited this source. About 15% overall said that a community meeting was the source, varying between 1% in Maroodi Jeex (W. Galbeed) and 26% in Gedo. Overall 18% said that they had received information from a government representative, varying between 5% in Maroodi Jeex (W. Galbeed), 30% in Togdheer and 34% in Galgaduud. In this paragraph, all the extreme percentages cited were significantly different from the overall average.

Protection and shelter: About 29% overall said that they had received information about protection and shelter from the radio, varying between 10% and 5% in Maroodi Jeex (W. Galbeed) and South Mudug respectively and 69% in Gedo. Only 11% overall said

that a notice board was the source, varying between 3% and 6% in Maroodi Jeex (W. Galbeed) and South Mudug and 26% in Sanaag. About 15% overall said that a community meeting was the source, varying between none in Maroodi Jeex (W. Galbeed) and 25% in Gedo. About a sixth (16%) overall said that they had received information from a government representative, varying between 3% in Maroodi Jeex (W. Galbeed) and 26% in Sanaag and 36% in Galgaduud. Each extreme percentage cited in this paragraph was significantly different from the overall average.

Those who learnt information from the radio or television were asked about what channel they listen to (see Table 5.13). The maximum numbers from the previous four tables are reproduced in the first two columns. Nearly all of the 1940 who had heard from radio or TV responded to the question about the channel from which they had learnt information. Overall 39% had heard exclusively from BBC radio, 6% exclusively from VoA, 49% from either BBC or VoA and 6% from other combinations. This varied widely between sites with 84% of those in Maroodi Jeex (W. Galbeed) hearing exclusively from the BBC compared to 28% in Gedo and 30% in Togdheer; and 58% of those in Gedo and 65% in Gedo had heard from either BBC or VoA compared to 9% in Maroodi Jeex (W. Galbeed).

5.2.4 Leaflets from NGOs or Government Representatives

There was a particular concern about the usefulness of leaflets provided by NGOs or government representatives. This was addressed through a separate question in the education section (see Table 5.14). Overall 26% of those who had received leaflets from an NGO or a government representative thought they were useful, varying between 15% in South Mudug and 32% in Sanaag. Of those who said that the leaflets were not useful, 13% thought that the documents were not relevant, from 6% in Sanaag to 26% in Gedo. Overall, 86% said that they could not read the leaflet, varying between 73% in Gedo and 93% in Sanaag.

5.3 SUPPLY OF FORMAL EDUCATION SERVICES

5.3.1 School Calendar

This section is based on the interviews with head teachers of schools with 25% pastoralist children (see Chapter 3) about the school calendar.The calendars in all sites are largely similar (January to May and August to December). Precise dates are determined by the respective Ministry of Education or Community Education Committee (CEC). The uniformity in the general school term dates and holidays suggests that most schools follow the calendar that existed before the collapse of the previous central government. However, some of the head teachers said that they agreed to close their school during the rainy seasons so that children would be able to join their families. In some cases, schools are open throughout the year because students do not have anywhere to spend school year holidays and so they are kept in school, after consultation with parents.

5.3.2 Teachers and Teaching Methods

Teachers are recruited by CECs, in consultation with the school administration, and almost all teachers come from the immediate area. The head teachers

TABLE 5.13: SOURCES OF INFORMATION ON SANITATION AND WATER, PROTECTION AND SHELTER

	Learnt from radio or TV (%)		BBC radio (%)			VoA (%)		BBC and VoA (%)		Others (%)	
	N1		N2			N3		N4		N5	
Maroodi Jeex (W. Galbeed)	759	26	32	27	84.4	1	3.1	3	9.4	1	3.1%
Togdheer	517	65	343	104	30.3	6	1.7	199	58.0	33	9.9
South Mudug	845	26	195	106	54.4	48	24.6	29	14.9	12	5.9
Sanaag	673	53	323	185	57.3	19	5.9	109	33.7	10	3.1
Gedo	837	84	712	199	27.9	1	0.1	463	65.0	49	6.9
Galgaduud	319	40	145	62	42.8	29	20.0	49	33.8	5	3.4
Total/Average	3950	49	1750	683	38.9	104	5.9	852	48.7	109	6.3

TABLE 5.14: USEFULNESS OF LEAFLETS FROM NGOS OR GOVERNMENTS

	Useful (%)		Why not useful (%)		
	N1		N2	Not relevant	Could not read
Maroodi Jeex (W. Galbeed)	955	23	464	10	88
Togdheer	733	48	196	16	77
South Mudug	1033	15	630	13	85
Sanaag	1010	32	513	6	93
Gedo	1181	26	490	26	73
Galgaduud	919	16	606	9	91
Total/Average	5831	26	2899	13	86

interviewed felt that the school and the teachers were well prepared to teach pastoralist children, mostly because their teachers are from a pastoral background and know and respect the local culture, as well as following the traditional dress code. Head teachers from South Mudug specifically confirmed that the Ministry of Education certifies qualifications of teachers by giving them a professional examination.

Teaching methods vary from school to school. In Sanaag, some head teachers confirmed use of participatory methods where students are actively involved in discussions during lessons, while others said they use traditional methods where teachers write notes on the board and pupils copy. In South Mudug, traditional methods of teaching are employed with little participation from the pupils. In Maroodi Jeex (W. Galbeed) and Togdheer, teachers employ mixed methods, integrating both traditional methods and participatory methods. There were mixed views on the suitability of methods employed in teaching.

5.3.3 Curriculum and Textbooks

Most regions have a common curriculum across their schools. In Sanaag, most schools in the survey sites implement the Puntland state curriculum, but one head teacher said his school offers a curriculum from Yemen. There is less consistency in the South where different districts and regions are governed by different authorities. In South Mudug, schools offer different curricula. Some South Mudug head teachers said that they do not follow any standardized common curriculum because the local population and teachers choose what is to be taught. Others in South Mudug said they offer curriculum developed by an umbrella education body known as FPENS or the UNICEF produced curriculum. More interesting is that there are cases where no particular curriculum is followed and teachers teach anything they view as important. In Maroodi Jeex (W. Galbeed) and Togdheer all schools implement a common curriculum, the Somaliland national curriculum. In most areas, schools do not have enough textbooks and in Sanaag, South Mudug there were only teacher guides.

5.3.4 Main Causes of Drop Outs

Several of the causes for dropping out of school, as per head teachers, were similar for both pastoralist and sedentary community children such as drought and hard economic times that lead to inability to pay fees, domestic chores both inside and outside the household, cultural beliefs/lack of appreciation of value of girls' education by some parents, and early marriage for girls. Specific reasons for pastoralists dropping out of school are the regular migration in search of pasture and water, the lack of accommodation in places where schools are available and poor learning environments. Specific reasons for agro-pastoralist drop outs are the need to labour on family farms, indiscipline and lack of control by the parents, learning bad habits such as chewing of khat and parents who are not educated and therefore do not understand the value of education.

5.4 ACCEPTABILITY AND APPROPRIATENESS OF FORMAL SCHOOLS: COMPARISON OF VIEWS FROM DIFFERENT GROUPS

5.4.1 Pastoralist Representatives and Household Surveys

In the semi-structured interviews, pastoralist representatives were certain that knowledge and skills about pastoralism and farming are not taught in formal schools, except in a few schools that teach some aspects of environmental protection/

conservation. This contrasts with the views of head teachers that what their schools provide for pastoralists is relevant. In the semi-structured interviews, the pastoralist representatives also spoke of the lack of government support in areas without a stable administration; the limited job opportunities in the area discouraging participation in education since there are educated and trained people who do not have work; and low desire to attend school because of the tough pastoral way of life. At the same time, in the household survey, of those who had sent their children to formal school, over 80% said that it had been very useful.

It is interesting to compare the views on other items elicited in the semi-structured interviews with the results from the household survey. In the household survey, about half of those parents who had not sent their children to formal school said that schools were not available, a little over a third said that they did not have enough money and under a fifth cited constant migration. These reasons were the same as the first three reasons given by pastoralist representatives. The representatives also referred to engagement of children in household tasks and livelihood activities, but only an eighth of respondents to the household survey cited engagement with livelihood activities as a problem.

In the interviews, the pastoralist representatives described the obstacles making it difficult for their children to attend schools. Common for both boys and girls were continuous mobility, lack of schools in pastoral areas, poverty so that households cannot afford to send their children to schools, limited job opportunities so that the educated unemployed discourages others from going to school, children have little energy left for school after livelihood activities, etc., with the archetypal differentiation between boys (herding) and girls (domestic chores and early marriage). Yet in the household survey, although the questions were asked separately for boys and for girls, interestingly the percentages of parents giving the different reasons in the household survey were very similar for boys and girls, and specifically about livelihood activities.

The knowledge and skills cherished most are the practices of pastoralism, according to the leaders. This is because it is their only way of life. In agro-pastoral areas farming skills are also cherished. The other things regarded highly are religious knowledge and traditional healing. Skills such as making of handcrafts (traditional cooking stoves, mats and utensils) were also cited as important. With the exception of religion which is taught in Qur'anic schools, the other knowledge and skills are passed from parents or elders to children through apprenticeship and story telling.

Asked whether the skills and knowledge are taught in pastoralist schools, most of the representatives were of the opinion that religious knowledge is taught in village Qur'anic schools and in some formal schools.

However, they were certain that other knowledge and skills on pastoralism and farming are not taught in formal schools except a few that teach some aspects of environmental conservation. Nevertheless, pastoralist leaders in all areas said that it is important to take all children (both boys and girls) to school. They believed that education would give the children knowledge and skills that would enable them to engage in alternative livelihood activities (meaning employment), thereby improving their lives in future, even though this may mean that they would have to move to large towns to get employment or even create employment as a result of their education. Moreover, those educated will collectively contribute towards development of their community and this was reinforced by sentiments expressed during an interview with "successful" pastoral drop-outs, of which some quotes have been recorded below in Box 1.

Box 1: Interview Responses from Successful Pastoralists Drop-outs

"Yes I think education is important because it can help my people in many ways. I can be a teacher, or health worker and thus contribute to the development of my community."

I now understand what development is all about and education can lead to development."

"Of course, it illuminates the best way to go for decent life."

"I have not been in school but if I had education, I could have been much better than now. I would have helped my people more if I had been an educated person."

5.4.2 Comparison of Head Teachers' and Pastoralist Representatives' Views on Education

According to the head teachers interviewed, formal education is considered important by most pastoralists as they believe that it prepares their children for a better future, and that the ability to read and write and the knowledge that hygiene and sanitation matters is something that many pastoralist parents find useful. Pastoralist children, when given the chance to go to school, show more interest and perform much better compared to their sedentary counterparts. Nevertheless, the head teachers did have some suggestions about raising the awareness of the need for education for both boys and girls, limiting household tasks to allow children time for school and, stopping early marriage (specifically for girls). They were concerned that parents in sedentary communities should discipline their children and thought that providing recreation facilities in schools could discourage idleness and prevent the adoption of negative vices such as chewing khat.

In the semi-structured interviews, pastoralist representatives said that, with the exception of religion which is taught in Qur'anic schools, other knowledge and skills like herding and trekking are passed from parents or elders to children through apprenticeship and storytelling. At the same time, they said that it is important to take all children (both boys and girls) to school. The main reason given is that education will give the children knowledge and skills that will enable them to engage in alternative livelihood activities (real employment), thereby improving their lives in the future. More specifically, those educated will collectively contribute towards development of their community.

5.4.3 Suggestions for Improving the Quality of Education

In the semi-structured interviews, the pastoralist representatives and head teachers gave several suggestions on how access and quality of education can be improved for pastoralist and agro-pastoralist communities. The leaders also suggested what they thought would be suitable education for adults. A summary of their suggestions are highlighted below:

Similar for pastoralist and agro-pastoralist communities were:

- Raising awareness of the need for education by both boys and girls
- Specifically for girls, stopping early marriages and creating awareness of the importance of education for girls
- Limiting household tasks to allow children time for school
- Providing education facilities and learning materials
- Improving teacher training
- Skills training (masonry, carpentry, welding, electrical technician, veterinary technician) which can enable the children to engage in alternative livelihood activities.
- Emphasis to be put on religious education which is important for moral upbringing of the children.

Pastoralist specific:

- Establishing boarding schools with food and shelter for children whilst parents are migrating, to ensure that learning is not disrupted when other family members move in search of pasture.
- Establishing mobile schools for those who cannot be in boarding schools to allow access to education during migration.
- Training their children on community health to ensure that there are people to handle emergencies when troops move.

Sedentary Community specific:

- Providing support such as free education.
- Encouraging parents to discipline their children and providing recreation facilities in schools to discourage idleness and to prevent the adoption of negative vices such as chewing khat.

For adults:

- Basic literacy skills of reading and writing
- Basic numeracy skills
- Animal health
- Human health and sanitation
- Community health
- Farming skills (for agro-pastoralists)
- Awareness of environmental protection
- Peace building and conflict management
- Handicraft skills

CHAPTER 6

HEALTH SERVICES AND ILLNESS

Respondents were asked a number of questions regarding access and use of health care services by adults, their knowledge of HIV/AIDS, child mortality, child illnesses and mothers' use of antenatal care. In consideration was use of modern health facility which was defined as big hospitals or health centers with trained medical personnel. On the other hand, pharmacies were defined as stores that sell only medicine and medical related merchandise.

6.1 ACCESS AND USE OF HEALTH CARE

6.1.1 Access and Time Distance to a Health Care Facility

Overall 75% of those interviewed said they have access to a health care facility, varying between 43% in Galgaduud and 91% of households in Maroodi Jeex (W. Galbeed). However, on average the trip takes 4 hours, with the lowest site average in Maroodi Jeex (W. Galbeed) at just over 2 hours and the longest in Sanaag where it takes up to 6.5 hours to reach a health care facility.

6.1.2 Action Taken When People Fall Sick

Overall 71% of households said they go to a 'modern' health care facility. The responses varied between 53% in Maroodi Jeex (W. Galbeed) and 89% in Gedo. A pharmacist was the source of health care for 63% overall, ranging from 26% in South Mudug to 83% in Togdheer. Sixteen percent (16%) see a traditional practitioner, the lowest being 2% in Maroodi Jeex (W. Galbeed) and the highest 35% in Galgaduud. A large proportion (37%) also confirmed visiting faith healers whenever household members are sick. Clearly the pattern of health care use in Maroodi Jeex (W. Galbeed) is very different from the patterns in the other sites as shown on Table 6.1.

6.2 KNOWLEDGE AND ATTITUDES ON HIV/AIDS

6.2.1 Awareness of HIV/AIDS

Respondents were asked a number of questions relating to awareness and causes and transmission modes of HIV/AIDS. There were varied responses,

TABLE 6.1: WHERE HEALTH CARE IS SOUGHT, DISTANCE AND TIME TAKEN TO THE FACILITY

	Access		Time		Type of health care (%)				Time since last visit		
	N1	(%)	N2	(Min)	N3	3A	3B	3C	N4	4A	4B
Maroodi Jeex (W. Galbeed)	553	91	915	129	864-876	53	68	2	391	57	14
Togdheer	864	88	626	222	426-446	70	83	13	285	44	22
South Mudug	1083	63	896	193	790-896	67	26	8	580	72	5
Sanaag	1109	68	748	391	581-680	76	78	33	484	45	14
Gedo	1450	94	1087	270	726-1097	89	69	25	929	83	2
Galgaduud	1008	43	392	286	264-392	54	69	35	172	65	10
Total/Average	6520	75	4470	242	3651-4387	71	63	16	2841	65	9

KEY: N1: No reporting on access: N2: No. reporting on time N3: Range of N for places where help is sought; 3A: Sought help from a modern health care facility; 3B: Sought help from a pharmacist; 3C: Sought help from a traditional practitioner; N4: No. reporting on length of time since last visited; 4A: Visited a 'modern health care facility within last three months; 4B: More than a year since last time visited a 'modern' health care facility

as well as variations in the proportions of people giving specific answers to these questions (Table 6.2). Four fifths (80%) of respondents overall have heard of HIV/AIDS, varying from 66% in South Mudug to 87% in Sanaag.

6.2.2 Knowledge of Causes and Modes of Transmission

Supernatural causes: For those who have heard of HIV/AIDS, about one in seven (14%) overall thought that it could be contracted through witchcraft, varying between 4% of Galgaduud respondents and 26% of Togdheer respondents.

Transmission through sexual activities: Just over three-fifths (62%), varying between 46% of Galgaduud respondents and 78% of Gedo respondents, agreed that HIV could be contracted through sexual liaisons. Of those who agreed, 62% said that they knew how to protect themselves (e.g. by use condoms), with variation from 50% in Galgaduud to 77% in Maroodi Jeex (W. Galbeed).

Mosquito bites: About a third (33%) overall said that the diseases can be transmitted through mosquitoes, but with wide variations in responses ranging from 13% in South Mudug to 51% in Togdheer.

Sharing foods: Those who believed that one could contract HIV/AIDS through sharing food with an infected person were 26% of respondents overall, varying between sites from 13% in South Mudug to 39% in Maroodi Jeex (W. Galbeed).

Regarding whether a healthy looking person could have HIV/AIDS, about a third (33%) of household respondents overall had positive response, with variations ranging from 16% in South Mudug to 45% in Maroodi Jeex.

6.2.3 Transmission from Mother to Baby

Overall, 54% of respondents knew that HIV/AIDS could be transmitted from mother to baby, varying between 27% in South Mudug and 67% in Maroodi Jeex (W. Galbeed). Of the 54% who agreed, 89% overall also agreed that the virus could be transmitted during pregnancy, with little variation between sites (between 81% in Gedo and 95% in Maroodi Jeex (W. Galbeed)). Eighty one percent (81%) overall agreed that the virus could be transmitted during delivery, with variation ranging from 58% in Gedo to 95% in Maroodi Jeex (W. Galbeed). Overall 91% agreed that the virus could be transmitted during breastfeeding, with little variation between sites (between 79% in Gedo and 94% in Galgaduud).

6.3 CHILD BIRTH AND CHILD MORTALITY

Female respondents who have given birth were asked questions on child mortality. Thirty five percent (35%) of all those interviewed had lost a child below the age of five over the span of years of all deliveries,

TABLE 6.2: KNOWLEDGE AND ATTITUDE ON HIV/AIDS

	Have heard		Range of numbers	Knowledge on causes of HIV/AIDS							Mother to baby transmission			
	N1	(%)	N2	2A	2B	2C	2D	2E	2F	2G	N3	3A	3B	3C
Maroodi Jeex (W. Galbeed)	1011	82	902-924	16	68	77	44	39	45	67	581-586	95	95	96
Togdheer	859	83	709-749	26	72	69	51	38	42	75	497-531	80	86	90
South Mudug	1078	66	647-683	5	48	37	13	13	16	27	179-181	92	89	92
Sanaag	1122	87	946-1028	17	52	69	27	22	25	47	349-424	86	77	94
Gedo	1462	84	1216-1257	14	76	56	37	25	43	62	482-605	81	58	79
Galgaduud	990	76	689-787	4	46	50	20	17	21	40	286-296	91	85	97
Total/Average	6147	80	5117-5413	14	62	62	33	26	33	54	2381-2580	89	81	91

Key: N1: No. respondents who have heard of HIV/AIDS: N2: Range of no. of respondents for causes of AIDS; 2A: % caused by witchcraft; 2B: % sexual transmission was possible; 2C: % knew how to protect themselves (e.g. by using condoms); 2D: % transmitted via mosquitoes; 2E: % caused by sharing foods with an infected person; 2F: % healthy looking person could have the virus; 2G: % transmitted from mother to baby; N3: Range of no. responding on mother to baby transmission 3A: % transmitted during pregnancy; 3B: % transmitted during delivery; 3C: % transmitted during breastfeeding

but with some variation between 44% in Maroodi Jeex (W. Galbeed) and Togdheer compared to 26% in South Mudug and Sanaag. On the whole, mothers reported 2.9 births of boys, varying between 2.4 in South Mudug and 3.3 in Togdheer, and 2.4 births of girls, varying between 2.3 in South Mudug and 2.7 in Togdheer and Sanaag. Despite the variations, in every site the number of male births was greater than the number of female births. Generally, mothers reported 0.71 deaths of male births and 0.70 of female births, varying in both cases between 0.40 and 0.84, but with male deaths always slightly larger than female deaths (see Table 6.3).

TABLE 6.3: BIRTH AND INFANT MORTALITY

	Births and infant deaths					Deaths by gender		
	N1	1A (%)	1B (%)	1C (No.)	1D (No.)	N2	2A (No.)	2B (No.)
Maroodi Jeex (W. Galbeed)	808-1009	90	44	(No.)	2.38	1018-1028	0.59	0.58
Togdheer	786-816	96	44	3.28	3.34	823-831	0.84	0.82
South Mudug	934-964	97	26	2.40	2.20	1179-1183	0.40	0.40
Sanaag	975-1020	96	27	3.08	2.61	1069-1102	0.84	0.83
Gedo	1261-1332	95	40	2.82	2.38	1406-1425	0.79	0.78
Galgaduud	863-926	93	26	2.70	2.27	969-981	0.82	0.81
Total/Average	5728-6066	94	35	2.88	2.44	6468-6546	0.71	0.70

Key N1: Range of numbers for those who have given birth and had infant deaths 1A: % ever given birth; 1B: % given birth, child later died; 1C: No. of boys born; 1D: No. of girls born; N2: Range of numbers for death of children; 2A: No. of boys who died; 2B: No. of girls who died

6.4 ILLNESS AND TREATMENT OF YOUNGEST CHILD UNDER FIVE YEARS

Mothers were asked questions on whether their children had suffered from some common ailments within the last two weeks preceding the survey. Also asked was the action taken whenever children fell ill. Details of findings are shown in Tables 6.4 and 6.5. Some of the variations may be accounted for by the fact that there were 2 months difference in time between regional assessments and weather may have varied in those months.

6.4.1 Diarrhea and Use of ORS

About 40% of mothers interviewed reported that their youngest child had had diarrhea in the last two weeks, varying between 27% in Sanaag and 59% in Gedo. When asked about the use of ORS during episodes of diarrhea, 44% gave fluid that they made from a packet and 32% gave homemade fluid consisting of a mixture of water and salt. Twenty four percent (24%) confirmed use of pre-packaged fluid in a bottle. However, there were wide variations between sites in usage of the different types of ORS as shown in Table 6.4.

6.4.2 Incidences of Cough and Action Taken

Fifty eight percent (58%) of the household's youngest child under the age of five were reported to have had a cough in the last two weeks preceding the survey, with some regional variations; from 45% in south Mudug to 60% in Togdheer. Of those who had a cough, 72% sought some form of medical advice, although from varied sources (see Figure 6.1). Of all the options, private pharmacies stood out as the most accessible, with 30% of all respondents confirming they went to such facilities when their children had a cough. The variation between the sites ranged from 17% in Togdheer to 44% in Galgaduud. Another observation of interest was the relatively large number of parents who did not take any appropriate action when their children had a cough. Twenty two percent (22%) said they did not seek any form of assistance, while 6% reported taking their children to faith healers. The variation was substantial, as seen in Table 6.4.

Of those who had seen any health care provider, overall 63% confirmed that they had been given medicine, but with substantial variations from 38% in Togdheer to 82% in Gedo. Only 3% overall were given an injection, about half were given pills and just under half were given syrup. There were no substantial variations between sites on the types of medicine given.

Figure 6.1: Places Where Mothers Seek Advice when Children Have a Cough

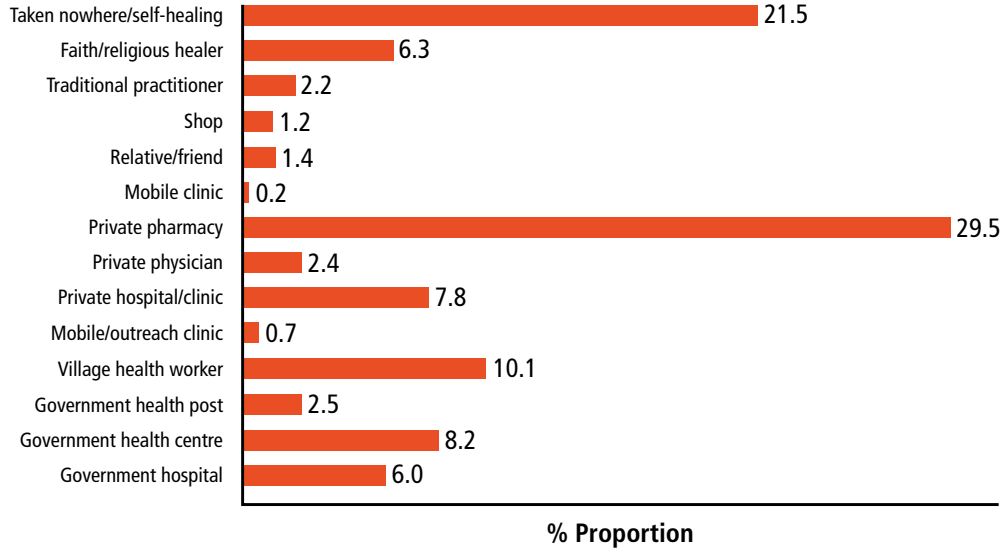


TABLE 6.4: ILLNESS AND TREATMENT OF DIARRHEA AND COUGH AND MEDICINE GIVEN

	Diarrhea (%)				Cough (%)				Cough medicine			
	N1	1A	1B	1C	N2	2A	2B	2C	N3	3A	3B	3C
Maroodi Jeex (W. Galbeed)	534	32	26	9	516	58	37	20	549	73	45	55
Togdheer	525	34	16	50	516	60	17	55	418	38	50	44
South Mudug	548	33	37	15	540	45	30	9	679	72	59	38
Sanaag	578	27	17	55	569	52	26	44	472	42	48	46
Gedo	1142	59	26	38	1123	57	30	14	956	82	40	46
Galgaduud	441	35	12	15	432	57	44	4	353	55	60	39
Total/Average	3758	40	24	32	3696	58	30	22	3427	63	46	51

Key N1: No. reporting on diarrhea; 1A: % ever had diarrhea; 1B: % given pre-packaged ORS fluid; 1C: % given homemade fluid; N2: Number reporting on cough; 3: % ever had cough; 2B: % taken to private pharmacy; 2C % where no action taken; N3: No. reporting on medicine given for cough; 3A: % given any medicine for cough; 3B: % given pill for cough; 3C: % given syrup for cough

6.4.3 Incidences of Fever and Action Taken

Overall 48% of children had had a fever in the last two weeks with variation between the sites from 35% in Maroodi Jeex (W. Galbeed) to 63% in Galgaduud. Over half (57%) of those with a fever overall had sought advice, varying between 26% in Sanaag and 92% in Galgaduud. Of those who had sought advice, a private pharmacy was still the choice for most people, with 35% confirming to have sought help from such facilities, but with substantial variation ranging from 20% in Galgaduud to 47% in Gedo. A good number of people (14%) said they take their children to faith healers when they have fever. Details of all the places where parents sought advice in cases of fever are shown in Figure 6.2.

Out of all those who sought advice, 48% confirmed that the children were given medicine, but with wide variation ranging from 26% in Sanaag to 69% in South Mudug. Of these, approximately 45% overall had been given a type of anti-malarial medication and 55% had been given a painkiller of varied strengths. This varied between Gedo where 65% were given an anti-malarial and 35% a painkiller compared to South Mudug where 10% were given anti-malarial medication and 90% a painkiller.

6.4.4 Child Vaccination

Vaccination Card: Overall 26% of mothers reported that their youngest children below 5 years had vaccination cards. Gedo had the highest proportion of 51%, followed by Togdheer at 27%, Maroodi Jeex

Figure 6.2: Places where Mothers Seek Advice when Children have Fever

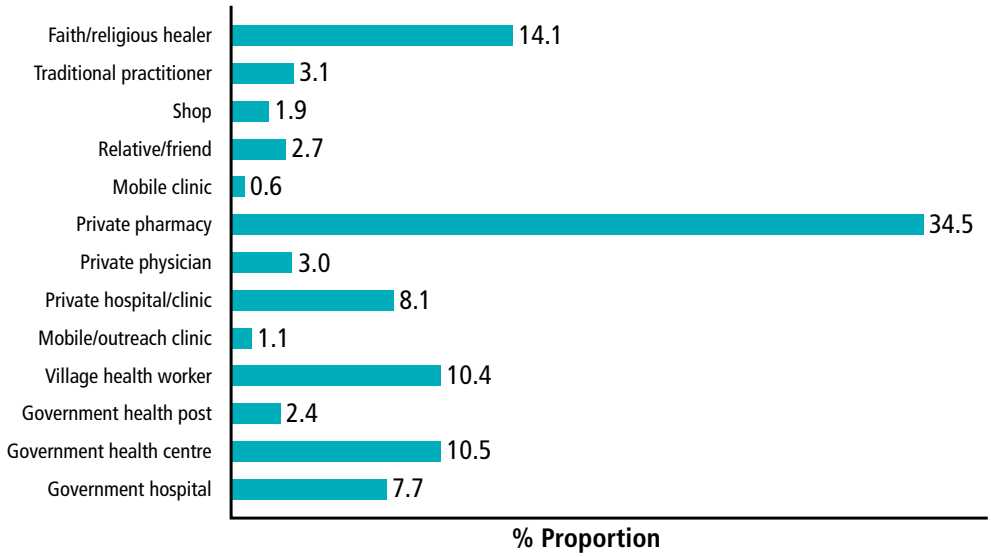


TABLE 6.5: ILLNESS AND TREATMENT OF FEVER

	Had fever		Sought advice (%)				Medicine (%)			
	N1	(%)	N2	2A	2B	2C	N3	3A	3B	3C
Maroodi Jeex (W. Galbeed)	534	35	123	48	0	24	234	59	53	47
Togdheer	525	36	46	29	7	33	315	30	32	68
South Mudug	548	40	152	77	31	41	226	69	9	91
Sanaag	578	38	37	26	4	46	402	26	23	77
Gedo	1142	55	259	64	5	47	793	60	64	36
Galgaduud	441	63	147	92	15	20	283	52	26	74
Total/Average	3758	48	764	57	10	35	2253	48	45	55

Key: N1: No. reporting on who had fever 17.7: % had fever; N2: No. reporting on seeking advice 2A: % sought advice for fever; 2B: % Sought advice from village health worker; 2C: % sought advice from private pharmacy; N3: No. reporting on medicine 3A: % given medicine for fever; 3B: % given an anti-malarial; 3C: % given a painkiller

(W. Galbeed) at 19% and then Sanaag at 16%. Least proportions were reported in South Mudug and Galgaduud at 9% and 7%, respectively.

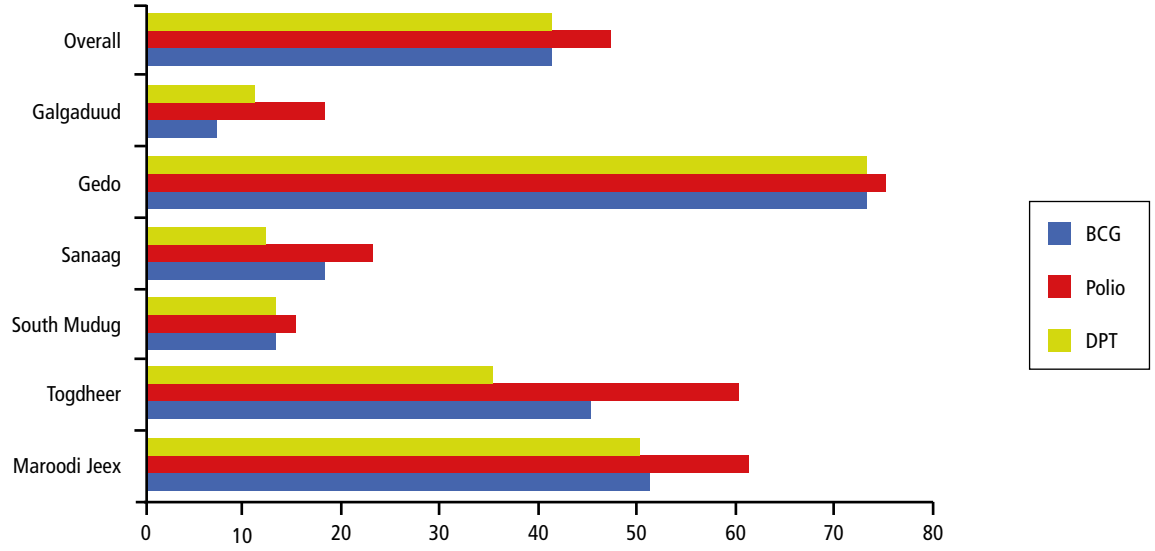
Tuberculosis, Polio and Diphtheria Vaccination Coverage: The overall coverage of these essential vaccinations is still generally low. Of all mothers interviewed, only 41% confirmed that their children had been given a BCG (tuberculosis) jab, 47% a polio vaccination and 41% DPT (diphtheria). However, there were wide variations from the overall means across the regions, as shown in Figure 6.3.

Thirty two percent (32%) of mothers said polio drops had been given within the first two weeks after birth, but with marked variations in the regions. Highest proportion of reporting this was in Gedo at 58% and lowest in Galgaduud at 9%. Others were Sanaag with 27%, Togdheer 17%, Maroodi Jeex (W. Galbeed) 14%, and South Mudug 11%. On average each child was given polio drops 1.5 times which is way below the expected 3. For DPT, each child was given at an average of 2.2 times with regional variations ranging from 1.7 in South Mudug to 2.5 in Gedo. In between were Togdheer with 1.8 times, Maroodi Jeex and Sanaag 2 times and Galgaduud 2.1 times.

6.5 PRENATAL AND POSTNATAL CARE

Mothers were asked a number of questions regarding prenatal and postnatal care that included prenatal clinic visits, vaccinations, delivery and registration of

Figure 6.3: BCG (Tuberculosis), Polio and DPT (Diphtheria) Coverage by Regions



births. Details of the results for these questions are shown in Tables 6.6 and 6.7.

6.5.1 Persons Seen for Antenatal Care

Overall 44% of mothers, varying widely between 26% in South Mudug and Sanaag households to 67% in Gedo, had received some form of prenatal care. Thirty five percent (35%) reported seeing a doctor, varying between 4% in Galgaduud and 64% in Maroodi Jeex (W. Galbeed) households. Overall, 15% had seen a nurse, varying between none in Galgaduud and 12% in South Mudug. Traditional birth attendants were seen by 34% of mothers, varying widely from 10% in Maroodi Jeex (W. Galbeed) to 79% in Galgaduud. The region where mothers most used the 'modern' services was Maroodi Jeex (W. Galbeed), with 64% seeing a doctor, 17% a nurse and only 10% a traditional practitioner. The region relying most on 'traditional' services was Galgaduud, with 4% of mothers seeing a doctor, none a nurse and 79% a traditional birth attendant. Generally, mothers saw someone on average 2.2 times during pregnancy, with some variation between those in Galgaduud households 1.6 times and those in South Mudug 2.3 times. Nonetheless, it is important to note that those interviewed may not be able to clearly distinguish between a qualified doctor and a male clinician or male nurse. It is therefore possible that the relatively high number reporting to have seen a doctor in some regions could be as a result of such misconceptions.

6.5.2 Prenatal Vaccinations of Mothers

Overall, 22% of mothers had a vaccination card, with the highest rate of 39% recorded in Gedo, the next

TABLE 6.6: ANTENATAL CARE OF MOTHERS

	If saw anyone		Who was seen (%)					Prenatal vaccinations (%/no.)					
	N1	(%)	N2	2A	2B	2C	3	N4	4A	4B	4C	4D	4C
Maroodi Jeex (W. Galbeed)	384	46	166	64	17	10	2.1	362	9	12	2.03	24	2.4
Togdheer	409	33	129	59	9	21	2.0	383	17	43	1.97	32	2.0
South Mudug	368	26	95	42	12	39	2.3	349	9	16	2.22	11	1.8
Sanaag	433	26	103	33	10	49	1.8	408	5	5	2.07	11	2.0
Gedo	937	67	608	24	18	34	2.4	888	49	73	2.79	68	2.6
Galgaduud	280	28	76	4	0	79	1.6	266	2	7	2.20	5	2.1
Total/Average	2811	44	1177	35	15	34	2.2	2656	22	43	2.58	35	2.5

Key N1: No. reporting on antenatal care; N2: No reporting on who they saw; 2A: % saw doctor; 2B: % saw nurses; 2C: % saw traditional birth attendant; 3: Number of times saw someone; N4: No. reporting on vaccinations; 4: % with Vaccination Card; 4B: % overall tetanus coverage; 4C: Mean no. of times for tetanus injection received; 4D: % anti-tetanus injections for those without cards; 4C: Mean no. times for those without cards

TABLE 6.7: BIRTH ASSISTANCE AND REGISTRATION

	Delivery assistance (%)			Birth registration (%)				Mothers who know how to register birth	
	N1	1A	1B	N2	2A	2B	2C	N3	(%)
Maroodi Jeex (W. Galbeed)	318	21	69	357	5	14	86	254	9
Togdheer	305	15	67	378	1	4	96	296	5
South Mudug	325	15	57	359	0	8	92	285	3
Sanaag	292	6	48	403	1	4	96	308	1
Gedo	769	26	56	870	3	18	82	443	7
Galgaduud	170	5	71	258	2	7	93	130	2
Total/Average	2179	19	59	2625	2	12	88	1716	5

Key N1: No. reporting on delivery assistance; 1A: % doctor or nurse or auxiliary assisted; 1B: % traditional practitioner; N2: No. reporting about registration of birth; 2A: % registered; 2B % with a birth certificate; 2C % with no birth certificate; N3: No. reporting knowledge of birth registration

highest at 17% in Togdheer and the other four sites with less than 9%. According to these records, all of them had received a tetanus injection an average of 2.1 times. For those who did not have a card, a further 34% overall reported having a tetanus injection, varying between 5% in Galgaduud and 68% in Gedo, and on average about 2 times. Since only 1 injection is required per pregnancy, it is possible that respondents gave cited injections for other pregnancies. Combining together those who had a card and those who did not, 43% of mothers had had a tetanus injection, with the highest rate of 73% in Gedo, followed by 43% in Togdheer and the rates in each of the other four sites below 17%.

6.5.3 Assistance with Delivery

Most mothers (58.7%) were assisted by a traditional birth attendant (TBA) during birth, while only 19.2% were assisted by a doctor, a nurse or an auxiliary midwife. Other people who assisted with births were relatives/friends (18.6%) and community health workers whose assistance was confirmed by 3.5% of those interviewed. The highest rates of being assisted by a doctor, nurse or auxiliary midwife were 21% in Maroodi Jeex (W. Galbeed) and 26% in Gedo. Regions with the lowest rate of assistance from health professionals were Galgaduud and Sanaag with levels of 5% and 6%, respectively. The highest rate of being assisted by a community health worker was 5 % in South Mudug. Only 9% of births took place in a health facility, but with variations across the regions. The highest proportion was reported in Gedo (16%) while the lowest was in Galgaduud (1%). Other proportions were 12% Maroodi Jeex, 5% Togdheer, 7% South Mudug and 3% Sanaag.

6.5.4 Registration of Birth

About 2% of child births overall were registered with the civil authorities, the highest rate of which was 5% in Maroodi Jeex (W. Galbeed). Of the few who confirmed birth registration, only 11% overall could produce or said that they had a birth certificate, with the highest rate of 18% in Gedo. In general, 5% of mothers knew how to register their child's birth and the highest rate of 10% was again in Maroodi Jeex (W. Galbeed).

6.6 ACCEPTABILITY OF 'MODERN' HEALTH SERVICES TO PASTORALIST REPRESENTATIVES

6.6.1 Interviews with Pastoralist Representatives

As far as health services are concerned, all leaders in pastoral areas said they do not have health services close by and they have to move to larger towns to access such services. However, in many locations they confirmed availability of some private pharmacies that can be found in small trading centres.

With regards to hygiene issues, responses were varied in different regions. In South Mudug and Gedo, the leaders confirmed that their groups had been visited several times by people talking about hygiene. In Sanaag, Togdheer and Galbeed, some leaders confirmed visits while others said they had not seen such people. The state of health and hygiene in pastoral areas was vividly caught through an interview with one WASH Supervisor in Gedo (see Box 2).

Box 2: Interview with WASH Supervisor

Waterborne diseases continue to present significant health risks for conflict-affected populations in Belet Hawa. Support for health, nutrition, and water, sanitation and hygiene (WASH) programs remains critical. Conflict may resume as competition for water resources and pasture in drought affected areas increases. Pastoralists use water from open places and contaminated water troughs also used by their animals, which increases the disease incidents in the area. There are no pit latrines; children defecate in the open and within the homestead. Rubbish and animal feces are lying everywhere in pastoralist homesteads.

WASH Supervisor, Belet Hawa, Gedo

For health services the leaders recommended the following as some of the ways to improve community health services in their areas:

- Training individuals from the area on community health services
- Locating area health centres in locations close to pastoral temporary settlements
- Training women in pastoralist groups on midwifery so that they can assist during births
- Establishing health posts at strategic water points and farming areas
- Only those who are part of the groups should be trained in community and animal health to ensure that such people are available even during migrations
- Providing trained persons, possibly with medical kits, to move with pastoral communities in order provide health assistance during migration
- Providing outreach programs to control common child ailments such as malaria
- Preferring women for midwifery, but for other health concerns recommending both sexes for training

CHAPTER 7

WATER AND SANITATION HYGIENE (WASH)

To assess water and sanitation situation, respondents were asked a number of questions regarding sources and treatment of drinking water. They were also supposed to give information on disposal of human waste and use of sanitation products such as soap and detergents.

7.1 TOILET FACILITIES

Across all sites, only 2% were reported to have access to a flush toilet, therefore, analysis by site is not sensible because the percentages are too small. Pit latrines were available to 18%, with wide variations from 2% in Gedo to 46% in South Mudug. For 80%, the bush was used as a toilet. This varied between 52% in South Mudug and 97% in Gedo. Of those who had access to either a flush toilet or a pit latrine, where responses were restricted to less than 300 meters (on the basis that longer distances seemed unrealistic), the overall average was 14 meters away, varying between 12 meters for households in Maroodi Jeex (W. Galbeed) and 23 meters away for those in Togdheer. Overall 41% shared these facilities with other households, with wide variations from 10% of households in Maroodi Jeex (W. Galbeed) to 60% in Galgaduud (see Table 7.1).

7.2 SOURCES OF WATER

Respondents were asked a number of questions in relation to sources, access and hygiene of water. Detailed results of the analyses are shown in Table 7.2 and 7.3.

7.2.1 Water Sources

Although the questions were asked separately for drinking and cooking water, there was little difference between the patterns of responses and so the results are only reported for the largest percentages overall on the basis that any water source could eventually be boiled or otherwise treated for drinking purposes. Four percent (4%) of households had access to piped water, with some variations between sites (between none for Gedo households and 10% in South Mudug). Boreholes were available to 35% of households, varying between 5% of households in Gedo and 64% in South Mudug. Seven percent (7%) of household had access to a protected well, with a low of 2% in Gedo to highs of 13% in Maroodi Jeex (W. Galbeed) and Togdheer. Sixteen percent (16%) of households had access to an unprotected well, varying from 4% in South Mudug to 29% in Gedo.

TABLE 7.1: TYPE AND USE OF TOILET FACILITY

	Type and use of toilet facility						
	N1	Flush toilet (%)	Pit latrine (%)	Bush	N2	Average distance (m)	Sharing toilets (%)
Maroodi Jeex (W. Galbeed)	1027	6	17	77	218	11.7	10
Togdheer	699	2	21	78	292	22.9	33
South Mudug	1079	1	15	52	507	9.67	50
Sanaag	1087	0	9	91	92	9.1	42
Gedo	1404	0	2	97	63	16.7	49
Galgaduud	1012	1	20	76	173	15.2	60
Total/Average	6308	2	18	80	1324	13.9	41

TABLE 7. 2: SOURCES OF DRINKING WATER

	Sources of drinking water (%)									Average distance
	N1	1A	1B	1C	1D	1E	1F	1G	1H	Distance (km)
Maroodi Jeex (W. Galbeed)	993	7	26	13	11	18	19	32	32	1.10
Togdheer	367	4	26	13	10	1	3	29	33	1.17
South Mudug	1082	10	64	5	4	3	1	13	17	.38
Sanaag	1070	5	45	6	15	12	6	45	27	2.71
Gedo	977	0	5	2	29	26	23	3	5	1.50
Galgaduud	1016	4	33	7	24	7	13	4	29	1.35
Total/Average	5506	5	35	7	16	12	9	20	23	1.32

Key: N1: No responding to sources of water 1A: % with piped water; 1B: % with access to borehole; 1C: % with access to protected well; 1D: % with access to unprotected well; 1E: % using rainwater; 1F: % using surface water; 1G: % using tanker trucks; 1H: % with a reservoir;

TABLE 7.3: TREATMENT OF WATER AND METHODS OF TREATMENT

	Treating water (%)		Methods of treatment (%)					
	N1		N2	Boiling	Chemicals	Filtration	Solar method (SODIS)	Sedimentation
Maroodi Jeex (W. Galbeed)	950	34	575-629	35	10	6	2	23
Togdheer	754	22	50-111	70	48	14	24	41
South Mudug	1029	7	534-562	70	2	2	1	1
Sanaag	988	8	37-82	66	29	22	30	81
Gedo	1276	33	156-354	81	33	33	13	72
Galgaduud	942	1	3 - 8	100	0	0	0	0
Total/Average	5939	20	1361-1746	65	12	12	5	28

Rainwater use was reported by 12% of households, varying from less than 3% in Togdheer and South Mudug to 26% in Gedo. Surface water is available to 9% of households, with some variations between 1% in South Mudug and 23% in Gedo. A tanker truck was the water source for 20% of households, varying between 3% of households in Gedo and 45% in Sanaag. A reservoir was available to 23% of households, varying between 5% in Gedo and 33% in Togdheer

7.2.2 Time to Water Source

The average time to the water source, restricted to less than 6 hours, was 64 minutes in Maroodi Jeex (W. Galbeed), 57 minutes in Togdheer, 38 minutes in South Mudug, and 141 minutes in Sanaag. When unrestricted, the average time to the water source was 79 minutes in Maroodi Jeex (W. Galbeed), 119 minutes in Togdheer, 44 minutes in South Mudug, and 226 minutes in Sanaag.

7.2.3 Treatment of Drinking Water

Twenty percent (20%) overall said that they treated water, varying between 1% of households in Galgaduud and 34% in Maroodi Jeex (W. Galbeed). Of those who do treat their water, about 65% said that they boiled their water, with wide variations between 35% of households in Maroodi Jeex and 100% in Galgaduud. Twelve percent (12%) said they use chemicals to treat water, with quite large variations from none in Galgaduud to 48% in Togdheer, with a similar pattern for those filtering their water. Only 5% use the solar method (SODIS) for purifying their water, although that is used by 30% of households in Sanaag and 24% in Togdheer. Overall, 28% of households use the sedimentation method with wide variations between none in Galgaduud and 81% in South Mudug.

7.3 WASHING FACILITIES AND USAGE

Household respondents were asked a number of questions relating to availability of hygiene products as well as their use. There were varied responses on use as well as the proportions of those citing different types of products across the regions (see Table 7.4).

7.3.1 Hygiene Products for General Use

About two-thirds (67%) of households, for about half of households in South Mudug and Galgaduud and over three quarters of households in Maroodi Jeex (W. Galbeed), Togdheer and Sanaag, had some kind of detergent available. Generally, just less than half of households had soap available, with wide variations between 30% in Galgaduud and 81% in Maroodi Jeex (W. Galbeed). Shampoo was available to just under a quarter of all households, least at 7% in Gedo and most at more than a third of households (34% and 36%) in Togdheer and Sanaag.

7.3.2 Hand Washing Products and Use

Soap was used for washing hands by 44% of households, varying between 14% in Galgaduud and about three fifths (between 57% and 66%) of households in Maroodi Jeex (W. Galbeed), Togdheer and Sanaag. Ash was used for hand washing by about a quarter (26%) of households in Maroodi Jeex (W. Galbeed), Togdheer and Gedo, by less than one in seven (13%) households in Galgaduud and by two fifths (41%) in Sanaag. Overall over 71% used only water for hand washing, varying between just under three fifths (58%) of households in Maroodi Jeex (W. Galbeed), and over four fifths in Galgaduud.

TABLE 7.4: CLEANING MATERIALS AND THEIR USE

	Cleaning materials in household (%)				Use of hand washing agent (%)			
	N1	1A	1B	1C	N2	2A	2B	2C
Maroodi Jeex (W. Galbeed)	1010	78	81	19	1029	66	26	58
Togdheer	830	79	75	34	734	60	28	74
South Mudug	1085	53	36	31	1078	23	19	77
Sanaag	1103	76	46	36	1061	57	41	72
Gedo	1367	72	32	7	1194	47	29	63
Galgaduud	1017	46	30	24	978	14	13	83
Total/Average	6402	67	48	24	6074	44	26	71

Key: N1: No. having cleaning material; 1A: % Detergent; 1B: % Soap; 1C: % Shampoo N2: No using hand washing materials available; 2A: % Soap; 2B: % Ash; 2C: % Water only

CHAPTER 8

LIVELIHOODS, HOUSEHOLD INCOME AND EXPENDITURES

8.1 LIVELIHOODS

Livelihood activities directly determine a household's incomes and ability to pay for goods and services. The study sought to establish several aspects of respondents' economic activities and incomes.

8.1.1 Agriculture

Respondents were asked a number of questions related to agricultural production. Important among these were ownership of arable land, size of land being utilized for production, types of crops grown, quantity of harvests in recent seasons and challenges in the production process.

8.1.1.1 Farming Land Ownership

Overall 24% of the households own land, but 81% of that land is accounted for in Maroodi Jeex (W. Galbeed), with 13% in Sanaag, 26% in Gedo and only 1% in South Mudug and 2% in Galgaduud. The average holding for those who have land is 5 hectares, with those in Maroodi Jeex (W. Galbeed) where the average holding is 4 hectares, compared to nearly 12 hectares in Togdheer where only 18% have land. Overall 80% of land is communally owned, rather than individually owned, with very little variation (the value of 60% for South Mudug is where least land is owned).

8.1.1.2 Practice of Agriculture

Overall 24% households surveyed practice agriculture, but again, that was mostly in Maroodi Jeex (W. Galbeed) with 82%, and between 12% in Sanaag, 29% in Gedo and only 1% in South Mudug and 2% in Galgaduud. Unsurprisingly, these percentages are almost exactly the same as those who own farming land, so there are only small numbers in Togdheer and Sanaag (about 100) and fewer than that in South Mudug. In addition there were very few responses to the questions about bag quantity of harvest, so the report is just on the percentages growing different crops in the three sites, excluding South Mudug, Togdheer and Galgaduud. Overall, 77% grew sorghum, varying between 51% in Sanaag and 85% in Maroodi Jeex (W. Galbeed). Overall, 82% grew maize, varying between 30% in Sanaag and 87% in Maroodi Jeex (W. Galbeed). Overall, 38% grew beans varying between 16% in Maroodi Jeex (W. Galbeed) and 72% in Togdheer and Gedo. Details of ownership of farm land, size, utilization and crops grown are shown in Table 8.1.

Although most of the farm land is in Maroodi Jeex (W. Galbeed), with a substantial part of the remainder in Gedo, the proportions growing sorghum and maize are largely the same in all sites with no significant different from the overall average except for Sanaag. The percentage growing beans varies from 16% in Maroodi Jeex (W. Galbeed) to 72% in Togdheer and Gedo and those three are significantly different from the overall average.

8.1.1.3 Farming Tools

On average 42% have a hoe, but that varies between 20% in Sanaag and 67% in Gedo (again excluding South Mudug and Galgaduud where there are very few responses); twenty four percent (24%) have a panga, varying between 15% in Sanaag and 52% in Togdheer; and 26% have an axe, the lowest being 13% in Maroodi Jeex (W. Galbeed) and highest being 52% in Gedo. The percentages for each of four sites are significantly different from the overall average for all three implements.

8.1.1.4 Problems with Agriculture

There were very few responses on problems facing production from South Mudug (3) and Galgaduud (18), so those sites are not included in the discussion below regarding problems with agriculture. In the other 4 regions combined, less than 2% cited either

TABLE 8.1: HOUSEHOLDS FARMING LAND OWNERSHIP AND UTILIZATION

	Own land		Area and ownership			Practicing farming		Crops grown (%)			
	N1	(%)	N2	2A (Ha)	2B (%)	N3	(%)	N4	4A	4B	4C
Maroodi Jeex (W. Galbeed)	1008	81	4.0	86	923	82	507-749	85	87	87	16
Togdheer	825	18	124-138	11.8	73	581	18	64-79	82	81	72
South Mudug	1080	1	15-20	1.7	60	1039	1	5-14	14	0	100
Sanaag	1107	13	102-211	4.9	70	895	12	54-79	51	30	24
Gedo	1394	26	278-350	3.5	72	1167	29	251-308	67	89	72
Galgaduud	1007	2	15-20	1.5	85	942	2	17-20	29	29	70
Total/Average	6421	24	1419-1523	4.6	80	5547	24	116-901	77	82	38

Key: N1: No. reporting for ownership of farming land: N2: No. reporting on acreage and land tenure; 2A: No. of hectares; 2B: % saying indivi dual land ownership; N3: No. reporting on practice of agriculture; N4: N reporting on crops grown; 4A % growing sorghum; 4B: % growing maize; 4C: % growing beans

insecurity or pests or soil erosion as the greatest hindrance to agriculture, and were not analyzed further. The largest agricultural problem overall, cited by 42% of respondents, was the lack of tools, but there is some variation between the sites from 29% in Gedo to 49% in Sanaag. The next largest agricultural problem reported by 38% was lack of rains, which varied between 29% in Maroodi Jeex (W. Galbeed) and 56% in Gedo. None of the other listed problems were cited by more than 6% overall.

When asked to cite the second most important agricultural problem, again very few cited insecurity or soil erosion so those variables are not analyzed further. Overall 24%, 23%, 19%, 15% and 14% cited lack of tools, lack of seeds, lack of rain, lack of manpower and pests, respectively. There was not much variation between the sites (see Table 8.2); 47% named the lack of tools (varying little between the sites) with the largest and only significant differences being for 37% in Sanaag citing lack of tools and 38% in Togdheer citing lack of rains.

In agro-pastoral areas with irrigation potential, leaders reported that poor irrigation systems have lead to a decline in agricultural production. Apart from diminishing productive assets, another factor that leaders feel make the pastoralist situation worse is lack of basic services, such as health care for both humans and livestock and opportunity for education for their children. However, it is important to note that some leaders from Maroodi Jeex (W. Galbeed) were of the opinion that the situation has indeed improved. The reason for this perception was that

TABLE 8.2: TOOLS AVAILABILITY AND PROBLEMS WITH AGRICULTURE

	Tools available to household (%)				First and second most important problems (%)					
	N1	1A	1B	1C	N2	2A	2B	2C	2D	2E
Maroodi Jeex (W. Galbeed)	789-804	30	18	13	750	46	29	25	26	16
Togdheer	109-124	61	52	43	116	45	43	32	7	38
South Mudug	3-4	75	33	67	3	67	0	0	33	67
Sanaag	122-127	20	15	17	122	49	33	37	15	25
Gedo	344-383	67	33	52	375	29	55	15	23	16
Galgaduud	13-33	30	13	33	18	39	56	6	35	6
All	1437-1474	42	24	26	1384	42	38	24	23	19

Key: N1: No. reporting on ownership of farming inputs; 1A: % owning hoe; 1B: % owning panga; 1C: % owning axe; N2: No. reporting on important problems for agriculture; 2A: % saying lack of tools as the first most important problem; 2B: % saying lack of rain as the first most important problems; 2C: % saying lack of tools as the second most important problem; 2D: % saying lack of seeds as the second most important problem; 2E: % saying lack of rains as the second most important problem

security has improved in the area over the last ten years and they believe that people's living conditions have also correspondingly improved.

8.1.2 Livestock Ownership and Dynamics

Livestock production being the most important economic activity among pastoral and agro-pastoral populations, the survey examined a number of things in relation to production as well as how these productive assets exchange hands.

8.1.2.1 Livestock Ownership

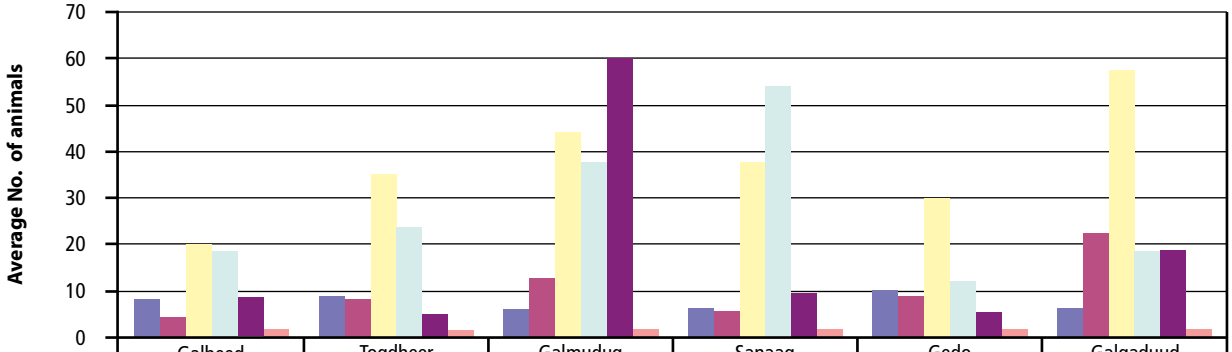
Overall 83% of all those interviewed own livestock, varying between 66% in South Mudug and 91% in Togdheer, although the proportion of type of livestock owned varies. Goats are the most common livestock owned by a majority of households interviewed, with 79% of respondents confirming that a household member owns a certain number of goats. Second is sheep, owned by 55% of all households interviewed. On the other hand, chickens are the least common livestock, with only 6% confirming ownership. Large livestock owned are camels at 27%, cattle at 24% and donkeys at 29%. Wide variations were noted in distributions of these livestock across the regions with clear preference for some types of animals in some regions, the mark of pastoralist types identified for this study. Table 8.3 shows the details of households owning different types of livestock in different regions.

In terms of numbers, the overall average of camels owned per household is 8.1 (± 10.1), cattle 7.4 (± 11.8), goats 37.5 (± 45.9), sheep 27.3 (± 60.3), chickens 7.8 (± 11.3) and donkeys 1.9 (± 2.1). The variance in numbers across the regions for different types of livestock also delineates the pure pastoral areas that have significantly higher numbers of animals. Figure 8.1 below compares the means of different types of livestock in the 6 regions.

TABLE 8.3: PROPORTION OF HOUSEHOLDS OWNING DIFFERENT TYPES OF LIVESTOCK BY REGION

Livestock / Region	Camel	Cattle	Goats	Sheep	Chicken	Donkey
Maroodi Jeex (W. Galbeed)	26%	53%	62%	55%	14%	40%
Togdheer	30%	6%	85%	50%	1%	13%
South Mudug	15%	3%	64%	22%	0%	1%
Sanaag	32%	14%	88%	78%	4%	27%
Gedo	34%	54%	85%	72%	11%	66%
Galgaduud	25%	4%	86%	41%	1%	6%

Figure 8.1: Average Number of Animals per household by Type and by Region



	Galbeed	Togdheer	Galmudug	Sanaag	Gedo	Galgaduud
Camel	8.4	9.1	6	6.3	10.1	6.5
Cattle	4.5	8.3	12.9	5.7	8.8	22.4
Goat	20	35.3	44.2	37.6	30	57.6
Sheep	18.5	23.7	37.6	53.9	12.3	18.5
Chicken	8.6	5.2	60	9.5	5.5	18.7
Donkey	1.8	1.6	1.9	1.9	1.9	2

The threshold number of animals required for subsistence for an average pastoralist household size of about 6 is 24-42 cattle, 100-462 shoats, or 12-30 camels (Dahl and Hjort 1976). From the averages indicated above and in Table 8.3, it is apparent that nearly all households in this survey have numbers of livestock that are well below the minimum survival requirements for pastoralist's welfare.

8.1.2.2 Livestock Dynamics

Livestock being the main supporting livelihood activity among the pastoralist communities, the survey went further to investigate the dynamics of those important assets. Respondents were asked the number of specific livestock born and those they bought or received as gifts or dowry; about how many animals they have sold; and about the number of livestock that had died from drought and diseases within the same period.

The maximum number of camels born in a household stock within the period was 30, but with a wide range, thereby giving a small mean of 0.9 (± 2.2). The maximum number of cattle born to a household was 70, with a mean of 1.9 (± 3.8). Goats were the most prolific, with households reporting a maximum of 125 animals being born for a mean of 5.4 (± 8.7). There were a maximum of 50 sheep being born with a mean of 2.3 (± 3.8) per household, 41 chickens with a mean of 2.5 (± 5.7) and 20 donkeys, with a mean of 0.2 (± 0.9) per household.

Generally, there were few animals that were acquired by the households through purchase or as gifts. The maximum number of camels bought by a household was 30, but the overall mean for all the households surveyed was only 0.04. These low numbers were also true for other livestock, with cattle having a maximum of 40 and a mean of 0.06; goats having a maximum of 100 and mean of 0.3, sheep with a maximum of 80 and a mean of 0.1; chickens at 100 maximum and mean of 0.06; and donkeys with a maximum of 7, but with a lower mean of 0.01. The number of animals received as gifts were also equally low, with all having a mean of less than 0.5 for all the households surveyed (see Figure 8.2).

Even though the global average was generally low, some variations were noted in the number and types of animals acquired in different regions. Details of these numbers are provided on Tables 8.4 and 8.5.

The numbers of animals sold by the households within the previous 6 month period were comparatively higher. Goats had the highest number of sales, with some households selling up to 300 animals within the period and with a mean sale of 6.3 goats (± 11.3) per household. This was followed by sheep with a maximum sale of 230 and a household mean of 3.5 (± 7.9). Other types of livestock also recorded relatively higher sales with maximum cattle sales of 100 and a household mean of 1.3 (± 3.9), maximum camel sales of 19 with a mean of 0.7 (± 1.7), chicken

Figure 8.2: Overall Maximum Numbers of Animals Received and the Average Number Received by each Household by Livestock Type

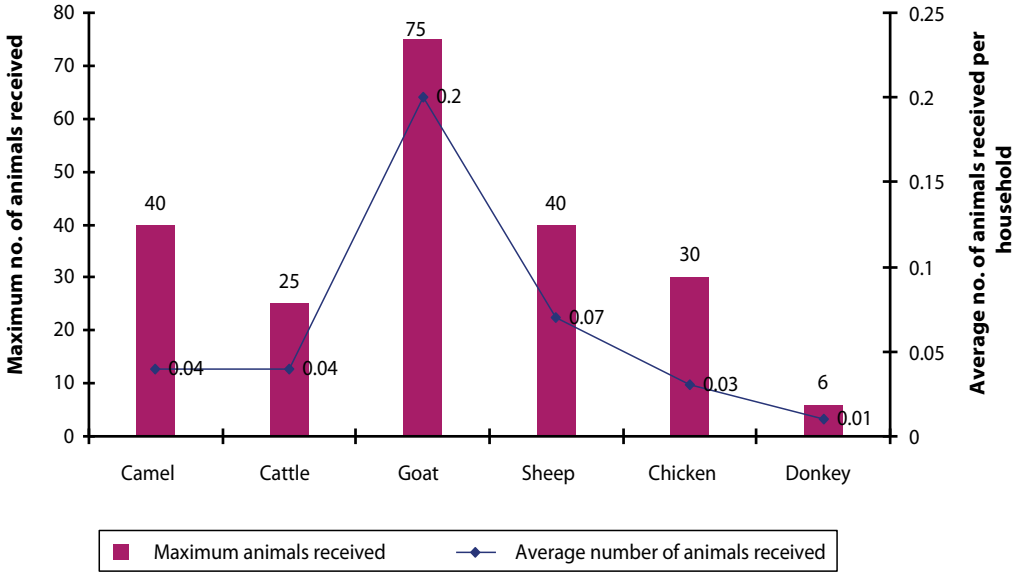


TABLE 8.4: MAXIMUM NUMBER OF LIVESTOCK ACQUIRED BY A HOUSEHOLD OWNING A GIVEN TYPE OF LIVESTOCK BY REGION

Livestock	Camel		Cattle		Goat		Sheep		Chicken		Donkey	
Region	Bought	Gift	Bought	Gift	Bought	Gift	Bought	Gift	Bought	Gift	Bought	Gift
Maroodi Jeex (W. Galbeed)	2	10	10	6	20	10	30	15	20	6	7	3
Togdheer	30	9	5	2	100	12	80	7	0	30	1	1
South Mudug	2	5	2	4	40	50	20	2	0	0	0	0
Sanaag	7	4	10	24	70	50	100	20	0	0	4	3
Gedo	6	5	6	15	40	75	12	40	2	30	3	6
Galgaduud	21	40	40	25	40	70	12	14	100	10	4	3

TABLE 8.5: MEAN NUMBER OF LIVESTOCK ACQUIRED BY A HOUSEHOLD OWNING A GIVEN TYPE OF LIVESTOCK BY REGION

Livestock	Camel		Cattle		Goat		Sheep		Chicken		Donkey	
Region	Bought	Gift	Bought	Gift	Bought	Gift	Bought	Gift	Bought	Gift	Bought	Gift
Maroodi Jeex (W. Galbeed)	0.03	0.03	0.04	0.02	0.1	0.08	0.06	0.07	0.03	0.07	0.02	0.02
Togdheer	0.08	0.02	0.07	0.002	0.7	0.1	0.3	0.03	0.0	0.04	0.002	0.001
South Mudug	0.004	0.02	0.004	0.004	0.07	0.1	0.03	0.002	0.0	0.0	0.0	0.0
Sanaag	0.01	0.006	0.02	0.03	0.2	0.3	0.2	0.09	0.0	0.0	0.01	0.004
Gedo	0.06	0.02	0.07	0.06	0.4	0.4	0.1	0.2	0.05	0.05	0.03	0.03
Galgaduud	0.03	0.2	0.2	0.09	0.7	0.3	0.1	0.06	0.7	0.03	0.008	0.01

sales of 71 with mean of 0.7 (± 4.0) and donkeys with maximum sale of 50 and household mean of 0.2 (± 1.3). Variations were noted in the types and numbers of livestock sold in different regions as shown in Table 8.6 below.

8.1.2.3 Livestock Deaths

Drought is the main cause of death of livestock although significant numbers of animals were also reported to have died of diseases. Overall, the highest number of deaths as a result of drought was in sheep where a household reported a loss of 780 animals within a 6 month period preceding the survey. On the other hand, maximum deaths from diseases were reported in goats with a household reporting 200 deaths within the same period. Figure 8.3 shows details of highest deaths reported from drought and diseases in different types of livestock while Figure 8.4 show the average number of animals lost per household.

The net loss in the number of animals and the net percentage loss reported over the last 6 months, exclusive of births that have survived, are shown in Table 8.9. The loss of camels varies between 1% in Maroodi Jeex (W. Galbeed) to 43% in Gedo. The loss of cattle varied between 5% in Togdheer and 80% in Gedo. The loss of goats varied between 16% in Maroodi Jeex (W. Galbeed) and 96% in South Mudug. The loss of sheep varied between 25% in Maroodi Jeex (W. Galbeed) and 86% in Gedo. The loss of chickens varied between none in Togdheer, South Mudug and Galgaduud to 75% in Gedo. The loss of donkeys varied between none in South Mudug and 26% in Gedo.

8.1.2.4 Problems Facing Livestock Production

The most important problem with livestock was lack of pasture, cited by 53% of respondents overall and varying between 13% in Maroodi Jeex (W. Galbeed) and 80% in Gedo. Both of these are significantly

TABLE 8.6: THE MAXIMUM AND THE MEAN NUMBER OF ANIMALS SOLD BY HOUSEHOLDS WITHIN SIX MONTHS BY LIVESTOCK TYPES AND BY REGION.

Livestock / Region	Camel		Cattle		Goat		Sheep		Chicken		Donkey	
	Max. sold	Mean/ house-hold	Max. sold	Mean/ house-hold	Max. sold	Mean/ house-hold	Max. sold	Mean/ house-hold	Max. sold	Mean/ house-hold	Max. sold	Mean/ house-hold
Maroodi Jeex (W. Galbeed)	10	0.7	15	0.6	103	3.5	70	3.9	20	0.2	1	0.01
Togdheer	15	0.4	2	0.07	100	3.8	80	2.0	0	0.0	0	0.0
South Mudug	4	0.03	9	0.4	300	4.9	100	2.9	0	0.0	3	0.2
Sanaag	10	0.3	7	0.2	170	4.4	230	5.2	2	0.05	2	0.01
Gedo	19	1.7	46	2.1	120	10.0	60	3.4	71	1.4	50	0.3
Galgaduud	9	0.3	100	4.1	80	8.1	25	1.2	18	1.6	9	0.1

Figure 8.3: Maximum Number of Animals Lost by a Household from Drought and Diseases by Livestock Type

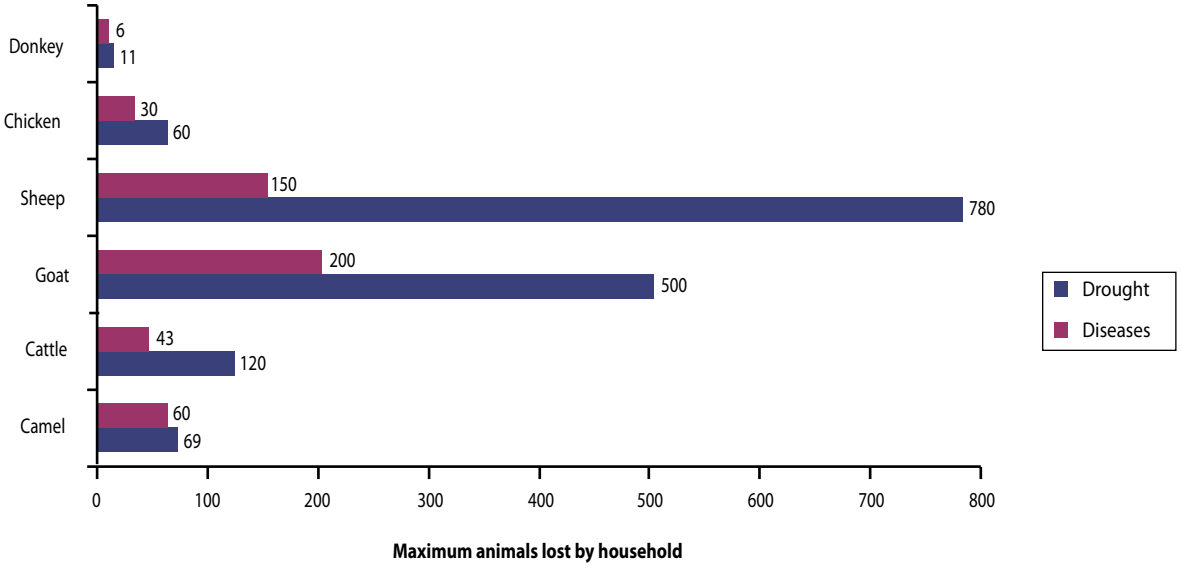


Figure 8.4: Mean Number of Animals Lost by Households from Drought and Diseases by Livestock Type

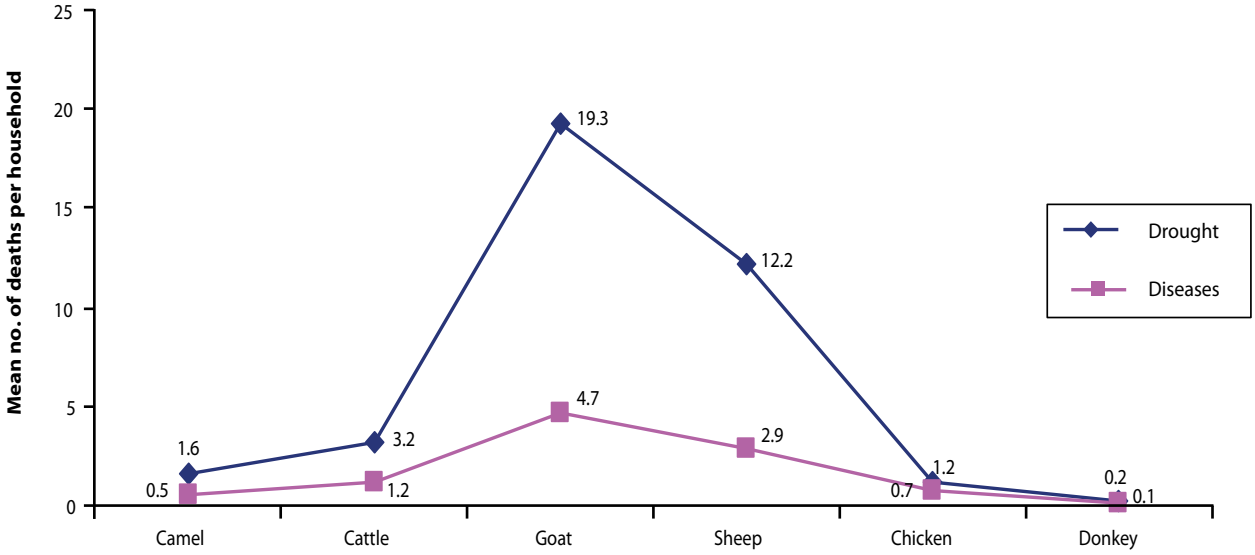


TABLE 8.7: MAXIMUM NUMBER OF ANIMALS LOST PER HOUSEHOLD FROM DROUGHT AND DISEASES BY LIVESTOCK TYPE AND BY REGION

Livestock	Camel		Cattle		Goat		Sheep		Chicken		Donkey	
Region	Drou.	Disease	Drou.	Disease	Drou.	Disease	Drou.	Disease	Drou.	Disease	Drou.	Disease
Maroodi Jeex (W. Galbeed)	6	4	17	25	100	70	780	15	6	5	3	2
Togdheer	60	15	13	1	200	180	150	50	0	0	5	1
South Mudug	30	60	70	10	500	200	400	100	0	0	0	0
Sanaag	42	21	50	20	210	150	200	150	10	1	3	2
Gedo	69	13	120	43	372	100	128	45	60	30	11	6
Galgaduud	38	30	80	31	210	32	72	20	0	0	2	0

TABLE 8.8: MEAN NUMBER OF ANIMALS LOST PER HOUSEHOLD FROM DROUGHT AND DISEASES BY LIVESTOCK TYPE AND BY REGION

Livestock	Camel		Cattle		Goat		Sheep		Chicken		Donkey	
Region	Drou.	Disease	Drou.	Disease	Drou.	Disease	Drou.	Disease	Drou.	Disease	Drou.	Disease
Maroodi Jeex (W. Galbeed)	0.1	0.03	0.9	0.2	2.6	0.6	4.4	0.3	0.1	0.09	0.2	0.02
Togdheer	2.0	0.2	0.4	0.02	19.0	2.1	10.1	0.9	0.0	0.0	0.07	0.009
South Mudug	1.1	0.8	8.9	1.3	33.7	8.8	20.6	5.9	0.0	0.0	0.0	0.0
Sanaag	1.4	0.3	2.2	0.7	23.7	5.8	23.7	5.4	0.4	0.03	0.1	0.02
Gedo	3.1	1.2	5.0	2.0	17.9	6.1	7.4	3.0	2.7	1.4	0.3	0.2
Galgaduud	0.8	0.2	4.2	1.7	17.6	3.1	8.1	1.4	0.0	0.0	0.1	0.0

TABLE 8.9: NET DECREASE IN NUMBER OF ANIMALS AND NET PERCENTAGE LOSS OVER THE LAST 6 MONTHS

	Camel		Cattle		Goat		Sheep		Chicken		Donkey	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Maroodi Jeex (W. Galbeed)	0.1	1	1.1	24	3.2	16	4.7	25	0.1	1	0.2	11
Togdheer	2.0	24	0.4	5	21.1	60	11.0	46	0	0	0.1	6
South Mudug	1.9	32	10.6	79	42.5	96	26.5	70	0	0	0	0
Sanaag	1.7	27	2.9	51	29.5	78	29.1	54	0.4	4	0.1	5
Gedo	4.3	43	7.0	80	24	80	10.4	86	4.1	75	0.5	26
Galgaduud	1.0	15	5.9	26	20.7	36	9.5	51	0	0	0.1	5

different from the overall average, with the other four sites about the same as the overall average. Lack of water was named by 43% overall, with only 12% in Gedo, but 86% in Maroodi Jeex (W. Galbeed) and both of those are significantly different from the overall average. The other four sites (between 37% and 50%) are not significantly different from the overall average (see Table 8.10).

The second most important problem with livestock overall is lack of water, cited by 27% and ranging from 23% in Gedo to 85% in Maroodi Jeex (W. Galbeed). Both are significantly different from the overall average. In the other 4 regions, lack of water was ranked second by about 50% of respondents. Diseases were named by 24% as the second most important problem, varying between 6% in Maroodi

TABLE 8.10: PROBLEMS IN LIVESTOCK PRODUCTION

	First and second most important problem for livestock production (%)						If anyone trained in animal health	
	N1	1A	1B	1C	1D	1E	N2	(%)
Maroodi Jeex (W. Galbeed)	835-874	86	13	9	85	6	911	9
Togdheer	689-733	50	50	30	57	13	677	30
South Mudug	671-704	41	56	37	43	20	684	2
Sanaag	932-996	46	52	42	51	7	934	2
Gedo	1091-1183	12	80	24	23	54	1220	19
Galgaduud	844-882	37	59	20	44	37	840	3
All/Average	5040-5344	43	53	27	49	24	5266	11

Key: N1: No. reporting on problems for livestock; 1A: % first most important problem was water; 1B: % first most important problem was pasture; 1C: % second most important problem was water; 1D % second most important problem was pasture; 1E: % second most important problem was diseases; N2: No. reporting if someone is trained on animal health care;

Jeex (W. Galbeed) and 54% in Gedo. In the sites where interviews took place in April and May, animal diseases were seen as the third important problem; whilst in the sites where interviews took place in June lack of water was seen as most important.

According to the interviews with pastoralist representatives, there are various ways by which communities deal with lack of pasture and lack of water depending on their nature and magnitude. In a normal year when periods of drought are not prolonged, pastoralist communities migrate to different parts of their normal grazing areas where they can get water and pasture. But in case of unusually prolonged periods of drought, they migrate to distant areas that are not traditionally grazing areas for the group. On a temporary basis, a number of humanitarian organizations and private investors mitigate water shortage by trucking water. Those who have lost most of their stock or with numbers that can no longer sustain the households may migrate to towns to seek employment and other alternative means of livelihood.

8.1.2.5 Support for Animal Health Care

About three quarters answered the question about government support, but overall 89% of those said that they could not remember when a government animal care worker had visited. Of the 517 who could remember, 45% said the last government support was within the last month and the remaining 55% were evenly divided between those visiting 3 months, 6 months and 12 months ago. About three quarters also answered the question about visits by NGOs for livestock support and again 90% said that they couldn't remember any visits by NGOs. Of those who could remember a NGO visit, 28% said the visits were within the last month, and 26% each said 6 months and 12 months. About two thirds answered the question about visits by community animal health workers and nearly all (95%) said that they could not remember such a visit. Of the remaining number, about 43% said that someone had visited in the last 12 months. Overall, 11% said that someone in their community had been trained in animal health care, with Togdheer and Gedo being the outliers with 30% and 19% saying that someone had been trained, compared with 9% or less in the other four sites.

8.1.2.6 Adequacy of Livestock

Overall 84%, with some variations between the sites (from 71% in Maroodi Jeex to 93% in Gedo), said that their herd was not adequate to sustain their pastoralist livelihood. Of those who said only just or not enough (92% overall), 67% said that the herd was not large enough but with variations ranging from 51% in Sanaag to 80% in Maroodi Jeex (W. Galbeed); while 18%, varying between 10% in Maroodi Jeex (W. Galbeed) and 22% in Sanaag, said that pastoral conditions were inadequate.

8.1.2.7 Situation according to Pastoralist Representatives

In pure pastoralist areas, the main subsistence livelihood activity is animal production with the population deriving their food and other needs from livestock, livestock products or items purchased from proceeds from livestock sale. Some leaders

also reported petty trade as an additional means of livelihood within pastoral areas. Even in agro-pastoralist areas, livelihoods still rely heavily on livestock, with all leaders confirming that subsistence comes from rearing of animals. In addition, some pastoralists rely on subsistence farming, petty trading and casual labour. Because of the settlements some of them also derive their survival from skilled labour by working as artisans.

All pastoralist leaders interviewed reported that the situation had deteriorated over the past ten years. They cited a number of reasons that are responsible for their current plight. The key reason cited by all leaders is drought, which they said has become more frequent and prolonged in recent times. Other reasons cited, some of which are region or livelihood specific, were insecurity (of concern in some areas of Sanaag and South Mudug), lack of effective government, depletion of natural resources (pasture, water) and a poor livestock market possibly due to the long standing ban of livestock export to the Middle East markets (the ban has since been lifted). Environmental degradation, coming possibly from overgrazing and charcoal making, has also drastically reduced productivity of the fragile range areas that have in turn led to diminishing herd sizes.

8.2 OTHER LIVELIHOOD ACTIVITIES AND ASSETS

8.2.1 Alternative Livelihood Activities

In the wake of reduced numbers of livestock, respondents were asked about any other livelihood activities they are engaged in for survival. The most frequently mentioned alternative livelihood activity was manual labor, cited by 22% overall and varying from 11% in Maroodi Jeex (W. Galbeed) and Galgaduud to 36% in Gedo. Petty trading was the second alternative livelihood, cited by 15% overall, varying from 8% in Gedo and Galgaduud to 25% in Togdheer. The third activity was farming, in the case of agro-pastoral areas at 14% overall. In Maroodi Jeex (W. Galbeed) and Gedo this was named by 43% and 31%, respectively, but hardly mentioned in the other sites. Herding or trekking animals for others was an alternative for 4% overall, by 7% in South Mudug and by none in Sanaag. Other livelihood activities were selling charcoal (12%) mentioned by 40% in Gedo, selling firewood (13%) mentioned by 45% in Gedo, selling water (2%) and 1% each for being a watchman or house help. No significant variation between sites occurred for any of these last mentioned activities.

Only a small proportion of the populations have technical skills. Overall, only 8% confirmed having masonry skills, 3% carpentry skills, 1% welding skills and 1% plumbing skills. Other skills possessed by a small fraction of people are metal smith skills (1%) and shoe making skills, also by 1% of those interviewed. There was little variation between the sites (see Table 8.11)

8.2.2 Household and Individual Assets

To assess the welfare of the population, respondents were asked some questions relating to certain items owned either jointly or individually by members of the households. Only 2% confirmed having electricity and those were mainly in agro-pastoral areas. A

TABLE 8.11: OTHER LIVELIHOOD ACTIVITIES AND HOUSEHOLD AND INDIVIDUAL ASSETS

	Animals not adequate		Other livelihood activities (%)			Household and individual assets (%)					
	N1	(%)	N2	2A	2B	2C	N3	3A	3B	3C	3D
Maroodi Jeex (W. Galbeed)	902	71	1023-1024	11	13	43	1022-1029	28	21	36	5
Togdheer	784	83	661-689	18	25	3	750-791	46	39	30	1
South Mudug	807	84	1076-1082	32	24	1	1079-1080	22	10	13	1
Sanaag	1006	84	1085-1091	23	15	5	1105-1109	42	16	33	3
Gedo	1269	93	1127-1225	36	8	31	1320-1361	45	25	24	41
Galgaduud	914	84	1003-1014	11	8	0	1002-1015	23	23	23	2
All/Average	5682	84	5988-6106	22	15	14	6305-6389	35	22	26	10

KEY: N1: No. reporting on adequacy of animals; N2: No. reporting on other livelihood activities; 2A: % manual labor; 2B: % petty trading; 2C: % farming; N3: No. reporting on household assets; 3A: % households with radio; 3B: % households in which someone has a watch; 3C: % households in which someone has a mobile telephone 3D: % households in which someone has an animal drawn cart

third (35%) confirmed ownership of a radio, varying between 22% in South Mudug and 46% in Togdheer; and both those are significantly different from the overall average. Other assets owned by at least one household member are watches, with 22% overall, varying between 10% in South Mudug and 39% in Togdheer and mobile phones with an overall average of 26%, but with variations ranging from 13% in South Mudug to 36% in Maroodi Jeex (W. Galbeed). Otherwise, less than 2% have a bicycle, a motorcycle, or a boat with an engine, and only 1% of households own a refrigerator.

8.3 HOUSEHOLD INCOMES

8.3.1 Income and Income Sources

Respondents were asked questions on household estimated income and sources of the income. All data for these questions were analyzed and detailed results showing variations in both income sources and regional differences are shown in Tables 8.12 and 8.13.

8.3.1.1 Average Income

The average annual income is US$ 890, but this varies substantially between regions from US$ 504 in Maroodi Jeex (W. Galbeed) to US$ 1,212 in Sanaag. There is little variation between households with different livelihood activities, except in Maroodi Jeex (W. Galbeed) where pastoralists report an income of US$ 620 and agriculturalists US$ 247.

8.3.1.2 Sources of Income

Incomes for households come from various sources and in varying proportions. Households reporting income sources were analyzed and proportions of households depending on any given source are presented below.

TABLE 8.12: AVERAGE HOUSEHOLD INCOME AND INCOMES FROM LIVESTOCK, AGRICULTURE AND BIG BUSINESS

	N1	Avg total income	N2	Selling livestock		Selling livestock products		Selling agricultural products		Big business	
		(US$)		2A	2B	2C	2D	2E	2F	2G	2H
Maroodi Jeex (W. Galbeed)	883	504	989-1012	53	54	44	40	54	49	3	28
Togdheer	827	1078	683	68	60	29	25	6	50	2	40
South Mudug	1084	1054	1060-1062	25	65	10	35	0	42	3	63
Sanaag	1025	1212	1048-1049	78	62	13	28	8	40	1	44
Gedo	1341	689	1260-1269	87	42	70	28	30	33	4	21
Galgaduud	873	851	998-1000	77	79	18	26	1	39	3	49
All/Average	6033	890	6044-6075	65	59	32	30	18	41	3	35

Key: N1: No. reporting on average income N2: No. reporting on sources of income 2A: % Selling livestock; 2B: % Livestock as % of total; 2C: % Selling livestock products; 2D: % Livestock products as % of total; 2E: % Selling agricultural products; 2F: % Agricultural produce as % of total; 2G: % Big business; 2H: % Big business as % of total

TABLE 8.13: INCOME FROM CASUAL LABOR, PETTY TRADING, ARTISAN, REMITTANCES AND TBA

		Casual labor		Petty trading		Artisan		Remittances		Traditional birth attendant	
	N1	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J
Maroodi Jeex (W. Galbeed)	883	13	48	12	46	2	11	9	31	3	12
Togdheer	827	17	51	22	60	2	36	10	52	1	28
South Mudug	1084	44	38	25	67	2	44	31	60	1	21
Sanaag	1025	23	43	15	53	1	36	15	34	3	36
Gedo	1341	41	23	11	24	3	21	19	20	6	38
Galgaduud	873	21	57	12	51	1	48	10	54	1	51
All	N1	28	47	16	52	2	27	16	43	3	31

Key: N1: No. reporting on sources of income; 1A: % Casual labor; 1B % Casual labor as % of total; 1C: % Petty trading; 1D: % Petty trading as % of total; 1E: % Artisan; 1F % Artisan as % of total; 1G: % Remittances; 1H: % Remittances as % of total; 1I: % Traditional birth attendants; 1J %Traditional birth attendance as % of total

Sale of livestock: Overall 65% said livestock sales was a source of income, varying between 25% in South Mudug and 87% in Gedo. For those reporting, this represents nearly 60% of income overall, varying between 42% in Gedo and 79% in Galgaduud. Unsurprisingly, for those who say they have sold livestock, the percentages saying that it is a source of income is higher for pastoralists than for those practicing agriculture in each of the regions.

Sale of livestock products: On average 32% earn income by selling livestock products, varying between 10% in South Mudug and 70% in Gedo. For those reporting this as a source of income, this represents 30% of their total income overall, with variance from 25% in Togdheer to 40% in Maroodi Jeex (W. Galbeed).

Sale of agricultural produce: Overall about 18% reported agricultural products to be a source of income, but this varies widely between regions. In Maroodi Jeex (W. Galbeed) 54% of households earn income from produce and 30% in Gedo, but only between 0% and 8% in the other four regions. For those who report agricultural products as a source of income, they say that this comprises 41% of their income, varying between sites from 33% in Gedo to 50% in Togdheer.

Big business: The percentage saying that they receive income from big business was less than 3%. For those who report big business as a source of income, however, overall it generates 39% of their income, varying between 21% in Gedo and 63% in South Mudug.

Casual labor: Twenty eight percent (28%) said they get income from casual labor, varying between 13% in Maroodi Jeex (W. Galbeed) and 44% in South Mudug. Of those reporting this as a source of income, it represents 47% of their total income (varying between 23% in Gedo and 57% in Galgaduud).

Petty trading: Petty trading is cited by 16% of households as a source of income, with variation between 11% in Maroodi Jeex (W. Galbeed) and 25% in South Mudug. For those reporting this source of income, it accounts for 53% of the total household income, but with wide variations across the regions, the highest proportion 60% in Togdheer and the lowest in Gedo with 24%.

Artisan: Of all those interviewed, only 2% confirmed that artisanship is a source of income. On average, artisan activities account for 27% of income for those involved, but with variations ranging from 11% in Maroodi Jeex (W. Galbeed) to 48% in Galgaduud.

Remittances: Remittances are a source of income for 16% overall, varying between 9% in Maroodi Jeex (W. Galbeed) and 31% in South Mudug. Among those who reported this as a source of income, it represents 43% of their total income overall, varying between 31% in Maroodi Jeex (W. Galbeed) and 60% in South Mudug and with little variation between the livelihood activities of different households.

Traditional birth attendance and similar services: Only 3% of respondents reported that birth attendance and similar services are a source of income for them, with little variation between sites. For those who do report this as a source of income, overall they say that this represents 31% of their income.

According to the interviews with pastoralist representatives, sale of livestock and livestock products are the main sources of income for most households. The other source cited in all the regions is remittances, although leaders said that such social support is only for some households with relatives working elsewhere and that it is not regular. Other sources such as casual labor, petty trading, artisanship and TBA were cited selectively in the interviews but, according to the household survey results appear to occur, albeit to different degrees, in all of the regions.

8.3.2 Reasons for Selling Livestock

Livestock is an important livelihood asset among pastoralist communities, so the survey asked whether there was any distress sale of animals and the main reasons why animals were sold. This was captured by asking respondents if they had sold livestock in the last 3 months preceding the survey and for what purpose. Overall, 56% of households reported sale of livestock at least once, while 24% sold animals 3 times to buy food in the previous 3 months. Slightly more households (58%) sold livestock at least once to buy non-food items and a lower proportion (9%) sold livestock 3 times to do the same. The number selling livestock to pay for services such as health and education were relatively lower, with only 27% selling livestock once and 6% 3 times to pay for such services. However, there were wide variations in the

proportions selling livestock for different reasons, as shown in Table 8.14. When asked to compare the distress sale to the previous two years, most respondents (over 79%) said the situation was worse.

8.4 HOUSEHOLD EXPENDITURE

8.4.1 Sources of Food

The first most important source of food was purchased food, with an overall proportion of 41% confirming that they buy food. But 35% of respondents said their own livestock was the first most important source, while 17% said borrowed food was the most important source of food. When asked what is the second most important source of food, borrowing was the most popular option, with 49% of respondents relying on borrowed food for their food supply. Those reporting purchased food as the second most important source were 26%, while their own livestock was reported by 12% of those interviewed. As expected there were wide variations across the regions, revealing region specific patterns, as shown in Figures 8.5 for the first most important food source and Figure 8.6 for the second most important food source.

Respondents were asked about what had been the main source of food over the last 3 months. Overall, the proportion depending on their own production over the last 3 months was 50%, varying between 5% in Togdheer and 79% in Gedo, with no consistent variation between different types of household. Other site proportions were 68% for Maroodi Jeex, 10% for South Mudug, 27% for Sanaag and 40% for Galgaduud. For those who rely on their own crops, the

TABLE 8.14: REASONS FOR SALE OF LIVESTOCK

		To buy food (%)			To buy non-food items (%)			Pay for services (%)		
	N1	1A	1B	1C	2A	2B	2C	3A	3B	3C
Maroodi Jeex (W. Galbeed)	976-1001	56	25	76	41	12	76	29	6	75
Togdheer	754-831	32	8	91	19	3	92	13	2	90
South Mudug	704-1042	23	8	82	16	2	81	7	3	82
Sanaag	984-1071	55	15	94	33	8	95	25	3	95
Gedo	1375-1396	78	37	86	75	19	81	60	17	83
Galgaduud	900-946	80	48	40	54	8	39	17	3	48
All/Average	5781-6265	56	24	79	58	9	78	27	6	79

Key N1: No. of respondents on reasons for sale of livestock; 1A: % Sold to buy food at least once; 1B: % Sold to buy food at least three times; 1C: % Worse than two previous years; 2A: % Sold to buy non-food items at least once; 2B: % Sold to buy non-food items at least three times; 2C: % Worse than two previous years; 3A: % Sold to pay for services at least once; 3B: % Sold to pay for services at least three times; 3C: % Worse than two previous years.

Figure 8.5: First Most Important Food Source by Region

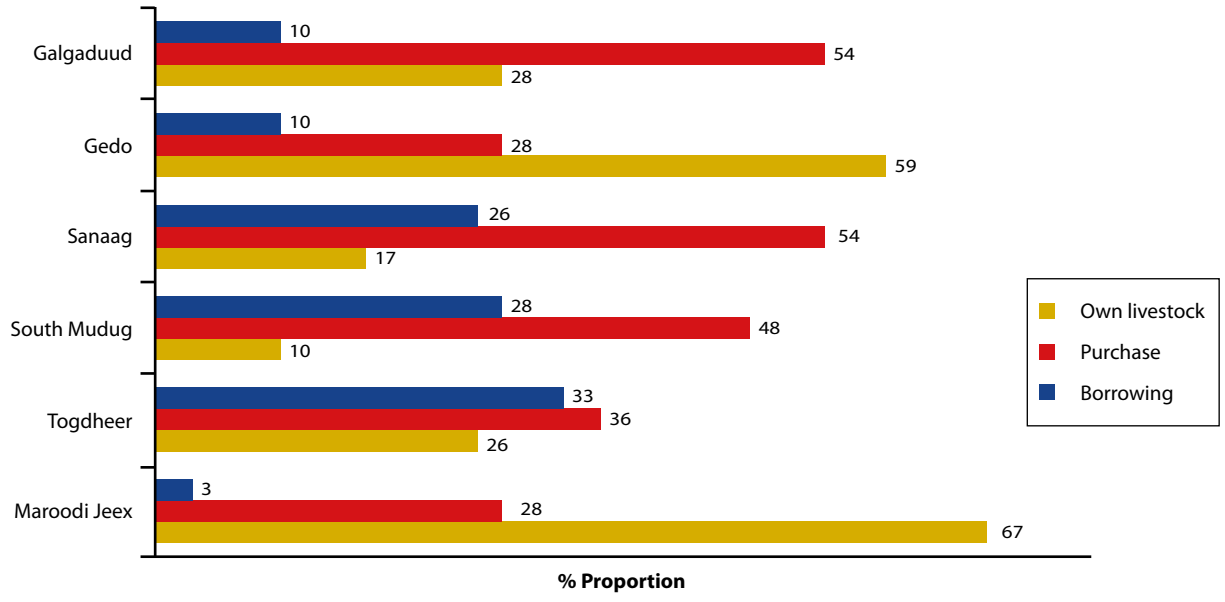
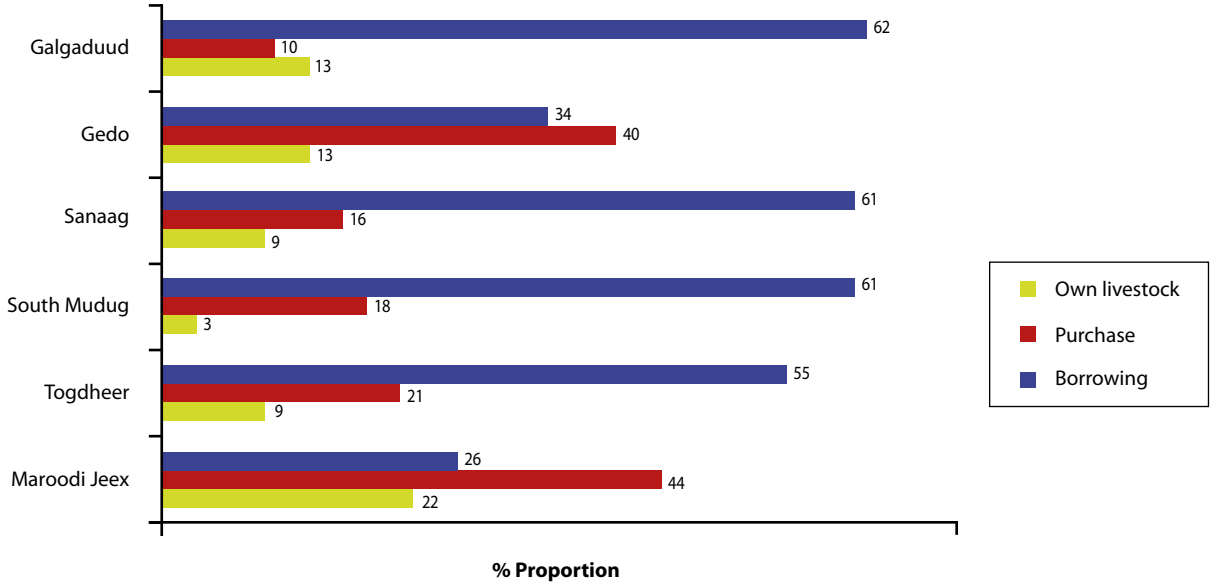


Figure 8.6: Second Most Important Food Source by Region



percentage of food consumed overall was 33%, with a minimum of 9% in South Mudug and a maximum of 60% in Galgaduud. Between the extremes were Maroodi Jeex (W. Galbeed) at 28%, Togdheer at 55%, Sanaag at 38% and Gedo at 39%.

For the last 3 months, purchased food was the main source for 73% of all respondents. This varied from 60% in South Mudug and Galgaduud to 86% in Gedo and 87% in Sanaag. For those who buy food, the overall percentage of food bought was 43% of all food consumed. Maroodi Jeex (W. Galbeed) respondents purchased 32% of their food and those in Galgaduud purchased 60% of their food.

Overall 19% depend on food aid crops, with a stark contrast between 4% in Maroodi Jeex (W. Galbeed) and 34% in Sanaag. Those relying on agriculture for their livelihood were more likely to have appealed for food aid than pastoralists. Among those who have received food aid over the whole sample period, the percentage of food provided by aid was 14%, varying from 2% in Maroodi Jeex (W. Galbeed) to 49% in Togdheer (although the base numbers are small).

The proportion that cited borrowed food as a principle source of food over the last 3 months was 78%, varying between 39% in Maroodi Jeex (W. Galbeed) to 94% in South Mudug and 95% in Sanaag. Pastoralists were more likely than agriculturalists in Maroodi Jeex (W. Galbeed) to have borrowed food. Among those who borrowed food, the overall percentage for the whole sample of total food borrowed was 31%, varying between 6% in Maroodi Jeex (W. Galbeed) to 46% in Togdheer. Table 8.15 provides details of variations across regions as well as the levels at which households depend on any given source of food.

TABLE 8.15: FOOD SOURCES AND PROPORTIONS CONTRIBUTED TO HOUSEHOLD FOOD SUPPLY

	Sources of food (%)						
	N1	1A	1B	1C	1D	1E	1F
Maroodi Jeex (W. Galbeed)	940	65	32	4	1.6	39	5.9
Togdheer	641	81	59	15	49.4	90	45.5
South Mudug	1060	60	37	22	12.4	94	40.8
Sanaag	968	87	48	34	22.2	95	44.2
Gedo	1119	86	38	15	25.1	79	21.3
Galgaduud	895	60	60	21	28.9	75	30.4
All/Average	6213	73	43.0	19	14	78	31

Key N1: No. reporting on sources of food; 1A: % Purchase food; 1B: % Purchased food as % of source of food; 1C: % Food Aid; 1D: % Food aid as % source of food; 1E: % Borrowing food; 1F: % Borrowing as % source of food.

8.4.2 Expenditure on Different Types of Goods and Services

Ninety percent (90%) of all those interviewed confirmed that they had used their income to buy food in the one month preceding the study. There were minimal variations across the sites on the numbers spending on food. Overall, the average amount spent in the last month for the whole sample was US$ 79, varying between US$ 39 in Gedo and US$ 114 in Togdheer. In contrast, households spent 37% of their income to buy non-food items such as clothes, but again with variations across the region. On average the amount spent on these items in the previous month was US$ 32, varying between US$ 19 in South Mudug and US$ 73 in Togdheer. Only 12% of respondents confirmed expenditure on services such as school fees, at an average of US$ 29. The lowest expenditure of US$ 19 was in Gedo and the highest of US$ 48 was in Sanaag. Details of variations in all the sites are shown in Table 8.16.

Overall, 28% of respondents confirmed spending on health services (human and livestock) in the last month. The proportion in Maroodi Jeex (W. Galbeed), Togdheer and Galgaduud was between 10% and 11%, but 65% in Gedo. The average amount spent on health care was US$ 30, varying from US$ 17 in Gedo to US$ 70 in Sanaag. Twelve percent (12%) of households reported expenditure on fuel, but with variations between sites from 7% in Togdheer and Galgaduud to 23% in Gedo. On average, households spent $27 on fuel, with a variation that ranged from US$ 13 in Gedo to US$ 57 in Sanaag.

Water was another major item for expenditure, with 45% overall confirming they bought water in the last month. There were wide variations in water expenditures with the highest number being recorded in Maroodi Jeex and the lowest in Galgaduud. This could possibly be due to the timing of the study since fieldwork for Maroodi Jeex (W. Galbeed) took place during dry season, while in Galgaduud the study was done during the long rains. Otherwise, those buying water spent an overall average of US$ 55, varying between US$ 18 in Gedo and South Mudug to US$ 86 in Sanaag. Only a few (9%) of those interviewed confirmed expenditure on gifts and dowry and the average amount spent was US$ 77. The highest percent of gift expenditure was reported in Togdheer (US$ 87) and the lowest was in South Mudug ($27). Details of expenditure and the amount for all sites are shown in Table 8.17 below. Less than 2% of people reported expenditure on other items and very few of them reported on the amount used.

8.4.3 Household Debts

Most of those interviewed (83%) said their households owed money to a person or institution. The highest proportions were recorded in Sanaag that had 97% positive responses, while the lowest was in Maroodi Jeex (W. Galbeed) with 71% having debts. Of those who owe money, the average amount owed was US$ 406, varying between $140 in Maroodi Jeex (W. Galbeed) and $695 in Sanaag. These are huge amounts, given that the average GDP per capita was estimated in 2009 at US$ 333. Most (84%) of those with debts owe money to shop owners, ranging from 73% in Maroodi Jeex (W. Galbeed) to 94% in Galgaduud. Other people owed money are relatives (29%) and friends (97%), but with marked variations in the 6 representative sites surveyed (see Table 8.18) Debts to institutions were owed by only 3% of

TABLE 8.16: EXPENDITURE ON GOODS AND SERVICES FOOD, NFI AND EDUCATION

		Food		Non-food items (%)			Education fees (%)		
	N1	1A	1B	N2	2A	2B	N3	3A	3B
Maroodi Jeex (W. Galbeed)	972-1057	94	63	219	23	27	62	6	23
Togdheer	773	91	114	97	12	73	113	12	47
South Mudug	1060	88	61	348	32	24	49	3	22
Sanaag	1000	86	95	411	40	50	144	14	48.
Gedo	1384	99	39	949	66	19	406	27	19
Galgaduud	964	80	79	310	31	26	63	6	33
All/Average	6182	90	70	2334	37	29	837	12	29

Key N1 No. reporting on food expenditure; 1A: % Spending on food; 1B: $ spent on food; N2: No. reporting on non-food item 2A: % spending on Non-food items; 2B: $ on non-food items; N3 No. reporting on services 3A: % Education fees ; 3B: $ on education fees

TABLE 8.17: EXPENDITURE ON GOODS AND SERVICES: HEALTH, FOOD, WATER AND GIFTS

	Health care services (%)			Fuel (%)			Water (%)			Gifts (%)		
	N1	1A	1B	N2	2A	2B	N3	3A	3B	N4	4A	4B
Maroodi Jeex (W. Galbeed)	972-1057	11	20	89	8	21	616	71	69	65	4	78
Togdheer	477-883	10	49	69	7	49	244	48	79	205	24	87
South Mudug	1032-1196	24	26	126	10	17	456	43	28	64	5	27
Sanaag	807-1146	31	70	138	12	57	463	55	86	179	18	85
Gedo	993-1495	65	17	346	23	13	319	31	18	97	7	30
Galgaduud	920-1031	10	32	80	7	36	198	21	34	39	4	33
All/Average	5201-6182	28	30	848	12	27	2296	45	55	649	9	68

Key N1: No. responding on expenditure on health; 1A: % Health services; 1B: $ on health services; N7: No. responding on fuel; 2A: % fuel; 2B: $ on fuel; N3: No. of respondents on water; 3A: % spending on water; 3B: $ on water; N9: No. responding on gift; 4A: % spending on gifts; 4B: $ on gifts

TABLE 8.18: HOUSEHOLD DEBT AND PEOPLE OWED MONEY

	Owing money		Money owed		Those owed money (%)				Use of borrowed money to buy food	
	N1	(%)	N2	US$	N3	3A	3B	3C	N4	(5)
Maroodi Jeex (W. Galbeed)	1008	71	637	140	870	23	73	4	680	87
Togdheer	833	90	751	519	755	34	83	7	754	73
South Mudug	1074	80	866	391	973	20	75	7	785	93
Sanaag	1059	97	1031	695	1049	31	88	10	1049	73
Gedo	1379	74	1064	276	1072	33	90	5	1075	73
Galgaduud	990	88	851	330	898	34	94	7	881	77
All/Average	6343	83	5200	406	5617	29	84	7	5224	78

Key N1: No. of respondents on debt; N2: No. responding on amount owed; N3: No. responding on people owed money; 3A: % Relatives as % of creditors; 3B: % Shop owners as % of creditors; 3C: % Friends as % of creditors; N4: No. responding to use of money to buy food

households overall, with little variation between sites. The main reason for borrowing money was to buy food as confirmed by 78% of all those interviewed and the highest proportion of people citing this reason was in South Mudug at 93%. The lowest proportions of 73% were recorded for Togdheer, Sanaag and Gedo. One percent (1%) overall had borrowed money for non-food items, with no variation, and no one had borrowed money to pay for services.

8.5 ASSESSING PRIORITIES FOR EXPENDITURES

Respondents were asked what their priorities would be if they received any additional income and the detailed results are shown in Table 8.19.

8.5.1 Priorities Chosen

Overall, 26% said that they would use the money on school fees, varying between 7% in Galgaduud and 45% in Gedo, and those two, together with 13% in Maroodi Jeex (W. Galbeed), were significantly different from the overall average. Sixty two percent (62%) would spend the money on buying more livestock, varying between 37% in Sanaag and 90% in Gedo. Those two, together with 51% in South Mudug and 71% in Togdheer, were significantly different from the overall average. Overall, 5% would spend the money on buying a bicycle, with very little variations between the regions. Overall, 45% would spend the money on building a house, varying between 27% in Togdheer and 61% in South Mudug and those two, together with 34% in Maroodi Jeex (W. Galbeed) were significantly different from the overall average. Overall 26% would spend the money on buying farm land, varying between 7% in Galgaduud and 45% in Gedo, and those two, together with 13% in Maroodi Jeex (W. Galbeed) and 38% in Sanaag were significantly different from the overall average. Overall 75% would spend the money on debt repayment,

TABLE 8.19: PRIORITIES FOR SPENDING OF ADDITIONAL INCOME

		School fees (%)	Building a house (%)	Building a house (%)	Buying livestock (%)	Buying farmland (%)	Buying bicycle (%)	Repay debt (%)
	N2	14.1A	14.1D	14.1D	14.1B	14.1E	14.1C	14.1F
Maroodi Jeex (W. Galbeed)	964-1000	13	34	34	59	44	7	32
Togdheer	612-699	28	27	27	71	15	2	84
South Mudug	1074-1079	19	61	61	51	3	3	83
Sanaag	994-1029	38	38	38	37	13	4	88
Gedo	1285-1359	45	50	50	90	62	7	85
Galgaduud	977-982	7	48	48	60	5	5	79
All/Average	5906-6137	26	45	45	62	26	5	75

varying between 32% in Maroodi Jeex (W. Galbeed), and 88% in Sanaag.

8.5.2 Percentages Spent on Chosen Priorities

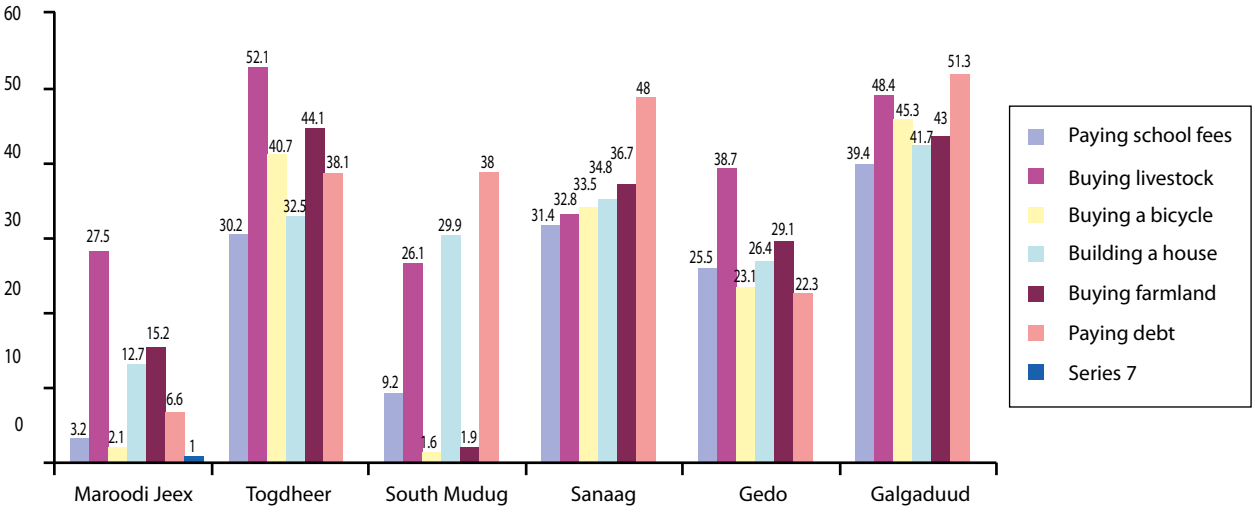
The overall averages of the percentages were 17% on paying school fees, 36% on buying more livestock, 6% on buying a bicycle, 28% on building a house, 18% on buying farm land and 34% on debt repayment. But these proportions varied widely in the 6 sites surveyed, showing that the amount to be spent for any of the choices is influenced to some extent by the livelihood activities (see Figure 8.7).

By gender differentiation, 24% overall of females and 29% of males would use the money to pay school fees; 63% of females and 61% of males would use the money to buy more livestock; 5% of each gender would use money to buy a bicycle; 46% females and 43% males would use the money to build a house. 25% and 27% would use the money to buy farm land. The only regional cases where the differences between men and women at a regional level are statistically significant are in Sanaag with 42% male and 29% female who would prefer to use the money to buy more livestock; in Sanaag with 33% male and 45% female and in Gedo with 58% male and 46% female who would prefer to use the money to build a house.

8.6 MAIN PROBLEMS AND POSSIBLE SOLUTIONS ACCORDING TO PASTORALIST 'REPRESENTATIVES'

The leaders cited a number of problems and challenges that their people face in sustaining their

Figure 8.7: Proportions of Money to be used for Different Priorities by Region



livelihood, most of which are common in all areas and reinforced by the household survey. These include:

- Prolonged drought
- Depletion of livestock resources and land degradations
- Inflation that has led to high food prices
- Lack of good market for livestock and livestock products due to the trade ban (since lifted)

They gave a number of suggestions as the ways forward in solving their problems. The common ones cited by those interviewed in all regions were:

- Restocking livestock
- Rehabilitating pasture land (Can recommend range improvement through re-seeding, water spreading and control of soil erosion)
- Improving livestock health by providing support (Recommended community animal health workers, community veterinary shops)
- Improving livestock sales (recommended cooperative societies to eliminate middlemen so that ordinary pastoralists reap maximum benefit)
- Creating employment opportunities
- Improving road infrastructure to enhance movement
- Skills training to allow for alternative income generation
- Establishing income generating activities to diversify livelihood activities (encourage small scale businesses, establish micro credit facilities)
- Developing irrigation infrastructure in areas with irrigation potential
- Reducing insecurity (clearly varied by region)

There were mixed reactions from pastoralist leaders on whether they are happy with their current lifestyle. A number of them said they are not happy with the lifestyle, but since there is no alternative means of livelihood they must just continue with it. Their reason for this stand was mainly due to dwindling numbers of their livestock as range areas become less and less productive making their lives difficult. The other reason they cited was that if they were to change to a sedentary life their children would have access to better education, health facilities and skills training that will enable them to get employment or engage in other, more comfortable alternative livelihood activities. Those who said they are happy with their lifestyle feel that it is their long traditional way of life, one they know best, and since there are no other options they have to be happy with what they have.

CHAPTER 9

HOUSEHOLD NUTRITON AND FOOD COPING STRATEGIES

9.1 HOUSEHOLD FOOD CONSUMPTION

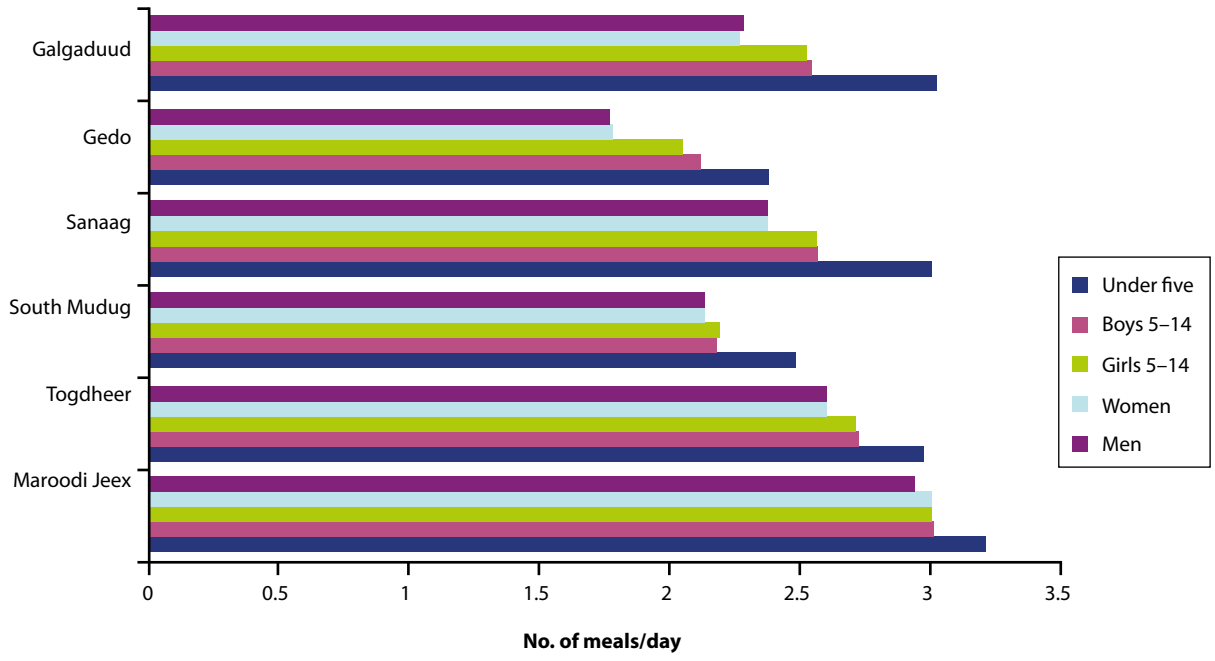
9.1.1 Meal Frequency

Household eating patterns were investigated by asking the number of times household members had a meal within the 24 hours preceding the survey. Overall 3% of all those interviewed said they had not taken any food in the past 24 hours, with the number varying from 1.5% in Maroodi Jeex (W. Galbeed) and Togdheer, and 6% in Gedo. For those who had eaten within the period (97%), the average number of times that household members had food was 2.5. There were variations across the regions with the highest number of meals/day of 3.0 reported in Maroodi Jeex (W. Galbeed), followed by Togdheer at 2.7 times, Sanaag 2.6, then Mudug 2.2 times. Gedo had the lowest number of meals/day, with households reporting eating an average of 2.0 meals within the same period.

Further assessments of feeding patterns were done to establish if there were any special treatments given to children. Globally, children under five years were fed an average of 2.8 times a day, while those between 5 and 14 years were fed 2.5 times. On the other hand adults, both males and females, ate 2.3 times in the previous 24 hours. This trend was the same in all the regions but with slight variations shown in Figure 9.1

For adult women, there was an overall gradient by income tercile, with the richer eating about 0.15 meals per day more than the poorer. There was a sharper gradient in Gedo with a difference of 0.5 between the incomes. For the other age-sex groups, there were similar gradients. Unless otherwise specified, there was no consistent variation according to types of household (pastoralist, agro-pastoralist, or other type of livelihood) within sites.

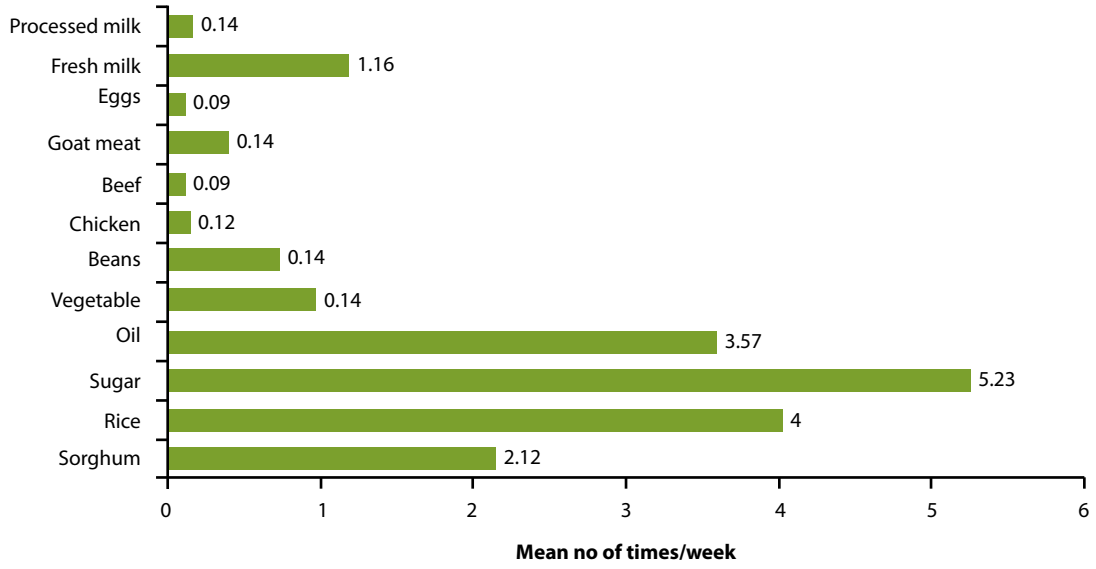
Figure 9.1: Number of Times Household Members Ate by Age Group and by Region



9.1.2 Dietary Diversity

Good nutrition calls for a balanced diet that includes all food groups. This aspect of household nutrition was investigated by asking respondents to indicate the number of days per week members of different age groups and sexes consumed certain types of food within the previous 7 days prior to the study. The foods considered were sorghum, rice and sugar as sources of carbohydrates; beans, chicken, goat meat, eggs, milk (both fresh and sour) as protein foods; green vegetables as sources of minerals and oils for cooking and as possible sources of lipids. Sugar was one single food item that was consumed most with the overall average consumption of 5.1 days in a week. Beans and eggs were the least frequently consumed, with the global average consumption at just about 0.1 days per week. Details of the number of days different types of foods were consumed within the week are presented in Figure 9.2.

Figure 9.2: Overall Average Number of Days that Households Consumed Different Types of Food



There were remarkable variations in the number of times different foods were consumed in different regions. Rice, tea and cooking oil had each been eaten between 3.5 and 6.2 of the previous 7 days in each of the sites, with the exception of Gedo where rice had been eaten and cooking oil used on only about 1 day per week. Sorghum had been eaten on average between 2.0 and 2.3 days a week, but with wide variations from about 0.5 days in Sanaag to over 3.0 days in Maroodi Jeex (W. Galbeed) and Gedo. Milk (fresh or processed) had separately been consumed by children under 5 between 2 and 4 days per week in Maroodi Jeex (W. Galbeed), South Mudug, Gedo and Galgaduud, but for less than 1.0 day in the other two sites. Milk consumption was lower for the other age-sex groups, but boys and girls between 5 and 14 years drank milk between 1.2 days and 2.7 days in Maroodi Jeex (W. Galbeed), Gedo and Galgaduud, but for less than 0.5 days in the other three sites. Adult women and adult men followed a similar pattern, although for slightly fewer days. Cultivated vegetables had been eaten between 0.9 days and 1.0 days per week for each of the age-sex groups overall, but varying between less than 0.3 days in Gedo and between 1.4 days and 1.65 days in Sanaag and Maroodi Jeex (W. Galbeed), respectively. Beans had been eaten by each of the different age-sex groups on about 0.7 days, but about 1.0 days by those in South Mudug, Gedo and Galgaduud, whilst those in the other three sites between 0.2 and 0.6 days. Goat meat had been eaten overall on 0.4 days, slightly more in Maroodi Jeex, South Mudug and Galgaduud (around 0.5 days), but less in Togdheer (less than 0.2 days in each age-sex group). Other protein foods (beef, chicken, or eggs) had each been eaten less than 0.15 days overall and by no more than 0.35 days by any of the age-sex groups from any of the sites in the previous week.

Details of the pooled average number of days different foods are consumed in different regions are given in Table 9.1. The number of times the foods were consumed did not show any direct relationship with economic activities. For example, people in pure pastoralist areas did not eat more animal proteins or take more milk than those in agro-pastoralist regions. However, consumption of vegetables is

TABLE 9.1: AVERAGE NUMBER OF TIMES THAT HOUSEHOLDS CONSUMED DIFFERENT TYPES OF FOOD BY REGION

Region / Food Type	Maroodi Jeex	Togdheer	South Mudug	Sanaag	Gedo	Galgaduud
Sorghum	3.71	1.19	1.66	0.53	3.32	1.52
Rice	4.62	6.05	4.06	5.72	0.87	4.01
Sugar	5.52	6.08	5.56	5.84	3.63	5.86
Oil	3.98	5.31	3.91	4.8	1.07	3.76
Vegetable	1.48	1.03	0.85	1.51	0.26	0.73
Beans	0.53	0.32	1.08	0.29	0.87	1.12
Chicken	0.28	0.1	0.13	0.04	0.08	0.11
Beef	0.19	0.03	0.06	0.04	0.1	0.07
Goat meat	0.47	0.18	0.48	0.36	0.36	0.53
Eggs	0.23	0.02	0.02	0.05	0.1	0.09
Fresh milk	1.11	0.3	1.0	0.25	1.61	2.48
Processed milk	0.20	0.04	0.01	0.04	0.22	0.38

closely correlated with livelihood activities in that consumptions were slightly higher in agro-pastoralist areas compared to pure pastoralist areas. An exception is in Gedo where respondents reported an unusually low average. Similarly, there was no systematic variation in types of food consumed by income tercile as defined by reported income.

About 36% of households in Maroodi Jeex (W. Galbeed) reported that they had enough food to survive for more than a week, compared to less than 15% of households in the other sites that had just enough for a week. The situation was particularly worrying in Gedo where only 4% had just enough food for a week. Unsurprisingly, over three quarters (78%) of respondents saw the situation as worse than the previous two years, varying between 41% in Galgaduud and more than 90% in Togdheer and Sanaag.

9.1.3 Change of Feeding Pattern Due to Food Shortage

Respondents were asked a number of questions to assess short term changes in household feeding patterns in the wake of reduced food supplies. They were required to state coping strategies that they had undertaken in the week preceding the study to react to food shortages. These included: 70% who borrowed food, 58% who reduced the number of meals/day, 38% who skipped all meals in a day and 23% who sent members to eat somewhere else. The variations from the mean between regions were wide, as were the number of times that any of the cited options were taken across the 6 sites of study (see Table 9.2).

Household members who were sent elsewhere to eat were mainly sent to relatives' houses, as confirmed by 80% of those interviewed. Families also sent members to neighbors' houses to eat, but the overall proportion of respondents reporting this option was only 28%.

9.2 BREASTFEEDING AND CHILD NUTRITION

9.2.1 Breastfeeding

Women who had given birth and were still breastfeeding were asked about the time they started breastfeeding and the period for which they breastfed or their intentions to breastfeed for those who were still breastfeeding children. Overall, most (93%) of mothers said they started within 24 hours after birth, with slight variations from the lowest proportion of 88% in South Mudug to the highest of 97% in Togdheer and Sanaag. Proportions on the other sites were 91% for Gedo, 93% for Galgaduud and 94% for Maroodi Jeex (W. Galbeed). Overall, 42% of mothers have breastfed or intend to breastfeed for at least 24 months. Seventy percent (70%) of mothers confirmed that they had breastfed their children in the past, but with variations ranging from 63% in Maroodi Jeex (W. Galbeed), Togdheer and Galgaduud to 79% in Gedo. The proportion

TABLE 9.2: CHANGES IN FEEDING PATTERNS BY REGIONS

	Strategies for coping with food shortages/No. of times for the last week								
	N1	Reduced no. of meals (%)	No. times meals reduced (No.)	Skipped whole day (%)	No. of days skipped (No.)	Borrowed food (%)	No. of days borrowed (No.)	Sent to relatives to eat	No. of times to relatives (No.)
Maroodi Jeex (W. Galbeed)	980-1000	29	2.2	12	2.36	42	2.46	(%)	2.29
Togdheer	825-852	52	1.9	24	2.38	66	3.67	14	2.65
South Mudug	1064-1077	61	1.8	44	1.81	69	3.14	28	1.95
Sanaag	1053-1075	66	3	25	2.06	64	2.61	13	2.56
Gedo	1042-1109	77	1.9	58	1.88	81	2.98	53	2.01
Galgaduud	852-982	53	1.5	16	1.55	84	2.85	8	1.84
All/Average	5403-6423	58	2.1	32	1.94	70	2.97	22	1.98

for Sanaag was 65%, while South Mudug had 69% confirm breastfeeding within the period. For those who had breastfed in the last 24 hours, overall the average number of times was 5.6 with much larger variations between 3.2 in South Mudug and 8.9 in Gedo. In between these extremes were 3.8 times in Maroodi Jeex (W. Galbeed), 4.5 times in Sanaag, 5.3 times in Galgaduud and 7.7 times in Togdheer.

9.2.2 Infant Feeding

Besides breastfeeding, mothers were asked to name the foods they had given their youngest children under 5 years in the previous 24 hours. The questions were designed to capture all important classes of food that a child under five years requires for healthy growth. Details of results showing regional variations are shown in Table 9.3.

9.2.2.1 Consumption of Fluids and Milk

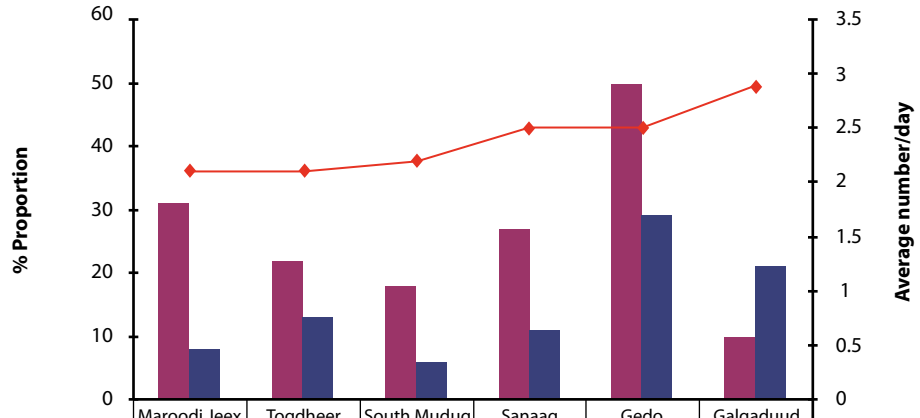
To assess consumption of liquids containing foods, respondents were asked if they had given their children plain water and a range of fluid-based foods such as milk, flavored water, soft drinks, soup or tea in the last 24 hours. Overall, 86% of mothers had given plain water to their infant. The regional variance was between 77% in Maroodi Jeex (W. Galbeed) and 92% in South Mudug. Overall 50% of mothers, from 43% in Gedo to 70% in South Mudug, had given tinned, processed or fresh milk to their infant. Overall 33% of mothers had given their infant tea or other sugared drinks, ranging from 49% in Maroodi Jeex (W. Galbeed) to only 19% in South Mudug. Considering that both pure pastoralists and agro-pastoralists rely largely on a livestock economy, it is expected that more mothers should be giving milk to their children. The moderate number of mothers giving milk could have been due to the fact that survey was conducted largely during the dry season or just at the onset of rains, a time that milk production is at its lowest. Indeed, interviews of pastoralist leaders revealed that provision of milk is a big challenge to households during drought. At such times, well off households purchase packed long-life or powdered milk for their children, while those from poor households have to do without milk.

9.2.2.2 Consumption of Energy Giving Foods

Consumption of carbohydrates was investigated by asking respondents if they had given their children food made from cereals (sorghum, maize, rice, and wheat), Irish potatoes or sweet potatoes in the last 24 hours or previous 7 days. They were also asked the number of times they had given infants mushy/soft food within the last day. Overall, 31% confirmed feeding their children with at least one of the listed energy based foods within the day and also in the past seven days. Seventeen percent (17%) confirmed giving their children food in mashed form and this was done at an average of 2.4 times within the day. However variations from these global averages were noted in the regions with proportions relatively higher in some and low in others (Figure 9.3).

It appears that the proportion of mothers giving energy based foods to their infants is generally low. The reason for this is not clear, but one possible

Figure 9.3: Mothers Giving Children Carbohydrates and Mushy Foods and Number of Times Mashed Food Given



	Maroodi Jeex	Togdheer	South Mudug	Sanaag	Gedo	Galgaduud
Giving starch	31	22	18	27	50	10
Giving food in marshed form	8	13	6	11	29	21
Number of times serving marshed per day	2.1	2.1	2.2	2.5	2.5	2.9

explanation could be that the children are being given fluid based foods that contain carbohydrates such as, soft drinks or sugar water. It would be important in future surveys to establish the types of food children below 5 are given for energy requirements.

Related to energy giving foods are lipids, which, besides working as food storage reserves, are also important components of body tissues. Deficiency of this food class may not be remarkable because other food classes, carbohydrates and proteins, can be converted into lipids by the body. Use of fats and oils can be used for assessment of household economic status and therefore, direct consumption of lipids among children was investigated in the survey. Respondents were asked if the children had been given food made with oil, fat or butter the day preceding the study. Overall, only 13% of respondents confirmed giving children food made with oil. Comparing the regions, Togdheer had the highest positive responses at 23% while Galgaduud had lowest at 7%. Details of other regional variations are shown in Table 9.3.

9.2.2.3 Consumption of Body Building Foods

To investigate consumption of body building foods, respondents were asked if they had given their children a variety of protein rich foods in the last 24 hours. These included plant based proteins such as legumes (peas, common beans, soy beans, groundnuts) and animal based proteins (meat, poultry, fish, as well as eggs). Consumption of any form of protein was generally low among the children as only 8% of mothers confirmed giving plant based proteins, and an even smaller proportion of 4% said they had given animal-based proteins within the period. Equally infrequent were 3% of mothers who had given eggs to their children.

9.2.2.4 Intake of Vitamin Rich Foods

The survey assessed the intake of vitamins by asking trends of consumption within the day of foods known to be rich in vitamins. For vitamin A, respondents were asked if they had given children green, leafy vegetables, carrots or fruits like paw paws and mangoes. They were further asked about consumption of other fruits such as bananas, apples, avocado, pears and tomatoes that are known to contain a variety of vitamins. Consumption of vitamin rich foods was generally low as only 4% of all those interviewed confirmed giving food and fruits rich in vitamin A and only 3% said they had given other types of fruits.

From the analysis shown in Table 9.3, the consumption pattern of different types of food did not have any relationship with the livelihood activities. For instance, households in pure pastoralist areas did not report consumption of animal based proteins and milk any more than those in agro-pastoral areas. However, weak association was detected in consumption of fruits and vegetable with agro-pastoral areas such as Maroodi Jeex (W. Galbeed) and Gedo appearing relatively higher than in pure pastoral areas.

Regarding nutrition services, community leaders in a number of regions stated that they have not seen people coming to their areas specifically as nutritionists, but in some locations they have seen

TABLE 9.3 DIFFERENT TYPES OF FOODS SERVED BY MOTHERS TO INFANTS PER REGION

Region / Food Type	Maroodi Jeex	Togdheer	South Mudug	Sanaag	Gedo	Galgaduud	Average
Plain water	77	81	92	87	91	82	86
Milk	53	46	70	48	43	53	50
Sugar	49	44	19	40	26	29	33
Cereals	24	17	13	20	39	8	24
Tubers	7	5	5	7	11	2	7
Oils	8	23	8	14	13	7	13
Dairy products	41	18	24	20	58	49	39
Animal-based proteins	3	1	3	3	6	4	4
Eggs	4	1	2	3	5	1	3
Legumes	15	3	7	2	9	8	8
Vitamin A fruits and vegetables	7	1	3	2	7	2	4
Other fruits	4	0	3	2	6	1	3

organizations coming to distribute foods like biscuits to the children. In some areas that have certain NGO activities occurring, some leaders report that some of them talk about nutrition. In Gedo, they confirmed seeing a number of people coming to talk about child nutrition, though those people do not give any specific aid in relation to nutritional advice.

9.2.3 Nutritional Status of Children

To quickly assess the nutritional status of children, Middle Upper Arm Circumference (MUAC) measurements were taken of children under 5. Overall, 36% were under-nourished, with 12% severely under-nourished. There were wide variations between the sites with 56% under-nourished and 18% severely under-nourished in Gedo, but only 13% under-nourished and 5% severely undernourished in Maroodi Jeex (W. Galbeed) (see Table 9.4).

9.3 HOUSEHOLD COPING STRATEGIES

9.3.1 Coping Measures in the Previous Three Months

The study investigated how households respond to long term stresses caused by livelihood challenges. Respondents were asked to select the primary actions they had undertaken in the wake of reduced household incomes and food supply in the previous 3 months. Options given included:- changing feeding patterns, engaging in livelihood activities that the households do not usually pursue under normal circumstances, and migration. Reduction of food eaten either by reducing quantities consumed at given meal times or reduction of meal frequency were the most common options taken by households at overall rates of 67% and 54% respectively. The second most used choice was reduction of expenditure on non- food

TABLE 9.4: MUAC MEASUREMENTS BY REGION

	Maroodi Jeex (W. Galbeed)	South Mudug	Sanaag	Gedo	Galgaduud	Average
Severely undernourished < 11.5	5.0%	5.50%	13.30%	18.40%	5.80%	11.70%
Moderately undernourished between 11.5 and 12.5	8.3%	13.10%	10.20%	37.80%	26.10%	24.00%
Not undernourished > 12.5	86.8%	81.40%	76.50%	43.80%	68.10%	64.30%
N	302	381	264	868	310	2126

items with an overall response by 37% saying they had done that in the past three months. Figure 9.4 gives details of those confirming all possible measures mentioned by those interviewed, as well as the overall percent of positive responses for each option.

According to pastoralist leaders interviewed Somalis have very strong family bonds that compel well off relatives or those in the Diaspora to help their relatives who are in need. Similarly, borrowing food from relatives and shops in hard times is a common practice among the communities, but it is expected that those borrowing must fully pay when their household's condition improves to keep their credit-worthiness. Sale of firewood and charcoal is an option available to those living close to urban centers or towns where demand for wood fuel is high.

There were remarkable variations across the regions on strategies utilized. For instance, reduction of meal frequencies was highest among respondents from Gedo where up to 78% of people interviewed confirmed that they eat less when times are hard compared to 29% in Galgaduud. Of much concern is the evidence that children are sent to work as a way of coping with livelihood stresses in some areas. Gedo had the highest proportion of those confirming child laborers at such times, with 10% responding affirmatively to this question. On the other hand, less than 1% in all other regions confirmed this coping strategy. Sale of land as a coping strategy was confirmed mainly in agro-pastoral areas of Gedo with 12% positive responses and Maroodi Jeex (W. Galbeed) with 7%, compared to other regions that had 2% or less. Distress sale of livestock was highest in Gedo where 61% of households said they had done this in the previous three months and it was lowest in South Mudug where only 1% confirmed the same. Table 9.5 shows details of possible coping strategies and the percent of respondents using the strategies in the 6 regions surveyed. had done this in the previous three months and it was lowest in South Mudug where only 1% confirmed the same. Table 9.5 shows details of possible coping strategies and the percent of respondents using the strategies in the 6 regions surveyed.

There were no direct associations detected between reduction of meal quantities, meal frequency and borrowing of food to household livelihood activities. However, regarding reliance on neighbors/relatives, reduction of expenditure on non-food items and distress sale of livestock, it appears that households in agro-pastoral livelihood areas are most likely to have adopted the coping strategies, and particularly in Maroodi Jeex (W. Galbeed). Specifically, those with mixed livelihoods are 23% more likely overall to have sold livestock in Maroodi Jeex (W. Galbeed) and Gedo compared to the other sites. There were no significant associations detected between household livelihood activities and other coping measures due to low numbers confirming their use in the past three months.

Figure 9.4: Overall Proportions of Households Citing Various Types of Coping Strategies

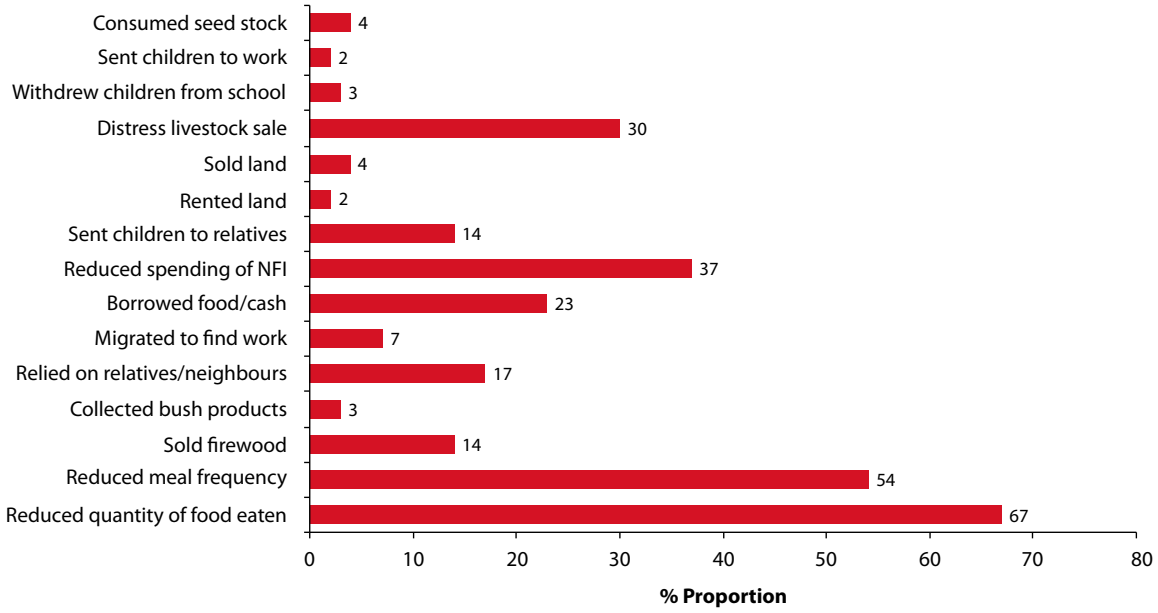


TABLE 9.5: VARIOUS COPING STRATEGIES BY REGION

Region/site	Maroodi Jeex (W. Galbeed)	Togdheer	South Mudug	Sanaag	Gedo	Galgaduud	Average
Strategy							
Reduced quantity of food eaten	54	67	74	70	78	50	67
Reduced meal frequency	29	51	47	70	77	29	54
Sold firewood	11	4	6	4	43	4	14
Collected bush products	5	0	0	2	11	1	3
Relied on relatives/neighbors	5	9	23	8	41	2	17
Migrated to find work	5	3	1	3	25	1	7
Borrowed food/cash	27	8	46	8	39	2	23
Reduced spending on NFI	47	38	30	47	55	55	37
Sent children to relatives	4	5	15	7	35	2	14
Rented land	1	0	1	0	8	0	2
Sold land	7	1	1	2	12	1	4
Distress livestock sale	37	15	1	25	61	22	30
Withdrew children from school	3	1	0	2	9	1	3
Sent children to work	1	0	0	1	10	0	2
Consumed seed stock	12	1	0	1	11	1	4

When analysis was done by income, it appeared that that the richer households were less likely to reduce number of meals, borrow food/cash, reduce expenditure on NFI and distressfully sell livestock, especially in Maroodi Jeex (W. Galbeed) and Gedo.

However, because of opposite gradients in other regions there is no overall gradient as far as these options are concerned. For reduction of number of meals there is a variation of 8% between the poor and the rich, with the former more likely to take the option. This gradient is evident in every site, with relatively steep increases of 29% in Maroodi Jeex (W. Galbeed) and 16% in Togdheer. On reliance of help from relatives, there was an average gradient of 10%, except in Gedo with 36%, again with higher proportions of the poor relying on relatives and neighbors compared to the rich.

9.3.2 External Support

Respondents were asked if they had received any assistance from development and humanitarian organizations in the three months preceding the survey. Nineteen percent (19%) overall said they had received cash transfer funds varying between 3% of households in Maroodi Jeex (W. Galbeed) and 36% in Togdheer. Between the two extremes were Sanaag with 35%, South Mudug with 22%, Gedo with 16% and Galgaduud with 6%. The other form of assistance confirmed by respondents was food aid, with 25% of respondents overall confirming receipt of food assistance within the period. However, there were wide regional variations ranging from 1% in Gedo to 56% in South Mudug, Similarly low was Maroodi Jeex (W. Galbeed) with 2% positive responses. Proportions for other sites were 37% in Galgaduud, 30% in Sanaag and 26% in Togdheer.

Eleven percent (11%) of households overall said they had received some other form of unspecified assistance in varying percentages from 1% in Maroodi Jeex (W. Galbeed) to 29% in Togdheer. Households from other regions receiving such support were 17% in South Mudug, 15% in Sanaag, 12% in Galgaduud and 5% in Gedo. All the percentages for each site, except for Sanaag and Galgaduud, are significantly different from the overall average.

CHAPTER 10

PROTECTION

10.1 SOCIAL PROTECTION

Elements of social support which is part of social protection are seen in results of this study where a good number of respondents confirmed borrowing food or sending household members to live with better placed family members during hard times. In good times when pastoral production was still functioning well, community members restocked households that lost their animals from diseases, drought or theft. The same social support is demonstrated by the number of households that receive remittances from family members in the Diaspora, which in some regions form the second source of income after livestock. Although concerns have been raised about a dependency culture coming from this social support, it has over the years helped in minimizing the impact of shock coming from lack of food in pastoralist and other Somali areas.

10.2 DISCIPLINING CHILDREN

Community members were asked a number of questions in focus group discussions on how they instil discipline in their children. From the discussions, it became clear that parents apply all possible options to teach children what they consider to be the right behaviour. In some cases, and depending on what the child has done, they may employ counselling, but if such behaviour persists they employ physical punishment that includes shaking, slapping on the bottom with a bare hand or hitting with a stick or belt on the bottom or elsewhere on the body. Depending on what the child does, the beating may be soft or hard. Also employed is verbal chastisement which may involve yelling or shouting at the offending child as well as name calling.

Those who strongly support physical or verbal punishment believe that children need to be scared in order to be discouraged from bad behavior. However, some of them felt that although physical punishment may be inevitable under some circumstances, it should not be excessive and should also not be frequent, the reason being that children may end up rebelling and become more undisciplined.

Opinions were divided when asked about the possibility of raising or educating children properly without either physical punishment or verbal chastisement. Some of them were in agreement that non-aggressive methods such as taking away privileges, forbidding something the child likes or not allowing the child to leave the house can be effective in nurturing the desired behavior. But others strongly argued that with the kind of environment and lifestyle they have, such alternative approaches of punishment are inapplicable and therefore cannot be effective. Moreover, movement of girl children is already highly restricted and therefore grounding may not be seen as punishment. Restriction of movement may also not work even for boys in pure pastoralist areas since there may not be any properly built house to confine the child and more to this, the child's service in herding is permanently required. In summary, there are not many privileges or something so prized by the child that can be withdrawn as a punishment.

10.3 CHILDREN'S ROLES IN HOUSEHOLD ACTIVITIES

There are variations in the age bracket that defines childhood varies in different societies. However, to allow for comparisons with most cultures, the study defined children as any person below the age of sixteen, although this may not be the perception among the Somali community where girls may be married and considered as adults when they are several years younger. All children over five years of age, both boys and girls, help with various tasks in the households. Those aged between 5 and 9 years take care of small animals mainly around the homesteads. Above 10 years the assignments become more gender specific. Boys between the ages of 10 and 14 help in herding large livestock such as camelsand

cattle, besides taking all other animals to distant grazing areas and watering locations far from the homesteads. On the other hand, girls of the same age bracket mainly help with domestic chores that include cooking for the family, washing clothes and fetching water and firewood. In agro-pastoralist areas both boys and girls within this age bracket are also expected to work on family farms. Anybody above 15 years is expected to take up all assignments that are carried out by adults and with a general feeling that girls of age bracket 15 to 19 years are ready for marriage.

When asked about the expectation in terms of work output of children of different ages, the groups concurred that it all depends on the age of the child. Those below nine years are given light duties and expectations of performance are generally low. However, those between the ages of 10 and 14 years are expected to have mastered various household tasks. Children above 15 years are expected to work like any other adult member of the household.

All Focus Group Discussion (FGD) members of both sexes and all ages were in agreement that these tasks take a lot of children's time and are, therefore, incompatible with education. Heavy task loads could be one of the reasons for elevated school dropout levels.

10.4 CHILD LABOR

Typical child labor outside the homestead is generally low as only 5% confirmed that they had sent one or more of their children to work for someone outside the household. The percentage varied between 2% in Sanaag and 7% in Gedo. When asked if the work was paid or unpaid, 65% confirmed payment for such services, varying between 39% in Togdheer and 82% in Galgaduud.

FGD members were also asked if children within their communities could be serving as members of militia groups. Responses varied depending on the area, where those from places with some level of effective government control, such as Maroodi Jeex (W. Galbeed) and Sanaag, said that children are not involved in militia activities. However, people from places with less government control as in South Mudug confirmed that children are recruited into militia groups and are indeed serving as fighters in areas where there are conflicts. The main reason cited for the vulnerability of children and youth to militia groups was lack of alternative sources of income. With the dwindling livestock production leading to increased poverty levels, the youths are highly vulnerable to conflict and criminal related offers.

10.5 TRADITIONAL PRACTICE OF FEMALE GENITAL CUTTING

Opinions of women were sought during FGDs regarding the traditional practice of female genital mutilation (FGM). Although the discussion did not entail the details of the specific types of FGM, some participants were in agreement that this practice is not good as it is harmful to the girl child and the young women who undergo the process. Participants cited a number of negative side effects that come with the operation, such as interference with the urinary system, discomfort during menses, pain during conjugation and ruptures during deliveries. However, some participants were in support of FGM saying it is good, though without elaborating or citing any advantage that comes with the operation.

CHAPTER 11

REGIONAL/SITE DIFFERENCES

The overall averages for all of the items have been compared to the averages for each region to show which regions are significantly higher or lower than the overall average, using a 99.9% confidence level. Details of these comparisons are shown in the tables in Appendix I. Regions are in parentheses when the regional values are not significantly different from the overall average, even though they are the highest (or lowest) of the six. Abbreviations for regions are as follows: MJ = Maroodi Jeex (W. Galbeed), TD = Togdheer, SM =South Mudug, SN = Sanaag, GO = Gedo, GD = Galgaduud.

The high and low results (those significantly different statistically than the overall average) presented in this section have the potential to inform programming. Results that are outliers from the norm, either higher or lower, can serve as indicators for areas where programming is more urgent or not urgent at all. It should be kept in mind that highs are not always positive and lows are not always negative. For example, it would be positive to have a low outcome on an item asking about the rate of HIV transmission and would be negative to have a high outcome on an item asking if HIV is transmitted by mosquitoes. A clear example of programming

information from this study is the use of radio as an education tool. Gedo's outcomes were highest for every age group and gender listening to almost every kind of programming, whereas South Mudug was lowest in several of the same factors. There is already an infrastructure for, and acceptance of learning by radio in Gedo that apparently does not exist in South Mudug. If a ministry or agency intends to use radio learning in its intervention, the programming for South Mudug would involve more basic buy in activities and infrastructure development, whereas programming in Gedo would probably concentrate on assessing what radio programs already exist and determining the best new programs to develop.

11.1 EDUCATION AND LEARNING

The comparisons for Education and Learning are shown in Annex 11. Maroodi Jeex (W. Galbeed) households had a high rate of participation of adult men and of boys and girls in formal schooling and a low percentage who gave any of the proffered reasons for not sending their children to formal school. They also shared the lowest percentages reporting that other adults went to Qur'anic school or lacked money to pay for alternative possibilities, reporting that any of their children had been sent to Qur'anic school or that they preferred Qur'anic school. Their households had the highest percentage of having textbooks in homes and children using them. Their households have the lowest rates of men and women listening to radio regularly and an average rate of listening to different kinds of programs. Maroodi Jeex (W. Galbeed) households have the lowest rates of learning about education, health sanitation and shelter either from a community meeting or government representative; they also have low rates of learning about education and shelter from the radio or notice board, the lowest rates of learning about health issues from radio and the lowest rates of learning about sanitation from a notice board. Maroodi Jeex (W. Galbeed) shares the highest rate of respondents knowing how to protect themselves from the HIV virus and knowing that it can be transmitted during delivery, but the highest rates believing that the virus is transmitted by mosquitoes and sharing foods. Overall, households in Maroodi Jeex (W. Galbeed) have relatively embraced formal schooling, attend Qur'anic education less than other regions and are self-sufficient in terms of learning about issues.

Togdheer households have the highest rates of participation of adults in formal schooling (both men and women) and of their children in formal school, and they thought that schooling was very useful even though the time/distance to school was one of the

longest. Other adults in their households had the lowest rates of going to Qur'anic school, but they also had the highest rates of those reporting that they had been offered opportunities to participate in alternative possibilities but had been unable to take them up, with livelihood activities being one of the main impediments. Togdheer households share the highest rate of having textbooks in the home and the children using them, having a radio, and men, women and children listening regularly to the radio. Togdheer households are also one of the most likely to learn about education from the radio and health and sanitation from a government representative. Togdheer shares the highest percentages believing in supernatural causes of HIV and believing that the virus could be transmitted by mosquitoes. Overall, Togdheer households have also embraced formal schooling, though there are considerable limitations to taking up education, and they make use of alternative means like radio for getting information South Mudug households had the lowest rates of participation of adult respondents (both men and women) in formal schooling, the lowest rate of boys and girls going to formal school and those children share the lowest average grade reached and have the shortest time to reach school.

South Mudug respondents also shared the lowest percentage of respondents saying that they had been to a Qur'anic school and the lowest rates of other adults going to formal school, but the highest rates of other adults in the households to Qur'anic schools. Their households reported the lowest percentage of adults citing livelihood activities or constant migration for not attending school, but the highest rate citing lack of money to pay as a reason for not taking up opportunities. South Mudug households also had the lowest percentages preferring mobile schools or Qur'anic schools for their children. South Mudug shares the highest rate of men, but the lowest rates of children, listening to radio regularly; men and women listening to discussion programs, announcements, health, religion programs; and men listening to family life, agriculture, home economics and music/ entertainment programs. South Mudug also has the lowest rates of learning about education, health, sanitation or shelter issues from the radio; health issues from a notice board and sanitation from a government representative. Households in South Mudug had the lowest rates of having heard of HIV/ AIDS and believing in supernatural causes. Overall, South Mudug households present the archetypal picture of pastoralist communities alienated from education and learning opportunities.

Sanaag households had average rates of participation in formal school for both adults and children, reported the longest time to school and the highest proportion saying that schools are not available. Lack of money and constant migration were highly cited reasons for not sending their children to school. Sanaag respondents reported higher rates of other adults to formal school and going to Qur'anic school and shared the highest percentages saying that constant migration was a reason why they had not taken up any of these possibilities. Sanaag has the highest rate of those having batteries for radios, shares the lowest rate for men listening to sports and music/ entertainment programs; and shares the lowest rates for women listening to family life, home economics and music/ entertainment programs. Sanaag also shares the highest rate for those learning about sanitation and shelter from the radio; education, health sanitation and shelter from a notice board; and shelter from a government representative. Sanaag had the highest rate having heard of HIV/AIDS and knowing that the virus could be transmitted during breastfeeding. Overall, Sanaag households are interested in education and learning, but have impediments of distance and availability of schools, as well as lifestyle practices that prevent them from participating in education.

Gedo households had average rates of participation in formal schooling for both adults and children; one of the highest average grades achieved by adults, one of the highest rates of parents saying that schools were not available for their children and one of the lowest rates of saying that school was very useful. Their households had one of the highest rates of adult participation in Qur'anic schools, and reporting that constant migration and lack of perceived benefits had been the main problems mitigating against taking up alternative possibilities. Gedo households also had the highest rates of children going to Qur'anic schools, and that they preferred mobile and Qur'anic schools, that these alternatives were very useful and the lowest rate of ever being offered alternatives and unable to take them up. Gedo has the lowest rates of having textbooks in the homes and children using textbooks, but shares the highest rate of having a radio, women listening

regularly, men and women listening to discussions, announcements, sports, family life, agriculture, home economics, health, religion and music entertainment programs. Gedo shares the highest rates of learning about education, health, sanitation and shelter from radio and community meetings. Gedo households had the lowest percentages knowing sexual liaison is one way of contracting HIV/AIDS and knowing that it could be transmitted through pregnancy orduring breastfeeding, but also the lowest percentages believing that the virus is transmitted by mosquitoes or through sharing foods. In summary, Gedo's number of pastoralists attending school has declined over a generation and they see little value in schooling, but they do value Qur'anic education. Radios are an effective medium in Gedo and should be used to educate residents on the facts about HIV/AIDS.

Galgaduud respondents report the lowest rates for participation of women in school, share the lowest rates of participation for both boys and girls in formal schooling, but have the highest average grade attained for their children when in school. Galgaduud children have one of the shortest times to school, but one of the lowest rates of parents thinking that schooling is very useful. They give lack of money as one of the reasons for not sending their children to school. The respondents reported one of the lowest rates of themselves and other adults going to formal school, of ever being offered the opportunity to take up alternative possibilities and they were one of the highest in citing constant migration as a reason. Although the households had one of the lowest rates of sending one of their children to Qur'anic school, the parents also thought that these kinds of alternatives were very useful. Galgaduud households share the lowest rates of having textbooks at home and the children learning from textbooks, having a radio, women listening regularly to news and discussion program and; men listening to announcements. They shared the highest rates of learning about education opportunities from a notice board and a government representative, and learning about health, sanitation and shelter from a government representative. Galgaduud households had the lowest rates of knowing how to protect themselves against HIV/AIDS, but also the lowest rates of believing that the virus could be transmitted by mosquitoes or transmitted from mother to baby. Formal education over generations has not been as highly embraced as Qur'anic education in Galgaduud, though children who do attend school stay in school longer than children in other regions. Textbooks and radios are not frequently used by Galgaduud pastoralists, but notice boards and information from government representatives are attended to.

11.2 HEALTH AND WASH

The comparisons for Health and WASH sections are shown in Table 9.2.

11.2.1 Childhood Mortality and Illness

Maroodi Jeex (W. Galbeed) households shared the highest rate of under-fives who had died, and the lowest average numbers of boys and girls who had died. They shared the highest rates of BCG and DPT vaccinations, being born at home with a TBA and the lowest rates for giving home-made fluid to a child with diarrhea. They also had the lowest rates reporting fever and seeking advice from a village health workers, being given anti-malarial drugs and having anti-polio drops in the first two weeks. Though Maroodi Jeex children have received some preventive health care, they are at risk for other illnesses, evidenced by the high infant mortality rate.

Togdheer households shared the highest rate of children who had died, and the highest average numbers of boys born, and of boys and girls who had died. They shared the highest rate of giving home-made fluid to their children with diarrhea and having gone nowhere when their child had a cough. Togdheer ranks the lowest for visiting private pharmacists, being given medicine for a cough, reporting fever in a child and seeking advice and given medicine for a fever. They also shared the lowest rates of their children having been given anti-polio drops in the first two weeks. Overall, their children are at health risk, even mortally and the adults seem to avoid, or cannot access, modern health care.

South Mudug shared the lowest rate of children who had died, the lowest average number of girls born and the lowest average number of boys and girls who have died. Their households had the highest rate of giving pre-packaged ORS fluid, the lowest rates of having gone nowhere when their child had a cough and the lowest rates of being given any medicine (although the highest rate of being given a pill when they did receive medicine). They had the highest rate of seeking medical advice for a child who had

a fever, for seeking that advice from a village health worker and being given medicine for a fever, which was a painkiller. South Mudug had the lowest rate of being given anti-malarial medication for a fever. They had the lowest rate of having a vaccination card for the child, and the lowest rates of having a BCG or a DPT vaccination. Child mortality rates in South Mudug are low and care for some illnesses is high, but care for other illnesses and prevention of childhood diseases is lacking.Sanaag shared the lowest rate of any under-five who had died, but higher numbers of boys and girls who had died. Sanaag households/ parents shared the highest rate of giving home-made fluid when their child had diarrhea, but the lowest rates of being given any medicine when the child had a cough. They reported the lowest rates of their child having fever and for seeking advice and being given an anti-malarial drug. They also shared the lowest rates of having a vaccination card or their child having been given a BCG or a DPT vaccination. Overall, the health of Sanaag children seems good for younger children, but older children seem to succumb to other childhood illnesses and diseases.

Gedo households had average rates of children dying. Their households had the lowest rates of saying they went nowhere when their child had a cough, but among those who went to see someone, they had the highest rate of being given medicine and the lowest percentage who were given a pill. Their households reported the highest rates of fever and being given medicine which was anti-malarial, but the lowest rate of going to a pharmacist or being given a painkiller. Their households had the highest rates of having a vaccination card, and a BCG or DPT vaccination or a DPT vaccination, and having births in a facility. Overall, Gedo households appear positive about receiving preventive vaccinations and attending to childhood births and illnesses and therefore, had low or average child mortality.

Galgaduud households shared the lowest rate of children who had died. Galgaduud households shared the lowest rate of giving their children a pre-packaged fluid when they had diarrhea. Though when the child had a cough, they had the highest rate of taking their child to a private pharmacist and had been given a pill. They also reported the highest rates of children having had a fever, had sought advice, but had the lowest rates of being given an anti-malarial drug. Their households had the lowest rates of having a vaccination card and having a BCG or a DPT vaccination. Health care is apparently accessible in Galgaduud and families use the services for what seems to be more frequent occurrences of childhood diseases.

11.2.2 Access to Health Care for Adults and Antenatal Care for Women

The results for access to health care and experience of antenatal care are shown in Table 9.3. Maroodi Jeex (W. Galbeed) households had the shortest distance to a health care facility, but the lowest rates of visiting a modern health care facility and the lowest rates of visiting those facilities within the last three months. It had the lowest rates of going to a traditional practitioner. The mothers had the highest rates of seeing a doctor for antenatal care, having a TBA at their birth and knowing how to register the birth, but the lowest rates for seeing a TBA for their antenatal care. It shared the lowest rates for having a vaccination card and having a tetanus vaccination. Overall, Maroodi Jeex (W. Galbeed) had close access to health care and consulted modern health practitioners more than traditional practitioners. The low vaccination rates for mothers are puzzling.

Togdheer households share the highest rates of saying that they have access to a 'Western' health care facility, but that the last time that they had visited a modern health care facility was more than a year ago. Correspondingly, Togdheer pastoralists had the lowest rate of saying that they had visited a modern facility within the last three months and that they had gone to a pharmacist. Togdheer mothers had the lowest rates of seeing anyone for antenatal care, but, among those who did see someone, had the highest rates of seeing a doctor for antenatal care. These households had the lowest rates of having a birth certificate. Overall, Togdheer households appear to choose not to seek out 'modern' health care.

South Mudug households had the lowest rates for access to a health care facility and saying that they typically went to a private pharmacist. The mothers in these households shared the lowest rates of seeing anyone for antenatal care, having their own vaccination card, or having an anti-tetanus vaccination. Overall, South Mudug households have little access to health care.

Sanaag shared the highest rates of having gone to a modern facility, the longest distance to a health care facility and of going to a traditional practitioner, but also the lowest rates of having gone within the last three months. Sanaag had the highest rates of seeing a TBA for antenatal care and not having abirth certificate, but shared the lowest rates of seeing anyone for antenatal care, having an anti-tetanus vaccination; and being delivered by either a health professional or a TBA or having a birth certificate. Overall, Sanaag households seem to have recently lost the ability to access or use modern health care.

Gedo households shared the highest rates of saying that they had access to a health care facility and going to a modern facility within the last three months (and correspondingly, the lowest rates saying that they had not visited for more than a year). Gedo households had the highest rates of seeing anyone for antenatal care, having their own vaccination card and having an anti-tetanus vaccination. Gedo was also highest in mothers being assisted by a health professional in giving birth and having a birth certificate, but shared the lowest rates for seeing a doctor. Overall, Gedo households have substantial access to modern health care and make use of it. Galgaduud households shared the lowest rates of having access to a health care facility, but the highest rates of those who had gone to a traditional practitioner. They also shared the lowest rates of seeing anyone for ante-natal care and seeing a doctor, but the highest rates for seeing a TBA both at delivery and for antenatal care. Galgaduud households have the lowest rate for having their own vaccination card and for having an anti-tetanus vaccination and the lowest rate for being delivered by a health professional. Overall, Galgaduud households are more likely to use traditional practitioners than modern health practitioners, probably due to low access to modern health care.

11.2.3 Sanitation

Details of the comparisons for sanitation are shown in Table 9.4. Maroodi Jeex (W. Galbeed) had the lowest rate of sharing toilet facilities, but shared the highest rates of those using protected wells, rainwater, surface water, tanker trucks and reservoirs. They had the highest rates of those having detergent or soap in the household and using soap to wash their hands and the lowest rates of using water only to wash hands. They were lowest in having shampoo in the household. They shared the highest rate of saying that they using one method or another to treat water. Overall, Maroodi Jeex (W. Galbeed) households were most likely to use modern sanitation methods, but had varied water sources.

Togdheer had the longest distance to a flush toilet or pit latrine. They shared the highest rates of using protected wells, tanker trucks and reservoirs, but the lowest rate of using rainwater as a source. Togdheer households had the highest rates for all three hygiene products and for using soap for hand washing. They were highest for treating water by boiling or with chemicals. Overall, though Togdheer households are behind in using modern sanitation methods, they have embraced modern hygiene and water treatment.

South Mudug households shared the highest rates for sharing a toilet facility and the lowest rates for using the bush for sanitation. Their households reported the highest rates for using piped water or a borehole and the lowest rates for using an unprotected well, rainwater or surface water as a source. South Mudug had the highest rate of having shampoo in the household, but the lowest rates of having detergent in the household and of using soap or ash for hand washing. They also had the lowest rates for doing anything to treat water and this was true for all the different types of water treatment. Overall South Mudug households seem to be better off with toilet facilities and access to safe water, but did not seem to be using modern hygiene or water treatment.

Sanaag households had the shortest distance to a toilet facility. They also shared the highest rates for having detergent and soap in the household and of using soap or ash for hand washing. They had the lowest rate for doing anything to treat water, although those who did treat water had the highest rates for each type of water treatment. Overall Sanaag households are within range of modern sanitation facilities and practice good hygiene, but lack water treatment knowledge.

Gedo households had the lowest rates of using a pit latrine. They shared the highest rates of using unprotected wells, rainwater and surface water. Their households had the lowest rates of using piped water, a borehole or protected wells, tanker trucks and reservoirs, but the highest rates of using unprotected wells and rainwater as water sources. They had the lowest rates of having soap in the household and of

using water only for washing their hands. They also had the highest rates of doing anything to treat water and the highest rates of different types of water treatment. Overall, Gedo households lack in all areas of water, sanitation and hygiene.

Galgaduud households share the highest rate of sharing a toilet facility. Their households had the highestrates of using unprotected wells, but the lowest rates for using tanker trucks. They had the lowest rates of having detergent and soap in the household and of using soap or ash for hand-washing and the highest rate of using water only for hand-washing. They also had the lowest rate of doing anything to treat water. Overall, Galgaduud households had considerable difficulty in accessing hygiene products and sanitation in general.

11.3 LIVELIHOODS, INCOME AND EXPENDITURE

The comparisons between regions for types of livelihoods, income sources and expenditure are detailed in Tables 9.5 and 9.6.

11.3.1 Livelihoods

Maroodi Jeex (W. Galbeed) households had the highest rates of owning farm land, practising agriculture and growing sorghum, but the lowest rates of growing beans and the lowest percentages having a hoe, a panga or an axe. They had the lowest percentage saying that the main problem for farming was lack of water. They had the lowest average number of cattle or goats. Maroodi Jeex (W. Galbeed) households shared the highest percentages saying that the main problems for livestock were lack of water and lack of pasture. Their households had the lowest percentages saying that the animal numbers were not adequate but, of those, the highest percentages saying that farming was one of their responses to livestock not being adequate for survival. They were lowest in resorting to manual labour. Their households shared the highest percentages of someone having a mobile phone. Maroodi Jeex (W Galbeed) households mostly earn their income from farming, but lack in farm tools. They have the least livestock and are least likely to engage in manual labour.

Togdheer households had the largest area of land and shared the highest percentage of growing beans. They had the highest percentage saying that the main problem for farming was lack of rains and the lowest percentage saying that the main problem was lack of seeds. Togdheer households shared the highest percentages whose main problems for livestock were lack of water and lack of pasture and were highest in having anyone in their group trained in animal husbandry. Their households had the highest percentages saying that petty trade was one of their responses to livestock not being adequate for survival and the lowest percentages that they resorted to farming. Their households had the highest percentages having a watch and a radio, but the lowest percentage of having someone in the household with an animal-drawn cart. Overall, Togdheer households suffer from lack of water and pasture for their livestock, whereas the few who farm have large tracts of farm land. Petty trade and farming are secondary income sources.

South Mudug households shared the lowest percentage saying that they owned land and had the lowest average land area for agriculture. They also had the lowest percentages saying that they farmed and grew sorghum or maize, but the highest percentage saying that they grew beans. They had the highest number of cattle, but the lowest number of camels and goats. South Mudug shared the highest percentage saying that the main problem for livestock was lack of water. Their households shared the highest percentages saying that manual labour and petty trade were their responses to livestock not being adequate for survival. They had the lowest percentage resorting to farming. Their households had the lowest percentages saying anyone had been trained in animal husbandry in their group. Their households had the lowest rates of having a radio and a watch and of someone in the household having a mobile phone and an animal-drawn cart. Overall, South Mudug households were shoat pastoralists who struggled for water and who sometimes resorted to manual labour and petty trading for income, with little access to forms of communication.

Sanaag households shared the lowest percentages owning farmland and the lowest saying that they had a hoe or an axe. Their households had the highest number of goats and sheep, but the lowest number of camels. Sanaag households shared the highest percentage saying that the main problem for livestock was lack of water and the lowest percentages saying that the main problem was disease. They also had the lowest percentage of having anyone who had been trained in animal husbandry in their group

and that farming was their response to livestock not being adequate. Sanaag households had the highest percentage saying that someone in their household had a mobile phone and a radio, but the lowest percentages having a watch and that someone in the household had an animal-drawn cart. Overall, Sanaag households were shoat pastoralists for whom lack of rains was the main problem and who had few trainedin animal husbandry. They were unlikely to resort to farming for alternative income.

Gedo households shared the highest percentages growing beans, having a hoe or an axe. Their households had the highest percentage saying that the main problem for farming was lack of rains and the lowest percentage saying that the main problem was lack of tools. Gedo households had the highest average number of camels and the lowest number of sheep. Gedo households shared the highest percentage saying that the main problems for livestock were lack of pasture and disease. Their households also had the highest percentages saying that someone in the group had been trained in animal husbandry and that their animals were not adequate for their livelihood. They had the highest percentages saying that manual labour was their response to livestock not being adequate for their survival, but the lowest percentage citing petty trade. Their households shared the highest percentages having a radio and that someone had an animal drawn cart. Overall, Gedo households are largely cattle pastoralists, but whose animals were inadequate for their needs.

Galgaduud households shared the lowest percentages owning farmland, had the smallest farming land area growing sorghum or maize and the lowest saying that they had a hoe or an axe. They shared the highest average numbers of cattle and goats and the smallest number of camels. Galgaduud shared the highest percentage saying that the main problems for livestock were lack of pasture and disease, but the lowest percentages saying that the main problem was lack of water. Their households had the lowest percentages saying that manual labour, petty trade and farming were their responses to livestock not being adequate. Their households shared the lowest percentages saying that the household had a radio or that someone in their household had an animal drawn cart. Overall, Galgaduud households were shoat pastoralists for whom the main problem was lack of pasture, had few alternative income methods.

11.3.2 Income and Expenditure

Maroodi Jeex (W. Galbeed) respondents had the lowest rate of selling livestock and of the percentage of their income from livestock sales. They shared the highest percentage selling livestock products and had the highest percentage of their income from livestock sales, shared the highest rate of selling agricultural products and had the highest percentage of their income from sales of agricultural produce. They shared the lowest rates of casual labour and of remittances. They shared the lowest percentages of having sold livestock at least once to pay for services. Maroodi Jeex (W. Galbeed) respondents had the highest percentage saying that their own livestock/crops is the main source of food and the lowest percentages saying that buying food and borrowing food were the first sources. Their households had lowest percentages saying that purchased food, food aid and borrowed food were primary sources of food over the last three months and the lowest percentages for the share of purchased food and borrowed food in all food sources. Their households had the lowest percentages of expenditure on all items, except water where they were the highest. They had the lowest dollar value of money owed and the lowest percentage owing to shop-owners. Overall, Maroodi Jeex (W. Galbeed) households were self-sufficient regarding their food, seldom selling livestock and owing little to anyone.

Of those practicing agriculture, Togdheer households had the lowest percentages selling agricultural products and resorting to casual labour. Whilst they also had the lowest percentages selling livestock to buy food, non-food items and to pay for services, they shared the highest rates of respondents saying that the situation with selling livestock to buy food and to buy non-food items was worse than the two previous years. Togdheer households also shared the highest percentage saying that borrowed food was their first source of food and a primary source of food over the last three months. They shared the lowest percentage saying that their own livestock/crops was the first source of food and saying that own livestock/crops, purchased food, and food aid were primary sources of food over the last three months. They reported the highest percentage for consumed food coming from their own livestock/crops, purchased food, food aid and borrowed food in the last three months. Their households shared the highest dollar expenditure on non-food items,

education fees, health care services, fuel, water and gifts and the highest percentage of expenditure on gifts, but the lowest percentages of expenditure on non-food items, education fees and fuel. They shared the highest percentage owing money and the highest dollar money owed. Overall, Togdheer households' food situation has worsened over the 2 previous years and they are facing higher household expenditures, driving them further into what is already high debt. South Mudug households reported the lowest rates of selling livestock and livestock products, but the highest rates of casual labour, petty trading and remittances as income sources. They had the highest percentages of income from casual labour and remittances. South Mudug households reported the lowest rates of having sold livestock to buy food, non-food items and to pay for services. South Mudug had the highest percentages saying that bought and borrowed food was the first source of food, but the lowest percentage saying that their own livestock/crops was the first source of food. Food aid and borrowed food were primary the lowest sources of food over the last three months, but the lowest percentages saying that their own livestock/ crops and purchased food were a primary source of food over the last three months. They said that their own livestock and crops and purchased food made the lowest contribution to their overall food stock. They reported the lowest dollar expenditure on fuel, water and gifts and had the lowest percentages of expenditure on health care services and gifts. Their households had average amount of debt, but had the lowest percentages owing money to relatives and shop owners. Overall, South Mudug has sold the least amount of their animals and has had to rely on causal labour, petty trading and livestock products for income. Their food comes principally from food aid and borrowed food, but they have managed to keep their debts reasonable.

Sanaag households had the highest rates of selling livestock, but the lowest rates of selling livestock products and agricultural products. Their households had the lowest percentages selling livestock to buy food and non-food items, but shared the highest rates of selling livestock to pay for services. They shared the highest percentages saying that the situation was worse than the previous two years. Sanaag had the highest percentages saying that bought and borrowed food was the first source of food in general, but the lowest percentage saying that their own livestock/ crops was the first source of food. Their households had the highest percentage saying that purchased food, food aid and borrowed food were principal food sources, but the lowest percentage saying that their own livestock/ crops were a primary source of food over the last three months and the highest percentage share of borrowed food in all food. They reported the highest dollar expenditures on non-food items, education fees, health care services, fuel, and gifts and shared the highest percentage share of expenditure on water. They also shared the highest percentage owing money and the highest dollar money owed. Overall, Sanaag households are losing self sufficiency by selling their livestock for some of the highest costs for food and non-food items, as well as sinking into debt.

Gedo households shared the highest rates of selling livestock, selling livestock products, selling agricultural products and performing casual labour, but reported the lowest percentage shares represented by livestock sales, casual labour, petty trading and remittances in their total income. They also reported the highest percentages selling livestock to buy food items, to buy non-food items and to pay for services. They have the highest percent reporting the current situation was worse than the previous two years. Gedo households had the highest percentages saying that their own livestock/crops was the first source of food and, together with purchased food, a primary source of food over the last three months. They were the lowest percentages saying that bought or borrowed food was the first source of food. Gedo respondents had the lowest dollar expenditure on non-food items, education fees and health care services, and reported the highest percentage shares of all expenditure on food, and fuel. They also shared the highest percentage owing money to shop-owners. Overall, Gedo pastoralists are selling their livestock and livestock products for what appear to be low prices to cover higher prices for non-food items and services needed, much of which puts them in debt to shops.

Galgaduud respondents shared the highest rate of selling livestock and the lowest rates of selling livestock products and agricultural products, and of casual labour income. They also reported the highest percentage of their income from selling livestock. Their households shared the highest percentage of selling livestock to buy foods and the percentages

saying that selling livestock to buy food and non-food items or to pay for services was worse than the previous two years. Galgaduud households had the highest percentages saying that bought food was the first source of food, but reported the lowest percentage saying that borrowed food was the first source of food. Galgaduud respondents reported the lowest percentage that purchased food was a primary source; and the highest percentage saying that their own crops, purchased food, food aid in all food over the last three months were highest sources of food. Galgaduud respondents reported the lowest expenditure on food, health care services and water as percentages of all expenditure. They also reported the lowest percentage owing money and the lowestdollar value of money owed; and shared the highest percentage owing money to shop-owners. Overall, Galgaduud respondents have earned most of their income from selling livestock and therefore, have managed to remain somewhat self reliant in feeding themselves, but are slowly moving into debt.

11.4 FOOD AND NUTRITION

Details of the regional comparisons in respect to food consumption are shown in Table 9.7 and 9.8.

11.4.1 Food Consumption and Coping Strategies

Maroodi Jeex (W. Galbeed) households had the lowest percentage saying that they had not eaten meals the previous day. They shared the highest number of meals eaten yesterday by girls 5-14 years old, adult women and men; and the highest number of days when they had eaten sorghum, cultivated vegetables, chicken, beef and eggs. They had the lowest percentages saying that their food stock was worse than the previous two years, that they had reduced number of meals per day, had skipped days without eating, borrowed food or having sent family members elsewhere. In terms of coping strategies, their households reported the lowest rates of eating less food, reducing the number of meals each day, relying on help from relatives/ neighbours, sent children to stay elsewhere. Overall, Maroodi Jeex (W. Galbeed) households were the best fed.

Togdheer households shared the highest number of meals eaten the previous day by boys and girls 5-14, adult men and women, the highest number of days when rice and cooking oil was eaten, and the lowest number of days when beans, goat meat and milk were eaten. They shared the highest percentage saying that their food stock was worse than the previous two years; and the lowest percentage having sent family members elsewhere to eat. In terms of coping strategies, Togdheer households shared the lowest rates of collecting firewood to sell, borrowing food or cash, sending children to stay elsewhere. Overall, Togdheer households were also reasonably well fed although things were worsening. South Mudug households shared the highest percentage of those who had not eaten the previous day and shared the lowest number of meals eaten the previous day by children<5 years old, boys and girls 5-14 years old and adult men. They reported the highest number of days when they had eaten beans and the lowest number of days they had eaten rice. They shared the highest percentage having skipped days without eating in the last week. In terms of coping strategies, South Mudug shared the highest rates of eating less food at each meal, relying on help from relatives/ neighbours and borrowing food or cash. Overall, South Mudug households were hungry and heavily dependent on others for their food.

Sanaag households shared the highest number of meals eaten the previous day by boys and girls 5-14 years old, the highest number of days on which they had eaten cultivated vegetables and beans, and the lowest number of days when they had eaten beans and milk. They shared the highest percentage saying that their food stock was worse than the previous two years. Their households had the lowest percentages saying that they had borrowed food to eat or sent family members elsewhere to eat. In terms of coping strategies, Sanaag shared the highest rates of reducing the number of meals each day; and the lowest rates of collecting firewood to sell, borrowing food or cash or sending children to stay elsewhere. Overall,3 Sanaag households were surviving but were on the brink.

Gedo households shared the highest percentage not eating in the previous day, the highest number of meals for children<5 years old but reported the lowest number of meals for adult women and men the previous day. Their households reported the highest number of days eating beans and drinking processed milk and the lowest number of days when they had eaten rice, tea/sugared water, cooking oil or cultivated vegetables in the previous week. Gedo respondents reported the highest number of days

during the last week when they had reduced the number of meals eaten, they had skipped eating altogether, borrowed food to eat or sent family members elsewhere. In terms of coping strategies, Gedo households shared the highest rates of eating less food at each meal, reducing the number of meals each day, collecting firewood to sell, collecting bush products, relying on help from relatives/ neighbours, family members migrating, borrowing food or cash, reducing spending on non-food items, sending children to stay elsewhere, renting out land, selling land, selling livestock to buy basic items, taking children out of school, sending children to work and consuming feed stock. Overall, Gedo households were not only hungry but desperate. Galgaduud respondents shared the lowest number of meals for children<5 years old, boys and girls 5-14 years old; and reported the highest number of days when they had eaten beans, milk, and the lowest number of days when they had eaten cultivated vegetables. They reported that their food stock was worse than the previous two years, that they had skipped days without eating or sent family members elsewhere to eat. In terms of coping strategies, Galgaduud shared the highest rate of reducing spending on non-food items and had the lowest rates of eating less food at each meal, reducing the number of meals each day, collecting firewood to sell, relying on help from relatives/ neighbours, family members migrating, borrowing food or cash and sending children to stay elsewhere. Overall, Galgaduud households, although eating the least number of meals were avoiding other negative coping mechanisms.

11.4.2 Breastfeeding

The results for the questions about breastfeeding are shown in Table 9.9.

Maroodi Jeex (W. Galbeed) households had the lowest percentages breastfeeding in the last 24 hours; and the highest percentage having given sweetened water or tea and beans or pulses to their infant, but the lowest percentage giving mushy or solid foods. Their infants seemed to be well-fed, though many are not breastfed.

Togdheer respondents had the lowest percentage saying that they would breastfeed for 6 months or more. Their respondents had the highest percentages saying they had given sweetened water or tea, food made with oil; and, the lowest percentage saying that their infants had been given dairy products. Their infants were relatively well-fed, but perhaps not breastfed for the recommended time of 6 months.

South Mudug had the lowest percentage saying that they had breastfed from birth, would breastfeed for 6 months or more. South Mudug respondents had

the highest percentages saying they had given tinned or powdered milk to their infant; and the lowest percentages saying that they had given their infants sugared water or tea, grains or cereals or dairy products, mushy or solid foods.

Sanaag had the lowest percentage saying that they would breastfeed for 6 months or more. Their households had average percentages for most food items, but the lowest percentage saying that their infants had been given and pulses.

Gedo had the highest percentages saying they had breastfed for 6 or more months and breastfed in the last 24 hours. Their mothers had the highest percentages saying that they had given cereals and dairy products in the last 24 hours; and the lowest percentage saying that they had given tinned or powdered milk and sweetened water or tea. Gedo infants are breastfed longer than other regions, as well as being given other food items.

Galgaduud households had the highest percentages saying that they intended to breastfeed for 6 months or more. Their respondents had the lowest percentage saying that they have grains and cereals, food made with oil and given solid foods. Their infants were feeding almost exclusively on breast milk.

11.5 OVERALL REGIONAL CONCLUSION

Maroodi Jeex (W. Galbeed) households were predominantly agro-pastoralists. Relatively, they have embraced formal schooling and are self-sufficient in terms of learning about issues. They were much healthier and had good access to health care, but probably needed it the least. They were also likely to use modern sanitation methods. They were self-sufficient in terms of their food, seldom selling livestock and owing little to anyone. Their households and their infants were the best fed.

Togdheer households were largely and reported problems with lack of rains for both agriculture and livestock. They have also embraced formal schooling but are very isolated from learning opportunities. Their children were at risk and less healthy and the adults seem to avoid, or cannot access, modern health care. Whilst Togdheer households are behind in using modern sanitation methods, they had embraced modern hygiene and water treatment. Their food situation has worsened over the two previous years but although they are reasonably well-fed, they are facing higher household expenditures, driving them into debt. South Mudug households were shoat pastoralists who struggled for water with little access to animal husbandry training and communication. They have sold the least amount of their animals, and instead relied mainly on causal labour and petty trading for income. South Mudug households present the archetypal picture of pastoralist communities alienated from education and learning opportunities. They were healthy and taking some of the health care advice although there appeared to be a problem of accessing vaccinations. South Mudug households also seem reticent to seek out modern health care. They were better off with toilet facilities and access to safe water, but did not seem to be using modern hygiene or water treatment. Their food comes principally from food aid and borrowed food, but they have managed to keep their debts reasonable. They were hungry and heavily dependent on others for their food.

Sanaag households are shoat pastoralists for whom lack of rains was the main problem; and had little outside contact except through mobile telephone. Sanaag households were enthusiastic about education and learning but their circumstances were difficult. They appeared to be alienated from modern medicine and prevention; the sanitation methods used by Sanaag households range from worst to best, depending on the method. Sanaag households are losing self sufficiency by selling their livestock for some of the highest costs for food and non-food items, as well as sinking into debt. Overall Sanaag households were surviving but were on the brink.

Gedo households were camel pastoralists who had benefited from animal husbandry training but who were having difficulties because of lack of rains and for whom the number of animals they had was inadequate for survival. They were ambivalent about the formal delivery of education, preferring more traditional vehicles. Gedo households had access to and use of modern health care and appeared to be positive about receiving preventive vaccination. They also appeared to have embraced modern sanitation methods and hygiene but had very little access to infrastructure. They are selling Galgaduud households were shoat pastoralists for whom the main problem was lack of pasture and they had little means to connect them to the outside world. They were ambivalent about the formal delivery of education, preferring more traditional vehicles. They were not connected to 'Western' health care and had considerable difficulty in accessing hygiene products and sanitation in general. They earned most of their income from selling livestock and have managed to remain somewhat self reliant in feeding themselves, but are slowly moving into debt.

CHAPTER 12

GENERAL DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

12.1 INTRODUCTION

Pastoralists have traditionally made optimum use of the fragile natural resource base by practicing a mobile and extensive livestock-keeping system. They move according to where and when pasture and water become available. Using different herd management strategies such as herd splitting, herd diversification and herd maximization they ensure that they spread the risk of livestock loss from droughts, diseases and theft. All the while, they make maximum use of the available vegetation without degrading the environment. However, more than ever before, pastoral production is undergoing a negative transition which is presenting more challenges than opportunities. In the horn of Africa, the problem has been compounded further by continuous conflicts that have greatly reduced the resilience of pastoral populations in the area, making them even more vulnerable to the continuum of shocks that continues to affect them to date. This chapter examines results of this study against this background, and makes comparisons of the current situation to previous situations.

Deliberate attempts have been made where possible to compare findings with previous MICS surveys in the area, since such surveys are considered to be the most authoritative for the Somali territories in recent years. This is to assess whether improvements in services have occurred from the time such surveys were conducted in the area.

12.2 FORMAL EDUCATION VERSUS PASTORALISM

Although education is now viewed as a fundamental right and a means of empowerment in many developing nations, findings of this study indicate that this is not the case for the Somali pastoralist populations. Only 14% of adults reported having gone through formal education and although the findings show a 10% generational increase of children's enrolment compared to adults, the levels are still low. On average, only 22% of school-going age children are currently in school, with enrolment of boys being higher than that of girls at 24% and 19%, respectively. A MICS Survey of 2006 in the area reported 42% overall primary enrolment, but only 10% of children in rural areas were enroled. However, these two studies may not be directly comparable because in the MICS study, the overall enrolment included both rural and urban areas while this survey was conducted largely in rural areas. But if we narrow the comparison with rural enrolment of the previous survey, we can see a 12% increase over the period. However, this relatively high enrolment above what the MICS Survey reported for rural areas could also be due to the fact that the MICS Survey asked for current attendance of 6-14 year olds, whilst these results include those who have completed school.

A World Bank report of 2008 indicates that there were 27% and 15% of boys and girls, respectively, who were enroled in school, which appears consistent with these findings. According to this report general enrolment (22%) has remained static, although at the expense of a slight decrease in boys' enrolment and a slight increase for girls. The results also show slight change in the gender parity index at 0.88 compared to 0.75 reported for MICS of 2006.

Further variations were noted among different livelihood groups with enrolment being relatively higher among agro-pastoralists in Maroodi Jeex (W. Galbeed) where overall enrolment is about 48%. This is remarkably different from areas that are largely pastoral such as Sanaag, where average enrolment is only 18%. Possible reasons for this disparity are the presence of more schools and better access to sedentary settlements compared to temporary

nomadic settlements. The likelihood of getting NGOs to work in agro-pastoral areas is much higher than in pure pastoralist areas. Variations were also noted in terms of security, where pastoralists in areas of low conflicts have higher school enrolment groups operating in conflict areas that are less secure. This is confirmed by enrolment in Togdheer that stood at 48%, many times more than the 4% enrolment in Galgaduud.

According to Devereux (2006), a similar study reported no differences in enrolment between farming communities and pastoralists. However, the current study indicates wide variations between the two livelihood zones of agro-pastoral and pastoral, though the disparity is largely due to school availability and extraneous factors such as constant migration rather than differences in attitude towards education. Indeed in-depth discussions with head teachers for this survey revealed that pastoralist children have greater interest in formal schooling, compared to their sedentary counterparts. Enrolment in Qur'anic schools is comparatively higher than formal education for both adults and children, with an overall average of 28% for adults and 44% for children. The higher rates of participation in Qur'anic schools tend to correspond to lower rates of participation in formal schooling, although the correlation is not confirmed. But it is important to note that most parents interviewed stated that Qur'anic schools are complementary to, not a substitute for, formal education. The higher rates of Qur'anic enrolment could be due largely to availability rather than preference over formal education.

Distances to schools are generally far with children walking on average for one hour to reach school. Although variations were noted on distance time, no exact correlation was detected between distance and livelihood areas. For instance, Sanaag, a largely pastoralist region, had the highest average distance time to school of about 2 hours, while South Mudug, another pastoralists area having the minimum time of about a quarter of an hour. Another notable observation of the survey is the low finish rate. Of all the adults included in the survey, the average grade was only Grade 6 showing that most of them drop out at primary level. For school-going children the average grade is equally low at only Grade 3 which is way below the expected ideal of 6.5, if there were to be equal number of children enroled from grade 1 to grade 12. Whereas Grade 3 was the terminal grade for adults, children who are still in school have the opportunity to complete higher grades. This will depend on whether the many hurdles that have hindered education in the past are eliminated or reduced to levels that permit progression.

Besides low enrolment and completion rates, the study also revealed that the quality of education in many cases is not good. This is due to many challenges that education sector is facing in different regions. Generally, most public (community) schools lack textbooks and other teaching materials as established in semi structured interviews with head teachers. Qualified teachers are hard to find in classrooms as most of them seek alternative employment due to poor remuneration in public schools. This findings support an earlier report by World Bank (2008) in which 1,512 primary schools surveyed in Somali territories were estimated to have 11,347 untrained teachers. In regions without common governance, curricula are not standardized and in the absence of common examination it is hard to evaluate the quality of education.

Given the highlighted challenges, it is of interest that in interviews with household respondents, head teachers and pastoralist leaders, all expressed the belief that the majority of pastoralists have positive views of formal education. The quest for formal education is largely driven by hope that it will give their children a better future outside the current pastoralist lifestyle, which they say has become too difficult in recent times. These perceptions are not in line with some earlier opinions where it reported that education's emphasis should be on helping pastoralists become modern livestock producers (Kralti and Dyer, 2009).

A number of approaches have been tried over decades in nomadic pastoralist areas in an attempt to improve education. These include mobile schools, ABE programs and vocational training. Less than 2% of adults have benefited from these modes of education. Similarly, less than 2% of children are currently enroled in these programs. Although the survey did not assess the success of these programs, it is reasonable to conclude that low participation is mainly related to a lack of availability of these programs; only 7% of all those interviewed confirmed having had opportunity to participate in them. Some

NGO's have attempted mobile schools and ABE centres in their programming, but their coverage has been implemented in very few, limited specific areas. Suitability (or usefulness) of these alternative forms of education are confirmed by 73% of respondents. Because of the temporary nature of mobile schools and due to the fact that most of them are established by NGO's whose programming is typically short term, most pastoralists would choose to have permanent schools built for them, if given a choice between the two.

Boarding schools are known to improve school attendance, progression and completion in the pastoralist areas of some countries. Though participants in the FGDs and key informants for this study suggested boarding schools as a way to increase education uptake, less than 3% of Somali pastoralist children were reported to attend boarding schools. However, there were concerns about its sustainability in the absence of substantive support from the governments. Another alternative that pastoralists communities have used are "live-ins" where pastoralist families send their children to stay with sedentary relatives and friends in areas with schools. This arrangement was relatively successful in the past and most of the educated people from pastoralist communities went through such programs. However, this is no longer feasible because the pastoralist families no longer have the wealth to compensate the host family directly or indirectly, and with the escalating cost of living, very few sedentary families could or would assume the extra burden of another mouth to feed.

12.3 COMMUNICATION

Media for communicating information, educational or otherwise, throughout much of the world includes radio, television, newspapers/bulletins and internet. Access to and use of these modes of communication by pastoralists is very limited, with the exception, of radios, which 35% of those surveyed said they owned. Though most who own radios had batteries (86%), most household members do not listen to the radio regularly. Overall, 60% of men, 43% of women and 15% of children listen regularly to the radio. The proportions of household members listening to radios vary greatly across the regions, indicating that the possession of a radio with batteries does not necessarily imply that all household members will listen. The patterns of listening were very similar for men and women, but the numbers of children listening were small. Typically, among those who do listen, about 87% of men, women and children listen to news programs, and 50%-70% listen to health and religion programs. Only 20%-40% of adults listen to each of the other types of programs (discussion, announcements, sports, family life, home economics and health).

Respondents were also asked the most useful sources of information to learn about educational opportunities, health care, sanitation and water, protection and shelter, from among a choice of sixteen possible sources. Less than 3% overall and less than 10% in any one site had learnt about any of these topics from television, newspapers, the internet, a text message from someone they know, a text message from an organization, from a community or religious leader, a representative from a humanitarian organization, neighbors or a loudspeaker announcement, and so there is very little to report. For each of the sector-specific information the percentages who had received information by phoning a help line or from a friend or family member in each site was 4% and 7%, respectively. For both sources about half of those who said they had used a help line at all reported using a help line for all four areas of education, health, WASH and protection, indicating that a help line, when used, is used frequently.

For radio, notice board, community meeting or government representative where the overall usage for each sector specific information was over 10%, the usage patterns by age-sex groups are very similar across the four areas and so these are summarized by giving the ranges for each source. Between a third and a half overall said that they had learnt about educational opportunities from the radio. About a sixth overall said that a notice board was the source; and nearly twice as many of those reporting formal education cited this source. About a sixth overall said that a community meeting was the source.

According to the pastoralist representatives, the principle modes by which information reaches community members are word of mouth, community meetings, mobile telephones and radio broadcasts. The BBC was the most popular source of information whether as the exclusive station (39%)

or together with VoA (49%). This was also confirmed by pastoralist representatives who said that the station of choice was BBC, but that they also listen to VOA and other local stations such as Voice of Peace. Most pastoralist leaders said pure pastoralists do not interact with others well and they rarely talk. However, in some cases where it becomes very necessary, they voice their needs through local radio stations so that humanitarian agencies can hear their problems. Alternatively, they send representatives to convey their concerns to agencies wherever they are located. Other means by which they reach the agencies are through mobile phones or written requests; however, these are only true for South Mudug, Sanaag, Galgaduud and Togdheer. Leaders from Maroodi Jeex (W. Galbeed) and Gedo said they do not know any way to contact the agencies, so they just sit and wait till agency staff pass by. According to the leaders, the best ways to distribute information are through community meetings, radio broadcasting, social gatherings, and public awareness campaigns.

12.4 HEALTH AND SANITATION ISSUES IN PASTORALIST AREAS

Child mortality was indirectly assessed by establishing the proportion of mothers who had lost children below the age of five and the average number of children lost by each mother, disaggregated by gender. Results show that death of children under the age of 5 years is as high as 35% overall. Though there were slightly more boys born than girls, no major variations were detected in the average number of boys and girls who died. This is a departure from the findings of MICS 2006 which reported that male children experience higher mortality than female children and the sex difference is especially pronounced for infant mortality.

In general vaccination coverage was low, with less than 50% of mothers interviewed confirming that their children had received some of the mandatory vaccinations. Overall, 41% of children received the anti-tuberculosis (BCG) vaccination, although with wide variations between regions. Forty seven percent (47%) received the polio vaccination while 41% were given the anti-Diphtheria (DPT) vaccination. Although the vaccination levels are still low, there is some improvement over the time. According to MICS 2006, only 30% of children aged 12-23 months had received the BCG vaccination, and just under a quarter of children of the same age had received the DPT, which is markedly lower than the current coverage.

Morbidity continues to be high in the area with prevalence of some common childhood illnesses increasing in recent times. Fifty eight (58%) of mothers confirmed that their children had respiratory related ailments within two weeks preceding the survey. Similarly high was fever, reported by 48% of mothers, and diarrhea 40% for the same two week period. These proportions are substantially higher than outcomes of a previous survey MICS survey the area. In the MICS of 2006, nationally 21% of children under age five had diarrhea at some time in the two weeks before the survey. Oral rehydration salt (ORS) is an important first line method of minimizing the effects of diarrhea in children. In this survey, 24% of mothers interviewed confirmed giving pre-mixed ORS fluid, 44% said they gave fluid made from a packet and 32% gave homemade fluid to their sick children. The number of mothers giving this fluid is much higher than those giving the fluid in the past years. In the 2006 MICS, only 9% gave pre-mixed ORS, 7% pre-packed and 9% homemade. This could be an indication of increased awareness on the importance of ORS fluid in the management of diarrhea.

Of those who had a cough, 30% were given medicine from private pharmacists, with some variation between the sites (17% in Togdheer to 44% in Galgaduud). Twenty eight percent (28%) did not seek any medical advice, also with substantial variations between sites (4% in Galgaduud and 55% in Togdheer) while 6% went to faith healers for help. Of those who had seen any health care provider, overall 63% had been given medicine. Three percent (3%) overall had been given medicine in the form of an injection, about half had been given pills and just under half had been given syrup. There were no major variations between sites on the type of medication that was given. These findings could not be directly compared with previous MICS surveys because parameters used were different.

Some improvements were noted in the number of mothers receiving antenatal care. About 44% of mothers confirmed seeing a medical person during pregnancy which is higher than the 26% reported in 2006 MICS. A majority (56%) said they delivered at home and out of these, 59% were attended by TBAs.

This contrasts with one third that reported home delivery in the MICS of 2006, although the reported home deliveries were assisted by a higher number of health professionals compared to the 18% in this study that had assisted deliveries. But the numbers being attended by TBAs then were slightly lower (50%) than now, which underscores the important role played by these traditional health care providers But it is important to note that although some of these TBAs are highly experienced and have helped with delivery many times over, they can do very little in cases where there are complications during deliveries. Registration of births has generally been low in the territories and the situation appears to be getting worse with time. The 2006 MICS reported that 3% of mothers had registered births of their children. In this survey, the number has decreased to 2% although 3% said they know how to register births.

There are some slight improvements on awareness about HIV/AIDS, but accurate information about causes and prevention is still lacking among the population. About 80% of all those surveyed confirmed hearing about the disease compared to 64% of women aged 15-49 reported in 2006 MICS Overall 62% agreed that HIV could be contracted through sexual liaisons. Of those who agreed, 62% said that they knew how to protect themselves. These are higher than the proportion in the previous survey where only 15% for instance knew about condoms and the role they play in preventing transmission of HIV. However, many people, just like in the 2006 report, erroneously believe that AIDS can be transmitted by supernatural means, mosquito bites and by sharing food. Higher proportions of the population (67%) are also still unaware that healthy looking persons could be having the HIV virus, a position also similar to the report of 2006 MICS survey. But on a positive note, more people are aware that the HIV virus can be transmitted from mother to child. Overall 54% of respondents knew that HIV/AIDS could be transmitted from mother to baby. Of those who agreed, 89% overall also agreed that the virus could be transmitted during pregnancy, 81% agreed that the virus could be transmitted during delivery and 91% agreed that the virus could be transmitted during breastfeeding. These percentages were about the same as in the 2006 MICS Survey.

Poor infrastructure, mobility of target communities and the reluctance of professionals to work away from large towns or cities are principal problems that hinder delivery of primary health services to pastoral communities in many countries. Although the number in this study who reported access to health facilities appear relatively high (75%), it takes people up to four walking hours to reach these facilities. The most readily available health providing alternatives are private pharmacies where most of those interviewed reported to seek help whenever household members fall sick.

When discussing primary health care provision to pastoralists in southern Somalia before the civil war, Helander (1990) noted the failure of the public sector to provide adequate services and the rapid expansion of private pharmacies from urban to rural areas. However, there are concerns about the capacity of the "pharmacists" selling drugs in small shops, their knowledge on matters to do with quality of drugs, expiry and range of ailments that a given drug can cure. The matter is made graver by the fact that people go to the pharmacists directly, without prescriptions, and they have to assume the role of clinician and lab technician in diagnosing the diseases based on narrations of those purchasing drugs. In the absence of other forms of health facilities, these private pharmacies can play a critical role in improving primary health care systems in remote areas with proper training and integration with other primary health care programs.

In order to improve on the health of pastoralist populations, their leaders suggested that community health services should be strengthened by training more Community Health Workers (CAWS), birth attendants and pharmaceutical technicians. Selection of those to be trained should be limited to those who are likely to remain with the groups during migration.

Use of toilets is low with only 20% of all those interviewed confirming access to latrines which in most cases are shared by many households. The total of 20% with a sanitary means of excreta disposal is less than the 37% reported in MICS 2006 Survey. For 80% overall the bush is used as a toilet, again much higher than 50% in the MICS, but there were substantial differences between urban and rural areas,

hence the variations between the two studies can be as a result that the PSA was conducted completely in rural areas. No directional variations were noted in pure pastoralists and agro-pastoralists areas as far as usage of toilets is concerned.

Although the questions were asked separately for drinking and cooking water, there is little difference between the patterns of responses and so the results are only reported for the largest percentages overall on the basis that any water source could eventually be boiled or otherwise treated for drinking purposes. Four percent (4%) of households overall had access to piped water, 35% to boreholes and 7% had access to protected wells, although with wide variations across the regions. Ten percent (10%) of households overall used surface water, 12% used rainwater, 16% had access to unprotected wells, 20% bought from water trucks and 24% used reservoirs. When sources of water considered safe are combined, we can see that still less than 50% of the populations have access to a safe drinking water source. However, it appears that there has been some improvement over the time as only 25% of the populations were reported to have access to safe drinking water (MICS, 2006). In regard to time to water sources, there is little difference between the average 1.25 hours found in this survey and MICS 2006.

Only 20% overall said that they treated their drinking water. Of those who do treat their water, about a third (65%) said that they used boiling for water treatment. Twelve percent (12%) said that they use chemicals, with a similar pattern for those filtering their water. Only 5% overall confirmed using the solar method (SODIS) for purifying water. Overall, 28% of households said they use sedimentation method. There was not much improvement over time in water treatment as a similar proportion was treating their water during the MICS survey over five years ago. Considering that a good proportion of the population gets water that collects water from dams and surface run off, this is a serious issue of public health concern. This could be a possible cause of high morbidity from gastro-intestinal infection in the area. About two-thirds of households overall had some kind of detergent available. But only 44% confirmed frequent use of soap for hand washing with the majority using plain water for washing their hands, while a small proportion (26%) said they use ash in place of hand washing detergents.

12.5 LIVELIHOODS

12.5.1 Pastoral Livelihoods and Sustenance

Overall, about a quarter (24%) said that they owned land and practice agriculture, but that was mostly in agro-pastoral areas of Maroodi Jeex (W. Galbeed). The main crop of choice is sorghum, but some farmers also reported growing maize and beans. The primary problems facing production are inadequate and erratic rainfall and lack of agricultural implements and other inputs. Income from agriculture is inadequate and members of some households (22%) are engaged in manual labor to supplement household income.

Both pure pastoralists and agro-pastoralists rely heavily on livestock as a means of subsistence. However, household herd sizes are generally low with households of six people owning an average of 8.1 camels, 7.4 cattle, 37.5 goats and 27.3 sheep. These herd numbers are far below what is considered minimal for subsistence for households of that size. A study carried out over three decades ago estimated that a 6-person family would require 12-30 camels, 24-42 cattle and 100-462 shoats (Hjort, 1976). But with the increase of household needs and escalating costs of basic commodities, the subsistence numbers would be much higher now. Until recently, the problem was compounded further by the lack of market for livestock following a decade long ban on livestock trade with Middle Eastern countries. But even now that the ban has been lifted, the greatest beneficiaries are brokers and livestock traders who buy animals from pastoralists at paltry prices and sell them at higher prices in urban areas and the external markets. Indeed, results of this study show that even with most households selling animals just to buy food, the annual income of US$ 890 is way below the annual expenditure estimated at US$ 1500.

A number of complex concerns have emerged in recent years that render effective livestock production more difficult and burdensome for the pastoralist nomads. First, the traditional strategies are underpinned by mobility and are thus only effective in a context that permits the practice of mobile pastoralism. Thus, any factor that restricts mobility effectively increases the vulnerability of pastoralists to natural and man-made shocks (Hpg, 2009). In several regions, insecurity resulting from conflicts has reduced

the extent of movement of pastoral communities, but even in regions with relative calm, the emergence of land demarcations and fencing is equally restricting free movements. Secondly, there has been a rapid increase in the human population in pastoral areas, putting pressure on the pastoral production process that in turn has led to environmental degradation. Lately the effect of global climate change has resulted in prolonged periods of drought and shorter drought cycles. In the absence of animal health services, livestock diseases have also become quite common in the country. These factors have led to massive deaths of animals in the country. Households reported maximum losses of 780 sheep and 500 goats within the six months preceding this study as a result of drought. Maximum deaths of 200 goats and 150 sheep from diseases were also cited within the same period.

The massive deaths of animals have put pastoralist populations in a perpetual state of humanitarian crisis. Out of desperation, many pastoralists are dropping out of pastoral production and migrating to urban centres where most of them live as destitute. This could be one of the reasons why the country is reported to have the highest rate of urbanization. Considering that the urban immigrants are not involved in meaningful production, they are becoming a burden to the urban centres that have already experience a number of social problems. For similar reasons youths in conflict prone regions are being lured to join militia and criminal gangs. In an attempt to make ends meet, some pastoralists have resorted to burning and selling of charcoal, the trade being fuelled by the ever swelling urban population that provides a ready market for charcoal. This has led to further degradation of the environment making it even less fertile for pastoral production.

12.5.2 Future of Pastoralism

Previously, the concern of governments and development agencies has been to look for ways of improving pastoral production and the lives of pastoralists. But at the moment, pastoral production is in a critical state teetering on extinction. Pertinent questions to be answered are:- i) Is nomadic pastoralism still a viable production means in the country? ii) If the answer is yes, what can be done to regain gainful production means? iii), If nomadic pastoralism is no longer viable, what other options subsistence options do pastoralists have?

Currently stopping pastoral production is out of the question as it is the main means of production accounting for 75% of the country's income. With this scenario all efforts must be made to attempt to bring it back to profitability. In the past, efforts by aid agencies to tackle the challenges faced in pastoral areas have largely focused on emergency relief. More than ever before there is need for all parties who want to see sustainable livelihoods in the country to unite to save pastoral production. During dissemination meetings to present this study to stakeholders, suggestions on how to reverse the negative trends in pastoralist production were made, some of which are discussed in the following paragraphs.

12.5.2.1 Restocking

Considering that most of those forced out of pastoralist production do not engage in adequate alternative livelihood activities some suggest that restocking is a viable way to bring them back to meaningful and sustainable production. Throughout history traditional pastoralist cultures have managed, through their own empirically-developed techniques of herding, to wrest a living from the hostile environment that forms pastoralist areas and at the same time maintain the productivity and resilience of their rangelands. Undoubtedly this is still a viable process as herding is the best use of the semi-arid land. To ensure success restocking programs must be accompanied by sound rangeland management. Characteristics of rangeland management principles are discussed in the following section.

12.5.2.2 Improvement of Rangeland Management

Over the years pastoralists have applied traditional rangeland management skills to exploit fragile rangeland resources. However, the emerging challenges are overwhelming these traditional ways. As a result, rangeland preservation and conservation has been sidelined. Therefore traditional skills must be enhanced by creating systems that can increase rangeland pasture productivity and water conservation. Most critical is controlled grazing to allow for recovery of natural vegetation in areas that have been made bare through overgrazing and charcoal burning. Where possible reseed the pastures and revive traditional systems that ensured controlled grazing in the past.

Deliberate efforts must be made to control soil erosion so that floods from flash rains can effectively spread to pastureland, increasing vegetation. Water harvesting techniques should be employed to ensure maximum storage in times of rain. Whereas heavy, erratic rain may not be useful to pasture productivity, it can provide enough water for substantial periods of time if well harvested. If these measures are taken and those willing and ready to get back into the system are given animals, it is possible that they can be restored into effective rangeland production. Besides enhancement of growth of natural pastures, cultivation of fodder crops in areas where growth of such crops are viable should also be encouraged.

12.5.2.3 Livestock Improvement Programs

Pastoralists's experiences in traditional animal rearing techniques over generations have resulted in highly efficient practices. However changing physical and economic environments are presenting considerable challenges to the traditional methods of production. It is therefore necessary for pastoralist communities to start integrating some of the modern techniques in animal production. Important among these would be livestock breeding improvement programs and the introduction of new breeds such as the milking goats. Training on sound animal husbandry should be made available, including the ability to discriminate between animals kept for meat production and those kept for milk production and the ability to estimate the input and output from each category of animals. Animal health services should be strengthened to ensure that disease related deaths are minimized. To ensure that pastoralist's get maximum benefits from their herding activities, interventions should aim at adding value to products such as milk, hides and skin.

12.5.2.4 Diversification of Livelihood Activities

To supplement dwindling household incomes, pastoralists reported that they engaged in alternative livelihood activities. Whereas some of those activities such as charcoal burning are not environmentally sound and should not be encouraged, others such as petty trading can be enhanced through income generating programs. Also important, but still untapped, are technical skills in masonry, carpentry, plumbing, welding, electric works and automotive technicians. Despite the fact that there is serious demand for these skills in the rapidly growing towns, less than 2% of the pastoralist population have training that would allow them to provide such services. There is need to establish vocational training centres where pastoralist children and youth can attend.

The other area of diversification is farming. Many parts of the country have potential for both rain fed and irrigation farming that have not been exploited. This should only be done after careful assessment of the climatic, topological and edaphic factors of the areas in question in order to achieve good harvests and avoid conflicts between those interested in using land as pastures and those who want to farm. According to the Marxian model of nomadic pastoralism, competition for land use is one of the major disruptive forces between the nomad and the sedentary villager (Barth, 1961). Therefore, such land use changes may lead to conflicts even in places where there were none. This is particularly so because the new non-traditional land use patterns are not governed by established community norms and there are no dispute resolution mechanisms. For instance, establishments of farms in river valleys that are traditionally used for grazing will lock out animal owners and at the same time animals will destroy crops, thus breeding more conflict.

12.5.2.5 Environmental Conservation and Improvement

There is a growing concern among both agro-pastoralists and pure pastoralist communities about environmental degradation. Initially the problem was mainly overgrazing that that led to pasture degradation and soil erosion. However, now there is big concern about harvesting rangeland trees for charcoal production and for sale as firewood in urban centres. This has fast tracked degradation of the fragile rangelands and in a number of areas degraded pastures have been replaced by bare land. This problem is not unique to Somali areas, but to all African countries where governments have issued policies on conservation (i.e. preventing tree cutting for fuel), but do not have policies on alternative energy sources. As long as there are no alternative sources of energy, these activities will continue regardless of environmental concern and related legislation. One way of solving the tree cutting problem is the exploitation of trees which are not utilized more as browse. One such tree species is Prosopsis juliflora, which is a known invasive plant found in some regions

like Hiran. Massive utilization of this tree for firewood and charcoal could result in the double benefit of regulating its spread and at the same time providing a valuable energy source.

12.6 NUTRITION AND FOOD COPING STRATEGIES

Most households interviewed (97%) confirmed that they had eaten within the 24 hours preceding the interview. However, it is of interest to note that some households did not have a meal at all in the same 24 hours. Further assessment of household nutrition revealed that children are given preference in feeding, evidenced by the data that they eat slightly more times than adults, on average 3 times to the adults' 2 times. Good nutrition calls for a balanced diet that consists of all food groups. Generally householddiets, including those of children, mainly consist of carbohydrates taken in the form of sugar in tea and starchy foods such as sorghum and rice. Fruits and vegetables, with essential vitamins and minerals, are absent from the diet. Consumption of animal-based proteins is limited as food such as goat meat; beef and mutton are eaten just once in a week. Consumption of milk is frequent when the season is good, but during drought many household find it a problem to provide milk even for children. This evidence is contrary to the belief that the pastoralist's diet consists mainly of meat and milk. This change of diet is not necessarily out of preference, but is as a result of reduced numbers of animals such that families can no longer afford the luxury of eating animal proteins daily. Low intake of the body building proteins could be a possible reason for the high proportion (48%) of undernourished children.

Most mothers (86%) provide their children with plain water; however this proportion is slightly lower in Maroodi Jeex (W. Galbeed) with 77%. Although the body can extract water from different types of fluid based foods, it is important to provide plain, clean and safe water as this is utilized more effectively in conjunction with sufficient nutrients and minerals. Indeed some fluid based foods with high concentrations of salt or sugar could lead to dehydration of the body. Malnutrition levels are still high as reported in previous surveys. Thirty six percent (36%) of children were underweight based on MUAC estimations, including 12% who were severely undernourished. This is about the same level reported in 2006 MICS where at least one in three (36%) of Somali children less than five years were underweight, 38% stunted (short for their age) and 11% wasted (thin for their height). They also showed that in general rural children and children of uneducated mothers are more likely to be underweight, stunted or wasted than other children. Breastfeeding appears to have improved, with 93% of mothers overall saying that they started breastfeeding immediately after birth, compared to 60% reported in 2006 MICS.

When households are faced with hard times, reactions are varied, both in terms of the options taken as well as the numbers taking any course of action. The most common coping strategy was to borrow food, as confirmed by up to 70% of respondents in this survey. A second coping strategy is to reduce the quantity of food consumed, either by consuming less during specific meals (67%) or by reducing meal frequency (54%). Other people also send family members to stay with relatives (14%). Of concern is the relatively high proportion of respondents (38%) who said that in difficult times they go for a whole day without eating.

12.7 PROTECTION

According to the World Bank definition, social protection is informal, market based, public interventions that assist poor individuals, households and communities to reduce their vulnerability by managing their risks better. Providers of such protection can be divided into two categories, one formal and the other informal. Formal providers of social protection are governments, the private sector, humanitarian organizations and local and international donors. Informal providers of social protection are communities and external social networks like family members, relatives and other social systems outside pastoral systems. Using this broad definition of social protection it is evident that social protection is very strong among the Somali people who share very strong family ties developed along clan lineage.

Elements of social protection are seen in the results of this study where a good number of respondents confirmed borrowing food or sending household members to live with better placed family members during hard times. In good times, when pastoral production was still functioning well, community

members undertook to restock households who lost their animals from diseases, drought or theft. Remittances from family members in the Diaspora are another element of social protection, which in some regions forms the second source of income after livestock. Although concerns have been raised about a dependency culture, social protection has minimized the impact of shock coming from lack of food in many pastoralist areas. Other forms of protection in existence are the unwritten rules where women and children are not usually targeted during conflicts. Integration of these inherent traditional elements can go a long way to ensuring success of protection policies in pastoral areas. Generally, the level of child labour outside the household is low, but when it comes to child discipline, both physical and verbal punishments are still common. Harmful traditional practices such as FGM are still practiced, but there are voices arising against the practice.

12.8 CONCLUSIONS AND RECOMMENDATIONS

12.8.1 Conclusion

The PSA has provided good, in-depth information on livelihoods within representative regions of the country from which a number of conclusions can be made. Important livelihood aspects captured and the lessons learnt both in the process and in the findings will be of immense value when planning future interventions. From the results we can conclude that education uptake is still low, although some regions with fewer conflicts have somewhat improved enrolments for both boys and girls. Availability of schools, cost and migration are the main reasons for low enrolments among the pure pastoralists. Apart from those who live near large towns, access to healthcare services is low with most people seeking help from private pharmacies. Although the quality of services offered by these private pharmacies was not evaluated in this study, lack of training for those dispensing drugs is a point of concern. Infant morbidity and mortality are generally high.

Use of toilet facilities is generally low and the proportion of those getting water from unprotected sources is still high. Few people treat their drinking water properly and cases of diarheal diseases are common. Both agro-pastoralists and pure pastoralists rely heavily on livestock as the main source of income, but production has been on the decline in the recent past and poverty is on the rise. Drought and diseases, as well ass man made factors, are the reasons for decline of productivity. Households can hardly meet their basic needs as expenditures are way above average income. Consequently, there are majority of people are indebted having mainly taken food from local shopkeepers on credit.

Households have poor nutrition with diets constituted heavily of carbohydrates and lacking in proteins and vitamins. Due to poor nutrition, cases of undernourished children are high. Children are engaged in various household chores along age and gender factors, but child labour out of the household setting is generally low. Youths in conflict regions are in high risk of being lured into militia and criminal activities mainly due to poverty and idleness. Family ties are still strong and social support is still evidenced among relatives.

12.8.2 Recommendations

From the survey results of this study and focus group discussions, key informant interviews and dissemination meetings, several suggestions were made for improving livelihoods and services in pastoralist and agro-pastoralist areas. From these suggestions, the following recommendations are made:

12.8.2.1 Short Term Solutions

1. In order to improve school accessibility, especially for pure pastoralist communities, boarding schools should be established in areas where communities are sedentary for part of the year, allowing children to remain in school when the rest of the family migrates.

2. Beside the structured residential schools, the "live-in" approach should be explored in situations where they can be practical so that pastoralists' children can remain behind with families in places close to schools as their households' migrate.

3. In situations where boarding schools may not be practical in increasing accessibility for all the school-age children, mobile schools should be established to ensure continuity of learning even during migration.

4. To improve on quality of education, existing schools should be equipped with learning and teaching materials and teacher skills should be enhanced through workshops during the long school holidays.

5. Accessibility and quality of health services can be improved by establishing mobile health clinics and training community health workers for treatment of both humans and animals.

6. Quality of health services can also be improved by creating partnerships with private pharmacies to improve capacity of the investors in both human and animal health services.

7. In order to improve on child nutrition, nutrition campaigns should be carried out in order to educate mothers on good child feeding practices. This can be complemented by supplementary feeding programs for children less than five years old in areas where there are severe cases of malnutrition.

8. In order to improve on sanitation, pastoral communities should be supported in building toilets and awareness campaigns carried out to improve on their use.9. There should be awareness creation on treatment of drinking water in order to minimize water borne infections.

10. Parents should be sensitized on alternative ways of disciplining children in order to minimize use of physical punishment and verbal abuse.

11. Parental sensitization on the negative impact of heavy child work loads on education should be undertaken.

12.8.2.2 Long Term Solutions

1. In order to engage non-school going youth into gainful production activities, there should be skills training through vocational training centres and apprenticeships. This will also help in diversifying livelihood activities to complement pastoral production.

2. As a way of improving livelihood incomes, viable business opportunities and other alternative livelihood activities should be identified and enhanced in order to diversify households' income sources.

3. In order to improve on households' income, fair and reasonable credit systems that may not require collaterals should be established to stimulate small scale enterprises.

4. In order to continue using the fragile rangelands effectively, pastoral communities should be discouraged from demarcating land and restricting movement on land they consider to be personal/private as this may not be compatible with pastoral production.

5. For sustaining pastoral production, there should be education on proper range utilization.

6. Environmental conservation and rehabilitation should be encouraged to improve on production.

7. To diversify pastoralists livelihood activities, assessments to establish areas with agricultural potential and with minimal possibility of conflicts should be done. Farming can then be facilitated by giving agricultural inputs and training on crop husbandry.

8. Even though not mentioned as a livelihood strategy in this study, bee keeping is an income generating activity that is viable in many range areas. Possibility of this activity should therefore be explored and enhanced where it is viable.

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APPENDIX 1

REGIONAL HIGHS AND LOW

The overall averages for all of the items have been compared to the averages for each region to show which regions are significantly higher or lower than the overall average, using a 99.9% confidence level. Regions are in parentheses when the regional values are not significantly different from the overall average, even though they are the highest or lowest of the 6 regional outcomes.

Abbreviations for regions are: MJ = Maroodi Jeex (W. Galbeed), TD = Togdheer, SM =South Mudug, SN = Sanaag, GO = Gedo, GD = Galgaduud.

TABLE 11.1 REGIONAL HIGH AND LOW RATES FOR EDUCATION AND LEARNING

Education and Learning		**High**	**Low**	**Learning Environment**		**High**	**Low**
1.3M	Men's schooling (Grid)	TD,MJ	SM	3.1	Textbooks in home	TD,MJ	GD,GO
1.3W	Women's Schooling (Grid)	TD	GD,SM	3.2	Children use Textbooks	TD,MJ	GD,GO
2.5	Numeric Average Grade	GO	SM	3.3	Have radio	TD,GO	SM,GD
2.2a	Respondent's schooling	TD,GO	SM,GD	3.4	Of those Have Batteries	SN	(GO)
2.2c	Respondent to Qur'anic	GO,SN	MJ,SM	3.5m	Men listen regularly	SM,TD	MJ
2.4a	Other adults to school	SN	SM,GD	3.5w	Women listen regularly	GO,TD	MJ,GD
2.4c	Other adults to Qur'anic	SM	MJ,TD	3.5c	Children listen regularly	TD	SM
				3.6am	Men listen to news	(GO)	(SM)
2.9	Ever offered opportunity	TD	GD	3.6aw	Women listen to news	(GO)	GD
2.10a	Livelihood activities	TD	SM	3.6bm	Men listen to discussion	GO	SM
2.10b	Lacked money to pay	SM	MJ, GO	3.6bw	Women listen to discussion	GO	SM,GD
2.10c	Constant Migration	GO,GD,SN	SM,	3.6cm	Men listen to announcements	GO	SM,GD
2.10d	No benefit	GO	(GD)	3.6cw	Women listen announcements	GO	(GD),SM
2.13b	Boys' schooling (Grid)	MJ,TD	GD,SM	3.6dm	Men listen to sports	GO	SN
2.13g	Girl's schooling (grid)	TD,MJ	GD,SM	3.6dw	Women listen to sports	GO	SM,(GD)
2.14b	Boarding	(GO)	(SM,GD)	3.6em	Men listen to Family Life	GO	SM
2.14a	Numeric Average Grade	GD	SM	3.6ew	Women listen to Family Life	GO	SN
				3.6fm	Men listen to Agriculture	GO	SM
2.19	Time to School	SN,TD	GD,SM	**Sources of Information**			
2.20	Schooling Very Useful	TD,MJ	GO,GD				
2.211	Schools not available	SN.GO	SM,MJ	12.6a1	Education: Radio	GO,TD	MJ,SM
2.212	Lack of Money	SN,SM	MJ,GD	12.6a8	Education: Notice Board	SN,GD	MJ
2.213	Constant Migration	SN	MJ,SM	12.6a10	Education: Village Meeting	GD,GO	MJ
2.214	Little or No benefits	GO???	MJ???	12.6a13	Education: Get. Rep.	GD	MJ,TD

TABLE 11.1 REGIONAL HIGH AND LOW RATES FOR EDUCATION AND LEARNING

Education and Learning		**High**	**Low**	**Learning Environment**		**High**	**Low**
				12.6b1	Health: Radio	GO	SM,MJ
2.22c	Child to Qur'anic School	SM,GO	MJ,GD	12.6b8	Health: Notice Board	SN	SM
2.22e	Child to IQS	TD	(SM)	12.6b10	Health: Village Meeting	GO	MJ
2.23	Alternatives Very Useful	GD	GO	12.6b13	Health: Get. Rep.	GD,TD	MJ
2.22b	Prefer Mobile School	GO,GD	SM	12.6c1	Sanitation: Radio	GO,SN	SM
2.22d	Prefer Qur'anic School	GO,GD	SM,MJ	12.6c8	Sanitation: Notice Board	SN	MJ
2.24	Ever Offered Alternatives	TD	GO	12.6c10	Sanitation: Village Meeting	GO	MJ
2.25a	Livelihood Activities	(SN)	SM	12.6c13	Sanitation: Get. Rep.	GD,TD	MJ,SM
2.25b	Lack of money	(SN)	MJ	12.6d1	Shelter: Radio	GO,SN	SM,MJ
2.25c	Constant Migration	(SN)	SM				
2.25d	Little or No benefits	(GO)	(SM,SN)	12.6d8	Shelter: Notice Board	SN	MJ
				12.6d10	Shelter: Village Meeting	GO	MJ
2.26a	US$: Registration Fees	(GO,GD	(MJ)	12.6d13	Shelter: from Get. Rep.	GD,SN	MJ
2.26b	US$: Annual Fees	(GD),SN	MJ				
2.26c	US$: Educational Materials	SM	(GD)				
2.26d	US$: MeaLs	GO,SM	(MJ)	HIV/AIDS			
	Us$: Total	(GO),SN	MJ	4.5	Heard of HIV/AIDS	SN	SM
Listen Radio			4.6	Supernatural Causes	TD	GD,SM	
3.6fw	Women listen to Agriculture	GO	(SM)	4.7	Sexual transmission poss.	(SM)	(GD)
3.6gm	Men listen toHome Economic	GO	SM	4.8	Know how to protect	MJ	GO,GD
3.6gw	Women listen to Home Economic	GO	SN,(SM)	4.9	Transmitted mosquitoes	TD,MJ	GD,GO
3.6hm	Men listen to Health	GO	SM	4.10	Sharing Foods	MJ	GO
3.6hw	Women listen to Health	GO	SM	4.11	Healthy looking person	(MJ)	(GD)
3.6im	Men listen to Religion	GO	SM	4.12	Transmitted mother-2-baby	(SN)	GD
3.6iw	Women listen to Religion	GO	SM	4.13a	Transmitted pregnancy	(MJ,SM)	GO
3.6jm	Men listen to Music/Enter.	GO	SM,SN	4.13b	Transmitted delivery	MJ,SM	GO
3.6jw	Women listen toMusic/Enter.	GD	SN	4.13c	Transmitted breastfeeding	SN	GO

TABLE 11.2: REGIONAL HIGHS AND LOWS FOR CHILD MORTALITY AND ILLNESS

Child Mortality		**High**	**Low**	**Childhood Illness**		**High**	**Low**
16.1	Ever given birth	(SM)	(MJ)	17.7	Had fever last 14 days	GO,GD	MJ,TD,SN
16.2	Ever had child who died	MJ,TD	GD,				
SM,SN	17.8	Sought advice	GD,SM	SN,TD			
16.3b	N of boys born	TD	SM	17.9d	Village Health Worker	SM	MJ,GD
16.3c	N of girls born	(TD)	(GD)	17.9h	Private pharmacist	GD	GO
16.4b	N of boys died	TD,SN	SM,MJ	17.10	Given medicine	SM,GO	SN,TD
16.4g	N of girls died	SN,TD	SM,MJ	17,11a	Given anti-malarial	GO	SM,SN,GD,MJ
Childhood Illness			17.11b	Given painkiller	SM,SN,GD	GO	
17.1	Had diarrhea last 14 days	(GD)	(MJ)	17.12	Vaccination Card	GO	GD,SM,SN
17,2a	Given pre-packaged ORS	SM	GD	17.13a	BCG vaccination	GO,MJ	GD,SM, SN
17.2b	Given home-made fluid	SN,TD	MJ	17.13b	Anti polio drops	GO	SM,GD,SN
17.3	Had cough last 14 days	(TD)	(SM)	17.13ca	Drops in first 2 weeks	GO	GD,SM,MJ,TD
17.4h	Visited private pharmacist	GD,MJ	TD	17.13cb	N of times drops given		
17.4n	Went nowhere	TD,SM	GO,SM	17.13d	DPT vaccination	GO,MJ	GD,SN,SM
17.5	Given any medicine	GO	SN,TD,SM	17.13e			
17.6a	Given pill	GD,SM	GO	17.14a	Born in facility	GO	GD,SN
17.6b	Given syrup			17.14b	Born at home with TBA	MJ,TD	SN,GD

TABLE 9.3: REGIONAL HIGHS AND LOWS IN ACESS TO HEALTH CARE AND ANTENATAL CARE

Access To Health Care		**High**	**Low**	**Antenatal Care (Continued)**		**High**	**Low**	
4.1	Access health care facility	GO,SN,TD	GD,SM	18.4	Own vaccination card	GO	GD,GO,SM,MJ	
4.2	Numeric: Distance facility	SN	MJ	18.5a	Tetanus vaccination	GO	SN,GD,MJ,SM	
4.31	Went to modern facility	GO,SN	MJ	18.5b	N of tetanus vaccinations			
4.32	Went to pharmacist	TD	SM	18.6	Anti-tetanus	GO	GD.SN,SM,MJ	
4.33	Went to traditional pract.	SN,GD	MJ	18.7	N of times anti-tetanus			
4.4a	Within last 3 months	GO	TD,SN,MJ	18.8a	Doctor, nurse or auxiliary	GO	GD,SN	
4.4b	More than a year	TD	GO	18.8b	Traditional Birth Attendant	GD,MJ,	SN	
			18.9	Registered birth	(MJ)	(SM)	SN	
18.1		GO	GO	SM,SN,GD,TD	18.10a	Birth certificate	GO	TD,SN
18.2a	Saw anyone for ANC	MJ,TD	GD,GO	18.10b	No birth certificate	TD,SN	GO	
18.2b	Saw Doctor	(GO)	(GD)	18.11	Know how to register birth	MJ	(GD)	
18.2c	Saw Nurses	GD,SN	MJ					
18.3	Saw Traditional Birth Attendant							
18.2c	N of times saw someone	GD,SN	MJ					
18.3	N of times saw someone							

TABLE 11.2: REGIONAL HIGHS AND LOWS FOR CHILD MORTALITY AND ILLNESS

Child Mortality		High	Low	Childhood Illness		High	Low
16.1	Ever given birth	(SM)	(MJ)	17.7	Had fever last 14 days	GO,GD	MJ,TD,SN
16.2	Ever had child who died	MJ,TD	GD,SM,SN	17.8	Sought advice	GD,SM	SN,TD
16.3b	N of boys born	TD	SM	17.9d	Village Health Worker	SM	MJ,GD
16.3c	N of girls born	(TD)	(GD)	17.9h	Private pharmacist	GD	GO
16.4b	N of boys died	TD,SN	SM,MJ	17.10	Given medicine	SM,GO	SN,TD
16.4g	N of girls died	SN,TD	SM,MJ	17,11a	Given anti-malarial	GO	SM,SN,GD,MJ
Childhood Illness				17.11b	Given painkiller	SM,SN,GD	GO
17.1	Had diarrhea last 14 days	(GD)	(MJ)	17.12	Vaccination Card	GO	GD,SM,SN
17,2a	Given pre-packaged ORS	SM	GD	17.13a	BCG vaccination	GO,MJ	GD,SM, SN
17.2b	Given home-made fluid	SN,TD	MJ	17.13b	Anti polio drops	GO	SM,GD,SN
17.3	Had cough last 14 days	(TD)	(SM)	17.13ca	Drops in first 2 weeks	GO	GD,SM,MJ,TD
17.4h	Visited private pharmacist	GD,MJ	TD	17.13cb	N of times drops given		
17.4n	Went nowhere	TD,SM	GO,SM	17.13d	DPT vaccination	GO,MJ	GD,SN,SM
17.5	Given any medicine	GO	SN,TD,SM	17.13e			
17.6a	Given pill	GD,SM	GO	17.14a	Born in facility	GO	GD,SN
17.6b	Given syrup			17.14b	Born at home with TBA	MJ,TD	SN,GD

TABLE 9.3: REGIONAL HIGHS AND LOWS IN ACESS TO HEALTH CARE AND ANTENATAL CARE

Access To Health Care		High	Low	Antenatal Care (Continued)		High	Low
4.1	Access health care facility	GO,SN,TD	GD,SM	18.4	Own vaccination card	GO	GD,GO,SM,MJ
4.2	Numeric: Distance facility	SN	MJ	18.5a	Tetanus vaccination	GO	SN,GD,MJ,SM
4.31	Went to modern facility	GO,SN	MJ	18.5b	N of tetanus vaccinations		
4.32	Went to pharmacist	TD	SM	18.6	Anti-tetanus	GO	GD.SN,SM,MJ
4.33	Went to traditional pract.	SN,GD	MJ	18.7	N of times anti-tetanus		
4.4a	Within last 3 months	GO	TD,SN,MJ	18.8a	Doctor, nurse or auxiliary	GO	GD,SN
4.4b	More than a year	TD	GO	18.8b	Traditional Birth Attendant	GD,MJ,	SN
				18.9	Registered birth	(MJ)	(SM)
18.1	Saw anyone for ANC	GO	SM,SN,GD,TD	18.10a	Birth certificate	GO	TD,SN
18.2a	Saw Doctor	MJ,TD	GD,GO	18.10b	No birth certificate	TD,SN	GO
18.2b	Saw Nurses	(GO)	(GD)	18.11	Know how to register birth	MJ	(GD)
18.2c	Saw Traditional Birth Attendant	GD,SN	MJ				
18.3	N of times saw someone						

TABLE 9.4: REGIONAL HIGHS AND LOWS IN SANITATION, WATER SOURCES AND WATER TREATMENT

Sanitation, Water Source		High	Low	Hygiene, Water Treatment		High	Low
5.1a	Use flush toilet	(MJ)	(SN,GO)	5.6a	Hygiene Prod.: Detergent	TD,MJ,SN	GD,SM
5.1b	Use pit latrine		GO	5.6b	Hygiene Products: Soap	MJ,TD	GD,GO
5.1c	Use bush		SM	5.6c	Hygiene Prod.: Shampoo	SN,TD,SM	MJ
5.2	Distance to facility	TD	SN	5.7a	Hand-washing: Soap	MJ,TD,SN	GD,SM
5.3	Sharing facility	GD,SM	MJ	5.7b,	Hand-washing: Ash	SN	GD,SM
5.4a	Piped water	SM	GO	5.7c	Hand-washing: Water	GD	MJ,GO
5.4b	Borehole	SM	GO				
5.4c	Protected well	MJ,TD	GO	5.9	Anything to treat	MJ,GO	GD,SM,SN
5.4d	Unprotected well	GO,GD	SM	5.10a	Treatment: Boiling	GO,SN,TD	SM,MJ
5.4e	Rainwater	GO,MJ	TD,SM	5.10b	Treatment: Chemicals	TD,GO,SN	SM
5.4f	Surface water	GO,MJ	SM,TD	5.10c	Treatment: Filtration	GO,SN	SM,MJ
5.4g	Tanker trucks	SN,MJ,TD	GO	5.10d	Treatment: Solar	SN,GO	(SM)
5.4h	Reservoir	TD,MJ	GO	5.10e	Treatment: Sedimentation	SN,GO	SM
5.1a	Use flush toilet	(MJ)	(SN,GO)				

TABLE 9.5: REGIONAL HIGH AND LOWS OF LIVELIHOODS

Livelihoods		High	Low	Livelihoods (Continued)		High	Low
6.1	Own Land	MJ	SM, GD SN, TD	6.10p1w	1st problem is water	MJ,TD	GO,GD
6.1	Area of Land	TD	GD, SM	6.10p1p	1st problem is pasture	GO,GD	MJ
6.3	Land Ownership	MJ	(SM)	6.10p2w	2nd problem is water	SN,SM	MJ,GD
6.4	Agriculture	MJ	SM, GD	6.10p2p	2nd problem is pasture	MJ,TD	GO
6.51	Grow sorghum	MJ	SM,GD	6.10p2d	2nd problem disease	GO,GD	MJ,SN
6.52	Grow maize	(GO)	SM, GD	6.12	Anyone trained	TD, GO	SM,SN
6.53	Grow beans	SM,GO,TD	MJ	6.14b	Animals not adequate	GO	MJ
6.61	Have hoe	GO,TD	SN,MJ	6.15d	Manual Labour	GO,SM	MJ,GD
6.62	Have axe	TD,GO	SN,MJ	6.15e	Petty trading	TD,SM	GO,GD
6.63	Have panga	GO	MJ	6.15i	Farming	MJ,GO	GD,SM,TD,SN
6.7p1a	1st problem is lack of tools	(SN)	GO	6.16b	Households with radio	GO,TD	GD,SM
6.7p1e	1st problem is lack of rains	GO	MJ	6.17a	Someone has a watch	TD	SM,SN
6.7p2a	2nd problem is lack of tools	SN	GO	6.17b	Someone has a mobile phone	MJ,SN	SM
6.7p2b	2nd problem is lack of seeds	(GD)	TD, SN	6.17e	Someone has animal drawn cart	GO	TD,SM,GD,SN
6.7p2e	2nd problem is lack of rains	TD	(GD)				
6.8	Livestock						
6.9ag	N of camels	GO,	SM,GD				
6.9ar	N of cattle	GD,SM	SN,MJ				
6.9al	N of goats	GD,SN	MJ,SM				
6.9adi	N of sheep	SN	GO				
6.9ada	N of chicken	(SM)	(TD)				
	N of donkeys	(GD)	(SN)				

TABLE 9.6: REGIONAL HIGHS AND LOWS ON INCOME AND EXPENDITURE

Income		High	Low	Sources Of Food		High	Low
7.1	Average total annual income			8.2ca	Own crops as source	GO,MJ	TD,SM,SN
7.21a	Selling livestock	GO,SN,GD	SM,MJ	8.2cb	Own crops as % all food	GD,TD	SM
7.21b	% of income from livestock	GD	GO,MJ	8.2pa	Purchase food	GO,SN	GD,TD,SM
7.22a	Selling livestock products	GO,MJ	SM,SNGD	8.2pb	Purchased food as % all food	GD,TD	MJ,SM
7.22b	% of income from livestock products	MJ	(TD)	8.3fa	Food aid	SN,SM	MJ,TD
7.23a	Selling agricultural products	MJ,GO	SM, GD, TD, SN	8.2fb	Food aid as % all food	TD,GD	(MJ)
7.23b	% of income from agricultural products	MJ,(TD)	(GO)	8.2ba	Borrow food	SN,SM,TD	MJ
7.25a	Casual labour	SM,GO	MJ,TD,GD	8.2bb	Borrowed food as % all food	TD,SN	MJ,GO
7.25b	% income from casual labour	(GD)	GO,SM	8.31a	% expenditure on food	GO	GD
7.26a	Petty trading	SM	(GO)	8.31b	dollar on food		
7.26b	% income from petty trading	SM	GO	8.32a	% expenditure on non-food items	GO	TD,MJ
7.28a	Remittances	SM	MJ	8.32b	dollar on non-food items	TD,SN	GO
7.28b	% income from remittances	SM	GO	8.33a	% expenditure on education fees	GO	TD,MJ
7.3a1	Sold livestock to buy foods > = once	GD,GO	SM,TD	8.33b	dollar on education fees	TD,SN	GO
7.3a3	Sold livestock to buy foods > = 3 times	GD,GO	SM,TD,SN	8.34a	% expenditure on health care service	GO	SM,MJ,GD
7.3b	Worse than previous 2 yrs	SN,TD,GO	GD	8.34b	dollar on health care services	SN,TD	GO
7.4a1	Sold livestock to buy non-food items > = once	GO	SM, TD, SN, MJ	8.35a	% expenditure on fuel	GO	TD,GD,MJ
7.4a3	Sold livestock to buy non-food items > = 3 times	GO	TD	8.35b	dollar on fuel	SN,TD	GO,SM
7.4b	Worse than 2 previous years	SN,TD	GD	8.36a	% expenditure on water	MJ,SN	GD,GO
7.5a1	Sold livestock to pay for services > = once	GO	SM,TD,GD	8.36b	dollar on water	SN,TD	GO,SM
7.5a3	Sold livestock to buy for services > = 3 times	GO	(TD)	8.37a	% expenditure on gifts	TD,SN	MJ,GD
7.5b	Worse than 2 previous years	SN,TD	GD	8.37b	dollar on gifts	TD,SN	SM,GO,GD
Sources of Food				8.4	Owing money	SN,TD	GO
8.1a1		Own livestock 1st source	MJ,GO	SM, SN, TD,	dollar owed	SN,TD	MJ,GO
8.1a2	Bought food 1st source	SN,GD,SM	MJ,GO	8.6R	Relatives as % of creditors	(TD)	SM
8.1a3	Borrowing food 1st source	TD,SN,SM	MJ,GO,GD	8.6S	Shop-owners as % of creditors	GO,GD	MJ,SM
8.1b1	Own livestock 2nd source	MJ	SM				
8.1b2	Bought food 2nd source	MJ	GD				
8.1b3	Borrowing food 2nd source	GD,SN,SM	MJ,GO				

TABLE 9.7: REGIONAL HIGHS AND LOWS IN FOOD CONSUMPTION

Food Consumption		High	Low			High	Low
9.1	Not eating meals yesterday	GO,SM	MJ,TD	9.3C	Cooking oil	TD	GO
9.2a	N meals for children<5	GO,SN	SM,GD	9.3d	Cultivated vegetables	SN,MJ	GD,GO
9.2b	N meals for boys 5-14	SN,TD	SM,GD	9.3e	Beans	GO,SM,GD	TD,SN
9.2c	N meals for girls 5-14	SN,MJ,TD	SM,GD	9.3f	Chicken	MJ	(SN)
9.2d	N meals adult women	MJ,TD	GO	9.3g	Beef	MJ	(SM)
9.2e	N meals adult men	MJ,TD	GO,SM	9.3h	Goat meat	(GO,GD)	TD
9.3a	Sorghum	MJ,GO	SN,TD	9.3i	Eggs	MJ	(SM)
9.3b	Rice	TD,(SN)	GO,SM	9.3j	Milk	GD,GO	SN,TD
9.3c	Tea/ Sugar	(GD)	GO	9.3k	Processed milk	GO	(TD,SM)

TABLE 9.8: REGIONAL HIGHS AND LOWS IN FOOD SHORTAGES AND COPING STRATEGIES

Food Shortages		High	Low	Coping Strategies		High	Low
9.4a	Enough food for a week			10.1	Ate less food	GO,SM	GD,MJ
9.4b	Worse than last 2 years	SN,TD	GD,MJ	10.2	Reduced N of meals/day	GO,SN	MJ,GD
9.5	Reduced N meals per day	GO,SN	MJ	10.3	Collected firewood to sell	GO	TD,SN,GD
9.6	N days reduced meals			10.4	Collected bush products to eat	GO	(TD,SM)
9.7	Skipped days without eaten	GO,SM	MJ,GD	10.5	Relied on help from relatives/ neighbours	GO,SM	GD,MJ
9.8	N days skipped eating			10.6	Family members migrated	GO	SM,GD
9.9	Borrowed food to eat	GD,GO	MJ,SN	10.7	Borrowed food or cash	SM,GO	GD,TD,SN
9.10	N days borrowed eat			10.8	Reduced spending on non-food items	GO,GD	
9.11	Sent family members to eat elsewhere	GO	MJ,GD,SN,TD	10.9	Sent children to stay elsewhere	GO	GD,MJ,TD
9.12	N days sent elsewhere			10.10	Rented out land to buy basic items	GO	(TD,SN,GD)
9.13r	Sent to relatives	(GO)	GD	10.11	Sold land to buy basic items	GO	(TD,SM,GD)
9.13n	Sent to friends			10.12	Sold livestock to buy basic items	GO,	SM,TD
				10.13	Took children out of school	GO	(SM)
				10.14	Sent children to work	GO	(TD,SM,GD)
				10.15	Consumed feed stock	GO	(SM)
				10.2c	Received cash transfers	TD,SN	MJ,GD
				10.2f	Receive food handouts	SM,GD	GO,MJ

TABLE 9.9: HIGHS AND LOWS FOR BREASTFEEDING

Food Consumption		High	Low			High	Low
19.1	Breastfeeding from birth	(TD,SN)	SM	19.10	Legumes, beans, pulses	MJ	SN
19.2	Breastfeeding for 6+ months	GO,GD	SM,TD	19.11	Dairy products	GO	TD,SM
19.3	Breastfed in the last 24 hours	GO	MJ,(TD,GD)	19.12	Vitamin A rich fruit	(MJ)	(TD)
19.4	N times breastfed in last 24 hours			19.13	Any other fruits/vegetables	(GO)	(TD)
19.5	Plain water	(SM)	MJ	19.14	Any flesh foods	(GO)	(TD)
19.6	Tinned or powdered milk	SM	GO	19.15	Any eggs	(GO)	(TD)
19.7	Sweetened water or tea	MJ,TD	SM,GO	19.16	Food made with oil etc.	TD	GD,(MJ,SM)
19.8	Grains, cereals	GO	GD,SM	19.17a	Gave mushy foods	GO	SM,MJ
19.9	Sorghum, rice, millet, etc.	(GO)	(GD)	19.18a	Gave solid foods	GO	SM,GD,MJ

APPENDIX 2

GENERAL DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

INTRODUCTORY PARAGRAPH

The funders of many of the programs in Somalia are concerned that they do not know enough about the circumstances of the pastoralist communities. In order to obtain this understanding from the point of view of the pastoralist communities themselves, they have asked that a large scale survey should be carried out among pastoralist households and your group has been chosen as representative of pastoralist households in this area. We therefore want to ask you questions about education, health, nutrition, water and sanitation, livelihoods and social protection; and we hope that you understand the importance of this survey.

Livelihood Zone (Circle)				**Name of Team Leader**			**Date of Questionnaire (day/month)**					
Pastoral	1	Agro-pastoral	2	ID Code			Name of Interviewer					
				1	2	3						
Togdheer (Camel)	1	Lower Juba	5	Name of the Village/ Settlement / Meeting Point			ID CODE RING 1; 2; 3; 4;5; 6					
Galmuduug (Shoat)	2						1	2	3	4	5	6
Lower Juba (Cattle)	3	Woqooyi Galbeed	6	Code for Place (1-50)			Number of Interview (1-9)					
Sanaag (Mixed)	4											

INTERVIEW NUMBER IS A NINE DIGIT CODE

Digit	**1**	**2**	**3-4**	**5-6**	**7**	**8**	**9**
Content	Zone (1-6)	Team (1-3)	Place (1-50)	Day of the Interview (1-31)	Month of Interview (4-5-6-7)	Enumerator (1-6)	Interview (1-9)

FINAL QUESTIONNAIRE ID =

I. GENERAL AND HOUSEHOLD CHARACTERISTICS OF RESPONDENTS

1.1	Who is the head of the household? (Circle)	Adult Male	1	Adult Female	2	Male Child (under 18)	3	Female Child (under 18)		4		
1.2	Name or Nickname of the respondent (Write in)	Male	Female	Relationship to Head of Household		Father	Mother	Child	G/ mother	Relatives		
		1	2			1	2	3	4	5		

HL1	HL2 Name (include respondent and Head of Household, if different)	HL3. What is the relationship to the head of household?	HL4. SEX Male (1) or Female (2)?	HL5 What is the marital status? Single (1), Married (2), Divorced (3), Widowed (4)	HL6. How old? Record in completed years. If age is 95 or above, record '95'	HL7. Highest Level of Formal Education whether or not completed: No Schooling (1) Primary School (2) Secondary or Higher (3)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

This part deals with more detailed education information of adults in the households								
2.1	Have you ever been educated outside your family or group context? IF NO SKIP TO QUESTION 2.3				Yes	1	No	2
2.2	If yes ,which education program did you attend? READ OUT (you can tick more than one choice)	A) Formal school			Yes	1	No	2
		B) Mobile school			Yes	1	No	2
		C) Qur'an school			Yes	1	No	2
		D) Integrated Qur'an school			Yes	1	No	2
		E) Intensive course			Yes	1	No	2
		F) Accelerated education also referred to as Alternative Basic education			Yes	1	No	2
		G) Vocational Training			Yes	1	No	2
		H) Other, please specify						
2.3	Have any other adults (18 or above) in your household ever been educated outside your family or group context? If YES go to 2.4 , If NO go to 2.5				Yes	1	No	2
	How many adults? 'nn'							

2.4	Which educational programs did the other adults in your household attend? (you can circle more than one choice in any one column)		Adult I.	Adult II.	Adult III.	Adult IV.	Adult V.
		A) Formal school	1	1	1	1	1
		B) Mobile school	2	2	2	2	2
		C) Qur'an school	3	3	3	3	3
		D) Integrated Qur'an school	4	4	4	4	4
		E) Intensive course	5	5	5	5	5
		F) ABE centre (PAE)	6	6	6	6	6
		G) Vocational Training	7	7	7	7	7

2.5	If your answer to either Question 2.2 or 2.4, is that you or another adult in the household who attended formal school, what is the highest level of schooling attained? (fill only one box in each column)	Grade	A. Self	B. Spouse	C. Adult 3	D. Adult 4	E. Adult 5
		Grade 1	1	1	1	1	1
		Grade 2	2	2	2	2	2
		Grade 3	3	3	3	3	3
		Grade 4	4	4	4	4	4
		Grade 5	5	5	5	5	5
		Grade 6	6	6	6	6	6
		Grade 7	7	7	7	7	7
		Grade 8	8	8	8	8	8
		Form I	9	9	9	9	9
		Form II	10	10	10	10	10
		Form III	11	11	11	11	11
		Form IV	12	12	12	12	12
		Higher education	13	13	13	13	13
		Don't Know	99	99	99	99	99

2.6	How useful was this formal school education either for yourself or other adults in your household?	Very useful	Useful	Not useful
		1	2	3

2.7	For those families/ households that move around; others go to Question 2.8 Has your family/household ever had a mobile teacher accompanying you?	Yes	1	No	2

2.8	Have you or any members of your household ever attended or followed any of the following educational programs? Read Out	Yes	No	How many adults? Enter number
	A) Educational broadcasts through radio	1	2	B
	C) Educational programs specifically for girls/ women	1	2	D
	E) Skills training and apprenticeship training for income earning activities	1	2	F
	G) Correspondence courses/ Distance Learning	1	2	H
	I) Programs which combine non-formal learning or self-study opportunities with periodic intensive residential courses	1	2	J
	K) Educational or training programs for nomads provided by the Ministry of Health	1	2	L
	M) Adult Literacy programs	1	2	N
	O) Leadership program	1	2	P
	Q) Other, please specify	1	2	R

2.9	Were you or other adult members of your household ever (when you/ they were young or now) offered the opportunity to attend any of these programs but were unable to take them up? IF NO, SKIP TO QUESTIO 2.11	Yes	1	No	2	
2.10	If Yes in Question 2.9 what were the reasons for not taking up the opportunity? (Ring all that apply)	A) Engagement with livelihood activities	Yes	1	No	2
		B) Has to pay and lacked money	Yes	1	No	2
		C) Constant migration	Yes	1	No	2
		D) Lack of perceived benefits	Yes	1	No	2
		E) Other, please specify				
2.11	When NGO or government officials give you a leaflet, is it useful? IF NO, go to Question 2.13	Yes	1	No	2	
2.12	If no, what is the reason?	Documents not relevant			1	
		Can't read			2	
		Other			3	

2.13 CHILDREN IN THE HOUSEHOLD (UNDER 18); IF THERE ARE NO CHILDREN UNDER 18 SKIP TO SECTION 3, QUESTION 3.3

	Name of Child	**Relationship to Household: Child of Adult in Household (1)-; Child of Relative NOT in Household; Other Child (3)**	**SEX of child Male (1) or Female (2)?**	**How old? Record in completed years.**	**CH7 Highest Level of Formal Education whether or not completed: No Schooling (1) Primary School (2) Secondary or Higher (3)**
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

This part deals with the formal education of children within the households.

2.14 For each of the children who went to formal school, what grade levels did each of the children reach? (or they currently attend). (Record information Age first then Grade starting with the oldest child. If there are more than 10 children who have gone or are going to School, record on separate sheet)

	Child	G1	G2	G3	G4	G5	G6	G7	G8	F1	F2	F3	F4	Higher	Boarding?			
2.14A		1	2	3	4	5	6	7	8	9	10	11	12	13	Yes	1	No	2
2.14B		1	2	3	4	5	6	7	8	9	10	11	12	13	Yes	1	No	2
2.14C		1	2	3	4	5	6	7	8	9	10	11	12	13	Yes	1	No	2
2.14D		1	2	3	4	5	6	7	8	9	10	11	12	13	Yes	1	No	2
2.14E		1	2	3	4	5	6	7	8	9	10	11	12	13	Yes	1	No	2
2.14F		1	2	3	4	5	6	7	8	9	10	11	12	13	Yes	1	No	2
2.14G		1	2	3	4	5	6	7	8	9	10	11	12	13	Yes	1	No	2
2.14H		1	2	3	4	5	6	7	8	9	10	11	12	13	Yes	1	No	2
2.14I		1	2	3	4	5	6	7	8	9	10	11	12	13	Yes	1	No	2
2.14J		1	2	3	4	5	6	7	8	9	10	11	12	13	Yes	1	No	2

2.15	At what time of day do your children in LOWER primary attend school?	Whole day	Morning	Afternoon	Evening
		1	2	3	4
2.16	How many days in a week do your children in LOWER primary attend school?				Days
2.17	When do the children in UPPER primary attend school?	Whole day	Morning	Afternoon	Evening
		1	2	3	4
2.18	How many days in a week do your children in UPPER primary attend school?				Days
2.19	How long do the children take to walk to school? (enter hours and minutes)	Hours		Minutes	

2.20	How useful do you think the formal school program was for any of the children?	Very useful	1
		Not very useful	2
		Not at all useful	3

2.21	If ANY of your children did not or do not go to formal school what are the reasons? Answer separately for boys and girls. (Circle as many that are relevant)		Girls		Boys	
			Yes	No	Yes	No
		1.Schools were not available	1	2	1	2
		2.Lack of money to pay fees	1	2	1	2
		3.Constant migration	1	2	1	2
		4.Lack of perceived benefits	1	2		2
		5.Engagement with Livelihood activities				
		Other reason, please specify				

2.22	Do any of the children attend any other form of education system? READ OUT (Circle Yes or No for each option; and circle the most preferred). IF NO to all options skip to 2.24						Preferred Option
		A) Mobile School	Yes	1	No	2	1
		C) Qur'an school	Yes	1	No	2	2
		E) Integrated Qur'an School	Yes	1	No		3
		G) Intensive courses	Yes	1	No	2	4
		I) Accelerated Education (ABE)	Yes	1	No	2	5
		K) Vocational training	Yes	1	No	2	6
		M) Other non formal education	Yes	1	No	2	7

2.23	How useful do you think these forms of education program were for any of the children?	Very useful	1			
		Not very useful	2			
		Not at all useful	3			
2.24	Have your children ever been offered the opportunity to attend any of these programs but were unable to take them up? IF NO SKIP TO QUESTION 2.26		Yes	1	No	2
2.25	If Yes, in question 2.24 above what were the reasons for not giving your children opportunities?	A) Engagement with livelihood activities	Yes	1	No	2
		B) Had to pay but lacked money	Yes	1	No	2
		C) Constant migration	Yes	1	No	2
		D) Lack of perceived benefits	Yes	1	No	2
		E) Other, please specify				

The following part is to be answered only by those who have a child who has undergone through formal schooling

2.26	How much has it cost for the most recent child that has gone to school? (Estimate $ value based on consumption of goat/cattle/camel equivalent or other produce)		Primary	Secondary	Higher education
		A) At registration			
		D) Annual fees			
		G) Education materials (Books/pens)			
		J) Meals			
		M) Others			

III. EDUCATIONAL MATERIAL AND LEARNING ENVIRONMENT

3.1	Do the children have text books or other reading materials?	Yes	1	No	2	
3.2	Do they ever use them while at home?	Yes	1	No	2	
3.3	Does your household have a radio?	Yes	1	No	2	
3.4	If Yes, do you usually have batteries?	Yes	1	No	2	

3.5	Who among the household members listen to the radio regularly?	Men		Women		Children	
		Yes	No	Yes	No	Yes	No
		1	2	1	2	1	2

3.6	What type of programs do they listen to?		Men		Women		Children
			Yes	No	Yes	No	Yes	No
		A) News programs	1	2	1	2	1	2
		B) Discussion programs	1	2	1	2	1	2
		C) Announcements	1	2	1	2	1	2
		D) Sports programs	1	2	1	2	1	2
		E) Programs on Family Life	1	2	1	2	1	2
		F) Agriculture	1	2	1	2	1	2
		G) Home Economics	1	2	1	2	1	2
		H) Health	1	2	1	2	1	2
		I) Religious	1	2	1	2	1	2
		J) Music Entertainment	1	2	1	2	1	2
		K) Other	1	2	1	2	1	2

IV. USE OF HEALTH SERVICES AND KNOWLEDGE OF HIV/AIDS

4.1	Do you or any members of your household have access to health care facilities? (e.g. health clinic, health post, hospital, nurse)		Yes	1	No	2		
4.2	How far away is the health centre, etc.? enter 'nn' hours and minutes			hrs		mins		
4.3	Where do you or members of your household usually go when they are sick? (Circle one only) IF answer is Option 2, 3 ,4 or 5 go to Question 4.5	Health care facility				1		
		Pharmacist				2		
		Traditional practitioners				3		
		Faith healer				4		
		Other				5		
4.4	If the answer to 4.3 is 'health care facility', when was last time you visited a health facility? Circle	< 1 month	1					
		1-3 months	2					
		3-6 months	3					
		6-12 months	4					
		More than 1 year	5					
4.5	Have you ever heard of an illness called HIV/AIDS IF NO GO TO Section 5, 5.1		Yes	1	No	2		
4.6	Can people get the aids virus because of witchcraft or other supernatural means?		Yes	1	No	2	D.K.	3
4.7	Some people say that one of the ways to contract HIV/AIDS is through sex? Do you agree? IF NO, GO TO QUESTION 4.9		Yes		No	2	D.K.	3
4.8	If Yes to Question 4.7, do you know how to protect yourself?					2	D.K.	3
4.9	Can people get the aids virus from mosquito bites?		Yes	1	No	2	D.K.	3
4.10	Can people get the aids virus by sharing food with a person who has the aids virus?		Yes	1	No	2	D.K.	3
4.11	Is it possible for a healthy-looking person to have the aids virus?		Yes	1	No	2	D.K.	3
4.12	Do you think that the virus that causes aids can be transmitted from a mother to her baby? If No, go to Section 5		Yes	1	No	2		
4.13	If Yes to Question 4.12, which ways? READ OUT	During pregnancy	Yes	1	No	2	D.K.	3
		During delivery	Yes	1	No	2	D.K	3
		By breastfeeding	Yes	1	No	2	D.K.	3

V. AMENITIES/ WASH

5.1	What type of sanitation facility do you use?	A) Flush toilet	Yes	1	No	2		
		B) Pit latrine	Yes	1	No	2		
		C) Bush	Yes	1	No	2		
		D) Other	Yes	1	No	2		
5.2	How far is the sanitation facility from your house? (estimate in meters)				Meters			
5.3	Do you share the toilet facilities with other households?		Yes	1	No	2		
5.6	Do you have the following in your house for general use? (circle all that apply) READ OUT	A) Detergent (Powder Liquid/Paste)	Yes	1	No	2		
		B) Soap	Yes	1	No	2		
		C) Shampoo						
5.7	Do members of household wash their hands with any of the following? (circle all that apply) READ OUT	A) Soap/detergent/ shampoo	Yes	1	No	2		
		B) Ash/mud/sand	Yes	1	No	2		
		C) Water only	Yes	1	No	2		
5.8	How long do you travel to reach water source?	Hours nn			Minutes nn			

5.9	Do you do anything to make your drinking water safe?		Yes	1	No	2	
5.10	If your answer is yes in 5.9 above, how do usually you treat the water? (circle only one)	Boiling			1		
		Chemicals			2		
		Filtration			3		
		Solar method (SODIS)			4		
		Sedimentation			5		
		Other, please specify (write in answer)			6		

VI. HOUSEHOLD PRODUCTIVE AND OTHER ASSETS

6.1	Do you own farming land? IF NO, SKIP TO QUESTION 6.8			Yes	1		No	2	
6.2	If YES to Question 6.1.how many hectares? [Use Local Term For Unit and convert to hectares]						'nn' Units (hectares)		
6.3	What is the land ownership arrangement in the area?		Individual				Communal		
			1				2		
6.4	Do you practice agriculture? If No, go to Question 6.8		Yes	1			No	2	
6.5	If your answer is yes to question 6.4 above what crops do you grow? (and what quantity of crops) do you harvest in a good season? [Please specify size of bags in kilogrammes]			Yes	No		Bag Size	N of bags	
			1.Sorghum	1	2				
			2.Maize	1	2				
			3.Beans	1	2				
			4.Other	1	2				
6.6	Do you have the following basic farm implements? READ OUT (circle all that apply)	1.Hoe		Yes	1		No	2	
		2.Rake		Yes	1		No	2	
		3.Axe		Yes	1		No	2	
		4.Other, please specify (write in answer)							
6.7	What are the three most important problems you face during crop production? [Circle one in each column]	Problem	1st Most Imp.	2nd Most Imp.	3rd Most Imp.				
		Lack of tools	1	1	1				
		Lack of seeds	2	2	2				
		Lack manpower	3	3	3				
		Insecurity	4	4	4				
		Lack of rain	5	5	5				
		Pests	6	6	6				
		Soil Erosion	7	7	7				
		Other	8	8					
6.8	Do you or any member of your household own livestock? (If NO, got to Question 6.13)			Yes	1	No		2	
6.9	If your answer is YES in question 6.8 above, please help us fill the table below on livestock profile for the adults living in the household. READ OUT								
	Enter 'nn' in each cell	CaMel	CaTtle	Goats	Sheep	ChicKen	Donkey		
	A. Total number of animals								
	B. Number of animals bought in the last 6 months.								
	C. Number of animals received as gift, dowry in the last 6 months.								

	D. Number of animals sold in the last 6 months						
	E. Number of animals dying as a result of drought in last 6 months.						
	F. Number of animals dying as a result of diseases in last 6 months.						

6.10	What problems did you face with your livestock in the last 3 month?		1st Most Important	2nd Most Important	3rd Most Important
		A. Lack of water	1	1	1
		B. Lack of pasture	2	2	2
		C. Diseases attack	3	2	3

6.11	When did you last have support from someone trained in animal health care? And where was the person from? (Cirlce one in each column)		Government	NGO	CAHW
		1 month ago	1	1	1
		3 month ago	3	3	3
		6 months ago	6	6	6
		1 year ago	12	12	12
		Can't remember	99	99	99

6.12	Is anyone in your community trained in animal health care?	Yes	1	No	2

6.13	Do have any of the following skills that you use for livelihood? READ OUT	1.Carpentry	Yes	1	No 2
		2.MaSonry	Yes	1	No 2
		3.Welding	Yes	1	No 2
		4.Plumbing	Yes	1	No 2
		5.MeTal smith	Yes	1	No 2
		6.ShoeMaker	Yes	1	No 2
		7. Teacher	Yes	1	No 2
		8.Other, please specify(write in answer)			

6.14	A. Are the animals you have adequate to sustain your pastoral livelihood?	1.Yes	1	B. IF '2' or '3', why? (Circle one only	Herd not large enough	1
		2.Only just	2		Pastoral conditions inadequate	2
		3.No	3		Animals in poor condition	3
					Other, please specify	

6.15	What other livelihood activities does your household practice? (Circle as many as apply).	1. Herding or trekking animals for others	Yes	1	No	2
		2. Sale of charcoal	Yes	1	No	2
		3. Sale of firewood	Yes	1	No	2
		4. Manual labor	Yes	1	No	2
		5. Petty trade	Yes	1	No	2
		6. Sale of water	Yes	1	No	2
		7. Watchman	Yes	1	No	2
		8. House help	Yes	1	No	2
		9. Farming	Yes	1	No	2
		Other, please specify(write in answer)				

6.16	Does your household have? (If there is no electricity in the village, complete by observation) READ OUT	1. Electricity	Yes	1	No	2
		2. RaDio	Yes	1	No	2
		3. Fixed Non-mobile Telephone	Yes	1	No	2
		4. ReFrigerator	Yes	1	No	2

6.17	Does any member of your household own? READ OUT	1. A Watch	Yes	1	No	2	
		2. A Mobile Telephone	Yes	1	No	2	
		3. A Bicycle	Yes	1	No	2	
		4. A Motorcycle or Scooter	Yes	1	No	2	
		5. An Animal Drawn Cart	Yes	1	No	2	
		6. A Car or Truck	Yes	1	No	2	
		7. A Boat with an Engine	Yes	1	No	2	

VII. HOUSEHOLD INCOME

7.1	What is the approximate total income over the year for the household? (If necessary, Estimate $ value using number of consumption camel/ goat/ sheep / produce equivalent)						
7.2	What are the main sources of that income for the household over the year? (Estimate percentages using proportional piling, and enter into final column)	1. Livestock sale					Est'd %
			Yes	1	No	2	
		2. Sale of livestock products	Yes	1	No	2	
		3. Sale of agricultural produce	Yes	1	No	2	
		4. Big business	Yes	1	No	2	
		5. Casual labor	Yes	1	No	2	
		6. Petty trading	Yes	1	No	2	
		7. Artisan	Yes	1	No	2	
		8. Remittance	Yes	1	No	2	
		9. Traditional Birth Attendance and Similar Services	Yes	1	No	2	
		10. Other, please specify (write in answer)					

7.3	How many times in the last 3 months did the household sell livestock or farm produce to buy food?	None	1	How does this situation compare with the two previous years?	
		One time	2		
		Two times	3	Better	1
		Three times	4	The Same	2
		More than three times	5	Worse	3
7.4	How many times in the last 3 months did the household sell livestock or farm produce to buy non food items?	None	1	How does this situation compare with the two previous years?	
		One time	2		
		Two times	3	Better	1
		Three times	4	The Same	2
		More than three times	5	Worse	3
7.5	How many times in the last 3 months did the households sell any assets to pay for services? (healthcare, education)	None	1	How does this situation compare with the two previous years?	
		One time	2		
		Two times	3	Better	1
		Three times	4	The Same	2
		More than three times	5	Worse	3

8.1	What are the 2 most important sources of food for the household? (Circle the two most important, one in each column)		A. Most important		B. Next most import.	
		1.Own Livestock/farm products	1		1	
		2.Purchase	2		2	
		3.Food aid	3		3	
		4.Borrowing	4		4	
		5.Other, please specify (write in)				

8.2	Over the past 3 months, how did your household primarily obtain its food from?		A. Source				
		(Estimate percentages using proportional piling)	Yes	No		B. Est'd %age	
		1.Own Crops (enter estimated percentages)	1	2		'nn'	
		2.Purchase (enter estimated percentages)	1	2		'nn'	
		3.Food Aid (enter estimated percentages)	1	2		'nn'	
		4.Borrowing (enter estimated percentages)	1	2		'nn'	
		5. Other	1	2		'nn'	

8.3	How much did the household spend on items for immediate consumption during the last one month? READ OUT	(Estimate $ value for each row using consumption goat))	A. Yes	No	B. $ value
		1. Food	1	2	'nn'
		2. Non food items (Clothes)			
		3. Education (Fees	1	2	'nn'
		4. Health services (human and livestock)	1	2	'nn'
		5. Fuel (Firewood, kerosene)	1	2	'nn'
		6. Water	1	2	'nn'
		7. Presents given/ Dowry paid	1	2	'nn'
		8. Other, please specify (write in answer)	1	2	'nn'

8.4	Does the household owe any money to any person or institution? If NO, go to section IX (Question 9.1)	Yes	1	No	2
8.5	If your answer is YES in 8.4 above, how much does the household owe? (If necessary again Estimate $ value using livestock or produce value)				

8.6	If your answer is yes in 8.4 above, to whom do you owe money?	Relatives	1
		Shop owner	2
		Friends	3
		Lending institutions (Bank/Society)	4
		Other, please specify (write in answer)	
8.7	What was the purpose of the money borrowed?	To buy food	1
		To buy non food items	2
		To buy services	3
		Other, please specify (write in answer)	

If Possible, Include One of Adult Women in Interview hre

9.1	In the past 24 hours have your household eaten? If NO, go to Question 9.3)			Yes		1	No		2			
9.2	How many meals per day did household members of different age and sex eat in the last 24 hours? (enter 'nn')	1. Children (5 and below)		2. Boys 6-14 years		3. Girls 6-14 years	4. Women		5. Men			
9.3	Over the last seven (7) days, how many days did you consume the following foods? READ OUT ALL											
	(If more than once in a day counts as one day; enter n of 0-7 days in each column)	1. Children (5 and below)		2. Boys 6-14 years		3. Girls 6-14 years)	3.Women		4. Men			
	Sorghum											
	Rice											
	Tea/ Sugar											
	Cooking oil											
	Cultivated vegetables											
	Beans											
	Chicken											
	Beef											
	Goat meat											
	Eggs											
	Milk											
	Processed milk											
9.4	How much food do you currently have in the house? and how does this compare with the last two years?	Enough for 1 day	1	How does this compare with the last two years?								
		Enough for 2 days to 1 week	2	Better	1							
		Enough for 1 week to 1 month	3	The same	2							
		Enough for more than one month	4	Worse	3							
9.5	Have you or any of your household members reduced the number of meals eaten per day during the last 7 days? IF NO, GO TO QUESTION 9.7					Yes	1	No	2			
9.6	If YES in 9.5, how many times during the last 7 days have you or any of household members had to reduce the number of meals consumed per day? (enter 1 -7) enter'nn'											
9.7	Have you or any of your household members skipped entire days without eating because of shortage of food in the last 7 days? (If NO go to Question 9.9)					Yes	1	No	2			
9.8	If YES in 9.7, how many times during the last 7 days have you or one of your family members gone without eating the entire day because of shortage of food? (enter 1 -7) enter 'nn'											
9.9	Has your household borrowed some food to eat during the last 7 days? (If No, go to Question 9.11)					Yes	1	No	2			
9.10	How many times during the last 7 days have you borrowed some food to eat? (enter 'nn')											
9.11	Have you sent any member of your household to eat elsewhere because there was not enough food at home during the last 7 days? (If No, go to section X, Question 10.1)					Yes	1	No	2			
9.12	If YES in 9.11, how many times has any member of your household been sent to eat elsewhere in the last 7 days? (enter 1 - 7) enter 'nn'											
9.13	Where did you send the household member to go and eat?		Yes	No								
		1.To relatives place	1	2								
		2.To neighbors place	1	2								
		3.To a friends place	1	2								
		4.Feeding Programs	1	2								
		5.Other	1	2								

10.1	During the last 3 months what did your house-hold do to survive? Do not read out. (Select the most commonly used)					Yes	No	
		1. Ate less food/ Reduced quantity				1	2	
		2. Reduced the number of meals per day				1	2	
		3. Collected firewood to sell				1	2	
		4. Collected bush products to eat				1	2	
		5. Relied on help from relatives and neighbors				1	2	
		6. Family members migrated to find work (not normal practice)				1	2	
		7. Borrowed food or cash				1	2	
		8. Reduced spending on non food items				1	2	
		9. Send children to stay with relatives				1	2	
10.1	During the last 3 months what did your house-hold do to survive? Do not read out. (Select the most commonly used	10. Rented out land to buy basic items				1	2	
		11. Sold land to buy basic items				1	2	
		12. Sold livestock to buy basic items				1	2	
		13. Took children out of school				1	2	
		14. Sent children to work				1	2	
		15. Consumed seed stock				1	2	
		16. Remittances				1	2	
		17. Other, please specify (write in answer)						
10.2	Did you ever receive any of the following support in the last two years? READ OUT		Cash transfers	Yes	1	No	2	
			Food assistance	Yes	1	No	2	
			Any Other assistance	Yes	1	No	2	

11.1	What type of fuels do your house usually use for cooking?		A.1st Most Used	B.2nd Most Used	C. 3rd Most Used
		Gas	1	1	1
		Kerosene	2	2	2
		Charcoal	3	3	3
		Wood	4	4	4
		Straw/shrubs/Grass	5	5	5
		Animal dung	6	6	6
		Agricultural crop residue	7	7	7
Following questions are relevant only to those in permanent settlements					
11.2	How many rooms in this household are used for sleeping? (enter 'nn')				
11.3	What is the main material of the floor of the dwelling? [Interviewer to record not ask]	Natural (earth, dung)	1		
		Wood planks	2		
		Cement	3		
		Other (write in answer)			
11.4	What is the main material of the roof? [Interviewer to record not ask]	Planks	1		
		Corrugated iron sheet	2		
		Cardboard	3		
		Thatch	4		
		Tent / Tarmac	5		
		Other, please specify (write in answer)	6		
11.5	What is the main material used for exterior walls?	Mud	1		
		Stone	2		
		Bricks	3		
		Cement blocks	4		
		Wood planks	5		
		Other, please specify	6		

12.1	Has anyone from your household ever been to the main town [AGREE NAME IN TEAM] in your area?		Yes	1	No	2
12.2	Why have they gone? (Circle all that apply)	A. Deal with Officials		1	No	2
		B. Buying		1	No	2
		C. Selling		1	No	2
		D. Other reasons		1	No	2
12.3	Do any members of your household have relatives in these towns?		Yes	1	No	2
12.4	How often do you go to town to sell or to buy livestock /provisions?	At least every week	1			
		At least every month	2			
		At most every year	3			
12.5	Does anyone in the household group own a means of transport other than walking?	1.Bicycle	Yes	1	No	2
		2.Motor cycle	Yes	1	No	2
		3.Animal-driven cart	Yes	1	No	2
		4.Camel/ donkey/ horse	Yes	1	No	2
		5.Vehicle	Yes	1	No	2

12.6	Where or who have you found the most useful sources of information for the following topics? If answer is NOT Radio or Television, go to Section 13, Question 13.1	Possible Source	A.Education	B.Food / health	C.Sanitation and Water	D.Protec-tion or Shelter
		1.Radio	1	1	1	1
		2.Television	2	2	2	2
		3.Newspaper	3	3	3	3
		4.accessed the internet	4	4	4	4
		5.SMS message from someone I know	5	5	5	5
		6.SMS from an organization	6	6	6	6
		7.Saw a notice board	7	7	7	7
		8.Friend or family member	8	8	8	8
		9.Ccommunity meeting	9	9	9	9
		10.Community or religious leader	10	10	10	10
		11.Representative of a humanitarian organization	11	11	11	11
		12.Government representative	12	12	12	12
		13. Neighbours	13	13	13	13
		14. Loud speaker announcement	14	14	14	14
		15. Other (please indicate)				

12.7	If answer to 12.6 is 1 (radio) or 2 (television), please give details	On what station/channel/program did you hear the information? WRITE IN ANSWER	
		When did you hear/see it? (e.g. morning, afternoon, evening) WRITE IN ANSWER	
		Where did you see/hear it? (e.g. at tea-shop, at home, at friend's house etc) WRITE IN ANSWER	

XIII. CHILD LABOUR

13.1	Apart from working around the house, in the fields or with livestock for your household, did any of your children carry out any work for someone who was NOT a member of your household? If NO, skip to Section XIV, Question 14.1		Yes	1	No	2
13.2	Was this Paid or Unpaid	Paid	1	Unpaid		2

XIV. ASSESSING PRIORITIES

							Percentage
14.1	Suppose you were to access extra funds from somewhere (e.g. remittances) how would you spend the money? (Use proportional piling)	A. Pay school fees	Yes	1	No	2	
		B. Buy more livestock	Yes	1	No	2	
		C. Buy a bicycle	Yes	1	No	2	
		D. Build a house	Yes	1	No	2	
		E. Farming Land	Yes	1	No	2	
		F. Other	Yes	1	No	2	

XV. BRIEF LITERACY TEST

15.1	Can you please print your name for me (Respondent to print their names here – enumerator gives them the form - or enumerator to enter 'Can't write')					
15.2	How far is it to the nearest large town? TEAM TO SPECIFY TOWN (in kilometers)					Kilometers
15.3	How long does it take to walk to the nearest large town? (TEAM TO SPECIFY TOWN)					Hours
		For One	Bag Size (kg)	N bags Maize/ Sorghum	N bags Rice	Total Value $
15.4A	When you sell livestock, how many bags of cereal (Sorghum, rice) can you buy?	Shoat				
		Cattle				
		Camel				

15.4B	When you sell 10 bags of farm products, how many animals can you buy? (write in type of farm produce and type of animal in final column)	10 bags of ?	Size (kg)	Total $	For 'nn'	Livestock

THE FOLLOWING SECTIONS CONCERN THE CHILDREN IN THE HOUSEHOLD AND SHOULD BE ASKED OF THE FEMALE HEAD OR, IF NOT PRESENT, GO TO GRANDMOTHER OR IF NOT THERE, THE DAUGHTER TO ANSWER QUESTIONS ABOUT THE FEMALE HEAD. INDICATE WHO IS THE RESPONDENT FOR THE FOLLOWING SECTIONS XVI-XVII-XVIII-XVIX

Female Head of Household	Grandmother	Daughter of Female Head	Other Female	Male HoH
1	2	3	4	5

XVI. CHILD MORTALITY

16.1	Have you ever given birth? If NO, go to Section XVII, 17.1			Yes	1	No 2
16.2	Have you ever given birth to a child who was born alive but later died?			Yes	1	No 2
16.3	How many children have you given birth to altogether (whether or not they later died)?					Boys
						Girls
16.4	If your answer is YES in 16.2 above how many of your children have died? 'nn'	Boys		Girls		
16.5	Of the births you have had, when did you deliver the last one (even if he or she has died)?	Year (enter 'nn')		Month (enter 'nn')		

THE FOLLOWING SECTION XVII CONCERNS THE YOUNGEST CHILD OF THE FEMALE HEAD OF HOUSEHOLD OR THE WOMAN BEING INTERVIEWED ON BEHALF OF THE FEMALE HEAD OF HOUSEHOLD

XVII. CHILD ILLNESS

This part of the questionnaire applies to mothers with children under the age of 5 years, and specifically with reference to the youngest child within the household.							
17.1	In the last two weeks, has the child had diarrhea? If NO, go to 17.3		Yes	1	No	2	
17.2	During episode of diarrhea, was the child given any of the following to drink?	A fluid made from ORS packet				1	
		A pre-packaged ORS fluid for diarrhea				2	
		Home made fluid				3	
17.3	In the last two weeks, has the child had an illness with a cough? If NO, go to Question 17.7		Yes	1	No	2	
17.4	IF YES, From where did you seek advice or treatment? (Circle one only)	Government. Hospital				1	
		Government. health centre				2	
		Government. health post				3	
		Village health worker				4	
		Mobile / Outreach clinic				5	
		Private hospital / clinic				6	
		Private physician				7	
		Private pharmacy				8	
		Mobile clinic				9	
		Relative / Friend				10	
		Shop				11	
		Traditional practitioner				12	
		Faith / Religious Healer				13	
		Taken nowhere / Self-healing				14	
17.5	Were you given any medicine for the child? If No, go to 17.7		Yes	1	No	2	

17.6	If answer is Yes in 17.5 above which type of medicine?	Pill	1				
		Syrup	2				
		Injection	3				
		Others					
17.7	In the last two weeks, has the child been ill with a fever at any time? If NO, go to Question 17.12	Yes	1	No	2		
17.8	Did you seek any advice or treatment for the illness from any source?	Yes	1	No	2		
17.9	If YES to question 17.8, from where did you seek advice or treatment? (Circle one only)	Government hospital	1				
		Government health centre	2				
		Government health post	3				
		Village health worker	4				
		Mobile / Outreach clinic	5				
		Private hospital / clinic	6				
		Private physician	7				
		Private pharmacy	8				
		Mobile clinic	9				
		Relative / Friend	10				
		Shop	11				
		Traditional practitioner	12				
		Faith or Religious Healer	13				
17.10	Were you given any medicine for the child? If NO, go to Question 17.12	Yes	1	No	2		
17.11	If answer is Yes in 17.10 above which type of medicine? ASK TO SEE THE PACKET		YES	NO			
		A. Anti malarial	1	1			
		B. Fansidar	2	2			
		C. Chloroquine	3	3			
17.11	If answer is Yes in 17.10 above which type of medicine? ASK TO SEE THE PACKET	D. Amodiaquine	4	4			
		E. Quinine	5	5			
		F. Paracetamol	6	6			
		G. Panadol	7	7			
		H. Aspirin	8	8			
		I. Ibuprofen	9	9			
		J. Other Medicines	10	10			
17.12	Do you have a card with details of the child's vaccinations? ENUMERATOR TO COMPLETE 17.13 IF CARD IS AVAILABLE	Yes	1	No	2		
17.13	If answer is No in 17.12 above, has the child received the following: [ONLY ASK IF BIRTH MOTHER IS BEING INTER-VIEWED]	A. BCG vaccination against tuberculosis (an injection in the arm or shoulder that usually causes a scar)?	Yes	1	No	2	
		B. Vaccination drops in the mouth" to protect him/her from getting polio?.	Yes	1	No	2	
		C. Specify when drops were given (A) and the number of times given (B)					
		First two weeks after birth	After two weeks	Number of times given			
		1	2	'nn'			
		D. DPT vaccination (an injection in the thigh or buttocks to prevent him/her from getting tetanus, whooping cough, or diphtheria)	YES	NO			
			1	2			
		E. How many times was a DPT vaccine received? (enter 'nn')					

17.14	How did you deliver your last born child?	In health facility	1
		At home with assistance of a TBA	2
		At home with assistance other people who are not TBA	3

Enumerators to explain that they would want to carry out MUAC measurement of the child				
17.15	MUAC measurement of the last born child under 5 years? If not taken, write 99	MUAC (cms)		centimetres

XVIII. ANTENATAL CARE

This part is to be filled only if the woman being interviewed has had a child born in the last 2 years.							
18.1	Did you see anyone for antenatal care during your pregnancy with the last child? If NO, skiop to Question 18.4	Yes	1	No	2		
18.2	If your answer is Yes in 18.1 above who did you see?	Doctor	1				
		Nurse / Midwife	2				
		Auxiliary midwife	3				
		Traditional birth attendant	4				
		Community health worker	5				
18.3	If answer is YES to 18.2, how many times did you receive antenatal care during this pregnancy? (enter 'nn')						
18.4	Do you have a card or other document with your own immunizations listed? If NO, skip to Question 18.6	Yes	1	No	2		
18.5	(If card is present record the following)	A. Tetanus injection	Yes	1	No	2	
		B. Number of times (enter 'nn')					
18.6	(If no card) When you were pregnant with the last child did you receive any injection in the arm or shoulder to prevent the baby from getting tetanus, that is convulsions after birth?	Yes	1	No	2		
18.7	How many times did you receive these injections? (enter 'nn')						
18.8	Who assisted you with delivery?	Doctor	1				
		Nurse / Midwife	2				
		Auxiliary midwife	3				
		Traditional birth attendant	4				
		Community health worker	5				
		Relative / Friend	6				
18.9	Has the child been registered with the civil authorities?	Yes	1	No	2		
18.10	Do you have a birth certificate for the most recent child? (Ask to see the card)	Yes, seen	Yes, not seen	No	Don't know		
		1	2	3	9		
18.11	If No in 18.10 above, do you know how to register your child's birth?	Yes	1	No	2		

This part is to be filled only if the women being inteviewed by women who have children born in the last 2 years.							
19.1	When did you start breastfeeding?	Immediately after birth				1	
		One week after birth				2	
		One month after birth				3	
19.2	How long did you breastfeed your last child or how long do you intend to breast feed?	1 -3 months	1				
		6 months	2				
		1 year	3				
		2 years	4				
19.3	Since this time yesterday, have you breastfed?	Yes	1			No	2
19.4	Since this time yesterday, how many times have you breastfed? (enter 'nn')						
19.5	Since this time yesterday, has the child received plain water?	Yes	1			No	2
19.6	Since this time yesterday, has the child received tinned, powdered or fresh milk?	Yes	1			No	2
19.7	Since this time yesterday, has the child received sweetened or flavored water, soft drink, soup, tea or other liquids?	Yes	1			No	2
19.8	Since this time yesterday, has the child received any food made from grains (cereals)?	Yes	1			No	2
19.9	Since this time yesterday, has the child received any food made from roots, or tubers e.g. maize, sorghum, rice, millet, wheat, potatoes, sweet potatoes?	Yes	1			No	2
19.10	Since this time yesterday, has the child received food made from legumes or nuts e.g. peas, groundnuts, beans, soya beans, pulses, etc?	Yes	1			No	2
19.11	Since this time yesterday, has the child received food made from dairy products e.g. milk?	Yes	1			No	2
19.12	Since this time yesterday, has the child received any vitamin A rich fruits and vegetables, e.g. pawpaw, green leafy vegetables (spinach), carrots, mango?	Yes	1			No	2
19.13	Since this time yesterday, has the child received any other fruits and vegetables, e.g., bananas, apples, avocado, pear, tomatoes?	Yes	1			No	2
19.14	Since this time yesterday, has the child received any flesh foods, e.g. Meat, poultry, fish?	Yes	1			No	2
19.15	Since this time yesterday, has the child received any eggs?	Yes	1			No	2
19.16	Since this time yesterday, has the child received any foods made with oil, fat or butter?	Yes	1			No	2
19.17	Since this time yesterday have you given mushy foods ?(IF YES 'enter 'nn') HOW MANY	Yes		No		IF YES 'nn#	
19.18	Since this time yesterday have you given the child solid foods? (IF YES 'enter 'nn') HOW MANY	Yes		No		IF YES, 'nn'	

APPENDIX 3

QUALITATIVE INSTRUMENTS

Study on Education for Pastoralist Groups in Somalia

(Adeso/UNICEF/DFID)

Suggested guidelines to collect background information from

Government officials dealing with pastoralist groups

(This list should be completed by National Supervisors)

Note: these 'questions' are prompts only, not questions that should be read out verbatim.

Ministry / Agency / Commission / etc.	Address
Name of the person(s)	Position of the person(s)
Date	

Training and Other Services Provided by Ministries

Do you provide any training programs specifically for pastoralist groups? With which groups? How long have they been carried out? Roughly how many participants are there? How successful do you think they are? (Obtain a report if possible)

Do you hold any other training programs in areas where there are pastoralist groups? Is it likely that there are some pastoralists attending these programs even if only intermittently?

What services other than education (e.g. health, agricultural extension, micro-credit facilities) does the government provide to improve socio-economic conditions for the population?

[ONLY RELEVANT FOR 'CENTRAL' AUTHORITIES] In which regions and for which groups are these activities?

How are they used by pastoralists?

What measures are taken by government to promote the socio-economic and citizenship status of pastoralist groups?

What impact do these activities have on the implementation of pastoralist education?

Culture, Mobility and settlement

Do you think it is possible for pastoralist groups to be integrated into the society?

Is there an explicit or implicit policy of integration? Do you foresee any problems with such a policy?

What is your understanding of the pattern of mobility and settlement of pastoralist group ?

What is the national policy regarding the settlement or mobility of pastoralists ?

What support is provided at present to influence the settlement or continued mobility of pastoralists?

Has it changed ? Will it change ?

NGO/CBOs Support

Are there any community based organizations (CBOs) or NGOs concerned with pastoralists?

What are they doing, and where?

What support is provided by the government to CBOs and NGOs involved with pastoralist groups?

If none, are there any plans?

Study on Education for Pastoralist Groups in Somalia

(Adeso/UNICEF/DFID) Suggested guidelines to collect background information from leaders/ officials at Site level [dealing with pastoralist groups] (This to be administered by each zonal team)

Note: these 'questions' are prompts only, not questions that should be read out verbatim.

Ministry / Agency / Commission / etc	Address
Name of the person(s)	Position of the person(s)
Date	

Training and Other Services Provided by Ministries/Departments/Authorities

Where are the schools? Primary, Secondary, ABE, Fixed Libraries: show on map

.....

Are there any mobile 'schools, mobile libraries, or similar institutions designed specifically to be more appropriate for the needs of pastoralist communities?'

.....

Do you provide any training programs specifically for pastoralist groups? With which groups? How long have they been carried out? Roughly how many participants are there? How successful do you think they are? (Obtain a report if possible)

.....

What services other than education (e.g. health, agricultural extension, micro-credit facilities) are provided to improve socio-economic conditions for the population?

.....

How are they used by pastoralists?

.....

What measures are taken by government to promote the socio-economic and citizenship status of pastoralist groups? .

.....

What impact do these activities have on the implementation of pastoralist education?

.....

Culture, Mobility and settlement

What is your understanding of the pattern of mobility and settlement of pastoralist group?

.....

What support is provided at present to influence the settlement or continued mobility and productivity of pastoralists ?

What future do you think there is for pastroralism these days?

NGO/CBO support

Are there any community based organizations (CBOs) or NGOs concerned with pastoralists?

What are they doing, and where?

What support is provided by government to CBOs and NGOs involved with pastoralist groups?

If none, are there any plans?

Suggested guidelines to collect information from NGOs

(one sheet for each NGO)

Note: these 'questions' are prompts only not questions that should be read out verbatim.

Non Governmental Organisation	Address
Name of the person(s)	Position of the person(s)
Date(s)	

1. What is the purpose of your program?
2. Who are and where are the target group?
3. How many people does it cover?
4. What is the intervention methodology that you employ?
5. What are the likely problems of taking your method of intervention to scale?

Study on Education for Pastoralist Groups in Eastern Africa

(Adeso/UNICEF/DFID)

Questionnaire – School

(head teacher)

Name of the respondent(s)	Position of the respondent(s)
Name of the school Is it ONLY for pastoralists? Yes ☐ No ☐	Area
Date	

This questionnaire is intended to provide guidelines to collect qualitative information on schools enroling pastoralist children

I - The school

Is the school mobile or fixed? Boarding or not boarding?

Mobile ☐ Fixed ☐ Other(please explain) ☐

IF FIXED, INTERVIEWER TO RECORD TYPE OF STRUCTURE; IF NOT ON SITE, INTERVIEWER TO ASK:

Is the construction:

Permanent in good condition ☐

Permanent in poor condition ☐

Temporary ☐

Boarding ☐ Not Boarding ☐ Other (please explain) ☐

.....

What facilities does your school have?

Blackboard ☐

Storage ☐

Duplicating Equipment ☐

Library ☐

Toilets ☐

Food and Water ☐

Storage for Food and Water ☐

Laboratory ☐

Playing fields ☐

Other (specify) ☐

.....

How many days does school open in a week? Please tick the days when the school is open, what time children are meant to come to school and the length of the school day they start and how long they are at school. If there are two or more shifts please include all the start times and durations with S1 = Shift 1, S2 = Shift 2 and S3 = Shift 3.

Lower Primary

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Days open							
S1: Start time							
S1: Hours worked							
S2: Start time							
S2:Hours worked							
S3: Start time							
S3: Hours worked							

Upper Primary

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Days open							
S1: Start time							
S1: Hours worked							
S2: Start time							
S2:Hours worked							
S3: Start time							
S3: Hours worked							

What months are the schools open? Please tick the months when the school is open.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Why and by whom this calendar has (months, days and timing) been chosen?

.....

II - Teachers

6. How many teachers are there in your school? Are they trained or untrained?

	Male teachers	Female teachers	Total teachers
Trained*			
Untrained			
Total			

If trained, how many have each kind of qualification (list qualifications):

Name of Qualification in full	Male	Women

7. Have any of your teachers had any in-service training during the last year? (whether from government or NGO sources). How long was this training? Please put number of days of in-service training for male and female teachers, for those trained and untrained (as defined above) in box below

	Male Teachers	Female Teachers	Total Teachers
Trained*			
Untrained			
Total			

8. How have teachers been recruited and allocated to your school?

.....

.....

9. Do all or any of the teachers come from the area where the school is located?

.....

10. Do all or any of them speak the dialect spoken by pastoralist children?

Yes ☐ No ☐

Comment.....

11. Do you think that your teachers are trained well enough for teaching pastoralists in this school?

Yes ☐ No ☐

Explain .....

.....

12. What welfare problems do teachers themselves have in your school?

Delays in payment

No payment in holidays

Transport ☐

Accommodation ☐

Allowances ☐

Food and water for family ☐

Medical ☐

Social relations wit the community ☐

Any other (specify) ☐

.....

III - The Curriculum and Delivery

13. What are the teaching methods/delivery systems used in the schools?

.....

14. How adequate are these teaching methods/delivery systems for pastoralist children?

.....

15. Does the curriculum follow the a particular (national) standard?

Yes ☐ No ☐

IF YES WHICH ONE .....

IF NO, PLEASE EXPLAIN WHAT KIND OF CURRICULUM IS USED IN YOUR SCHOOL

.....

16. Are there enough copies of textbooks available in the school?

Yes ☐ No ☐

Please give us details .....

17. Are pastoralist cultures reflected in what is taught to children of pastoralists?

Yes ☐ No ☐

Explain .....

18. Do you provide any 'lifeskills eduation' e.g. about reproductive health, HIV/AIDS?

Yes ☐ No ☐

19. Do you think that attending school, and what the children learn in school, helps them?

How does it help them (e.g. helps them to remain mobile, to settle, etc.)?

.....

20. How do your teachers take into account the cultural context of pastoralist children when teaching?

.....

IV - Pupils

21. How many boys and girls are in the school? What ages are they?

Note to Interviewer: If school is only for children of pastoralist groups fill in the first three columns only. If school is 'mixed', try and get figures separately for children of pastoralist groups; if this is not possible, put the total figures in the last three columns and ask the headteacher to make an estimate of the proportion of boys and of girls that are from pastoralist groups

	Children from Pastoralist Groups			**All Children**		
	Boys	**Girls**	**Total pupils**	**Boys**	**Girls**	**Total pupils**
Ages 5-9						
Ages 10-14						
Ages 15+						
If not possible to complete these columns, please make an estimate of proportion from pastoralist groups (%)						

22. If this is a school only for pastoralist children, please ask: What is the average academic performance of pastoralist children compared to other schools where you have worked?

If this is a 'mixed' school, please ask: What is the average academic performance of pastoralist children compared to the other children in the school?

Please answer separately for boys and for girls

(a) Boys .....

(a) Girls .....

23. What is the enrolment in each grade? Please answer separately if possible for children from pastoralist groups and for boys and for girls

	Children from Pastoralist Groups			All Children		
	Boys	**Girls**	**Total pupils**	**Boys**	**Girls**	**Total pupils**
Grade 1						
Grade						
Grade 3						
Grade 4						
Grade 5						
Grades 6 to 8						
If not possible to complete these columns, please say whether you think the drop out rate for children from pastoralist groups is higher, about the same, or lower						

24. What do you think are the main causes of drop-out? Please answer separately for children from pastoralist groups and for boys and for girls

Children from Pastoralist Groups

(a) Boys .....

(a) Girls .....

Other Children

(a) Boys .....

(a) Girls .....

25. In your view, what solutions to reduce drop-out would you suggest? Please answer separately for children from pastoralist groups and for boys and for girls

Children from Pastoralist Groups

(a) Boys .....

(a) Girls .....

Other Children

(a) Boys .....

(a) Girls .....

26. What percentage of students are admitted to secondary schools at the end of primary education? Please answer separately for children from pastoralist groups, for boys and for girls

	Children from Pastoralist Groups			All Children		
	Boys	**Girls**	**Total pupils**	**Boys**	**Girls**	**Total pupils**
Transition rate						
If not possible to complete these columns, please say whether you think the transition rate for children from pastoralist groups is higher, about the same, or lower						

27. Specifically thinking of the pastoralist children, how could the quality of education provided in the school be improved? .....

V - Financing of Education

28. Where does the school get its resources from (Government, NGO, community)?

Source	Cash or Kind	Value (estimated)	Regular or One off
Ministry			
NGO1			
NGO2			
CBO1			
CBO2			
Parents			

29. How much does it cost the parents to send a child to this school?

What is the fee at registration? …… SSH

Annual or termly 'Contributions' for:

Buildings…….. SSH

Books ……. SSH

Health …..…… SSH

Meals …..…… SSH

PTA ……. SSH

Uniform …….. SSH

Other ……. SSH

30. How much do you think is the average monthly household income in this group?

VI – Relationship with the Community

31. Are there any members of the pastoralist community in the school management board?

32. Does the community provide support in cash or in kind to the school?

(a) Pastoralist Community.....

(b) Others .....

33. What are the other forms of community participation?

(a) Pastoralist Community.....

(b) Others .....

34. Does the school provide adult education to the pastoralist community?

Explain .....

Study on Education for Pastoralist Groups in Somalia

(Adeso/UNICEF/DFID)

Interview with representatives of Pastoralist Groups (Key Informants) at Sampling Points

Name of the respondent(s)	Position of the respondent(s)
Name of pastoralist group	Area
Date	

I - Profile of group

5. Whose idea was it to move or to stay? (PROMPTS: did you discuss it in your group and decide it was the best thing to do, or was there some incentive from the local government?) .....

6. If you moved, which was your pattern of movement? Is that your regular migration pattern; if not, why not?

.....

7A. Did everyone in the group move together, or are there different patterns of movement for the women and children?

Explain why .....

7B. When did you arrive at this place and for how long do you intend to stay at this point? .....

8. How would you describe the organisation of your group? In households groupings, clans etc. [Use terms and phrases recognised in the region/zone to be most appropriate for their situation] .....

9. What are the main subsistence activities of your group?

Pastoralist "

Subsistence farmer "

Artisan "

Others, please specify "

10. Does your group earn any cash income?

Yes " No "

II - General opinion on the living conditions of pastoralist communities

15. Has your situation improved or deteriorated over the past ten years?

improved " deteriorated "

Explain .....

16. What are your main problems ?

.....

17. How have you been coping with such problems?

.....

18. What could be done to improve your income/living conditions?

.....

19. For those who have not settled.

Are you happy with your lifestyle or would you like to change?

.....

20. What are the employment opportunities/ What could children do with formal education?

III - General Views about Education

Cultural identity and assimilation

24. What knowledge and skills does your group cherish (value highly) in your way of life? .....

26. In your opinion, are these kinds of knowledge or skills taught in pastoralist schools? .....

27. From what you know of the schools you have heard about, to what extent do you think they are useful for your children?

A. At primary level (roughly 5-9 year olds)

B. At junior secondary level (roughly 10-14 year olds)

Obstacles to education

27. What are, in your opinion, the main obstacles to the expansion of education among pastoralist communities?

Comments .....

5. From what you know of the schools you have heard about, to what extent do you think they are useful for your children?

A. At primary level (roughly 5-9 year olds)

B. At junior secondary level (roughly 10-14 year olds)

28. Are there specific factors that make it difficult for children of pastoralists (boys and girls) to attend school?

Boys .....

Girls .....

[Prompt about toilets especially for girls]

29. Do you think that it is important to send boys and girls to school? Why?

Boys .....

Girls .....

Future provision

30. What sort of education would you like to have for your children?

.....

31. Is there any education you would like for adults in your group?

IV General Views about Health and Nutrition Services

Is there any form of mobile health care available to your group?.

36 How could health services best be organised to maintain and improve your health? Prompt with health centres at strategic points on your migration routes, training one of your members to be a 'community health care worker. If the latter, who would be the best person to train? Type of person .....

37. Does a nutritionist ever make contact with your group? If so, when was the last time?

38. Has your group ever been visited by anyone discussing hygiene issues?

39 What do you do to provide milk for the children during the dry season? When the animals are away?

V Communication

40. How do members of your community find out about [topic of interest related to WASH, health, food, education, shelter, protection etc.?]

.....

.....

THIS IS DUPLICATION BUT PROBABLY WORTH RETAINING

41. Do you know any ways in which you/members of your community can talk with humanitarian agencies?

Probe: How would you communicate with humanitarian agencies if you/members of your community have ideas, questions or complaints about the aid response? [Alternatively, you could limit this question to a particular topic of interest related to WASH, health, food, education, shelter, protection etc.]

.....

.....

42. In general, what do you think are the best ways to distribute information about [topic of interest] to people like you/ members of your community?

Study on Education for Pastoralist Groups in Somalia

(Adeso/UNICEF/DFID)

Focus Group Discussion – Adult Men

Name of the respondent(s)	Position of the respondent(s)
Name of the school Is it ONLY for pastoralists? Yes ☐ No ☐	Area
Date	

CHILD DISCIPLINE

Adults use certain ways to teach children the right behaviour or to address a behaviour problem.

What ways have you used (in the last month) use to teach children the right behaviour and to address behaviour problems

[facilitator if noone speaks, prompt as follows

Shook him/her; Spanked, hit or slapped him/her on the bottom with bare hand; Hit him/her on the bottom or elsewhere on the body with something like a belt, hairbrush, stick or other hard object; Hit or slapped him/her on the face, head or ears; Hit or slapped him/her on the hand, arm, or leg; Beat him/her up, that is hit him/her over and over as hard as one could.

1. Do you believe that in order to bring up, raise, or educate a child properly, the child needs to be physically punished? or can she be verbally chastised?

[facilitator if no one speaks about verbal chastisement, prompt as follows:

Called him/her dumb, lazy, or another name like that. Shouted, yelled at or screamed at him/her.

2. Do you think it is possible to raise or educate a child properly without either physical punishment of verbal chastisement?

[facilitator if no one speaks about non aggressive methods, prompt as follows:

Took away privileges, forbade something THE CHILD liked or did not allow him/her to leave house.

Explained why the behavior was wrong. Gave him/her something else to do

CHILD LABOUR

In pastoralist communities, it is common for children to work with the family either with the livestock, in the fields or around the house.

3. What kind of work do you expect your children of different ages to be able to carry out?

A: Children 5 to 9 .....

B: Children 10-14 .....

C: Children 15-19 .....

4. Do you expect them to be able to work as well as adults and how do you decide what level of work is appropriate for children of different ages?

A: Children 5 to 9 .....

B: Children 10-14 .....

C: Children 15-19 .....

5. Are there specific factors that make it difficult for your boys and girls to attend school?

Boys .....

Girls .....

6. Do you think that it is important to send boys and girls to school? Why?

Boys .....

Girls .....

7a. What future do you see for your Boy Children?

Future provision

8b. What sort of education would you like to have for your children and specifically for your sons?

9. Is there any education you would like for men like yourselves?

.....

6. Study on Education for Pastoralist Groups in Somalia (Adeso/UNICEF/DFID)

Focus Group Discussion– Adult Women

Name of the respondent(s)	Position of the respondent(s)
Name of the school Is it ONLY for pastoralists? Yes ☐ No ☐	Area
Date	

CHILD DISCIPLINE

Adults use certain ways to teach children the right behaviour or to address a behaviour problem.

1. What ways have you used (in the last month) to teach children the right behaviour and to address behaviour problems?

[facilitator if none speaks, PROMPT as follows:-

Shook him/her; Spanked, hit or slapped him/her on the bottom with bare hand; Hit him/her on the bottom or elsewhere on the body with something like a belt, hairbrush, stick or other hard object; Hit or slapped him/

her on the face, head or ears; Hit or slapped him/her on the hand, arm, or leg; Beat him/her up, that is hit him/her over and over as hard as one could.

2. Do you believe that in order to bring up, raise, or educate a child properly, the child needs to be physically punished? or can she be verbally chastised?

[facilitator if no one speaks about verbal chastisement, PROMPT as follows:-

Called him/her dumb, lazy, or another name like that. Shouted, yelled at or screamed at him/her.

3. Do you think it is possible to raise or educate a child properly without either physical punishment or verbal chastisement?

[facilitator if no one speaks about non-aggressive methods, PROMPT as follows:-

Took away privileges, forbade something THE CHILD liked or did not allow him/her to leave house.

Explained why the behaviour was wrong. Gave him/her something else to do

CHILD LABOUR

In pastoralist communities it is common for children to work with the family either with the livestock, in the fields or around the house.

1. What kind of work do you expect your children of different ages to be able to carry out?

A: Boys 5 to 9 .....

B: Boys 10-14 .....

C: Boys 15-19 .....

D: Girls 5 to 9 .....

E: Girls 10-14 .....

F: Girls 15-19 .....

2. Do you expect them to be able to work as well as adults and how do you decide what level of work is appropriate for children of different ages?

A: Boys 5 to 9 .....

B: Boys 10-14 .....

C: Boys 15-19 .....

D: Girls 5 to 9 .....

E: Girls 10-14 .....

F: Girls 15-19 .....

3. To what extent does this work stop them attending school?

Reasons for early marriage

FGM some general questions; describe

EDUCATION

General Views about Education

Cultural identity and assimilation

1. What knowledge and skills does your group cherish (value highly) in your way of life?

.....

2. How are knowledge and skills about your way of life transmitted from one generation to another?

.....

3. In your opinion, are these kinds of knowledge or skills taught in pastoralist schools?

Obstacles to education

4. What are, in your opinion, the main obstacles to the expansion of education among pastoralist communities?

Comments .....

5. From what you know of the schools you have heard about, to what extent do you think they are useful for your children?

A. At Lower primary level (roughly 5-9 year olds)

B. At Upper Primary level (roughly 10-14 year olds)

6. Are there specific factors that make it difficult for your boys and girls to attend school?

Boys .....

Girls .....

7. Do you think that it is important to send boys and girls to school? Why?

Boys .....

Girls .....

8. What future do you see for your Children?

Future provision

8. What sort of education would you like to have for your children and specifically for your daughters?

.....

9. Is there any education you would like for women like yourselves?

.....

OTHER SOCIAL PROTECTION ISSUES

1. Have any of the children been approached by the military especially during vulnerable periods?

.....

Study on Education for Pastoralist Groups in Somalia

(Adeso/UNICEF/DFID)

Suggested guidelines for interviewing people who have left their pastoralist community and are now businessmen, professionals or students

Name of the person(s) (or Nickname for confidentiality)	Address
Name of the person(s)	Position of the person(s)
Date(s)	

Note that there should be one sheet for each person interviewed

1. What do you think about the type of education given to your people now?
2. What type of change do you want in the education of your people?
3. How do you think this change could be effected?
4. Do you think that this type of education prepared you to serve your own people?

APPENDIX 4

REGIONAL HIGHS AND LOW

Timeframe: 8 Months

Estimated cost: US$ 300,000

Background

The protracted complex humanitarian and livelihoods crisis in Somalia has resulted, among other problems, in increasing socio-economic vulnerability and worsening poverty. According to the United Nations (UN), Somalia represents one of the worst humanitarian crises in the world with almost 50% of its people in need of urgent external assistance and close to 1.5 million internally displaced, approximately 16% of Somalia's 7.5 million people. Livestock and their products account for 80% of export income in normal years, but trade has been significantly interrupted by drought and international bans in the last decade. The cycle of drought in the last 4 to 5 rainy seasons has led to a significant loss of livestock, severely affecting the livelihoods of pastoral communities, with a rise in pastoral dropouts.

In education, Somalia has one of the lowest literacy rates in the world at ranging between 19.2 to 34.9 % for rural and urban populations respectively . The overall enrolment rate in primary schools is less than 30% with significant gender and region based differences. While there has been some progress in recent years, there is also a marked divide between education provision, enrolment and quality between urban areas and rural areas. Many rural locations have no schools and often children cannot access formal schooling. Differences in access to education also exist within the rural areas where the lowest levels of provision and investment for education are found in pastoral communities as opposed to rural settled communities.

It is estimated by the government that of the projected 7.5 million people residing in Somalia pastoralists consist of 65% of the population . The pastoralist's non-sedentary way of life translates to a unique set of development needs as well as vulnerabilities to environmental changes and conflict. Support to the pastoralist communities, therefore, necessitates a deeper understanding of their specific needs for education, health, water, environment, protection and livelihood support and holistic programmatic responses to their needs. In recent years, there has been an increased understanding among the Somali authorities and national and international organizations of the pastoralist's needs, which has resulted, for example, in a number of innovative approaches to formal and non-formal education. Accelerated curriculum delivered through a flexible system that caters, amongst other things, to girls' availability; youth leadership projects addressing areas of interest to the pastoral youth; and, support to pastoralists in participating in final examinations after alternative education are examples of such innovative approaches being piloted on ground, such as the Pastoral Youth Leadership program in northern Somalia in Sool and Sanaag regions done by Adeso.

Given the encouraging results produced by these innovative projects, it is evident that there is a need for an increased focus on the development of approaches specifically catered to nomadic pastoral needs. It is also important to note that an understanding of the nomadic traditions and practices, specifically those concerning education and health, is informed by the direct link between their mobile way of life and practices in relation to livelihood and natural resources, as well as their coping mechanisms in the face of changing natural and conflict induced circumstances.

Support to the pastoral communities, therefore, must be holistic in nature and include livelihoods, environment, health, water and sanitation, protection and education. For the planning and development of successful, innovative approaches, a comprehensive

UNDP population figures, 2005
UNDP and World Bank. Socio-Economic Survey, 2002.
Survey of Primary School Education 2006-2007, UNICEF
FAO Water Report 29 (2005)

situational analysis on the needs of pastoralists in Somalia/Somaliland needs to be carried out. Besides meeting the current knowledge gaps, this analysis would provide up to date information on the needs on the ground, bringing to fore the complexities, challenges and opportunities that exist in providing quality services such as education, health, water/hygiene/sanitation and secure the livelihoods for the pastoral communities. The data therein will benefit resource and program planning by governments, donors and implementing agencies.

Proposed Pastoralist Situational Assessment

The proposed intervention intends to assemble a comprehensive knowledge base on pastoralist communities in Somalia to gain an understanding of their livelihood, environment, health, sanitation, protection and education needs. The knowledge base will benefit future planning by the government, local and international NGOs as well as donors. The proposed project aims to create the knowledge base through an efficient use of funds and through maximizing the use of resources already deployed in the field by coordinating with a wide range of implementing agencies and drawing on whatever knowledge and analysis currently exists.

I. Objective

The overall objective of this assignment is to conduct a comprehensive study on the pastoral community needs with a focus on education. Information gathered will form a baseline and will be used to for programming by government authorities in Somalia, implementing partners, UN bodies and donors.

II. Methodology

The survey will engage both qualitative and quantitative research methods. In the field, the major method of data collection will be interviewer administered questionnaires. Focus group discussions with target respondents will enable the researcher to understand perceptions and attitudes of the respondents hence complementing data collected through the questionnaires. Field research will also be supplemented by interviews with local officials as well as project staff and other providers on the ground.

The survey will also include data collected in relation to major indicators for relevant sectors, time series information against the said indicators (as available) as well as baselines for 2011. This information will be collected through a review of available relevant research or program documents.

All the data collected will be segregated by gender and age of children (where relevant) and more specific factors such as clan and other group types (e.g. nomadic cf. to semi-nomadic) to facilitate future analysis on critical life cycle stages.

A lead organization responsible for the implementation of the assessment will be selected by the Pastoralist Education Task Force in collaboration with UNICEF. The lead organization will develop an implementation plan including a timeline for implementation, as well as a resource plan including contributions from other agencies. The lead organization will also select a lead consultant who will be responsible for the design and implementation of the study. It is anticipated that the consultant will be assisted by a survey team. The survey team will be further divided into 3 teams, each working in the three identified pastoralist regions in Somalia and under the supervision of a consultant / team leader. The lead consultant will provide the overall leadership to the teams. Locally recruited staff will serve as enumerators, who shall be organised into groups of 12 and supported by a supervisor and a data entry clerk.

The initial task for the lead consultant will be to develop a study plan detailing study methodology, including tools to be used and a comprehensive sampling frame plan.

III. Outputs

A comprehensive report that includes background information on Somali nomadic pastoralist communities; the patterns of mobility/migration by region; an analysis of their current situation, challenges and vulnerabilities; an assessment of their needs based on detailed analysis of the data collected in the field; major indicators for all relevant sectors, and, recommendations for programmatic approaches to identify immediate priorities.

A presentation summarizing the background, methodology and findings of the report.

Key Activities

The implementing organization will

- Ensure development of a study plan detailing the research methodology
- Hold consultations with members of the Pastoralist Education Task Force and the 3 zonal administrations of Somalia/Somaliland to set up a mechanism/plan for the review and approval of the study's design and methodology, as well as periodic progress reviews as agreed by the task force.
- Assess the potential contributions by partner agencies, develop a work plan outlining committed resources by all participating agencies as well as responsibilities, and set up a coordination mechanism comprising of a team of technical experts from the different sectors.
- Develop TOR for a Lead Consultant to be responsible for the overall design and conduct of the study
- Identify a lead consultant
- Identify 3 or more Somali research assistants to be on the ground with the enumerator teams
- Recruit the survey teams needed in the field
- Oversee the development of a study plan, research methodology and research tools by the consultant
- Ensure that the study plan, methodology and tools are reviewed and approved by the Pastoralist Education Task Force
- Develop a budget and oversee expenditures
- Monitor progress of the study and ensure timely completion

The lead consultant will

- Be responsible for and provide technical expertise for the design and conduct of the survey
- Develop appropriate data collection instruments, including: A household survey that includes, but is not limited to, demographic information, education levels (past and present) of all adults and children, education access and preferred education modalities for children and youth, rural food basket content and costs, income and expenditures, livestock size and health, access to health care for humans and for livestock, coping mechanisms, environmental factors and management strategies and child protection factors including security.
- Community focus group items derived from household survey, particularly regarding education access and modality preferences.
- Analytical framework for a literature review
- Develop measures for assuring inter-rater reliability and consistency among enumerators and team leaders and for standardizing data entry and data analysis processes
- Develop training for team leaders, enumerators and data entry personnel and a timely training schedule for the 3 zones
- Develop monitoring tools for ongoing monitoring of the project and develop training for team monitors
- Provide overall supervision and coordination of the survey teams
- Provide supervision of data entry and analysis
- Develop project report and present report at appropriate venues

IV. Deliverables

Detailed survey plan including sampling techniques that specifically take into account the pastoralist's circumstances, and the research tools to be used at the inception stage

Study tools as per the methodology agreed Project monitoring tools and processes

Training reports of both enumerators and research assistants / trouble shooters

Survey Data Detailed assessment/survey report including summaries on key sectors (Education, Health, WASH, protection, environment and Livelihoods. PowerPoint Presentation for presentation to the Pastoral education task Force, the Education Sector and other development partners.

V. Timeline

The entire duration of the assessment/survey process will be approximately 8 months. The actual field work will start no later than early March 2011. The indicative schedule below is a guideline on expected timelines.

Accountabilities and Responsibilities

The lead organization will be accountable to the Pastoralist Education Task Force and provide overall coordination of the project and liaise with partner agencies, ensured by a senior manager. The lead organization will provide management oversight to the lead consultant and other survey team members throughout the consultancy. Once the consultant has been hired this ToR is subject to change or review according to the needs of the survey.

Partnering agencies will ensure availability of staff, vehicles and funds as agreed and provide support and counsel to the lead organization.

The lead organization will ensure budgetary adherence and oversee expenditures, accounting for the donated funds; oversee the design and organization of the baseline survey, including ultimate approval of technical aspects of the project; ensure a reliable and valid data set and a quality report.

Intellectual Property Rights

All the deliverables produced by the project will be made available to the Education Sector Committee, education partners and other interested sectors. All other project documents will remain as the property of the lead and partnering agencies. The visibility of donors and implementers will be ensured on all product outputs.

Task	Timeline	Responsibility
Agree on Survey ToR	January 15th	Education Task Force
Select implementing organization	January 20th	Education Task Force
Develop Consultant TOR, approval of consultant TOR	January 22nd	Implementing Organization
Select Lead Consultant	January 25th	Implementing Organization
Design a detail survey plan and budget	February 3rd	Consultant
Approval of study design and methodology by the Task Force	February 5th	Implementing Organization
Recruit survey team (consultants and enumerators)	February 20th	Implementing Organization
Hold initial briefs with stakeholders/survey team	March 2nd	Implementing Organization
Agree and finalize monitoring tools for the survey work	March 7th	Implementing Organization
Initial technical meetings with stakeholders	March 11th	Survey Team/Team Leader
Training of enumerators and Field work	March 15th to April 30th	Survey Team/Team Leader
Data collation and Analysis	May 1st to June 30th	Team Leader
Report Writing	July 1st h to July 21st	Team Leader
Draft Briefs	July 22 to August 5th	Team Leader
Presentations and feedback	August 5th to August 15	Team Leader
Final deliverables due to the Task Force	September 1st	Implementing Organization