

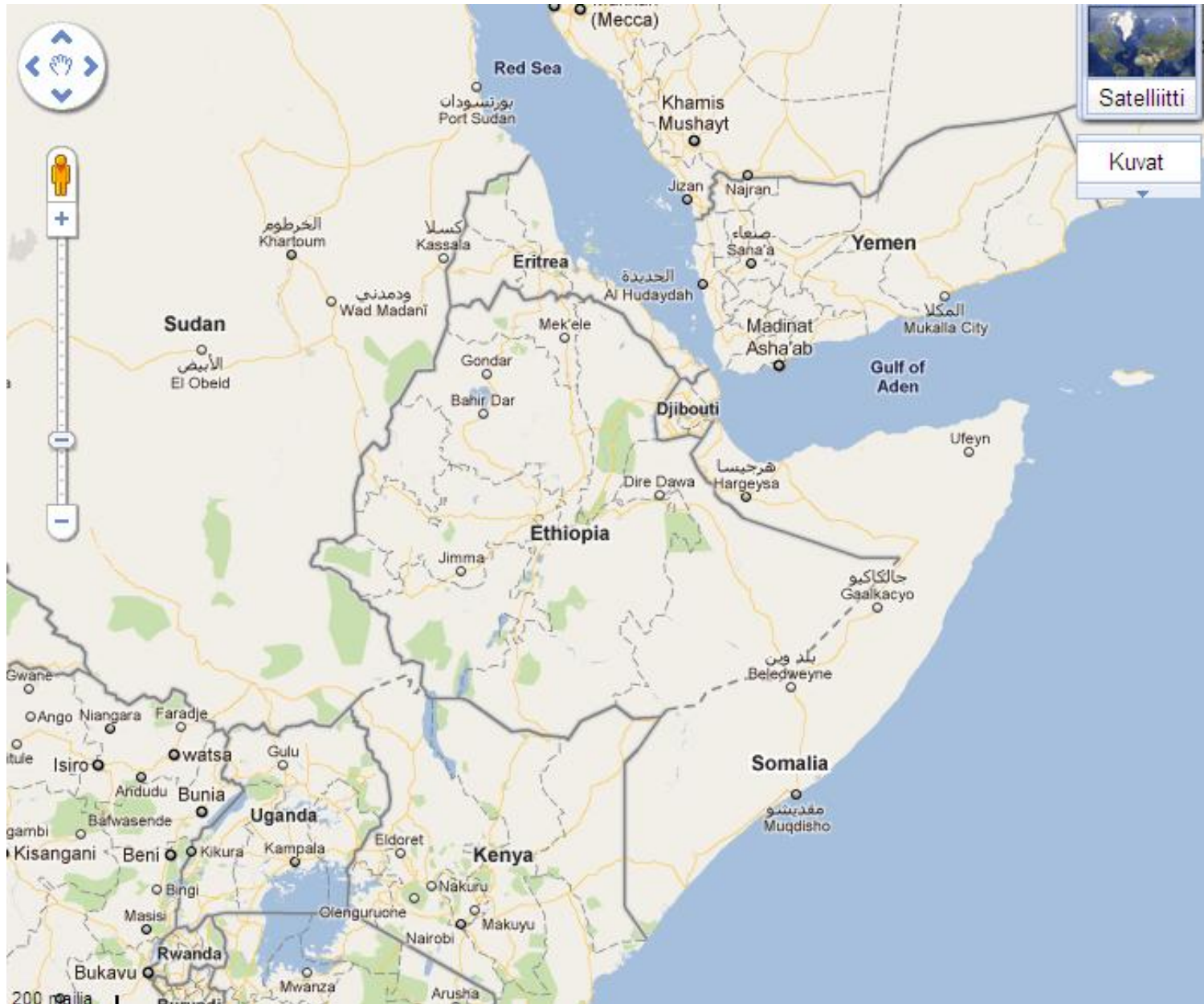
Surveying in Ethiopia in 2010-2011
As I have experienced it.

Seppo Laaksonen

Many thanks to Markku Lindqvist, Ethiopian Colleagues
and Ethiopian people and the Finnish Foreign Ministry

Septembers 2011 and 2012

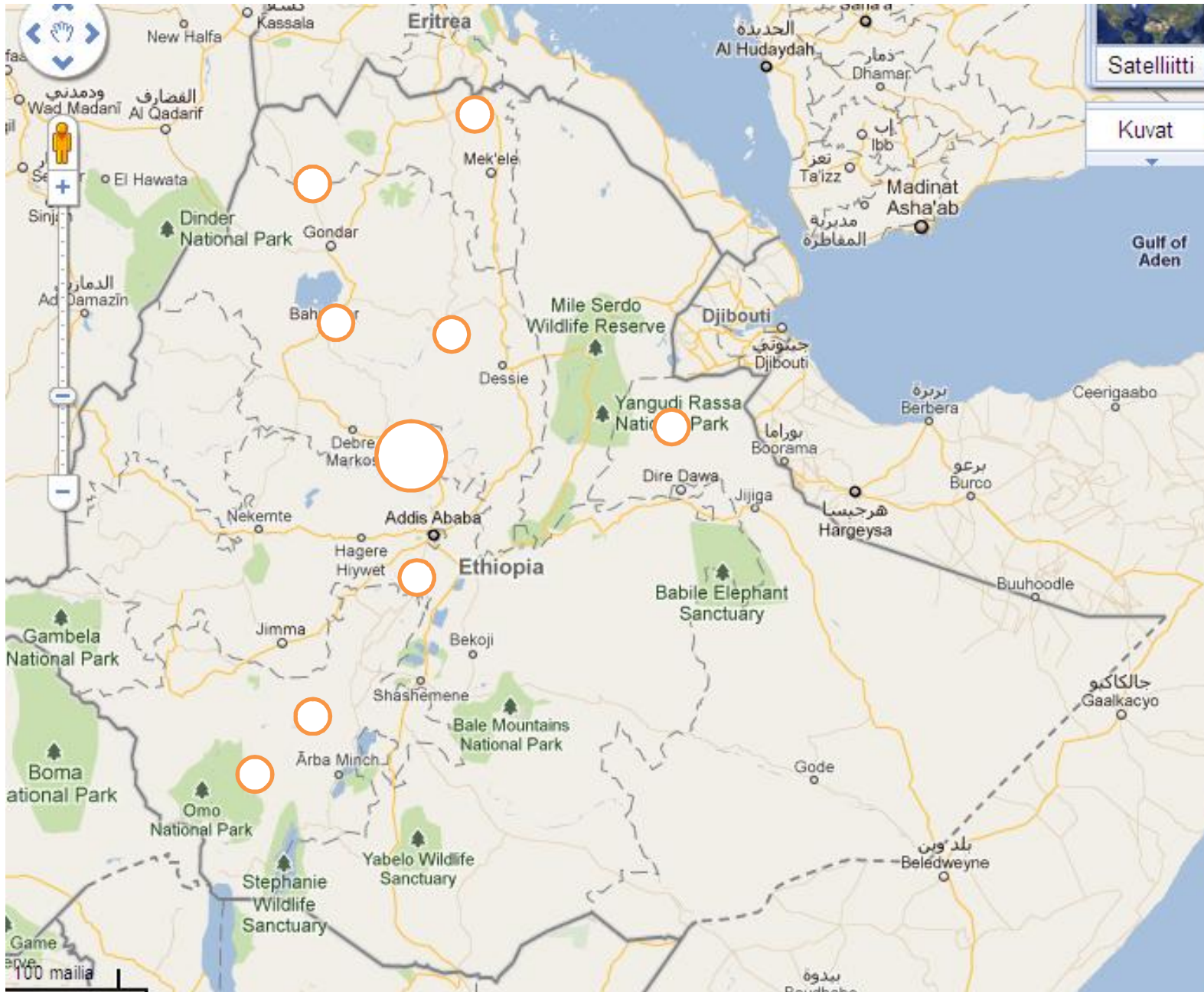
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Ethiopia
And its
neighbors

Keikkojemme jälkeen alueen kartta on muuttunut, miten?





Main Visited Areas. The main area unvisited was the Somalia Province of Ethiopia, close to Somalia that is not very safe like the other areas

Ethiopian Survey Fieldwork _ Seppo 2012

Ethiopia (/i:θi'oupiə/) (Ge'ez: ኢትዮጵያ ፕሮጎሞሳ) is a [landlocked country](#) located in the [Horn of Africa](#), and officially known as the Federal Democratic Republic of Ethiopia. It is the second-most populous nation in Africa, with over 82 million people, and the tenth-largest by area, with its 1,100,000 km². The capital is [Addis Ababa](#). Ethiopia is bordered by [Eritrea](#) to the north, [Sudan](#) and [South Sudan](#) to the west, [Djibouti](#) and [Somalia](#) to the east, and [Kenya](#) to the south. It is also the most populous landlocked country in the world.

The Foreign Ministry has been funding various activities in Ethiopia. This is a story about consultancy concerning the conduction of the two surveys, that is, the Consumption Survey (CS) and the Welfare Monitoring Survey (WMS). I visited there together with Markku Lindqvist who was a project manager. He visited in Ethiopia maybe 11 times, always with another expert like with me. I was there three times, March 2010, November 2010 and May 2011. The last two ones are reported here when we concentrated on the fieldwork of those two surveys. The fieldwork of the CS started in the Mid of 2010, and continued over one year. The WMS data collection lasted two months from the beginning of May 2011 onwards. [The project is now finished, spring 2012, and first results available. Some results in the end of this file.](#)



Normal
Distribution

Where is
The poverty
line?

The main target of the CS is to evaluate poverty. In many countries, income surveys are used but what is income in a developing country, it is a different story. The only way is to try to estimate consumption is to exploit a well-designed survey. In this case, about 38.000 households were surveyed during one year. The sampling follows as stratified two-stage cluster sampling design in which the clusters are small-areas or enumeration areas or census districts that are villages in rural areas and blocks in urban areas. The same sample was used for the WMS too, but some new entrants were drawn due to under-coverage.

<p>Consumption survey respondents Two weeks in 2010 or 2011 Two visits two each household 90-98 %</p>	<p>Welfare Monitoring survey respondents One visit (1-2 hours) two each household (husband and wife)</p>
<p>Non-respondents and over-coverage, expected to be 2-10 %</p>	<p>A new sample to replace the non-respondents and removals</p>

Strata are regions of the country, thus most typical stratification in general. Auxiliary data for sampling and other purposes is fairly fresh, from the recent census. Their census uses census districts that are quite small and similar in size, and well available as psu's (clusters). Many other countries use much larger psu's and the population data are not as good. Of course, there are special populations, nomads, that are more difficult to survey. Similar mobile people are everywhere.



Sampled small-area clusters, psu's (called EA's = enumeration areas) for both the Consumption Survey (related to incomes too) and the Welfare Monitoring Survey



The central statistical office and its staff leads and coordinates the survey.



But the 25 branch offices organise the fieldwork so that all enumeration areas will be handled equally and as well as possible. This is one branch office, the head in the background.



The branch offices must have cars to go on closer to their staff but the last kilometres can only be walked since everywhere are not roads and these are not in good conditions. Hence the interviewers are mainly young men but few women are also doing this important job.



- Sampling within enumeration areas = psu's have been made so that
- First all houses are listed and even coded concretely as you see. They use local people to help in this listing.
 - Next equidistance selection has been applied and the interviewing will be started in a following day. The first interviewing checks the household composition and collects the consumption over three days.
 - Sampling is definitely random within psu's unlike in many developed countries.

As you know the sample size is important to determine optimally. The Ethiopian strategy looks good, even at the psu stage. **You know that when using two-stage strategy, it is rational to sample equal sizes in each stratum.** This facilitates further steps including variance estimation. However, if there are special reasons equal sizes can be adjusted. One reason is non-response variation but this was not expected to be the case in this country. **Another reason is possible intra-class correlation (homogeneity of clusters by key variables).** They had learned from the previous surveys that rural areas are more homogenous than urban areas (their food etc consumption is more varying, they have even more products available _ How it is in Finland, for instance?). Hence the gross samples (number of households) were 12 in each the rural psu whereas these were 16 in the urban psu's. Try to understand this. I think that this is more elegant than in most European Social Survey countries, for instance.



Daily consumption has been collected very concretely as you see from this and the next pages. Liquids as here have been measured in water amounts and since the density is known, e.g. consumed oil or milk can be measured in grams. So they can measure how many calories have been used.



Fieldwork going on outside the so-called house. Two neighbours also are present.



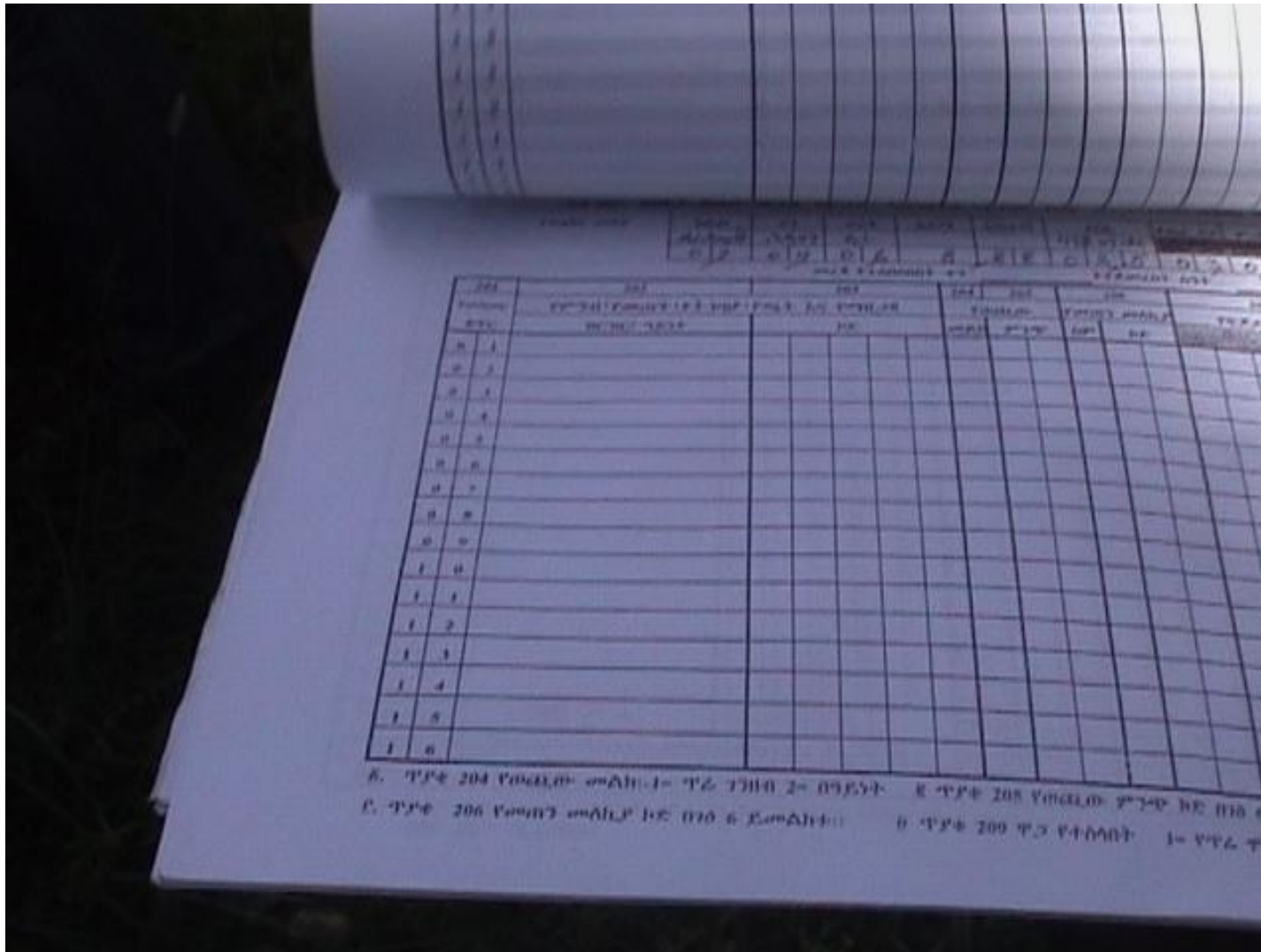
A cow is also participating.



This woman is giving most information from their household.



The household head is of course a man who did not participate much in the interviewing (left) since the wife knows much better their consumption.



All data are coded in codebooks and then data entry will be made in the central office. After editing, imputation, weighting and estimation we know the poverty levels of Ethiopian households. We saw however that poverty is completely different there than in Europe, among others.



The enumeration was done well, without conflicts and took almost two hours.



After the first interviewing the prices of each consumption item were collected next day. This is the nearest price market of the previous household. Price data are thus very up-to-date.



The price market interviewers are starting their work. The steelyard is an important for theme too. Markku has our cash money in his bag.



The price market interviewer is asking about one special product and its price.
Do you know what is the product?



After the price market data collection the second interviewing is made concerning daily consumption of the next four days and other items during previous months. The school pupils were very interested in our group. Statistics is exciting for them.



We had to walk through the coffee tree area, and about one kilometre to the next household .



This is a good product and enjoyable also to drink. It is now a good season for households since fruits etc are ready to exploit. It is not ensured that households manage their life well, e.g. saving something for bad days



She is one of few female interviewers, living close the household. She understands the local language but her colleague not. The cooperation goes on well. The questionnaire is thus in one language only but there are in the country some tens languages.



A household and its head in the front.



Avocados from the own tree eaten during one day.



A khat garden that is typical in country side and very easy to grow up. Many people are using it and this product is officially measured for the survey too, that is not the case in developed countries (since illegal).



The cloudy place has been used in interviewing.



A new daily product.



Also wood is important to measure. They have not electricity, of course. Water must have carried from the place where it is, maybe several kilometres distance.



Interviewing: Like in the paradise.



A new generation was always curious on the interviewing.



Here are also neighbours following statistical base work.



After the interviewing. Going to the next household. It is possible that few are not at home or refuse but after motivation most will participate.



Special group to be interviewed. They were very voluntary to be included in the photos, expecting some tips of course.



Very willing to be interviewed.



A high-level house



Breakfast in the hotel owned by Haile Gebreselassie



A typical small town



There are some lakes and tourists e.g. from Japan.



Eating together injera et al



The whole team in a church



One of the
oldest church
(orthodox) in
the world.

Lalibela



Meeting for
evaluating the
surveys



Face-to-Face Interviewing for the WMS in a rural area psu, The husband was interviewed first, and then the wife (right). The husband went to farmwork after the interviewing (20 metre to his job)



Measuring
by weighing
of one of the
most
consumed
product =
enjera

And then
asking its
price



Gondar town and small lake, this town was the Capital as well as Lalibela before Addis Ababa.



Celebrating the success of both surveys in a branch office. The whole staff is present.



Celebrating the success of both surveys



Celebrating the success of both surveys



Celebrating the success of both surveys
Best coffee in the world



One of the key products of the country, ecological meats



Millenium Bridge over the Blue Nile





Premier league football audience in a cafeteria, tv screen left



Interviewing for the WMS in an urban psu, both husband and wife attending. They had a restaurant in their home. Several young men came to eat enjera during the interviewing. Food was prepared by a young woman, maybe not their daughter.



There are also high level beaches but our colleagues could not swim, and we were solidary.



Cash money was used everywhere including top-level hotels for us. We paid the hotels for everyone and also the daily allowance in cash.

Paper questionnaire, PAPI, a starting page, next two pages a sample of the proper one.

THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
CENTRAL STATISTICAL AGENCY
HOUSEHOLD WELFARE MONITORING SURVEY
QUESTIONNAIRE 2011

FMZROA

FORM 0: Identification Particulars and Survey Implementation

1. Enumerator's code	□ □ □	2. Serial No of EA	□ □ □ □ □	3. Name of Head of the Household
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Section 0.1 Identification Particulars

11. Region	□ □	12. Zone/special woreda	□ □	13. Wereda	□ □
14. Town For Rural code 8	□	15. Sub-city (For rural Code 88)	□ □	16. Kebele	□ □ □
17. EA Code	□ □ □	18. HH Sample Selection Sr.No.	□ □	19. Household Size	□ □
20. Type of HH Selection 1= Regular 2= Reserve	□	21. Area of Residence 1=Rural 2=Capital city 3=Other Town	□	22. Ecological Zone 1,Highland 2, Temperate 3, Low land	□
23. Does this HH has Agricultural Holding? 1, Yes 2, No	□				

Section 0.2: Survey Period and Time Taken

31. Date of Conduct Day _____ Month _____ Year 2011	Day	□ □	Month	□ □	Year	2 0 1 1
32 A. Interview Started: Hour _____ Minute _____			B. End of Interview: Hour _____ Minute _____			
C. Total Time of Interview Hour _____ Minute _____	Time taken	Minute	□ □ □			

5201ጽ	5202ጽ	5203ጽ	5204ጽ	5205ጽ	5206ጽ	5207ጽ	5208ጽ	5209ጽ
Line No	Sanitation and bathing		What type of solid waste disposal facilities does the household use? 1= waste disposable vehicle 2= waste disposal container 3=dug-out 4= throw away 5= use as fertilizer 6= Burning the waste 7= collected by municipality (public dump) 8= other	Source of Drinking water in rain/dry seasons		Filtering drinking water		Does the household use Iodized Salt for consumption? (Use chemicals to test the presence of Iodine) 1= yes 2=no
	What type of toilet facilities does the household use? 11= Flush toilet -private 12= Flush toilet -shared 21= pit latrine private- ventilated 22= pit latrine shared-ventilated 23= pit latrine private- not ventilated 24= pit latrine shared-not ventilated 31= Bucket 41= Field /forest 51= other	What type of bathing facilities does the housing unit has? 11= bathtub private 12= bathtub shared 21= shower private 22= shower shared 31= a room reserved for bathing (private) 32= a room reserved for bathing (shared) 41= fixed place for bathing		What is the main source of drinking water in rainy season? 11= tap inside the house 12= private tap in the compound 13= shared tap in compound 14= communal tap 15= Water from kiosks/ retailer 21= protected well / spring (private) 22= protected well / spring (shared) 31= Unprotected well or spring 32= river /lake/ pond 41= rain water 51= Other	What is the main source of drinking water in dry season? 11= tap inside the house 12= tap in compound private 13= tap in compound shared 14= tap outside compound / communal 15= Water from kiosks/ retailer 21= protected well / spring 22= protected well / spring (shared) 31= Unprotected well or spring (shared) 32= river /lake/ pond 41= Other	Does the household have habit of boiling water before drinking? 1= yes 2=no	Does the household have habit of purifying drinking water using chemicals?	
	Now	Last 7 days	Now	Now	Now	Now	Now	Now
0	1							
	12 months ago	12 months ago	12 months ago	12 months ago	12 months ago	12 months ago	12 months ago	
0	2							
	5 years ago	5 years ago	5 years ago	5 years ago	5 years ago	5 years ago	5 years ago	
0	3							

Form 5: Housing standard and Amenities

FMFIVED

Region	Zone	Wereda	Town sub-city	Kebele	EA	S.S.No	HH size
Ethiopian Survey Fieldwork Seppo 2012							

Section 6.1 (Cont'd) Food Security Indicators

6106x	6107x	6108x	6109x		6110x	
Line Nox	Type of Food f f f x	Over the last 7 days, how many days did the HH consume the food type listed in Qn. 6107x Including Adult and Children? x	Indicate the Main source of food type mentioned in Qn. 6107x in Order of Importance. Sources are Listed in the Manual x			
			1 st Source f		2 nd Source f	
01x	Enjera	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02x	Other cereal (rice, sorghum, millet, wheat bread, etc.)a	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03x	Potato/esa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04x	Pasta, Macaroni and Biscuitsa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05a	Sugar or sugar products (honey, jam)a	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06a	Beans, lentils, nutsa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07a	Vegetables (including relish and leaves)a	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08a	Fruitsa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09a	Beef, sheep, goat, or other red meat and porka	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10a	Poultrya	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11a	Eggsa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12a	Fisha	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13a	Oils/fats/buttera	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14a	Milk/yogurt/ cheese /other dairya	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Statue due to the revolution after Haile Selassie. Now they are often proud about him, at least because he fought successfully against Mussolini who tried to colonize Ethiopia, no success.



Famous Ethiopian
Brewery product
Dasha. A nice fresh-air
restaurant. We enjoyed
also on hamburgers and
chips.

Blue Nile. Two thirds of the Nile water is from Ethiopia
How blue it is? A super dam is under construction close to Sudan, for
electricity.





Measuring products





A Branch Office of the Central Statistical Authority
And cars that are much used but also feet are important. Hence
enumerators are often young educated boys, but also girls.



A nice hotel in a hill, also sometimes connection to Internet



Stop to re-pack our bags



Dangerous areas too.



A good driver was necessary because of hard traffic but not so many cars.



Our last hotel outside Addis Ababa, Owned by the Gete Wami and her families.
I hope you know who she is. There was good food in the restaurant. I recommend, go on to Debre Berhan.



Not my favourite house

Exam question:
What is this?

Ethiopia's Progress Towards Eradicating Poverty: An Interim Report on Poverty Analysis Study (2010/11)

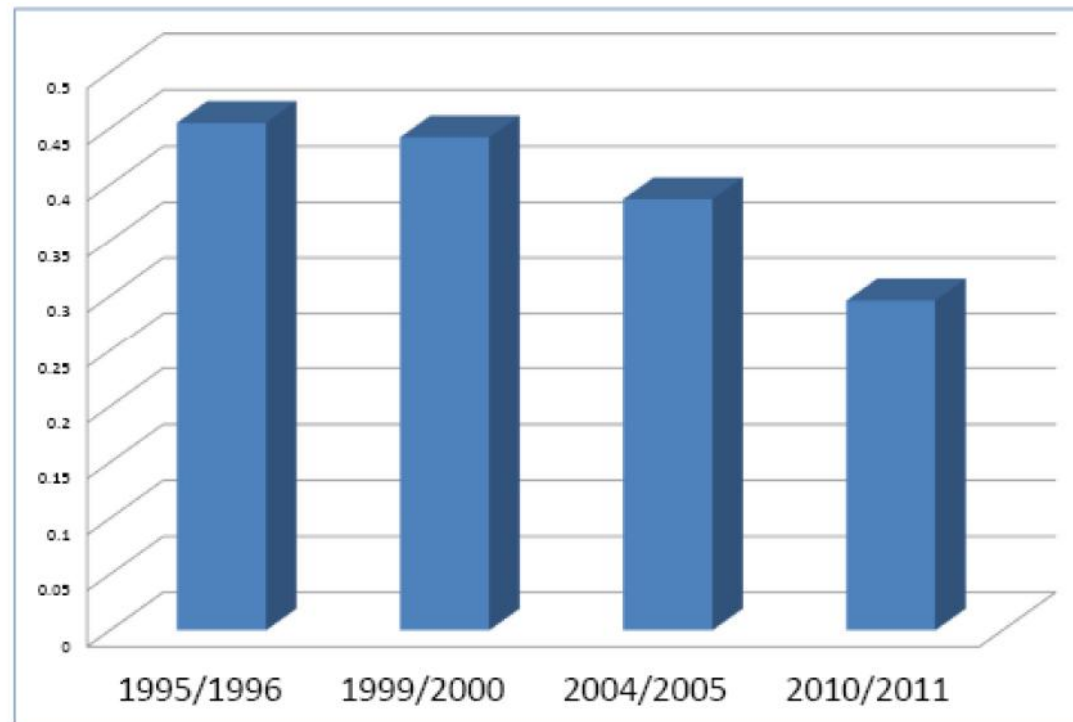


Table 7: Trends of regional poverty headcount indices

Region	1995/96			1999/2000			2004/05			2010/11		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Tigray	0.579	0.457	0.561	0.616	0.607	0.614	0.510	0.367	0.485	0.365	0.137	0.318
Afar	0.518	-	0.331	0.680	0.268	0.56	0.429	0.279	0.366	0.411	0.237	0.361
Amhara	0.567	0.373	0.543	0.429	0.311	0.418	0.404	0.378	0.401	0.307	0.292	0.305
Oromia	0.347	0.276	0.340	0.404	0.359	0.399	0.372	0.346	0.370	0.293	0.248	0.287
Somale	0.346	-	0.309	0.441	0.261	0.379	0.452	0.353	0.419	0.351	0.231	0.328
B.B.G	0.476	0.345	0.468	0.558	0.289	0.54	0.458	0.345	0.445	0.301	0.213	0.289
SNNP	0.565	0.459	0.558	0.517	0.402	0.509	0.382	0.383	0.382	0.300	0.258	0.296
Gamb.	0.418	0.244	0.343	0.546	0.384	0.505	Na	na	na	0.325	0.307	0.320
Harari	0.133	0.291	0.22	0.149	0.35	0.258	0.206	0.326	0.270	0.105	0.117	0.111
AA	0.404	0.300	0.302	0.271	0.362	0.361	0.299	0.326	0.325	...	0.281	0.281
DD	0.366	0.246	0.295	0.332	0.331	0.331	0.398	0.329	0.352	0.142	0.349	0.283
Total	0.475	0.332	0.455	0.454	0.369	0.442	0.393	0.351	0.387	0.304	0.257	0.296

Source: HICE survey of 1995/96, 1999/00, 2004/05 and 2010/11

2.1 Literacy and Numeracy

The literacy and numeracy rate for population aged 10 years and over by sex and place of residence shown below. Of the total population in the country 46.8 percent are found to be literate with a large discrepancy between rural and urban residents. Literacy rate in urban areas is about two times higher than that of rural areas (78.0 percent against 39.5 percent). This variation was a little bit more in the previous survey; it was 74.2 percent in urban areas against 30.9 percent in rural areas. This variation might be considered as a clue to difference in accessibility of schools between urban and rural areas.

Table 1 Literacy and numeracy rate of population aged 10 by sex 2004 and 2011

SEX/ RESIDENCE	LITERACY		NUMERACY	
	2004	2011	2004	2011
TOTAL				
Male	49.9	56.3	87.5	89
Females	26.6	37.8	88	90.6
Total	37.9	46.8	87.7	89.7
RURAL				
Male	43.4	49.4	84.5	85.9
Females	18.7	29.8	83.4	87.3
Total	30.9	39.5	84.2	86.5
URBAN				
Male	86.2	87.8	95.9	96.9
Females	64.4	69.6	94.3	96.2
Total	74.2	78	95.1	96.6

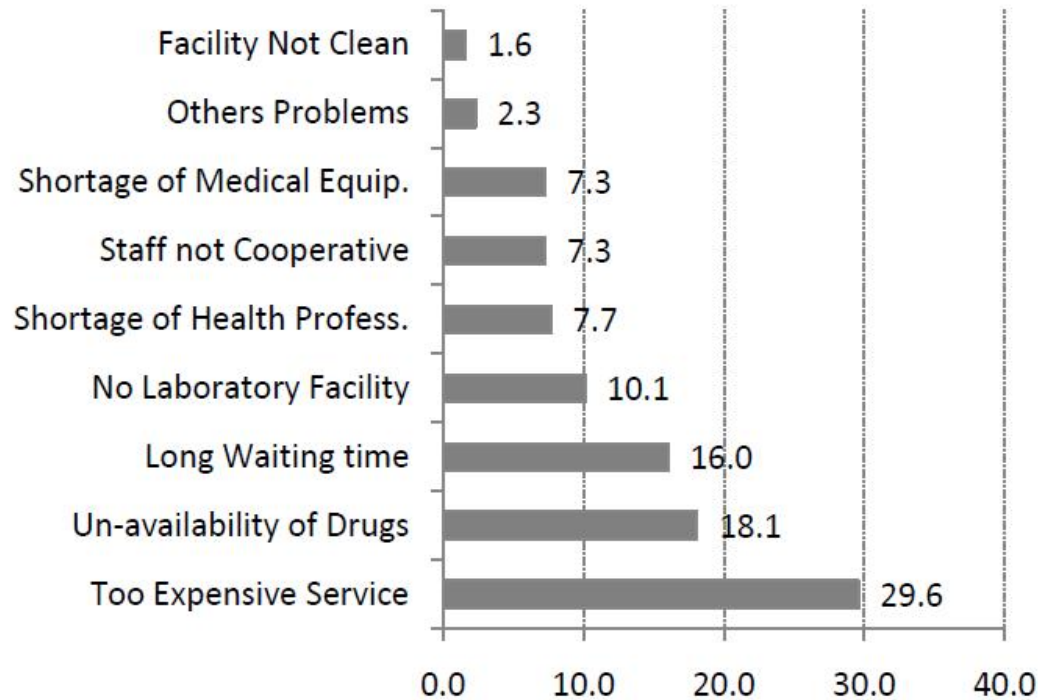
Considering the dropout rates at secondary level, Dire Dawa stands out with highest dropout rate of (6.8 percent) followed by SNNP (4.9 percent). In the remaining regions, this ratio ranged from 1.4 percent in Benishangul Gumuze to 4.6 percent in Oromiya Regions.

Table 4 Education drop-outs for grades 1-8 and grades 9-12 by sex, 1996, 1998, 2000, 2004, 2011

GENDER	YEAR 1996	YEAR 1998	YEAR 2000	YEAR 2005	YEAR 2011
PRIMARY SCHOOL					
Males	14.9	16.4	15.5	12.5	4.8
Females	10.9	15.6	13.5	10.8	3.6
Total	13.3	16.2	14.7	11.8	4.2
SECONDARY SCHOOL					
Males	15.1	13.7	17.5	14.2	4.8
Females	13.3	13.4	12.6	12.5	3.0
Total	14.3	13.6	15.4	13.5	4.0

3.4 Types of Problems observed in Health Institutions Visited

The survey result indicates that close to onethird the total population (29.6 percent) who had health problem and consulted for medical assistance reported that the service is too expensive to consult. Problem of unavailability of drugs, reported 18.1 percent. The consulted population followed by about 16.0 percent that reported that long waiting time 18.1 percent who reported lack of laboratory facilities in the health institutions visited. Among the total survey population, about 7.7 percent reported shortage of health personnel and medical equipment. About 7.3 percent of population has come across health institutions with staff not cooperative.



WHO recommends that children receive nothing but breast milk (exclusive breastfeeding) for the six months of life. At country level Over half (61 percent) of the children are exclusively breastfed. Exclusive breastfeeding across the regions ranges from 78.78 percent (Amhara region) to 49.81 percent (Somale region).

Children shouldn't be given any complementary foods until six months of age but 27 percent of infants under six months received complementary foods. Across the regions children who have started complementary food before six months vary the highest 40 percent in both somale and SNNP regions to the lowest 10 percent in Amhara region.

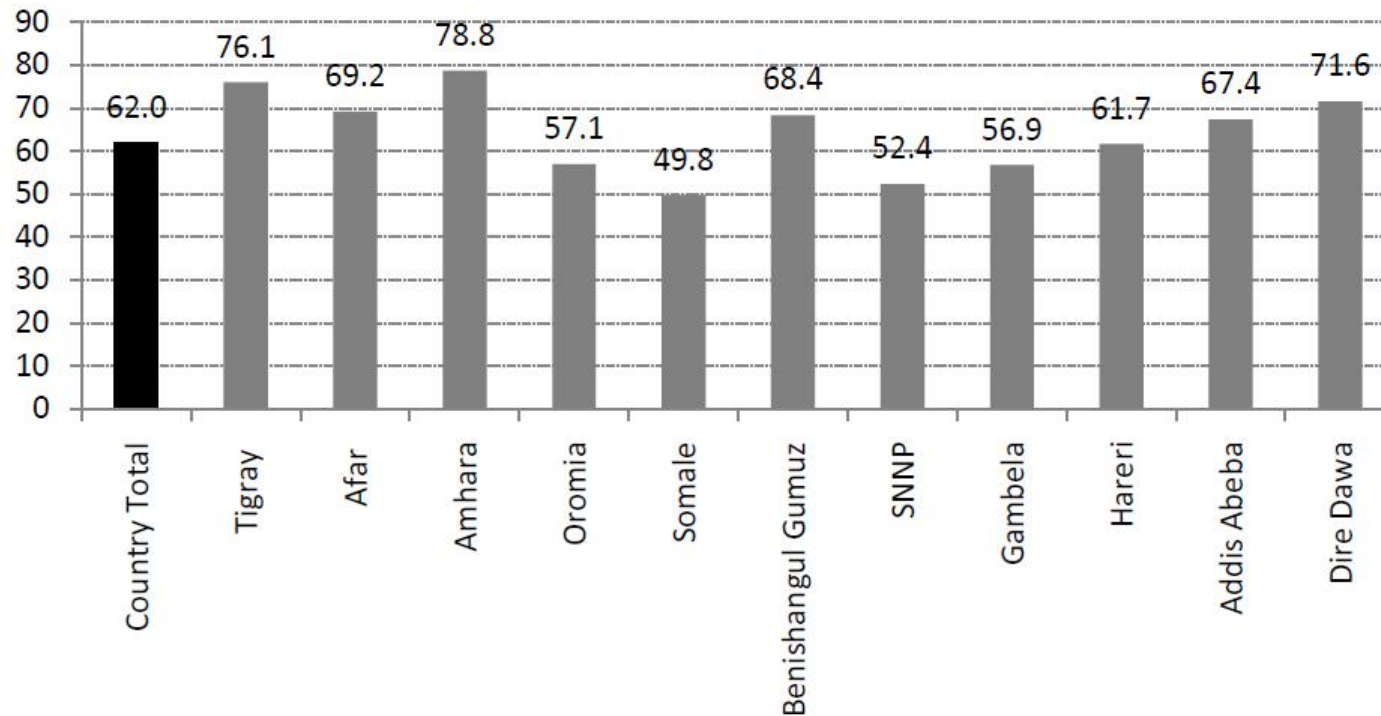


Figure 5 Exclusively breastfed children for 6 months before taking supplementary food

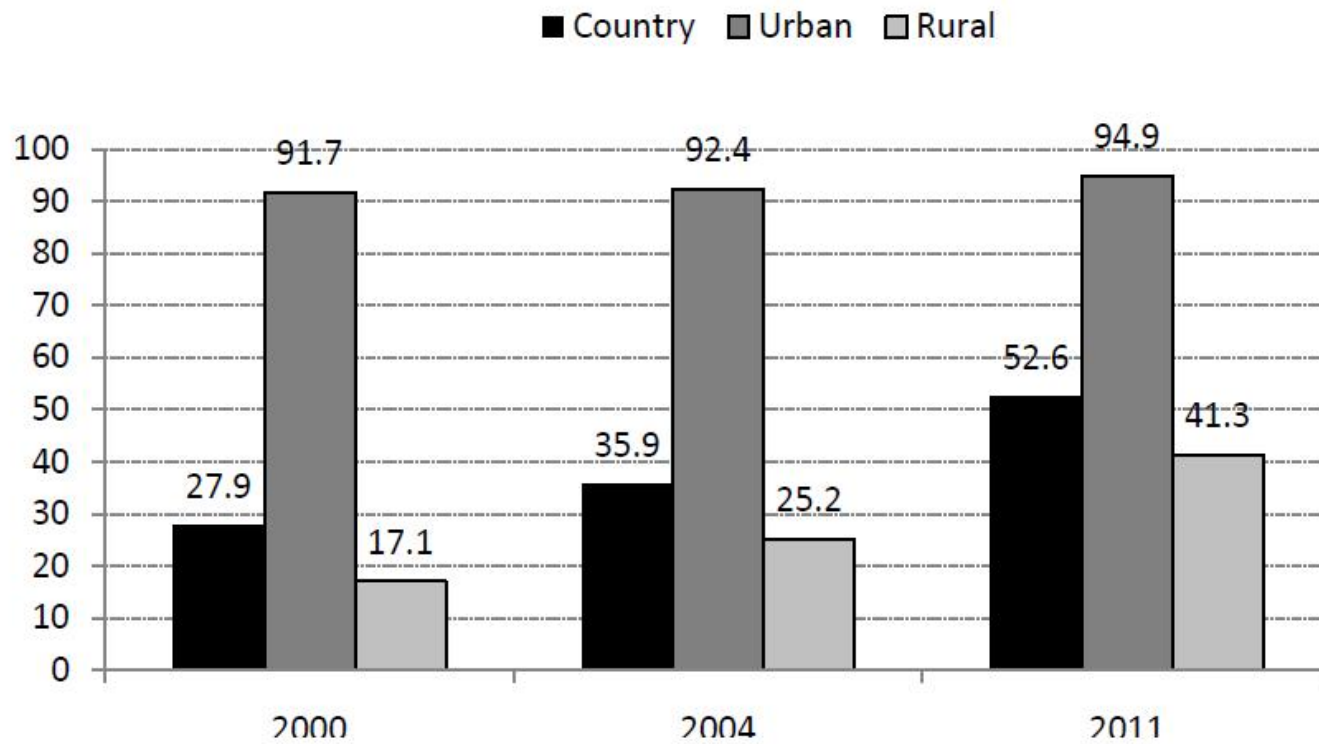


Figure 6 Housing Units With Access to Safe Drinking Water 2000, 2004 and 2011

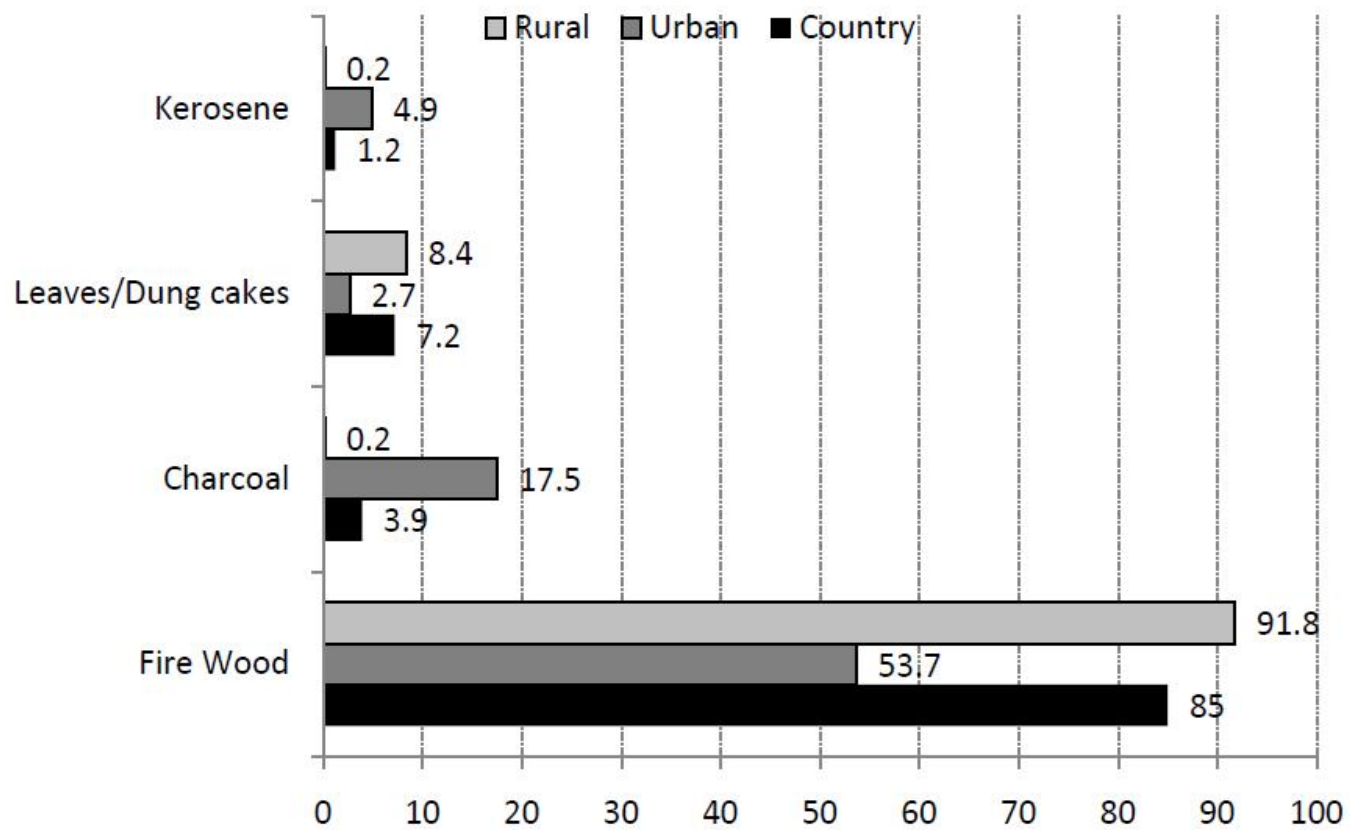


Figure 8 Percentage Distribution of Households by Type of Fuel Used for Cooking, 2011

Table 18 Distribution of Households by Method of Waste Disposal, Place of Residence and Survey Year

RESIDENCE/ TYPE OF DISPOSAL	1996	1998	2000	2004	2011
TOTAL					
Waste disposal					
Vehicle/Container	2.1	2.6	2.7	4.8	8.4
Dug-out	3.1	4.4	3.1	6.3	12.0
Throw-away	86.2	83.9	49.8	31.9	33.1
Burning the Waste		3.2	3.5	4.1	9.8
Used as Manure			39.8	52.0	35.7
Others	8.6	6.0	1.1	0.9	0.9
RURAL					
Waste disposal					
Vehicle/Container	0.1	0.2	0.1	0.2	0.4
Dug-out	1.1	1.9	1.5	4.3	11.4
Throw-away	89.9	89.9	51.0	32.1	34.8
Burning the Waste		1.9	1.5	2.3	7.8
Used as Manure			45.6	60.6	44.6
Others	9.0	6.2	0.3	0.5	1.0
URBAN					
Waste disposal					
Vehicle/Container	13.6	17.5	17.7	29.0	38.8
Dug-out	14.2	19.8	12.4	16.8	14.4
Throw-away	65.6	47.4	43.0	31.1	26.8
Burning the Waste		10.7	15.4	13.8	17.2
Used as Manure			5.5	6.4	2.9
Others	6.6	4.7	5.9	3.0	0.6