

Bay Agro-pastoral High Potential

HISTORICAL TIMELINE

Year	Events	Key outcomes
2008/2009 Average year	Average to good rains in <i>Gu</i> and <i>Deyr</i> with the exception of some pockets.	Improved rangeland conditions, average crop production levels, and livestock migration from Bakool to Bay
2007/2008 Below average to average year	Poor <i>Gu</i> rains and good <i>Deyr</i> rains.	Poor crop production in <i>Gu</i> and good crop production in <i>Deyr</i> .
Reference Year		
2006/2007 Good year	Average <i>Gu</i> rains and good <i>Deyr</i> rains.	Average <i>Gu</i> crop production, above-average <i>Deyr</i> production and low cereal prices.
2005/2006 Bad Year	Drought, TFG and ICU conflict, resource-based conflict in Dinsoor and Qansahdhere	Poor crop production, low cereal stocks, disruption of agricultural activities in Dinsoor, Qansahdhere, cattle deaths, livestock migration to the Shabelle and high cereal prices.
2004/2005 Average to Good Year	Average to good rains	Normal migration and slightly higher cereal prices.
2003/2004 Average Year	Average rains	No livestock migration and normal levels of labour and social support.
2002/2003 Average to Good Year	Average to good rains	Surplus production, increase in cereal stocks and livestock restocking through purchase.

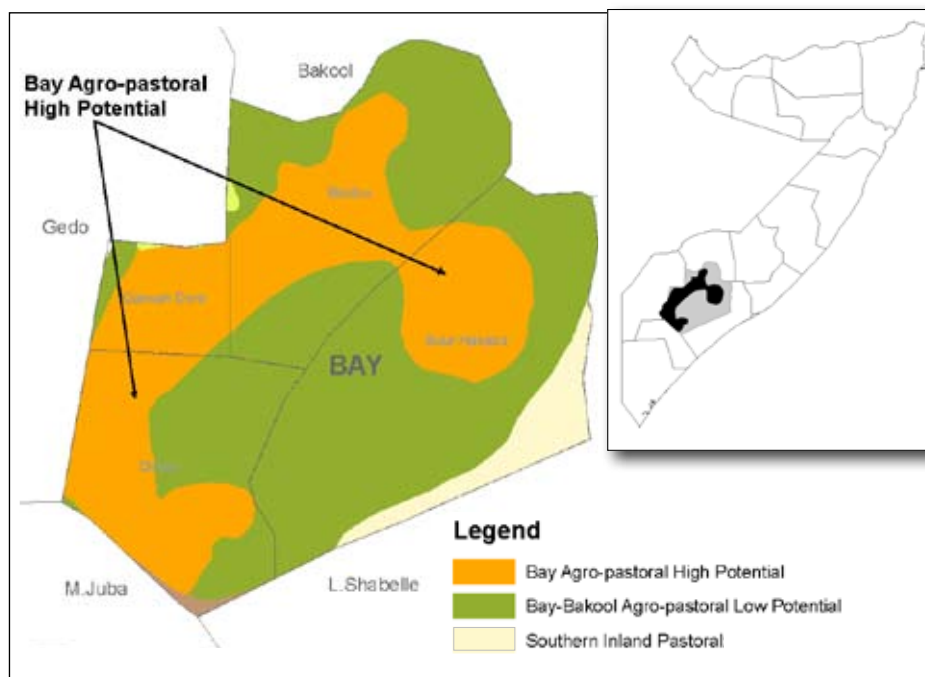
BASELINE YEAR DESCRIPTION

- April '06-March '07 (*Gu* through *Jilaa*) was selected as the reference year because it was the most recent full consumption year in which individuals' recall of events was good.
- During the reference year, rainfall and crop production levels were average in most areas except in some parts, where there was below-average rainfall. During *Deyr* '06/07, there was a bumper harvest.
- Although rainfall was near-average during *Gu* '06, livestock conception rates were still low, following a severe drought in 2005. However, livestock conception rates were exceptionally high during *Deyr* '06/07 due to significantly above average rainfall and improved rangeland conditions.

Average Commodity Prices and Purchasing Power during Reference Year (Apr. '06-Mar.'07)

• Sorghum price:	950 SoSh/kg
• Local goat price:	277,000 SoSh/kg
• Camel milk price:	5500 SoSh/ltr
• Terms of trade (labour/sorghum):	21 kg/day's labour
• Terms of trade (local goat/sorghum):	326 kg/head
• Exchange rate:	13,700 SoSh/USD

BAY AGRO-PASTORAL HIGH POTENTIAL LIVELIHOOD ZONE (LZ) AND SURROUNDING AREAS



Region/District	UNDP Population	% of population	Livelihood population
BAY			
Baidoa/Bardale	247,670	70	173,370
Burhakaba	100,495	50	50,245
Qansahdhere	81,970	65	53,280
Dinsoor	63,615	60	38,170
Total			315,065

Source: UNDP Somalia, 2005 Population Estimates.

LIVELIHOOD ZONE DESCRIPTION

- The largest proportion of the Bay Agro-pastoral High Potential Livelihood Zone (LZ) is found in the Qansahdhere, Baidoa, and Dinsoor districts as well as some areas of Burhakaba district.
- The livelihood is characterized by better soil fertility, high annual rainfall levels, ranging from 500 mm to 600 mm, and a high altitude of 100-500m above sea level.
- During a normal year, this livelihood receives some of the highest rainfall levels in Somalia; it is also the single largest cereal producer in the country and essentially comprises Somalia's 'Sorghum Basket'.
- This livelihood is completely dependent on rainfed crops. Sorghum is the main cereal grown, followed by maize, cowpea, sesame and groundnuts.
- Crop yields during the reference year averaged 0.5-0.6 Mts per unit area (Ha) and tend to be higher in Qansahdhere, Baidoa and Dinsoor districts.
- Vegetation mainly consists of drought-resistant bushes, acacia trees and seasonal plants, suitable for livestock grazing.
- Cattle are reared more than other species (sheep, goat and camel) in this livelihood; livestock holdings amongst different wealth groups are varied.

For full report see:
FSNAU Bay Bakool
Technical Series Report
No. VI.19, May 20 '09 or
contact info@fsnau.org,
www.fsnau.org

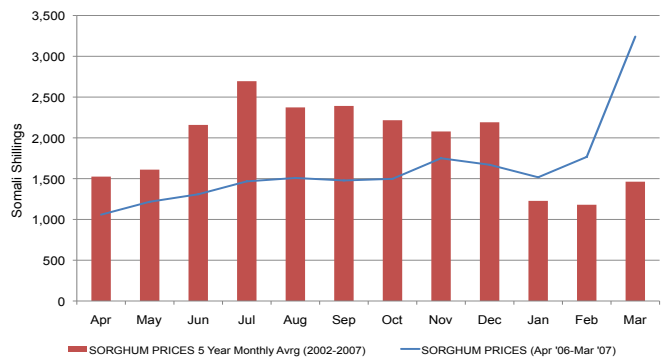
SEASONAL CALENDAR

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Seasons	Gu wet season			Hagaa dry season			Deyr wet season			Jilaal dry season		
Water availability										Low		
Crop harvest										High		
Livestock conception	High						High					
Milk production	High						High					
Cereal purchase	High						High					
Hunger period	Hunger						Hunger					
Cereal price							High				Low	
Livestock price							High				Low	
Livestock sales							High					
Agricultural Labour	High						High					
Bush products							High			High		
Diseases	Peak						Peak					

MARKETS AND TRADE

- Main markets for Bay Agro-pastoral High Potential livelihood include Baidoa, Dinsoor, Burhakaba and Qansahdhere.
- Baidoa market within the Bay region is a major trading centre for sorghum and other cereals. Sorghum from this livelihood supplies other districts, neighbouring regions and parts of Ethiopia. The main destination markets for sorghum from Bay include Beletweyn, Mogadishu, Buale and some districts in Bakool region.
- Sorghum trade routes from Baidoa extend as far south as Lower Juba and as far north as Bossasso, demonstrating the importance of the livelihood's sorghum production to the rest of the country.
- In regards to the cattle trade, cattle en route to Garissa are collected from Hiran, Middle Shabelle and Lower Shabelle during dry periods and then traded through Dinsoor and parts of Middle Juba during the rainy seasons.
- Poor households rely upon market purchase for approximately 34% of their total annual food intake. Food purchases include cereal (200 kg during the reference year) and non-staple foods, comprised mainly of sugar and vegetable oil.

Bay: Trends in Sorghum Prices



Bay: Trends in Terms of Trade (Labour to Sorghum)



Women in farm planting activity

THE ROLE OF WOMEN IN THE BAY AGRO-PASTORAL HIGH POTENTIAL LZ

- In Bay Agro-pastoral High Potential areas, men have the overall decisions and control related to crop production, storage, and purchase. However, because of limited land and production, men and women of the poor households equally share decision making in the production and consumption.
- Approximately 70% of the household's total crop sales are conducted by the women of the household (poor).
- In agro-pastoral areas, where agriculture is dominant, approximately 30-35% of the household's required agricultural labour is performed by women.
- In regards to livestock production, women care for the smaller livestock species (sheep and goats) and share in the decision-making and management of all livestock production (poor households).

SUMMARY OF LIVELIHOOD ASSETS

<p>Human Capital</p>	<ul style="list-style-type: none"> • Education: Access to formal schools is limited for all wealth groups (only some large villages have formal schools), but all have full access to Koranic education. Typically, 1-2 children per household will attend Koranic schooling, depending on the wealth group. • Health: Health services are limited for most of the livelihood's population, with only a few health posts (MCHs) available. Basic drugs are always in short supply. However, there is a hospital located in Baidoa town, although it has insufficient staff and equipment. Problems of endemic disease, water borne diseases, lack of proper child care and a lack of basic safe water are also the major concerns. • Nutrition: The nutrition situation in Bay region, determined through representative nutrition surveys, indicate persistent Critical (15-19.9%) levels of Global Acute Malnutrition (GAM). In addition, meta analysis of nutrition survey data from 2001 to 2007 shows Bay region to have the highest median rates of underweight (i.e. 40.1%) and stunting (39.4%) in Somalia. During the reference year, a nutrition situation of Critical level was reported. 	<p>Trends in Levels of Acute Malnutrition in Qansdhare District (WHZ<-2 or Oedema), 2001-2007</p> <table border="1"> <caption>Trends in Levels of Acute Malnutrition in Qansdhare District (WHZ<-2 or Oedema), 2001-2007</caption> <thead> <tr> <th>Month</th> <th>GAM (%)</th> <th>SAM (%)</th> </tr> </thead> <tbody> <tr> <td>Oct'01</td> <td>~18</td> <td>~3</td> </tr> <tr> <td>Jan'06</td> <td>~19</td> <td>~2</td> </tr> <tr> <td>Mar'07</td> <td>~18</td> <td>~3</td> </tr> </tbody> </table>	Month	GAM (%)	SAM (%)	Oct'01	~18	~3	Jan'06	~19	~2	Mar'07	~18	~3
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<p>Social Capital</p>	<ul style="list-style-type: none"> • Remittances: During the reference year, remittances from overseas were insignificant, but some households received remittances from relatives, who had migrated to Bossaso, Baidoa and Mogadishu. • Donations or Gifts (zakat): The main form of social support in this livelihood is crop <i>zakat</i> (gift). This religious obligation is equivalent to one out of every 10 bags (10%) of sorghum (or other grain) harvested. • Other social support: <i>Sadaqa</i> is another kind of voluntary support, which is usually in kind and is particularly common when harvesting activities are ongoing, but scarce once the harvest has been completed and placed into underground pits. Gifts and other support for wedding and funeral ceremonies are also common in this livelihood. 													
<p>Physical Capital</p>	<ul style="list-style-type: none"> • Water sources: The main water sources for this livelihood are water catchments, which are communal. Boreholes also play an important role for both livestock and human consumption. A few springs and shallow wells are also present. • Markets: Accessible main markets for livestock, food and non-food commodities are Baidoa, Dinsoor, Burhakaba and Qansahdhere. The main feeder road is the asphalt road that binds Baidoa to Mogadishu through Burhakaba, Wanleweyn and Afgoi. • Telecommunications: High frequency radio operators are available in the main villages which facilitate communication and local money transfer. Cellular telephones are mostly available to populations in main towns; however, their use is quickly spreading to villages. 													
<p>Financial Capital</p>	<ul style="list-style-type: none"> • Cereal stocks: During the reference year, Better-off and some Middle wealth groups relied on carry-over stocks from the previous seasons and additional sorghum stocks from the <i>Deyr</i> '06/07 harvest, which sustained through <i>Gu</i> '07. Poor households had little amount to carry over. • Loans: Poor households have access to short-term credit from small shops and sometimes food in kind from Better-off households. The extent of this social support is dependent upon the poor's ability to repay debt and the level of crop production. • Other financial sources: Livestock and livestock product sales provide significant seasonal income for Better-off and Middle households, while Poor households derive considerable income from labour. 													
<p>Natural Capital</p>	<ul style="list-style-type: none"> • Rainfall: Annual rainfall during the reference year was approximately 400-500 mm. Although the amount of annual rainfall in this livelihood is usually good, the level of evaporation and transpiration is high due to the nature of the vegetation. • Environmental resources: The district of Burhakaba is a main producer of charcoal; however, agro-pastoral populations within these areas are not the primary producers. Only a small portion of the poorer wealth groups engage in such activity and typically at a minimal level. Poor households derive approximately 20% from self-employment activities (firewood, construction sticks and poles and some charcoal). By Dec. '06, immediately following the <i>Deyr</i> '06/07 season, NDVI (measure of greenness of vegetation/photosynthesis) levels in the central part of the Bay region had reached 0.60 to 1.0, which is significantly above normal. When compared to the long-term mean, NDVI levels for central Bay were 20-60% above normal levels. Surrounding areas in the Bay region indicated NDVI levels of 0.30 to 0.60, which were approximately 20-80% above normal levels. 													

WEALTH BREAKDOWN

Household Structure and Wealth

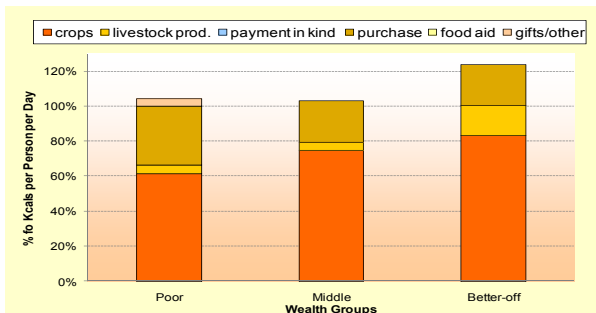
	Poor	Middle	Better-off
% of population	30	55	15
No. of wives	1	1	1-2
Household size	7	9	11
Cultivated land (ha)	3	5	9
Livestock holdings			
Camel	0	0	40
Cattle	3	10	15
Sheep/Goat	12	22	47
Donkey	0	1	2

Percentage of Population by Wealth Group

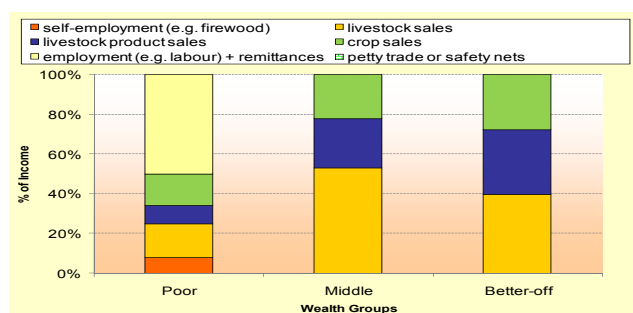


LIVELIHOOD STRATEGIES

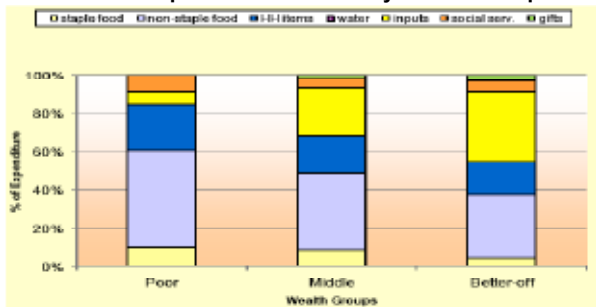
Annual Food Sources by Wealth Group



Annual Income Sources by Wealth Group



Annual Expenditure Patterns by Wealth Group



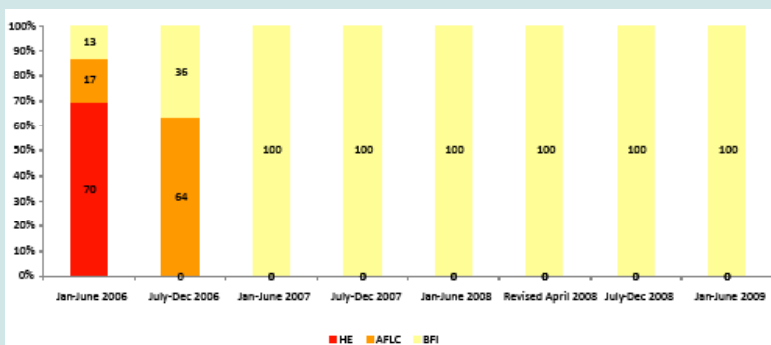
Coping Strategies

- Labour migration to both urban and rural areas.
- Reduction in the number of meals and meal portions.
- Increased collection and sale of bush products (women).
- Increased livestock sales.
- Increased seeking gifts and other social support.

VULNERABILITY AND IPC PROGRESSION

- The Bay Agro-pastoral High Potential LZ is the most resilient of livelihood in Bay region given the consistently high rainfall levels, less recurrent drought and high cereal production levels.
- Most households generally have carry-over cereal stocks from the previous season, which provides a food security buffer during short-term shocks.
- A year long drought in 2005 had an adverse impact on cereal production, which is the main food and economic source of this LZ. As a result, the percentage of people in **Acute Food and Livelihood Crisis (AFLC)** and **Humanitarian Emergency (HE)** during the 2006 was significant, ranging between 64 and 87% of the LZ's total population.

Bay Region: Bay Agro-Pastoral High Potential



RISK FACTORS

- Drought
- Crop diseases and poor production technology
- Conflict
- Poor animal health services
- Unsafe and Unclean water and poor hygienic and sanitation facilities
- Poor road infrastructure and market accessibility
- Environmental degradation

IMPLICATIONS FOR RESPONSE

- Increase access to education and health services through the construction of additional schools and health posts; increase training of teachers and health workers, such as midwives, and incentives for skilled workers.
- Develop additional water infrastructure; improve existing water catchments, shallow wells and boreholes.
- Promote hygienic practices such as washing hands before eating; boiling drinking water and using infusion solution to treat dehydration.
- Facilitate access to the farm inputs, such as quality seeds and farm tools, and introduce integrated pest management (IPM). Also diversify agricultural production and promote processing of agricultural products
- Rehabilitate roads networks.
- Improve availability and access to veterinary services and legitimate livestock drugs.
- Implement community skills training programs; increase knowledge of new technology for livestock and crop production.



Technical & Managerial Support



European Commission



USAID



Funding Agencies

