Additional Notes

LIVELIHOODS BASELINE FIELD HANDBOOK

THE FOOD ECONOMY GROUP
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INTRODUCTIONS AT VILLAGE LEVEL

Go through the normal greeting/introductions, welcome participants to the interview and thank them for coming. Explain that the team is from different departments and levels (including national, provincial and municipal, as well as other organisations).

Explain that the purpose of your visit is to understand how people are living in this area in detail. We are conducting a livelihoods survey to understand production, migration, market access, seasonality, food and income sources, expenditure patterns and bad year coping strategies.

Although the information gathered will be shared and public there will be no references to individuals or to small groups of people or villages. The information is to help with future mid- and long-term planning and programming.

This is not a short-term needs assessment (so they shouldn't expect to see results tomorrow). Never make promises about assistance coming to the village. Explain that you are not personally the decision-maker.

Explain that interviews are being conducted in different regions of South Africa, but not in every village. Ask the participants to act as representatives not just of this village, but also of neighbouring villages within the livelihood zone.

The community leader interview will take 1½ - 2 hours. The household level interview will take 2-3 hours. Participants will not be paid. There will be a snack and drink for participants only at the end of the interviews. The information is anonymous.

Show a genuine curiosity and desire to understand.

LIVELIHOOD ZONES CODES, NAMES AND ABBREVIATIONS

59101: Lowveld open access cattle and other income (ZALOC)
59104: Highveld border open access livestock (ZABOL)
59201: Lowveld open access mixed farming (ZALCM)
59205: Highveld open access mixed income (ZAHMI)
59303: Highveld open access intensive cropping (ZAHIC)

LIVESTOCK PRODUCTION VARIABLES – AFRICAN, PASTORAL

Milk Production

	Length of gestation (months)	No. months between births	Length of lactation (days)	Milk output (l/day)	Milk output (l/animal/year)
Cattle	9	15-17	180-270	1 (0.5-2)	191
Sheep	5	11	45	0.5	25
Goats	5	9	45	0.7	42

Meat Production

	Cattle	Sheep	Goats
Meat per carcass (kg)	100	10-15	10
KJ content of meat	2360	4040	1450

Calculation of butter/ghee production (assuming all milk made into butter or ghee)
kg butter = litres milk x 0.0425 kg ghee = litres milk x 0.038

Herd Dynamics – Reference Values

CATTLE	Herds with Plough Oxen						Herds without Plough Oxen					
Total (start of year)	1	3	5	10	15	25	3	5	10	15	25	50
Oxen	0	0	1	1.5	2.5	4	-	-	-	-	-	-
Breeding females	0.5	1.5	2	3	5	8	1.5	2	4	6	10.5	20.5
Births	0.5	1	1.5	2	3.5	5.5	1	1.5	3	4.5	7.5	14.5
Sales/slaughter	0.5	1	1	1	1.5	2.5	1	1	1.5	2.5	4	8
Deaths	0	0.5	0.5	0.5	1	1.5	0.5	0.5	1	1	2	4
Purchase/gifts	0	0.5	0	0	0	0	0.5	0	0	0	0	0
Total (end of year)	1	3	5	10.5	16	26.5	3	5	10.5	16	26.5	52.5
Offtake (%)	50%	33%	20%	10%	10%	10%	33%	20%	15%	17%	16%	16%

	SHOATS					
Total (start of year)	2	5	10	25	50	100
Breeding females	1	3	5.5	14	27.5	55
Births	1.5	3	6.5	16.5	32.5	66
Sales/slaughter	1.5	1.5	3	8	15.5	31
Deaths	0.5	1	2.5	6	12	24
Purchase/gifts	0.5	0	0	0	0	0
Total (end of year)	2	5.5	11	27.5	55	110
Offtake (%)	75%	30%	30%	32%	31%	31%

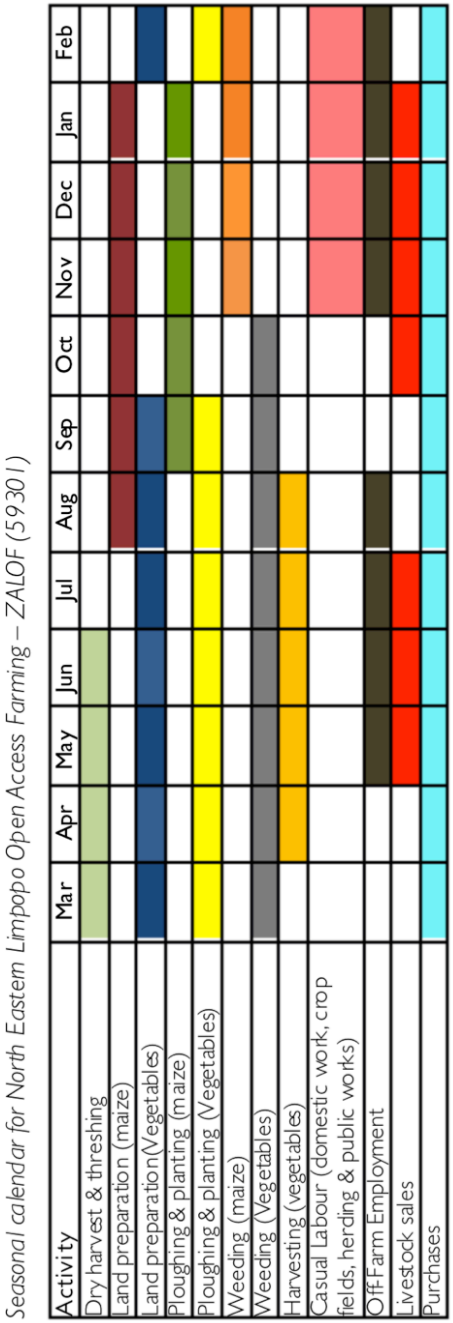
Notes: [1] The above figures are derived from computer models based on field data.
[2] All figures are approximate and represent the mid-point of a range.
[3] %offtake = sales + slaughters as a % of initial holding.
[4] Sales (and therefore offtake) tend to be high when herd sizes are low. Purchase and/or gifts are an important mechanism for replacing the large number of animals sold.

HOUSEHOLD SIZE AND COMPOSITION

lz	hh size	u5	5-19	adult m	adult f	elderly
59101	3	0.4 (0)	1.0 (1)	0.7 (1)	0.8 (1)	0.2 (0)
59101	4	0.5 (1)	1.4 (1)	0.9 (1)	1.0 (1)	0.2 (0)
59101	5	0.6 (1)	1.7 (2)	1.1 (1)	1.3 (1)	0.3 (0)
59101	6	0.8 (1)	2.0 (2)	1.3 (1)	1.5 (2)	0.3 (0)
59101	7	0.9 (1)	2.4 (2)	1.6 (2)	1.8 (2)	0.4 (0)
59101	8	1.0 (1)	2.7 (3)	1.8 (2)	2.1 (2)	0.4 (0)
59101	9	1.1 (1)	3.1 (3)	2.0 (2)	2.3 (2)	0.5 (1)
59101	10	1.3 (1)	3.4 (3)	2.2 (2)	2.6 (3)	0.5 (1)
59101	11	1.4 (1)	3.7 (4)	2.4 (2)	2.8 (3)	0.6 (1)
59104	3	0.4 (0)	1.2 (1)	0.5 (1)	0.7 (1)	0.2 (0)
59104	4	0.5 (1)	1.6 (1)	0.7 (1)	0.9 (1)	0.3 (0)
59104	5	0.7 (1)	1.9 (2)	0.9 (1)	1.2 (1)	0.3 (0)
59104	6	0.8 (1)	2.3 (2)	1.1 (1)	1.4 (2)	0.4 (0)
59104	7	0.9 (1)	2.7 (3)	1.2 (1)	1.6 (2)	0.5 (0)
59104	8	1.1 (1)	3.1 (3)	1.4 (1)	1.9 (2)	0.6 (1)
59104	9	1.2 (1)	3.5 (3)	1.6 (2)	2.1 (2)	0.6 (1)
59104	10	1.3 (1)	3.9 (4)	1.8 (2)	2.3 (2)	0.7 (1)
59104	11	1.4 (1)	4.3 (4)	2.0 (2)	2.6 (3)	0.8 (1)
59201	3	0.4 (0)	1.1 (1)	0.5 (1)	0.7 (1)	0.2 (0)
59201	4	0.5 (1)	1.5 (1)	0.7 (1)	1.0 (1)	0.3 (0)
59201	5	0.7 (1)	1.9 (2)	0.8 (1)	1.2 (1)	0.4 (0)
59201	6	0.8 (1)	2.3 (2)	1.0 (1)	1.5 (2)	0.4 (0)
59201	7	0.9 (1)	2.6 (3)	1.2 (1)	1.7 (2)	0.5 (0)
59201	8	1.1 (1)	3.0 (3)	1.4 (1)	2.0 (2)	0.6 (1)
59201	9	1.2 (1)	3.4 (3)	1.5 (2)	2.2 (2)	0.7 (1)
59201	10	1.3 (1)	3.8 (4)	1.7 (2)	2.5 (2)	0.7 (1)
59201	11	1.5 (1)	4.1 (4)	1.9 (2)	2.7 (3)	0.8 (1)
59205	3	0.4 (0)	1.0 (1)	0.7 (1)	0.7 (1)	0.2 (0)
59205	4	0.5 (1)	1.3 (1)	0.9 (1)	1.0 (1)	0.3 (0)
59205	5	0.6 (1)	1.6 (2)	1.1 (1)	1.2 (1)	0.4 (0)
59205	6	0.7 (1)	1.9 (2)	1.4 (1)	1.5 (1)	0.5 (1)
59205	7	0.9 (1)	2.3 (2)	1.6 (1)	1.7 (2)	0.6 (1)
59205	8	1.0 (1)	2.6 (2)	1.8 (2)	2.0 (2)	0.6 (1)
59205	9	1.1 (1)	2.9 (3)	2.0 (2)	2.2 (2)	0.7 (1)
59205	10	1.2 (1)	3.2 (3)	2.3 (2)	2.5 (3)	0.8 (1)
59205	11	1.3 (1)	3.5 (4)	2.5 (2)	2.7 (3)	0.9 (1)
59303	3	0.4 (0)	1.1 (1)	0.6 (1)	0.7 (1)	0.3 (0)
59303	4	0.5 (1)	1.4 (1)	0.7 (1)	0.9 (1)	0.4 (0)
59303	5	0.7 (1)	1.8 (2)	0.9 (1)	1.1 (1)	0.5 (0)
59303	6	0.8 (1)	2.2 (2)	1.1 (1)	1.3 (1)	0.6 (1)
59303	7	0.9 (1)	2.5 (2)	1.3 (1)	1.5 (2)	0.7 (1)
59303	8	1.1 (1)	2.9 (3)	1.5 (1)	1.8 (2)	0.8 (1)
59303	9	1.2 (1)	3.3 (3)	1.7 (2)	2.0 (2)	0.9 (1)
59303	10	1.3 (1)	3.6 (4)	1.9 (2)	2.2 (2)	1.0 (1)
59303	11	1.5 (2)	4.0 (4)	2.1 (2)	2.4 (2)	1.1 (1)

Source: Census 2011, Statistics South Africa. Data analysed by Charles Rethman

EXAMPLE SEASONAL CALENDAR FROM LIMPOPO



SEASONAL CALENDAR

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

ATTENTION!

TIME:

1 month = 30 days = 4.3 weeks

Half year = 6 months = 182 days = 26 weeks

1 year = 365 days = 52 weeks

EDIBLE PORTIONS

Food item	Scaling factor
Banana	0.69
Plaintain	0.65
Cassava	0.84
Potato	0.84
Sweet potato	0.84
Yam	0.84
Raw fish	0.61

Source: Save the Children Cost of the Diet Software

SCHOOL FEEDING CONTRIBUTION TO ANNUAL ENERGY NEEDS

HH size →	3	4	5	6	7	8	9	10
No. children in school								
1	10%	7%	6%	5%	4%	4%	3%	3%
2	20%	15%	12%	10%	9%	7%	7%	6%
3		22%	18%	15%	13%	11%	10%	9%
4			24%	20%	17%	15%	13%	12%
5				25%	21%	19%	17%	15%
6					26%	22%	20%	18%
7						26%	23%	21%

ANNUAL CEREAL REQUIREMENTS BY HOUSEHOLD

HH size	kg	50 kg bags	100 kg sacks
2	440	8.8	4.4
3	660	13.2	6.6
4	880	17.6	8.8
5	1100	22	11
6	1300	26	13
7	1550	31	15.5
8	1750	35	17.5
9	1950	39	19.5
10	2200	44	22
11	2400	48	24
12	2650	53	26.5

TIMELINE

DATE/YEAR	EVENTS

INTERVIEWING

SEMI-STRUCTURED INTERVIEWS – TIPS

Questions can be asked (or answers provided) in any order. At the end of the interview, check that all the various questions have been posed.

The next question should often follow-on from the answer to the previous question.

Keep track of the story you are being told. Is it consistent? Clarify inconsistencies.

Finish enquiries into one topic before moving on to the next. But also follow the flow of the conversation, keeping a track of leads, so that you can follow these up later.

Cross-check as much as possible, both by asking the same question in different ways and by comparing the response of different people. But don't ask the same question over and over again.

THE WEALTH BREAKDOWN – TIPS

Explain that we know that there are differences within every community – not all households are the same – some are better-off, some are worse off.

For our purposes, 'poor' means poorer than most households, while 'better-off' means better-off than most households (i.e. 'poor ' must be less than 50% of the population).

In this interview we are not just concerned with this village, we are concerned with the area in general.

If informants say that 'everyone is the same now', then ask them about differences within the community one year (or more) ago.

If, after proportional piling, one group looks very large, ask the key informants to explain differences within the group – and subdivide the pile if necessary.

WEALTH GROUP INTERVIEWS – TIPS

Make sure you understand to whom you are talking. Clarify which wealth group the interviewees represent. Check that their appearance corresponds with their supposed wealth group. Find out if any of them are related to participants in the community level interview.

Ask participants to represent their wealth group, not to speak as individuals.

Be clear about the time period to which the questions refer.

Remember the basic questions: who? what? where? when? why? how often? how long? how much? how many? what then? what else? what if?

And keep asking why…

EXAMPLE FIELD PROGRAMME

For a livelihood zone spread across parts of 4 districts, assuming 4 wealth groups per village and 4 interviewers, each capable of interviewing on their own.

Day	Time	Location	Activity
31 Oct	Preparations for travel and field work; travel to field and confirm interviews		
1 Nov	Morning	*Municipality 1*	Protocol / market visit
	Afternoon	Village 1	Community leaders - wealth b/down interview
2 Nov	Morning	Village 1	Livelihoods strategy interviews
	Afternoon	Base	Review of first village interviews
3 Nov	Morning	Village 2	Community leaders - wealth b/down interview
	Afternoon	Village 3	Community leaders - wealth b/down interview
4 Nov	Morning	Village 2	Livelihoods strategy interviews
	Afternoon	Village 3	Livelihoods strategy interviews
5 Nov	Morning	Village 4 & 5	Community leaders - wealth b/down interview (team splits)
	Afternoon	Village 4	Livelihoods strategy interviews
6 Nov	Sunday off (finalise forms, BSS data entry for team leaders)		
7 Nov	Morning	Village 5	Livelihoods strategy interviews
	Afternoon	*Municipality 2*	Protocol / market visit
8 Nov	Morning	Village 6 & 7	Community leaders - wealth b/down interview (team splits)
	Afternoon	Village 6	Livelihoods strategy interviews
9 Nov	Morning	Village 7	Livelihoods strategy interviews
	Afternoon	Village 8 and 9	Community leaders - wealth b/down interview (team splits)
10 Nov	Morning	Village 8	Livelihoods strategy interviews
	Afternoon	Village 9	Livelihoods strategy interviews
11 Nov	Morning	Village 10 and 11	Community leaders - wealth b/down interview (team splits)
	Afternoon	Village 10	Livelihoods strategy interviews
12 Nov	Morning	Village 11	Community leaders – wealth b/down interview
	Afternoon	Village 12	Community leaders – wealth b/down interview
13 Nov	Morning	Village 12	Livelihoods strategy interviews
13 Nov	Afternoon	Travel back to analysis venue	

Conversion factors

Crop or food item	Weight of a Standard Bag	Other measure
Maize	50kg	
Bulrush millet	50 kg	
Finger millet	60 kg	
Paddy rice	37 kg	
Wheat	37 kg	
Sweet potato	40 kg	
(Irish) potato	40 kg	
Tobacco	36 kg	
Sugar cane	60 kg	
Sunflower	60 kg	
Sesame (simsim)	50 kg	
Groundnuts (peanuts) unshelled	25 kg	
Groundnuts (peanuts) shelled	60 kg	
Beans	50 kg	
Pigeon peas	50 kg	
Green grams	50 kg	

Checklist of Food and Income Sources, and Expenditure

Food	Income	Expenditure
▪ Cereals: maize, sorghum, millet, rice, wheat ▪ Pulses: beans, cowpeas, green grams, pigeon peas, ground nuts ▪ Tubers: potatoes, cassava, sweet potatoes, coco-yam, ▪ Vegetables ▪ Oil seeds: simsim, sunflower ▪ Honey ▪ Milk, ghee, eggs ▪ Meat: beef, chicken, sheep, goat, pork ▪ Blood ▪ Wild foods, game, fish ▪ Gifts ▪ Loans ▪ Food aid ▪ Purchase, barter, payment in kind ▪ Stocks ▪ Labour for food ▪ A meal given to daily labourers or poor HHs ▪ Beer	▪ Sale of crops/crop residues ▪ Sale of livestock/livestock products (milk, ghee, skins) from: cattle, sheep, goats, donkeys, pigs, poultry ▪ Unskilled casual labour (agricultural labour, construction, brick-making) ▪ Skilled casual labour (carpentry, brick laying) ▪ Paid domestic work ▪ Livestock herding (if performed for another household and paid for in food/ cash by that household) ▪ Salaried employment ▪ Remittance (i.e. money sent by someone living outside the village) ▪ Collection (firewood, charcoal, grass, honey, berries, bush meat, minerals) ▪ Fishing ▪ Transport (e.g. taxi, pickup etc.) ▪ Self-employment (brewing, handicrafts) ▪ Petty trade (purchase and resale of good on a very small scale) ▪ Trade (purchase and resale of goods on a larger scale, e.g. livestock brokers, coffee brokers, maize traders) ▪ Small business (e.g. village kiosks, tea stalls, grain mills) ▪ Rental/hire (e.g. housing, vehicles, livestock for ploughing/transport) ▪ Cash savings & loans (record % paid back and after what period) ▪ Agro-processing: oil press, oil, salt preparation, rice polishing, bee-keeping, fruit drying ▪ Gifts	▪ Cereals, pulses, meat, milk, vegetables ▪ Sugar, tea ▪ Soap ▪ Salt ▪ Oil ▪ Other sauce items (e.g. fish/veg) ▪ Grinding ▪ Paraffin ▪ Firewood/charcoal ▪ Education ▪ Health ▪ Livestock inputs (pest control, drugs, vet.services, fodder, minerals, labour). ▪ Crop Inputs: ploughing, seeds, fertiliser, fungicide, insecticide, labour (nursery, planting, staking, weeding, spraying, harvesting, processing), materials. ▪ Clothing ▪ Gifts ▪ Beer ▪ Tobacco ▪ Travel ▪ Funerals ▪ Loan repayments ▪ Saving contributions

FOOD COMPOSITION TABLES (kJ per kg of food)

Cereals	kJ	kg/d
barley	14190	0.62
maize, white, whole	15200	0.58
maize meal, refined 60-80%	15070	0.58
maize, green	5150	1.71
millet flour	15280	0.58
millet, whole grain	15200	0.58
oats	16240	0.54
rice, parboiled, lightly milled	14820	0.59
sorghum	14860	0.59
sorghum flour	14780	0.59
teff, whole grains	14440	0.61
wheat, whole	14400	0.61
wheat flour	14570	0.60
pasta	14320	0.61
Roots, tubers and stems		
cassava flour	14320	0.61
cassava, fresh	6410	1.37
plantain, ripe, raw	5360	1.64
irish potato, raw	3140	2.80
sweet potato, pale raw	4770	1.84
taro	4730	1.86
yam, flour	13270	0.66
yam, fresh	4350	2.02
enset	8370	1.05
Grain legumes		
beans, dried	14190	0.62
cowpeas, dried	14240	0.62
lentil, dried	14190	0.62
soya bean, dried	15990	0.55
Nuts and seeds		
groundnut, dried	24240	0.36
groundnuts, fresh	13900	0.63
pumpkin seeds (no coat)	25540	0.34
Fruit		
baobab, ripe, raw	11720	0.75
banana, ripe, raw	4860	1.81
citrus	2220	3.96
mango	2640	3.33
avocado	6910	1.27
papaya	1630	5.38
apple	2550	3.44

Sugars	kJ	kg/d
sugar	16750	0.53
soft drinks, commercial	1880	4.67
meat, poultry, eggs		
beef, mod fat	9840	0.89
beef, lean	8460	1.04
goat meat	6070	1.45
eggs	6620	1.33
fish		
fish, dried	12940	0.68
fresh fish	3980	2.21
milk		
milk, whole, cow	2680	3.28
milk, skimmed, cow	1420	6.18
milk, whole, sheep	4520	1.94
milk, whole, goat	2970	2.96
DSM vit A-enriched	14860	0.59
Oils and fats		
butter	31190	0.28
ghee	34670	0.25
margarine	32030	0.27
sunflower oil	37680	0.23
Other		
beer, local	1470	6.00
honey	11970	0.73
Blended foods		
CSB/WSB corn/wheat soya blend	1510	5.83
Soy fortified cornmeal	1640	5.36
High protein biscuits	1940	4.53
protein-enriched ration	1880	4.67
Vegetables		
leaves, dark green	2010	4.38
leave, medium green	1170	7.50
leaves, light green	960	9.13
pumpkin	1510	5.83
onions	2010	4.38
tomatoes	840	10.50

Sugar	16750 kJ/kg	HH size						
kg per week	1	2	3	4	5	6	7	8
1	27%	14%	9%	7%	5%	5%	4%	3%
2		27%	18%	14%	11%	9%	8%	7%
3			27%	20%	16%	14%	12%	10%
4				27%	22%	18%	16%	14%
5					27%	23%	19%	17%
6						27%	23%	20%
7							27%	24%
8								27%

Oil	37680 kJ/kg	HH size						
litres per week	1	2	3	4	5	6	7	8
0.5	31%	15%	10%	8%	6%	5%	4%	4%
1		31%	20%	15%	12%	10%	9%	8%
2			41%	31%	24%	20%	17%	15%
3				46%	37%	31%	26%	23%
4							35%	31%

Pulses	14240 kJ/kg	HH size						
kg per year	1	2	3	4	5	6	7	8
50	22%	11%	7%	6%	4%	4%	3%	3%
100	44%	22%	15%	11%	9%	7%	6%	6%
200		44%	30%	22%	18%	15%	13%	11%
300			44%	33%	27%	22%	19%	17%
400				44%	35%	30%	25%	22%
500					44%	37%	32%	28%
600						44%	38%	33%
700							44%	39%

Meat (beef)	9880 kJ/kg	HH size						
kg per year	1	2	3	4	5	6	7	8
25	8%	4%	3%	2%	2%	1%	1%	1%
75	23%	12%	8%	6%	5%	4%	3%	3%
150		23%	15%	12%	9%	8%	7%	6%
225			23%	17%	14%	12%	10%	9%
300				23%	18%	15%	13%	12%
375					23%	19%	16%	14%
450						23%	20%	17%
525							23%	20%
600								23%

Food contributions to % energy req based on 8800 kJ pppd

Cereals	14650 kJ/kg			HH size				
kg per year	1	2	3	4	5	6	7	8
100	46%	23%	15%	11%	9%	8%	7%	6%
200	91%	46%	30%	23%	18%	15%	13%	11%
300		68%	46%	34%	27%	23%	20%	17%
400		91%	61%	46%	36%	30%	26%	23%
500			76%	57%	46%	38%	33%	29%
600			91%	68%	55%	46%	39%	34%
700				80%	64%	53%	46%	40%
800				91%	73%	61%	52%	46%
900					82%	68%	59%	51%
1000					91%	76%	65%	57%
1100						84%	72%	63%
1200						91%	78%	68%
1300							85%	74%
1400							91%	80%
1500								86%
1600								91%

Cereals	14650 kJ/kg			HH size				
kg per month	1	2	3	4	5	6	7	8
10	55%	28%	18%	14%	11%	9%	8%	7%
20	111%	55%	37%	28%	22%	18%	16%	14%
30		83%	55%	42%	33%	28%	24%	21%
40			74%	55%	44%	37%	32%	28%
50			92%	69%	55%	46%	40%	35%
60				83%	67%	55%	48%	42%
70				97%	78%	65%	55%	49%
80					89%	74%	63%	55%
90					100%	83%	71%	62%
100						92%	79%	69%
110							87%	76%
120							95%	83%

Cows Milk	2680 kJ/kg			HH size				
litres per year	1	2	3	4	5	6	7	8
100	8%	4%	3%	2%	2%	1%	1%	1%
200	17%	8%	6%	4%	3%	3%	2%	2%
300	25%	13%	8%	6%	5%	4%	4%	3%
500	42%	21%	14%	10%	8%	7%	6%	5%
750	63%	31%	21%	16%	13%	10%	9%	8%
1000		42%	28%	21%	17%	14%	12%	10%
1500		63%	42%	31%	25%	21%	18%	16%
2000			56%	42%	33%	28%	24%	21%
2500				52%	42%	35%	30%	26%
3000					50%	42%	36%	31%
3500					58%	49%	42%	37%
4000						56%	48%	42%
4500							54%	47%
5000								52%

Other Energy data (missing from page 8):

Item	KJ per kg	Kg per day
Sesame seeds (simsim)	24785	0.35
Sunflower seeds	21940	0.40
Melon seeds	24325	0.36
Millet meal	13900	0.63
Bread	9670	0.91
Okra	1215	7.24
Tamarind	1925	4.57
Melons	1090	8.08
Cucumbers	500	17.5
Small berries	2640	3.33
Mushrooms (fresh)	460	19.09
Mushrooms (dry)	4140	2.12
Bananas	4860	1.81
Mangoes	2640	3.33
Guava	2430	3.62
Game meat	8460	1.04
Pork (lean)	15530	0.57
Poultry	5819	1.51
Eggs	6615	1.33
Mice	5820	1.51
Termites	5610	1.57
Honey (pure)	11970	0.73
Sugar cane stem	2510	3.50
Beer (local)	1465	6.00

Energy values and household requirements of key foods (KG per HH per year)

Type of food	kJ/kg	*kcal /kg*	kg pppd	HH=4 Year (kg)	HH=5 Year (kg)	HH=6 Year (kg)	HH=7 Year (kg)	HH=8 Year (kg)	HH=9 Year (kg)	HH=10 Year (kg)	HH=11 Year (kg)	HH=12 Year (kg)
Cereals												
maize grain	15200	*3630*	0.58	845	1056	1267	1478	1689	1900	2112	2323	2534
maize meal	15070	*3600*	0.58	852	1065	1278	1490	1703	1916	2129	2342	2555
sorghum	14860	*3550*	0.59	864	1080	1295	1511	1727	1943	2159	2375	2591
bread (white)	11220	*2680*	0.78	1144	1430	1716	2002	2288	2574	2860	3146	3432
pasta	14320	*3420*	0.61	896	1121	1345	1569	1793	2017	2241	2465	2689
rice	14820	*3540*	0.59	866	1083	1299	1516	1732	1949	2165	2382	2598
Grain legumes (pulses)												
beans/cowpeas	14190	*3390*	0.62	904	1131	1357	1583	1809	2035	2261	2487	2713
Sugars												
sugar	16750	*4000*	0.53	767	958	1150	1341	1533	1725	1916	2108	2300
honey	11970	*2860*	0.73	1072	1340	1608	1876	2144	2412	2680	2948	3216
Meat/livestock products												
beef, mod fat	9840	*2350*	0.89	1305	1631	1957	2283	2609	2936	3262	3588	3914
goat meat	6070	*1450*	1.45	2114	2643	3172	3700	4229	4758	5286	5815	6343
sheep meat, mod fat	10430	*2490*	0.84	1231	1539	1847	2155	2463	2770	3078	3386	3694
Boerewors	16580	*3960*	0.53	774	968	1161	1355	1548	1742	1936	2129	2323
fish, tinned	12940	*3090*	0.68	992	1240	1488	1736	1984	2233	2481	2729	2977
milk, cow	2680	*640*	3.28	4791	5988	7186	8384	9581	10779	11977	13174	14372
milk, cow skim	1420	*340*	6.18	9018	11272	13526	15781	18035	20290	22544	24799	27053
Oils and fats												
margerine	32030	*7650*	0.27	401	501	601	701	802	902	1002	1102	1202
vegetable oil	37680	*9000*	0.23	341	426	511	596	681	767	852	937	1022
Processed												
Polony	13200	*3152*	0.67	973	1216	1459	1702	1945	2189	2432	2675	2918
Big Mac	11180	*2670*	0.79	1148	1435	1722	2010	2297	2584	2871	3158	3445
Veg/fruit/tubers												
Irish potato	3140	*750*	2.80	4088	5110	6132	7154	8176	9198	10220	11242	12264
leaves, medium green	1170	*280*	7.50	10950	13688	16425	19163	21900	24638	27375	30113	32850
tomato	840	*200*	10.50	15330	19163	22995	26828	30660	34493	38325	42158	45990
onions	2010	*480*	4.38	6388	7984	9581	11178	12775	14372	15969	17566	19163
banana	4860	*1160*	1.81	2643	3304	3965	4625	5286	5947	6608	7269	7929
papaya	1630	*390*	5.38	7862	9827	11792	13758	15723	17688	19654	21619	23585
CSB	*15070*	*3600*	0.58	852	1065	1278	1490	1703	1916	2129	2342	2555