

Households And Housing Characteristics

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Concepts and Methodology

The Household

The household is defined as a co-resident group of people, who may or may not have kinship relations with each other, living together in one dwelling place where they normally eat and sleep all year round. This definition denotes exactly what household is, by whom it is formed and how such a unit can be recognized. From the joint activities of eating, sleeping and residing together within one dwelling unit, persons derive the status of household member and as such derive identity. Only from these joint activities do these persons derive the status of household member and gain their identity as household members.

households are identified with the number of individual and dwelling places so that the composition of households results not only from the operation of sociological or demographic factors, but depends also on the relative type of dwelling inheritance and of the manner in which it is placed at the disposition of the population.

The Family

A family is defined as those members of the household who are related, to a specific degree, through blood, or marriage, this differs from a household which is defined as, a group of individuals who share living quarters and their principal meals. Nuclear or biological family consists of husband, wife and their children.

In 2008 census the households concept used are private household, institutional household beside the special groups, internally displaced, homeless, and refugees.

In this paper we will discuss the basic concept definitions involved, the characteristics of the household, basic acquired characteristics of the household, further level and trend which depend on the census conducted in 2008.

This paper focuses on:-

1. Household population
2. Average size of household by mode of living
3. Size and growth of household by mode of living
4. households by size and growth
5. Different types of household

6. Percentage of households with size
7. Marital status of the head of households
8. Households assets

1. Household Population

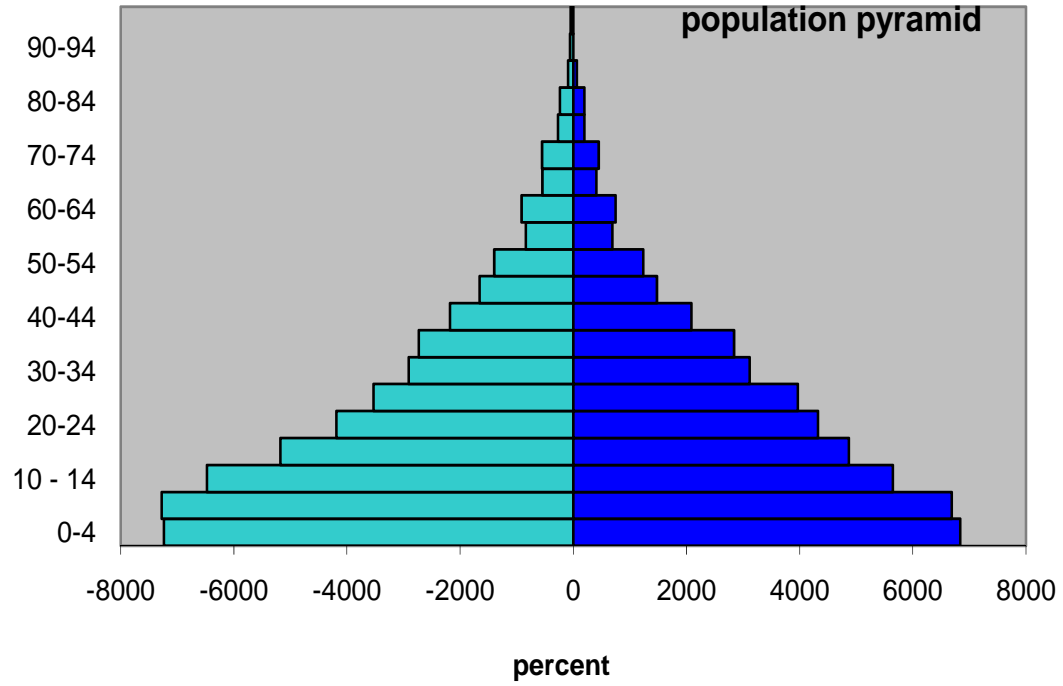
The 2008 census included a household information on the socioeconomic characteristics of usual residents and visitors who had spent the previous night in the selected household table(12.1) shows the percentage reported distribution of the household `population in five --year age groups, by sex and urban – rural residence. The data shows that there are slightly more men (19321971) than women (18882989) with men constituting (50.6) percent of the population and women constituting (49.42) percent .The sex composition of the population show significant variation by urban-rural residence, in fact the proportions were 29.8 percent and 62.91 for urban rural respectively.

The table further depicts , Sudan as a young population, with a large proportion of the population being in the younger age groups. The population under age 15 constitutes about 45 percent of the total population .The older age groups are very small in comparison, as can be seen in the population pyramid in fig.(12.1) in general the population pyramid reflect a broad- pattern, characteristic of SUDAN with over half of its population being young .This type of age structure has a built –in momentum for growth of the country population .When the young population eventually reaches reproductive age, the result will be a high population growth rate for some years to come.

Table (12.1)
Percentage Distribution of Population by Age , Sex and Mode of Living

Age	Total			Urban			Rural		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
0-4	15	15	15	14	14	14	16	16	15
5-9	15	15	15	13	13	13	16	17	15
10-14	13	14	12	12	12	12	14	14	13
15-19	11	11	11	11	11	11	11	11	11
20-24	9	8	9	10	10	10	8	8	9
25-29	8	7	9	9	8	9	7	6	8
30-34	6	6	7	7	7	7	6	5	7
35-39	6	6	6	7	6	7	6	5	6
40-44	4	4	5	5	5	5	4	4	4
45-49	3	3	3	4	4	4	3	3	3
50-54	3	3	3	3	3	3	3	3	3
55-59	2	2	1	2	2	2	2	2	1
60-64	2	2	2	2	2	2	2	2	2
65-69	1	1	1	1	1	1	1	1	1
70-74	1	1	1	1	1	1	1	1	1
75+	1	1	1	1	1	1	1	2	1
Number	38204960	19321971	18882989	11388346	5840822	5547525	24037866	11962717	12075149

Figure (12.1)
Population pyramid



2. Average Size of Household by Mode of Living

The most widely accepted theory explaining households change over time is the demographic transition theory. It states that fertility and mortality will both decline from high levels of birth rate as a result of economic and social development. The decline in mortality usually precedes the decline in fertility resulting in high growth rate during the transition period.

Sudan has passed through the incipient stage of the demographic transition (high birth rate and declining death rate which is usually equal high growth rate.

Table (12.2) shows the growth number of households and change in the average size of households from the available data of the four censuses, (1973-1983-1993-2008). A study of past trends throws light on the present and is a guide to the future of the individuals of households, increased households from 3 millions in 1973, to 3,2 million in 1983 and to 3,6 million in 1993 to 5,4 in 2008. This increase, shows growth rate of 3,3 percent for the period(1973 – 1983)and growth rate of 4.0 percent for the period (1983-1993) and growth rate of 2.88 for the period (1993-2008) it should be mention here that our fourth census conducted after 15 years from the last census .

The average size of the households also increases from 5.09 for 1973 to 5.75 for 1983 and to 5.9 for 1993 and to 5.68 for 2008. by mode of living the differential in the average household size is 5.43 for urban areas to 5.00 for rural areas .

Table (12.3) shows average size of household according to states and mode of living for the states lakes, Jongele, Upper Nile, have the biggest average of household size (6.75,6.63,6.56,and 6.56 respectively) this is for southern states but for northern states Gazira ,Khartoum, south kordofan have the largest size of household (6.00,5.99,and 5.80 respectively) while west Darfur ,red sea have reported average size household (4.80,and 5.36 respectively) .The fitted average size of households are plotted and presented in fig. (12.2) the figure indicates the differential of the size of households between states .

Table (12.2)
Size and Growth of Households by Mode of Living (Sudan)

Mode of Living and Year of Census	Year	# of Household	Average Size of Household	Growth Rate
Total	1973	2282000	5.09	3.3 (1973-1983) 4.0 (1983-1993) 2.88 (1993-2008)
	1983	3158000	5.75	
	1993	3567000	5.90	
	2008	5366559	5.68	
Urban	1973	471000	5.43	3.6 (1973-1983) 4.1 (1983-1993) 2.82 (1993-2008)
	1983	707000	5.87	
	1993	1116000	6.10	
	2008	1694398	5.92	
Rural	1973	1810000	5.00	3.1 (1973-1983) 3.9 (1983-1993) 2.76 (1993-2008)
	1983	2451000	5.72	
	1993	2451000	5.80	
	2008	3157452	5.60	

Source: population census, 1993 final tabulation

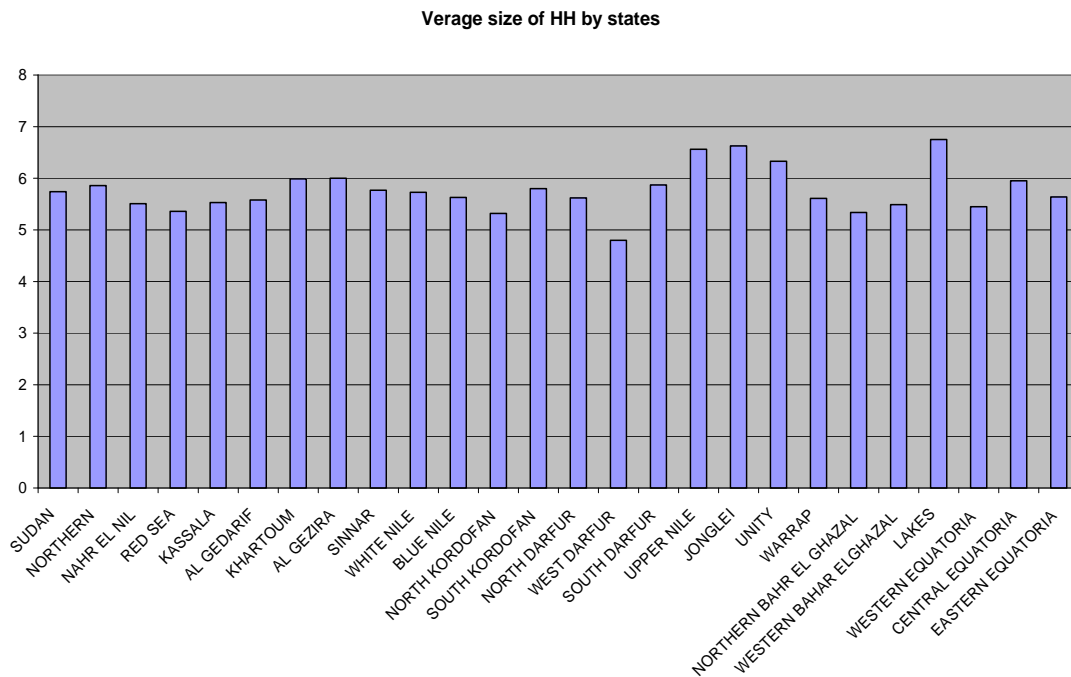
Population census, 1983

Population census, 1973

Table (12.3)**Average Size of Household According to States and mode of Living**

State	Total	Urban	Rural
Sudan	5.74	5.99	5.67
Northern	5.86	5.85	5.90
Nahr El Nil	5.51	5.87	5.38
Red Sea	5.36	4.98	5.71
Kassala	5.53	5.47	5.53
Al Gadarif	5.58	5.84	5.49
Khartoum	5.99	6.09	5.61
AL Gezira	6.00	6.20	5.96
Sinnar	5.77	5.84	5.77
White Nile	5.73	6.12	5.54
Blue Nile	5.63	5.68	5.53
North Kordofan	5.32	6.06	5.18
South Kordofan	5.80	6.11	5.68
North Darfur	5.62	5.93	5.64
West Darfur	4.80	5.12	4.70
South Darfur	5.87	6.01	5.98
Upper Nile	6.56	7.42	6.19
Jongele	6.63	6.64	6.62
Unity	6.33	6.72	6.24
Warrap	5.61	6.57	5.53
Northern Bahr El Ghazal	5.34	6.50	5.27
Western Bahar Elghazal	5.49	5.48	5.50
Lakes	6.75	7.88	6.71
Western Equatoria	5.45	6.30	5.34
Central Equatoria	5.95	6.45	5.75
Eastern Equatoria	5.64	5.59	5.65

Figure (12.2)
Average size of HH by states



3. Household Composition

Table (12.4) shows the percentage distribution of households by sex and size as shown in the table the head ship and composition of households in Sudan, are (71.4) percents household are headed by men while (28.6) percents households are headed by women .the proportion of men-headed households is slightly higher in urban areas than rural areas (75 percent and 68 percent respectively).

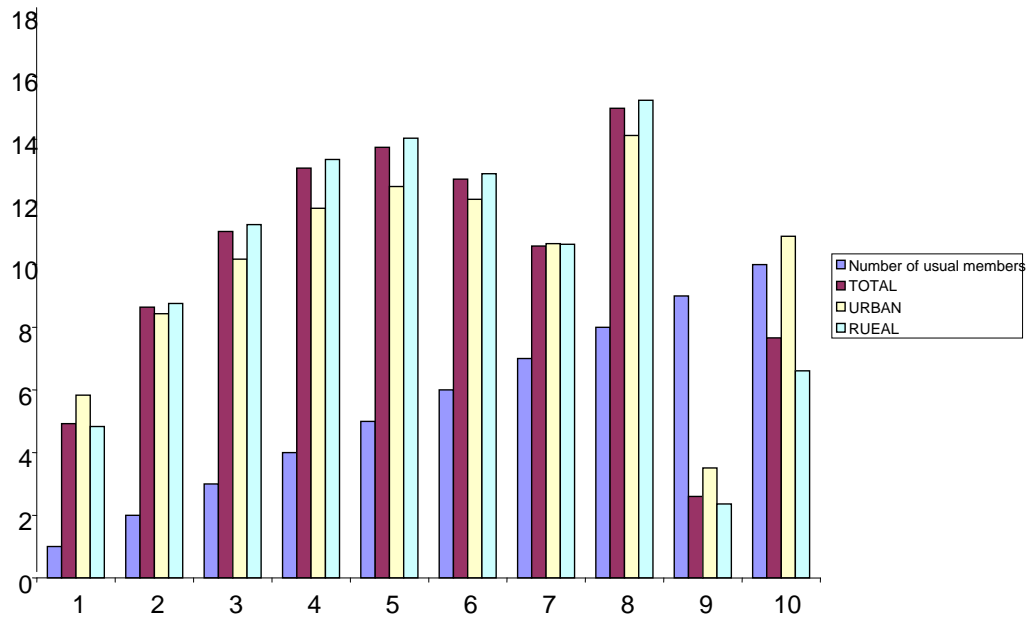
Households size of one and two members are more likely to be found in urban areas and rural areas it was (8.4) persons in urban and (8.7) persons in rural areas .Excluding the household size of eight members rural areas have consistently higher percentage of households than urban areas .In urban areas 14.12 percents of households have eight or more members compared with 15.24 percents in rural areas indicating the need for housing in urban areas .Table (12.4) also shows that the mean household size is (5.68) Beside that there is no big difference between urban and rural areas in the mean household size which is 5.92 for urban and 5.60 for rural areas.

Table (12.4)**Percent Distribution by Sex of Household and Size**

Characteristics	Total	Urban	Rural
Household headship	100	100	100
Male	71.38	75.17	68.29
Female	28.61	24.82	31.70
Number of usual members	Total	Urban	Rural
1	4.92	5.83	4.83
2	8.64	8.43	8.76
3	11.06	10.17	11.27
4	13.08	11.80	13.35
5	13.74	12.49	14.03
6	12.73	12.08	12.90
7	10.59	10.67	10.65
8	14.99	14.12	15.24
9	2.60	3.51	2.36
10	7.66	10.90	6.61
Total	100	100	100
Mean Size of Households	5.74	5.99	5.67

Figure (12.3)

Percentage Distribution of Numbers of Households by Mode of Living



4. Households by Size and Growth

Table (12.5) portray the percentage of households by size and distribution according to size (small, medium, and large) and mode of living .

Small households (1-4 person) for 1983 census was (37.3) percents of the total households ,and (37.7) for 2008 census ,medium households (5-8 person) was (43.5) percents, for 1983 census and 52.05 for 2008 census , this is the dominate size in Sudan according to average household size . The large household (more than 8 persons) it was only (10.26)for 2008 census.

It is quite clear that more than half of the households were in the category of (5-8) persons ,if urban rural differential is considered ,it is observed that the urban areas had relatively more small households (36.2 percents) for urban and (38.2) for rural areas respectively .For medium type of household the percentage was 49.4 and 52.8 for urban and rural respectively .

Table (12.5)**percentage of Households by Size and Mode of Living (1983-1993-2008 census)**

Type of Households size	Year of Census	Total		Urban		Rural	
		Size (000)	%	Size (000)	%	Size (000)	%
Small 1-4	1983	1265	37.3	388	35.8	876	38.1
	1993	1314	38.5	276	39.1	933	38.0
	2008	2507	37.7	721	36.2	1583	38.2
Medium 5-8	1983	1472	43.5	464	42.8	1007	43.8
	1993	1536	42.0	285	40.3	1063	43.3
	2008	3461	52.05	983	49.36	2189	52.8
Large 9 +	1983	645	19.1	230	21.3	415	18.0
	1993	658	18.4	145	20.5	455	18.5
	2008	682	10.26	287	14.4	287	6.9

5. Different Type of Households

The Sudan 2008 census collect data about all persons whether in households, institutions, nomadic settlement, internally displaced homeless and refugee.

There are two main general settlements within which individuals are identified as a subset of collective living quarters, and the majority of the population live it is

- Private Households
- Institutions households

The other settlement which is known as special populations is

1- Nomadic:

This is means tribes who tend to live in mobile houses (tents or temporary huts).

2 - Internally displaced

a process of collective dislocation and /or settlement of people away from their normal habitat by superior force ...major agents of displacement are state actions in form of, wars , political upheavals or natural disasters .It can also be the result of a combination of causes involving a multiple set of factors that culminate in internally displaced.

3 - Homeless:

Individuals with no shelter who tend to move around and sleep in places that can not be considered as dwelling units.

4 - Refugee:

It is compelled to leave their habitual residence in order to seek refuge in another place outside his country of nationality also refer to U N regulations refugees , they have I D card from the UN refugees organization .

Table (12.6) portray type of households classified by states, the table show that private household is the main type of households and distributed in the whole country about 91.35 percent from all types of households are private households the other type 7.79 percent are nomads 0.81 internally displaced and 0.06 refugees. The percentages of private households are almost above 95 percent in most states expect greater Darfur and greater kordofan the percentage lay between 70-85 percent due to the nomads households in this area .

Private households by states as table (12.6) shows that their highest concentration is found to be in Khartoum state 99.89 percent, Al Gazira 99.60 Algardarif 98.46 southern states such as Western Central, Eastern Equatorial about 99 percent are private households.

Table (12.6)
Percentage of Different Types of Households According to State

States	Private H H	Nomads	Internally Displaced	Refugees
Total	91.35	7.79	0.81	0.06
Northern	97.40	2.59	0.01	0.00
Nahr El Nil	97.16	2.83	0.01	0.00
Red Sea	81.94	18.06	0.00	0.00
Kassala	88.00	10.85	0.46	0.68
Al Gadarif	98.46	1.48	0.01	0.05
Khartoum	99.89	0.00	0.11	0.00
Al Gezira	99.60	0.13	0.27	0.00
White Nile	97.73	2.26	0.01	0.00
Sinnar	97.11	2.55	0.10	0.24
Blue Nile	96.96	2.92	0.12	0.00
North Kordofan	86.38	13.61	0.02	0.00
South Kordofan	88.06	11.81	0.13	0.00
North Darfur	78.19	20.25	1.56	0.00
West Darfur	75.29	18.14	6.50	0.08
South Darfur	71.59	25.75	2.66	0.00
Upper Nile	97.41	1.34	1.23	0.02
Jongele	99.58	0.07	0.27	0.09
Unity	98.89	0.64	0.47	0.00
Warrap	98.75	0.01	1.23	0.01
Northern Bahr El Ghazal	99.37	0.28	0.34	0.01
Western Babar El Ghazal	99.49	0.41	0.09	0.00
lakes	99.85	0.03	0.13	0.00
Western Equatoria	99.76	0.12	0.12	0.00
Central Equatoria	98.75	0.03	1.01	0.21
Eastern Equatoria	99.90	0.01	0.06	0.02

6. Sex Composition of Households Heads

It has become increasingly apparent that the composition of an important group of households has been subjected to changes, men were assumed to have particular role and expected to function as heads of their household with other household members under their control. On the other hand if there is a female heads, this change is often ascribed to the labour migration of husband to urban centers in search of work.. leaving women behind to manage the household on their own, However, in addition to these female household heads, there are more reasons for women to head their own households .These households exist where the female head is widow or divorcee, a woman who has

been abandoned by her husband or a single woman who has not (yet) married but has acquired her own land (in rural areas).

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The data on table (12.7) also portray head ship rate (percents) for households by sex and mode of living –urban and rural

According to states head ship rate Kassala ,red sea , Nahr el nil have the highest male head rates of 38.63, 30.82,and 30.82 per thousands respectively .Southern states have the highest rate of female head rate 19.74 percents for northern Bahr el Ghazal and (18.10),(18.00) percents for eastern equatorial respectively .For northern states the female head rate is (16.32 , 11.31, 10.09)for west Darfur ,north kordofan , respectively .

Table (12.7)
Headship Rate, Percent for Households by Sex According to States

State	Total		Urban		Rural	
	Males	Females	Males	Females	Males	Females
Sudan	26.00	10.00	25.00	9.00	25.55	11.45
Northern	28.60	7.16	29.35	4.90	28.23	7.66
Nahr El Nil	30.72	5.78	28.67	5.50	31.52	5.89
Red Sea	30.82	3.46	33.77	4.73	28.61	2.93
Kassala	38.63	9.26	28.80	9.16	28.89	10.26
AL Gadarif	27.49	8.94	26.97	7.54	27.59	9.59
Khartoum	25.80	7.15	25.24	7.15	28.27	7.13
AL Gezira	26.27	8.52	26.43	6.79	26.21	8.92
White Nile	24.34	10.09	21.48	10.87	25.79	10.69
Sinnar	26.75	9.11	26.21	8.50	26.67	9.40
Blue Nile	27.74	7.84	27.28	7.77	28.32	7.98
North Kordofan	27.90	11.31	26.70	7.45	27.28	13.40
South Kordofan	25.69	9.75	22.93	8.83	26.50	10.62
North Darfur	25.48	10.69	23.82	10.29	25.59	11.89
West Darfur	27.46	16.32	27.30	14.59	27.43	17.60
South Darfur	26.73	11.35	26.52	11.16	26.60	13.47
Upper Nile	21.62	9.4	18.37	9.52	23.16	9.35
Jongele	20.30	10.53	18.60	12.48	20.63	10.11
Unity	17.60	14.67	15.37	14.77	18.22	14.64
Warrap	16.62	18.00	12.46	17.41	17.04	18.05
Northern Bahr El Ghazal	16.19	19.74	14.53	15.79	16.33	19.97
Western Bahr El Ghazal	22.46	13.54	22.65	13.18	22.33	13.78
Lakes	18.13	12.26	19.25	6.38	18.08	22.44
Western Equatoria	28.45	11.19	23.80	11.50	29.12	11.14
Central Equatoria	23.28	11.49	19.97	11.89	24.79	11.32

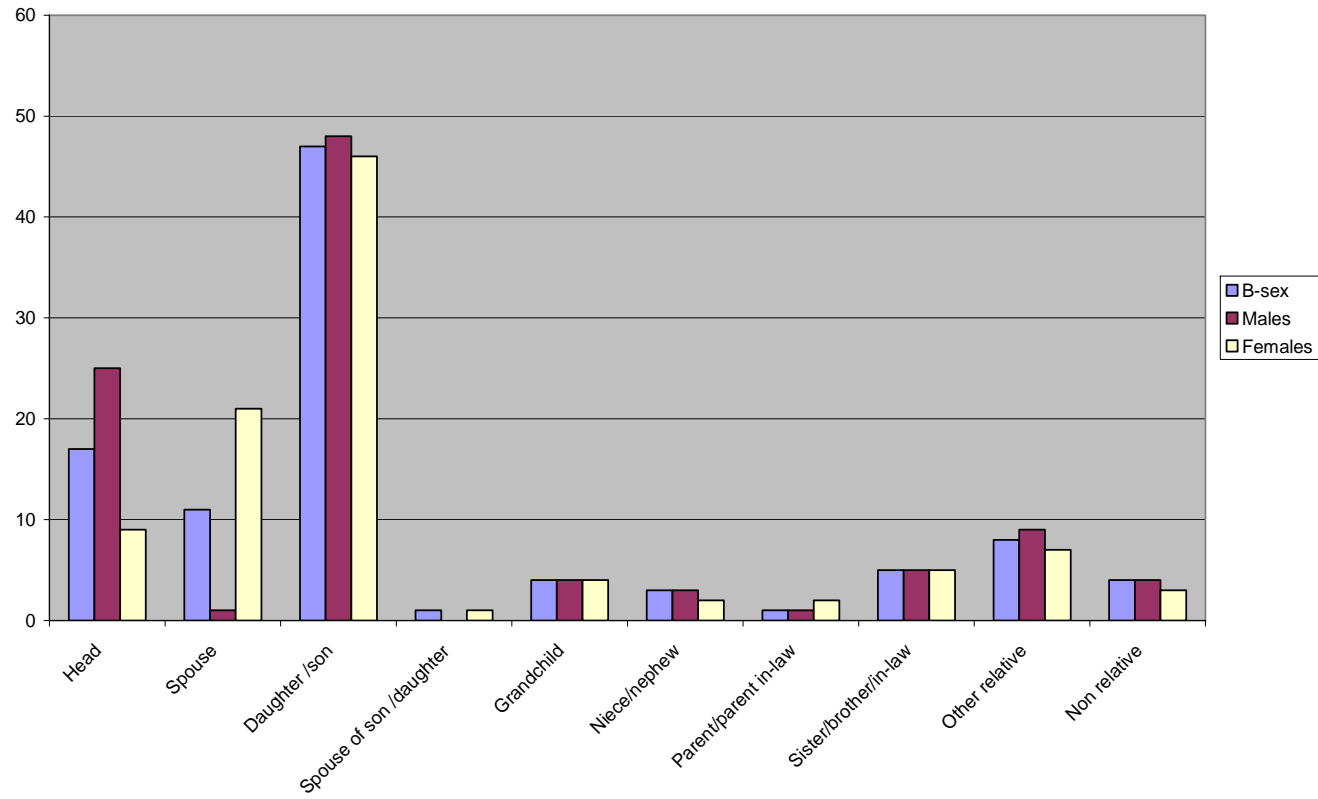
Table (12.8) shows the percentages of population in households by relation to head by mode of living the table present (17%) of the total urban are heads of households for both sexes, 25 percents for male and 9 percents for female this percentage is lower in rural areas 18 percents for both sexes 26 percents for male and 11 percents for females. Daughter, son's heads of households constitute the highest percentage 47 percents of both sexes of urban population. For rural areas daughter and sons denote also the heights percentage 53, percents for both sexes 57 percents for males and 50 percents for females. The other relatives have low proportion between 8 to 4 percents also. There are male, female differentials between urban and rural areas and among rural areas concerning relationship to head as shown in fig. (12.4)

Table (12.8)**Population in households by relation to head and sex of head and Mode of Living**

Sex of Head	Urban			Rural		
	Both sex	Males	Females	Both sex	Males	Females
Relationship to Head						
Total	100 %	100 %	100 %	100 %	100 %	100 %
Head	17	25	9	18	26	11
Spouse	11	1	21	12	2	22
Daughter /son	47	48	46	53	57	50
Spouse of son /daughter	1	0	1	1	0	1
Grandchild	4	4	4	3	3	3
Niece/nephew	3	3	2	2	2	2
Parent/parent in-law	1	1	2	1	0	2
Sister/brother/in-law	5	5	5	3	2	3
Other relative	8	9	7	5	5	5
Non relative	4	4	3	2	3	2

Fig (12.4)

Population in Households by Relation to Head, Sex of Head and Mode of Living



7. Marital Status of the Head of Households

The population can be classified into different status of marital unions or dissolutions .each of the marital status has a deep religious and legal as well as general social significance, the marital composition of the households may broadly be categorized into two parts:

Never- married

Ever-married (married- divorce – widowed)

The above classification of marital status is important in describing and understanding the patterns and characteristics of households.

Table (12.9) shows headship rate by sex marital status and mode of living , the table depicts males head married is 91.38 percents which is higher than female (72.80) percents, widowed head among female is higher than males 18.10 -1.33 percent respectively single as usually has the lowest rate 6.03 percents for males and 3.48 for females .the divorced head (1.03 for males -5.34 percents for females) there is no big urban – rural differentials concerning male and females head ship in marital status.

Table (12.10) throw some light on marital status by age and sex of head of the households never married is higher as expected in ages less than (12.15) years 99.02 percents among males ,69.46 among females due to younger ages at first marriage to females ,age 24-44 has a higher percentages among males and females head it is 91.65 for males ,and 82.95 for females .

Table (12.9)
Headship Rate by Sex, Marital Status and Mode of Living

Marital Status of Head of HH	Total		Urban		Rural	
	Males	Females	Males	Females	Males	Females
Never Married	6.03	3.48	9.21	4.99	4.84	3.00
Married	91.38	72.80	88.08	68.98	92.55	74.28
Widowed	1.33	18.10	1.22	19.28	1.39	17.49
Divorced	1.03	5.34	1.08	6.40	1.07	4.98
Not Reported	0.23	0.27	0.42	0.34	0.15	0.25

Figure (12.5)

Marital status of head of household

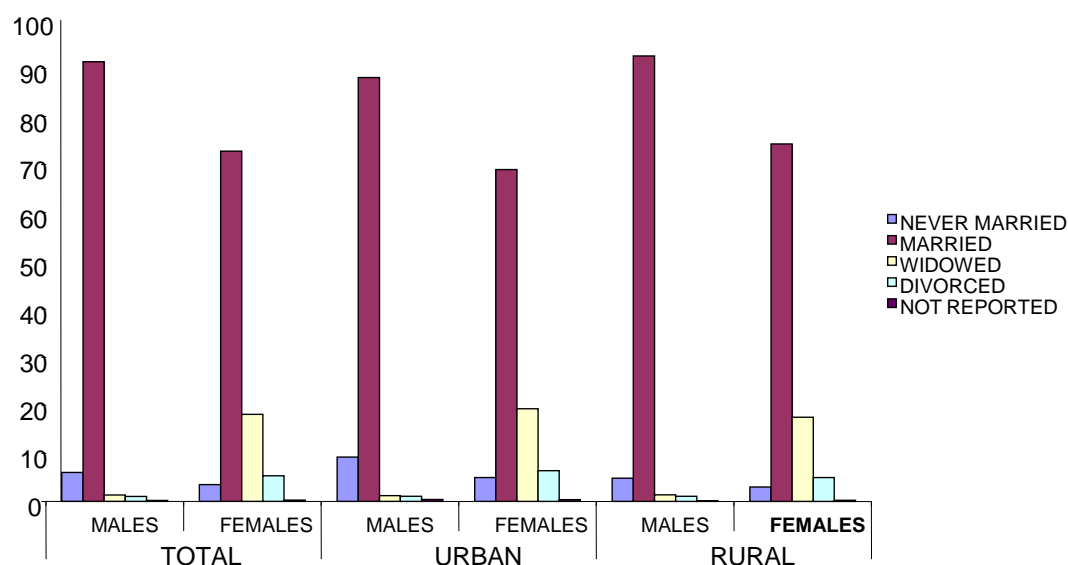


Table (12.10)

Percentage of Households by age And sex of Head of Households

Sex and age group of head of H H	Total	Never married	Married	Divorced	Widowed
Both sexes	100 %	100 %	100 %	100 %	100 %
Male	71.38	81.21	75.79	32.52	15.50
Female	28.61	18.78	24.20	67.47	84.49
Male	100 %				
Below 15	0.01	99.02	0.98	0.00	0.00
15 - 24	5.39	35.86	62.75	0.32	0.52
24 - 44	50.29	6.66	91.65	0.64	0.85
45 - 64	32.41	1.81	95.38	1.49	1.15
65 +	11.38	1.29	92.35	4.30	1.71
Female	100 %				
Below 15	0.01	69.46	30.54	0.00	0.00
15 - 24	10.91	12.13	82.72	2.31	5.57
24 - 44	51.85	2.91	82.95	9.10	4.98
45 - 64	27.21	1.69	61.80	29.08	7.15
65 +	9.99	1.77	39.32	52.17	5.36

8. Household Assets

The Sudan population census collected information on households, ownership of selected assets that are in themselves believed to have a strong association with poverty levels. Some of these can be used to measure household welfare when combined with other indicators to generate wealth index. Information was collected on household ownership of television radio as a measure of access to mass media ;telephones (both mobile and fixed phone) as an indicator of access to an efficient means of communication ; refrigerators as indication of capacity for hygienic storage of foods; and means of transportation (motor vehicle motor cycle, bicycle, canoe-boat, and animal transport , and tractor or without)as assign of the level of access to public services and markets as well as developments in other areas .

Table (12. 11) shows percentage of households by means of effects it is appear from the table that 22.02 percents of the households in Sudan won radio ; urban households are more likely than rural households to own television (52.50 percent compared with 10.98 respectively).overall , 44.32 percent of all households own a radio and as expected urban households are more likely than rural households to own a radio (57.12 and 39.25 percents respectively). Thirty- two percent of households own mobile and only 4.31 percents own fixed phone it indicate that mobile substitute the fix phone ; almost all these mobiles are likely to be owned by urban households 64.7 percent own mobile phone and 21.10 in rural areas as presented in fig. (12.6) .Regarding transport, table (12.12) shows percentage distribution of households by means of transportation it is appear from the table that, 5.11 percents of households own motor vehicles but by urban ,rural differential (10.8 to 3.02 percents) own motor vehicles respectively .In contrast,28.78 percents of rural households own animal transport compared to (5.96) in urban ,none households of transportation means is highly 70.02 for urban and 57.08 for rural respectively .

Table (12. 11)

Percentage of Households by Means of Effects

Main Assets	Households		
	Total	Urban	Rural
Total HH	6651415	1900232	4236474
Television	22.02	52.50	10.98
Radio	44.32	57.12	39.25
Mobile Telephone	32.31	64.7	21.10
Fixed Phone	4.31	10.64	1.99
Computer	2.67	8.04	0.59
Refrigerator	11.95	30.72	4.98
Satellite dish	9.35	24.60	3.64
Fan	14.75	36.13	6.95
Air Cooler	3.20	9.89	0.58
None	44.31	21.56	52.82

Fig. (12.6)

Percentage distribution of households by means of effects

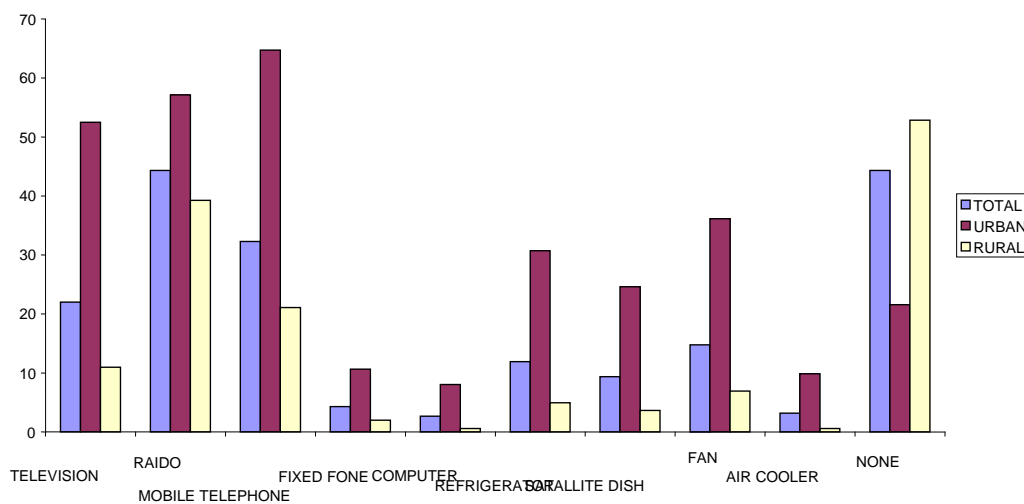


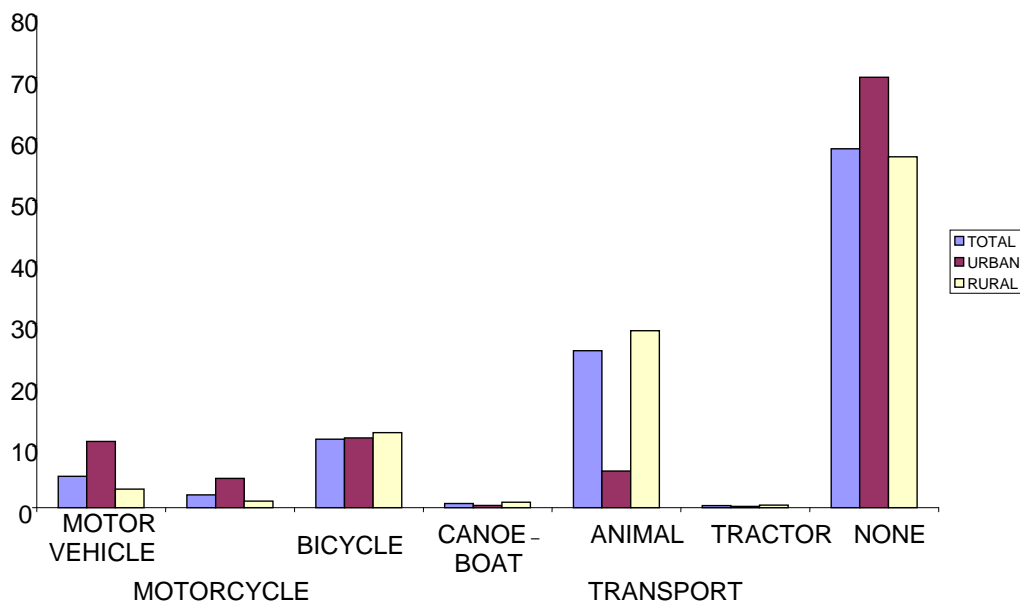
Table (12.12)

Percentages of Households by Means of Transportation

Main Transport	Households		
	Total	Urban	Rural
Total HH	6651415	1900232	4236474
Motor vehicle	5.11	10.8	3.02
Motorcycle	2.05	4.76	1.06
Bicycle	11.12	11.36	12.18
Canoe –Boat	0.67	0.35	0.88
Animal Transport	25.55	5.96	28.78
Tractor	0.33	0.19	0.42
None	58.39	70.02	57.08

Figure (12.7)

Percentage Distribution of Households by Means of Transportation



Housing Characteristics

The analysis of the housing characteristics relied on 2008 census data to study ,changes in the type of housing units over the past decade and the proportional share of housing types to determine whether or not there are any gaps in the type of housing units in the country , and to other characteristics of dwelling such as lighting facilities ,the main type of the houses ,type of fuel for cooking , and source of drinking water .

1. Households and housing type (Tenure states)

Housing tenure is evaluated to determine the shape of owner-occupied units and rental – occupied unities .rental units are needed for persons that are mobile, those who cannot afford a single family home, and for persons that do not desire home maintenance or other reasons .The demand for rental can also increase when mortgage interest increase because fewer people can purchase a home.

Table (12.13) reflects the tenure status of the population by mode of living. The majority of the household own their dwelling (87%) while only 7.42% are renting .Avery small minority are living in houses provided by their employer (job) representing about (7%) ,the majority are urban(67% households and 71% population) own their dwelling. The households and population who are renting in rural areas dose not exceed 2%. there is a big difference ownership between urban and rural ,67.39 percent of the households in urban areas own their dwellings and 94.4 percent in rural areas , it is quite clear that in rural areas the majority own there dwelling , renter percentage in urban areas represents 19.14 percents and in rural areas only 1.89 percents .

Table (12.14) portrays the percentage distribution of households by type of dwelling and tenure status the result show that 86.98 percent are own their dwelling, 7.42 percent rented, 1.4 percent housing provided by employed ,and 4 percent are free .

The predominant type of housing in Sudan are tent, straw mats, Gottiva mats , Gotty mud constitute more than 90 percents .for the other type such as houses one floor –mud also constitute more than 80 percents .

Table (12.13)
Percent Distribution of Household and Population by Tenure Status and Mode of Living

Type of Tenure	Total		Urban		Rural	
	HH	Pop	HH	Pop	HH	Pop
Owned	86.98	87.82	67.39	70.59	94.41	94.95
Rented	7.42	6.84	21.66	19.14	1.89	1.76
Housing provided by job	1.39	1.41	4.85	3.15	0.75	0.75
Free	3.93	3.66	13.76	6.73	2.77	2.54
Not reported	0.00	0.27	0.00	0.39	0.00	0.16
blank	0.29	00	1.00	00	0.16	00

Fig (12.8)
Households and Population by Tenure Status (Total)



Table (12.14)
Percent Distribution of Households and Population by Tenure Status and Type of Living

Type of Tenure	Total		Tent		Dwelling of Straw mats		Tukul /gutty-mud		Tukul /gutty-Sticks		Flat or Apartment	
	H H	POP	H H	POP	HH	POP	H H	POP	H H	POP	H H	POP
Owned	86.98	87.82	94.90	95.14	92.59	93.06	92.28	92.81	92.24	92.75	45.25	47.79
Rented	7.42	6.84	1.41	1.28	2.19	2.03	3.70	3.34	3.51	3.26	39.38	35.91
Housing provided by job	1.39	1.41	0.45	0.39	0.79	0.83	0.58	0.55	0.37	0.36	10.29	11.56
Free	3.93	3.66	3.20	3.15	3.90	3.62	3.44	3.30	3.88	3.63	5.09	4.74
Not report	0.29	0.27	0.04	0.04	0.53	0.47	0.00	0.00	0.00	0.00	0.00	0.00
blank		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Continued Table (12.14)

Type of Tenure	Villa		House of one floor-mud		House one floor-Brick/concrete		House constructed of wood		Multi store house		Incomplete		Not Reported	
	H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	pop
Owned														
Rented	80.45	82.89	83.20	84.55	73.81	76.38	84.86	88.18	73.39	78.60	54.85	54.36	8.16	9.38
Housing provided by job	6.39	5.61	11.78	10.75	15.96	14.10	9.23	6.54	18.56	14.94	11.84	11.05	1.45	1.02
Free	7.35	6.39	0.67	0.67	6.12	5.95	2.20	2.03	3.55	2.63	14.25	14.61	0.13	0.09
Not report	5.81	5.11	4.33	4.01	4.07	3.54	3.14	2.70	4.30	3.61	18396	19.90	0.17	0.06
blank	0.00	0.00	0.02	0.44	0.04	0.03	0.57	0.56	0.19	0.22	0.09	0.09	90.10	89.45

2. Source of drinking water

Increased access to safe drinking water results in improved health outcomes in the form of reduced cases of water-borne diseases. Information was collected about certain characteristics of household drinking water including source of drinking water and type of sanitation facility.

Potable water sources (more than one source may be used) appear in table (12.15) shows the percent distribution of household and population by drinking water source and mode of living. Around 5% of the households have access to water filtering, hand pumps, shallow wells and water vender. Approximately the same percentage is valid for the population.

However, there is substantial differential between rural – urban households in their areas to water filtering status with common net work-the percentage are 34.41% and 4% for urban –rural respectively.

Table (12.16) shows the type of drinking water and type of dwelling, tent, straw mats, and tukul have lower percentage to public water filtering it is less than two percents, but this type of source dominant in villa 60.04 percents, and multi store house 80.76 percents using this type.

Water from an open source can be contaminated specially during storage; the majority of households living in tents (58.20) and dwelling of strew mats (56.74) percents use shallow wells-dug wells- that mean still lagging behind unimproved water for population.

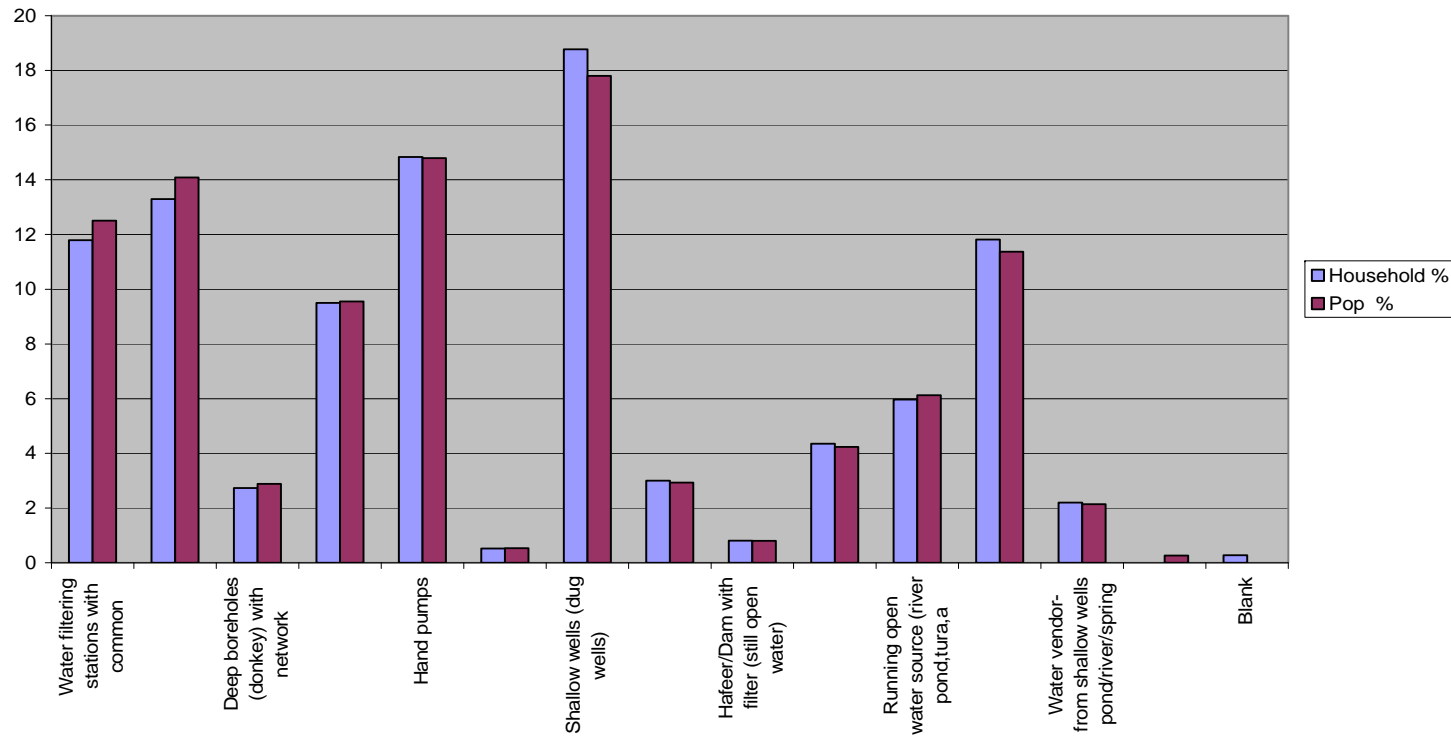
Table (12.15)
Percentage Distribution of Households and Population by Source of Drinking Water and Mode of Living

Source of Drinking Water	Total		Urban		Rural	
	Household	Pop	Household	Pop	Household	Pop
Water filtering stations with common network/stand pipe (koshk)	11.79	12.51	33.41	34.26	3.50	3.62
Mechanical boreholes with common network stand pipe (koshk)	13.30	14.09	20.49	21.10	11.2	12.02
Deep boreholes (donkey) with network	2.73	2.88	2.9	3.13	2.93	3.04
Deep boreholes (donkey) without network	9.50	9.55	5.37	5.45	11.6	11.70
Hand pumps	14.83	14.79	7.24	7.24	19.39	19.49
Sand filters with common network stand pipe (koshk)	0.52	0.53	0.49	0.52	0.58	0.58
Shallow wells (dug wells)	18.77	17.80	2.7	2.60	20.49	19.75
Hafeer/Dam without filter (still open water)	3.0	2.93	0.04	0.05	4.30	4.15
Hafeer/Dam with filter (still open water)	0.81	0.80	0.01	0.02	1.28	1.22
Turda/fula/river(still open water)	4.35	4.23	1.28	1.22	5.55	5.44
Running open water source (river pond, tura)	5.96	6.12	2.4	2.72	8.01	8.21
Water vender (tanker-cart-bearer)from deep boreholes	11.82	11.37	21.06	19.50	8.46	8.23
Water vendor- from shallow wells pond/river/spring	2.20	2.14	1.93	1.81	2.41	2.38

Figure (12.8)

Households and Population by Source of Drinking Water

HH and pop by source of drinkin water(sudan total)



Continue Table (12.16)

Main source of Drinking water	Villa		House of one floor-mud		House one floor-Brick/concrete		House constructed of wood		Multi store house		Incomplete		Not stated	
	H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	Pop
ALL SOURCE														
Water filtering stations with common network/stand pipe (koshk)	60.04	56.64	19.16	20.04	34.83	34.72	4.90	4.14	80.76	78.02	27.55	28.99	1.10	1.17
Mechanical boreholes with common network stand pipe (koshk)	9.09	9.36	24.48	25.45	38.80	39.16	4.39	4.29	9.86	10.07	9.44	9.85	1.15	1.16
Deep boreholes (donkey) with network	10.22	10.82	4.44	4.47	4.46	4.71	0.66	0.62	0.30	0.32	2.17	2.52	0.07	0.11
Deep boreholes (donkey) without network	14.62	14.89	7.36	7.05	3.35	3.31	4.62	5.12	5.40	8.31	3.66	3.98	0.12	0.07
Hand pumps	0.00	0.00	7.42	7.51	3.29	3.38	19.25	19.71	0.12	0.12	10.61	9.64	0.74	0.86
Sand filters with common network stand pipe (koshk)	0.36	0.10	1.15	1.12	0.70	0.74	0.10	0.09	0.04	0.04	0.14	0.09	0.00	0.00
Shallow wells (dug wells)	0.00	0.00	5.23	9.94	1.12	1.15	10.49	10.18	0.01	0.01	7.45	7.02	3.41	3.98
Hafeer/Dam without filter (still open water)	0.00	0.00	2.17	1.99	0.46	0.42	0.30	0.33	0.00	0.00	1.97	2.17	0.20	0.31
Hafeer/Dam with filter (still open water)	0.00	0.00	1.44	1.44	0.60	0.53	0.30	0.38	0.00	0.00	0.51	0.39	0.07	0.10
Turda/fula/river(still open water)	0.00	0.00	5.83	5.59	0.80	0.80	1.16	1.32	0.00	0.00	2.95	3.14	0.06	0.04
Running open water source (river pond,tura,a	0.00	0.00	3.37	3.31	0.68	0.68	20.17	23.22	0.00	0.00	9.28	9.48	0.03	0.04
Water vender (tanker-cart-bearer)from deep boreholes	2.18	2.91	15.53	14.77	10.30	9.83	29.92	26.56	2.99	2.58	20.15	18.88	3.07	2.85
Water vendor- from shallow wells pond/river/spring	3.49	5.28	2.32	2.26	0.55	0.53	3.29	3.70	0.48	0.51	3.89	3.69	0.15	0.06
Not reported	0.00	0.00	0.09	0.07	0.05	0.04	0.48	0.35	0.04	0.02	0.23	0.16	89.3	89.22

3. Toilet Facilities

Household without proper toilet facilities are more exposed to the risk of diseases table (12.17) shows the percent distribution of households and population by toilet facilities and mode of living the table depicts about 34.74 percent used improved toilet /latrine facilities compared to 9.62 used shared flush toilet, 2.81 private flush toilet in urban areas .the percentage is 54.65 for pit latrine in urban areas while the percentage is 29.69 for rural areas. Over all more than 50 percents of the households have no toilet facilities (of any kind.)This problem is more common in rural areas where about 51.52 percents of household have no toilet facilities. By mode of living the houses with no toilets at all constituted 18.68 percents for urban areas and 60.93 percents for rural areas.

The households with no toilets facilities at all is the dominate phenomena in rural areas so they are more exposed to the risk of diseases than those with improved sanitation facilities

Table (12.18) shows the percent distribution of household and population by toilet facilities and type of dwelling it is appear that houses with no toilet facilities concentrate in tent type 93 percents ,straw mats 89 percents and tukul 66 percents while in villa 63.93 percents have private flush toilet ,30.23 pit latrine private other type of houses such as house one floor ,houses constructed of wood have pit latrine private (52.38,54.998.24.98 percents respectively).

Table (12.17)
Percentage Distribution of Household and Population by Type of Toilet Facilities and Mode of Living

Main Type of Toilet Facility	Total		Urban		Rural	
	Household	Pop	Household	Pop	Household	Pop
All type	100	100	100	100	100	100
Pit latrine private	34.74	36.75	54.65	56.81	29.69	31.16
Shared pit latrine	9.62	9.58	14.33	13.62	8.57	8.66
Private flush toilet	2.81	3.05	8.87	9.2	0.41	0.46
Shared flush Toilet	0.94	0.93	2.92	2.7	0.17	0.18
Bucket Toilet	0.11	0.11	0.12	0.12	0.09	0.09
No Toilet Facility	51.52	49.33	18.68	17.05	60.93	59.32

Fig. (12.9)
percentage Distribution of households by Main Type of Toilet Facilities

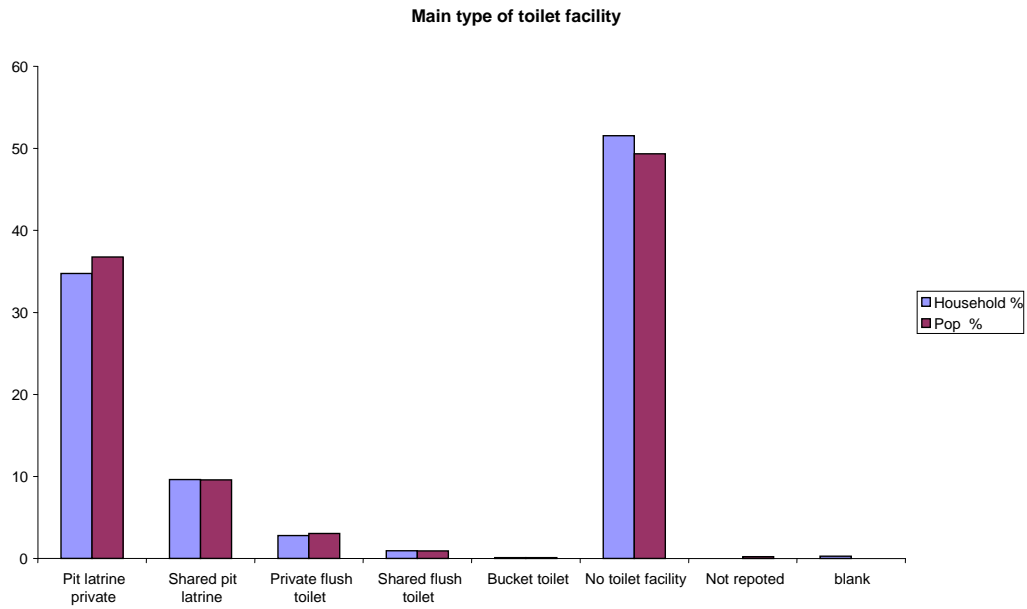


Table (12.18)

Percentage Distribution of Households and Population by Type of Toilet Facilities and Type of Living Quarters

Type of Toilet Facilities	Total		Tent		Dwelling of Straw mats		Tukul /gutty-mud		Tukul /gutty-Sticks		Flat or apartment	
	H H	POP	H H	POP	HH	POP	H H	POP	H H	POP	H H	POP
ALL TYPES	100	100	100	100	100	100	100	100	100	100	100	100
Pit latrine private	35	36.75	4	4.22	7	7.33	27	27.82	30	30.96	9.21	11.85
Shared pit latrine	10	9.58	2	2.45	3	3.14	7	7.05	10	10.38	0.16	0.09
Private flush toilet	3	3.05	0	0.00	0	0.01	0	0.00	0	0.00	61.67	60.52
Shared flush toilet	1	0.93	0	0.00	0	0.00	0	0.00	0	0.00	28.97	27.44
Bucket toilet	0	0.11	0	0.20	0	0.27	0	0.15	0	0.13	0.00	0.00
No toilet facility	53	49.33	93	93.1	89	89.06	66	64.97	61	58.53	0.09	0.11
Not repoted	1	0.24	0	0.03	0	0.18	0	0.00	0	0.00	0.00	0.00
blank	0	0.00	0	0.00	0	0.00		0.00	0	0.00	0.00	

Continue Table (12.18)

Type of Toilet Facilities	Villa		House of one floor-mud		House one floor-Brick/concrete		House constructed of wood		Multi store house		Incomplete		Not Reported	
	HH	POP	HH	POP	HH	POP	HH	POP	HH	POP	HH	POP	HH	pop
Pit latrine private	27.18	30.23	52.38	55.07	54.98	56.17	24.98	23.30	7.77	10.23	29.51	31.2	3.95	3.95
Shared pit latrine	0.00	0.00	13.91	13.24	13.17	12.65	6.17	5.36	0.25	0.25	6.02	6.07	0.31	0.31
Private flush toilet	67.10	63.93	1.63	1.76	14.35	14.65	1.91	1.62	73.39	74.11	3.98	3.75	0.13	0.13
Shared flush toilet	5.72	5.85	0.55	0.52	4.96	4.63	8.43	0.11	18.38	15.26	1.31	1.08	0.06	0.06
Bucket toilet	0.00	0.00	0.04	0.04	0.04	0.04	0.12	0.12	0.00	0.00	0.13	0.19	0.00	0.00
No toilet facility	0.00	0.00	31.43	29.31	12.45	11.81	66.45	69.31	0.21	0.15	59.01	57.8	5.49	5.49
Not reported	0.00	0.00	0.07	0.17	0.05	0.00	0.32	0.18	0.00	0.00	0.05	0.02	90.05	90.05

4. Lighting Facilities

Main source of light is an important indicator in assessing quality of housing welfare of household's .More affluent population tends to use electricity for main light than other sources, beside that electricity is one of the basic needs of modern living.

Table (12.19) shows the percentage distribution of households and population by main source of lighting the table provide information that relates to main type of lighting 19.97 percent have access to public electricity .access to public electricity is much higher in urban areas - almost universal (45.75 percents) in urban –than in rural areas (10.7 percents ,indeed , findings shows other type of lighting like (generator) is much higher in urban areas than rural areas 12.08 percent in urban to 5 percents in rural , the other type is less than 5 percents expect paraffin lamp 25.35 percents in urban ,and 38.72 percents in rural areas

Light on the relationship between type of lighting and type of dwelling it is appear in table (12. 20) the table shows that 78 percents of flat or apartment used public electricity ,77 percents living in tents using fire wood and 62 percents living in villa using public electricity .

Table (12.19)

Percent Distribution of Household and Population by Type of Lighting and Mode of Living

Type of Lighting	Total		Urban		Rural	
	HH	Pop	HH	Pop	HH	Pop
No lighting	8.16	8.04	7.35	7.08	8.14	8.08
Public electricity	19.97	21.51	45.75	47.35	10.7	11.73
Private electricity (generator)	6.49	6.97	12.08	12.55	4.7	5.13
Gas	0.223	0.24	0.34	0.33	0.20	0.22
Paraffin lantern	0.39	0.39	0.53	0.53	0.36	0.36
Paraffin lamp	32.69	31.51	25.35	23.86	38.72	37.62
Fire wood	26.58	25.89	3.22	3.17	31.03	30.83
Grass	3.19	3.22	0.53	0.58	4.75	4.81
Candle wax	1.69	1.68	4.05	3.89	0.78	0.77
Solar power	0.16	0.17	0.07	0.07	0.22	0.24
Biogas	0.03	0.03	0.03	0.03	0.03	0.03
Not reported	0.00	0.34	0.00	0.56	0.00	0.17
blank	0.36	0.00	0.64	0.00	0.17	0.00

Not reported excludes.

Fig. (12.10)
Households by Main Type of Lighting

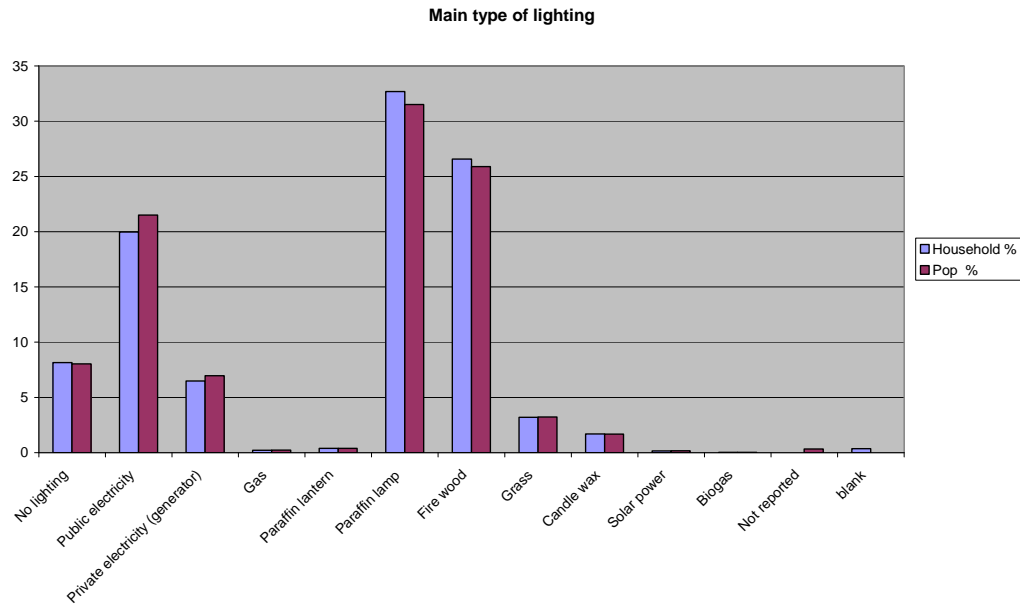


Table (12.20)
percentage Distribution of Household and Population by Type of Lighting and Type of Living Quarters

Main Type of lighting	Total		Tent		Dwelling of Straw mats		Tukul /gutti-mud		Tukul /gutti-Sticks		Flat or apartment	
	HH	POP	HH	POP	HH	POP	HH	POP	HH	POP	HH	POP
No lighting	8.16	8.04	13	12.49	19	18.59	11	11.16	8	8.33	0	0.01
Public electricity	19.9	21.51	0	0.40	1	0.77	3	2.81	3	3.05	78	75.14
Private electricity (generator)	6.49	6.97	0	0.26	1	0.62	3	3.44	2	2.27	4	4.64
Gas	0.23	0.24	0	0.07	0	0.06	0	0.22	0	0.20	0	0.36
Paraffin lantern	0.39	0.39	0	0.40	0	0.22	1	1.04	0	0.25	1	1.24
Paraffin lamp	32.70	31.51	7	6.96	22	20.97	38	36.81	41	40.39	14	15.31
Fire wood	26.58	25.89	77	76.99	55	56.11	32	31.51	41	41.08	0	0.00
Grass	3.20	3.22	1	1.16	1	0.88	10	9.79	3	3.18	0	0.00
Candle wax	2.27	1.68	1	1.08	2	0.85	3	2.84	1	1.06	2	2.79
Solar power	0.00	0.17	0	0.03	0	0.05	0	0.36	0	0.13	0	0.51
Biogas	0.00	0.03	0	0.07	0	0.08	0	0.02	0	00.05	0	0.00
Not stated	0.00	0.34	0	0.09	0	0.79	0	0.00	0	00.00	0	0.00

Continue Table (12.20)

Main Type of lighting	Villa		House of one floor-mud		House one floor-Brick/concrete		House constructed of wood		Multi store house		Incomplete		Not repoted1	
	H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	Pop
No lighting	0	0.00	5	3.84	2	1.52	9	8.88	0	0.09	22	21.88	1.08	1.25
Public electricity	62	59.34	32	33.13	74	74.29	6	5.06	92	90.34	15	15.78	1.73	1.58
Private electricity (generator)	5	4.80	15	15.48	8	8.39	14	14.53	2	2.41	8	8.53	1.31	1.29
Gas	1	0.70	0	0.28	0	9.36	1	0.64	1	0.52	1	0.62	0.00	0.00
Paraffin lantern	1	1.20	0	0.21	0	0.12	0	0.20	0	0.03	0	0.24	0.00	0.00
Paraffin lamp	29	29.79	41	39.66	14	13.35	21	17.15	2	1.36	24	25.37	3.44	3.83
Fire wood	0	0.00	4	3.48	1	0.67	39	42.86	0	0.01	14	12.68	1.90	2.07
Grass	0	0.00	1	0.78	0	0.11	7	6.86	0	0.00	8	7.88	0.00	0.00
Candle wax	3	1.73	2	1.95	1	0.90	4	1.36	4	4.98	7	6.49	90.55	0.30
Solar power	0	2.26	0	0.10	0	0.11	0	1.16	0	0.08	0	0.09	0	0.00
Biogas	0	0.00	0	0.03	0	0.01	0	0.03	0	0.00	0	0.09	0	0.00

5. Cooking Fuel

cooking fuel affects the air quality for household members. Clean fuel is not affordable in most cases and most households resort to using solid fuels that emit a lot of smoke. As a result, household members are likely to be exposed to air pollution and also smoke from solid fuels for cooking, such as charcoal, firewood, and other biomass. Fuels, is a major cause of respiratory infections.

Table (12.21) show that the percentage distribution of households and population by source of cooking fuel and mode of living the table shows that More than half of all households (61.87%) using firewood for cooking in total but the differential appear between rural and urban areas only 19.99 percents in urban using firewood and 76.38 percents using firewood in rural areas for cooking, it should be here that reducing the proportion of the population relying on solid fuels is an MDG aim, in Sudan this proportion is over 60 percents.

The use of charcoal in urban areas is 31.34 percents and in rural areas is 5.41 percents but however, there is differential between rural-urban households in source of cooking fuel (19.9%) in urban areas, and (76.4%) in rural areas using firewood as cooking fuel, while gas is dominates in urban areas (43.8%) are using gas, and only (14.3%) households in rural areas using gas.

Table (12.22) shows the percentage distribution of households and population by source of cooking fuel and type of living quarters the table portray that (97%) living in tents, straw mats (89%), and tukul (84%) are using firewood as main source of cooking fuel.

Researches in this type should focus special attention to this type of fuel (firewood and charcoal) to avoid desertification and deforestation, because the population and environment relationship is very complex and has not necessary attention.

Table (12.21)**Percent Distribution of Household and Population by Type of Cooking and Mode of Living**

Type of Cooking	Total		Urban		Rural	
	Household	Pop	Household	Pop	Household	Pop
Firewood	61.87	60.56	19.99	19.92	76.38	75.58
Charcoal	12.47	12.50	31.34	30.50	5.41	5.30
Gas	21.64	23.33	43.83	45.69	14.29	15.41
Electricity	0.10	0.11	0.19	0.19	0.07	0.08
Paraffin	0.20	0.18	0.35	0.06	0.15	0.14
Cow dung	0.61	0.59	0.05	0.06	0.90	0.87
Grass	0.99	1.03	0.28	0.38	1.42	1.44
Biogas	0.55	0.59	0.97	1.04	0.42	0.45
No cooking	1.07	0.64	2.21	1.21	0.65	0.40
Not reported	0.50	0.47	0.78	0.70	0.31	0.32

Not reported excludes.

Table (12.22)
percentage Distribution of Household and Population by Type of Cooking and Type of Living Quarters

Type of cooking	Total		Tent		Dwelling of Straw mats		Tukul /guty-mud		Tukul /guty-Sticks		Flat or apartment	
	H H	POP	H H	POP	HH	POP	H H	POP	H H	POP	H H	POP
Firewood	62	61	97	96.93	89	90.02	84	83.97	89	89.42	0	0.11
Charcoal	12	12	2	1.51	7	6.29	10	11.00	7	7.14	25	28.87
Gas	22	23	0	0.41	1	0.73	2	1.75	2	1.68	73	69.50
Electricity	0	0	0	0.01	0	0.00	0	0.02	0	0.01	0	0.39
Paraffin	0	0	0	0.03	0	0.10	0	0.11	0	0.08	0	0.16
Cow dung	1	1	0	0.20	0	0.36	0	0.42	0	0.17	0	0.00
Grass	1	1	0	0.33	0	0.39	2	1.85	1	1.08	0	0.00
Biogas	1	1	0	0.01	0	0.02	0	0.14	0	0.04	0	0.15
No cooking	0	1	1	0.43	1	0.56	1	0.73	1	0.38	1	0.83
Not stated	0	0	0	0.00	2	0.00	0	0.00	0	0.00	0	0.00

Continue Table (12.22)

Type of cooking	Villa		House of one floor-mud		House one floor- Brick/concrete		House constructed of wood		Multi store house		Incomplete		Not reported	
	H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	pop
Firewood	0	0.00	33	32	10	10	61	64.69	0	0.11	42	40.65	5.50	6.38
Charcoal	37	38.16	21	20	14	14	23	20.05	9	11.47	25	25.91	1.46	1.15
Gas	58	57.59	40	42	71	72	10	9.86	88	86.59	23	26.05	1.54	1.22
Electricity	0	0.00	0	0	0	0	0	0.06	0	0.19	0	0.05	0.06	0.07
Paraffin	0	0.00	0	0	0	0	0	0.05	0	0.23	1	0.81	0.07	0.10
Cow dung	0	0.00	2	1	0	0	0	0.19	0	0.00	1	0.83	0.00	0.00
Grass	0	0.00	1	1	0	0	0	0.41	0	0.00	1	1.58	0.00	0.00
Biogas	1	1.05	1	1	2	2	0	0.39	1	0.54	0	0.25	0.00	0.00
No cooking	4	2.66	1	1	2	1	2	086	1	0.59	5	3.22	0.47	0.00
Not stated	0	0.55	0	0	0	0	4	3.45	0	0.28	1	0.66	90.9	90.80

Conclusion

A higher level will be concerned in procurement of houses materials, house of one floor brick, tent, gutty, and house one floor-mud is the predominant style in Sudan, more than fifty percent of households live in this type beside that infrastructure including source of drinking water and electricity.

There was real problem of toilet facilities in the houses more than fifty percent of houses live with no toilet facilities at all this problem increase in rural areas (60.93)percent had no toilet facilities ,the situation is the same with regard to use energy fuel for cooking fuel, the main source of cooking fuel was fire-wood and charcoal expected to have serious environmental consequences in particular ,deforestation and desertification .so the call for population /environment policy is perfectly timed.

However, information on household assets can be use to create an index representing the wealth of the households (the wealth index is a proxy for long –term standard of living) Household assets used to calculate the wealth index include consumer item such as refrigerators, televisions, and vehicles; dwelling characteristics such as house type, source of drinking water, and toilet facilities; and other characteristics that are related to wealth status.

Annex (12.22)
Size and Growth of Households by Mode of Living

Mode of living and Year of Census	Year	# of Household	Average Size of Household	Growth Rate
Total	1973	2282000	5.09	3.3 (1973-1983) 4.0 (1983-1993) 2.88 (1993-2008)
	1983	3158000	5.75	
	1993	3567000	5.90	
	2008	5334038	5.68	
Urban	1973	471000	5.43	3.6 (1973-1983) 4.1 (1983-1993) 2.82 (1993-2008)
	1983	707000	5.87	
	1993	1116000	6.10	
	2008	1648204	5.92	
Rural	1973	1810000	5.00	3.1 (1973-1983) 3.9 (1983-1993) 2.76 (1993-2008)
	1983	2451000	5.72	
	1993	2451000	5.80	
	2008	3196201	5.60	

*Source :population census ,1993 ; final Tabulation
population census ,1983
population census , 1973
census table 2008; H –Housing Assess*

Annex (12.23)
Average Size of Household According to States
and Mode of Living (Northern Sudan)

State	Total	Urban	Rural
Northern Sudan	5.68	5.92	5.39
Northern	5.86	5.85	5.90
Nahr El Nil	5.51	5.87	5.38
Red Sea	5.36	4.98	5.71
Kassala	5.53	5.47	5.53
Al Gedarif	5.58	5.84	5.49
Khartoum	5.99	6.09	5.61
AL Gezira	6.00	6.20	5.96
Sinnar	5.77	5.84	5.77
White Nile	5.73	6.12	5.54
Blue Nile	5.63	5.68	5.53
North Kordofan	5.32	6.06	5.18
South Kordofan	5.80	6.11	5.68
North Darfur	5.62	5.93	5.64
West Darfur	4.80	5.12	4.70
South Darfur	5.87	6.01	5.98

Annex (12.24)
**Percent Distribution by Sex of Household and Size, Mean Size
of Household, and Percentage of Households**

Characteristics	Total	Urban	Rural
Household headship	100	100	100
Male	74.06	76.06	71.05
Female	28.55	28.55	28.94
Number of usual members	Total	Urban	Rural
1	4.92	5.83	4.83
2	8.64	8.43	8.76
3	11.06	10.17	11.27
4	13.08	11.80	13.35
5	13.74	12.49	14.03
6	12.73	12.08	12.90
7	10.59	10.67	10.65
8	14.99	14.12	15.24
9	2.60	3.51	2.36
10	7.66	10.90	6.61
Total	100	100	100
Mean Size of Households	5.74	5.99	5.67

Annex (12.25)
Percentage of households by Size and Mode of living
(1983-1993-2008 census) Northern States

Type and year Censuses	years	Total		Urban		Rural	
		Size (000)	%	Size (000)	%	Size (000)	%
Small 1-4	1983	1265	37.3	388	35.8	876	38.1
	1993	1314	38.5	276	39.1	933	38.0
	2008	208721 7	38.9	721	36.2	1583	38.2
Medium 5-8	1983	1472	43.5	464	42.8	1007	43.8
	1993	1536	42.0	285	40.3	1063	43.3
	2008	270914 3	50.5	983	49.36	2189	52.8
Large 9 +	1983	645	19.1	230	21.3	415	18.0
	1993	658	18.4	145	20.5	455	18.5
	2008	570200	10.6	287	14.4	287	6.9

Annex (12.26)
Percentage of different types of households according
to state (Northern Sudan 2008)

Sudan States	Private H H	Nomads	Internally displaced	Refugees
Northern Sudan	89.48	10.72	9.06	6.61
Northern	97.40	2.59	0.01	0.00
Nahr El Nil	97.16	2.83	0.01	0.00
Red Sea	81.94	18.06	0.00	0.00
Kassala	88.00	10.85	0.46	0.68
Al Gedarif	98.46	1.48	0.01	0.05
Khartoum	99.89	0.00	0.11	0.00
Al Gezira	99.60	0.13	0.27	0.00
White Nile	97.73	2.26	0.01	0.00
Sinnar	97.11	2.55	0.10	0.24
Blue Nile	96.96	2.92	0.12	0.00
North Kordofan	86.38	13.61	0.02	0.00
South Kordofan	88.06	11.81	0.13	0.00
North Darfur	78.19	20.25	1.56	0.00
West Darfur	75.29	18.14	6.50	0.08
South Darfur	71.59	25.75	2.66	0.00

Annex (12.27)
Headship Rate (Percent) For Households by Sex According to
States 2008 (Northern States)

State	Total		Urban		Rural	
	Males	Females	Males	Females	Males	Females
Sudan		26	25	9	25.55	11.45
Northern	28.60	7.16	29.35	4.90	28.23	7.66
Nahr El Nil	30.72	5.78	28.67	5.50	31.52	5.89
Red Sea	30.82	3..46	33.77	4.73	28.61	2.93
Kassala	38.63	9.26	28.80	9.16	28.89	10.26
Al Gedarif	27.49	8.94	26.97	7.54	27.59	9.59
Khartoum	25.80	7.15	25.24	7.15	28.27	7.13
Al Gezira	26.27	8.52	26.43	6.79	26.21	8.92
Sinnar	26.75	9.11	26.21	8.50	26.67	9.40
White Nile	24.34	10.09	21.48	10.87	25.79	10.69
Blue Nile	27.74	7.84	27.28	7.77	28.32	7.98
North Kordofan	27.90	11..31	26.70	7.45	27.28	13.40
South Kordofan	25.69	9.75	22.93	8.83	26.50	10.62
North Darfur	25.48	10.69	23.82	10.29	25.59	11.89
West Darfur	27.46	16.32	27.30	14.59	27.43	17.60
South Darfur	26.73	11.35	26.52	11.16	26.60	13.47

Annex (12.28)
Population in households by relation to head and sex of head
(Northern states)

Sex of Head Relationship to head	Urban			Rural		
	B-sex	Males	Females	B-sex	Males	Females
Total	100 %	100 %	100 %	100 %	100 %	100 %
Head	17	25	9	18	26	11
Spouse	11	1	21	12	2	22
Daughter /son	47	48	46	53	57	50
Spouse of son /daughter	1	0	1	1	0	1
Grandchild	4	4	4	3	3	3
Niece/nephew	3	3	2	2	2	2
Parent/parent in-law	1	1	2	1	0	2
Sister/brother/in-law	5	5	5	3	2	3
Other relative	8	9	7	5	5	5
Non relative	4	4	3	2	3	2

Annex (12.29)
Headship Rate by Sex , Marital Status and Mode of Living
(Northern states 2008)

Marital Status of Head of H H	Total		Urban		Rural	
	Males	Females	Males	Females	Males	Females
Never Married	6	4	9	5	5	3
Married	91	70	98	67	92	71
Widowed	1	20	1	21	1	20
Divorced	1	6	1	7	1	6
Not reported	0	0	0	0	0	0

Annex (12.30)
Percentage of households by age and sex of
head of households (Northern states)

Sex and Age Group of Head of H H	Total	Never Married	Married	Divorced	Widowed
Both Sexs	100	100	100	100	100
Male	71.38	81.21	75.79	32.52	15.50
Female	28.61	18.78	24.20	67.47	84.49
Male	100				
Below 15	0.01	99.02	0.98	0.00	0.00
15 - 24	5.39	35.86	62.75	0.32	0.52
24 - 44	50.29	6.66	91.65	0.64	0.85
45 - 64	32.41	1.81	95.38	1.49	1.15
65 +	11.38	1.29	92.35	4.30	1.71
Female	100				
Below 15	0.01	69.46	30.54	0.00	0.00
15 - 24	10.91	12.13	82.72	2.31	5.57
24 - 44	51.85	2.91	82.95	9.10	4.98
45 - 64	27.21	1.69	61.80	29.08	7.15
65 +	9.99	1.77	39.32	52.17	5.36

Annex (12.31)
Percentage of Households by
Means of Effects (Northern states)

Household Effects	Households		
	Total	Urban	Rural
Television	27.02	58.16	14.66
Radio	49.03	58.67	45.52
Mobile Telephone	38.05	68.64	27.02
Fixed Phone	5.29	11.81	2.64
Computer	3.21	8.83	0.72
Refrigerator	14.72	84.22	6.66
Satellite Dish	11.52	27.40	4.78
Fan	18.17	40.22	9.30
Air Cooler	3.94	11.05	0.77
None	37.50	18.39	44.36

Annex (12.32)
Percentages of Households by Means of
Transportation

Transportation	Households		
	Total	Urban	Rural
Total HH	5366559	1694398	157452
Motor Vehicle	5.96	11.66	3.66
Motorcycle	1.91	4.43	0.84
Bicycle	7.92	9.65	8.03
Canoe –Boat	0.42	0.27	0.57
Animal Transport	31.30	6.63	38.01
Tractor	0.39	0.19	0.54
None	55.48	70.38	52.25

Annex (12.33)
Percent Distribution of Household and Population by Tenure Status and Mode of Living

Type of Tenure	Total		Urban		Rural	
	Household	Pop	Household	Pop	Household	Pop
Owned	85.19	86.78	69.70	69.70	94.68	94.68
Rented	8.44	7.7.84	19.93	19.93	2.16	2.16
Housing provided by job	1.49	1.52	3.18	3.18	0.81	0.81
Free	3.80	3.52	6.74	6.74	2.13	2.13
Not reported	0.36	0.33	0.44	0.44	0.21	0.21
blank	0.00	0.00	0.00	00	0.00	00

Continue Annex (12.34)

Villa		House of one floor-mud		House one floor-Brick/concrete		House constructed of wood		Multi store house		Incomplete		Not Reported	
H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	pop
82	87.21	83.20	84.3	73.81	76.72	72	77.5	72	77.1	44	43.72	8.1	9.38
8	6.88	11.78	11.1	15.96	14.11	20	15.1	20	16.4	16	14.27	1.4	1.02
6	3.68	0.67	0.65	6.12	5.69	4	2.18	4	2.79	19	18.88	0.	0.09
3	2.22	4.33	3.94	6	3.45	4	3.85	4.	3.53	22	23.01	0.	0.06
0.0	0.00	0.02	0.02	0.04	0.03	0.	1.38	0.	0.24	0.0	0.12	90.0	89.5

Continue Annex (12.36)

Villa		House of one floor-mud		House one floor-Brick/concrete		House constructed of wood		Multi store house		Incomplete		Not stated	
H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	pop
81.88	80.69	20.07	20.95	35.40	35.33	10.47	9.90	85.52	85.26	38.36	40.04	1.10	1.17
13.01	13.61	25.88	26.95	39.80	40.22	9.47	10.45	10.47	11.04	13.03	13.50	1.15	1.16
1.26	1.66	4.60	4.62	4.48	4.72	0.09	0.05	0.32	0.35	1.93	2.19	0.07	0.11
1.06	0.90	7.30	6.95	3.03	2.95	0.61	0.51	0.04	0.03	3.38	3.44	0.12	0.07
0.00	0.00	5.91	5.88	2.66	2.70	1.51	1.43	0.13	0.13	3.08	2.81	0.74	0.86
0.54	0.16	1.19	1.16	0.71	0.75	0.0	0.00	0.04	0.04	0.19	0.13	0.00	0.00
0.00	0.00	3.98	3.81	0.90	0.88	8.54	8.94	0.01	0.01	2.89	2.65	3.41	3.98
0.00	0.00	2.27	2.09	0.46	0.41	0.13	0.09	0.00	0.00	0.86	0.99	0.20	0.31
0.00	0.00	1.52	1.51	0.58	0.52	0.06	0.06	0.00	0.00	0.13	0.04	0.07	0.10
0.00	0.00	5.98	5.74	0.75	0.76	0.50	0.47	0.00	0.00	1.87	2.23	0.06	0.04
0.00	0.00	2.67	2.58	0.42	0.47	0.19	0.16	0.00	0.00	1.50	1.73	0.03	0.04
1.71	2.43	16.26	15.48	10.25	9.76	64.85	65.01	2.91	2.55	27.91	25.95	3.07	2.85
0.53	0.55	2.27	2.20	0.52	0.50	2.51	2.07	0.51	0.56	4.54	4.04	0.15	0.06
0.00	0.00	0.09	0.07	0.05	0.04	1.05	0.87	0.04	0.02	0.33	0.22	89.3	89.22

Continue Annex (12.38)

Villa		House of one Floor-mud		House one floor- Brick/concrete		House constructed of wood		Multi Store house		Incomplete		Not Reported	
HH	POP	HH	POP	HH	POP	HH	POP	HH	POP	HH	POP	HH	POP
1.06	1.76	53.70	56.61	55.07	56.17	40.05	39.36	2.05	1.59	37.94	39.47	3.95	4.29
0.00	0.00	14.35	13.68	13.21	12.73	6.56	5.52	0.26	0.28	6.86	6.83	0.31	0.31
90.26	89.02	1.72	1.86	14.53	14.91	4.16	4.00	77.94	81.24	5.46	5.06	0.13	0.17
8.68	9.22	0.58	0.55	5.05	4.70	0.35	0.28	19.53	16.73	1.38	1.09	0.06	0.02
0.00	0.00	0.03	0.03	0.04	0.04	0.12	0.09	0.00	0.00	0.07	0.10	0.00	0.00
0.00	0.00	29.55	27.22	12.04	11.41	48.29	50.33	0.22	0.16	48.22	47.42	5.49	5.94
0.00	0.00	0.07	0.05	0.05	0.04	0.47	0.43	0.00	0.00	0.07	0.03	90.05	90.05

Annex (12.39)
Percent Distribution of Household and Population
by Type of Lighting and Mode of Living

Main type of lighting	Total		Urban		Rural	
	Household	Pop	Household	Pop	Household	Pop
No lighting	6.58		6.01	5.55	6.11	5.67
Public electricity	24.49	6.17	50.60	52.82	14.43	18.88
Private electricity (generator)	7.69	26.6	12.90	13.41	6.13	6.66
Gas	0.18	8.29	0.31	0.29	0.14	0.15
Paraffin lantern	0.12	0.18	0.11	0.10	0.13	0.12
Paraffin lamp	37.0	0.12	24.79	23.15	48.07	47.09
Fire wood	22.0	35.83	2.03	1.91	24.03	23.54
Grass	0.13	21.22	0.06	0.06	0.15	0.13
Candle wax	1.63	0.11	3.19	2.03	0.81	0.38
Solar power	0.00	0.94	0.00	0.02	0.00	0.09
Biogas	0.00	0.06	0.00	0.03	0.00	0.05
Not reported	0.00	0.04	0.00	0.64	0.00	0.23
blank	0.00	0.42	0.00	0.00	0.00	0.00

Annex (12.40)
Percentage Distribution of Household and population by Type
of Lighting and Type of Living Quarters

Main Type of lighting	Total		Tent		Dwelling of Straw mats		Tukul /gutty-mud		Tukul /gutty-Sticks		Flat or apartment	
	HH	POP	HH	POP	HH	POP	HH	POP	HH	POP	HH	POP
No lighting	6.58	6.17	13	12.22	19	18.56	5.80	5.42	6.28	6.06	0.0	0.01
Public electricity	24.49	26.6	0	0.30	1	0.60	5.03	5.75	3.08	3.60	88.55	88.33
Private electricity (generator)	7.69	8.29	0	0.16	1	0.54	5.53	6.21	2.30	2.66	3.53	3.92
Gas	0.18	0.18	0	0.05	0	0.05	0.08	0.08	0.04	0.04	0.49	0.45
Paraffin lantern	0.12	0.12	0	0.18	0	0.14	1.12	0.13	0.13	0.13	0.00	0.00
Paraffin lamp	37.0	35.83	0.1	6.88	22	21.46	63.32	62.90	49.87	49.43	7.28	7.09
Fire wood	22.0	21.22	7.0	79.01	55.8	56.94	19.08	18.54	37.44	37.37	0.00	0.00
Grass	0.13	0.11	78.37	0.23	1.6	0.24	0.14	0.13	0.27	0.23	0.00	0.00
Candle wax	1.63	0.94	0.25	0.79	0.00	0.54	0.91	0.68	0.54	0.37	0.14	0.20
Solar power	0.00	0.06	0.99	0.02	0	0.02	0.00	0.13	0.00	0.05	0.00	0.00
Biogas	0.00	0.04	0.00	0.07	0	0.09	0.00	0.04	0.00	00.06	0.00	0.00
Not stated	0.00	0.42	0	0.10	0	0.83	0	0.00	0.00	00.01	0.00	0.00

Continue Annex (12.40)

Villa		House of one floor-mud		House one floor-Brick/concrete		House constructed of wood		Multi store house		Incomplete		Not reported1	
HH	POP	HH	POP	HH	POP	HH	POP	HH	POP	HH	POP	HH	POP
0	0.00	4.46	4.18	1.57	1.41	8.38	6.82	0.10	0.09	22.01	21.42	1.08	1.25
90.96	90.93	33.32	34.94	75.16	75.98	12.78	11.69	95.42	95.99	21.23	21.77	1.73	1.58
4.52	5.07	15.42	16.15	8.09	8.11	28.46	34.12	2.20	2.04	11.25	11.33	1.31	1.29
0.00	0.00	0.29	0.28	0.37	0.34	0.25	0.36	0.72	0.57	0.48	0.37	0.00	0.00
0.00	0.00	0.13	0.12	0.05	0.05	0.13	0.18	0.04	0.03	0.35	0.34	0.00	0.00
3.98	3.82	42.52	40.89	13.44	12.92	41.04	38.24	0.77	0.61	32.68	34.00	3.44	3.83
0.00	0.00	1.65	1.56	0.36	0.37	4.31	4.53	0.01	0.01	3.06	2.43	1.90	2.07
0.00	0.00	0.04	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.07	0.01	0.00	0.00
0.54	0.19	2.16	1.68	0.95	0.57	4.64	0.07	0.75	0.44	8.87	7.73	90.55	0.30
0.00	0.00	0.00	0.07	0.00	0.05	0.00	3.13	0.00	0.00	0.00	0.00	0	0.00
0.00	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.13	0	89.6

Annex (12.41)
Percent Distribution of Household and population
by Type of Cooking and Mode of Living

Type of cooking	Total		Urban		Rural	
	Household	Pop	Household	Pop	Household	Pop
Firewood	56.08	54.33	16.88	16.62	70.43	69.01
Charcoal	13.27	13.05	29.50	28.08	6.56	6.42
Gas	26.77	19.16	49.03	51.88	19.16	20.93
Electricity	0.11	0.13	0.20	0.21	0.09	0.10
Paraffin	0.20	0.19	0.37	0.33	0.14	0.13
Cow dung	0.70	0.68	0.04	0.04	0.13	1.11
Grass	0.57	0.57	0.08	0.08	0.91	0.92
Biogas	0.68	0.74	1.09	1.18	0.57	0.61
No cooking	0.99	0.55	1.93	1.99	0.59	0.34
Not reported	0.62	0.00	0.88	0.79	0.42	0.43

Annex (12.42)

Percentage Distribution of household and Population by Type of Cooking and Type of living quarters (Northern states)

Type of cooking	Total		Tent		Dwelling of Straw mats		Tukul /Gottiya-mud		Tukul /Gottiya-Sticks		Flat or apartment	
	HH	POP	HH	POP	HH	POP	HH	POP	HH	POP	HH	POP
Firewood	56.08	54.33	97.37	97.60	89.19	90.42	80.85	80.61	89	89.49	0.11	0.14
Charcoal	13.27	13.05	1.25	1.61	6.83	5.86	12.79	13.02	7	7.49	11.35	11.71
Gas	26.77	29.16	0.38	0.42	0.66	0.76	3.39	3.85	2	2.14	86.85	86.88
Electricity	0.11	0.13	0.01	0.01	0.01	0.00	0.04	0.05	0	0.01	0.14	0.13
Paraffin	0.20	0.19	0.04	0.03	0.09	0.06	0.09	0.09	0	0.02	0.14	0.13
Cow dung	0.70	0.68	0.21	0.21	0.42	0.38	0.75	0.70	0	0.15	0.00	0.00
Grass	0.57	0.57	0.13	0.12	0.39	0.34	0.98	0.95	0.37	0.34	0.00	0.00
Biogas	0.68	0.74	0.01	0.01	0.03	0.02	0.30	0.32	0.05	0.05	0.23	0.18
No cooking	0.99	0.55	1.44	0.31	0.72	0.53	0.80	0.41	.55	0.29	1.19	0.83
Not stated	0.62	0.00	0.17	0.00	1.66	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Continue Annex (12.42)

Villa		House of one floor-mud		House one floor-Brick/concrete		House constructed of wood		Multi store house		Incomplete		Not Reported	
H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	POP	H H	pop
0	0.00	30.48	29.40	9.32	9.52	20.76	20.96	0.09	0.12	22.64	22.45	5.50	6.38
4.50	2.55	21.24	20.70	13.38	12.69	45.38	43.30	3.62	3.20	34.64	34.29	1.46	1.15
88.28	90.75	42.71	44.87	72.95	74.10	20.94	24.08	93.17	94.77	32.39	36.16	1.54	1.22
0.00	0.00	0.09	0.10	0.47	0.48	0.07	0.09	0.18	0.12	0.14	0.06	0.06	0.07
0.00	0.00	0.04	0.36	0.27	0.23	0.09	0.08	0.27	0.5	0.68	0.73	0.07	0.10
0.00	0.00	1.58	1.54	0.11	0.10	0.31	0.31	0.00	0.00	0.58	0.67	0.00	0.00
1.26	0.00	0.93	0.97	0.18	0.18	0.09	0.09	0.00	0.00	0.76	0.77	0.00	0.00
5.43	1.66	1.12	1.18	1.68	1.76	0.99	0.95	0.76	0.59	0.46	0.35	0.00	0.00
0.53	4.19	1.27	0.71	1.35	0.67	3.42	1.67	1.47	0.65	6.45	3.31	0.47	0.00
0	0.00	0.17	0	0.29	0.00	7.95	0.00	0.44	0.00	1.25	0.00	90.9	90.80