Appendix C IPC Analysis Templates JUBA RIVERINE LZ Part 1: Analysis of Current or Imminent Phase and Early Warning

Area of Analysis	s (Region, District, or Livelihood Zone): Juba Riverine I	Livelihood LZ	Time Period of Analysis: Dec 08-Jun-09			
Reference Outcomes (As defined by IPC Reference	Direct and Indirect Evidence For Phase in Given Time Period List direct and indirect (e.g., process or proxy indicators) evidence of outcomes (note direct evidence in bold)	Projected Phase for Time Period (Circle or Bold appropriate	Evidence of Risk for Worsening Phase or Magnitude (list hazard and process indicators)	Risk Level (Circle or Bold appropriate Risk Level and		
Table)	 Note source of evidence Note evidence Reliability Score (1=very reliable, 2=somewhat reliable 3=unconfirmed) Identify indicative Phase for each piece of evidence Note 'Not Applicable' or 'Not Available' if necessary 		 List evidence in support of risk statement Source of Evidence Reliability Score (1=very reliable, 2=somewhat reliable 3=unconfirmed) 	expected Severity, if warranted)		
Crude mortality rate	Overall Statement: Crude Mortality Rate levels Alert according to WHO during assessment period. Crude Mortality Rate: 1.08 (CI 0.68-1.71) /10,000/day (Source: FSAU/partners Nutrition Assessment, Dec. '08; R=1)	Generally Food Secure 1A		No Early Warning		
<2/10,000/day reference rate, stable,		Generally Food Secure		Watch		
U5MR>1/10,0 00/day	Under five Mortality rate: 3.27 (CI 1.97-5.39) /10,000/day (Source: FSAU/partners Nutrition Assessment, Dec. '08, R=1)	1B Generally		√Moderate Risk		
Acute malnutrition	Overall Statement: Nutritional Status Critical with stable situation from Gu '08. (Source: FSAU Integrated Nutrition Analysis, Dec. '08; R=1)	Food Insecure		o AFLC o HE o Famine/HC		
>15%(W/h <-	Nutrition Assessment: Dec. '08 GAM rate of 10.9% (8.8-13.5) and SAM rate of 4.2 (CI 2.9-6.0). Results indicate <i>Critical</i> (due to high SAM >4%) nutrition situation and stable from <i>Gu</i> '08. (Source: FSAU/Partner, Dec. '08; R=1)	Acute Food and Livelihood Crisis		High Risk		
2z_scores), > usual,	HIS nutrition trend: Data indicates low numbers of acutely malnourished children and a decreasing trend over the last three			оНЕ		

increasing	months (Source: FSAU/SRCS, Muslim Aid, WVI, MCH Data, Jan-Dec. '08; R=3).	√Humanitarian Emergency	o Famine/HC
Disease No epidemic outbreak	Humanitarian Assistance: Targeted SFP and protracted recovery projects (creek points and road rehabilitation, water sanitation and advocacy). (Source: OCHA/ NWG Cluster coverage; R=2) Disease: Endemic diseases within seasonal norms. High reported morbidity level of 60.2%, with diarrhoea at 24.8%, ARI 24.8%, febrile 27.7% confirmed prevalence of malaria based on rapid diagnostic tests 8.8% and suspected measles at 1.5%. (Source: FSAU/Partner, Dec. '08; R=1)	Famine/ Humanitarian Catastrophe	
	Food Access: Food accessibility for the riverine livelihood has improved, due to increased crop production since <i>Gu</i> '07; hence, middle and better-off wealth groups have access to carry-over stocks that could last up to four or five months. Although poor households that are market-dependent are still struggling due to ongoing hyperinflation, food access has somewhat improved due to increased daily labour income wages and increased labour and self-employment activities.	45,000	Annual Cereal Production by Season - Juba regions combined
Food Access/Availab ility Severe entitlement gap;unable to meet 2100kcal/ppp/ day.	 Food sources: Current cereal supply, including stocks, is from <i>Deyr</i> '08/09 and <i>Gu</i> '08 production, a <i>Gu</i> '08 off-season harvest and a <i>Deyr</i> '08/09 off-season maize harvest. However, Deyr '08/09 maize production is the second lowest maize production in the last fifteen years due to poor and/or failed <i>Deyr</i> rains, overlapping off-season cropping, input constraints, localized flooding and poor irrigation facilities. Own crop production: Maize production in the riverine areas totals 400MT (27% of PWA and 31% of the five-year average). Additionally, <i>Gu</i> '08 maize production was estimated at 7,400MT (61% and 155% of PWA and the five-year average, respectively), and there was an off-season <i>Gu</i> '08 maize production at 1,650MT and another <i>Deyr</i> '08/09 off-season harvest at 7,500MT. 	40,000 35,000 30,000 25,000 15,000 10,000 5,000 1995 1995 1997	Deyr
	Other Food Sources: Other food sources (emergency food aid): Food aid distribution has been ongoing since Aug. '08 in both regions by SEP, FFE and FFW. The total amount distributed from Aug. '08- Dec. '08 is estimated at 5,980 MT (Source: Food Aid Cluster Group updated Dec. '08; R=1).		

- Social support/gifts of food: Social support from crop *zakat* has improved due to an off-season harvest combined with current maize production (Source: FSAU Post *Deyr* '08/09 Assessment, R=2).
- Wild food consumption: Fresh water fish from "desheks" as well "damal" are available in the riverine areas. Limited mango fruits are also available for consumption. (Source: FSAU Post Deyr '08/09 Assessment, Dec. '08; R=2)

Market Purchase:

Overall statement: Availability of cereal (maize/sorghum), particularly maize, in the markets has improved in most areas of Juba riverine, due to production improvements since *Gu* '07 and food aid distribution over the last six months. Although there has been a general improvement in production, there is a great variation amongst the riverine districts. Consequently, part of the poor riverine is still predominantly dependent on market purchase.

Cereal Market availability:

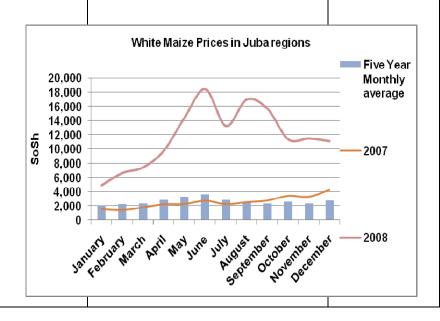
Overall statement: Cereal availability in the markets has increased, due to improved cereal production since *Gu* '07 and increased humanitarian intervention (food aid). However, cereal out-flow from the region to Mogadishu and other neighbouring regions is likely, thus lowering cereal availability in the markets and increasing cereal prices.

- Cereal availability in the local markets has increased due to *Gu* '07 harvest (7,800MT), *Gu* '08 (7,400MT), off-season maize in Oct. '08 (1,650MT of maize), with combination of an off-season *Deyr* '08/09 harvest (400MT), *Deyr* '08/09 (7,500MT) and food aid distribution (5,980MT), leading to increasing supply trends over the last 4 months (Sept. '08- Dec.'08). (Source: FSAU Post *Deyr* '08/09 Assessment; R=1).
- Supply lines: Normal cereal out-flow in lower Shabelle to Mogadishu, while local sorghum and imported cereals come from Kismayo and Sakaw/Buale, respectively

Cereal prices:

Overall statement (cereal): The rapid increase of cereal prices and other food commodities over the last twelve months has been dropped down since July '08. But still at high record according to long term trends and price increases are anticipated over the coming six months.

<u>Maize</u>: The price of maize declined by 36% since July '08, this
is attributed to an off-season crop harvest (Oct. 08), *Deyr* '08/09



production, an expected second off-season harvest and food aid. However, prices are 150% and 356% higher than Dec. '07 and the five-year average, respectively. (Source: FSAU DAMAS Market, Dec. '08; R=1)

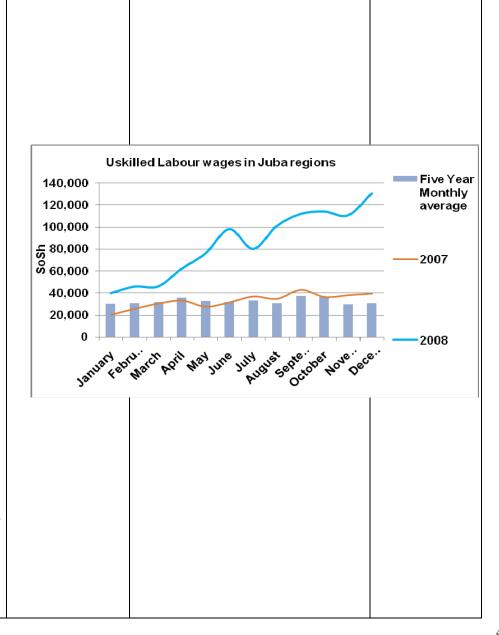
Market purchase (non-staple food)

- Prices of imported commodities including rice, sugar, vegetable
 oil and fuel indicate fluctuation trends, but decreased in all local
 markets between July '08 and Dec. '08. Market access to these
 items is continually stressed, however, due to ongoing
 hyperinflation as well as other key driving forces.
- Rice and sugar prices have decreased by 35% and 26% since July '08 in the riverine markets; likewise, vegetable oil prices decreased by 56%. However, prices of rice, sugar and vegetable oil remain at record highs, having increased by 61%, 86% and 23% compared to Dec. '07 and 290%, 127% and 87% compared to five-year average, respectively. (Source: FSAU DAMAS Market, Dec. '08; R=1)
- Another major concern is the rapidly increasing fuel prices. Despite a price decrease of 41% since July '08, prices are at high records (92% and 177% higher than the Dec.07 and five-year average, respectively). (Source: FSAU DAMAS Update, Dec. '08; R = 1)
- The Somali shilling value has gained value against the US Dollar since July '08 by 4%, due to heavy USD injection by political actors.

Income sources:

Overall statements: Crop sales have increased due to improved production levels, and income levels have improved due to increased labour availability and wage rates over the last six months. Labour wages in Juba riverine have significantly increased since July '08 and are also above the long-term average. Poor households have also increased self—employment activities including fodder and bush product sales as well as fresh water fishing.

- Own production sales: Income opportunities from crop sales (maize 9,400Sosh/kg) have improved for middle and better-off households– due to combined cereal supply from *Gu* '07 harvest, followed by *Gu* '08, *Gu* '08 off-season, *Deyr* '08/09 harvest and *Deyr* '08/09 off-season.
- Own production sales (cash crop: sesame, fruit trees): Off-season in Oct. '08: 1,050MT of sesame. Additional 5,000MT of sesame is expected in the flood recessional areas in late March



'09. This will improve household income sources and job opportunities. (Source: FSAU Post-*Deyr* '08 Assessment; R=2)

<u>Labour opportunities and wage rates:</u> Labour availability has improved since July '08 due to *Deyr* '08/09 agricultural activities as well off-season activities, and wage rates have increased steadily since 2007 in response to the hyperinflation.

• Unskilled labour wages/day in the riverine markets have increased by 78% since July '08, due to continuity of off-season and *Deyr* '08/09 season activities as well as ongoing hyperinflation, although there an increase in labour supply from the agro-pastoral areas. When compared to long-term trends, labour rates are 245% and 265% higher than Dec. '07 and five-year average, respectively (Source: FSAU DAMAS Market, Dec. '08; R=1)

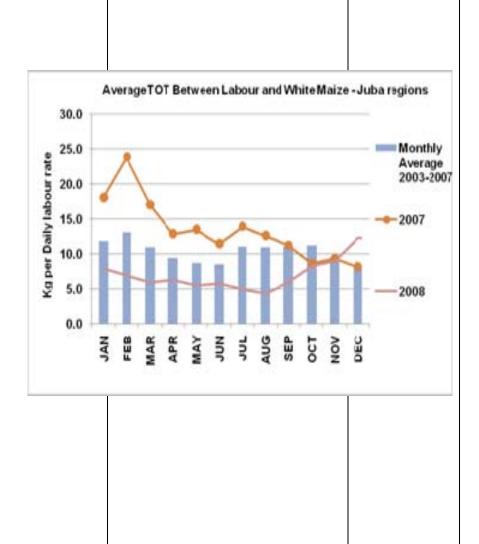
Self-employment opportunities:

- Collection and sale of crop and grass fodder, firewood and construction materials are other alternative income sources for poor riverine households.
- Firewood prices have increased since Dec. '07 and when compared to the five-year average. Prices are 127% and 103% higher than Dec. '07 and five-year average and 56% than July '08 as well. (Source: FSAU DAMAS Market, Dec. '08; R=1)
- Income sources from charcoal have increased since July '08 as charcoal prices are at an all time high. A 50 kg bag of charcoal in the riverine markets in Dec. '08 is 101,000 SoSh, which is 69%, 85% and 220% higher than July '08, Dec. '07 and the five-year average, respectively. Increased sales of charcoal are attributed to high demand from Gulf countries.

Purchasing power:

Overall Statement: The terms of trade (TOT) have improved in most areas of the region, due to decreased cereal prices (maize), with a high increase in labour wage rates, leading to an increase in the labour to maize TOT over the last 12 months (Dec. '07-Dec. '08). Although the purchasing ability of poor households has improved since Dec. '07, TOT is slightly below the five-year average.

The TOT between labour and maize is 15kg of maize in Dec. '08, an increase of 36% when compared to Dec. '07 (11kg) but a reduction of 29% when compared to the five-year average (21kg). (Source:



Dietary diversity Chronic dietary diversity deficit. Water access/availabi lity. Adequate but of poor quality Destitution/ Displacement Concentrated increasing Civil Security Limited/Wides pread Conflict,	 Dietary diversity improved and child feeding and care practices are sub-optimal. Nutrition Assessment: Dec. '08 reports 12.6% of sample consuming < 4 food groups. (Source: FSAU Nutrition Assessment, Dec. '08, R=1). Overall Statement: Source of Water: About 70% of households are accessing water from unprotected sources (Source: FSAU/Partner Nutrition Assessment, Dec. '08; R=1). Sanitation: Sanitation situation remains poor; the major of the riverine community uses the bush or a designated area. (Source: FSAU/Partner Nutrition Assessment, Dec. '08; R=2). Population Displacement Overall Statement: A considerable number of IDPs have moved through the region on their way to Kenya. Many have temporarily settled in the region with their relatives before moving on to Kenya. (Source: FSAU Post Deyr '08/09 survey; R=2). Civil Insecurity	Average of SUGAR Prices in Juba Regions 30,000 25,000 20,000 15,000 10,000 Average of SUGAR Prices in Juba Regions Five Ye Monthly average	ly
low intensity conflict, increasing.	 administrations/militias. There is high tension between the TFG and opposition groups. In the coming months, an either little to no change in the security situation is expected. 	5,000	
Coping Crises strategies; CSI > than reference; increasing	Coping Strategies Overall Statement: Normally riverine communities are more resilient to seasonal shocks, but mixed hazards (flooding, high input costs, rainfall deficit and insecurity) have hindered their livelihoods for several seasons. • Coping Strategies: Coping strategies are currently ongoing and include increased crop sales, bush product sales and petty trade. • Increased consumption of wild foods (wild vegetables, domal) • Mango fruits, fresh water fishing from "desheks" (8,000 - 10,000SoSh/kg of fish) • Labour migration to the recessional cultivation areas and main towns in respective districts.	January March April May June July distriber ther there inter — 2008	

	• Seeking crop <i>zakat</i> from relatives.		
<u> </u>	(Source: FSAU Post- Deyr '08 Assessment Dec. '08. R=2)		
Structural	•		
Issues			
Hazards Recurrent with high livelihood vulnerability	 Overall Statement: Despite improved cereal supply, poor rainfall, flooding, input constraints and insecurity have slowed the resilience of the riverine livelihood. Several seasons of below normal production. (see production data) Increasing numbers of IDPs from Mogadishu en route to Kenya refugee camps. Recurrent flood damage. Delayed and below average rainfall. Continued political tension between TFG and insurgents. (Source: FSAU Deyr '08 Assessment, Dec.'08; R=2) 	0.85 0.80	
Livelihood Assets (5 capitals) Accelerated and critical depletion or loss of access	Loss of Assets: ➤ Irrigation infrastructure damaged by recurrent flooding. ➤ Silted canals, damaged culverts and barrages and river breakages causing flooding of large, high potential areas of the region. ➤ Reduced cropping area due to increased tractor costs (due to sharp increase in farm input costs) ➤ Worsened road conditions. ➤ Widespread encroachment of alien trees to the agricultural areas and rangelands. ➤ Extensive charcoal production Natural capital ➤ Seasonal Rainfall: Deyr '08/09 seasonal rainfall arrived late in Oct. '08 and ended early, leading to long dry spell of more than 45 days. Rainfall distribution for the whole season was limited only to a few days during late October/early November, with poor intensity and coverage.	0.55 80 0.60 0.40 0.30 0.25 0.10 0.10 0.05 0.00 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 Dekad	— Juba, irrigated, 2008, VGT — Juba, irrigated, LTA, VGT
loss of access	Satellite imagery indicates that the cumulative rainfall is more than 300mm; however, the ground truthing reports indicate lower levels of rainfall. (Source: FSAU, climate update, Dec. '08, data from NOA/USGS; R=2)		
	Pasture and browse conditions in the riverine are good and attracted livestock from neighbouring livelihoods. (Source: FSAU Post- <i>Deyr</i> '08, Dec. '08; R=2)		
	Of great concern is the continuity of abnormal charcoal burning and extensive cutting of trees, which have become coping options for a large number of households, leading to		

- environmental destruction. Centres and enclosures for charcoal processing have increased. This is due to high charcoal demand from the Gulf countries.
- Decreased cropping due to consistent river flooding that has submerged farm lands and attracted wildlife.
- A major concern is the encroachment of alien trees that are a continuing threat to agricultural land and road networks.

Physical capital

- There is extreme damage of irrigation canals, river embankments and extension of river breakage and over exploitation of trees.
- 2. Road infrastructure is worsening; roads have been eroded by floods and have not been repaired since the collapse of central government in early 1991. This has slowed down public transportation and increased commodity prices.
- 3. A major concern is the increasing threat of alien trees that continue to cover roads and agricultural areas.
- Means of communications including cellular phones extended to the rural areas and mini buses are operational, easing both communication and transportation networks between rural and main towns.

(Source: FSAU Deyr '08/09 Assessment, Dec. '08; R=2)

<u>Social Capital:</u> Social support among riverine livelihood undermined by a series of shocks and hazards over the past seasons. However, seasonal obligation from crop (*zakat*) and cash gifts improved in Deyr '08/09 due to regular production and off-season harvests.

 Resource sharing systems including collaboration for flood protection and river embankments are very common within this livelihood. (Source: FSAU post-*Deyr* '08/09 Assessment, Dec. '08: R=1)

Human Capital

- Access to formal education is limited, but Koranic schools are available in most parts of Juba riverine. (Source: FSAU Post-Deyr '08 Assessment; R=1)
- Poor health facilities in most riverine areas. Only 49.3% of the households are reportedly accessing health services. (Source:

- FSAU/Partners Nutrition Assessment, Dec. '08; R=1)
- Poor immunization and vaccination status: Reported Vit. A supplementation 60.2% and measles vaccination 71.4%.(Source: FSAU Post-Deyr '08 Assessment; R=1)
- Nutrition Assessment: In Dec, '08, GAM rate of 10.9% (8.8-13.5) & SAM rate of 4.2 (CI 2.9-6.0). Results indicate *Critical* nutrition situation and slight deterioration from *Gu* '08. (Source: FSAU/Partner Nutrition Assessment, Dec. '08; R=1)

Financial Capital

Maize stocks at household and market level have improved from current *Deyr* '08/09 and off-season harvests. Most middle and better-off households have cereal stocks, which could last up to four to five months. Therefore cash income from seasonal cereal sales also increased, though there are variations between the districts and wealth groups.

- Remittance level is very low, but household members migrated to main towns (Kismayo, Mogadishu, etc.)
- Daily income wages have increased by 78% since July '08; 245% and 265% higher than Dec. '07 and five-year average, respectively. (Source: FSAU DAMAS Market, Dec. '08; R=1)
- Cash crop production (sesame): *Hagaa* sesame production is usually uncertain; some areas were planted. In addition, limited cowpea production also contributed to cash crop production during the season.

Part 2: Analysis of Immediate Hazards, Effects on Livelihood Strategies, and Implications for Immediate Response

Area of Analysis	(Region, distri	cts, and livelihood)	: Juba Riverine Livelihood	Time I	Period of An	alysis: December'	o8- June'og
ANALYSIS					ACTION		
Current or Imminent Phase	Immediat e Hazards	Direct Food Security Problem	Effect on Livelihood Strategies	Population Affected	Projecte d Trend	Risk Factors to Monitor	Opportunities for Response
(Circle or Bold Phase from Part 1)	(Driving Forces)	(Access, Availability, and/or Utilization)	(Summary Statement)	(Characteristic s, percent, and total estimate)	(Improvi ng, No change, Worsenin g, Mixed Signals)		(to Immediately improve food access)
Generally Food Secure 1A Generally Food Secure 1B Generally Food Insecure Acute Food and Livelihood Crisis Humanitaria n Emergency	Nutrition Assessment: Dec.'08: Nutritiona status Critical (8.8-13.5) with slight deterioration from Gu'08 and long term trend. -Rainfall deficit and recurrent Floods. -Successive poor crop production. -High cereal prices and inflationInsecurity	-Dietary diversity is serious but there are problems with child feeding and other child care practices. -Improved cereal stock in the market and at household level (<i>Gu</i> '08, <i>Gu</i> '08 Off-season and <i>Deyr</i> '08/09 crop harvest and off-season) for better-off and some middle households. -Cereal production (regions combined) is 27% of PWA and 31% of 5-year average and 20% of <i>Deyr</i> '07/08. -Maize price 16% lower than July '08, but 160% and 292% higher than Dec.'07 and five-year average, respectively.	Stabilized nutritional level. Improved access due to increased own production, but poor households still dependent on market purchase. Improved income from cereal, cash crops and fresh water fishing. Improved daily income wages, and labour/maize TOT since Dec. '07, Improved periodic crop zakat from off-season. Increased charcoal production due to high demand from Gulf countries.	Juba riverine AFLC: 50% poor HE: 0%	MIXED SIGNALS	Off-season and Gu '09 crop situation Cereal prices Access to farm inputs (tractor, seeds and fuel prices, etc). Gu '09 rainfall performance. River water levels and floods. Labour supply and opportunities. Purchasing power in terms of TOT between labour and cereal Market access and food supply Security situation	-Food and cash for work in most areas (rehabilitation of river embankments, secondary canals, roads, etc.) -Provision of input Closure of river breakages.

Famine/ Humanitarian Catastrophe	- Labour/ maize TOT (15kg/daily labour rate in Dec. '08) increased by 36% since Dec. '08, but 29% lower than five-year average. (DAMAS Market Update Dec. '08).		IDPs towards Kenya regugee camps.	

Part 3: Analysis of Underlying Structures, Effects on Livelihood Assets, and Opportunities in the Medium and Long Term

Area of Analysis (Region, District, or Livelihood Zone): Time Period of Analysis:					
		ACTION			
Current or Imminent Phase	Underlying Causes	Effect on Livelihood Assets	Projected Trend	Opportunities to support livelihoods and address underlying causes	
(Circle or Bold Phase from Part 1)	(Environmental Degradation, Social, Poor Governance, Marginalization, etc.)	(Summary Statements)	(Improving, No change, Worsening, Mixed Signals)	(Policy, Programmes and/or Advocacy)	
Generally Food Secure 1A Generally Food Secure 1B Generally Food	Extensive and widespread charcoal production regardless the type of tree. Recurrent floods Poor rainfall performance Weak governance. Poor sanitation and poor access to safe water	1. There is extreme damage of irrigation canals, river embankments and extension of river breakage and over exploitation of trees. 2. Road infrastructure is worsening; roads have been eroded by floods and have not been repaired since the collapse of central government in early 1991. This has slowed down public transportation and increased commodity prices. 3. A major concern is the increasing threat of alien trees that continue to cover roads and agricultural areas. 4. Means of communications including cellular phones extended to the rural areas and mini buses are operational, easing both communication and transportation networks between rural and main towns. Source: FSAU Deyr '08/09 Assessment, Dec. '08; R=2.	Deteriorating	 Assist and rehabilitate roads, bridges, barrages; de-silt main canals and culverts. De-silting of river bed and closure of river breakages. Improve early flood warning system - community capacity building and communication network. 	
Insecure Acute Food		Social Capita: Seasonal obligation from crop (zakat) and cash gifts are in improved due mainly to off-season harvest. (Source: FSAU post- <i>Deyr</i> '08/09 Assessment, Dec. '08; R=1)	Improving	Establish income generating activities through employment generating programs.	
and Livelihood Crisis		Financial Capital: Improved household stocks (except poor and lower middle) and income from crop sales. Labour wages and TOT for Maize and labour increased since Dec. 07, but still below five-year average.	Improving	Improve farm inputs and short-term revolving fund programs.	
Humanitarian Emergency		Natural Capital:	Mixed	Introduce proper use of natural resource utilization through community awareness. Establishment of forest reservation committees. Introduce regulations for charcoal export and wild life conservation. To start dialogue with the Gulf country	

Famine/ Humanitarian Catastrophe	livelihoods leading to resource-based disputes. Of great concern is the continuity of abnormal charcoal production leading to environmental degradation. There are increased centres and enclosures for charcoal production.		government to stop charcoal importation from Somalia.
	<u>Human Capital</u> : Access to formal education and health services is limited, but Koranic schools are available.	worsening	To initiate and improve health and education institutions/services, through community participation.
	Lack of safe water and poor sanitation are the major causes of health hazards.		

Note on Estimation of Affected Population Numbers

- 1. Define geographic area that spatially delineates the affected population.
- 2. Identify the most current population estimates for this geographic area, interpolating from admin boundaries where necessary.
- 3. Adjust total population estimates to account for any known recent migration in or out of the affected area.
- 4. Estimate the percent of the population estimated in each Phase within the affected geographic area. The most appropriate method could be by livelihood zone, wealth group, but in come instances may be more accurate to estimate by clan, gender, etc. Note, the IPC does not provide a method for the population estimates.