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**UNITED STATES AGENCY FOR
INTERNATIONAL DEVELOPMENT**

**GOVERNMENT OF ETHIOPIA
DISASTER PREVENTION AND
PREPAREDNESS AGENCY**

Livelihoods Integration Unit (LIU) Project implemented by F.E.G.

A Summary of Outputs

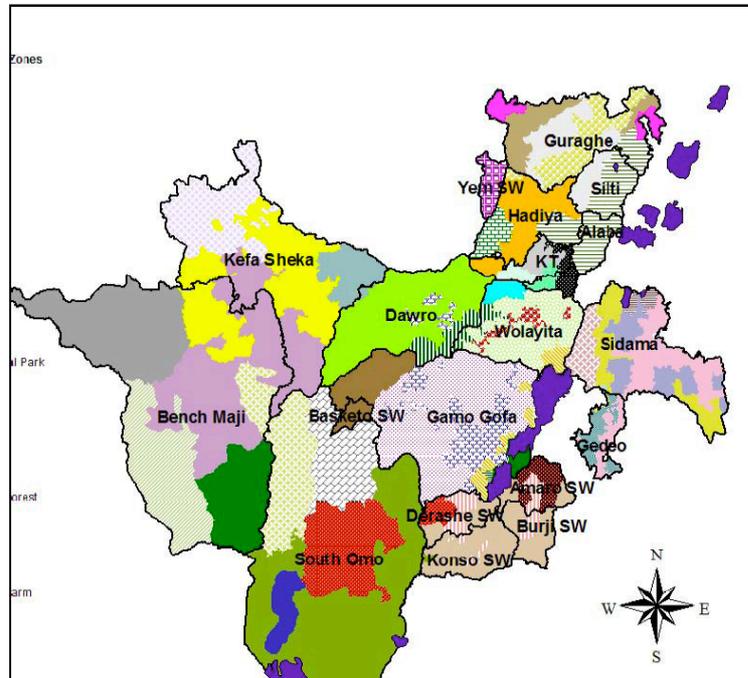
Livelihoods baseline data can be used in a variety of ways:

- *To assess emergency food and cash needs*
- *To provide evidence to support priority development programming*
- *To identify possible improvements to existing assessment and monitoring systems*
- *To suggest possible non-food interventions in an emergency*
- *To help in the interpretation of nutritional status data*
- *To provide information that could be used to strengthen targeting*

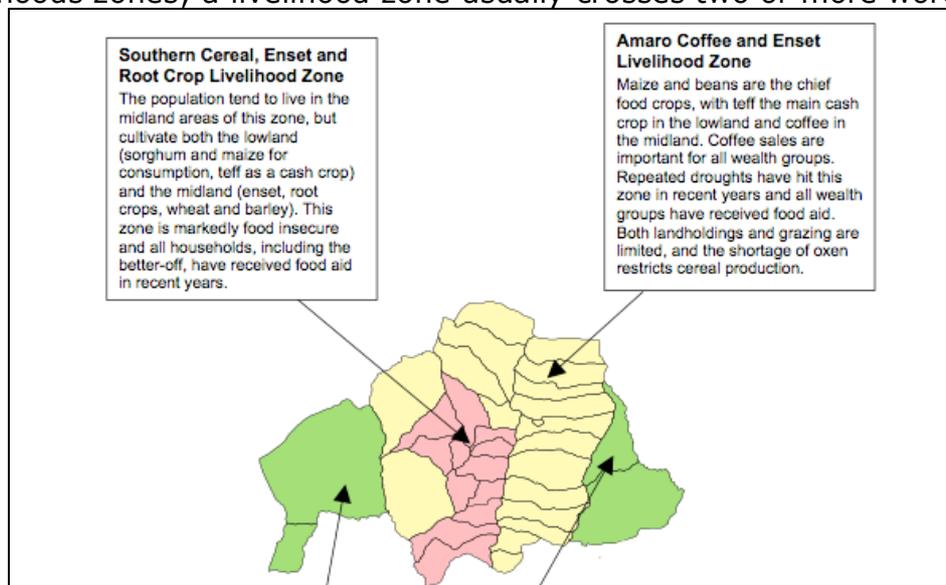
**1 February 2007
Version 1.2**

1. A regional economic geography in the form of the Livelihood Zones map set on the administrative map to woreda level (but can be detailed to PA level).

1.1 Regional SNNPR map



1.2 **Amaro** woreda map. (A given woreda may include parts of several livelihoods zones; a livelihood zone usually crosses two or more woredas).



The LIU livelihood zones are now being used by Action Contre la Faim (ACF) in SNNPR and the DPPA Emergency Nutrition Coordination Unit (ENCU) in Tigray as the geographical divisions for nutrition surveys. In SNNPR ACF found that data by livelihood zone showed dramatically different levels of malnutrition in different zones (where previous surveys by woreda masked these differences).

2. Population by woreda and by livelihood zone within each woreda

RURAL POPULATION BY WOREDAS AND LIVELIHOOD ZONE - CURRENT YEAR

Ad.Zone	Woreda	Total	LZ										
			GEB	GEC	GET	GLM	AMP	HWE	BAM	KBC	YCE	HMZ	
Gurage	Cheha	165,580	32,165	67,632	65,783	-	-	-	-	-	-	-	-
Gurage	Enemorina Eaner	278,322	93,052	130,865	54,405	-	-	-	-	-	-	-	-
Gurage	Ezhana Welene	233,103	111,461	112,021	9,620	-	-	-	-	-	-	-	-
Gurage	Abeshge	82,248	-	-	30,935	51,313	-	-	-	-	-	-	-
Gurage	Gumer	203,780	203,780	-	-	-	-	-	-	-	-	-	-
Gurage	Kokir Gedbano Gutazer	95,891	58,753	37,139	-	-	-	-	-	-	-	-	-
Gurage	Mareko	92,480	-	-	-	-	92,480	-	-	-	-	-	-
Gurage	Meskana	244,308	13,234	104,462	19,396	-	107,217	-	-	-	-	-	-
Gurage	Sodo	156,254	69,481	-	34,002	52,771	-	-	-	-	-	-	-
Hadiya	West Badawacho	88,700	-	-	-	-	-	-	-	3,727	84,973	-	-
Hadiya	Duna	159,621	-	-	-	-	-	159,621	-	-	-	-	-
Hadiya	Gibe	122,478	-	-	-	-	-	38,903	-	-	-	-	83,575
Hadiya	Limu	105,404	-	-	-	-	-	105,404	-	-	-	-	-
Hadiya	Misha	223,368	-	-	-	-	-	209,777	-	-	-	-	13,591
Hadiya	Shashogo	132,275	-	-	-	-	-	119,036	13,239	-	-	-	-
Hadiya	Soro	212,813	-	-	-	-	-	164,942	-	-	-	-	47,871
Selti	Dalocha	142,034	-	75,477	-	-	-	66,557	-	-	-	-	-
Selti	Lanfero	115,803	-	-	-	-	-	115,803	-	-	-	-	-
Selti	Selti	159,480	-	76,028	-	-	-	83,452	-	-	-	-	-
Gurage	Kebena	89,327	-	-	89,327	-	-	-	-	-	-	-	-
TOTALS		3,103,271	581,926	603,624	303,469	104,084	584,545	691,887	3,727	84,973	-	145,037	

Since the livelihood zones are formed of identified PAs, the populations and their numbers can be readily identified by the DPPA and other agencies not only at woreda level but down to PA level.

3. Data sets by wealth group (very poor, poor, middle and better-off)

		Wealth Groups Characteristics			
		HH size	Land area cultivated	Crops cultivated	Livestock Holding
Very Poor		5-6	1 timad	Maize, Teff, Sorghum, Finger Millet, Pulses, 10 Eucalyptus trees	5 chickens
Poor		5-6	3 timad	Maize, Teff, Sorghum, Finger Millet, Pulses, 15 Eucalyptus trees	1 plough oxen; 0.75 mature females cows; 3.5 shoats; 0.5 donkeys; 5 chickens
Middle		5-6	5.5 timad	Maize, Teff, Sorghum, Finger Millet, Pulses, 30 Eucalyptus trees	2 plough oxen, 1.5 mature female cows; 5 shoats; 1 Donkey; 7 Chicken
Better-off		4-6	6.5 timad	Maize, Teff, Sorghum, Finger Millet, Pulses, 50 Eucalyptus trees	2 ploughing ox, 2 mature female cows; 15 shoats, 2 Donkeys; 7 chickens

Figure 1: West Central Zone Profile - Tigray

As an essential step in analysing livelihood dynamics the constituent households of each livelihood zone are divided into wealth groups according to local definitions. All the livelihood baseline data is thus detailed according to wealth groups.

Both livelihood zone descriptions and wealth group descriptions can contribute to targeting decision making.

4. Data sets which describe sources of food, income and expenditure by wealth group, livelihood zone and woreda (both raw data and summary data for the reference year)

Eg Summary & livestock information

WEALTH GROUP	Poor	Poor	Poor	Poor	Poor	Poor
Woreda	Wonago	Wonago	Wonago	Yirgachefe	Yirgachefe	Yirgachefe
Village or PA	Mokomsa	Hassie Harro	Golla	Wete	M.Worabi	Adame
Interview number	V1	V2	V3	V4	V5	V6
Interviewers	Getu	Getu	Tuffa	Tuffa	Getahun	Tuffa
Year (Ethiopian Calendar)	1996		1996		1996	
Food: total (%)	85%	135%	89%	87%	90%	85%
crops	23%	21%	26%	55%	21%	21%
livestock products	3%	0%	0%	2%	4%	0%
labour exchange	0%	0%	0%	0%	0%	2%
purchase	51%	63%	49%	30%	65%	61%
food aid	7%	51%	14%	0%	0%	0%
gifts, other	0%	0%	0%	0%	0%	0%
Income: total (birr pa)	3720	2830	2723	5235	4824	3238
crop sales	1900	1592	579	3565	2150	1148
livestock product sales	30	18	0	360	9	45
livestock sales	740	260	216	328	710	348
employment (e.g. labour) + remittances	1050	960	1868	982	1955	1577
self-employment (e.g. firewood)	0	0	60	0	0	0
petty trade	0	0	0	0	0	120
other	0	0	0	0	0	0
Expenditure: total (birr pa)	2180	2967	2529	2904	3689	2867
staple food purchase	893	1170	1060	308	1595	1490
other food purchase	680	962	846	1697	773	782
non-food purchase	607	836	623	899	1321	594
staple/total income	24%	41%	39%	6%	33%	46%
income minus expenditure	1540	-137	194	2331	1134	371
Wealth characteristics						
HH size	7	7	8	7	7	8
Land area owned (in timads)	1	2	1	2	0.5	4
Land area cultivated (in timads = 0.25 ha)	1	2	1	2	0.5	4
Land cultivated with cash crops	0.5	1.5	0.5	1	0.1	2.7
Land cultivated with food crops	0.5	0.5	0.5	1	0.4	1.3
Ox number owned						
Cattle number owned	2			1	1	0
Goat number owned						
Sheep number owned	4		1	3	2	1
Hen number owned	1	7	2	8	4	4
Donkey number owned						
Cattle number yerbee						
Goat number yerbee						
Sheep number yerbee						
Coffee bushes	400	300	150	400		175
Enset stems - total	300	100	75	500		50
Enset stem - 2-3 yrs	200	50		400		40
Enset stem - 4+ yrs	100	50		100		10
Eucalyptus trees						15
%HHS	Avocados:		4			
LIVESTOCK PRODUCTION:						
Cows milk						
no. milking animals	1			1	1	0
season	wet	wet	wet	wet	wet	wet
lactation period (days)	120			150	150	
daily milk production per animal (litres)	1.75			2	2	
total production (litres)	210			300	300	
sold/exchanged (litres) - or other use						
price (cash)						
income (cash)						

Eg crop information data

WEALTH GROUP	Middle	Middle	Middle	Middle	Middle	Middle	Middle	Middle
Woreda	Wonago	Wonago	Wonago	Yirgachefe	Yirgachefe	Yirgachefe	Kochere	Kochere
Village or PA	Mokomsa	Hassie Harro	Golla	Wete	M.Worabi	Adame	Sigiga	Biloya
CROP PRODUCTION:								
Green cons BELG: no. of months	2	3	3	2	2	2	2	2
Proportion of months green consumption	30%	25%	55%	25%	60%	30%	40%	
kcal (%)	5%	6%	14%	4%	10%	5%	7%	
Green cons MEHER: no. of months								
Proportion of months green consumption								
kcal (%)								
Green maize sold: quantity				12				
price (cash)				45				
income (cash)				540				
Maize: kg produced				50				
kcal per kg	3630	3630	3630	3630	3630	3630	3630	3630
sold/exchanged (kg)								
price (cash)								
income (cash)								
other use (kg)								
kcal (%)				3%				
BELG Haricot beans: kg produced								
kcal per kg	3390	3390	3390	3390	3390	3390	3390	3390
sold/exchanged (kg)								
price (cash)								
income (cash)								
other use (kg)								
kcal (%)								
MEHER Haricot beans: kg produced								
kcal per kg	3390	3390	3390	3390	3390	3390	3390	3390
sold/exchanged (kg)								
price (cash)								
income (cash)								
other use (kg)								
kcal (%)								
Enset (kocho): no. local meas.	12	16	12	16	32	20	3	8
name of measure	jemb	jemb	jemb	jemb	jemb	jemb	jemb	jemb
wt of measure	50	50	50	50	50	50	50	50
kg	600	800	600	800	1600	1000	150	400
kcal per kg	2000	2000	2000	2000	2000	2000	2000	2000
sold/exchanged (kg)	200		200		50			
price (cash)	0.8				1			
income (cash)	160				50			
other use (kg)								
kcal (%)	13%	26%	20%	20%	52%	31%	5%	13%
BELG Sweet potatoes: no. local meas.								
name of measure								
wt of measure								
kg	1140	1140	1140	1140	1140	1140	1140	1140
sold/exchanged (kg)								
price (cash)								
income (cash)								
other use (kg)								
kcal (%)								
MEHER Sweet potatoes: no. local meas.	0	2	1	0	4	0	1.5	2
name of measure	sach	sach						
wt of measure	70	70			70		70	70
kg	0	140	70	0	280	0	105	140

Eg Data on other sources of income

WEALTH GROUP	A	B	C	D	E	F	G	H	V
OTHER CASH INCOME:	V.Poor	V							
Labour: Weeding									
no. people per HH	3	3	2	1	2	2	3		
no. times per month	4	8	12	12	12	5	8		
no. months	1	2	1.5	2	1	1	2		
price per unit	8	5	10	7	6	5	6		
income	96	240	360	168	144	50	288		
Labour: Harvesting									
no. people per HH	1	2	1	1	1	1	1		
no. times per month	12	12	8	12	12	12	12		
no. months	2	3	3	2	1.5	2	2		
price per unit	15	10	15	7	6	10	10		
income	360	720	360	168	108	240	240		
Labour: construction									
no. people per HH	1	1	1	1	1	1	1		
no. times per month	7	20	6	10	8	8	8		
no. months	6	5	4	5			7		
price per unit	7	10	15	11			10		
income	294	1000	360	550			560		
Labour migration: no. people per HH									
no. months									
savings/remittance per month									
income									
Remittances: no. times per year									
amount									
income									
Firewood: no. people per HH							1	1	1
no. times per month							8	8.6	8
price per unit							15	10	13
income							960	688	624
Charcoal: no. people per HH									
no. times per month									
no. months									
price per unit									
income									
Other self-employment: h/craft, brewing									
no. people per HH									
no. times per month							4.3	1	
no. months							12	1	
price per unit							5	30	
income							258	30	
Other self-employment: type									
no. people per HH									
no. times per month									
no. months									
price per unit									
income									
Safety net: no. people per HH							3	4	5
no. times per month							5	5	5
no. months							5	6	5

Each of these data sets are analysed in the field by the enumerators, during the field work by all the team and then a complete analysis of all the data sets done at the end of the field work (for details refer to the Guide to Baseline Analysis).

5. Identification of key parameters (indicators) for monitoring

The key parameters indicate the importance of specific crops, livestock and other cash sources to a specific livelihood. Key parameters are identified based on their relative contribution to household food and income in 1 or more wealth groups. The key parameters are identified during the analysis of the baseline data and data on these parameters is collected during the seasonal assessment.

Key parameters identified so far in Tigray:

Item	Atsbi Highland LZ	Enderta Mid-Highland LZ	West Central Teff LZ	Middle Tekeze LZ
CROPS				
Wheat				
Barley				
Teff				
Maize				
Beans				
Finger Millet				
Sorghum				
LIVESTOCK				
Cattles sales				
Shoat (Sheep/Goat Sales)				
Cow ghee sales				
Chicken sales				
Egg sales				
OTHER CASH SOURCES				
Honey Sales				
Eucalyptus trees				
Labour – urban				
Labour – agriculture				
Labour - migration				
Firewood/charcoal sales				

6. The capacity to take a current problem (eg changes in livestock production, changes in labour prices and availability, changes in main crops) in each livelihood zone and woreda and compare this to the baseline reference year.

To date - data used for current problem specifications have been collected during the seasonal assessments.

Eg production

Crop: other pulses		Key par.	Unit: Qt	Problem specification	
Ad.Zone	Woreda			curr.	rev.
Gurage	Cheha		5,891	108%	
Gurage	Enemorina Eane		5,152	673%	200%
Gurage	Ezhana Welene		32,051	325%	200%
Gurage	Abeshge			100%	
Gurage	Gumer		30,759	64%	100%
Gurage	Kokir Gedbano		17,579	107%	
Gurage	Mareko			100%	
Gurage	Meskana		20,602	162%	
Gurage	Sodo		34,878	117%	
Hadiya	West Badawach			100%	
Hadiya	Duna		88,485	396%	200%
Hadiya	Gibe		31,669	143%	
Hadiya	Limu		22,837	69%	100%
Hadiya	Misha		108,755	189%	
Hadiya	Shashogo		14,054	231%	200%
Hadiya	Soro		57,684	192%	
Selti	Dalocha			100%	
Selti	Lanfero			100%	
Selti	Selti			100%	
Gurage	Kebena			100%	
TOTALS			470,396		

Eg livestock price

Livestock: sheep		Key par.	Unit: Birr per head	Problem specification	
Ad.Zone	Woreda			curr.	rev.
Gurage	Cheha		260	182%	
Gurage	Enemorina Eane		320	188%	
Gurage	Ezhana Welene		250	236%	185%
Gurage	Abeshge			100%	
Gurage	Gumer		189	193%	185%
Gurage	Kokir Gedbano		180	133%	185%
Gurage	Mareko			100%	
Gurage	Meskana		260	182%	
Gurage	Sodo		200	157%	185%
Hadiya	West Badawach		298	261%	185%
Hadiya	Duna		301	232%	185%
Hadiya	Gibe		229	147%	185%
Hadiya	Limu		247	182%	
Hadiya	Misha		215	205%	185%
Hadiya	Shashogo		197	141%	185%
Hadiya	Soro		181	153%	185%
Selti	Dalocha			100%	
Selti	Lanfero			100%	
Selti	Selti			100%	
Gurage	Kebena			100%	

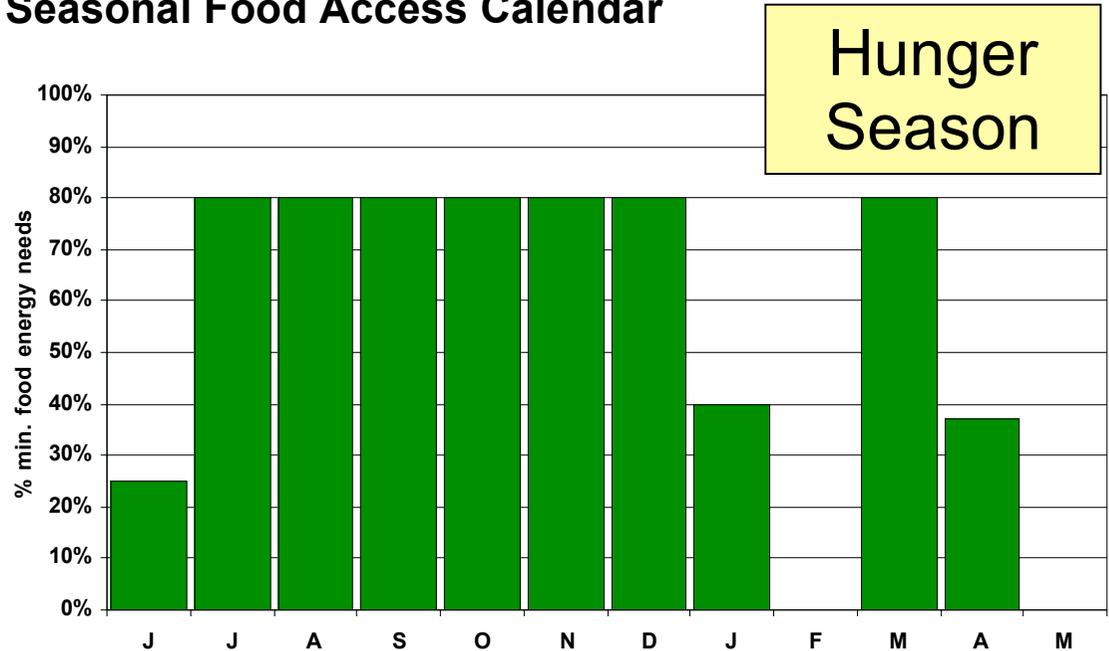
7. Food and cash-expenditure deficits by woreda

Livelihood security involves not only access to basic food but the availability of cash for other essential items, from lamp-fuel to school costs. When there is a shock it is also necessary to look at potential deficits in cash which affect both food and essential non-food purchase.

Ad.Zone	Woreda	FOOD DEFICIT			EXPENDITURE DEFICIT			TOTAL		
		Benefic- iaries	Either	OR	Benefic- iaries	Either	OR	Benefic- iaries	Either	OR
			MT	Birr		MT	Birr		MT	Birr
Gurage	Cheha	-	-	-	-	-	-	-	-	-
Gurage	Enemorina Eaner	-	-	-	-	-	-	-	-	-
Gurage	Ezhana Welene	-	-	-	-	-	-	-	-	-
Gurage	Abeshge	-	-	-	-	-	-	-	-	-
Gurage	Gumer	-	-	-	-	-	-	-	-	-
Gurage	Kokir Gedbano Gutazer	-	-	-	-	-	-	-	-	-
Gurage	Mareko	30,500	794	1,525	30,500	1,540	2,957	30,500	2,334	4,482
Gurage	Meskana	-	-	-	47,800	1,375	2,672	47,800	1,375	2,672
Gurage	Sodo	-	-	-	-	-	-	-	-	-
Hadiya	West Badawacho	-	-	-	-	-	-	-	-	-
Hadiya	Duna	-	-	-	-	-	-	-	-	-
Hadiya	Gibe	-	-	-	-	-	-	-	-	-
Hadiya	Limu	-	-	-	-	-	-	-	-	-
Hadiya	Misha	-	-	-	-	-	-	-	-	-
Hadiya	Shashogo	39,200	642	1,203	39,200	2,061	3,863	39,200	2,703	5,066
Hadiya	Soro	-	-	-	-	-	-	-	-	-
Selti	Dalocha	-	-	-	21,900	637	1,223	21,900	637	1,223
Selti	Lanfero	-	-	-	-	-	-	-	-	-
Selti	Selti	-	-	-	27,500	800	1,535	27,500	800	1,535
Gurage	Kebena	-	-	-	-	-	-	-	-	-
TOTALS		69,700	1,436	2,728	166,900	6,413	12,250	166,900	7,849	14,978
Further details in Table:		A	C	F	B	E	D	B	G	H

8. Identification of assessment schedule that could ensure hunger season is identified in time: an example from Wolayita in SNNP Region

**Wolayita Maize and Root Crop LZ
Seasonal Food Access Calendar**



Hunger Season

In bad years:

- *Nutritional status declines Jan-June ...often with very little warning*
- *Belg sweet potato production is critical ...and can be reduced by pests and poor Sapia rains*

Assessment

Schedule:

Current:

Belg

Meher

Recommended:

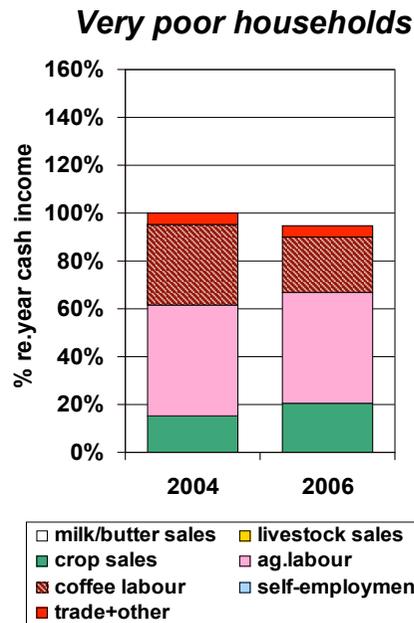
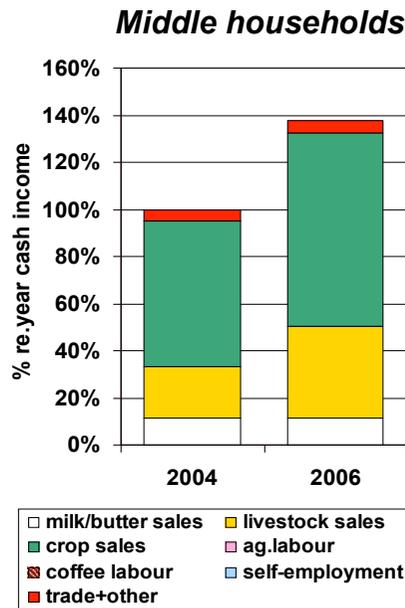
Meher

Sapia

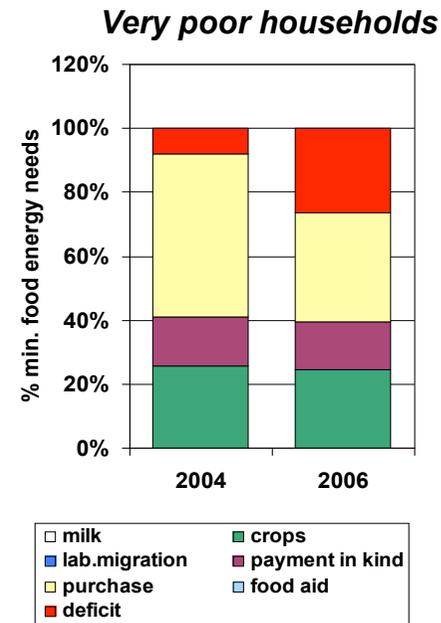
9. Analysis that highlight the diversity of livelihoods – in a year when coffee prices increased 215% and maize prices increased 140%, but production was 70% of the reference year - those dependant of coffee sales benefited whilst those dependant on coffee labour suffered.

Outcome Analysis for 2006
Dara Woreda (Sidama Zone)
Sidama Coffee LZ

Sources of Income



Sources of Food



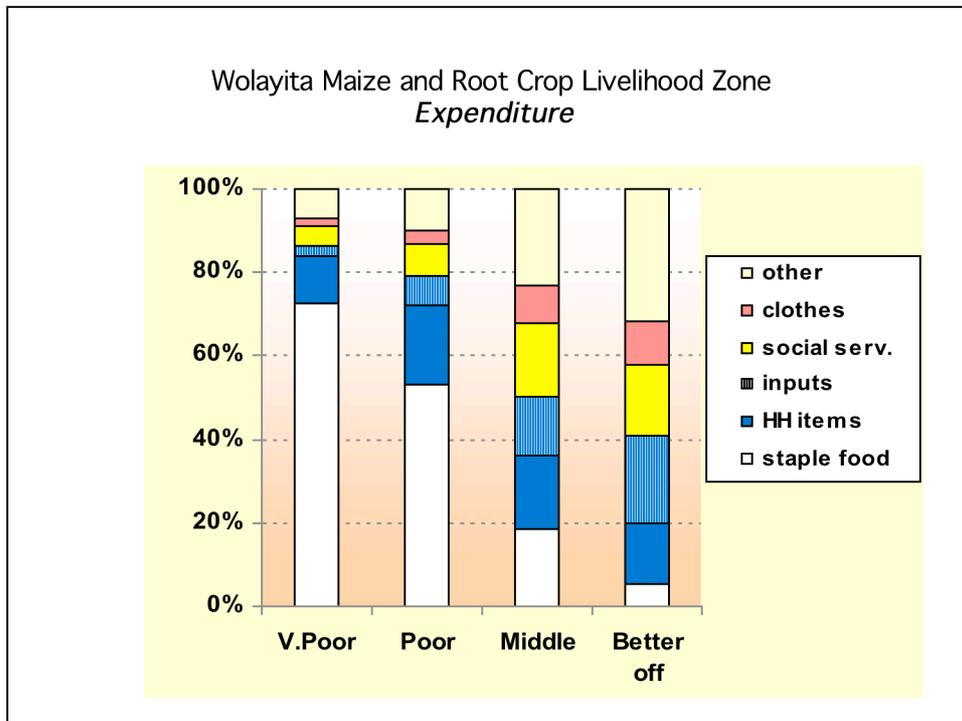
- Very poor households in cash-cropping areas purchase most of their food.
- A decline in cash income and an increase in maize prices means a bigger deficit in 2006 than 2004.

- Higher prices for coffee and livestock will increase incomes for *middle* households
- A reduction in coffee production means less work and less income for the *very poor* (1 in 6 households).

An ACF nutrition survey in June 2006 found the following high levels of malnutrition:
GAM: 16.5 % (95% C.I. 12.5 - 20.5) of GAM
SAM: 3.1 % (95% C.I. 1.4 - 4.8) of SAM. Five edema cases were identified.

Source: ACF Nutrition and retrospective mortality survey.

10. Material contribution to the development of non-food needs assessment



For example in the livelihood zone above - this is a very poor area - with no cash crops.

Families are desperate to send their children to school.

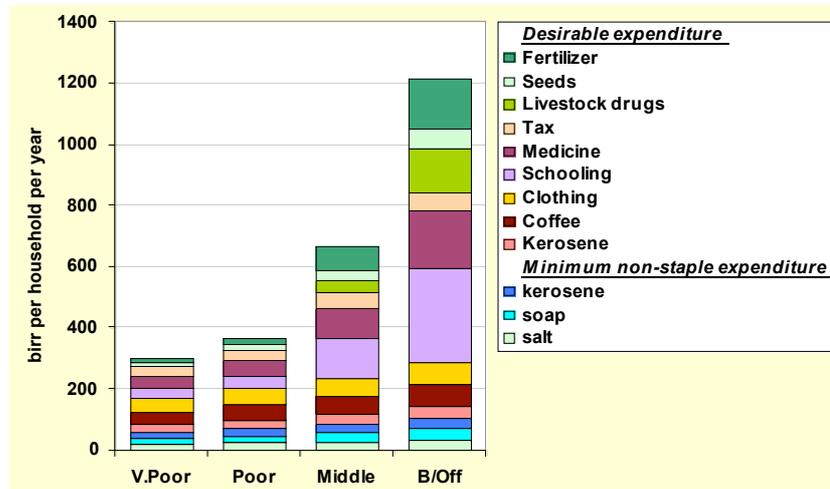
There is a clear divide in this area between what the very poor/poor and the middle/better-off can afford in terms of education (social services above). In absolute terms the wealthier households spend several times more on education than the poorer.

The poor have to decide between the cost of schooling and the loss of labour if children go to school. And they cannot afford to maintain children in secondary school if – as so often - this requires the student to reside away from home.

11. Contribution to discussions on thresholds

Proposed **Minimum Non-Staple** and **Desirable** Expenditure Baskets for SNNPR

Example:
Wolayita
Maize and
Root Crop
LZ



Household items (salt, soap, kerosene, clothing): Poor household expenditure is the base for calculating needs of other groups (with adjustment for household size)

Schooling, medical costs and inputs: Baseline year expenditure is the basis for calculating needs of different wealth groups (with adjustment for household size)

This is because the objective is to see whether people can maintain existing access to goods and services in a bad year

- Minimum non-staple is included in the analysis i.e. calculated food and cash deficits assume that households must have salt (flavour), kerosene (to cook/light), soap (clean hands to eat).

Is this sufficient??

- Desirable expenditure baskets - in a bad year should the same threshold be used for all wealth groups or do we want different thresholds for each wealth group?
- Should responses ensure that all children can attend primary school or should we ensure that children of middle/better off households do not drop out of secondary school in a bad year?

12. Training materials

The LIU Project is designed with an emphasis on capacity building. Some hundreds of staff from woreda, regional and federal levels will have the opportunity to participate in training workshops and fieldwork and to achieve certification according to a formal, graded process.

Training materials available to the LIU at the outset, developed in Ethiopia and elsewhere, include:

- The F.E.G. Guide to Rural Livelihood Zoning (January 2006)
- Household Economy Analysis: Guide to Needs Assessment in Ethiopia (August 2004)
- Household Economy: Conducting the Baseline Training (Mekele, January 2007)
- Guide to Baseline Analysis and the Baseline Storage Sheet (Version 1, December 2006)
- Household Economy Outcome Analysis: A Guide for the Food Security Assessment Unit (FSAU) Somalia (Version1, March 2006)

13. Profiles and maps

The FEWSNET led pilot project in SNNPR has produced profiles for over 40 livelihood zones and 100 woredas in the region. These are available on the DPPA website: www.dppc.gov.et and on the FEWSNET website: www.fews.net