



Livelihood Baseline Analysis Togdheer Agro-pastoral

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ABSTRACT

The FSNAU baseline resource team conducted an update of the old baselines (Dec 2009 & Jan 2003) of Togdheer agro-pastoral (TAP) livelihood zone (LZ) from April to May 2010. The focus of the assessment was to understand the trend and progression of vulnerability over the last 4 seasons (2008 to 2009/10). This included understanding:

- The impact of recurrent droughts in recent years on the agro-pastoral livelihood;
- Changes in socio-economic groups' livelihood assets;
- Coping strategies employed by households in responding to identified crises; and,
- Identifying key food security monitoring and early warning indicators, highlight recovery options and prioritise development and policy interventions for decision makers.

This baseline study applied the Sustainable Livelihoods Approach (SLA) and Household Economy Approach (HEA) as the key tools for gathering relevant information about the livelihood strategies, assets and coping mechanisms of the Togdheer agro-pastoral livelihood zone. Prior to conducting the baseline, consultations were held with partners to identify the reference year (April 2009 to March 2010), which was the most recent full consumption year that respondents could easily recall.

The following report starts with a profile which outlines a summary of key findings which can be easily referred to by decision makers. In terms of programming, the report provides both qualitative and quantitative information on livelihood assets and strategies of the different wealth groups within the LZ. It presents a comprehensive description of the livelihood zone, seasonality and access to markets. The assessment identified hazards that are common in the zone, as well as information on how households respond to these crises. It provides a sequential trend of the IPC, describing the progression of vulnerability in the TAP LZ over the last 4 seasons (2008 to 2009/10). The findings provide useful information to decision makers to facilitate timely and appropriate response in order to mitigate the impacts of recurrent shocks, prepare for imminent hazards and guide development planning.

ACKNOWLEDGEMENT

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LIST OF ACRONYMS

BLAF	Baseline Livelihood Analysis Framework	UNESCO	United Nations Educational, Scientific and Cultural Organization
FEWS NET	Famine Early Warning Systems Network	UNHCR	United Nations High Commissioner for Refugees
FSNAU	Food Security and Nutritional Analysis Unit	UNICEF	United Nations Children Fund
GAM	Global Acute Malnutrition	USD	United States Dollar
HEA	Household Economy Approach	WFP	World Food Program
HH	Households	WHO	World Health Organization
IDPs	Internally Displaced Persons	LZ	Livelihood Zone
LTA	Long term Average	MOH	Ministry of Health
MEB	Minimum Expenditure Basket	ITCZ	Inter-Tropical Convergence Zone
SLA	Sustainable Livelihood Approach	AFLC	Acute Food and Livelihood Crises
SoSh	Somaliland Shilling	IPC	Integrated Food Security Phase Classification
SISh	Somali Shilling	HE	Humanitarian Emergency
ToT	Terms of Trade		
UAE	United Arab Emirates		
UN	United Nations		
UNDP	United Nations Development Program		



1. INTRODUCTION

In December 1999, FSNAU conducted the first baseline assessment of Togdheer agro-pastoral livelihood zone, which was updated in January 2003, followed by the most recent update completed in April-May 2010. Baseline livelihood analysis generates important information on how households access food and cash income, as well as providing an understanding of how livelihood systems are affected by shocks/hazards. The aim of the baseline update was to better understand livelihood changes in recent years due to recurrent and persistent droughts as well as economic disruptions. The baseline update was guided by the following objectives:

- To identify the socio-economic changes in the LZ and determine the main asset determinants in each wealth group.
- To determine the effect of recurrent droughts on different livelihood activities in order to establish the level of shift in livelihood strategies and wealth groups within the LZ.
- To identify the major risk factors influencing Togdheer agro-pastoral livelihood systems and the different coping strategies employed in times of crises.
- To influence decision makers to implement interventions appropriate to the community based on findings on livelihood assets, strategies and capacity to respond to hazards.

The report describes the livelihood zone's topography, vegetation, rainfall and water sources, and linkages with neighbouring zones. Qualitative and quantitative information is provided on livelihood assets and strategies of the different wealth groups within the LZ. It presents a comprehensive description of the livelihood zone, seasonality and access to markets. The assessment identified hazards that are common in the zone, as well as information on how households respond to these crises. It provides a sequential trend of the IPC, describing the progression of vulnerability in the TAP over the last 4 seasons (2008 to 2009/10). The findings provide useful information to decision makers to facilitate timely and appropriate response in order to mitigate the impacts of recurrent shocks, prepare for imminent hazards and guide development planning.

2. LIVELIHOOD ZONE DESCRIPTION

Togdheer is the second largest region of Somaliland. It is located in central Somaliland and lies 9° 20' 0"N and 45° 25' 0"E. The zone lies at the foot hills of the Golis Mountains, and extends to East Sheikh, Burao (Beer) and Owdweyne districts. The zone is semi-arid with loam soils and mountainous terrain. In the past, the area was densely vegetated and provided favourable grazing/browsing grounds for livestock. However, recently, unsustainable land use practices (charcoal burning), erosion from seasonal run-offs, coupled with successive droughts are depleting vegetation and exacerbating environmental degradation.

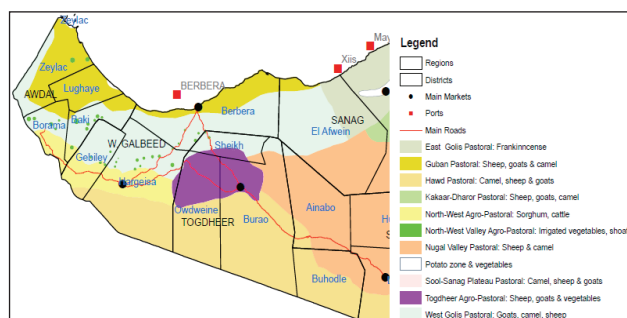
The regional population is estimated at 402,295 people, in which 30% reside in the urban areas, 65% engage in nomadic pastoralism and about 5% practice agro-pastoral livelihood (concentrated in Owdweyne district). TAP is bordered by Nugal Valley pastoral livelihood to the east and northeast, West Golis Pastoral to the north and northwest, North-west valley agro-pastoral to the west and Hawd pastoral to the south. The livelihood is strongly interlinked with the neighbouring pastoral and urban livelihood systems through trade, labour opportunities, migration interactions and kinship support. The Diaspora increasingly support the LZ communities' mainly by improving services and contributing to school and teachers fees.

The main socio-economic activities are the sale of livestock (camel and shoats) and livestock products (milk, ghee), self-employment and fodder sales, while the main sources of food are own crop production and purchase. In the reference year, most households in the LZ, especially the poor, accessed their food through market purchase. Production of livestock, crop and fodder are vital income sources for the middle and better-off wealth groups, and provide labour (grass cutting) for the poor wealth group. The dominant livestock species reared are shoats (65% being goats and 35% sheep). Camels are an important productive asset for the better-off and middle wealth groups. Cattle are close to disappearing due to high susceptibility to the impacts of drought over the last four seasons.

TAP receives bimodal (Gu and Deyr¹) rainfall that ranges from 200-300 mm per annum². This rainfall pattern favours rain-fed production of the cereal crops (sorghum and maize), legumes (cowpeas) horticulture fruit trees (water melon) and vegetables like tomatoes. The major areas for cereal production are Hawd lowlands (Owdweyne agricultural villages), Beer of Burao and the mountainous villages (Suusqsade, Goda weyne, Goda yare, Geel loo- kor and Girdheys) of Sheikh District. Qat cultivation is practiced in Goda weyne near Hargeisa. Land tenure is based on co-operative and private land ownership.

¹ Gu is main rainfall season that commences in April to June and Deyr is the shorter rainfall season that starts in October and secedes in December
² Muchiri P.W. (2007), Climate of Somalia. Technical Report No W-01, FAO-SWALIM, Nairobi, Kenya.

Map 1: Map of Northwest Livelihood Zones



Although, small patches of privately owned irrigated areas exist along the seasonal rivers.

Crop cultivation practices have gradually been decreasing in recent years, due to limited access to farm inputs and increased opportunities in fodder production. Due to the impact of drought and disease on herd sizes, more pastoralists and returnees are also turning to rain-fed farming activities for their livelihood.

In addition to private *Berkads* and shallow wells, 7 main seasonal rivers (*Dooxooyin*), which originate from the Golis mountains traverse the livelihood and provide water sources for production (livestock and crops) and domestic use. The most important seasonal rivers are Lugbalaayo, Ogol dheere, Dheere, Daldawan, Haantiliile, Masago and Wilgo, which originate from the Golis watershed, cross the zone and drain into the Nugaal and Hawd livelihood zones. The seasonal *wads* collect substantial run-off water from the Golis Mountains in the depressions of Owdweyne, Sheikh and Burao.

In a normal year, livestock migration is confined within the livelihood zone. In the reference year, with below normal rainfall, large-scale abnormal migration extended eastwards to Laas Canood, Guban, Oog Ceynabo, Galool and Banka tuuryo in Gu and towards the Ethiopian border (Haji Saalax) and Banka Saarsaar in *Deyr* season.

Burao market is the biggest trading centre for the agro-pastoral livelihoods. Access to the markets varies according to availability and proximity to road infrastructure. The Somali Shilling, locally known as *Giinbaaar*, is the most common amongst the three currencies (Sosh; Sish and USD).

3. HISTORICAL TIMELINE

3.1. Historical Timeline

A historical time line of the events for the Togdheer agro-pastoral livelihood zone was established based on how positive or negative events occurred in the past five years (2005-2009), their impacts on access to food and cash income and how households responded. The major events captured in the historical timeline include drought, high inflation, food and livestock prices, livestock diseases, migration and terms of trade.

3.2. Reference year

After review of the events outlined in the historical timeline and the IPC analysis, the reference year of April 2009 to March 2010 was identified as the most recent year that communities could easily recall. The reference year was defined as below normal, due to poor rainfall in both seasons (*Gu* and *Deyr*), that led to poor pasture and crop production, abnormal livestock migration and absence of run-off streams from the Golis Mountains. Nevertheless, there was improved purchasing ability for most wealth groups, due to a decline

in food prices and enhanced livestock trade, which was positively influenced by the lift in the livestock export ban and better employment opportunities in the urban areas.

This report provides a sequential trend of the IPC, describing the progression of vulnerability in the Togdheer agro-pastoral livelihood system, over the last 4 seasons (2008 to 2009/10). The findings of the post *Deyr* 2009/10 seasonal assessment, conducted collaboratively by FSNAU, FEWS NET and partners, confirms that there was severe drought incidences in Togdheer region, resulting in a humanitarian emergency. In particular, Togdheer agro-pastoral livelihoods, classified in the IPC analysis as Acute Food and Livelihood Crisis (AFLC), had a high risk early warning that the situation could deteriorate during the *Gu* '09 season, leading to Humanitarian Emergency (HE) Phase during the *Deyr* '09/10 season assessment¹. This is was attributed to persistent droughts over the last 4 seasons. The nutrition situation of the agro-pastoral populations of the Togdheer region remained critical, according to the Post *Deyr* '09/10 integrated nutrition analysis. However, prior to conducting the baseline, the zone received rains which improved conditions leading to a near normal next season

Table 1: Historical time line and critical events prior to the reference year

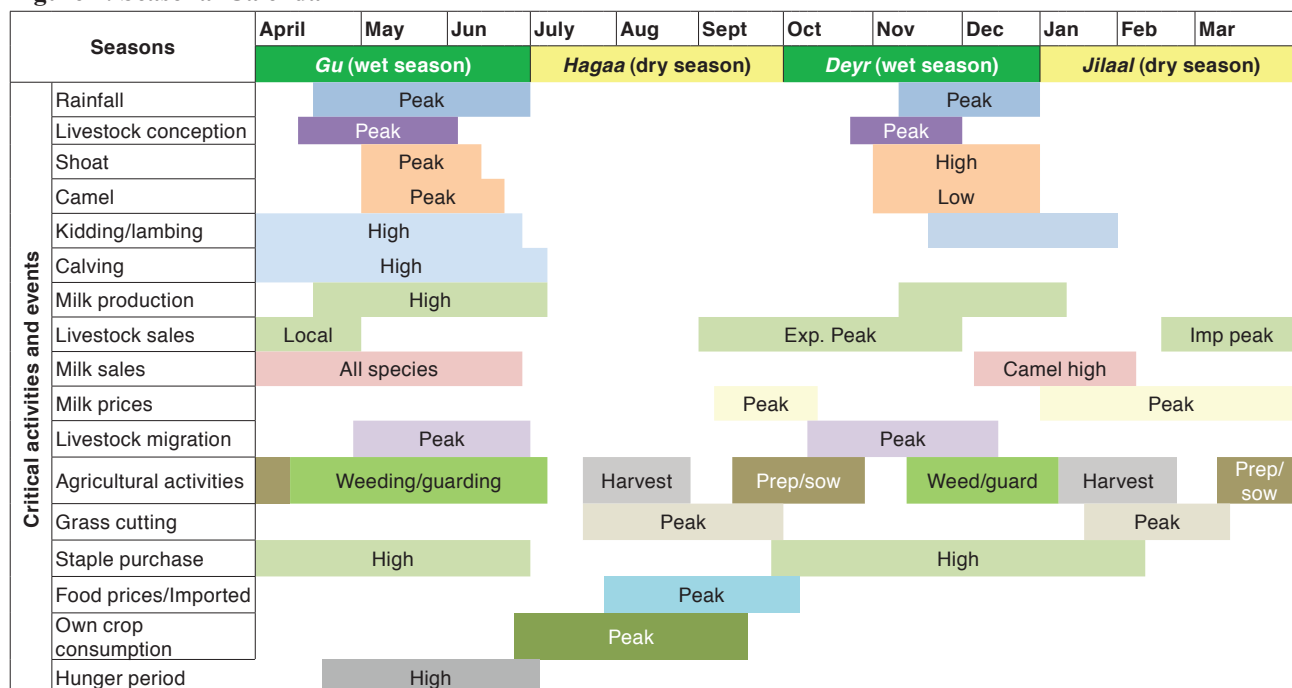
Year	Season	Rank (1-5)	Events	Effects (Different effects caused by the events)	Response and Key outcomes (What did people do on their own without external assistance)
2010	<i>Gu</i>		<ul style="list-style-type: none"> Unseasonal rains good <i>Gu</i> rains. 	<ul style="list-style-type: none"> Highly increased cropped area. Improved livestock body condition and rangelands. Good grass and fodder 	<ul style="list-style-type: none"> Employed normal and low cost coping options. Labour immigrants return to the respective areas.
2009	<i>Deyr</i>	2-3	<ul style="list-style-type: none"> Rainfall far below normal and droughts. Lift of livestock ban. Declined hyper-inflation. 	<ul style="list-style-type: none"> Crop failure. Improved livestock prices Localized high livestock death. Normal goat/rice TOT (1 goat=50kg rice). Poor milk production. Declined imported food prices 	<ul style="list-style-type: none"> Increased dependency on food purchase Livestock migration/hand feeding. Intensified labour migration to urban areas Loan taking. Increased social support. Increased livestock sale.
2009	<i>Gu</i>	2	<ul style="list-style-type: none"> Poor rainfall. Less run-off water (seasonal rivers). Persistent drought. 	<p>¹ Refer to FSNAU post <i>Deyr</i> '09/10 Technical Series</p> <ul style="list-style-type: none"> Crop failure. Less grass/fodder harvest. Poor livestock body condition. High livestock death. Normal kidding rate. Normal goat/rice TOT (1 goat=50kg rice). 	<ul style="list-style-type: none"> Labour migration. Loan taking. Increased social support. Increased food purchase Livestock outmigration. Increased livestock sale. Charcoal production. Grain feeding for livestock.
2008	<i>Deyr</i>	3	<ul style="list-style-type: none"> Normal to good rains. High food price. Hyper-inflation continued 	<ul style="list-style-type: none"> Average crop production (exceptional pockets failed). Good pasture and livestock conditions. Poor livestock prices. High livestock death. 	<ul style="list-style-type: none"> Food sources partially from own crop for some months. Livestock out-migration Increased crop sale. Increased livestock sale. Increases social support. Labour migration. Poor purchase
	<i>Gu</i>	2-3	<ul style="list-style-type: none"> Average to good rainfall. High food prices. Seasonal river diversion. 	<ul style="list-style-type: none"> Below normal crop production. High food prices. Low livestock prices. High livestock deaths. 	<ul style="list-style-type: none"> Increases social support. Increased livestock sale. Increased self-employment. Increased livestock out-migration.
2007	<i>Deyr</i>	3	<ul style="list-style-type: none"> Poor to average rainfall 	<ul style="list-style-type: none"> Poor to average crop production. Increased grass/fodder sales. Normal livestock body condition. 	<ul style="list-style-type: none"> Normal coping. Increased livestock sale. Increased self-employment
	<i>Gu</i>	2-3	<ul style="list-style-type: none"> Poor rainfall. Seasonal river diversion. Peak hyper-inflation. 	<ul style="list-style-type: none"> Poor crop production. Normal livestock body condition. Normal livestock prices. 	<ul style="list-style-type: none"> Increased grass/fodder sale. Abnormal livestock migration.

¹ Ranking of all the years relative to each other based on the following criteria: 5 = Excellent year for household food security (due e.g. to low prices, good wage rates, etc); 4 = A good or above average year for household food security; 3 = An average year in terms of food security; 2 = A below average year for household food security; 1 = A poor year for household food security (e.g. due to high prices, low wage rates, etc.)

4. SEASONALITY

The aim of the baseline study was to understand how, where and when food and income from different sources are available for the poor households, based on changes in seasonality.

Figure 1: Seasonal Calendar

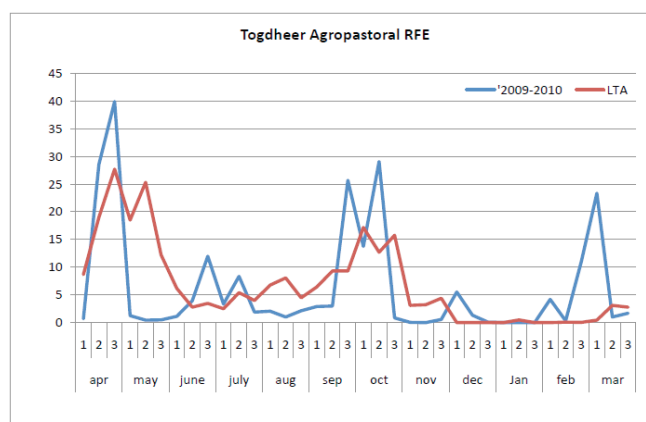


The graphic representation above shows how seasonality influences household food and income sources. In the reference year (April '09-March '10), rainfall was below normal, resulting in reduced crop production, poor water availability, and poor pasture leading to deteriorated livestock body conditions. Consequently, labour opportunities from agricultural activities (grass cutting, weeding and guarding) declined; calving/kidding rates and milk production reduced; forcing households to sell livestock and intensify abnormal migration. To cope with below normal rains, households engaged in alternative sources of income: poor households moved to urban areas to access labour opportunities and the better-off wealth groups sold their crops as fodder to the port holding areas.

4.1. Rainfall

In the reference year, rainfall estimates (RFE) in the *Gu* season were concentrated in April 09, followed by a dry spell which lasted until the end of the season (May - June). *Deyr* rainfall started unseasonably early in September and abruptly ceased in the last two months of the season (Nov- Dec). The overall rainfall in the reference year was slightly below long-term average (5%). However, *Gu* rains were 32% below the long-term average. Moreover, the *Karan* rains failed. These rains normally generate seasonal rivers that originate from the Golis Mountains and drain into the agro-pastoral areas. The erratic rains affected normal livelihood activities and worsened pasture availability, livestock body conditions and crop production.

Figure 2: RFE -Reference year versus LTA



4.2. Livestock Migration

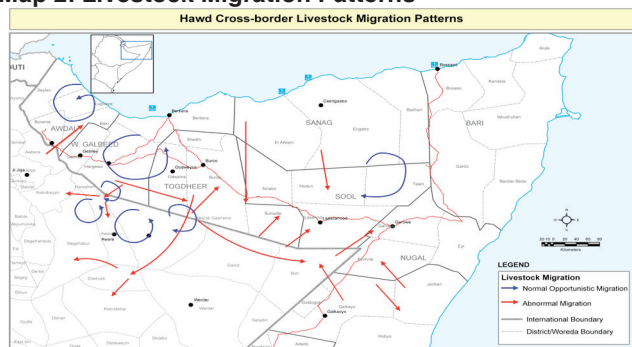
Normally, livestock migration takes place within the livelihood zone. In the reference year below normal climatic conditions triggered abnormal livestock movements. In the *Gu* season, all species migrated eastwards to Laas canood, Guban, Oog (ceynabo), Galool and Banka tuuryo. In the *Deyr* season, most animals moved to Ethiopia border towards Haji Saalax, Laas canood and Banka Saarsaar. During the *Jilaal* and *Hagaa* some animals remained where they had migrated to due to water scarcity and resource competition in the host area, while others returned to the water points of their origin LZ.

4.3. Livestock productivity

Normally, productivity of cattle (calving and milk yields) is high in February, while camel and shoat productivity is high

in May-June in the *Gu* season, and October-November in the *Deyr* season. Livestock sales increase at the end of *Jilaal* (March) through early *Gu* (April) and the last two months of the *Hagaa* season (August-September). However, in the reference year, poor rains and subsequent pasture and water scarcity resulted in reduced calving and kidding and therefore reducing livestock productivity. This affected milk availability and prices.

Map 2: Livestock Migration Patterns



4.4. Agricultural activities

Land preparation in the Togdheer agro-pastoral livelihood usually starts in March-April, just before the onset of the *Gu* rains and in September-October prior to the *Deyr* season. The main planting takes place in the same period, using the broadcasting system which is characterised by high plant density per unit area. Weeding begins in May to mid-June (*Gu* growing season) and November (*Deyr* growing season). Hand weeding is not commonly practiced in this LZ because of the use of animal traction and tractors.

In the reference year, planting activities started with the normal onset of *Gu* rains. However, weeding started in early June and ceased at the end of June, due to lack of follow up rains. The failed rainfall shortened farm guarding activities and labour opportunities. In the reference year almost all wealth groups were purchase-dependent because of the severe drought in the preceding seasons. Most of the poor and middle wealth groups opted for self-employment such as collection and sale of stones, charcoal and sisal. In the same period, labour migration to urban areas increased following crop failure, which occurred in May, June in *Gu*, and November in *Deyr*.

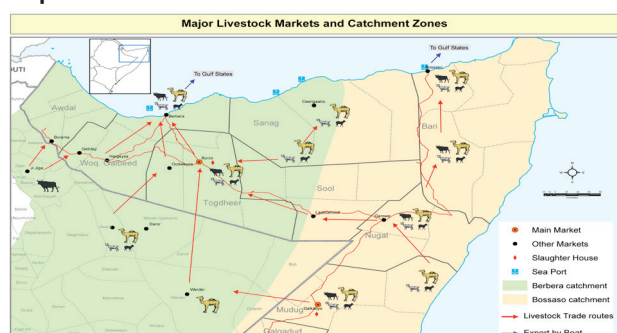
Normally, the hunger period starts in the *Hagaa* season. However, in the reference year hunger struck unusually early in March, due to a combination of poor *Gu* rains, failure of *Deyr* rains and lack of stream run-offs. This scenario pushed poorer wealth groups to accumulate high food debts. Traditionally, land cultivation takes place in the valley bottom and flood plains. However, in recent times, considerable portions of arable land have been converted to grazing or for fodder production. This change in land use is anticipated to provide labour income opportunities for the poor wealth group as well as an increase in livestock fodder. As a consequence, the area under crop cultivation in Togdheer agro-pastoral livelihood zone has significantly reduced.

5. MARKETS

5.1. Market Access

Households in Togdheer agro-pastoralist livelihood have access to several main markets -Burao, Hargeisa, Sheikh and Owdweyne. Burao market is the biggest and most important for livestock trade in Somaliland, Somalia, and Region 5, Ethiopia. Sale of livestock and livestock products provide the main cash income sources for most households, especially for the middle and better-off wealth groups. The dominant species for local and export sales are goats and sheep.

Map 3: Livestock Market Flow

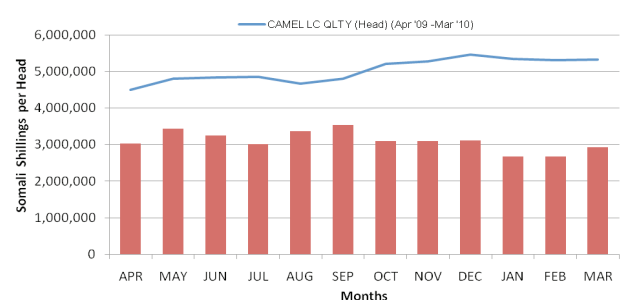


In the reference year, most poor and middle wealth groups sold local quality goats (*Dubaax*), while better-off mainly exported quality shoats, due to their larger herd sizes. After the lift of livestock ban (in October 2009), the total goats exported (through the port of Berbera) to the Arabian Gulf was 2,807,898 heads¹, an increase of 41% compared to 5-year average. Prices of local and export quality goats increased by 22% compared to 5-year average (2003-2007).

5.2. Camel milk price

Generally, prices of fresh camel milk increased in the *Jilaal* period and at the start of *Gu* (April) and *Deyr* (October) rains, when animals were far from the homestead. These prices then declined during the peak calving period of the wet seasons in May and November. In the reference year, the trend of camel milk prices progressively increased from one season to the next due to drought effects that resulted in low milk production and subsequent low supply to the markets.

Figure 3: Camel prices reference year compared to 5-year average Average



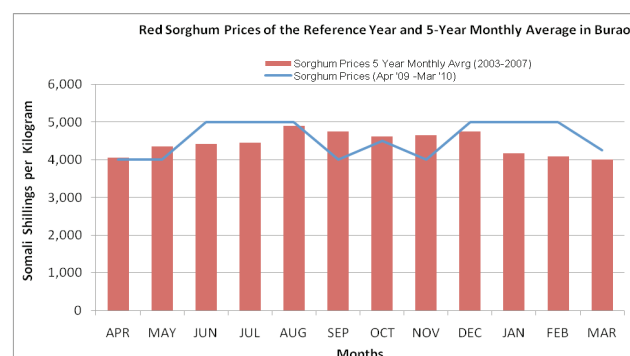
¹ FSNAU Port movement data

Consequently, the price of fresh camel milk in Burao market, during the reference year was 41% higher than the five year average and 15% more than previous year.

5.3. Sorghum price

Food prices fluctuate according to seasonal patterns peaking when production and supply are low. Sorghum prices soared at the end of the rainy seasons (June & December), before crop harvest and when there was poor supply of the cereal from the southern regions of Somalia and Region 5, Ethiopia. However, in May, August and January-March, the prices of sorghum dropped, coinciding with the period when both milk consumption and sorghum supply improved. In the reference year the price of sorghum reduced by 5% compared to the five year average (2003-2007). As 2008 was a year of hyper-inflation, in comparison the sorghum price was 49% lower in 09/10. The price decrease was also due to improved supply from the key production areas of southern Somalia, Region 5, Ethiopia and increased volume of food aid supplies.

Figure 4: Red Sorghum prices reference year & 5-Year Average

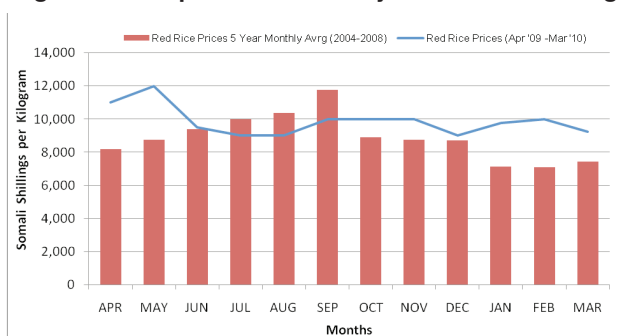
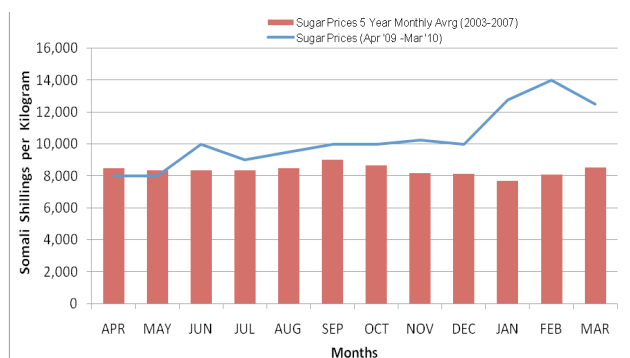


5.4. Imported food prices

Imported commodities such as rice and wheat flour were the main staple food purchased by households. Imported food prices are linked to the monsoon tide, which limits shipping activity. In *Jilaal*, rice and wheat flour prices were 21% above the five year average (2003-2007), due to global price increases and limited supply of these commodities. Vegetable oil increased by 25% compared to 5-year average (2003-2007). Apart from sugar, the prices of other food stuffs like rice, wheat flour and vegetable oil decreased by 44%, 66% and 28% respectively, compared to the hyper-inflation year of 2008. However, sugar prices showed an upward trend during most of the reference year, escalating further at the end of the year by 26% compared to the five year average. This is attributed to:

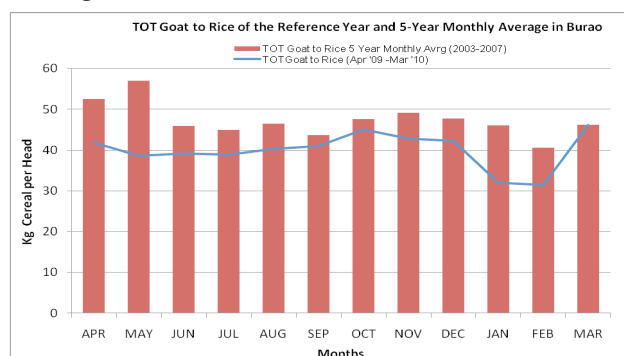
- Reduced sugarcane production in Brazil and in other major sugar producing regions of the world,
- Increased use of sugarcane for ethanol production²,
- High demand in the Hawd Ethiopia, in line with improved livestock marketing.

² Third assessment of the World Sugar Market for the 2008-09 season by the International Sugar Organization (ISO)

Figure 5: Rice prices reference year & 5-Year Average**Figure 6: Sugar prices reference year & 5-Year Average**

5.5. Terms of Trade

The main town of Burao provide labour opportunities to poor and middle households from the TAP. Poor households obtained 56% of their annual income from temporary labour migration. Sorghum prices decreased by 49% compared to 2008, improving household purchasing ability. As a result, the labour/sorghum ToT rose up by 54% compared to 2008 and 13% compared to the 5-year average. Rice prices also decreased by 44% in reference year, from the preceding year of 2008, signifying similar improvements, as local quality goat/rice ToT increased by 52% since 2008, and 5-year average.

Figure 7: TOT Goat to rice reference year & 5-Year Average

6. LIVELIHOOD ASSETS

6.1. Human Capital

Household Composition

The average household size for the poor and middle wealth groups is estimated at 7 and 8 people respectively, of which at least 2-3 generate cash and food income. However, the better-off have larger household sizes (10), as they can host extra members, either as kinship support or as labour dependency on the family. The dominant family structure noted during the reference year is monogamy, which is not always determined by assets and wealth level.

Health and nutrition

The nutrition situation of the Togdheer agro-pastoral population remained critical¹, according to the Post Deyr 2009/10 integrated nutrition analysis. In October 2009, FSNAU and partners conducted a comprehensive nutrition survey in the livelihood zone. The results indicated a global acute malnutrition rate (GAM, -2 scores or oedema) of 16.1 % (13.1-19.1), and severe acute malnutrition rate of 2.9 % (1.5-4.4).

Education

There were primary schools in most villages visited. The schooling system is based on a 4,4,4 grade system, which classifies 1-4 grades as lower primary; 5-8 as upper primary and grades 9-12 as secondary. Most of the schools in the rural livelihood use National/Somali curriculum (primary Education Survey 2006-07). Total number of students enrolled in the reference year is estimated at 1150-12000 pupils (eight assessed villages) as only the primary school in Qaloocato village has not operated for the last two years. Average monthly school fee is estimated at 15,000 SI Shillings/month. The salary of most teachers in the schools is mainly paid by the community/parents, with some incentive support from the Ministry of Education (Somaliland Authority) and irregular payments from the Diaspora. Several schools have closed because of lack of teachers' salaries. Access to Koranic education is less problematic most of the year.



Formal school attendance, Go'daweyne

¹ The **critical** nutrition level is when Global Acute Malnutrition (GAM) based on WHO Reference of 15 to <20%; Severe Acute Malnutrition (SAM) of 4 to <5%; Mid Upper Arm Circumference (MUAC) Assessment of 10-14.9%. Weblink: <http://www.fsnau.org/downloads/Post-Deyr-09-10-Nutrition-Technical-Series.pdf>

Water and Sanitation

According to the results of the nutrition survey, the availability of water supply systems and sanitation infrastructure in the area was limited, with only 20% of the population having access to safe water and only 40% accessing sanitation facilities. Households pile garbage near or in front of their houses. Few households have access to latrines, while the vast majority use open defecation, which causes the spread of diseases through contaminated food. Seasonal rains wash human faeces into water sources (streams and open wells) which contaminate and expose household members to germs and diseases, leading to common water borne illnesses.

6.2. Social Capital

Remittances from abroad do not have a big role in TAP. From the community and key informant interviews, about 5-10% of the households, mostly from the better-off wealth group, receive remittances on a monthly or irregularly basis. Informal local support and kinship are well-established and are common in all wealth groups. These livelihoods have connections with the surrounding Hawd pastoral livelihoods and relatives in the main towns of Hargeisa, Burao, Berbera and Sheikh received support during crises and shocks.

Social support is provided in the form of contributions in cases of food insecurity, illnesses or weddings. Fund raising for blood compensation and tally support for murders or wounds are also common. The decision to provide social support for big events mainly comes from top elders and is discussed and approved by sub-clan chieftains in the community and other important distinguished figures in urban towns or abroad. Loans in-kind (rice, wheat flour, sugar etc) support vulnerable households.

6.3. Physical Capital

Telecommunication infrastructure

Telecommunication infrastructure functions well in most villages. About four cellular telecommunication agencies, namely Telsom, Telecom, Somtel, and Nation link operate in the livelihood. These communication services facilitate remittance inflows, trade activities, information and local money transfers.

Health infrastructure

Despite most of the surveyed villages having health clinics, service provision in this facilities is poor due to limited supply of drugs and lack of qualified health staff. Most of the medical supplies are provided by the community, with irregular support from UNICEF or Ministry of Health (MoH), Somaliland. Villages close to main towns have access to private clinics, hospitals and pharmacies but consultation fees and medication costs are beyond the economic reach of most households. Remote villages are of particular concern because of the extra transportation costs involved



Access to medical services, Go'daweyne

alongside other expenses. However, there are expanded programmes on Immunization (EPI) outreach teams that regularly visit remote villages.

Road infrastructure

Villages close to main towns, including Beer, Qoyta and Suuqsade have better access to markets, due to their proximity to tarmac roads. Other remote areas like Qaloocato, Gatitale, Go'da weyn, Beerato and Xaaxi are surrounded by mountainous and rocky landscapes with dry seasonal rivers. These areas have limited access to markets and trucks can rarely pass, especially during the rains.

Housing

Most poor and middle groups live in small cottages covered mainly with sand, while the rest, mainly better-off own stone houses roofed with galvanized sheeting.

6.4 Financial Capital

Asset holding

Household asset holding has been declining compared to previous years. In the reference year, average holding of shoats, camels, and cattle in the reference year was lower by 20-57% and 55-60% than that of the old baseline (Dec 2002/Jan 2003) for shoats and camels, while cattle species are almost completely less preferred. Similarly, cultivated area has decreased by 72%, 50% and 20% for the poor, Middle and better-off wealth groups respectively compared to previous baseline.

Sale of livestock and livestock products

Sale of livestock and livestock products are the primary income sources for middle and better-off wealth groups. Due to the lift of the livestock export ban by Saudi Arabia, livestock prices have improved in the reference year, with the price of export quality goats ranging from 40 to 45 USD in Burao market increased by 20-25% compared to 2008, and 10-15% compared to 5-year average (2004-2008).

Employment

Paid employment contributes 56% of the poor households' income. In the reference year, labour migration to the main towns increased, due to the impact of the drought. Poor and some middle households increased the number of members employed from 2 to 3.

This was a coping strategy in the reference year. Households also engaged in self-employment activities including charcoal production, sisal processing and stone collection.

Loan

Loan taking from livestock traders and shopkeepers increased, particularly during *Jilaa* period, with repayments due in instalments and/or, when the situation improves.



Sisal (rope making & gully erosion control etc), Go'daweyne

6.5. Natural Capital

Water Sources

In the reference year, all agro-pastoral areas experienced a rainfall deficit, preceded by seasons of drought. Pasture and vegetation conditions worsened leading to livestock out-migration and intensified hand feeding. Overall, rainfall in the reference year was slightly below (5%) the LTA, with the Gu season falling 32% below the LTA. Water availability was not a major concern in most rural villages, due to good access to shallow wells along the main streams and *Berkads*. These resources however are not protected and easily contaminated. An increased number of *Berkads* had cracked and could not hold water. These are additional constraints that could have negative implications on water availability, water prices and human well-being in the future. Most seasonal run-off rivers and water courses used for cultivation, dried up in the Gacan Libaax Mountains. Crops completely failed during the reference year, with only isolated pockets getting small harvests. There was also a poor harvest of fodder grasses, which is one of the main cash income sources.

Biomass resources

Large-scale charcoal production is the primary cause of environmental degradation. Additionally, propagation of non-native trees in farmlands and grazing areas are endangering indigenous native plants. This practice, widely undertaken in the past years, has caused serious environmental degradation. However, certain wild species have increased due to government and community protection. One of the main coping strategies for several villages of the rural livelihood has been the exploitation of sisal production.



Rangeland degradation, Qaloocato village

7. WEALTH CHARACTERISTICS

In the reference year, wealth variation was primarily categorized by livestock holdings and species types, followed by land owned/cultivated; production level and other livelihood activities. The local community representatives categorised local households into three main wealth groups: poor (25-35%), middle (45-55%) and better-off (15-25%). However, a very poor category locally known as *Dulsaar* was found in some locations (Beer village). In most of the villages visited, the poor wealth group was defined as being destitute, due to loss of livelihood assets and continuous reliance on community support most of the time.

In Togdheer, livestock and farm land increase with wealth. Shoats are owned by all wealth groups, although they do not significantly contribute to the poor households' food and income sources. Middle and better-off wealth groups own camels and a small number of cattle, which enables them to obtain the largest portion of their income from the sale of livestock and livestock products, alongside petty trade. Typically, poor households depend on labour income (casual labour and domestic work), self-employment from the collection and sale bush products as well as grass cutting. The villages near the main towns and tarmac roads access more opportunities in stone collection and sale.

Notably, the area under crop cultivation has been decreasing gradually in recent years among all wealth groups. This is particularly due to limited access to farm inputs and increased opportunities in fodder production. However, due to the impact of drought and disease on herd sizes, more pastoralists and returnees are also turning to rain-fed farming activities (agro-pastoral) for their livelihood. A comparison of the changes on the area under crop production in TAP is summarised in table 3.

Table 2: Wealth Breakdown

Wealth group	% HHs	HH size	Own land cultivated	Livestock Assets				Agri. tools
				Camel	Cattle	Goats	Sheep	
Poor	30	5-7	0.5-1 ha	0	0	5-12	3-5	Ploughs, hoes, axes, knives.
Middle	50	7-8	2-4 ha	2-3	2-4	10-40	5-20	Plough, tractor hours, hoes, axes, knives
Better-off	20	9-11	6-9 ha	4-14	3-5	40-50	20-35	Ploughs, tractor hours, hoes, axes, knives

Table 3: Changes in area cultivated in TAP

Wealth Group	Cultivated Farm Area (ha)		%Change
	Previous Baseline (2002/2003)	Current Baseline (2009/2010)	
Poor	2 – 3 (2.5)	0.5-1 (0.75)	-72%
Middle	4-6 (5)	2-3 (2.5)	- 50%
Better off	8-12 (10)	6-9 (8)	- 20%

8. HERD DYNAMICS

The economy of the Togdheer agro-pastoral livelihood system is mainly based on livestock. The dominant species are shoats, of which the proportion of goats and sheep are 65% to 35%. Camels are an important asset for better-off and middle wealth groups. Cattle holdings reduced drastically recently due to successive hazards (droughts, disease, price fluctuations etc) over the last four seasons. Asset holdings at household level have declined compared to the Dec 02/ Jan 03 baseline.

The average livestock holdings in the reference year was lower by 20-57% and 55-60% than that of the old baseline for shoats and camels, while cattle species have reduced to insignificant levels.

In the reference year, the contribution from livestock to poor households' energy and income requirements was very limited due to asset losses, as a consequence of consecutive droughts. In the past seven years, the average livestock holding owned by different wealth groups was much higher than that of the reference year. The table below indicates these variations.

Table 4: Changes in Livestock Herd dynamics since 2003

Wealth Group	Old Baseline (2003)			Current Baseline (2010)			% Change		
	Camel	Cattle	Shoats	Camel	Cattle	Shoats	Camel	Cattle	Shoats
Poor	2-4 (3)	2-5 (3)	25-30 (28)	0	0	12	-57%	-100%	-57%
Middle	5-10 (8)	5-10 (8)	50-70 (60)	3	3	33	-62%	-100%	-45%
Better-off	15-25 (20)	10-15 (12)	80-100 (90)	9	4	70	-55%	-67%	-22%

Similarly, herd dynamics at the end of reference year showed a reduction of 12% for shoat and 17% for camel linked to low calving and kidding rates. Sheep off-take is about 3 times higher than goats, due to increased sales and greater susceptibility to droughts and diseases. Despite the drastic reduction in herd size, all households maintained their agro-pastoral lifestyle. However, there is an increasing tendency towards farming and grass production.

Table 5: Shoat Herd Dynamics

Shoat herd dynamics	Poor		Middle		Better-off		Average		100%	
	Goat	Sheep	Goat	Sheep	Goat	Sheep	Goat	Sheep	Goat	Sheep
Total number of herd owned at start of reference year	8	4	23	10	43	27	25	14	100	100
Adult female	4	2	11	5	20	13	12	7	48	50
No. born during the year	2	1	6	2.5	8	8	5	4	20	29
No. sold	1.5	1	4	2	7	5	4	3	16	21
No. slaughtered	0	0	2	1	2	2	1	1	4	7
No. died	1	1	3	2	4	3	3	2	12	14
No. given away	0	1	0	0.5	1	1	0	1	0	7
No. bought	0	0	0	0	0	0	0	0	0	0
No. lost or stolen	0	0	0	0	0	0	0	0	0	0
No. at end of reference year	7.5	2	20	7	37	24	22	11	88	79

NB: Herd change about 12% decline, off take 33 %, calving rate 25%. East African typical standard herd change at zero growth, off take is about double of calving rate.

NB: Herd change 17% decline, off take 33%, calving rate 17%, * East African typical standard herd change at zero growth, off take rate is about double of calving rate.

Table 6: Camel Herd dynamics

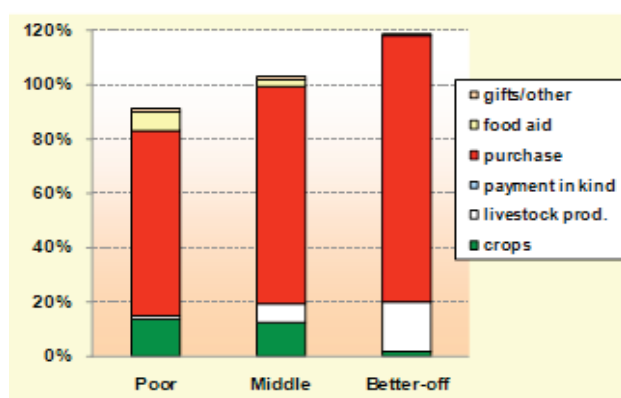
Agro pastoral camel Herd dynamics	Poor	Middle	B/off	Average	100%
Total owned at start of reference year	0	3	9	6	100
Adult female	0	1	4	3	67
No. born during the year	0	0.5	1	1	22
No. sold	0	0.5	1	1	22
No. slaughtered	0	0	0	0	0
No. died	0	1	1	1	22
No. given away	0	0	0	0	0
No. bought	0	0	0	0	0
No. lost or stolen	0	0	0	0	0
No. at end of reference year	0	2	8	5	78

9. LIVELIHOOD STRATEGIES

9.1. Sources of food

The selected reference year was below normal due to rainfall deficit of the previous 2 seasons characterised by droughts. However, the year also experienced a lift in livestock export ban and decline in food prices. Poor households only managed to produce and purchase 84% of the minimum energy requirements (1764 Kcal/per person/per day), which indicates a survival threshold deficit of 16%. However, an additional 7% of the annual energy requirements were supplemented by food aid and other gifts.

Figure 8: Sources of food



Wealth groups had different access to own livestock production during the reference year (April 2009 to March 2010). Poor households obtained little and/or no energy from livestock products (milk, meat and ghee), due to smaller livestock holdings and minimal production, resulting from consecutive droughts. Middle households consume 54% of the total annual milk production (2712 litres) and get 7% of their annual energy. The better-off consume 37% (795 litres) of their milk production and get 18% of their annual energy. Despite crop production being below normal in the reference



Maize crop cultivation, in Qaloocato

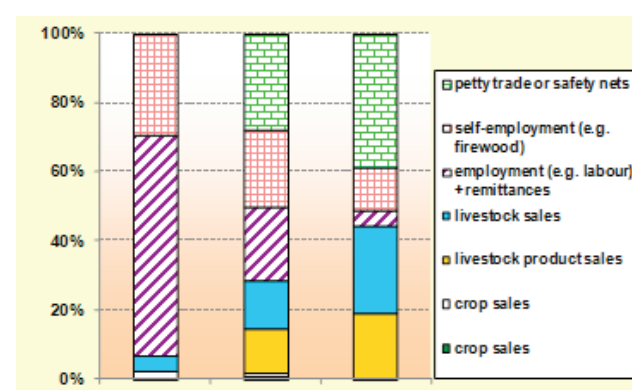
year (FSNAU Post Deyr 2009 and Gu 2009 technical series), own crops provided about 13-14% of energy contribution to the poor and middle households.

These groups kept their meagre production (*Jaleef*) for own consumption, while better-off harvested their immature crops for livestock fodder and income. Food purchase were the largest food source for all wealth groups, providing an energy contribution of 70%-80% for the poor and middle households and up to 100% for better-off. The better-off households have better access to high value non-staple foods (sugar, oil, pasta, pulses etc) and consequently better dietary diversity.

9.2. Income Sources

Wealth groups in the agro-pastoral areas have different sources of income according to their asset level (both material and social sources). Poor households have fewer income options and earn less. The annual total incomes are: Poor households (7,365,000 Slsh), Middle households (13,700,000 Slsh) and Better-off households (24,565,000 Slsh). The doubling of income across wealth groups is due to income diversity of the wealthier groups.

Figure 9: Sources of income



Poor households get most of their income from employment (56%) and self-employment (26%), as most, households temporarily migrate to urban towns in search of labour during the reference year. At least one family member, mostly the men, usually engages in casual labour, working on construction site, transport and as guards. Similarly, young girls work as domestic maids with a monthly wage. Other local labour options include grass cutting and some agricultural activities. Self-employment activities include women making ropes from the sisal plants which are sold in the main towns, while men collect and sell construction stones or burn and sell charcoal. Livestock and livestock product sales are the primary income source for the middle (25%) and better-off (40%) wealth groups, followed by petty trade (25% and 35% respectively) and self employment.



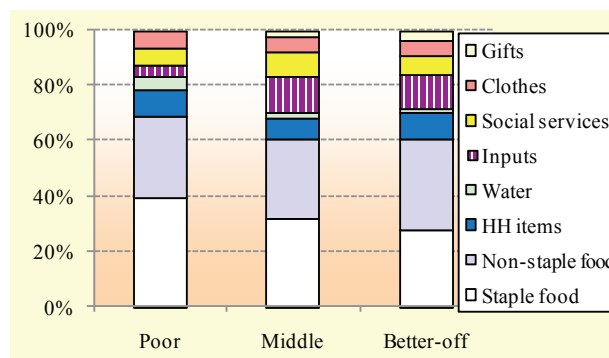
Fodder production for sale, Qaloocato village

9.3. Expenditure pattern

In the reference year, about 70% of poor households' income was spent on minimum energy needs. This also included other costs related to food preparation (salt, kerosene, soap etc) and water for domestic use. The income spent on food purchase was 60% (7,365,000 SIsh) for the typical poor and 55% (7,162,000 SIsh) for middle households. Middle households are able to produce more food from own production and therefore need to purchase less.

Poor and middle groups use 30-35% of the total cash to purchase staple food. The main staple foods for all wealth groups are rice, wheat flour and sorghum, while pasta is an additional staple for the middle and better-off groups. Middle and better-off spend more on inputs for both livestock (water, salt, fodder and drugs) and agricultural activities (tractor hours, labour etc). Also, well-off groups spend more on Qat and cigarettes than poorer households.

Figure 10 Expenditure pattern



10. HAZARDS

Togdheer agro-pastoral livelihood zone has strong linkages with Hawd pastoral and neighbouring urban livelihoods and suffer from the same shocks. Vulnerability relates to physical/material poverty, climate (rainfall deficits), asset ownership (livestock and land), environment, health, skills and infrastructure. This livelihood is susceptible to hazards/shocks such as drought, hyperinflation, market disruptions, disease outbreaks and conflicts. However, the three most significant hazards in the reference year were drought, disease and market disruptions.

10.1 Drought

TAP has experienced four successive below normal rainy seasons which affected the key productive assets. Poor performance of rains negatively affected pastures, water availability, crop production and livestock body conditions, which led to a drastic reduction in calving, kidding and livestock conceiving rates. During the reference year, below normal rains caused abnormal migration patterns, increased livestock hand feeding, and led to increased livestock sales and loan taking. Poor rainfall in addition to biomass depletion, also caused resource degradation, resulting from extensive charcoal production, an unsustainable practice that may change biodiversity (soil & fauna) and result in unprecedented long-term impacts. Recurrent droughts ruin investments in crop production and livestock, as well as hinder access to household basic services, including schooling, clothing and health services.

10.2 Disease

Since livestock and crop production are the two main economic pillars of the LZ, diseases are among the most significant hazards affecting the overall food security situation. Major diseases outbreaks, such as tick-borne disease and Contagious Caprine Pleura Pneumonia (CCPP), can cause significant reduction in livelihood holdings and deteriorate livestock body conditions leading to reduced livestock sales. The suspected Rift Valley Fever (RVF) in Somalia, for instance, caused the livestock export ban by the government of Saudi Arabia in 1998 and 2000 - Oct' 09. This affected livestock export marketing, income sources, and the purchasing power of the households in the livelihood zone. Livestock disease hazards can have a greater impact on better-off households who have larger livestock holdings. Similarly, crop diseases hinder production levels causing households to depend on purchases throughout the year.

10.3 Market Disruption

Almost all households obtain the majority of their energy requirements from market purchase. Therefore they rely on market access for their main staples. Hence any fluctuations in the supply of their main staples (as there was in 2008) inhibits access to their minimal energy needs. Households are also reliant on the livestock export market and local consumption for exchange of basic food and non food items and income.

Households' income are significantly reduced if a ban in livestock export trade is imposed by the primary consumption markets in Saudi Arabia, Yemen, Oman and other Arab states. This affects household purchasing power, which in extreme situations can impair household survival threshold. Therefore, almost all households in the livelihood are vulnerable to any factors that disrupt market transaction and activities. Unprecedented port closures also affect supply and cost of imported foods as well as employment opportunities. Conflicts (political and tribal) can disrupt export and import flow of commodities and household access to labour. This not only has negative implications for households' access to food and income, but also causes displacements and disruption of social networks.

11. COPING STRATEGIES

The impact of shocks on households, sometimes, simultaneously, depends on their ability to cope. The better-off and some middle households have more assets and diverse sources of cash and food incomes, and therefore have safety nets that enable them to recover much faster from persistent droughts than poorer households. In order to cope with these shocks, households use a mix of low, medium and high cost coping options. Normally, when a households' access to food is disrupted by a shock, there are particular types of coping strategies that can expand food access and income. The most common coping mechanisms used by this livelihood include:

Table 7: Coping strategies

Coping Strategy	Description
Labour migration	Poor and most middle households migrate to neighbouring urban towns in search of casual labour, such as porters etc for men, and domestic works for women/young girls. The cash or food income earned is usually sent back to their families.
Self-employment	During times of hardship, family members engage in other activities such as charcoal production, collection of stones and processing of sisal for rope making. The number of days spent on these activities increase with the magnitude and scale of the shock.
Loans	Households borrow and purchase food on credit from either livestock traders or shopkeepers. The frequency of repaying debts strengthens the level of trust between households and traders. Therefore, households' priority is to repay debts in order to increase further access to loans and credit.
Social support	Households seek gifts from relatives in the neighbouring livelihood of Hawd pastoral and close relatives in the main towns.
Livestock sales	Households increase sales of livestock & livestock products in exchange for food and other basic services. This coping response is very common for most middle and better-off wealth groups, due to their larger herd size. They sell shoats, which are traded for local consumption and export.
Livestock migration	Abnormal livestock movements to neighbouring regions or across the border to Ethiopia are common. Extensive hand feeding strategies for rescuing assets involve feeding of weak animals, pregnant & lactating herds.

12. CONCLUSION

The findings of the Togdheer baseline update indicate that asset holding and other livelihood assets have declined compared to the previous baseline (December 2002-January 2003). The average livestock holding in the reference year was 64% (sheep), 40% (camel) and 89% (cattle) below the previous baseline. Similarly, herd dynamics at the end of reference year reduced by 12% for sheep and 17% for camels. The contribution from livestock products to poor households' energy and income was very limited due to persistent droughts and loss of productive livestock. Cultivation practices have been declining due to limited farm inputs and erratic weather patterns. Nevertheless, most wealth groups have better access to temporary labour migration to main towns, benefiting from a 44% increase in daily labour wage compared to the 5-year average. This has improved purchasing power, whilst at the same time food prices decreased compared to 2008 – a hyperinflation year.

This trend links to the IPC analysis, describing the progression of vulnerability in the Togdheer agro-pastoral livelihood system, over the last 4 seasons (2008 to 2009/10). Severe drought incidences in Togdheer region resulted in a humanitarian emergency during the *Deyr* '09/10 season assessment¹. The total number of affected population estimated at 79,000 people. Of these, 4,000 people fell under HE and 75,000 in the AFLC. This was attributed to persistent droughts over the last 4 seasons. The nutrition situation of the agro-pastoral populations of the Togdheer region remained critical. However, prior to conducting the baseline, the zone received rains which improved conditions leading to a near normal next season. The livelihood is vulnerable to droughts, livestock bans, civil insecurity, inflation and market disruptions. From the baseline assessment, it is evident that the Togdheer agro-pastoral zone is vulnerable to a combination of complex crises. Communities therefore strategically adapt by employing coping strategies to ensure they have access to their food and income needs.

13. RECOMMENDATIONS

Due to the complexity of hazards that can affect households simultaneously, it is critical to focus interventions on activities that enhance livelihood resilience and sustainability. The need to protect and manage rangelands requires the collaboration of agro-pastoral communities, government agencies and other stakeholders. Regulations need to be formulated and enforced to enhance sustainable use and protection of rangeland resources. Indiscriminate tree cutting and charcoal burning should be prohibited. Stakeholders need to mobilise local community in identifying and establishing alternative options for livelihood diversification. Moreover, community capacity building on appropriate techniques of fodder/grass preservation and production should be enhanced to increase income

opportunities. Adoption of mechanised farming, alongside draught animals should be encouraged to increase food crop production and horticulture cultivation. Existing health facilities (both human and veterinary services) should be improved and extended to poor households, most of who live in remote rural areas.

A combination of factors have affected livelihood and food security in Togdheer agro-pastoral areas. Tackling one problem without taking into account other compounding concerns of the development challenges will not enhance sustainability. From the findings of the baseline assessment, the following development interventions are suggested prioritization:

- Strengthen existing co-operative system to enhance crop production and strengthen land use management.
- Ensure sustainable use of natural resources in order to enhance environmental sustainability and increase rangeland ecological resilience.
- Improve water harvesting techniques and rehabilitate seasonal river breakages and channels.
- Improve the use of mechanised farming systems such as tractors, alongside draught animals (animal traction) in order to increase food crop production.
- Introduce fodder/grass storage system to minimize wastage and maximize income from these sources.
- Improve cultivation of vegetables/fruits and marketing system.
- Build gabions to minimize surface water run-off which accelerates soil erosion and environmental damage.
- Protect rangelands from tree cutting, charcoal burning and further encroachment. This could be done by identifying and establishing alternative yet sustainable options for livelihood diversification and income generation to minimize the number of livestock sales and encourage restocking.
- Construct feeder roads that connect rural people to main towns and markets. This should enable the poor wealth group alleviate the problems associated with transporting commodities and accessing market as well as stimulate increased agro-pastoral production.
- Improve health services and facilities.
- Improve the provision and extension of veterinary services to poor households in remote areas.

The key indicators for future monitoring are:

- Livestock ban
- Rainfall situation
- Livestock diseases.
- Failure of grass production
- Livestock and crop production
- Seasonal streams
- Food price increase Security situation

¹ Refer to FSNAU post *Deyr* '09/10 Technical Series

APPENDICES

Appendix 1: Baseline Methodology

In April-May 2010, FSNAU baseline team conducted baseline assessments in Somaliland. The exercise, which is usually carried out after every post Gu and Deyr assessments was aimed at updating the old baselines of Hawd pastoral and Togdheer agro-pastoral livelihoods and to better understand recent livelihoods changes due to recurrent droughts and economic crises. Prior to undertaking the Togdheer agro-pastoral LZ baseline, a 5-day training workshop was held in Garowe, Puntland from 16-20 April 2010. The workshop assembled 20 participants, 15 from FSNAU baseline resource team, 1 from WFP, and 4 government representatives. Three FSNAU Senior Baseline and Livelihood Analysts conducted the training, with the help of FEWS NET country representative.

The training workshop focused on the following thematic areas: aim/objectives of the training; overview of the HEA framework, livelihood zoning and reference year identification; Seasonal calendar and wealth break-down; Kilocalorie calculations; Quality assurance of field data; Herd dynamic training, Expandability (expandability of crops, consumption of any surplus, increased sale of livestock and changes in employment, self-employment, remittances, gifts) and Coping strategies. FSNAU gender analyst provided training on gender vulnerability, the importance of gender dimensions in baseline livelihood assessments and on how to integrate gender indicators in the baseline and sectors seasonally monitored by FSNAU. The participants reviewed and pre-tested community leader and focus group interview schedules. Finally, the team discussed the reference year identification and general seasonal calendar.

Sampling and data collection

Workshop participants were divided into 5 teams. Three teams travelled to Hawd pastoral zone and 2 teams to Togdheer region. The basic tool used for data collection and analysis was the Household Economy Approach (HEA) which uses typical methods and steps in HEA framework, such as livelihood zoning at region/district levels, wealth break down and analysis of livelihood strategies (food, income and expenditure patterns) at village level. The main activities that the baseline assessment used in data collection are:

- Organising participatory workshops
- Review of secondary information related to Togdheer agro-pastoral livelihood system
- Conducting semi structured interviews
- Proportional pilling.

The team made preliminary analysis on spot calculations for checking internal consistency within and across the wealth groups. In addition, qualitative information on the 5 capitals was documented to understand linkages between HEA and SLA (Sustainable Livelihood Approach) framework. The team compiled the results and finalized the analysis in Hargeisa. In conducting the baselines, some constraints were encountered relating moss compliances and data quality. The team was compelled travelling in a UN-convoy to villages, which raised high expectations, leading to misleading information gathered, delays and more time in getting reliable data.



Community representative interviews, Katitaaley village

Appendix 2: Community Representatives Interview Form (General Topics & Wealth Breakdown)

District	Livelihood Zone	Village: Population number:	Coordinates Lat: Long:
Interviewers: Male _____ Female _____	Date	Number of participants Men _____ Women _____	(on Thuraya, save as waypoint and send to Track1 immediately)

Procedures:

1. **Introduce** team and explain **objectives** of the assessment.
2. Ask the community leaders or representatives to give you an **overview** of the situation in the community.
3. Explain the reference year that for which we are collecting data.

HAZARDS

TIMELINE: Include *positive events* as well as *periodic or intermittent hazards*

A periodic or intermittent hazard is one that affects crop or livestock production in <i>some but not all years</i> :				
Insecurity – political tension/conflict			Insecurity – clan conflict	Border closure
Drought	Frost	Wind	Epidemic crop disease	Wild Animals
Flood	Hail	Crop Pests	Epidemic livestock disease	Market events

Year	Seasonal Performance (1-5*)	Event(s)	Normal/ abnormal livestock migration	Response: What did people (households) do themselves to cope with the problem, <i>disaggregate by gender if applicable</i> ? Was there any outside assistance?
2007	Gu			
2006	Deyr			
2006	Gu			
2005	Deyr			
2005	Gu			
2004	Deyr			
2004	Gu			
2003	Deyr			
2003	Gu			
2002	Deyr			

* **Classify** each season as follows:

5 = an excellent season for household food security (e.g. due to good rains, good prices, good crop yields, etc); 4 = a good season or above average season for household food security; 3 = an average season in terms of household food security; 2 = a below average season for household food security; 1 = a poor season (e.g. due to drought, flooding, livestock disease, pest attack) for household food security

Please rank the three main chronic hazards affecting households in this area. (Note: A chronic hazard is one that significantly affects crop or livestock production almost every year.)		
1.	2.	3.

LIVESTOCK MIGRATION

Pattern of Migration in an Average Year (e.g. the reference year).

Year				
What were the species and composition of the migrating herd (e.g. dry camels and dry shoats)				
Where do animals move to in different seasons?				
Gu				
Hagaa				
Deyr				
Jilaal				
Who in the household moves with the migrating animals (by gender, age)?	Men	Women	Boys	Girls
Camel:				
Cattle:				
Sheep and Goat:				
Draw a map illustrating the pattern of migration in this type of year				

Pattern of Migration in a Recent Bad Year

Year				
Why was the pattern of migration abnormal?				
What were the species and composition of the migrating herd (e.g. all animals)?				
Where did animals move to in different seasons?				
Gu				
Hagaa				
Deyr				
Jilaal				
Who in the household moves with the migrating animals (by gender, age)?	Men	Women	Boys	Girls
Camel:				
Cattle:				
Sheep and Goat:				
Draw a map illustrating the pattern of migration in this year				

Select the most important food and income acquisition strategies from the following list and indicate their timing – by shading – in the table below. Make sure you have covered all the main food and income generating activities of the poor.

<p><u>Rainfall</u></p> <p><u>Crops:</u></p> <ul style="list-style-type: none"> - Main crops grown for consumption - Main crops grown for sale <p><u>Livestock:</u></p> <ul style="list-style-type: none"> - Milk production - Livestock sales <p><u>Food Aid</u></p> <ul style="list-style-type: none"> - Supplementary feeding - General distribution - School feeding 	<p><u>Employment:</u></p> <ul style="list-style-type: none"> - Local labour (e.g. on farms) - Off-farm employment (e.g. brick-making) - Labour migration (where to?) <p><u>Wild foods/Game:</u></p> <ul style="list-style-type: none"> - Collection & consumption, by type 	<p><u>Food purchases:</u></p> <ul style="list-style-type: none"> - Timing of purchases and prices (highest/lowest) <p><u>Annual 'hunger' season:</u></p> <ul style="list-style-type: none"> - Timing <p><u>Mining</u></p> <ul style="list-style-type: none"> - Peak periods <p><u>Health</u></p> <ul style="list-style-type: none"> - Malaria, diarrhea, etc. 	<p>For crops, indicate the timing of the following:</p> <ul style="list-style-type: none"> - LP (land preparation) - P (planting) - CG (consumption green) - H (harvesting) <p>Indicate variations in access with arrows:</p> <p>to indicate peak access and</p> <p>to indicate minimal access</p>
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[illegible]

WEALTH GROUP DESCRIPTIONS AND BREAKDOWN

Wealth groups: local definitions and names (local language)			
Wealth group name (English)			
Main household heads a. Male headed b. Female headed c. Elderly headed			
No. wives per husband (if polyynous society)			
Average household size - Minus those living away + Plus those from other households			
Rainfed land owned			
Irrigated land owned			
Land cultivated (owned +/- Rented/loaned land)	Rainfed		
	Irrigated		

Main crops grown for sale				
Main crops grown for food				
Who are the primary careers for crops (for food and sale)?				
Who are the primary decision makers for livestock and livestock product sales (within household)?				
Livestock: Camels owned	Total (range)			
	Prod. Females			
Cattle owned	Total (range)			
	Prod. Females			
	Plough oxen			
Goats owned	Total (range)			
	Prod. Females			
Sheep owned	Total (range)			
	Prod. Females			
Livestock loaned (under what type of arrangement?)				
Other livestock:				
Other livestock:				
Other causes of differences in production (e.g. quality of land, access to irrigation, labour, agri. inputs etc)				
Other productive household assets (e.g. ploughs, irrigation, trees, hives, equipment, shops/kiosks)				
Main sources of cash income, ranked				
Men				
Women				

<u>Checklist of cash income sources:-</u> Livestock sales - Agricultural labour - Other casual labour (e.g. construction) - Paid domestic work	- Social support (remittances/ gifts/zakat) - Firewood collection or charcoal burning - Collection and sale of wild foods - Mining	- Crop sales - Vegetable sales - Petty trade (small-scale trade)	- Trade (large scale) - Small business - Transport (e.g. taxi, pick-up)	
Months of consumption from own harvest				
Bad year response strategies <i>Specify by different strategies for women, men, elderly, adolescent boys and girls</i>	Men:			
	Women:			
	Boys:			
	Girls:			
Schooling levels attained:	Boys:			
	Girls:			
% of households in each wealth group (proportional piling)				
Main constraints and development priorities à	Men	Women	Boys <15yrs	Girls <15 yrs
	Constraints:	Constraints:	Constraints:	Constraints:

Last step: Selection of participants for interview from the different wealth groups. Ask the community leaders to organise 3-5 people from each wealth group. At least half of the participants or groups should be women. Explain that you will be interviewing each group separately. Arrange meeting times and a location for each group

Appendix 3: Community Representatives Interview Form (General Topics & Wealth Breakdown)

District:		Livelihood zone:		Village:	
Wealth group:		Reference year:		Type of year:	
Interviewers 1. _____ 2. _____ 3. _____		Date:		Number of interviewees	
				Men:	Women:

Procedures:

1. Introduce team and explain objectives of the assessment.
2. Ask the community leaders or representatives to give you an overview of the situation in the community.
3. Explain the reference year that for which we are collecting data.

HAZARDS

1. TIMELINE: Include positive events as well as periodic or intermittent hazards

A *periodic* or *intermittent* hazard is a shock that affects crop or livestock production in some but, not all years and include: Drought, Insecurity, Wind/Hail, Floods, Wild animals, Crop pests, Epidemics crop diseases, Epidemic livestock diseases, Border closures, Market events

Year	Season	Rank 1-5 (see note below *)	Event(s) [* **]	Effects: different effect caused by the events	Responses: What did men and women do themselves to cope with the problems	
					Male-headed HH	Female-headed HH
2010	Deyr					
2010	GU					
2009	Deyr					
	GU					
2008	Deyr					
	GU					
2007	Deyr					
	GU					
2006	Deyr					
	GU					

* check how preceded events impact on followed seasons

** Classify each season as follows: 5 = an excellent season for household food security (e.g. due to good rains, good prices, good crop yields, etc) ,4 = a good season or above average season for household food security, 3 = an average season in terms of household food security, 2 = a below average season for household food security, 1 = a poor season (e.g. due to drought, flooding, livestock disease, pest attack) for household food security

2. In the table below, please rank the three main chronic hazards affecting households in this area. (Note: A chronic hazard is one that significantly affects crop or livestock production almost every year).

1.		2.		3.	
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LIVESTOCK MIGRATION

3. Describe the pattern of Migration in the Reference Year

a. Reference Year:			
b. Were there livestock migrations in the reference year? (tick on the boxes provided)	1. YES	2. NO	

c. If No, move on to the next table (question4)			
d. What were the species and composition of the migrating herd (e.g. dry camels and dry shoats)			
e. Where do animals move to in different seasons?			
Gu			
Hagaa			
Deyr			
Jilaal			
f. Who in the household moves with the migrating animals?			
	Men	Women	Whole HH
Camels			
Cattle			
Sheep and Goats			
g. On the map of the livelihood zone (map 2) provided, illustrate the pattern of migration in this type of reference year			

4. Describe the pattern of Migration in a Recent Bad Year

Reference Year:			
Why was the pattern of migration abnormal?			
h. What were the species and composition of the migrating herd (e.g. all animals)?			
i. Where did animals move to in different seasons?			
Gu			
Hagaa			
Deyr			
Jilaal			
Who in the household moved with the migrating animals?			
	Men	Women	Whole HH
Camels			
Cattle			
Sheep and Goats			

WEALTH GROUP DESCRIPTIONS AND BREAKDOWN

5. In the table below, indicate your response accordingly.

Wealth groups: local definitions and names (local language)		Very poor		Poor		Middle		Better off	
Wealth group name (English)		Very poor		Poor		Middle		Better off	
a. Livestock ownership									
Camels owned	(Range) - Mid point								
	Productive Females								
Cattle owned	(Range) - Mid point								
	Productive Females								
	Plough oxen								
Goats owned	(Range) - Mid point								
	Productive Females								
Sheep owned	(Range) - Mid point								
	Productive Females								
b. Livestock loaned (Under what type of arrangement?)									
c. Other livestock:									
d. Land ownership									
Rained land owned									
Irrigated land owned									
e. Land cultivated	Rain fed								
	Irrigated								
f. Main crops grown for sale									
g. Main crops grown for food									
h. Other characteristics/differences in production among wealth groups (e.g. quality of land, access to irrigation, labor, ag. inputs etc)									
i. Other productive household assets	Ploughs								
	Irrigation								
	Trees								
	Bee hives								
	Fishing equipment								
	Shops/kiosks								
	Others (specify)								
	Others (specify)								
	Others (specify)								
a. No. wives per husband (if polygynous society)									
b. Average household size (Minus those living away + Plus those from other households/dependants)									
c. Main sources of cash income, ranked, by gender of household member doing the task - normally	Household		Household		Household		Household		
	Men	Women	Men	Women	Men	Women	Men	Women	
	1		1		1		1		
	2		2		2		2		
	3		3		3		3		
Use this checklist to rank the income sources in c above									
1. Fishing	5. Cattle/shoats milk sales 6. Agricultural labour 7. Crop sales 8. Other casual labour (e.g. construction)	9. Paid domestic work	14. Vegetable sales 15. Petty trade (small-scale trade) 16. Trade (large scale) 17. Small business 18. Transport (e.g. taxi, pick-up)						
2. Livestock sales (large animals)		10. Social support (remittances/gifts/zakat)							
3. Livestock sales (small animals)		11. Firewood collection or charcoal burning							
4. Camel milk sales		12. Collection and sale of wild foods							
		13. Mining							
d. Months of consumption from own harvest (if applicable)									
e. Are there any differences in access to the market by wealth group? 1. YES 2. NO If YES, please explain what are they?									

f. Bad year response strategies for respective wealth groups	List strategies adapted by men				
	List strategies adapted by women				
g. Schooling levels attained by children, indicate by gender					
h. % of households in each wealth group (proportional piling)					
i. Main constraints and development priorities: List constraints that affect men List Constraints that affect women					

SEASONAL CALENDAR

6. Using the following checklist as a guide, complete three calendars for the reference year: GENERAL, MEN and WOMEN

Rainfall <input type="checkbox"/> Onset <input type="checkbox"/> Duration <input type="checkbox"/> Cessation <input type="checkbox"/> Reliability for productive use Crops <input type="checkbox"/> Planting (P), Weeding (W), Harvesting (H) <input type="checkbox"/> Main crops grown for consumption <input type="checkbox"/> Main crops grown for sale Fishing Employment <input type="checkbox"/> Herding <input type="checkbox"/> Labour migration	Livestock <input type="checkbox"/> Milk production <input type="checkbox"/> Milk and ghee sales <input type="checkbox"/> Livestock sales <input type="checkbox"/> Livestock prices by type (highest, medium, lowest) <input type="checkbox"/> Livestock migration Self-employment <input type="checkbox"/> Collection of bush products and other options by type <input type="checkbox"/> Trade Water availability Livestock reproduction <input type="checkbox"/> Conception period /species <input type="checkbox"/> Kidding and calving	Food Purchase <input type="checkbox"/> Timing by type (cereals, sugar, oil, meat, etc) <input type="checkbox"/> Prices (highest/lowest) <input type="checkbox"/> Wild food (wild vegetable & fruits, game, etc.) <input type="checkbox"/> Collection & consumption period Hunger period Health <input type="checkbox"/> Malaria, diarrhea, etc. <input type="checkbox"/> Festivals
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Indicate variations in access with arrows: → to indicate peak access and ← to indicate minimal access

GENERAL

Season	Gu			Hagaa			Deyr			Jilaal		
Month	April	May	June	July	August	September	October	November	December	January	February	March
ACTIVITY/ EVENT/ PRICE CHANGE												

AVERAGE YEAR

Which tasks are performed only by men?

Which tasks are performed only by women?

Which tasks are performed by both?

BAD YEAR (situations of stress)

Which tasks are performed only by men?

Which tasks are performed only by women?

Which tasks are performed by both?

Last step

1. Selection of participants for HH interview from the different wealth groups.
2. Ask the community leaders to organise 3-5 people from each wealth group. At least half of the participants should be women.
3. Explain that you will be interviewing each group separately.
4. Arrange meeting times and a location for each group.

(Footnotes)

1 Ranking of all the years relative to each other based on the following criteria: 5 = Excellent year for household food security (due e.g. to low prices, good wage rates, etc); 4 = A good or above average year for household food security; 3 = An average year in terms of food security; 2 = A below average year for household food security; 1 = A poor year for household food security (e.g. due to high prices, low wage rates, etc.)

2 Formulas: Camels and goats: kg butter/ghee = litres milk x 0.049; Cows: kg butter/ghee = litres milk x 0.04; Sheep: kg butter/ghee = litres milk x 0.098

3 Checklist: agricultural labour (clearing fields, preparing land, planting seeds, weeding, harvesting, threshing), digging pit latrines/wells, construction, brick making, skilled casual labour (e.g. carpentry), domestic work, livestock herding.

4 Checklist for self-employment: collection and sale of water, firewood, charcoal, grass, handicrafts, sand collection, gum/resins, thatch/poles; fish processing. Checklist for small business/trade: petty trade, trade, rental/hire, kiosks and shops.

The Information Management Process

Gathering & processing

- FSNAU has a unique network of 32 specialists all over Somalia, who assess the food security and nutrition situation regularly and 120 enumerators throughout the country, who provide a rich source of information to ensure a good coverage of data.
- Food security information is gathered through rapid assessments as well as monthly monitoring of market prices, climate, crop and livestock situations.
- Baseline livelihood analysis is conducted using an expanded Household Economy Approach (HEA).
- The Integrated Database System (IDS), an online repository on FSNAU's official website www.fsnau.org, provides a web-based user interface for data query, data import and export facilities from and into MS Excel, graphing, spreadsheet management and edit functions.
- Nutrition data is processed and analyzed using the Statistical Package for Social Sciences (SPSS), EPIInfo/ENA and STATA software for meta-analysis.
- FSNAU developed the Integrated Phase Classification (IPC), a set of protocols for consolidating and summarizing situational analysis. The mapping tool provides a common classification system for food security that draws from the strengths of existing classification systems and integrates them with supporting tools for analysis and communication of food insecurity.

Validation of Analysis

- Quality control of nutrition data is done using the automated plausibility checks function in ENA software. The parameters tested include; missing/flagged data, age distribution, kurtosis, digit preference, skewness and overall sex ratio.
- Quality control of food security data is done through exploratory and trend analysis of the different variables including checks for completeness/missing data, market price consistency, seasonal and pattern trends, ground truthing and triangulation of data with staff and other partner agencies, and secondary data such as satellite imagery, international market prices, FSNAU baseline data, etc.
- Before the launch of the biannual seasonal assessment results (Gu and Deyr), two separate day-long vetting meetings are held comprising of major technical organizations and agencies in Somalia's Food Security and Nutrition clusters. The team critically reviews the analysis presented by FSNAU and challenges the overall analysis where necessary. This is an opportunity to share the detailed analysis, which is often not possible during shorter presentations or in the briefs.

Products and Dissemination

- A broad range of FSNAU information products include, monthly, quarterly and biannual reports on food and livelihood insecurity, markets, climate and nutrition, which are distributed both in print and digital formats including PowerPoint presentations and downloadable file available on the FSNAU site.
- Feedback meetings with key audiences enable us to evaluate the effectiveness of our information products. We constantly refine our information to make sure it is easily understandable to our different audiences.
- FSNAU has also developed a three year integrated communication strategy to ensure that its information products are made available in ways appropriate to different audiences including, donors, aid and development agencies, the media, Somalia authorities and the general public.

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