



Guban Pastoral Livelihood Baseline Report

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1. EXECUTIVE SUMMARY

The Food Security and Nutrition Assessment Unit (FSNAU) carried-out a livelihood baseline assessment in October 2014 in Guban pastoral livelihood in Northwest regions of Somalia. The purpose of the exercise was to understand the way Guban pastoralists make a living, manage their assets and capabilities during the reference year. The study also attempted to highlight what type of coping strategies are employed by households in normal and bad years. The livelihood baseline information is eventually used as the basis for measuring the impact of current shocks on the household economy. The detailed baselines therefore allow for assessing the extent to which the current situation has departed from the baseline patterns, to inform the design of early response and longer-term interventions aimed at improving household resilience and livelihood security for Guban Pastoral livelihood zone

Livelihood zone description: The Guban Pastoral (Guban means “burnt area” in Somali) is located in the northern part of the Awdal and Waqooyi Galbeed regions, which runs parallel to the Gulf of Aden for about 150 miles between Seylac district (Awdal region) in the west and Berbera district (Waqooyi Galbeed region) in the east. The Guban pastoral livelihood zone covers four districts across Awdal and Waqooyi - Galbeed regions. It's plain narrows gradually from 35 miles in the west to about 4 miles in the east but remains low-lying throughout - less than 100 meters above sea level. The livelihoods zone has links with the major urban settlements where fishing activities are common (Lighaya, Zeylac , Berbera) and bordered by the much higher Golis mountain range to the south. The area is sandy and has a sparse vegetation cover., The zone experiences high temperatures and high humidity during Hagaa (June – September), but very little rainfall late December to January(mono seasonal) The basis of the economy is pastoralism and the total estimated population for the livelihood zone is 205 202 (UNFPA 2014)

Main Findings

Referring to UNFPA population (2014), Guban population is estimated at 205 202 people. Based on their relative wealth, the households in this livelihood zone are classified into: Poor (30%), Middle (50%) and Better-off (20%). This categorization is based on livestock ownership and type kept, family structure and other economic activities the households engage in. The Poor households own 30-40 goats, 15-20 sheep, and 4-5 camel ; while the Middle and the Better-off have larger herd size of about 45-55 goats, 20-25 sheep, 8-12 camels; and 80-90 goats, 30-35 sheep and 20-30 camels, respectively. Findings from the baseline assessment indicated a drastic decline of herd size by 69 percent, compared to 2003 baseline asset estimates. These are attributable to successive drought effects and increased numbers of animal off take - sold and slaughtered/died (particularly Sheep). Despite this general decline in livestock numbers, the number of camels and goats increased slightly, mainly due to the fact that these animal species are more tolerant of unfavorable and harsh weather conditions.

Seasonality: There are two main seasons in Guban livelihood zone; namely Xays which is the wet season (December - January) and the Jiilaal which is a long dry period (February - November). The rainy period is locally known as ‘Xays’ and is the remarkable rainy period in the Guban area. However, in the recent seasons (last 2-3 seasons prior to the baseline assessment), Xays rains decreased and became less beneficial, while the area received unusual rains of Gu and Deyr , which are more frequent and made improvements on grazing, browse, and water availability. The changing patterns of the seasons observed are in line with general extreme weather changes observed through the Horn of Africa hence its continuity in the coming years is not certain. The Livelihood zone receives mean annual rain fall of 57mm to 93mm. The hottest dry period occurs during June-August, with temperatures of around 42 degrees Celsius and sometimes more, while the cooler months are November to February. Livestock migration is normally within the livelihood zone, especially when Hays rain start on time and are fairly distributed. This migration pattern peaks when Assow (heavy wind) effects increase in the months of June and July. In a bad year, there is an out-migration from Guban zone to west Golis (South), and further to Shiniile of Somali region in Ethiopia (towards the west), Wooqoyi Galbeed region and Hawd pastoral livelihood zone of Hargeysa (Somaliland).

Livelihood Strategies: Sources of Food: Market purchase is the primary food source for the Poor households, followed by consumption of livestock products (milk, meat, ghee, Blood). A total energy of 77 % Kcal per person per day (pppd1) is obtained from both staple foods (43% Rice & Wheat flour) and non-staple food items (34% sugar & Vegetable oil). This caloric intake is largely sourced through the sale of their livestock. Milk and meat from the households’ own livestock supplements the local diet, providing an important source of protein but also an important additional source of calories – yielding 11% of annual needs for the Poor households. However, this is not enough to cater for all their food needs hence, they supplement with consumption of wild foods at certain points of the year (one of the main types of wild foods

1 Percentage Kilocalories per person per day.

are kulan fruits – *balanites aegyptiaca*) and they receive gifts in kind from wealthier households; mostly gifts of milk and occasionally gifts of meat or sugar.. Food aid also contributed some of energy for the Poor households during the reference year, amounting to 9% kcal in total. This allows poor households to access the minimum food required (at 98% kcal pppd) through this combination of various sources. It is important to note that the Poor households would not have covered the minimum survival food needs without external assistance during the reference year. This situation is becoming common and is attributed to successive drought effects experienced prior to the reference year. Therefore, this reference year was considered as slightly below an ‘average year.’

The Middle and Better-off households relied on similar percentages and type of food purchased to meet their annual food needs- 82% and 94%, respectively. The staple cereals are imported rice and wheat flour normally sold at similar prices. Better-off households also purchased pasta as a complementary staple food although this food is double the price of rice. The remaining percentage of food energy was acquired from own livestock products (milk and meat). The two wealth groups get a total of 3,298 liters (83% camel and 17% goat) and 5045 liters (90% camel milk and 10% goat) of milk from own livestock, respectively. The Middle households consume slightly more than half of the total production, while the Better-off consume about half of it. The rest is either sold or used as gifts to others in the community. In contrast to the Poor, the Middle and the Better-off wealth groups’ food access surpassed the basic 2100 kcal and they were able to achieve an average of 110% and 120% of their minimum energy requirements, respectively. The proportion of food needs covered by market purchases are relatively similar across the three wealth groups and the major difference in consumption patterns is the much larger quantities of camel milk consumed by the Middle and the Better-off households.

Income Sources:

In Guban Pastoral livelihoods zone, the income source and even its level is determined by the status of wealth (livestock holding and other options for income). During the reference year, total annual cash income for a typical poor household in Guban pastoral amounted to Shs 8,340,000 (about 1280 US \$). About 53 percent of this was obtained by selling livestock and 22 percent was received through the sale of milk. Other sources of income for the Poor wealth group, included credit/loan and cash gifts (18%) and collection and sale of bush products (7%).

The Middle and the Better off wealth groups acquired significantly larger income during the reference year compared to the Poor wealth group. Annual cash income for the Middle and the Better-off households amounted to Shs 12,510,000 (1878 USD) and Shs 20,760,000 (3117 USD), respectively. A greater portion of the income of these two groups comes from livestock sales: 58% for the Middle and 55% for the Better-off, followed by income derived from camel milk sales 29% and 32% respectively. The two wealth groups also obtained an additional 13% of their total annual income through remittance either from family members who are based at the main cities in the country or abroad mostly in the neighboring Djibouti. Nearly an average Middle and Better -off household in Guban pastoral receives remittance money around three to four times annually but greatly vary in amount with the Middle receiving US\$ 300-700) and the Better-off receiving 550 US\$ to 1000 US\$.

Expenditure Patterns: With respect to expenditure patterns, food purchase represents the largest expenditure category across the wealth groups. The relative weight of this item is similar for all households, approximately 60 to 67 percent of their annual income. However, expenditure on staple foods (rice, wheat flour etc.), decrease across the wealth groups (34%Poor; 30%Middle and 25%Better-off), while non-staple purchase (sugar, oil etc.) increase inversely according to wealth level. The Middle and Better-off households devote higher income on non-food commodities. The category labeled “household products” include: tealeaves, salt, soap, utensils and batteries for lanterns, the only source of light in the evenings, and cloths are the next largest expenditure (8-12%) for the Middle and Better-off wealth groups. Poor households also spend more in household items (9%), debt repayment and other (6-7%).

Major hazards and constraints: The main hazards and constraints affecting Guban pastoral livelihood zone are persistent drought, clan conflicts, inflation, high food prices, border closures, livestock and human diseases, environmental degradation and sporadic locust attacks.

Future monitoring: The main livelihood food security-related parameters that are useful for monitoring are:

- Animal production (quantity)
- Livestock market prices and trade (demand/supply)
- Staple and non-staple food prices
- Supply of camel milk(Gu and Deyr seasons)
- Camel milk price

- Livestock body condition
- Livestock migration patterns
- Remittance flows
- Supply of fuel wood
- Fuel wood price and charcoal
- Social support

CONCLUSION

Based on the assessment findings, Goat, sheep and camel herds are important to the economy of this livelihood. High death rates for sheep were recorded (69%), since the 2003 Baseline study. The main causes were increased off-take and limited lambing rates, due to drought effects and slow recovery pace. Market purchase (staple and non-staple) is the primary food source for all wealth groups, followed by own livestock products (milk and meat) providing a total energy of 88%, 110% and 120% for Poor, Middle and Better-off respectively. For the Poor, this falls short of the total annual energy requirements and additional 9% is obtained in the form of humanitarian relief and gifts from the Better-off relatives. All wealth groups are accessing this energy, largely through the sale of livestock and livestock products, providing an income of \$18,340,000 for the Poor, and \$12,510,000, \$20,760,000 for middle and better-off respectively. About 60-67% of the total incomes are spent on food commodities; this makes most wealth groups, particularly poor households vulnerable to market related shocks in terms of food and livestock prices. Other hazards include, clan conflicts, lack of seasonal rainfall, and border closure between Djibouti and Somalia.

RECOMMENDATIONS

In order to offset the drastic loss of their herd size, pastoralists should be supported in asset building and to create income diversification options through:

1. Providing re-stocking program targeting the poor households – goat and camel species are recommended for re-stocking, as the baseline assessment has identified a gradual shift from sheep rearing to goat rearing. Camel herds do well in this drought stricken livelihood zone, and this is evident in the sustained herd size level of the species. Restocking with camels will improve household capacity to withstand the effects of drought shocks, as well as maintain their pastoralist livelihoods and lifestyle.
2. Strengthen existing cooperatives in building light salt processing industries for cleaning, refining, iodizing and packaging of salt products for the local market. Emphasis should be on environment – friendly packaging materials that are degradable. Promote and encourage livelihood diversification such as encouraging pastoralists to engage in fishing and fish processing to improve their livelihoods. Targeting of pastoralist IDPS who have fallen out of their traditional pastoralist lifestyle to switch to fishing projects will be a good initiative to pilot.
3. Provision of micro credit and revolving funds to small groups (women and youth) for engaging in income generating activities such as camel milk and skin collection for selling, and livestock trade. This can be done for both pastoralists and peri-urban settlers in Guban pastoral zone.
4. Afforestation program is advised to be among the primary intervention programs to halt the fast moving sand dunes widely covering vegetation and settlements. This should be done through cash transfer interventions and food for work programs, as well as initiating community awareness training on the importance of environmental protection and rehabilitation programs.
5. Provision of cash for work programs for rain water harvesting practices for both human and livestock consumption, through construction of water reservoirs, and diversion or slowdown of running water from Golis mountains, for prolonged water retention and improvement of rangeland conditions.
6. Extend livestock services (animal health services) to the livelihood zone by increasing access to livestock inputs (drugs) and training community animal health workers.
7. Strengthen rural education and health programs by providing adequate incentives to the teachers and health workers currently working in difficult conditions in the rural areas. This can be achieved through the partnership network between the community, local and international institutions, and relatives living abroad.
8. Rangeland management system should be initiated by empowering local community to engage in this activity in collaboration with the government and relevant institutions.
9. Promote marketing system and grading of the various frankincense products, for value addition which will have positive impact on household incomes and savings for increased livelihood resilience.
10. Roads that connect villages to the main market towns are very rough and most of them are often blocked and impassable during the rainy season. Correspondingly, pathways that lead to the Frankincense fields are also in bad

condition especially during the rainy season. Thus, improving transport infrastructure by constructing main and feeder roads, as well as bridges will ensure the smooth flow of goods and services, consequently resulting in increased household incomes.

11. Establish Cash for work programs for the construction of community assets such as roads, rain water harvesting and prevention of soil erosion. Provision of appropriate training and capacity building for local people, and research programme sustainability of the Frankincense species.

2. INTRODUCTION

2.1 Background information

Livelihood baseline assessments are important in understanding household access to food and income as well as expenditure patterns (Chambers and Conway, 1992). Baseline assessments use participatory rapid survey techniques to gather data and generate useful information to help understand how the most vulnerable live. Such information is critical to profiling the status and analysis of changes in household assets, shifts in livelihood strategies, shocks that increase vulnerability to livelihood and food insecurity, as well as household level coping mechanisms. In food security analysis, baseline information provides an analytical basis for identifying key indicators for livelihood and food security monitoring. Ultimately, baseline assessments inform and influence programming, policy and development processes that respond to shocks, reduce vulnerability and build resilience. In November 2014, FSNAU conducted a baseline assessment in the Guban Pastoral livelihood zone and the purpose of the exercise was to measure the extent, depth, and the underlying causes of vulnerability to livelihoods and food insecurity.

The objectives of the baseline assessment were:

Establish a baseline to inform future livelihood and food security monitoring, analysis and reporting. This baseline report describes the Guban Pastoral livelihood zone (rainfall pattern, pasture and water resources, linkages to neighboring zones); historical timeline and seasonality; as well as market analysis. The report also discusses livelihood assets, livelihood strategies, and the coping/response mechanisms employed by households. The findings are useful in designing timely and appropriate interventions, as well as for long term development and policy planning.

Investigate the socio-economic characteristics and asset holding of different wealth groups in the livelihood zone;

Assess the vulnerability factors (persistent shocks and hazards) and how these influence the strategies adopted for pastoral livelihood survival;

Determine the coping strategies employed by wealth groups and identify changes in livelihood strategies and/or wealth ranking in the pastoral livelihood system;

Identify the main problems and priorities for addressing livelihood and food insecurity within the livelihood zone.

2.2 Baseline analytical approach (Methodology)

The methodology employed for Guban Pastoral livelihood baseline is a combination of FSNAU's expanded baseline livelihoods analysis framework (BLAF). The BLAF approach integrates concepts of both the Household Economy Approach (HEA) (FEG, 2008) and the Sustainable Livelihoods Framework (SLA) (DFID, 2000), as can be seen in Table 1. The BLAF approach focuses on how households in different wealth groups obtain their food, generate their income and organize their expenditure patterns, including asset holding.

Before the actual baseline fieldwork, FSNAU organized a training workshop in Hargeisa, for all the technical participants of the baseline assessment in which the majority were FSNAU food security field analysts (experts in focus group interviews and HEA) who are based in Northern regions of Somalia. During the training, the discussions at the workshop was mainly centered on seasonality, particularly the onset of the main rainy season, reference year to be taken for the data collection, security situation and accessibility. Eventually, the team selected purposively 10 villages for the assessment

During the fieldwork, focus groups discussions (FGDs) with community representatives were organized in selected villages. The key informants FGDs focused on analysis of historical timelines, seasonality and livestock migration patterns in 'bad' and 'good' years. Proportional piling (a common Rapid Rural Appraisal method) was used to categorize households into

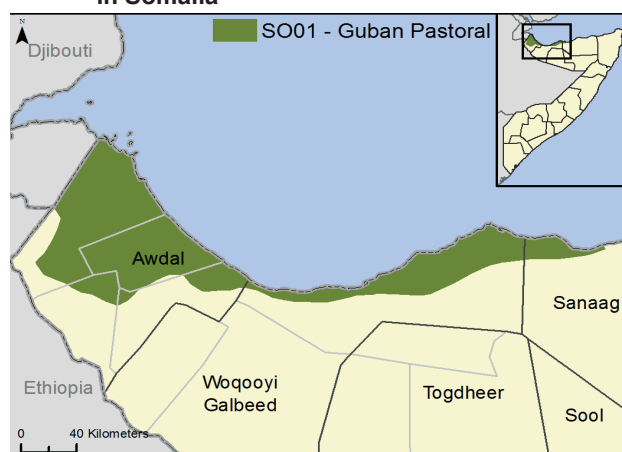
Poor, Middle and Better-off wealth groups, based on their livestock assets and family size. From this wealth categorization exercise, representative households were mobilized from each wealth group and focus group interviews were conducted. In total, 10 community-leaders focus group interviews and 30 wealth group representatives interviews (Poor, Middle and Better – off) were conducted in all of the assessed villages.

	HEA Baseline				HEA Outcome Analysis		
	Step 1	Step 2	Step 3		Step 4	Step 5	Step 6
HEA Process	Livelihood Zoning	Wealth Breakdown	Food, Income Expenditure Quantification	+	Problem Specification	+ Coping Capacity/ Response Strategies	= Scenario Outcome
	↑	↑	↑		↑	↑	↑
SLF Core Areas	Vulnerability/ Context	Livelihood Assets & Policies, Institutions, Processes (PIPs)	Livelihood Strategies & Policies, Institutions, Processes (PIPs)		Policies, Institutions, Processes (PIPs) & Shocks/Trends (under Vulnerability Context)	Livelihood Strategies & Livelihood Assets & Policies, Institutions, Processes (PIPs)	Livelihood Outcomes

3. LIVELIHOOD ZONE OVERVIEW

The term Guban in Somali language means “burnt- out”. Guban Pastoral livelihood zone is located in the northern part of the Awdal region, which runs parallel to the Gulf of Aden for about 150 miles between Seylac district (Awdal region) in the west and Berbera district (Woqooyi Galbeed region) in the east. The Guban pastoral livelihood zone covers the districts of Zeylac, Lughaya, Berbera and parts of Baki. The Guban plain narrows gradually from 35 miles in the west to about 4 miles in the east but remains low-lying throughout - less than 100 meters above sea level. The Guban pastoral zone has links with other neighbouring livelihoods such as fisheries in North, pastoral livelihood zone in Ethiopia (Shinile region) in the West, and bordered by the much higher Golis mountain range to the south. The area is sandy and has a sparse vegetation cover and experiences high temperatures as well as high humidity, but very little rainfall. The basis of the economy is pastoralism and the total estimated population for the livelihood zone is 205,202 (UNFPA 2014).

Map 1: Location of Guban Pastoral Livelihood Zone in Somalia



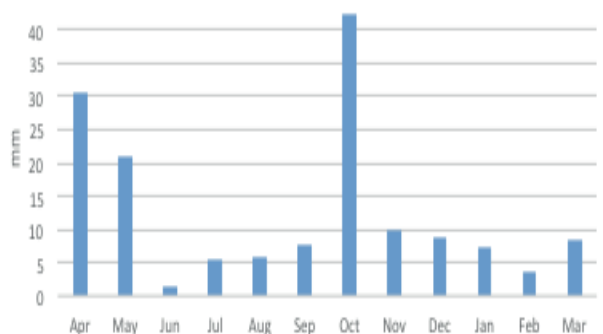
The Guban livelihood zone has two main seasons. The jilaal season covers late December to May and is the only season to some rain is received (locally named xays rains) in December-January. The second season is the Gu-hagaa season, which is a dry period in this area spanning June to November. The jilaal in the Guban livelihood zone does not reflect the jilaal experienced in the rest of the country in that, Jilaal in this zones is time to receive some rains while in other parts of Somalia Jilaal is a dry period. Likewise the Gu season in this zone is different as it is a dry period unlike other parts of Somalia where Gu is a wet season. The area receives mean annual rainfall of 57 mm to 93 mm. The hottest period falls between June and August with temperatures of over 40 Degrees Centigrade, while the cooler months are November to February.

The adjacent rainfall chart shows the average rainfall levels for the zone during the year based on an analysis of satellite imagery. This chart becomes clearer when an analysis of temperature levels is included. Temperatures are so high between June and August that any rainfall during that period is largely ineffective - it evaporates before it can contribute to pasture growth. On the contrary, the xays rains of January and December (little more that sea mists and dew, which is why they do not show up on the satellite imagery), fall in the cool season and do promote pasture growth. Nevertheless, the xays rains have decreased in recent seasons and the zone has received unseasonal rains – signifying the effects of climate change are evident.

Soil type varies from sandy alluvium on the coastal plain to sandy deposits mixed up with marine soils. The dominant vegetation types are dune grasses (locally called darif) with pockets of acacia trees (qurac), argan trees (kulan) and shrubby sea blite (sauda fruiticosa, named xudhun locally). When the rains arrive the vegetation is quickly renewed and, for some time, the Guban provides some grazing for livestock.

The zone is crossed by broad, shallow water courses that are normally beds of dry sand, except in the rainy seasons. Water scarcity was prominent in the Guban area in 2003 according to previous baseline and there are only three main boreholes (in Ceel gaal, Karuura and Kalowle). However, currently, there are seven potential boreholes in Guban areas and installed according to environmental aspects by respecting certain distance where animals can reach, while on their grazing period. Animals are heavily concentrated in these areas during the dry season. Additionally, shallow wells for domestic use also exist. Due to the scarce vegetation cover, milk production is relatively low compared to other pastoral areas of the country.

Figure 1: Estimated average rainfall in Guban Pastoral



Source: USGS CHIRPS Data, FEWS NET GeoCLIM¹

The reference year was considered as near normal year for the zone. There were good xays rains that improved pastures, livestock production and reproduction, leading to an improvement of overall food security. In fact, local goat prices increased by 47 Percent compared to the last five-year average (2008-2012) – thus because of the declined cereal prices, the terms of trade (TOT) between goats and rice improved further.

The livelihoods of the dominant pastoral economy are based on rearing camels and small ruminants (sheep/goat). Due to successive droughts and diseases that have mainly affected sheep, goats have become the dominant species among the small ruminants. Camels are the most valuable species; they provide more milk during the rainy seasons, serve as pack animals and are prized trading commodities. The majority of households do not own cattle

Normal livestock migration routes are limited to the Guban area if the xays rains have been normal. These rains also attract pastoral communities from further south in Somaliland. During a bad year, livestock are moved south to the Golis, to the Galbeed region and up to the Haud of Hargeisa or to as far as the Shinile or Siti zones of Somali region in Ethiopia. During abnormal migration, family members (particularly the father or the eldest son) move with livestock, occasionally accompanied by additional family members. Clan ties are strong within this livelihood zone.

The main markets for the livelihood zone are Seylac and Lughaya , located in the zone, and Djibouti, roughly 200 km away. There are other important trading markets further away, such as Hargeisa and Borama (further inland) and Berbera, one of the main export ports on the Gulf of Aden coast. Despite poor infrastructure of the area, the main road in the zone links Seylac on the coast with Borama and Hargeisa in the interior. Seylac is also linked to the coastal towns of Lughaya and Berbera, although the second leg of this route deviates inland. Due to the mountainous terrain of the neighboring zone, there are no other major roads that traverse the zone. The majority of the transport routes are dirt tracks, which link rural settlements with rural markets and are transited mainly by camels and donkeys.

4. HISTORICAL TIMELINE AND SEASONALITY

4.1 Historical Timeline

Table 1: Historical Timeline

Season	Seasonal Performance Ranking 1-5*(see below)	Events**		Effects (different effect caused by the events)	Responses: What did people do themselves to cope with the problem
2014	Deyr				
2014	Gu	OOO	Average – Above average Rainfall, stable security situation	Improved pasture and water conditions, improved livestock income and production.	Practiced insurance coping: sale of small ruminant; taking loan in kind. Also lessen debt level (repayment started)

2013	Deyr	OOO	Average Rainfall; Stable security situation; No inflation	Improved food security due to Improved access to pasture and water, improved livestock income (goat price= 47% á on average) Cereal price = declined by 9-12% á) Hence Improved Purchasing power (goat/ rice TOT = 58 % á.)	Practiced insurance coping: sales of small ruminant; taking loan in kind.
2013	Gu	OO	Drought; and endemic livestock diseases.	Livestock death, poor pasture/browse conditions; poor livestock production.	Camel migration to Shiniile (Ethiopia zone 5) Shoats migration within LHZ zone (lughaya) Received humanitarian assistance Seeking social support by poor
2012	Deyr	O	Drought	Livestock death; poor Pasture and water, declined livestock prices that led to Declined Purchasing ability.	Livestock migration within livelihood zone Received food relief distribution _ Seek social support(gifts and loans for poor)
2012	Gu	O	Drought	Livestock death; poor victuals, declined livestock prices that led to Declined Purchasing ability.	Camel migration to Shiniile (Ethiopia) Shoat migration within livelihood zone (foods hills of golis Seeking social support by poor Received humanitarian external assistance
2011	Deyr	O	Drought	Livestock particularly Goat and Sheep	Livestock migration within LHZ, and west Golis
2010	GU	OO	Below average rainfall	Poor pasture and water conditions.	Camel migration to Shinille Shoat migration within livelihood zone and west golis
2010	Deyr: Talaado				

1 * 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,

= 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.

1

Selection of Reference year:

A reference year is the timeframe to which the baseline information applies, that is to say, all the collected information during the baseline field work will be based to what happened during the reference year. This allows the analyst to calculate changes in access to food and cash income in relation to the reference and to predict what the food security situation might be at a future date. In HEA baseline studies, the reference year is supposed to coincide with beginning of the consumption year which in pastoral set up (like Guban pastoral) is the beginning of the main rainfall season (in this case Xays which are usually received in January). The viable options for the selection of HEA baseline reference year is that it should be an Average year as understood at village level, it should be an average year in all dimensions of food security including relative stability in terms security

Normal year which means without onset of major hazards like drought, diseases, hyperinflation or escalation of conflicts. Typical year or most frequent type of year in terms of climate performance including rainfall, livestock conditions, market activities and insecurity that is all fundamental to food security situation of rural livelihoods.

Specific year which entails how far back can people remember recall accurately

After thorough discussions on the above factors during the pre-field work training workshops in relation to Guban pastoral by food security technical participants, January 2013 to December 2013 was selected as the reference year. The food security analysts have enormous knowledge of the food security situation of the Guban livelihoods zone and also consulted secondary data like trends in production and rainfall in the past years. And the integrated food security phase (IPC) classification reports for the zone. In particular, the reference year chosen was a recent year hence easy to recall what actually transpired regarding key food security issues including livelihoods strategies adopted. In terms of climate, the primary rainfall season (Xays January-February) was average and associated food security parameters were near average or even average. The rangeland conditions improved, resulting in improved livestock body condition. These improvements contributed to increased livestock market value. For example the price of a local goat increased by 47% compared to the average of the last recent 5 years before 2013. On the hand, the prices of staple commodities declined giving a modest

improvement for the pastoralist communities in terms of the quantity of rice (Staple food) they could exchange with a local quality goat. The security situation in Guban pastoral was stable hence all the above converged to the atypical normal year for Guban pastoral livelihoods.

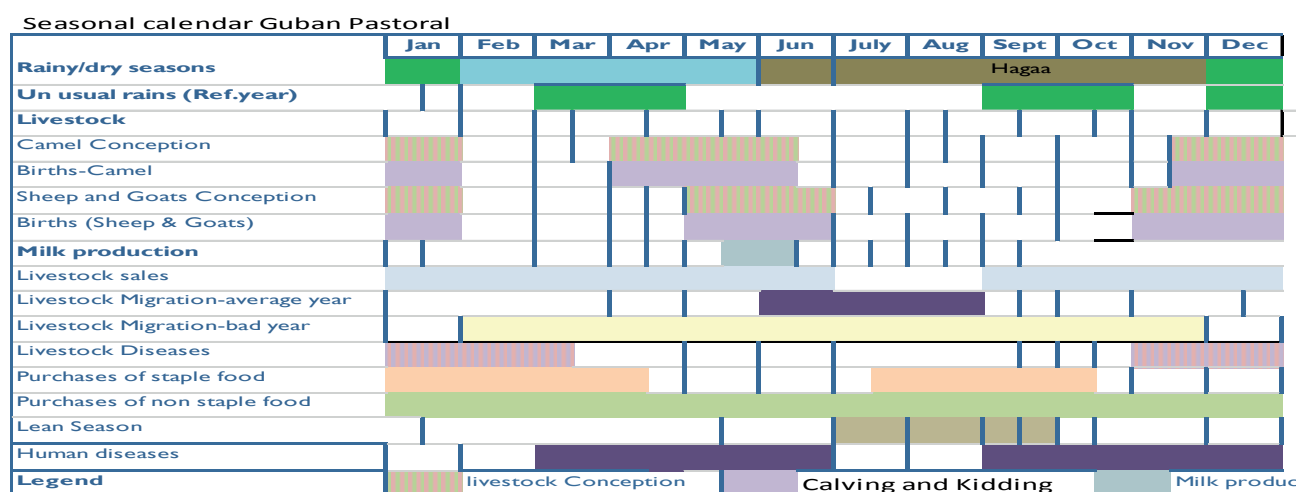
4.2 SEASONALITY

Seasonal calendar

The traditional year (nauris) starts in August. There are two main seasons in this zone: the jilaal season (December to May) which, although commonly a dry season in the rest of the country, is the season that receives the xays rains (concentrated between December and January). The gu/hagaa dry season follows, from June to November. The xays rains are the only rainy period in the Guban area that has three phases, locally known as Kodxin, Dirir and Daalaalo. If kodxin and dirir fail, it is probable that the daalaalo will also fail, according to the traditional forecasters. Pasture availability and grazing conditions improve due to the xays rains and, for a short period, attract pastoral communities from outside the area where the jilaal season is completely dry.

Livestock productivity follows the seasons as water and pasture availability is crucial in determining the outcome of reproductive cycles and milk yields. Pastoral communities in the livelihood zone usually practice livestock migration which is kept within the boundaries of the two regions (Awdal and W/Galbeed). However, during the long dry seasons with very little rainfall, all livestock is moved towards the south, to the areas of the Golis and the Hawd, and further inland across into Ethiopia, to the pastures near Ayshica, Dawanlle, Jigjiga, Dhegar or Shiniile. Specific destinations for livestock migration are determined by existing clan relationships and affiliations. During the xays rains migration into the livelihood zone occurs from pastoral communities based in Borama, Gabiley and Hargeisa.

Figure 2: Seasonal Calendar of Critical Activities and Events in Guban Pastoral Livelihood Zone



This in-migration puts burden on the local pasture leading to grazing pressure. Animals are heavily concentrated in this area during the dry season. There were also shallow wells that are used by the community and seasonal rivers starting from the watershed zone also provide temporary water for both human and livestock consumption.

The control of mating seasons (conception), especially for sheep, which are less adaptable animals, is common in the zone. Locally this practice is referred to as *sumal xir*. This custom allows birthing to be timed with the beginning of the rainy season – whether in the livelihood zone or in the area of migration.

Camels are milked throughout the year, although there is a drop in their milk yields during the dry periods. During the best months in terms of water and pasture availability, camel milk yields average 3 liters per day, but go down to 2 liters per day for the rest of the year. Goats are only milked for two months out of a year in this zone. Their milk yields are much lower, between 0.25 and 0.5 liters per day depending on the season.

The basic food stuffs for the Guban livelihood are mainly imported cereals (Rice and wheat flour) and non-cereal foods (Sugar,, vegetable oil, dates etc.), purchased throughout the year. This is supplemented by camel milk, particularly during the peak rainy period (Jan – March). Normal livestock migration is within the region if Xays rains start on time and are well distributed. Livestock migration peaks when Aassow (heavy winds) effects increase in the months of end June -August. In a bad year, there is out-migration (March-July) to Oogo(South),Shiniile region of Ethiopia and the Galbeed region up to the Hawd of Hargeysa. Source: FEWS NET/FSNAU

Livestock sales, especially those for export markets, peak with the main Islamic celebrations, when demand increases exponentially. The timing of the celebrations differs each year, but in the build-up to the Hajj and particularly for a 70-day period between Eid al-Fitr and Eid al-Adha there is a huge additional demand for livestock across the region. Local livestock sales peak during and just after the rains when animal conditions are at their best and also before Eid. Animal sales also occur during the dry seasons and the pastoral lean season when cash income is needed.

The most difficult time of the year is the Hagaa season (June to August). This is the hottest period of the year, with temperatures reaching 40-45 degrees Celsius. Animal conditions and production is at its lowest in this period and seeking for loans becomes more common, especially among the poorer households. Food prices can increase towards the end of this period too, which coincides with the end of the monsoon season (August), if rough navigation conditions reduce shipping activities and limit food imports, especially the staple cereals.

FOOD ACCESS HISTORY

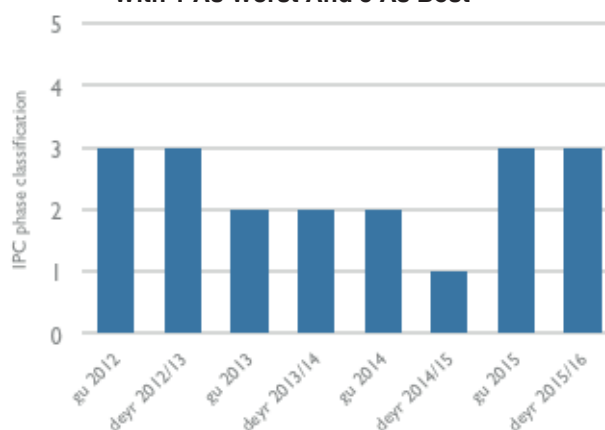
Based on the analysis of the last 4 years (2012 to end 2015) shown in the adjacent figure number 2, as well as FSNAU's food security briefs, the 2012 and 2012/13 seasons were comparably worse in terms of food and livelihoods security in relation to the baseline reference year (Jan-Dec 2013). Pastoral households' vulnerability has increased once again since the gu season of 2015.

The December to February xays rain is the only rainy season in this livelihood zone. Two years of consecutive failed xays rains in 2010/11 and 2011/12, pushed food security levels to IPC level 3 (acute food and livelihoods crisis) in 2012.

Failed rains, along with consistently high temperatures dried shallow wells, reduced pasture and water availability and increased trekking distances to reach boreholes. The 2012/13 xays rains were also poor, but the zone received unusually moderate rains between October and November 2013, which generally improved pasture and water conditions and sustained livelihoods into 2014. Again, unusual localized moderate rains fell in May 2014. The food security situation improved from the post-deyr 2014/15 season in most pastoral and agro-pastoral livelihoods of Northwest regions, including the Guban livelihood zone.

However, post gu 2015 assessments indicate that drought conditions contributed to severe water shortages and unusual livestock deaths - acute food security Crisis (IPC Phase 3) prevailed during the deyr 2015 season. The livelihood is dependent on the rains in October, which bring run-off water from the adjacent highlands (West-Golis Livelihood) and xays rains which start in December in the livelihood itself.

Figure 3: Recent Trend in IPC Phase Classification With 1 As Worst And 5 As Best



5. MARKET ANALYSIS

This section discusses the characteristics of livestock market which form an integral part of Guban livelihood as a primary source of income. It also considers the price performance for staple and non-staple food items. The reference period for this analysis is the average commodity prices of the baseline reference year (Jan 2013 -Dec 2013) compared to five years average (2008-2012) in order to see the price changes and trends of the concerned items in Lughaya/ Lowya-Cade market points. The objective is to understand, household access to food and other essential commodities since the population heavily depend on market purchase and sale of livestock as their main sources of food and income respectively.

Trade in livestock and livestock products are the fundamental economic activities for the communities living in the Guban Pastoral livelihood zone. Local and export quality goats and camels are the main species traded and camel milk is the main animal product sold. The major markets are listed below. These markets serve as livestock trading points, as supply centers for essential food and non-food items and as sources of labor opportunities during bad years.

Main markets: Seylac (or Seila), Lawaya-Adde, Lawyacado and Djibouti

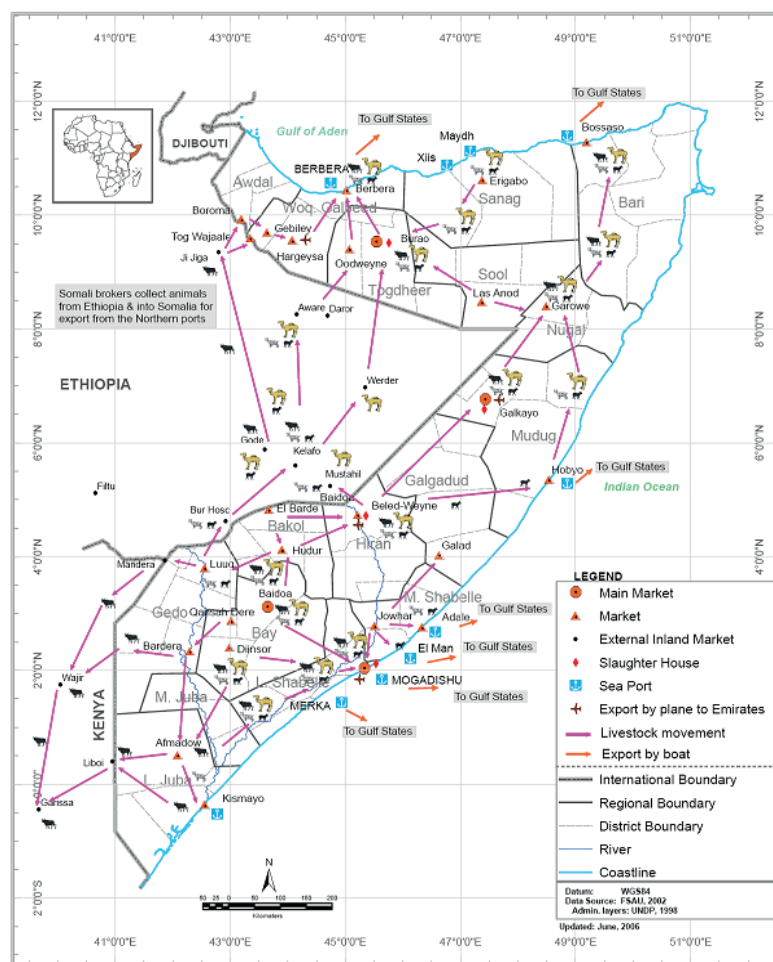
More distant markets: Tog Wajaale (close to the Ethiopian border), Borama, Hargeisa, Burao, Berbera Export quality livestock are concentrated in Hargeisa and Berbera or shipped out of the country to Yemen, Saudi Arabia, Egypt and other Gulf states. Between 2000 and 2009 a livestock export ban into the Arabian Peninsula put a stop to exports especially those out of Berbera, an exit point at which control over livestock movements was easier. The reason for the ban was to limit the

spread of livestock diseases, mainly Rift Valley Fever. Since then, quarantine facilities have been established in Aljaberia and Indhodeero (near Berbera) to provide health screening and vaccinations before export.

Djibouti emerged as a major livestock export hub in the region especially during the 2000-2009 export ban that was imposed by the Gulf States. In Djibouti a regional quarantine facility was established in 2006, which allowed the port to resume exports to Saudi Arabia enjoying sole official access for the next three years - although some sheep and goat exports were still transiting unofficially from Berbera.

Within Somaliland, animals are trekked along a number of corridors, which are primarily organized according to clan networks. These routes can change over time and according to the climatic and security context. The main corridors in the livelihood zone are the Issa corridor, which links the Somali Issa of Djibouti, western Somaliland and the northwestern Somali Region of Ethiopia. This corridor uses the port of Djibouti, while the Berbera corridor is mainly used by the Isaaq and Gadabursi clans, although the Ogadeni and other clans are part of the supply chain. This corridor starts in Ethiopia and reaches Berbera port either by Hargeisa or via Burao.

Map 2 : Major Livestock Markets in Somalia Monitored by Fsnau/ Fews Net



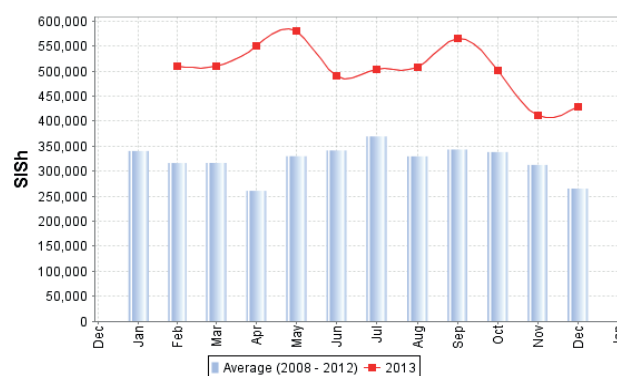
Animals are also trekked and trucked to Tog Wajaale, situated close to the Ethiopian border for sale in Ethiopia and to Burao market on the Hawd plateau, which is the largest assembly market for livestock because of its central location and proximity to the Ethiopian-Somali region as well as to Central Somalia.

5.1 Livestock Prices

Livestock are the primary assets for the Guban pastoral livelihood system. A big proportion of the staple and non-staple food items consumed by Guban populations are obtained via the proceeds from livestock and livestock products. The market value of the livestock is directly proportional to their body condition, among other factors, hence during wet seasons (proxy for improved body condition) livestock prices improves and decline during dry seasons (proxy for deteriorated body condition). Trade in livestock (goats and sheep) and livestock products (milk) is an essential socio-economic activity for the survival of most population in Guban Pastoral livelihood zone. Like other pastoral livelihoods, goats and sheep are traded as either local quality or export quality and sold to Gulf States via Djibouti and Berbera. Livestock prices are influenced by Islamic festivals (Hajj and Ramadan), livestock body condition -which is linked to rainfall performance and range land resources, exchange rate between Somaliland Shilling and US dollars which has increased by 11% during the baseline reference year compared to the 5 years average, and level of livestock demand from the Arabian markets.

Figure 4, 5, and 6 demonstrate seasonal trends for goats and sheep prices, reflecting higher during the peak rainy season and declining in the dry period. However, prices of all species in the reference year are considerably higher than the five-year average.

Figure: 4 Sheep Export Price



Sheep/ Goat Export Prices

The average monthly price for the export goats has shown a sharp increase of 61% (from S/SH 309,352 to S/SH 499,269) in the reference year, compared to five-year average (2008-2012). Export quality Sheep also increased 58% from (S/SH 320,550 to S/SH 505,170) compared to the five -year average. On the other hand, local quality goat prices have shown significant improvement of about 47 % (from S/SH 216,356 to 318,280) compared to the five –year average. This is attributed to high demand for livestock exported to Saudi Arabia for the Islamic Pilgrimage, while more local quality livestock is sold and consumed locally including demands triggered by Islamic festivals (Eid-ul Adha and Eid-ul-fitr).

Figure: 5 Goat Export Price

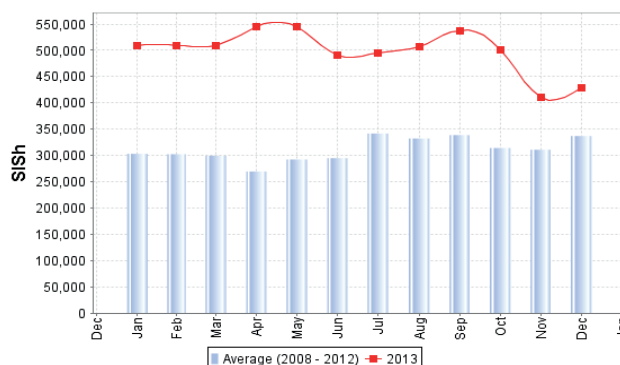


Figure: 6 Local Goat price

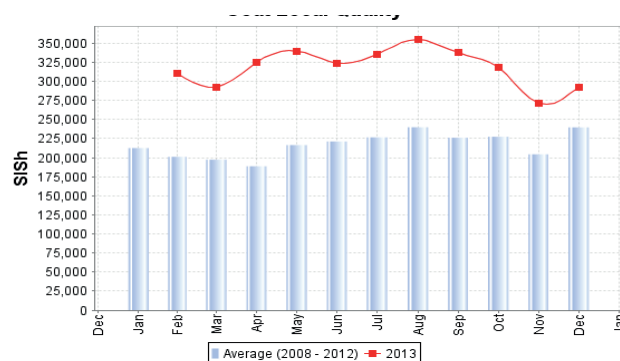
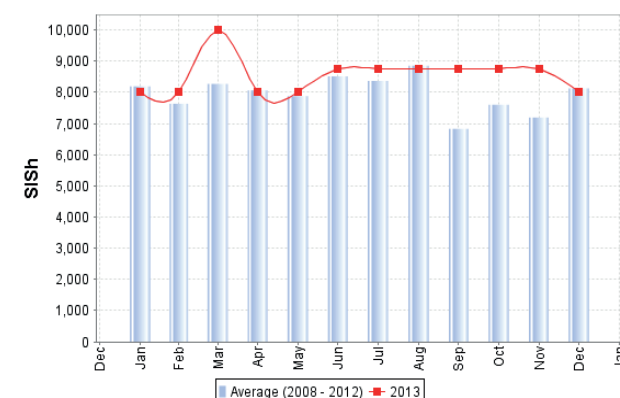


Figure 7: Fresh Camel Milk 1Litre



5.2 Milk Production

Guban pastoralists rely on significant amount of income and food from livestock products mainly milk from camel. This varies across the wealth groups in direct proportion to herd sizes. The Poor produce, sale and consume the least amount of milk while the Middle and Better off wealth group produce, sales and consume the most milk in the livelihood zone. Milk production is equally influenced by seasonal rain fall performance in the livelihood zone. Milk production is at its peak level for all livestock during the wet season and low during dry periods. Camel milk forms the highest traded milk volumes in Guban and its price remained stable for most of the reference year, except in the month of March 2013, due to declined milk yield and a long dry period when milk prices went down. Average camel milk prices during the reference year compared to 5 years average has increased by 7% (from (S/SH7,950 to 8,542).This depicts relative stability in camel milk prices during reference period , due to normal milk supply facilitated by the improved rangeland conditions that emanated from near average seasonal rainfall performance with opportunities for migration.

5.3 Staple and non-staple food Prices

Both locally produced cereals, mainly sorghum from North West agro pastoral (Gebiley, Boramo and Baki) and imported commodities are available in the main and rural markets of the livelihood zone. Common staple foods purchased are imported red rice and wheat flour, and non-cereal food like Sugar, Vegetable Oil, and pasta (mainly for the Middle and Better off wealth groups). The quantity and type consumed, as well as expenditure level varies across the wealth groups. Seasonal price variation is common, due to monsoon tide, which normally restricts trade flows. The purchasing power of households is linked to wealth status and to their income levels, which are determined by the number of saleable herds, livestock body conditions and livestock market value (prices). In general, the prices of imported food items are affected by fluctuations in the exchange rate, by variations in international fuel prices, transport costs, market supply and local demand.

Imported Red rice and Wheat flour

The average prices for rice and wheat flour during the reference year declined 9 percent and 12 percent respectively, compared to the five - year average prices. This means during the reference year staple cereal items were cheaper compared to the previous five- years, hence favorable for the pastoralist whose livestock fetched more prices while at the same time food prices were low.

Other food items (Sugar and Vegetable Oil)

The prices of sugar and vegetable oil in Guban livelihood zone shares similar trends with other imported commodities with the average price of sugar during the reference year being S/SH 6211 compared to S/SH 6421 for the 5 year average

Figure 8. Price Trend of Imported Red Rice

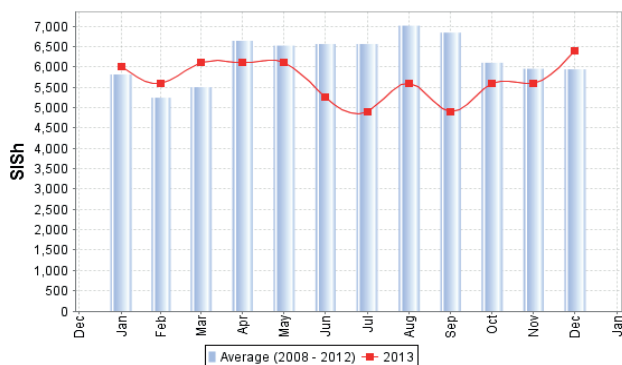


Figure 9. Price Trend of Wheat Flour

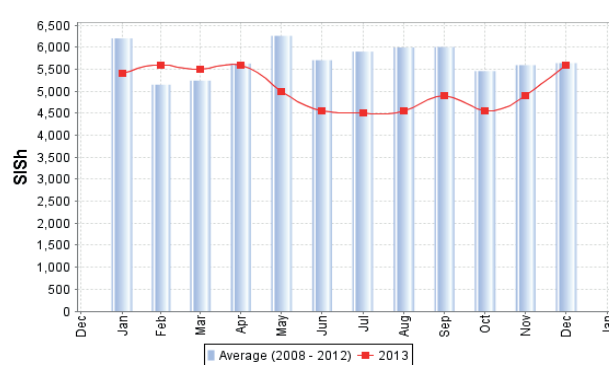


Figure 10. Price Trend of Sugar

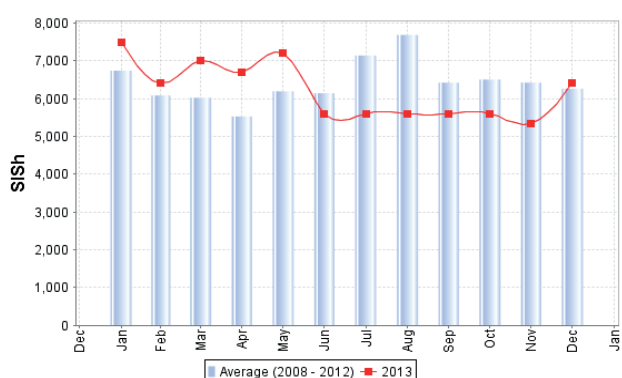
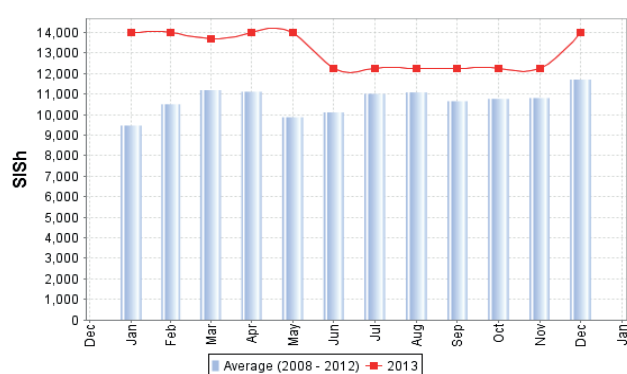


Figure 11. Price Trend of Vegetable Per Liter

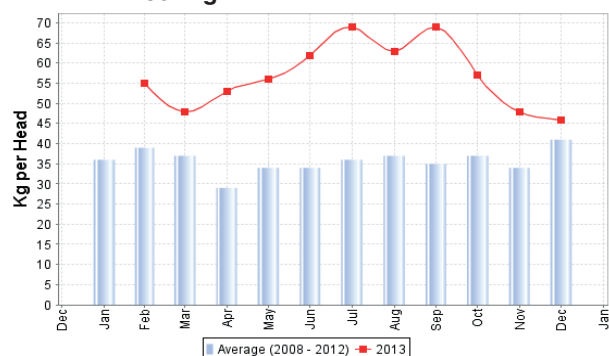


translating into a 9% decline. The average price of vegetable oil for the reference year is higher than the 5- year average and it's the only commodity whose price pattern behaved differently in the zone. The average vegetable oil price for the baseline year was S/SH 13,100 per liter while that of the 5 -year average was S/SH 10,715 representing a modest increase of 22% between the two reference periods.

5.4 Terms of Trade (ToT)

Terms of trade (ToT) between local quality goat and imported red rice have significantly increased by around 58%. The average kilogram of rice that a goat could buy during the last 5 years (before the study) was 36 kg while in the reference year a goat was exchanged with 57 kilogram of rice. The remarkable improvement in ToT is attributed to increased goat prices in the reference year while that of rice remained stable throughout the reference period.

Figure 12: TOT Local Quality Goat to Imported red Rice 1kg



6. LIVELIHOOD ASSETS

This section describes the livelihood capital assets that pastoral households in Guban pastoral livelihood zone access, and use to sustain their livelihoods.

6.1 Natural Capital

Rangeland resources: About 80% of the vegetation condition in Guban area is sand covered plains, which spread from the bottom of the escarpment towards the sea and secondly that of the Shoreline which borders the sea and consists of saline soils supporting halophytic (is the type of plant that grows in a saline water) communities. In most of Guban areas the vegetation consist of loose association of trees and bushes with *Balanites Orbicularis* (Kulan) the dominant species in the trees, followed by *Pennisetum dichotomum* (Darif) and *Suaedia Fruticosa* (Xudhuun), mainly found on the plain and along the coastal areas. In the recent baseline year, the vegetation situation had worsened compared to the previous baseline year, due to successive failure or below normal Xays rains and improper land use practices or inadequate policy. The western areas of Zeila became dry and desert after losing the different types of vegetation as a result of poor or failed

rains. Wild animals commonly found in the Guban include: Gazelle soemmering (cawl), Gazella pelzen (deero), Ostrich (Goroyo) and Dik-dik (Sagaaro). The successive droughts and frequent livestock migration are the key factors affecting wildlife population in this livelihood zone.

Water resources: Normally, there are three types of water sources in Guban zone;

- Natural pans along the coast enriched by the flood flashes from the plateau escarpments.
- Shallow hand-dug wells, which are commonly used by the pastoralists in remote areas or far from the boreholes. These hand-dug wells become salty and herders move on to another site and wait for the wells to become potable.
- The last is the boreholes which are drilled and use engine driven pumps to bring water to the surface.

Due to the increase in pastoral settlements and formation of new towns, modern water systems were installed from which pastoralists and their livestock obtain water. Currently there are seven potential boreholes in Guban areas (increased from 3 in 2003 to 7 in 2013) and installed with consideration to environment protection aspects by respecting certain distance where animals can reach from their grazing areas. All these boreholes are currently operational (except one –laaqata Morohda) , although yield has reduced due to excessive temperature during Hagaa season, high animal concentration and 24 hours operations.

Migration patterns: In a bad year, when Xays rains fail most livestock move abnormally out of the livelihood zone to Oogo (South), Shiniile region in Zone Five of Ethiopia , and the Galbeed region, up to the Hawd of Hargeysa. Similarly, in-migration from these areas to Guban zone is also common during favourable condition of Xays rains.



Camel loaded in Better Pasture, Lughaya, FSNAU, Dec 2015

Environmental degradation: The environmental degradation and improper land use is worsening year after year as a result of climatic changes with decreasing rainfall, concentration of livestock, cutting down of trees for different purposes(Charcoal, antiseptics and traditional healings and also fire wood and fencing for the livestock), crisscrossing roads that increase the water run-offs and soil erosion, coupled with lack of policy on proper land management and planned environmental actions from the local authorities. The reduction of rainfall and erratic or patchy rainfall which create the concentration of huge number of livestock in a small area has been greatest along the Guban, and this contributed to or accelerated the land desertification.

6.2 Human Capital: Human capital embodies the productive wealth in labour, skills and knowledge which directly influence livelihoods, as well as food security choices and outcomes. In this section, household composition and access to education are discussed.

Family structures: About 80% (typically Poor and Middle) of the totalhouseholds in Guban pastoral are monogamous with 6-8 household members each, while the remaining 20 (Better-off) is identified as polygamous ofwith typically 2 wives and 10 household members including dependents.

Access to Education: Most wealth groups have access to both formal and informal education. The number of schools in Guban increased significantly compared to the previous 2003 baseline year. At present, almost all villages have schools (up to intermediate level) and then pupils shift to Zeila for boarding secondary school. These schools are mostly built by people living in the diaspora. The main constraint to the education system and increased number of schools is shortage of teachers due to limited incentives that the community is able to provide. Nevertheless, the number of students in the schools has increased although attendance is affected by seasonal livestock movements when some students move with their family In search of livestock pasture and water.

Health, Food security and, nutrition:

Health: Most of the main villages in the zone have got a functional Health facility (Health Center or Health post) often with ambulances to facilitate outreach emergencies from surrounding areas. This development did not exist some years back and cannot be comparable with 2003 where there were zero facilities. Drugs and staff incentives are supported

by communities, mainly diaspora, local authorities and even from Djibouti government. Despite these initiatives, health service delivery remains largely inadequate.

Food security and nutrition: Most Guban pastoralists were in food security crises (IPC Phase 3) two seasons prior to the reference year. However, food security situation has improved to stressed (IPC Phase 2) in Post Gu 2013, due to favorable unseasonal rains, reduced food prices and increased livestock/ livestock product prices. As a result, the nutrition situation has improved from critical to serious and this has been followed by a sustained number of the rural population in stressed phase.

6.3 Social Capital: Social capital is a social network through which the community or society supports each other, both in normal seasons and in times of shock. In the rural pastoral context, existence of strong social networks enhances inflow of support through informal (annual Zakat payments) and formal gifts (in kind and cash support), which mostly depend on affordability of the payer and the need of the receiver.

Remittances: Most of the Guban households receive kinship support mainly from Djibouti and other countries in Africa and the Gulf states from which significant amounts of money is remitted. According to the findings of the baseline assessment, most of the Middle and Better-off wealth groups received remittances of about 13% of the annual total income in the reference year. Middle households use the bulk of their income on food purchase and other basic social services, while the Better-off mainly spend on livestock, inputs, school fees, trade and inputs.

Informal Gifts: Social support in Somalia is based on various aspects during the shock and normal times. Particularly, support systems are strong among pastoralists and fundamentally based on two categories: (a) Traditional support (b) Religious obligation to support.

a. Traditional support: Traditional support mechanisms in times of stress depend on the type and magnitude of the shock. These include re-stocking locally called xoolo- gooyin, loaning of milking animals (irmansi) and loans in-kind from both traders and the neighboring households. These mechanisms vary between communities and have of recent been weakened by the frequent droughts that affected herd size and state of livestock recovery. Other types of gifts voluntarily given to the Poor and vulnerable people commonly exist in the area.

b. Religious obligation (Zakat): This kind of social support is based on obligatory act to all Muslims who can afford to pay Zakat. This Zakat has a systematic levy system that Islam set for eligible poor people (most vulnerable people). The payment of the zakat is different, depending on the type of assets the paying household owns. For example if payment is with livestock, cash or gold, payment should be on an annual basis, while for crops particularly cereals, payments are seasonal- aligned to harvest time. The levy systems for these assets differ according to number of assets owned. For example, a household owning 5 camels is required to pay zakat of 1 goat, while a household owning 25 camels is required to pay with one male camel. A household owning 50 goats/sheep will be required to pay with one goat/sheep, which for cultivating households, one bag of cereal should be payment for every 10 bags harvested. In cash terms, for every 100 shillings owned, 2.5 shillings should be paid as zakat. In the reference year, the amount of zakat livestock received by the poor wealth groups is considered less than the normal pattern, due to drastic decline in livestock holding across all wealth groups compared to 2003 baseline asset holding.

6.4 Physical Capital: This sector includes housing, road infrastructure and telecommunications. Telecommunications systems have improved significantly especially with areas in the North West regions getting onto modern communication systems from Djibouti. The road network, on the other hand remains largely poor hampering access especially during the rainy season.

5.5 Financial Capital: Financial Capital is a kind of resources that different livelihood wealth groups accessing to obtain their livelihood strategies to achieve desired livelihood outcomes. Livestock and livestock product sales are the major financial resources through which Guban pastoralists attain their livelihood. The annual income for the wealth groups (Poor, Middle and Better-off) amounted to Sh 8,340,000, Sh 12,510,000 and Sh 20,760,000, respectively, of which 75% -87% directly comes from the livestock /livestock product sales. Poor households often get additional cash from loans (18%) and earn 7% of total income from self-employment activities (mainly firewood and charcoal), while the Middle and the Better-off receive 13% of the annual income, as remittances from Djibouti and other outside countries in Europe, USA and the Gulf states.

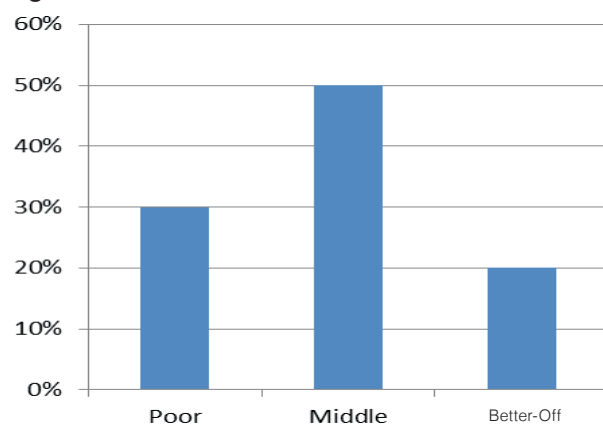
7. WEALTH BREAK DOWN

7.1 Wealth characteristics

This section basically presents the characteristics of Guban livelihood wealth categories. In the context of the Household Economy Approach wealth is a relative term and a wealth group is defined as a group of households within the same community living in a particular geographic area, and who share similar capacities of access to the different food and income options. In pastoral livelihood system, wealth is principally determined by the level and type of the livestock holding. Other production capabilities including trade options play a significant role in wealth group characterization. Social – economic characteristics including household size, dependency ration, level of skills and number of working household members help complete the wealth group categorization.

Based on the local economy and community knowledge, the Guban pastoralists are divided into Poor (Danleey), Middle (Dhaxdhaxaad) and Better-off (Ladane) wealth groups. The Poor are approximately 25-35 % (30%) of the total population, the Middle wealth group 45-55% (50%) and the Better - off 15-25(20%). The Poor are composed of 6 household members on average, while The Middle and the Better-off are composed of 8 and 10 members, respectively. Monogamy is prevalent family structure in this livelihood, due to difficulty on giving dowry, so the poorer households typically have one while the Better - office are typically polygamous as they have larger livestock assets and are able to cater for bigger households.

Figure13: Wealth breakdown in Guban Livelihood Zone



The size and composition of herds are the determinant criteria of relative wealth in this livelihood zone. Camels are the most valuable animals as they provide milk throughout the year and their sale value is much higher than that of sheep or goats. However, volumes of trade in small stock are higher as there is stronger demand for their meat, both locally and abroad. The Poor households own 30-35 goats and 15-20 Sheep. The Middle households own between about 45- 55 goats, 20-25 Sheep and 8-12 camels. The Better-off households own significantly larger herds, which, is between 20 and 30 camels (over three times the number of camels owned by middle households) and between 110 and 125 goats/ Sheep (almost twice as much as middle households). All wealth groups have donkeys for transport use (the Poor 1-2, the Middle 2-3 and the Better-off 3-4) Goats are preferred over sheep as they are better able to endure the difficult conditions of the zone.

Due to their smaller herd sizes, poor households avoid having to sell a camel every year, instead trade a larger proportion of their small stock and milk in order to have the necessary cash to purchase food. During the reference year, poor households sold approximately 20% of their stock. Poor households commonly receive gifts in cash (zakat) and in kind (sheep or goats but never camels) from wealthier households. However, the number of animals sold per year by better-off households is not very different from the number sold by the middle households, which indicates that much of the wealth is stored “on the hoof” and physical assets are only liquidized when necessary. Overall, livestock holdings in this zone are somewhat lower than in the neighboring West Golis Pastoral zone because of harsher climatic conditions, as well as limited pasture and water availability.

Table 2: Summary of Wealth Group Characteristics

Wealth determinants	Poor	Middle	Better-Off
% HH population	20-30%	45-55%	15-25%
HH size	5-7	7-9	9-11
# typical livestock holding			
Camel	4-5	8-12	20-30
Goat	30-40	45-55	80-90
Sheep	15-20	20-25	30-35
Donkeys	0-1	1-3	2-4

Source: FEWS NET/FSNAU

Monogamy is very common in this area, because of difficulty of giving a dowry. Normally the Poor and the Middle households consist of husband and wife and their direct dependents, yet many households in the Better-off wealth group have two wives. It is common for the Middle and the Better-off households to send a household member, sometimes two, to live with their relatives in Djibouti in order to access better education and labor opportunities. Poor households send part of their families to Djibouti as a coping strategy, in order to find alternative sources of income during a bad year or a bad season. Djibouti is an important neighbor to Somaliland for several reasons, one of them being that the people of Djibouti and Somaliland have a common ancestral lineage, and of Somaliland live both in Djibouti and Somaliland.

7.2 HERD DYNAMICS

Herd dynamics analysis during the baseline reference year (Jan- Dec 2013) shows improving trends for all species. Goats and sheep for all wealth groups indicated an increasing trend at the end of the reference year, compared to beginning of the year. Herd growth increased by 30% and 21% for the Poor, 19% and 5% for the Middle, as well as 16% and 13% for the Better off. While the off-take (number sold, slaughtered etc.) for goats/sheep increased equally by 22% (Poor and Middle) and 15% for the Better-off, yet kidding/lamping rates increased significantly and offset the off- take rates. The overall average herd growth for goat/sheep across all wealth group increased by 22% as the kidding rates are much higher than the off-take rates.

Table 3: Goat and Sheep Herd Dynamics

Wealth groups	Poor		Middle		Better - Off		Average herd growth for all WGs
Livestock species	Goat	Sheep	Goat	Sheep	Goat	Sheep	
Total # owned at start of ref. year	26	14	43	21	73	30	69
Adult females	16	8	24	12	40	17	39
No. Born during year	15	7	20	9	27	13	30
No. Sold	5	3	7	5	8	6	11
Received/given away	1	0	1	1	2	1	2
No. Slaughtered	1.5	1	3	2	4	2	4.5
No. Died	1	0.5	1	0.5	1	0.5	1.5
No. Bought	0	0	0	0	0	0	0
No. At end of reference year	34.5	16.5	51	21.5	85	33.5	84

NB: - herd change for goat/sheep is 22% increase, off take 24%, calving rate is 51%.

In the reference year, camel herd dynamics for all wealth groups indicated 12% increase for the Poor, 25% for the Middle and 7% for the Better – off, due to higher calving than the off-take rates.

Table 4: Camel Herd Dynamics

Wealth Groups	POOR	MIDDLE	B/OFF	Average herd growth for camel across all WGs
Number at start of reference year	4	8	23	12
Adult female	2	5	12	6
No. born during the year	1	3	5	3
No. sold	0.5	1	1	1
No. given away/received	0	0	1	0
No. slaughtered	0	0	0	0
No. died	0	0	0	0
No. bought	0	0	0	0
No. at end of reference year	4.5	10	26	14

NB: herd change for Camel is 12% increase, off take 7%, calving rate is 50%.

From the baseline conducted (April 2003-March 2004) and the current (January 2013to December 2013), the herd size in different species depicted mixed trends. The table below discloses that strong asset changes have occurred in the Guban livelihood zone since 2003. This is attributable to successive droughts occurred in 2012-2013. Drought effects severely damaged sheep, due to its physiological susceptibility to drought. According to overall herd size changes across the wealth groups, the number of camel and goats increased by 8 percent, due to its resistance to the drought shocks. However, the number of sheep declined by 69 percent since last baseline study mainly because of increased off-take and limited lambing, resulting from drought effects and slow recovery. Previously sheep rearing was dominant for all wealth groups; however drought effects forced households shift to goat rearing as the goats are more resistant to drought conditions.

Table 5: Change on Livestock Holding

Wealth characteristics	Old Baseline - 2003			New Baseline - 2013			Change by wealth group			Overall Change
	POOR	MIDDLE	BETTER-OFF	POOR	MIDDLE	BETTER-OFF	POOR	MIDDLE	BETTER-OFF	
% of Population	25%	55%	20%	30%	50%	20%	20%	9%	No change	
# of wives	1	1	2	1	1	2	1	1	1-2	
HH size	5-6	7-8	10-11	5-7	7-8	9-10				
Camel owned	1-2 (2)	10-12 (11)	20-25 (23)	4-5 (4)	8-12 (10)	20-30 (25)	200%	9%	9%	8%
Goats owned	5-15 (10)	30-50 (40)	100-120 (110)	30-40 (35)	45-55 (50)	80-90 (85)	250%	25%	23%	8%
Sheep owned	20-35 (28)	80-110 (95)	110-130 (120)	15-20 (18)	20-25 (23)	30-35 (33)	36%	76%	78%	69%
Donkey owned	1-2	2-3	3-5	0-1	1-3	3-4	same	same	12%	7%

8. LIVELIHOOD STRATEGIES

Livelihood strategies relate to the type of assets available and options open to individuals or households. Therefore understanding how households access food and income, as well as their expenditure patterns and type of coping responses, helps in determining household livelihood food security outcomes. This section discusses the livelihood strategies of three different wealth categories (Poor, Middle & Better -off) in Guban pastoral livelihood zone, during the period of reference year.

There are two main sources of food in this pastoral livelihood zone: own livestock products and market purchases. Market purchases of cereals, oil and sugar provide the majority of the energy requirements for the three wealth groups in this livelihood zone (between 75% and 95% of minimum annual kilocalorie needs as shown in the figure below). This is an indication of the severe household vulnerability to food insecurity, when prices shoot up. Milk and meat from livestock supplements the local diet, providing an important source of protein but also an important additional source of calories - approximately 10% of annual needs for the Poor households but closer to 30% for the Middle and the Better-off households.



In-migration Camel, ElGal, Zeila, FSNAU, Dec 2014

8.1 Sources of Food

The Poor: Market purchase is the primary food source for the Poor households, followed by consumption of livestock products (milk and meat). A total of 77 % Kcal per person per day is obtained from both staple foods (43% Rice & Wheat flour) and non-staple food items (34% sugar & Vegetable oil). This caloric intake is sourced largely through the sale of their livestock. Milk and meat from own livestock supplements the local diet, providing an important source of protein but also an important additional source of calories. During the reference year, on average, poor households had access to 1 lactating camel and sold 50% of the milk production. However, this is not enough to cater all their food needs- hence, they consume wild foods at certain points of the year (one of the main types of wild foods is kullian fruits – *balanites aegyptiaca*) and they receive gifts in kind from wealthier households, mostly gifts of milk and occasionally gifts of meat or sugar. Food aid was also recorded as a source of food for poor households during the reference year – which gave 9%kcal in total. This allowed the poor households access minimum food consumption requirement (99% kcal pppd) through the above combination of sources. The Poor were unable to cover the survival threshold without external assistance even during the reference year. This is attributed to successive drought effects experienced prior to the reference year. Therefore, this reference year was considered as slightly below average year.

Middle and Better off: The Middle and Better-off households relied on similar percentages and type of food purchased, to meet their annual food needs: 82% and 94%, respectively. The staple cereals are imported rice and wheat flour. These products are sold at similar prices. Wheat flour is mainly consumed for breakfast as injera/or Sabaayad, while rice provides

the starch for the main meal of the day. As a result, rice purchases slightly outweigh wheat flour purchases. Better-off households also purchase pasta as a complementary staple food (although the price of pasta is double the price of rice).

The remaining percentage of food energy were acquired from own livestock products (milk and meat). On average, the Middle households had 3 lactating camels and better-off households had 5 lactating camels. They sold between 30 and 35% of the milk production. Significantly, larger quantities of milk were sold per day during the months with the highest milk yields. As well as year-round camel milk, households had access to goat's milk (sheep are not commonly milked in this zone). Goats were milked for approximately 60 days per year and provided between 0.5 and 0.25 liters of milk per day, none of which was sold. The Middle households were able to milk between 15 and 18 goats and the Better-off households 20 to 25 goats. This represents between 30 and 40% of their flocks of goats and between 60 and 70% of all lactating goats, as not all lactating goats are milked every day. There are frequent gifts of milk from the Middle and the Better-off households to poorer households, especially during months when milk yields are high. The Middle and the Better-off wealth groups get a total of 3,298 liters (83% camel and 17% goat) and 5045 liters (90% camel milk and 10% goat) of milk from own livestock, respectively. The Middle household consumed more than half of the total production, while the Better-off consumed about half of it. The rest is either sold or used as gifts to others. In contrast to the Poor, the Middle and the Better-off wealth groups' food access surpassed the basic 2100 kcal and were able to achieve an average of 110% and 120% of their minimum energy requirements, respectively. The proportion of food needs covered by market purchases is relatively similar across the three wealth groups and the major difference in consumption patterns is on the much larger quantities of camel milk consumed by the Middle and the Better-off households.

8.2 Sources of Income

Poor: The Poor households in Guban pastoral, correspondingly rear two types of livestock species (Goat/sheep and camels), similar to those commonly reared in Central and northern parts of Somalia. The sources of income and income levels are mainly determined by livestock holdings. Total annual income for the poor household is estimated at Shsh 8,340,000, of which Shsh 6,240,000, comes from livestock and livestock product sales (70% livestock sold and 30% milk sold). To get this amount, the Poor households sold 3 export quality goats, 2 Sheep, and 3 local quality goat/sheep (2 Goats and 1 sheep), with additional sale of about 60% fresh camel milk. To supplement the income derived from the sale of milk and livestock, poor households sold firewood and charcoal almost every month of the year to obtain an income of Shsh 600,000. It is mostly men who collect firewood and burn charcoal. These activities take place outside of the livelihood zone, towards the Golis where the raw material can be found. The produce is sold in local markets. It is not common for households in this livelihood zone to go in search of labor opportunities, unless it is a particularly bad season. Poor households do not typically have members of their family who can send them remittances, but have access to credit/loans and cash gifts amounting to Shsh 1,500,000.

Middle and Better off: During the reference year, middle and better-off households supported their livelihoods through the sale of camel milk, one export quality camel and between 12 and 14 small livestock, of which more than half were sold for export. A number of Better-off households could have sold a second camel at a local market in the same year. Export prices were around 30% higher than local sale prices; however, the conditions of the animal sold for export has to be very good thus demanding for much better care.. Male animals are the preferred type of animal to be exported. This can be a pre-requisite for exports to the Gulf – a policy that is more easily implemented at the seaports and is in place to prevent the export of breeding stock. The type of exported animals are mix in age: camels between 4 and 6 years of age (referred to as qaalimo or cujuul/ and abeer) and goats between 2 and 5 years old. However, these trends are changing and selling

Figure 14: Food Sources by Wealth Group, Guban Pastoral Zone

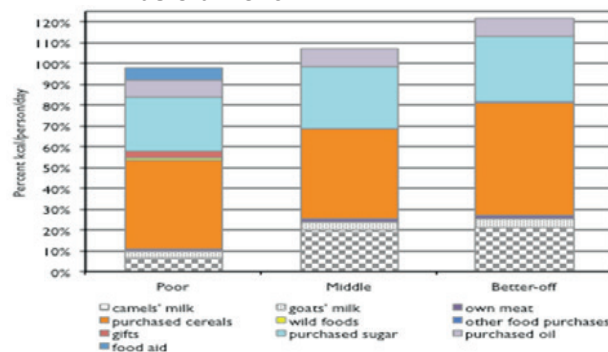
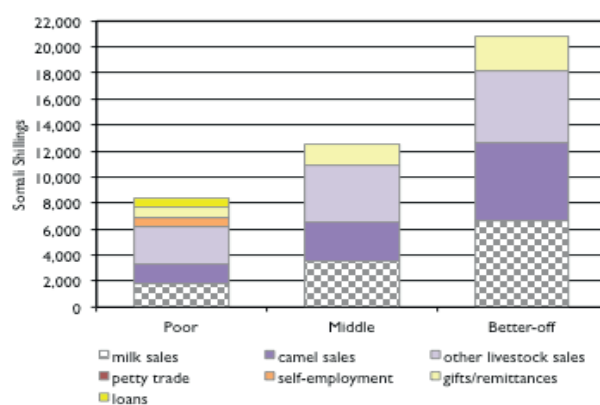


Figure 15: Expenditure Patterns, by Wealth Group, Guban Pastoral Zone



younger shoats has been encouraged by the rising demand for younger, tenderer meat in the Gulf States. Annual income for both wealth groups reaches SIsh 12,510,000 and SIsh 20,760,000 respectively. A greater part of this income emanates from livestock sales: 58% for the Middle and 55% for the Better off. This is followed by income derived from camel milk sales (29% and 32%) respectively. Apart from livestock income, the Middle and the Better off households in Guban pastoral have an opportunity to get remittances from Djibouti and other European countries. Remittances represent around 13% of annual income for the Middle and the Better-off groups. Family members who are based in cities inside the country or abroad send cash transfers. They use the xawilaad system, an informal system of value transfer, which is present in almost every country of the world. The system involves private companies and relies heavily on telecommunication networks. Between 3 and 4 transactions were received during the reference year per household.

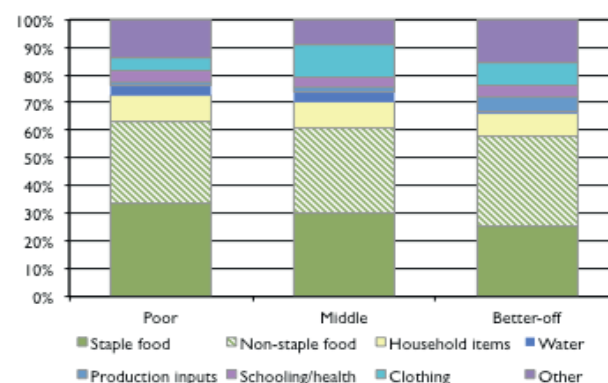
7.3 Expenditure patterns

With respect to expenditure patterns, food represents the largest expenditure category across the wealth groups. The relative weight of this item is similar for all households, approximately 65% of their annual income. Roughly half is spent on staple purchases (rice and wheat flour) and half on other foods (mainly vegetable oil, sugar and a small variety of cooking ingredients: tomatoes, onions and potatoes). All households purchase similar products but in varying quantities.

Poor: The amount of money spent, is normally associated with the household size,, available income , market situation, and options open to the wealth groups. Annual expenditure for the poor wealth group is estimated at SIsh 8,340,000 equivalent to 1252 USD. About 67% of the total income is paid on food commodities (staple 34% and non-staple 31%). Moreover, another 9% is used to purchase household items, while the rest 4-5% is directed to water, social services, and cloths. Debt repayment and others costs 6-7%, while input is the least (1%) expenditure.

Middle and B-Off: The Middle and Better-off households, spent about 60% of their yearly income on food purchase (30% on staple and 31% on non-staple food) and (25% staple and 33% on non-staple) respectively. The two wealth groups also used significant income on non-food items, due to their higher livestock holdings. . The category labeled “household products” includes tealeaves, salt, soap, utensils and batteries for lanterns, the only source of light in the evenings, and cloths are the next largest expenditure (8-12%). About 2-5% is spent on inputs and social services (education, health, communication etc.). Middle wealth groups spend 4% of their annual income on water. Both wealth groups use 8-10% on other items (Qat, Cigarettes, and Tobacco). Often, most wealth groups will cut expenditure on less essential items to ensure sufficient cash is available to meet food needs, and to cover essential expenditure for livelihood activities.

Figure 16: Expenditures by wealth group, Guban Pastoral Zone



HAZARDS AND VULNERABILITY CONDITION The main hazards that affect the pastoral economy of the Guban livelihood zone are listed below:

Drought/weather shocks – by far the main hazard is the lack of pasture and water due to reductions or delays in rainfall levels and drought situations, which lead to weakened animal body weight and value. Insufficient water and pasture also reduce milk production. Recurrent and persistent droughts affect livestock production and herd viability as miscarriages can occur alongside the death of young animals. The drying up of water sources can result in having to rely on water trucking and increased migration and family separation. In addition to reductions and delays in rainfall, strong winds during the Hagaa season, locally referred to as Asow, and high temperatures rising above 45 degrees Celsius, cause the early drying up of pasture and contribute to the acceleration of sand dune movements that eventually cover up remaining vegetation.

Livestock diseases – livestock diseases follow in importance and are frequent especially during the dry season, when animal body conditions have deteriorated. The most common diseases in this area are endo-ectoparasits, Contagious Caprine Pleuro Pneumonia (CCPP) and Peste des Petits Ruminants (PPR) (called susun locally) that affects goats. Camels suffer from respiratory diseases. Limited pest control services, restricted supplies of veterinary medicines and a poor animal health infrastructure reduce local capacity to manage these problems.

Livestock ban or restrictions – this affects mainly livestock exports. The recent construction of quarantine facilities has improved the control over possible disease transmission across borders. The last such ban was in place between 2000 and 2009.

Border closure – a critical hazard noticed in this border livelihood zone with serious impacts on livelihoods is the restriction of trade and movement of the people to and from Djibouti. In the event of border closures, market routes are likely diverted to Borama, with the distance increasing to over 240 km on rocky and sandy routes. As a result, commodity prices rise and food access is limited.

Insecurity- this is mainly as a result of conflict among different clans of the livelihood zone and neighboring zones over pasture and water sharing. Civil insecurity causes loss of lives and properties, sporadic displacement of pastoralists and restriction of livestock migration hence inhibit access to pasture, increasing the cost of essential food items. Sometimes conflict results in death.



Poor Pasture in Rain Deficit areas, Zeila. FSNAU, Nov 2014

High food prices – especially for rice, wheat flour, sugar, and oil, all of which need to be imported to the livelihood zone.

Environmental degradation – this is an endemic problem contributing to the loss of pastures due to changing climatic conditions and lack of proper land and water resource management systems. In order to cope with changes in weather patterns and other hazards, households resort to certain strategies. Many of these are used every year such as adjusting the timing of mating and birthing, migrating, hand feeding animals, selling older animals and/or exchanging them for younger ones, storing ghee for consumption during the lean season or selling first quality goats to build up a reserve of cash. Listed below are the common strategies used during bad years, following a particularly bad season.

Table 6: Coping Strategies in Response to Shocks in Guban Pastoral

Very poor/poor	Middle/better off
Reduction of expenditure on non-food items and meal sizes	Reduction of expenditure on non-food items and meal sizes
Increasing livestock sales	Increasing livestock sales (especially export quality animals)
Increased migration to mountainous areas with better water and pasture	Increased migration to mountainous areas with better water and pasture
Increased milk sales	Increased milk sales
Increased firewood and charcoal sales	Alerting family members in urban centers and abroad (increase remittances)
Consumption of wild fruits (<i>Kulan</i> and <i>Garas</i>)	Migration to urban areas in search for work (especially Djibouti)
Seeking gifts, loans and other forms of social support locally	
Migration to urban areas in search for work	

Table 7: Key Parameters to Monitor in Guban Pastoral

Item	Key Parameter – Quantity	Key Parameter – Price
Animal Production	Supply of camels Supply of goats Supply of sheep Supply of camel milk (season 1 and 2)	Price of camels (local and export quality) Price of goats (local and export quality) Price of sheep (local and export quality) Price of camel milk (season 1 and 2)
Other	Remittances from permanent migrants Supply of fuel wood and/or charcoal Flows of zakat and other social support (other monetary gifts, remittances)	Price of wheat flour and rice Price of sugar Price of fuel wood and/or charcoal Flows of zakat and other social support (other monetary gifts, remittances)

CONCLUSION

Based on the main findings, the key economy for this livelihood is Goat/ Sheep and camel herds. According to herd size changes across the wealth groups, the number of sheep declined by 69% compared to 2003 Baseline studies. This is attributable to increased off-take and limited kidding/lamping, due to drought effects and slow recovery pace. Whereas, camel holding indicated stable on average, due to its resistance to the drought shocks and possibility for long distance migration to Ethiopia and west Golis. Market purchase (staple and non-staple) is the primary food source for all wealth groups, followed by own livestock products (milk, meat, ghee), providing a total energy of 88%, 110% and 120% for the Poor, the Middle and the Better-off respectively. Despite this significant contribution, it is not enough to cater all the Poor household food needs-thus additional calorie of 9% is obtained in the form of humanitarian relief and gifts from the better-off relatives. All wealth groups are accessing this energy, largely through the sale of livestock and livestock products. The annual income of the three wealth groups is Shs 8,120,000 for the Poor, Shs 12,510,000 for the Middle, and Shs 20,760,000 Better-off. About 60-67% of the total income is spent on food commodities and this makes most wealth groups, particularly the Poor households vulnerable to market related shocks in terms of food and livestock prices. Other hazards include, clan conflicts, lack of seasonal rainfall, and border closure between Djibouti and Somalia.

RECOMMENDATION

- In order to offset the drastic reduction of sheep by 69 percent, their primary assets should be strengthened by re-stocking program targeting the poor households. Goat species are recommended for re-stocking, as there was gradual shift from sheep to goat rearing, given the fact that goats are more drought tolerant.
- Afforestation program is advised to be among the primary intervention programs to halt the fast moving sun dunes widely covering vegetation and settlements. This should be implemented through cash interventions and food for work programs, as well as awareness training on the importance of environmental protection and rehabilitation programs.
- Promote fishing industries in order to improve livelihood strategies for poor pastoral and pastoral distributes. This is a potential alternative livelihood activity especially with proximity to the waters.
- Strengthen existing cooperatives in building light salt industries for cleaning, refining ionizing and environmentally sound packaging system to enhance their income opportunities.
- Provision of micro credit and revolving funds to small groups (women and youth) for engaging in income generating activities such as camel milk and skin collection for selling and livestock trade.
- Provision of cash for work programs for rain water harvesting and sanitation practices for both human and livestock consumption, through construction of water reservoirs, and diversion and/or slowdown of running water from Golis mountains, for long retaining water and improvement of rangeland conditions.
- Extend livestock services (animal health services) to the livelihood zone by increasing access to livestock inputs (drugs) and training community animal health workers.
- Strengthen rural education and health programs by giving adequate incentives to the teachers and health workers available in the rural villages. This can be achieved through the partnership network between the community, local and international institutions, in connection with their relatives living abroad.
- Rangeland management system should be initiated by empowering the local community to engage in this activity in collaboration with the government and relevant institutions.

¹ Based on USGS CHIRPS data, a combination of satellite-based Rainfall Estimates (RFE) and station data, with data extending more than 30 years (1981-2014). Source, FEWS NET and USGS.FSNAU. 2011e. Food Security and Nutrition Analysis Post Gu '11, Technical Series Report No VI. 42, Food Security and Nutrition Analysis Unit, Nairobi, Kenya. 174 pp.

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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