

Karkaar Dharoor Pastoral (Goats Sheep and Camel)

HISTORICAL TIMELINE

Year	Season	Seasonal performance	Events	Effects	Responses
2012	Gu	2 (Poor)	• Below normal rains	• Poor pasture	• Normal migration
2011	Deyr	3 (average)	• Good rains	• Good pasture • Good water conditions • Good livestock body conditions • Good TOT	• Normal coping strategies • Increase in saleable animals • Reduced debts • Normal migration
	Gu	2 (Poor)	• Below normal rains	• Poor pasture • Poor livestock body conditions • Poor livestock prices • Poor TOT	• Abnormal migration • Seeking social support • Seeking loans • Water trucking
2010	Deyr	1 (very poor)	• Drought	• Livestock death • Poor TOT/ • Livestock prices • High cereal prices	• Abnormal migration • Seeking social support/loans • Water trucking
	Gu	2 (Poor)	• Below normal rains	• Poor pasture & water conditions • Poor livestock body condition • Low sellable animals • Poor pasture & water conditions • Poor livestock body condition/ prices	• Abnormal migration • Seeking social support/loans
2009	Deyr	2 (Poor)	• Below Normal rains	• Poor pasture & water conditions • Poor livestock body condition/ prices	• Abnormal migration • Seeking loans/social support
	Gu	3 (average)	• Normal Rains. • Locust outbreak	• Average water and livestock body conditions • Poor pasture and browsing due to locust outbreak	• Normal migration • Average TOT

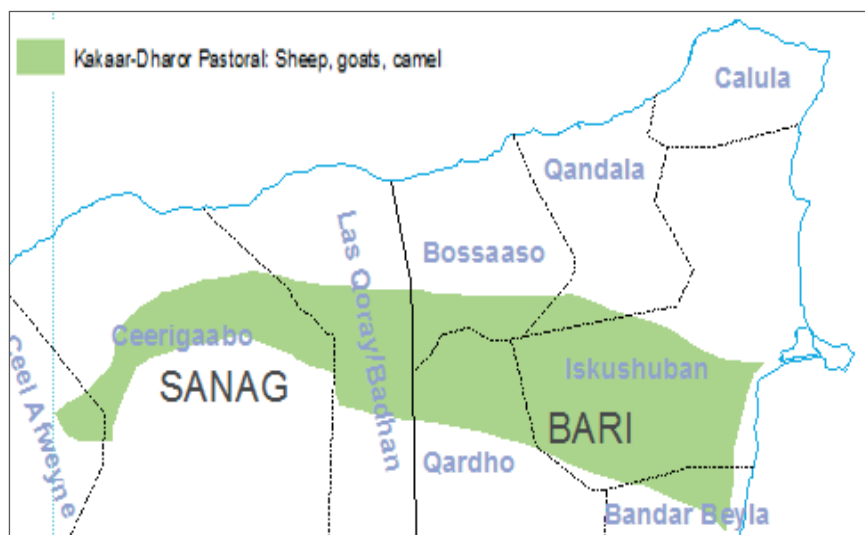
Notes:
5 = A very good season for livestock production (e.g. due to good rains, little disease, etc)
4 = A good season or above average season for livestock production

3 = An average season in terms of livestock production

2 = A poor season for livestock production

1 = A very poor season for livestock production (e.g. due to drought, livestock disease, etc.)

LIVELIHOOD ZONE DESCRIPTION



- Karkaar-Dharoor Pastoral livelihood zone covers 24,382 square kilometers, traversing Ishkuban, Bandarbeyla Qandala, Qardho, Las Qorey, Ceerigaabo and Ceel Afweyne districts in Bari and Sanaag regions in Northeast Somalia respectively. The topography undulates with highly eroded hills, barren mountain peaks, shoulders and ridges.
- The zone receives Gu (April-June) and Deyr (Oct-Dec) rains. Mean annual temperatures range from 240C to 280C in Alula and Bossaso but reduce in Golis (20-220C).
- Flash-floods are localized in the streams. Sub-surface flow (togas), groundwater, springs, shallow and deep aquifers are important water sources.
- The vegetation is scarce and less diversified, comprising of evergreen trees, shrubs and acacia trees along the banks of the river.
- The soils in the livelihood zone are mainly composed of four types: (a) Calcisols and Gypsisols (these soils have low moisture and low nutrient availability); (b) Fluvisols which are prone to flooding (Sanag-Bari border of Gebi valley), and Leptosols, Regosols and Calcisols (which are characterized by stoniness, limited root depth and low moisture availability). Most of the drainage basins in the northern regions are ephemeral.
- Livestock is the key livelihood asset (Goats -58% & sheep 42%) and camel, followed by self-employment works in the dry seasons. However, Cattle which would be the third species remain insignificant and are on the brink of extinction.
- Frequent droughts are the most common hazard affected the livestock population in Karkaar- Dharoor livelihood.
- Throughout the four seasons, migration (of family members, camels, goat/sheep) was confined within Dharoor area, due to available victuals (pasture and water) within the livelihood zone. However, in bad years (poor or failed rains and insecurity), abnormal migration to Sool, Golis and Guban was reported in Hagaa, Deyr and Jilaal respectively.
- Infrastructural development in the area is characterized by poor roads, Gullies, and streams. Despite, Telecommunication services has been improved by the private companies for their expansion to remote rural areas.
- The area has poor social services and limited active primary education, with the exception of some in the areas close to main towns and tarmac road. Nonetheless, Koranic schools are accessible to the children throughout the area.
- Karkaar - Dharoor livelihood has linkages with Main urban towns, Coastal pastoral livelihood and up to some extent connection to relatives in the abroad.

For full report see;

FSNAU Karkaar Dharoor Pastoral Livelihood Zone
Baseline Report No. VII 59 May 28 2015, or contact:
info@fsnau.org

Baseline reference year description

- In the reference year (slightly below normal), the Deyr 2011 and Gu 2012 seasons were characterized by below normal to normal rains, respectively ; relatively good security situation; improved pasture and water availability; improved livestock body conditions and conception rates; increased livestock production, improved livestock prices, reduced debts, and favorable Terms of Trade (ToT). In addition, normal migration occurred and normal coping strategies were used.

Table 1: Population Estimates for Karkaar Dharoor Livelihood Zone

Livelihood Zone				
Region	District	Livelihood system	New Livelihood zone	Estimated population
BARI	Bossaso	Pastoral	Northern Inland Pastoral	8659
	Qandala			2690
	Qardho			450
	Iskushuban			16434
SANAAG	Lasqorey	Pastoral	Northern Inland Pastoral	11828
	Ceerigaabo			13224
	Ceel-Afweyne			5364
Total				58649

SEASONAL CALENDAR

- In Gu and Deyr seasons, improved water and pasture availability increased livestock productivity; livestock conception, kidding, lambing and calving.
- Milk availability peaked in May-June and October-November but declined in the Hagaa and Jilaal due to decline in yield resulted from harsh weather.
- Livestock sales increased in the rainy seasons due to improved livestock body conditions because of good water and pasture availability, high demand for Eid festivities and Hajj as well as debt/loan repayment.
- In bad years poor rains coupled with insecurity influenced migration of camels and shoats to Karkaar-Dharoor (Gu), Sool (Hagaa), Golis-Karkaar (Deyr) and Karkaar-Guban (Jilaal). Human and livestock diseases increased during December-January in the reference year.

Figure 1: Seasonal calendar critical events & activities in Karkaar-Dharoor Pastoral livelihood zone

Seasons	JILAAL			GU			HAGAA			DEYR		
Months	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Rainfall				Low	High	Medium			Medium	High	Low	
Pasture availability	Low			Low	High	Medium			Medium	High		
Water availability	Medium	Low		Low	Medium	High	Medium	Low	Medium	High		
Livestock conception				Low	High		Low			High		
Kidding/calving				Low	High				Low	High		Low
Milk avail.	Low			Low	High		Medium	Low	Medium	High		Medium
Livestock sales					High				Low	High		
Livestock migration						Medium	High			Low	High	Medium
Food prices						Low	Medium	High				
Livestock disease	High	Low										High
Human disease	Medium											High
Social support		M	H				M		H		H	
Seeking credit		M	H	M				H				

Note: H(high), M-(Medium),L-(Low)

Table 5: Summary of wealth group characteristics

Gender of Main household heads		Poor	Middle	Better off
		Male headed		
Number of wives		1	1-2	1-2
Average household size		5-7	7-9	10-11
Livestock asset	Goats	35-45	80-100	160-180
	Sheep	25-35	40-60	90-110
	Camel	3-4	12-15	30-40
Other	Donkey	1	1-2	3-4
	Berkad (water well?)	-	-	1
Gender Roles in decision making on sale of assets	Livestock	Both	Both	Both
	Livestock product	Both	Female	Both

Figure 2: Wealth Breakdown (% of population)

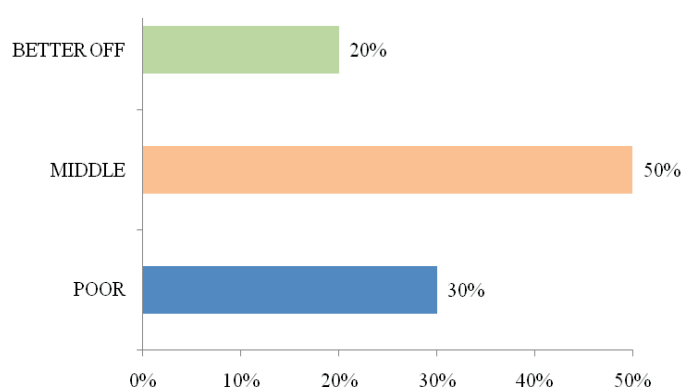


Table 6. Changes in Wealth group characteristics based on livestock holding

Wealth characteristics	Old baseline 2000			Current Baseline 2012		
	Poor	Middle	Better off	Poor	Middle	Better off
Goats	70-120	120-250	250-375	60-80	120-160	250-300
Sheep						
Camel	5-10	10-25	25-35	3-4	12-15	30-40
Cattle	0	10-15	15-20	-	-	-





MARKETS

- The main markets for local quality livestock trade as well as purchase of food and non-food essentials are Bosasso and Iskushuban.
- Export quality livestock from the livelihood as well as from other areas are sold to markets in the Arabian Gulf through the Bosasso port.
- Livestock prices are influenced by periodic Islamic festivals (Hajj and Ramadhan) and by other factors like livestock body conditions, exchange rates (Somali currency against the United States Dollar) and livestock demand in the Arabian markets.
- In the reference year, the prices of local and export quality goats, and sheep were above the 5-year average and remained relatively stable (during reference year), showing 56%, 57% and 73% compared to corresponding 5-year averages (2006- 2010) respectively.
- Peak prices in the reference year were recorded in Oct'11 and in Sept'12. This was due to the high demand for export quality livestock in Saudi Arabia for the Islamic pilgrimage (Hajj festival).
- Pastoralists in Karkaar - Dharoor pastoral livelihood zone supply goat and camel milk to Bossaso, Iskushuban and Badhan towns. In the reference year the average price of fresh camel milk was Sosh 48,400, representing a 10% increase from the 5-year average milk price (Sosh 43,400).
- The lowest camel milk prices in the reference year were recorded in Jan'12 (Sosh 36,000) and Feb'12 (Sosh 38,000). This was due to the average Deyr rains, which improved milk supply to the markets.
- Peak fresh milk prices were recorded in Oct'12 and Sept'12 due to the negative effects of Hagaa, which resulted in reduced milk production.
- The most important staple food commodities purchased by households included imported red rice, wheat flour, red sorghum, sugar, and vegetable oil.
- The average price of imported red rice in the reference year was Sosh 21,700 (38% higher than the 5-year (Sosh 18,000) average).
- Peak prices of imported red rice were recorded in April-May'12, but declined in Hagaa season (Aug-Sept'12) due to the Monsoon effects on sea transport which hindered imports. Imported red rice prices were low Jan-March'12. This is due to increased import during the Jilaal season.
- The price of wheat flour was also 34 % higher than 5-year average.
- The average prices of sugar and vegetable oil in the reference year also indicated an increase of 59% and 66% according to 5-year average prices, respectively.
- Despite an increase in most food prices in the reference year, yet goat prices fetches favorable income (156% of 5-year average) that improved household access to food.
- Consequently, the Terms of trade (ToT) between local quality goat and imported rice increased slightly when compared to 5-year average (2006-2010).

Livelihood Assets

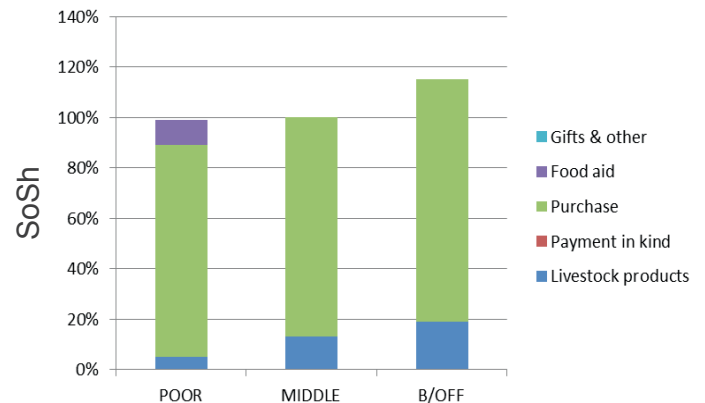
Natural Capital	<p>Rangeland resources: The main vegetation communities are savanna and herbaceous, interspersed with shrubs and acacia species along the seasonal streams (<i>wadi</i>). Savannah grasslands are used for grazing.</p>	
	<p>Access to water resources: Pastoralists have access to shallow pans and wells which are communally owned. <i>Berkads</i> are privately owned by better off wealth group. Water from <i>berkads</i> is the main source for water trucking. Unregulated construction of <i>Berkads</i> for commercial purposes disrupts traditional management of grazing lands, and often results in overgrazing in areas around water points.</p>	

Human Capital	<p>Household Size: Poor households are monogamous, while the middle (1-2 wives) and better off (2-3 wives) are polygynous. The better off have 10 household members, the middle have 8 and the poor have 6 persons.</p> <p>Access to Education: Pastoral households in Karkaar-Dharoor have access to Koranic education and limited access to formal education (accessible in the main towns and big villages). Nomadic families send their children to large villages or towns to live with relatives in order to access Koranic education. Despite the limited availability of formal schools, some middle and better off send their children to urban areas to access formal education.</p> <p>Food security and nutrition: The <i>Post Gu' 2012</i> analysis estimated about 7% of the population in livelihood were in stress while the nutrition analysis presented a Serious situation. The <i>Post Deyr 2011/12</i> nutrition analysis showed a critical situation with an estimated 15% of the population in Crisis and Emergency. The <i>Post Gu 2011</i> analysis classified Karkaar - Dharoor in Crisis while the nutrition analysis presented a Serious situation.</p>
Social Capital	<p>Institutional Support: Households rely on government institutions, local administrative structures, NGOs, UN agencies for institutional support and resources in the form of relief interventions during times of shock.</p> <p>Religious assistance (zakat and Gift): Middle and better off wealth groups give <i>zakat</i>. These systems redistribute wealth and reduce risk in society, are a way of balancing social-economic stratification and a strategy for mitigating potential social conflicts. Social support in this form ranges from giving cash gifts (business), livestock heads and in-kind dry food (<i>zakatul fits</i>). <i>Zakat</i> in cash is received annually from traders in urban areas or relatives in the Diaspora.</p> <p>Community relations and Kinship: This is form of social support (known in Somali as <i>Kaalo, Xooloqoys, Maal, Gadiid/Cellis</i>) is based on friendship or "neighborhood". Households in need may seek support from neighbors, even during normal times. This support is often a reciprocal agreement between households. Access to this type of support is pegged on '<i>belonging</i>' in the community. Kinship (<i>Diyo, Qaraan, Irmansi</i>) or blood ties is based on the community understanding that group resources are often managed in a corporate basis. Assets flow from the better off to the poor, depending on the capacities of the former and need of the latter.</p> <p>Remittances: External and internal remittances are a key source of social support for the pastoral livelihood. Remittances provide options for coping in bad years or economic investment (restocking). Apart from financial support, Somali Diaspora remittances increase during a crisis.</p>
Physical Capital	<p>Housing structures and settlements: Most pastoralists in the livelihood zone live in traditional Somali huts made of rudimentary materials (poles and ropes) and covered with either grass, reeds or polythene bags. Most of these houses are temporary and are clustered in pastoral settlements or villages that characterize a nomadic lifestyle.</p> <p>Transport: The livelihood zone has very poor roads. In most areas, all weather roads link the villages to rural markets. Most of the footpaths or tracks used are mainly migration routes. Due to the nature of the terrain in the livelihood zone system, the area is physically vulnerable, and has limited humanitarian access.</p> <p>Access to essential physical infrastructure: Health facilities are lacking in the livelihood zone. Mobile phones are used for <i>communicating</i> information on rainfall onset, pasture availability, outbreaks of clan-based conflicts, migration, marketing of livestock and livestock products, remittances and social support.</p> <p>Markets: Market networks enable exchange. Petty traders thrive in the main towns and rural markets and support local communities during seasonal economic fluctuations or prolonged drought. Markets also support employment opportunities such as wholesale, petty trade and casual labour (portering).</p> 
Economic Capital	<p>Livestock production and ownership: Goats/sheep and camels are the predominant species reared, and are a symbol of wealth. Camels are the most important animal for nomadic pastoralists: female camels produce large quantities of milk for both consumption and sale, while the pack camels are used for transporting water in the dry season. Without pack camels, herder households become immobile and unable to remain in the system. Livestock and livestock products sustain household food security.</p> <p>Access to credit: Most middle and better off households have access to credit, especially in bad (drought) years. This debt is normally non-conditional and is paid when normal pasture and water improve.</p> <p>Seasonality and expenditure: Seasonality links pastoralist to casual labour opportunities in the urban or coastal areas. In the dry seasons (<i>Jilaal</i> and <i>Hagaa</i>) economic opportunities decline and the pastoral households temporarily transfer active members to earn from other livelihood activities in the urban or coastal areas. These linkages are common that in most cases, households are hardly completely together during the year.</p> 

LIVELIHOOD STRATEGIES

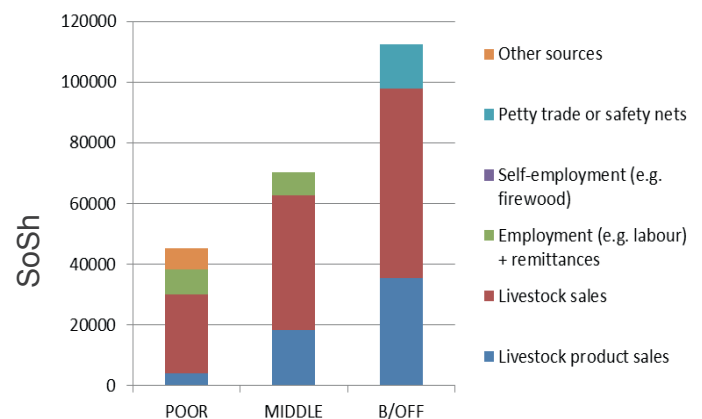
Sources of Food (Kcal/ppd)

- The primary food sources are market purchase, own production from livestock.
- The poor purchase large portions of their food basket, representing 84% of the total kcal needs. This mainly comes from cereals (46%), non-staples (38%), and livestock products (5%). The deficit (11%) is filled by some relief food aid.
- The middle and better-off met 100% and 115% of the kcal requirement, respectively.
- Staple foods contribute 47% of the kcal intake (through consumption of 816 kg of cereals) for the middle.
- This is supplemented with sugar, vegetable oil, cowpea and dates which contributes about 40% kcal intake.
- The middle also consume 34% of the total fresh milk production (2010 liters), obtained from milking 2 camels and 25 goats. Livestock products (including goat meat) contributed 13% of the total food needs.
- The better off consumed 1184 kg of cereals annually. Other essential foods such as cowpeas, cooking oil and dates contributed to household energy needs, though some are purchased in minimal quantities. From these foods, the better off obtained about 115% of the required kcal intake from purchase and own production.



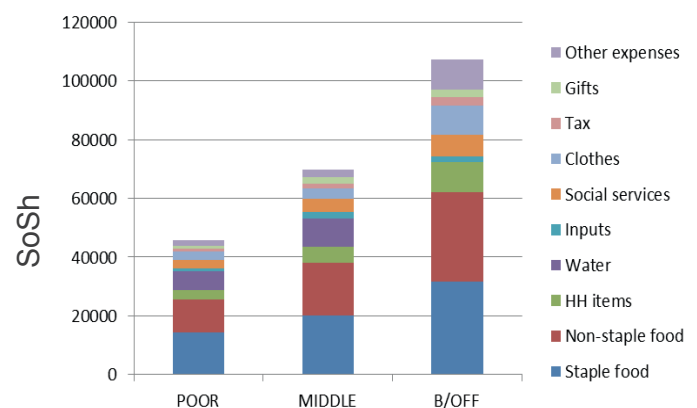
Sources of Income (in Sosh)

- The poor obtain their main income from sale of livestock and livestock products. The poor received 57% (Sosh 25,800,000) from the sale of 20 Goats/Sheep and Sosh 4,100,000 from the sale of 200 liters of fresh milk (74% of the total annual milk production).
- Poor households also get additional income from loans in cash and gifts from relatives or from the Better-off, which marked 15.5 % or Sosh 7 040 000 in the reference year.
- Livestock and livestock products sale contributed 63% and 26%, respectively, of the income for the middle wealth group, plus remittances.
- The better off obtain major incomes from livestock and livestock product sales (87%) and trading activities (13%). This group can get significant incomes from the sale of 1 local camel.



Expenditure patterns (in Sosh)

- The poor, middle and better-off spend about 31%, 29% and 30% of the total expenditure on staple foods, respectively.
- The main staple foods purchased are imported red rice, wheat flour and sorghum.
- The poor, middle and better-off spend a significant proportion of their annual income (24%, 26% and 28%, respectively) on non-staple foods.
- Water purchase accounts for 14% of the total expenditure of the poor and middle, respectively.
- Other items purchased like clothes, gifts, household items, livestock inputs, social services and tax account for less than 10% of expenditure of the better off.
- Household items account for 7%, 8% and 9% of the total expenditure of the poor, middle and better off, respectively.



NORMAL COPING STRATEGY

- Increase livestock sales
- Intensify social support and loan seeking
- Seek casual labour opportunities
- Increased loan taking

RECOMMENDATION

- In order to improve the well-being of pastoralists in the Kakaar-Dharoor livelihood zone the following development priorities and interventions are proposed:
- In order to reserve the drastic reduction to their primary livestock asset (goat/sheep declined by 26% since 2000).
- Re-stocking program should target poor wealth groups.
- Encourage pastoralists to use depressed areas and streams for grass growing instead of focusing on marginal crop
- Cultivation; train pastoralists on how to store grass harvest for use in the dry period.
- Community level livelihood diversification, including through traditional handicrafts such as collection of palm leaves for mat-making, baskets and improve marketing of their products.
- Provision of micro credit and revolving funds to small groups (women, youth etc) for engaging in income generating activities such as milk/ghee, skin, and livestock trade.
- Provision of cash for work programs for rain water harvest and sanitation practices for both human and livestock
- Consumption, through construction of water pans, earth dams and diversion of running water from the upper parts to low-lying areas 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.

Early warning indicators

1. Poor seasonal rainfall performance
2. Abnormal livestock migration patterns
3. Occurrences of human and livestock epidemics
4. Increasing livestock deaths
5. Prevalence (number of people affected) of human diseases
6. High staple and non-staple food prices
7. Abnormal migration of households/people

MAJOR HAZARDS AND CONSTRAINTS

- Persistent drought
- Civil insecurity and clan conflicts
- Market disruptions and border closures
- Human and livestock diseases
- Poor Water Services
- Environmental degradation and gullies
- Poor education and health facilities
- Inflation

Recent publications and releases

- FSNAU Post-Deyr 2014 Food Security and Nutrition Outlook (February to June 2015), February 2015
- FSNAU Post Deyr 2014/15 Food Security and Nutrition Technical Report, March, 2015
- FSNAU Post Deyr 2014 Nutrition Technical Report, March 2015
- FSNAU Special Nutrition Update April 2015
- FSNAU Quarterly Brief April 2015
- FSNAU Climate Update, May 2015
- FSNAU Market Data Update, May 2015
- Karkaar Dharor Pastoral Livelihood Zone Baseline Report May 2015

NOTE: The above publications and releases are available on the FSNAU website: www.fsnau.org

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