RIMS BASELINE SURVEY REPORT - 2015

Baseline, Mid-term and End-term Surveys, and other Evaluation Studies under the IFAD-assisted ILSP Project

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उत्तराखण्ड शासन

Uttarakhand Gramya Vikas Samiti
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Prepared by

InsPIRE Network for Environment

RIMS Baseline Survey Report 2015

BASE LINE, MID TERM AND END TERM SURVEY, AND OTHER EVALUATION STUDIES UNDER IFAD ASSISTED ILSP PROJECT

Uttarakhand Integrated Livelihoods Support Project
funded by IFAD

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1.0 Background

As per the guidelines of IFAD, a Result and Impact Management System (RIMS) survey to measure the project impacts on indicators such as a house hold asset index (as a proxy of poverty) and malnutrition among the children under 5 years of age, has been designed at three stages baseline, midterm and end-line, akin to the Integrated Livelihood Support Project (ILSP) Component I.

In line with this, RIMS Anthropometric survey was carried out for ILSP Component I in February 2015 (baseline). Further, it will be conducted again at mid-term at the end of the project completion, to compare the results and determine the success of the project interventions.

2.0 Preparation for the Survey

▶ Planning:

The team at InsPIRE had detailed discussions with the ILSP Component I team regarding the RIMS survey, its timing, questionnaire, scheduling the field work and other necessary requirements of the study team during the survey such as required equipment for the survey.

▶ Sampling:

RIMS Anthropometric Survey was carried out for Total of 855 project HHs, 403 control HHs and 53 ULIPH project area HHs. **Multi-stage Stratified Random Sampling** was applied for identification of villages and random selection of households, within the selected villages. The sample frame for RIMS households was the identified HHs for the baseline survey, from each of the three categories of the sample. A major criterion for selection of the households was the presence of children below 5 years of age. The detailed sample of RIMS survey is appended at ***Annexure I***.

▶ Formation of survey team and its training:

Survey work was coordinated by the team at InsPIRE with support from the District Project Managers (DPMs) from the project districts.

Baseline survey was carried out by adequately trained survey teams, each consisting of one supervisor and four enumerators. There were a total of 4 such teams. Before the start of the baseline, a four day training program was conducted for the survey team in Dehradun. It consisted of two days' classroom training, followed by two days of pilot testing and field exercise. A practical training was provided to the team of enumerators regarding objective of survey, filling of questionnaires, measurement of weight and height, the process of conducting

Testing of instruments by the enumerators

interview, reviewing questionnaires, etc. Height and Weight measuring equipment received from IFAD were used to conduct the anthropometric measurements. The questionnaire was translated into Hindi for the convenience of the enumerators.

Class room training in progress

RIMS Anthropometric survey in progress

- **Data entry, compilation and analysis of report:**

Data entry was carried out using the RIMS software provided by IFAD followed by data cleaning. The RIMS report was generated after analysis at three levels, project, control and ULIPH project area.

3.0 Summary of Analysis

Percentage of HHs headed by women stood at 16% for both project and control areas; however when it came to ULIPH project are, only 9 percent of the HHs were headed by females.

Components of the literacy indicator have a similar percentage score across the three categories of HHs surveyed with a slight variation in percentage points. However one of the components, i.e. the ratio of women to men between 15 and 24 that can read showed wide

variation across project, control and ULIPH project area, with the percentage score being 221 percent, 163 percent and 333 percent respectively.

Safe water sources and sanitation indicators, such as, percentage of households with safe source of water and sanitation, show little variation across project, control and ULIPH project area. On an average, safe water source was available with approximately 85-90 percent of the HHs across all categories and sanitation was available with approximately 60-70 percent of the HHs across all categories. A notable observation is that the control area HHs had the lowest percentage score in both the indicators, safe water source being available with 85 percent and sanitation being available with only 61 percent of the HHs.

Table 1: ***Summary Report***

Indicator	Project		Control		ULIPH Project Area	
	Number	Percentage	Number	Percentage	Number	Percentage
Head of household						
Number and percentage of households headed by women	140	16%	64	16%	5	9%
Literacy						
Number and percentage of female household members that can read	1437	73%	644	68%	83	72%
Number and percentage of male household members that can read	1435	87%	671	83%	66	78%
Ratio of women to men between 15 and 24 that can read	221%		163%		333%	
Number and percentage of men between 15 and 24 that can read	159	91%	102	95%	6	100%
Number and percentage of women between 15 and 24 that can read	352	93%	166	93%	20	95%
Safe water						
Number and percentage of households with a safe source of water	795	93%	342	85%	47	89%
Sanitation						
Number and percentage of households with safe sanitation	604	71%	246	61%	36	68%

Referring to table 2, it can be observed that acute malnutrition for children under 5 years of age was the lowest for ULIPH project area, whereby it stood at 3.5% of the total children, whereas in project and control areas, 10 percent and 14.9 percent of the children respectively were observed to be malnourished.

In project, control and ULIPH project areas, 39.2 percent, 43.1 percent and 33.3 percent of the children respectively were observed to be chronically malnourished.

A similar trend was observed in the percentage of underweight children in all the areas with ULIPH project area having the lowest percentage (14 percent) of underweight children followed by project (20.1 percent) and control (29 percent).

Table 2(a): *Acute malnutrition children (weight for height)*

	Project						Control						ULIPH Project Area					
	No. of respondents in sample and percentage of the total sample		No. of children and percent above -2 Z-Score		No. of children and percent below -2 Z-Score		No. of respondents in sample and percentage of the total sample		No. of children and percent above -2 Z-Score		No. of children and percent below -2 Z-Score		No. of respondents in sample and percentage of the total sample		No. of children and percent above -2 Z-Score		No. of children and percent below -2 Z-Score	
Total	1045		941	90%	104	10%	517		440	85%	77	15%	57		55	96%	2	4%
Boys	502	48%	450	90%	52	10%	243	47%	202	83%	41	17%	21	37%	20	95%	1	5%
Girls	543	52%	491	90%	52	10%	274	53%	238	87%	36	13%	36	63%	35	97%	1	3%
	95 % Confidence interval:				10.55	9.35	95 % Confidence interval:				15.61	14.18	95 % Confidence interval:				3.88	3.14

Table 2(b): *Chronic malnutrition children (height for age)*

Total	1045		635	61%	410	39%	517		294	57%	223	43%	57		38	67%	19	33%
Boys	502	48%	240	48%	262	52%	243	47%	115	47%	128	53%	21	37%	14	67%	7	33%
Girls	543	52%	395	73%	148	27%	274	53%	179	65%	95	35%	36	63%	24	67%	12	33%
	95 % Confidence interval:				40.21	38.26	95 % Confidence interval:				44.12	42.14	95 % Confidence interval:				34.28	32.38

Table 2(c): *Underweight children (weight for age)*

Total	1045		835	80%	210	20%	517		367	71%	150	29%	57		49	86%	8	14%
Boys	502	48%	365	73%	137	27%	243	47%	153	63%	90	37%	21	37%	19	90%	2	10%
Girls	543	52%	470	87%	73	13%	274	53%	214	78%	60	22%	36	63%	30	83%	6	17%
	95 % Confidence interval:				20.90	19.29	95 % Confidence interval:				29.92	28.11	95 % Confidence interval:				14.74	13.33

Calculations are done using WHO growth standards, Second set

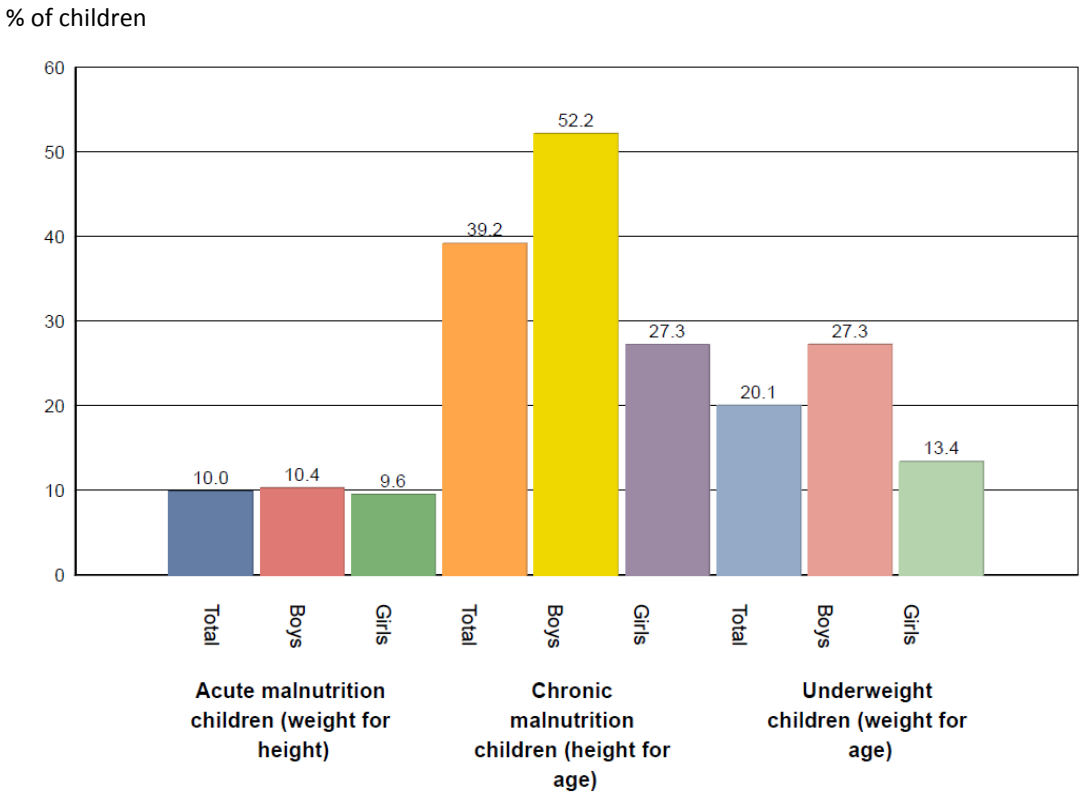

Figure 1(a): ***Number and percentage of malnourished children under 5 years of age (Project)***

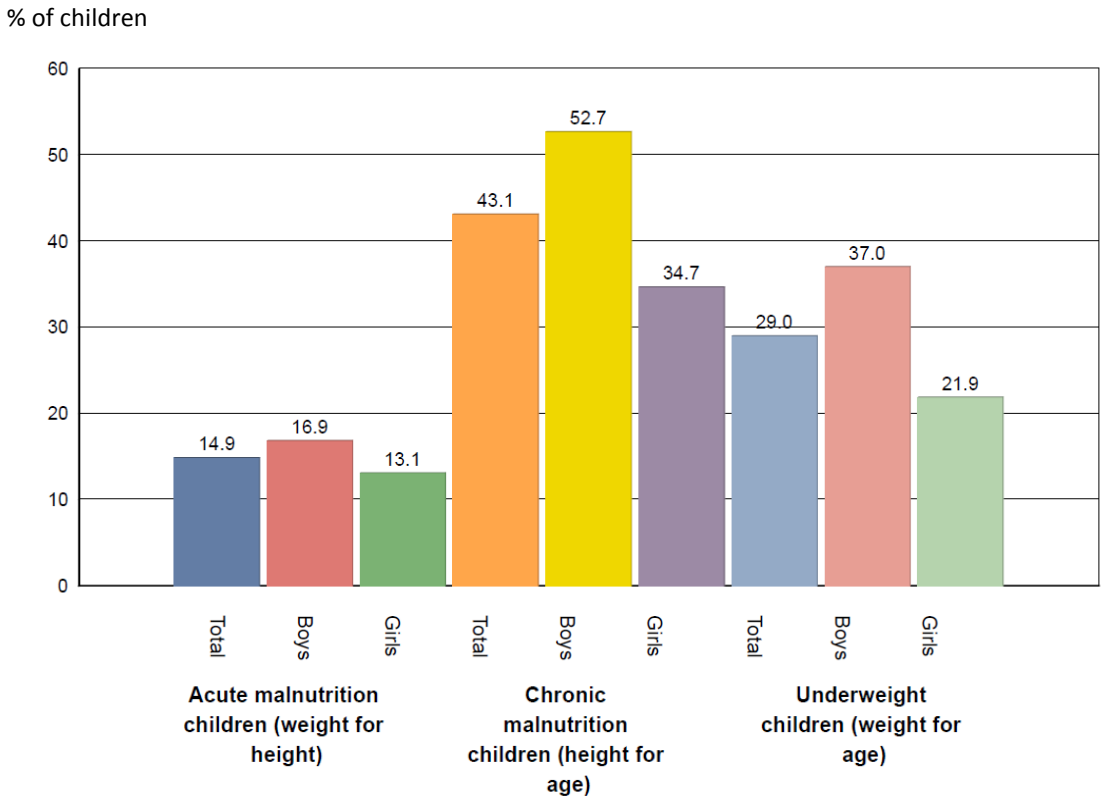

Figure 1(b): ***Number and percentage of malnourished children under 5 years of age (Control)***

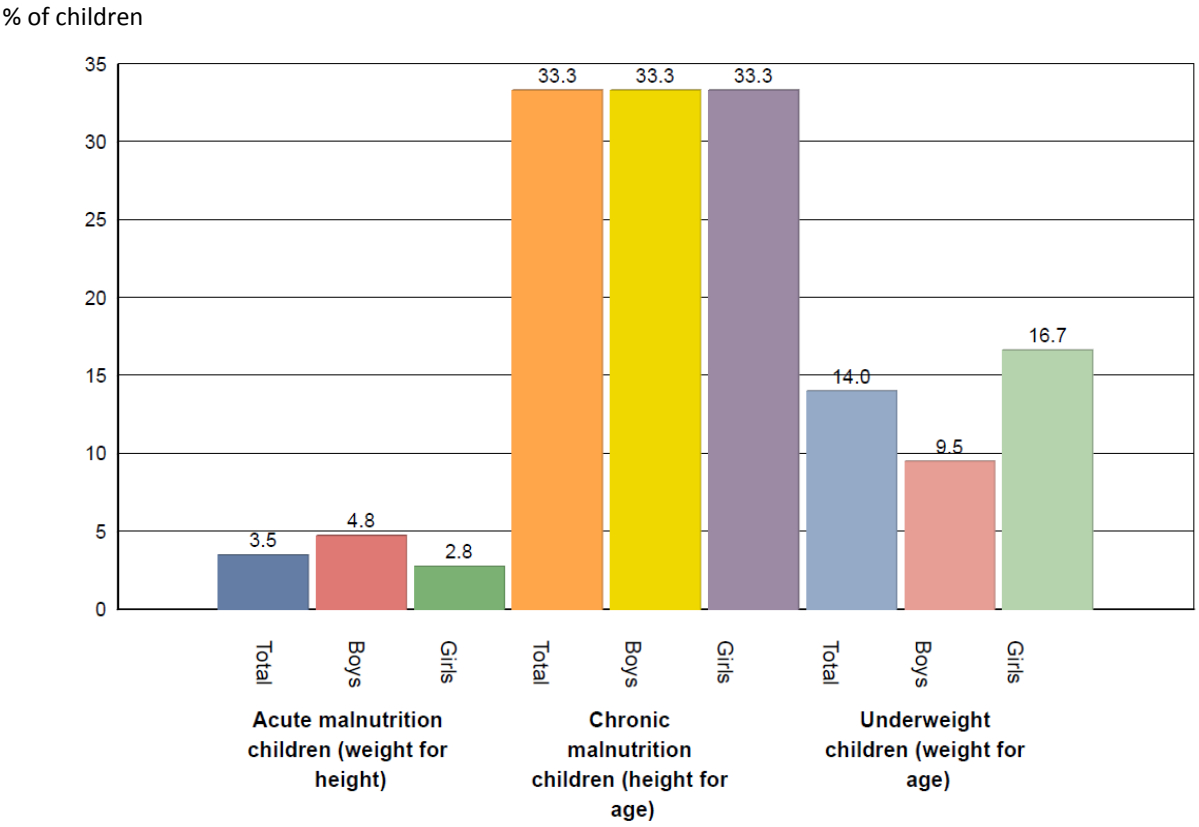

Figure 1(c): ***Number and percentage of malnourished children under 5 years of age (ULIPH Project Area)***

3.1 Household wealth distribution

Referring to table 3, in the five categories of wealth quintile, richest, rich, average, poor and poorest, the sample households in the project area are equally divided with 20 percent of the sample households in each quintile. A similar observation was made in the control sample area as well, however in ULIPH project area, the distribution varies from 19-21 percent in each quintile.

It can also be inferred from the table 15 that in the project area, 36 percent of the sample households in the richest quintile are headed by women members, the respective value for control is 28 percent and for ULIPH project area is 18 percent. Similarly, it was observed that 19 percent of the control area HHs in rich quintile is headed by women. The respective values for project and ULIPH project area are 14 percent and 10 percent, respectively.

In the average quintile, 42 percent of the control area households are headed by a women member and the respective figures for project and ULIPH project area are 22 percent and 9 percent, respectively.

Table 3: ***Household wealth distribution***

SN	Wealth Quintile	Project				Control				ULIPH Project Area			
		Number of house-holds	Percentage of house-holds	Number of female headed house-holds	Percentage of female headed house-holds	Number of households	Percentage of house-holds	Number of female headed house-holds	Percentage of female headed house-holds	Number of house-holds	Percentage of house-holds	Number of female headed house-holds	Percentage of female headed house-holds
1	Poorest	173	20%	7	4%	81	20%	2	2%	11	21%	0	0%
2	Poor	171	20%	11	6%	80	20%	5	6%	10	19%	1	10%
3	Average	170	20%	37	22%	81	20%	34	42%	11	21%	1	9%
4	Rich	170	20%	24	14%	80	20%	0	0%	10	19%	1	10%
5	Richest	171	20%	61	36%	81	20%	23	28%	11	21%	2	18%
	Total	**855**	**20%**	**140**	**16%**	**403**	**100%**	**64**	**16%**	**53**	**100%**	**5**	**9%**

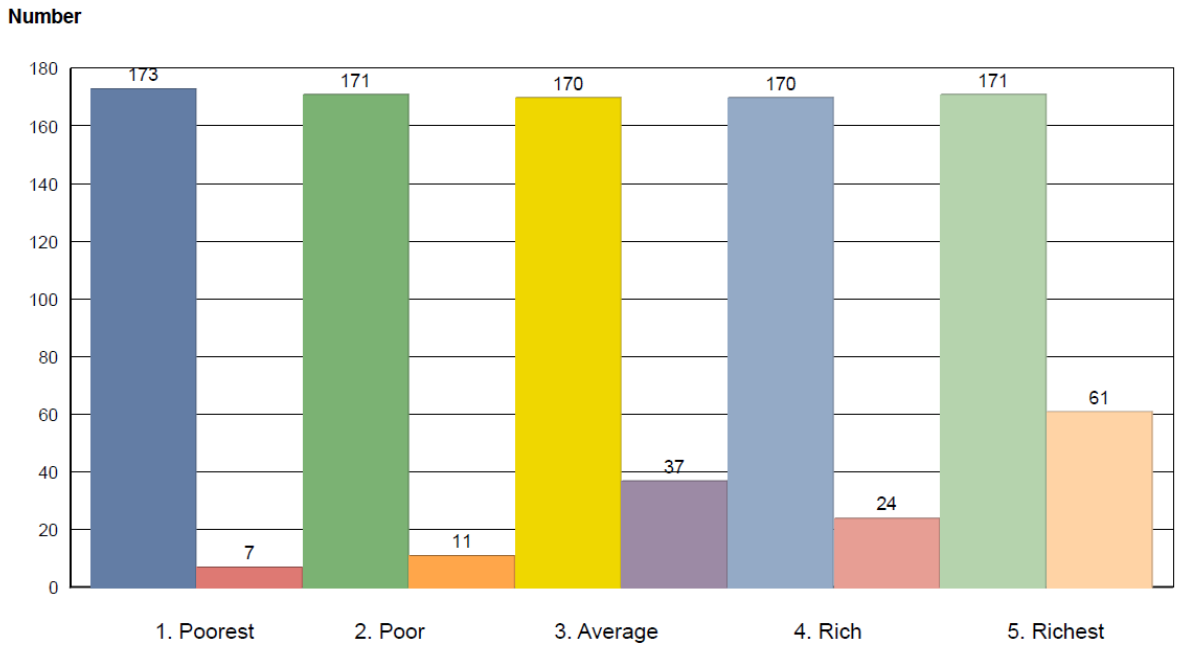

Figure 2(a): ***Wealth distribution and female headed households (Project)***

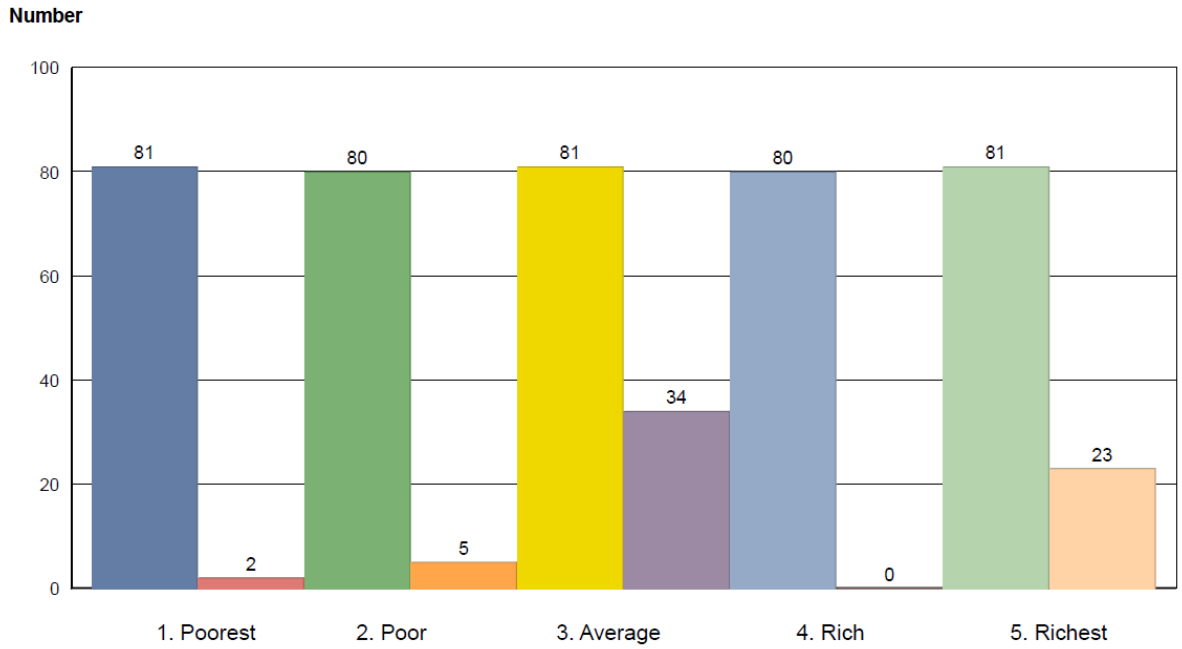

Figure 2(b): ***Wealth distribution and female headed households (Control)***

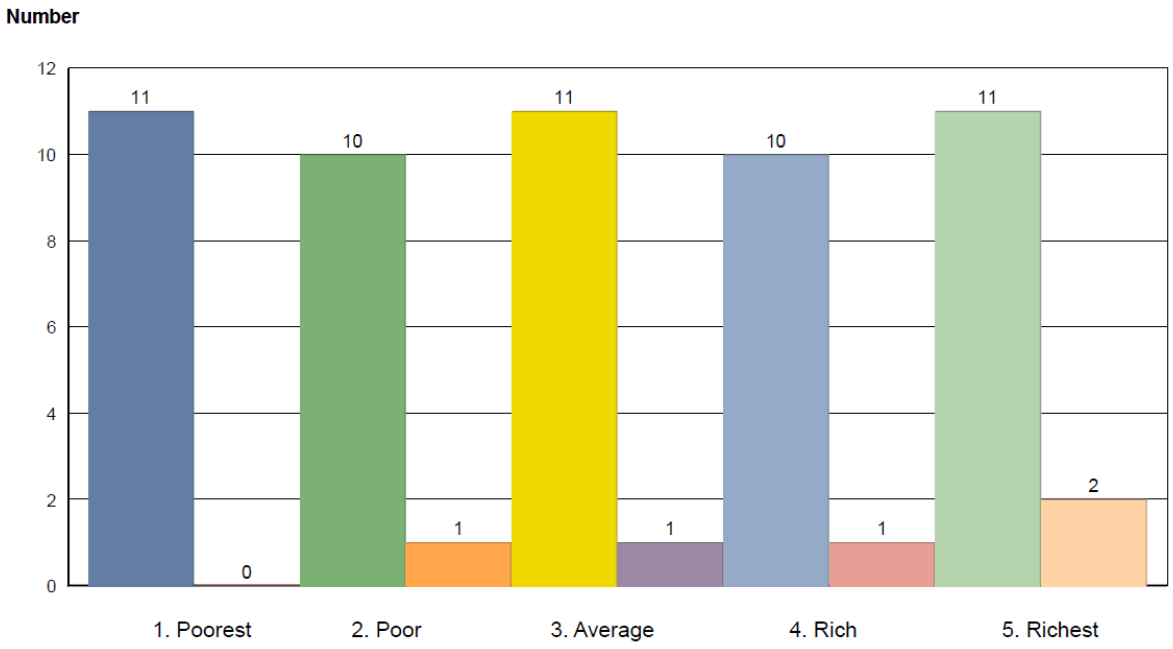

Figure 2(c): ***Wealth distribution and female headed households (ULIPH Project Area)***

4.0 Women headed households

Households are majorly headed by males in the project, control and ULIPH project areas. In the project area, 83.7 percent of the households are headed by males. The respective figures in the control and ULIPH project areas are 84.1 percent and 90.6 percent. These percentage scores imply a low influence of females over the HHs in general.

Table 4: ***Number and percentage of households, by gender of household head***

SN	Households	Project		Control		ULIPH Project Area	
		Number	Percentage	Number	Percentage	Number	Percentage
1	Male	718	84%	338	84%	48	91%
2	Female	140	16%	64	16%	5	9%
	Valid response	**858**	**100%**	**402**	**100%**	**53**	**100%**
	No response	-3		1		0	
	Total	**855**		**403**		**53**	

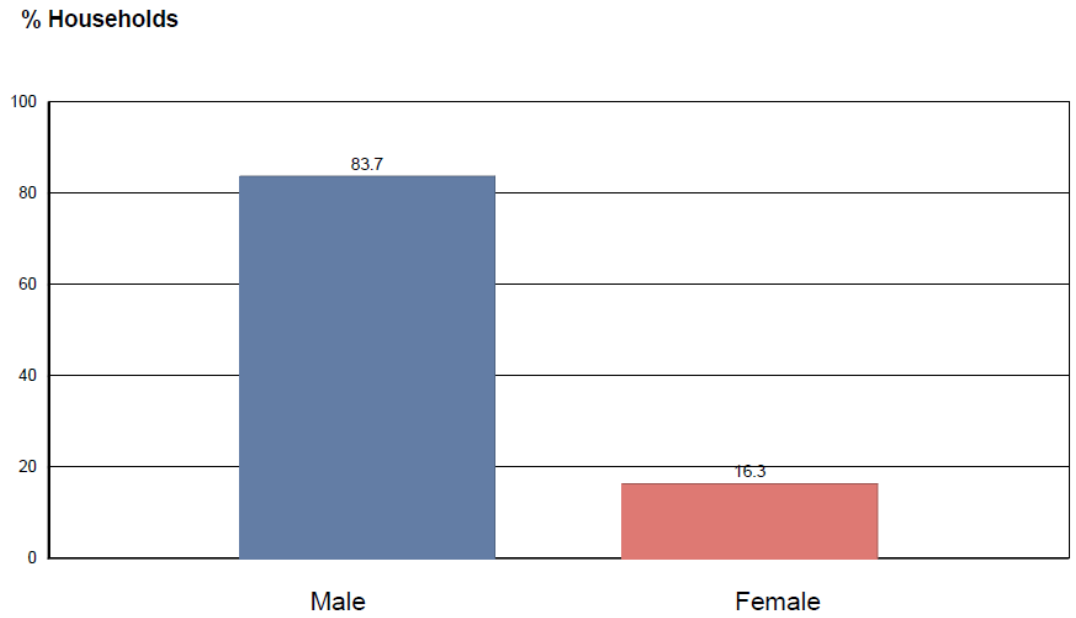

Figure 3(a): ***Percentage of households, by gender of household head (Project)***

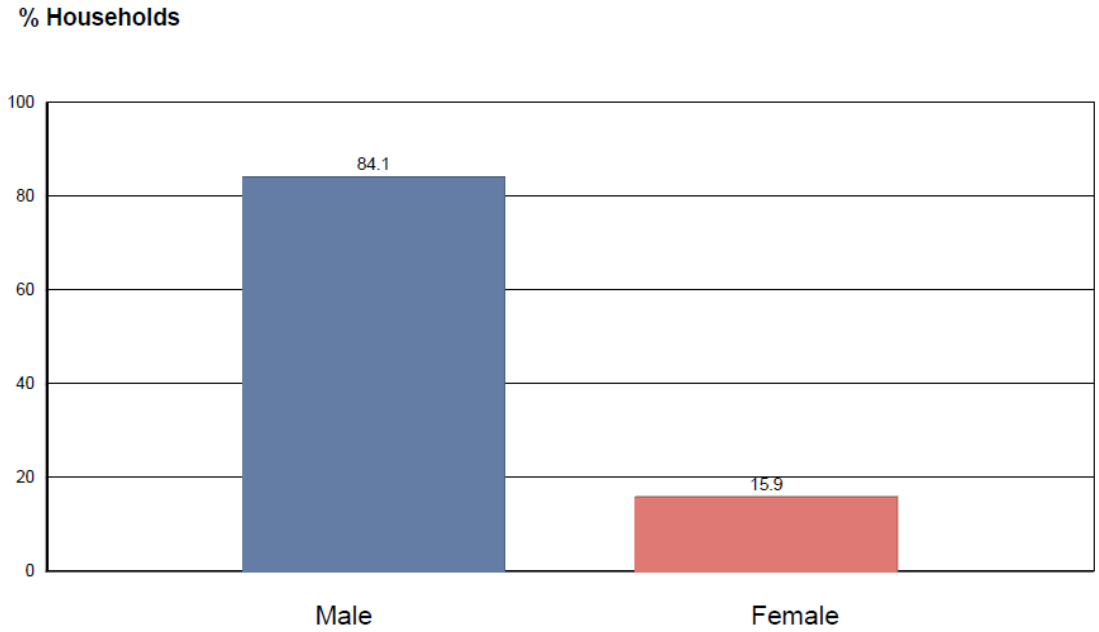

Figure 3(b): ***Percentage of households, by gender of household head (Control)***

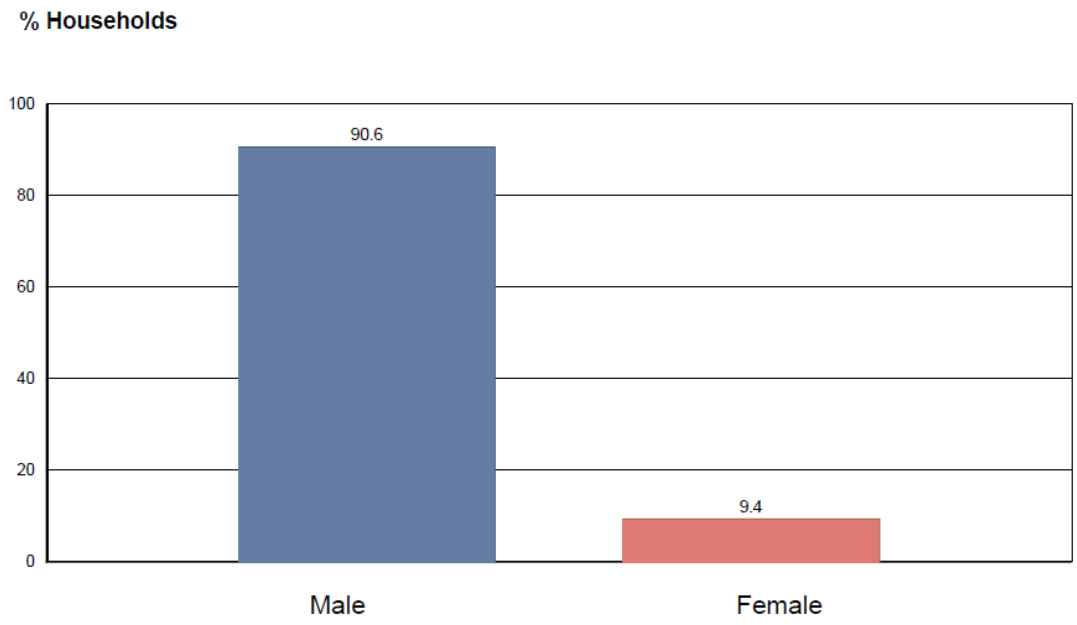

Figure 3(c): ***Percentage of households, by gender of household head (ULIPH Project Area)***

5.0 Households with sanitation facilities

The project, control and ULIPH project areas were majorly observed to be dependent on *'Pour flush latrine'* with more than 60% of the HHs dependent on it, across all the categories of HHs. This seems to be the only sanitation facility for the areas as almost all the remaining HHs resort to open defecation and a very small percentage uses flush toilets. Other kinds of sanitation such as Open Pit - Traditional pit latrine and improved pit latrine (VIP) have negligible presence in the households across all the categories.

Table 5: ***Number and percentage of households, by type of sanitation***

SN	Type of sanitation	Project		Control		ULIPH Project Area	
		Number	Percentage	Number	Percentage	Number	Percentage
1	No Facility - Bush - Field	249	29%	154	38%	17	32%
2	Open Pit - Traditional pit latrine	2	0%	3	1%	0	0%
3	Improved pit latrine(VIP)	7	1%	5	1%	0	0%
4	Pour flush latrine	553	65%	232	58%	35	66%
5	Flush toilet	44	5%	9	2%	1	2%
6	Other	0	0%	0	0%	0	0%
	Valid response	**855**	**100%**	**403**	**100%**	**53**	**100%**
	No response	0		0		0	
	Total	**855**		**403**		**53**	

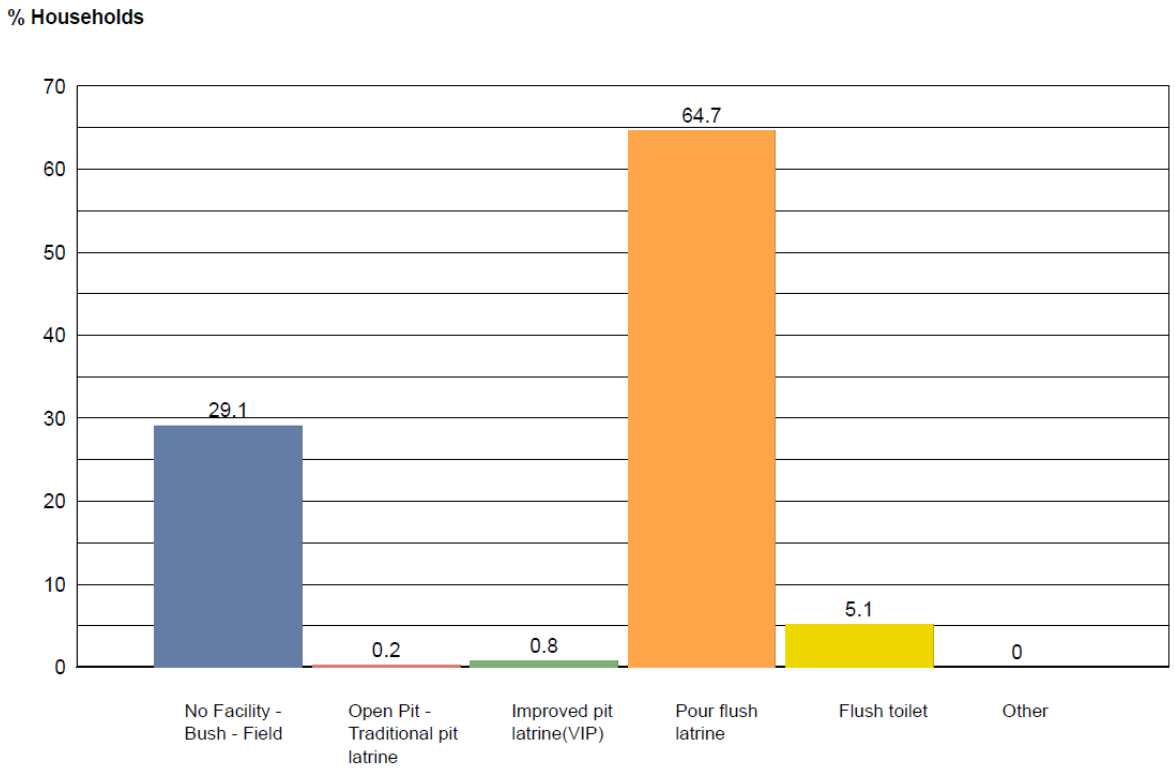

Figure 4(a): ***Percentage of households, by type of sanitation (Project)***

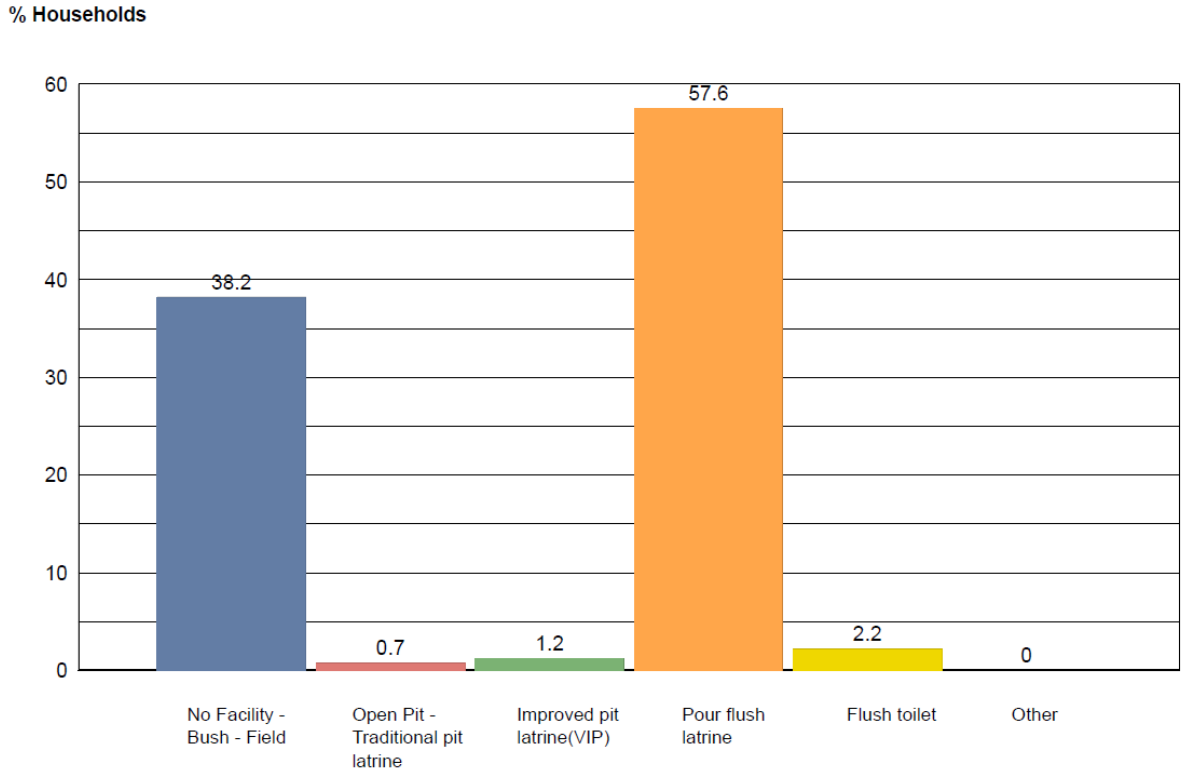

Figure 4(b): ***Percentage of households, by type of sanitation (Control)***

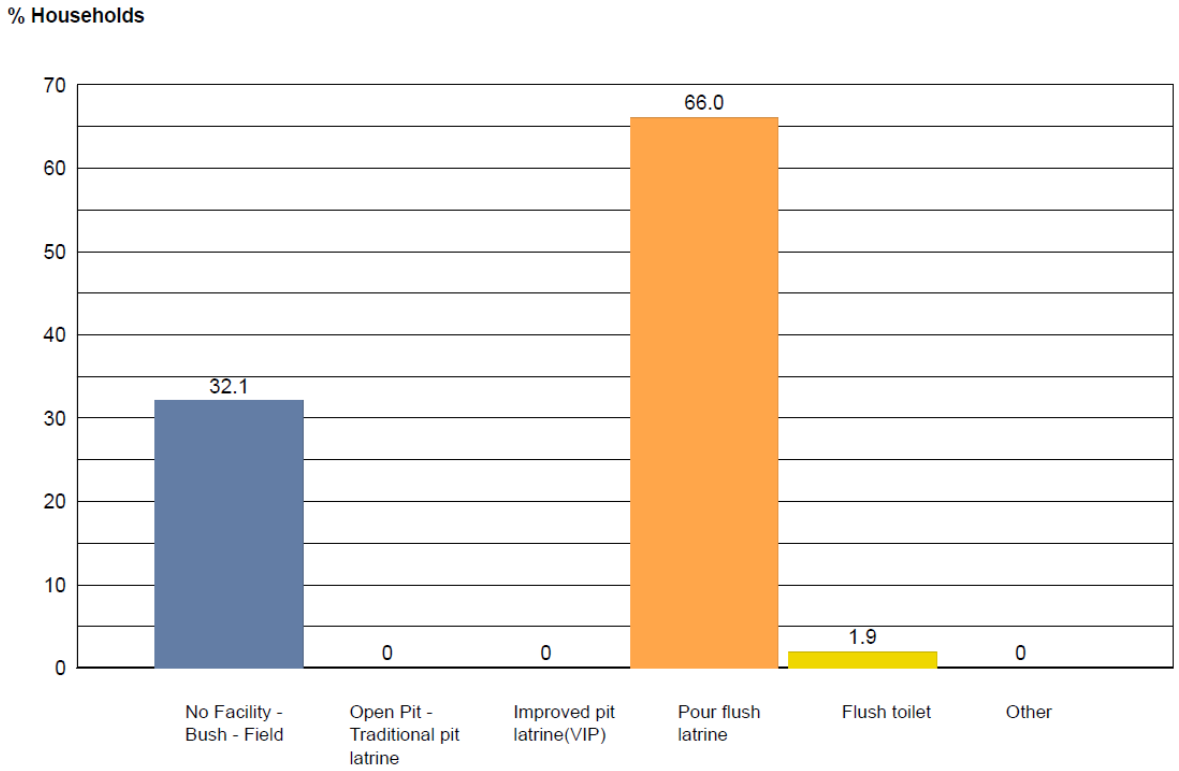

Figure 4(c): ***Percentage of households, by type of sanitation (ULIPH Project Area)***

6.0 Material of dwelling floor

The analysis shows that households mostly use cement as a material for the dwelling floor. 75.7 percent of the HHs in project area, 66.7 percent of the HHs in control area and 60.4 percent of the HHs in ULIPH project area were observed to be using cement in their households. It is followed by earth sand, with approximately 15 percent of HHs of project area, 25 percent of the HHs in control area and 30 percent of the HHs in ULIPH project area using earth sand to build the floors. Five percent of both project and control households were dependent on wooden planks, while the respective figure for ULIPH project area is 9 percent.

Table 6: *Number and percentage of households, by material of dwelling floor*

SN	Floor	Project		Control		ULIPH Project Area	
		Number	Percentage	Number	Percentage	Number	Percentage
1	Earth - Sand	127	15%	99	25%	16	30%
2	Dung	4	0%	2	0%	0	0%
3	Wood planks	43	5%	19	5%	5	9%
4	Palm - Bamboo	1	0%	0	0%	0	0%
5	Polished wood	5	1%	2	0%	0	0%
6	Vinyl or asphalt strips	2	0%	1	0%	0	0%
7	Ceramics tiles	25	3%	9	2%	0	0%
8	Cement	647	76%	269	67%	32	60%
9	Carpets	1	0%	2	0%	0	0%
10	Other	0	0%	0	0%	0	0%
	Valid response	**855**	**100%**	**403**	**100%**	**53**	**100%**
	No response	0		0			
	Total	**855**		**403**		**53**	

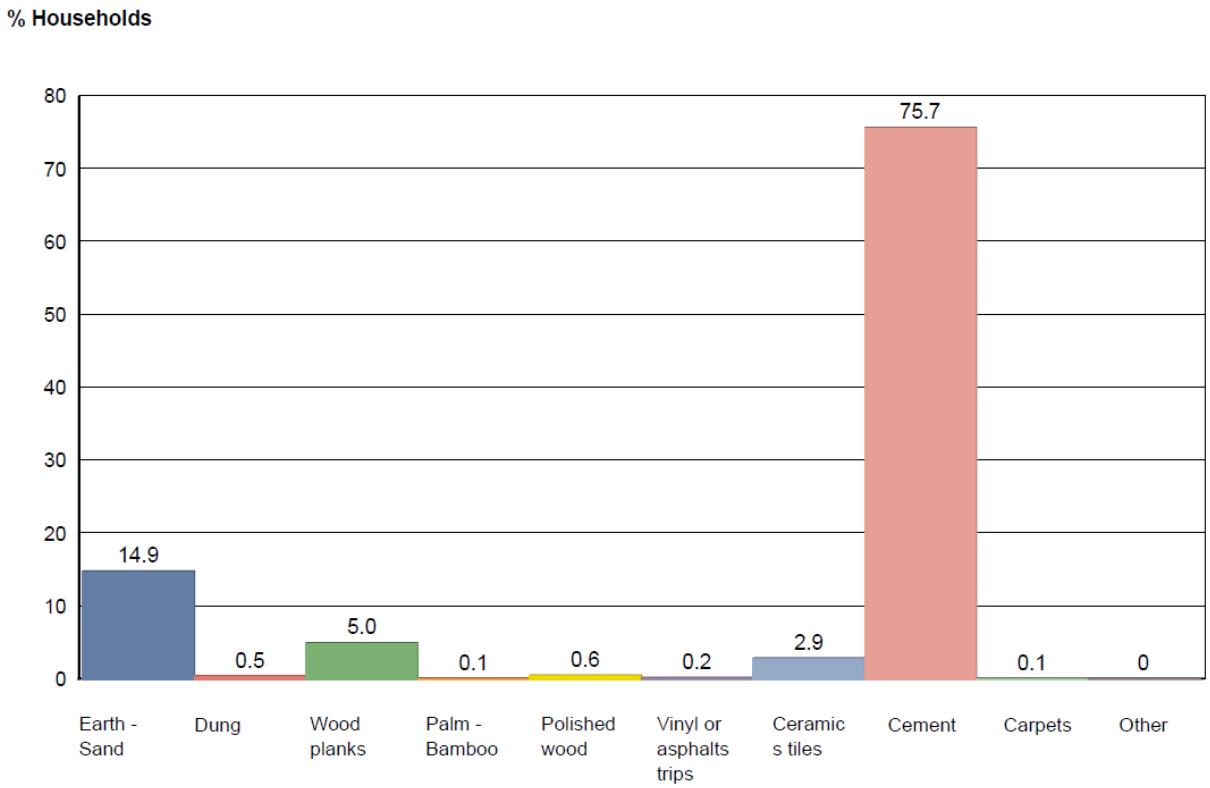

Figure 5(a): *Percentage of households, by material of the dwelling floor (Project)*

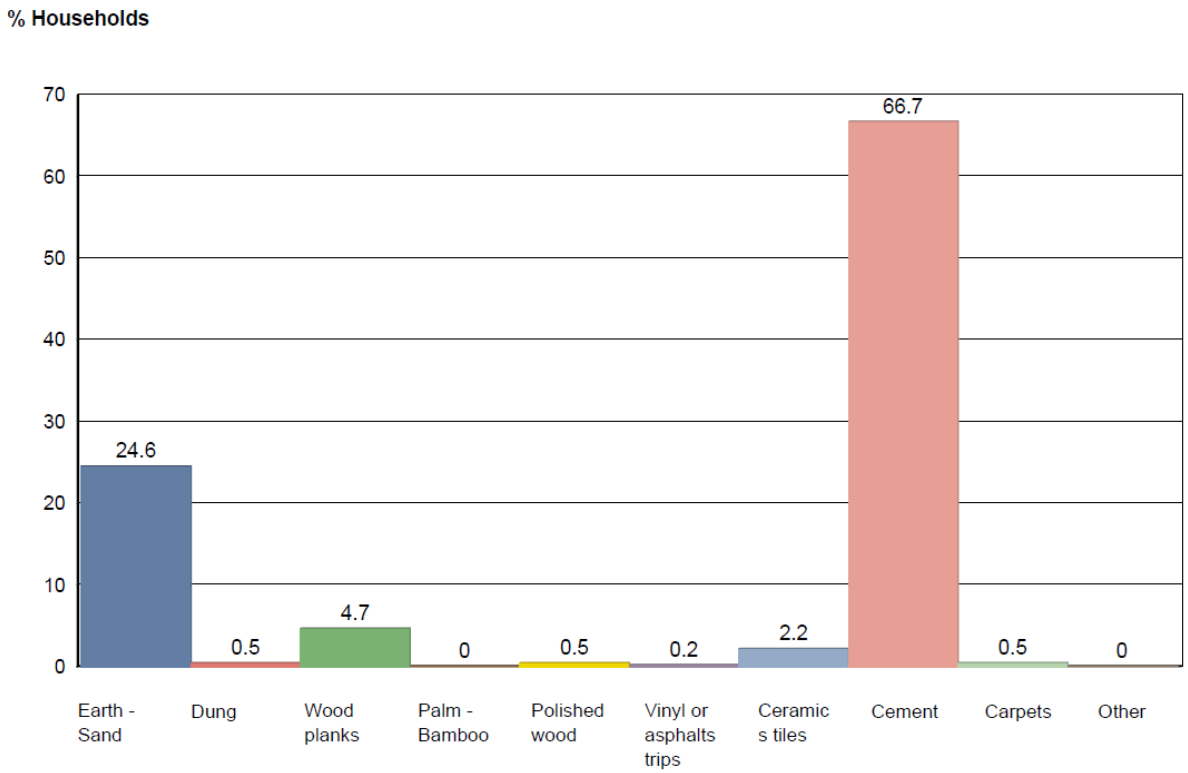

Figure 5(b): ***Percentage of households, by material of the dwelling floor (Control)***

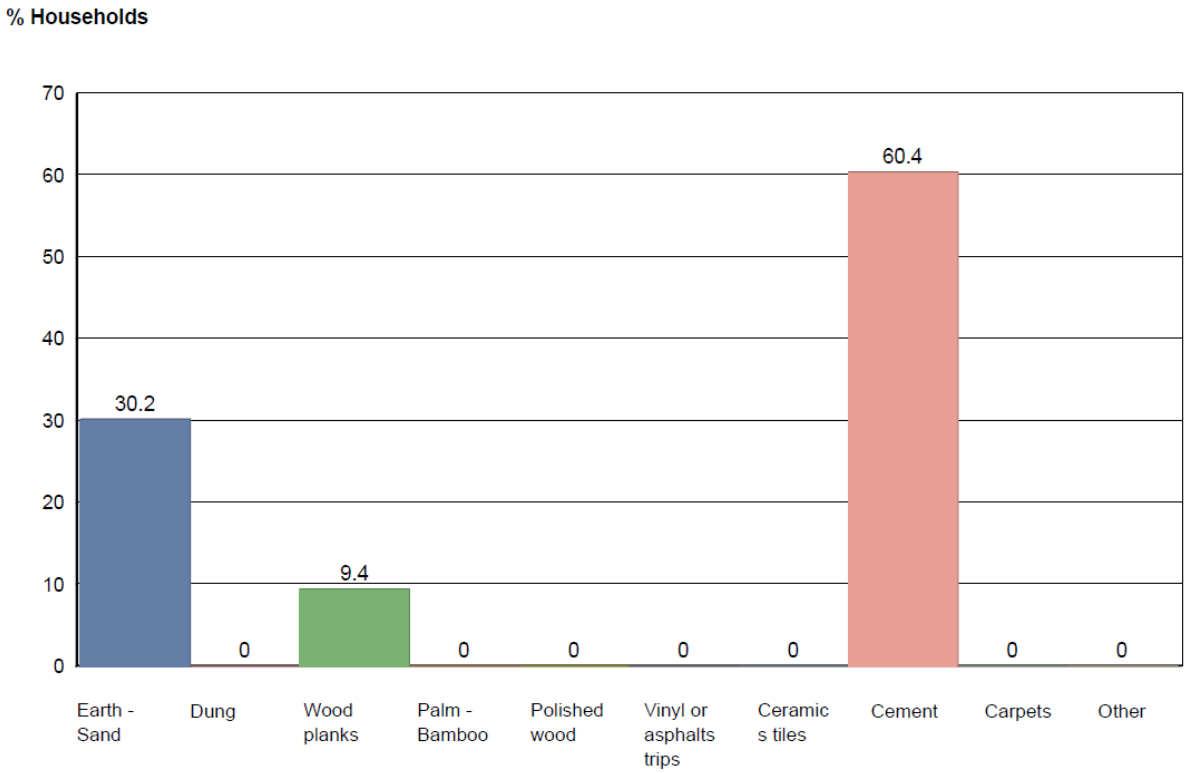

Figure 5(c): ***Percentage of households, by material of the dwelling floor (ULIPH Project Area)***

7.0 Cooking fuel

For cooking purposes, firewood straw was observed to be the major source of fuel, followed by LPG -Natural gas. In both project and ULIPH project areas, 60 percent of the HHs were observed to be reliant on firewood, while in control areas, the respective figure is 74 percent. Dependency on LPG-Natural Gas was observed to be the highest in project area with 34 percent of the HHs, while in control and ULIPH project areas, the respective figures are 20 and 26 percent respectively. Electricity and charcoal are other sources of fuel for cooking purposes, although their share is miniscule.

Table 7: *Number and percentage of households, by type of fuel used for cooking*

SN	Cooking fuel	Project		Control		ULIPH Project Area	
		Number	Percentage	Number	Percentage	Number	Percentage
1	Electricity	13	2%	12	3%	4	8%
2	LPG -Natural gas	292	34%	79	20%	14	26%
3	Biogas	1	0%	0	0%	0	0%
4	Kerosene	4	0%	1	0%	0	0%
5	Coal-Lignite	0	0%	0	0%	0	0%
6	Charcoal	30	4%	10	2%	3	6%
7	Firewood - Straw	511	60%	300	74%	32	60%
8	Dung	2	0%	0	0%	0	0%
9	Other	2	0%	1	0%	0	0%
	Valid response	**855**	**100%**	**403**	**100%**	**53**	**100%**
	No response	0		0		0	
	Total	**855**		**403**		**53**	

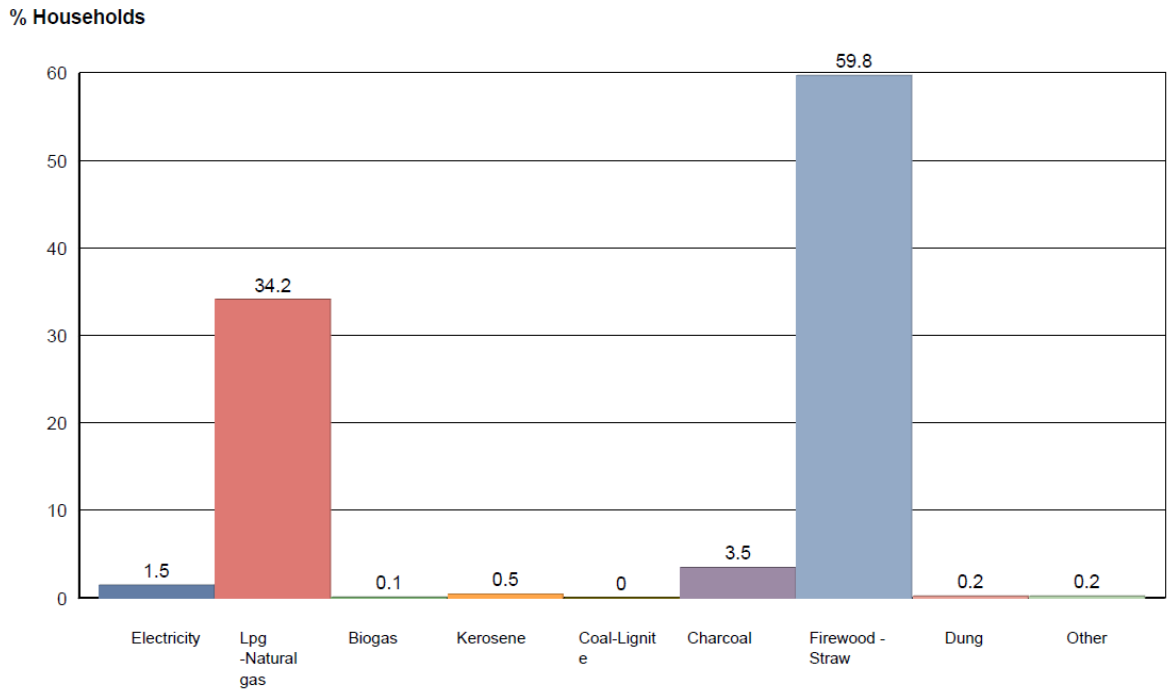

Figure 6(a): *Percentage of households, by type of fuel used for cooking (Project)*

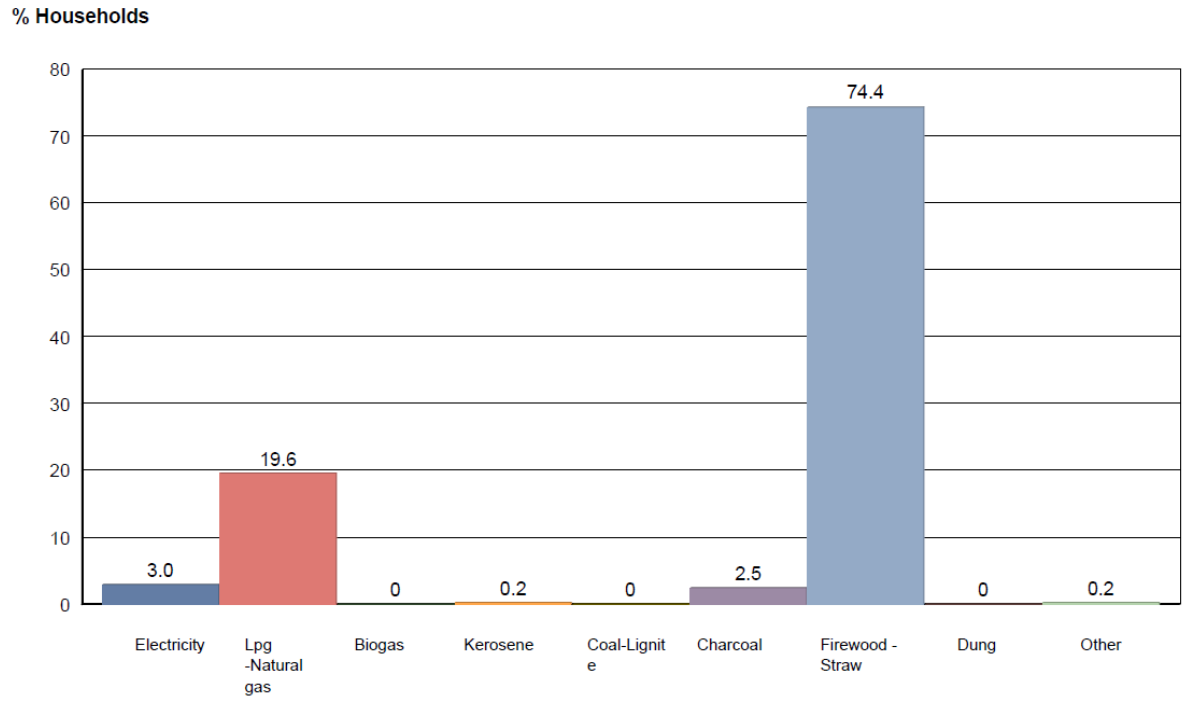

Figure 6(b): ***Percentage of households, by type of fuel used for cooking (Control)***

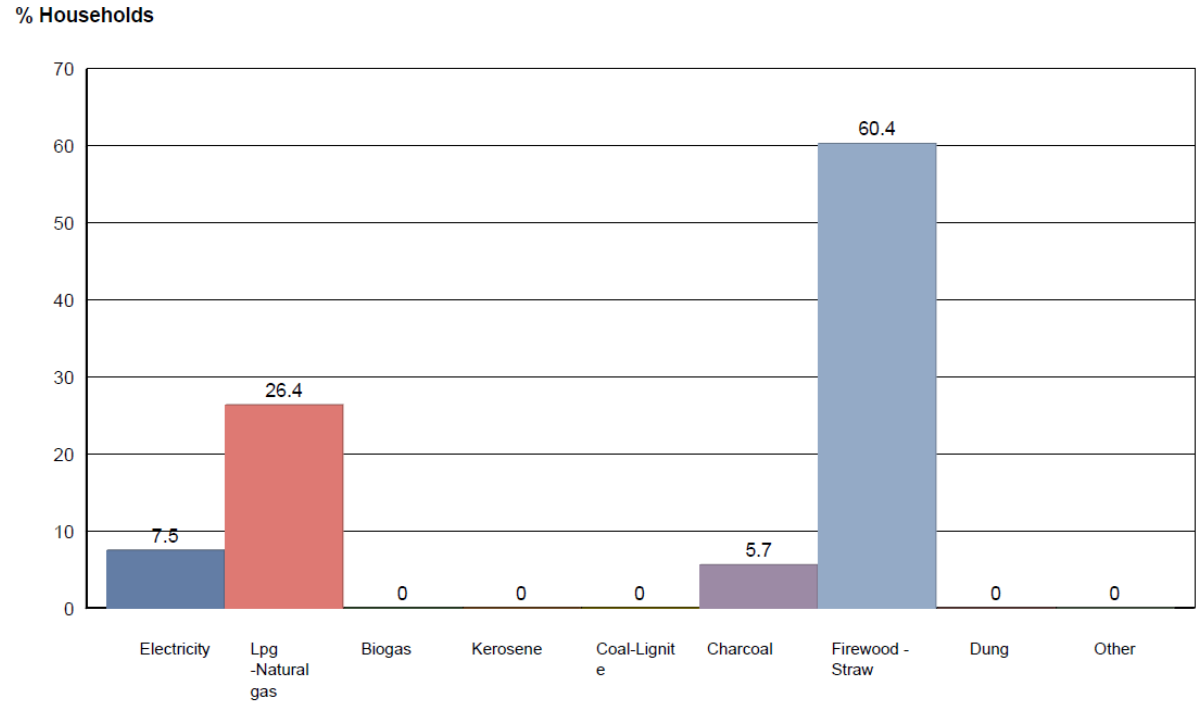

Figure 6(c): ***Percentage of households, by type of fuel used for cooking (ULIPH Project Area)***

8.0 Food security

Referring to table 8, it can be inferred that hungry seasons were mostly experienced by the HHs in control area. 17 out of the total of 403 HHs (corresponding percentage being four percent) experienced hunger season for an average duration of 2.2 months. In the project area, the respective figure of average duration is 2.5 months, however only one percent of the households have experienced it. In ULIPH project area, the average duration of hunger season is 1.5 months and it has been experienced by around four percent of the HHs. When compared to the project and control areas, it is the lowest duration experienced.

It can be observed that in the project area, out of the households that have experienced hunger seasons, 50 percent have experienced it for 2 months and the remaining 50 percent have experienced it for 3 months. In the control areas, out of the total households experiencing hunger seasons, 65 percent have experienced it for 2 months. The distribution of HHs from the ULIPH project area is similar to the project area HHs with 50 percent of them experiencing a month long hunger season and the remaining 50 percent experiencing for 2 months.

Table 8: *Number and percentage of households experiencing hungry season(s)*

SN	Hungry season	Project			Control			ULIPH Project Area		
		Number	Percentage	Average duration (months)	Number	Percentage	Average duration (months)	Number	Percentage	Average duration (months)
1	First hungry season	10	1%	2.5	17	4%	2.2	2	4%	1.5
2	Second hungry season	0	0%	0.0	1	0%	3.0	0	0%	0
	Total	**855**			**403**			**53**		

Duration (months)	Project				Control				ULIPH Project Area			
	Number and percentage of households by duration of the first hungry season		Number and percentage of households by duration of the second hungry season		Number and percentage of households by duration of the first hungry season		Number and percentage of households by duration of the second hungry season		Number and percentage of households by duration of the first hungry season		Number and percentage of households by duration of the second hungry season	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
1	0	0%	0	0%	1	6%	0	0%	1	50%	0	0%
2	5	50%	0	0%	11	65%	0	0%	1	50%	0	0%
3	5	50%	0	0%	5	29%	1	100%	0	0%	0	0%
4	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
5	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
6	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
7	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
8	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
9	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
10	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
11	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Continuous	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Valid response	**10**	**100%**	**0**	**0%**	**17**	**100%**	**1**	**100%**	**2**	**100%**	**0**	**0%**
No response	0		0		0		0		0		0	
Total	**10**		**0**		**17**		**1**		**2**		**0**	

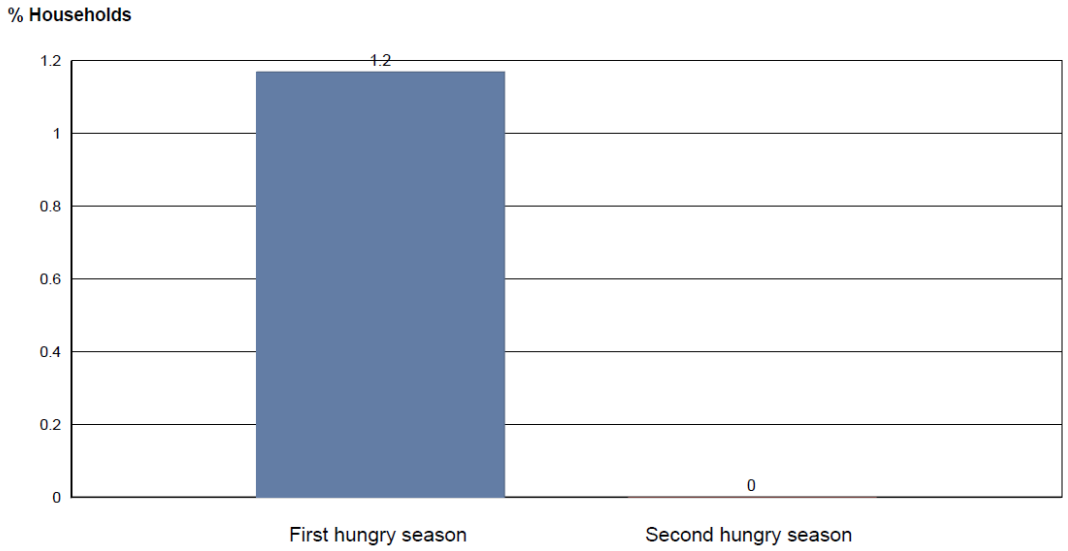

Figure 7(a): ***Percentage of households experiencing hungry season and length in months (Project)***

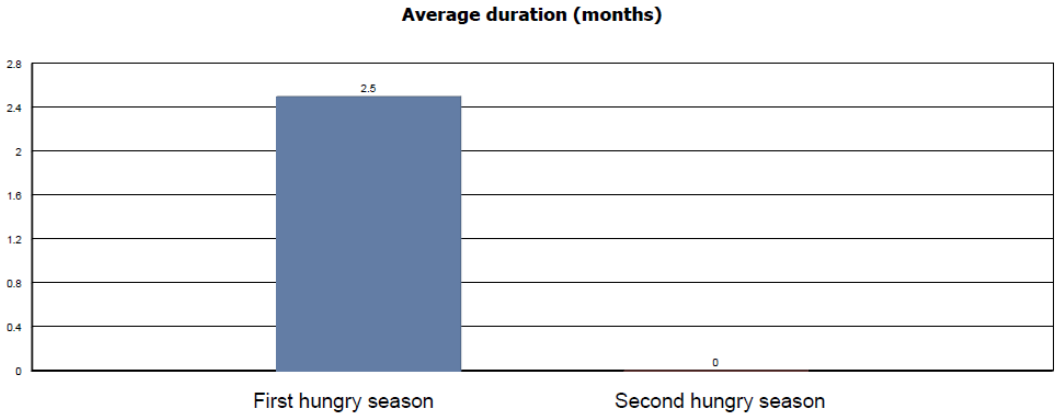

Figure 7(a)-i: ***Average Duration of hungry season (Project)***

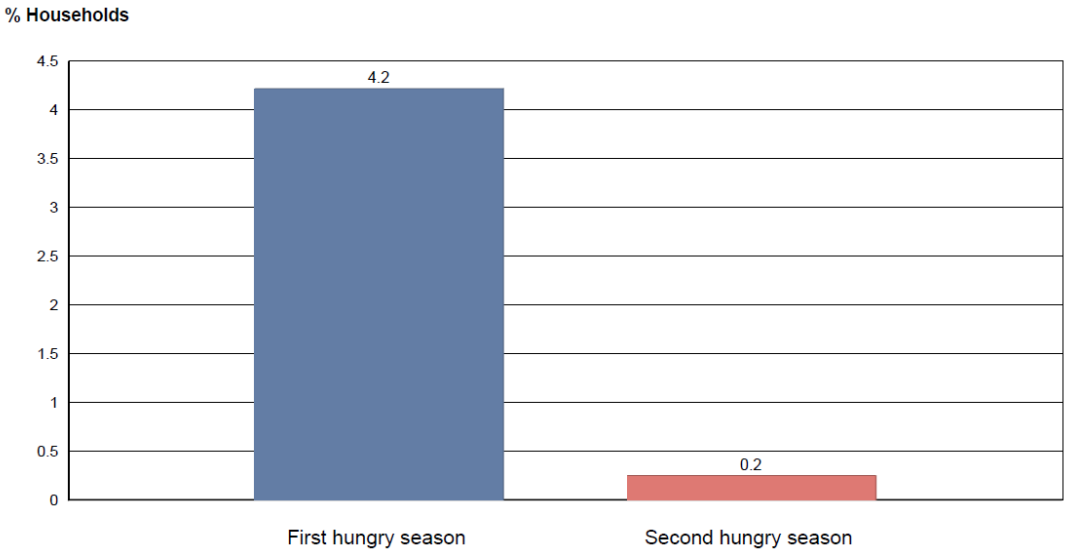

Figure 7(b): ***Percentage of households experiencing hungry season and length in months (Control)***

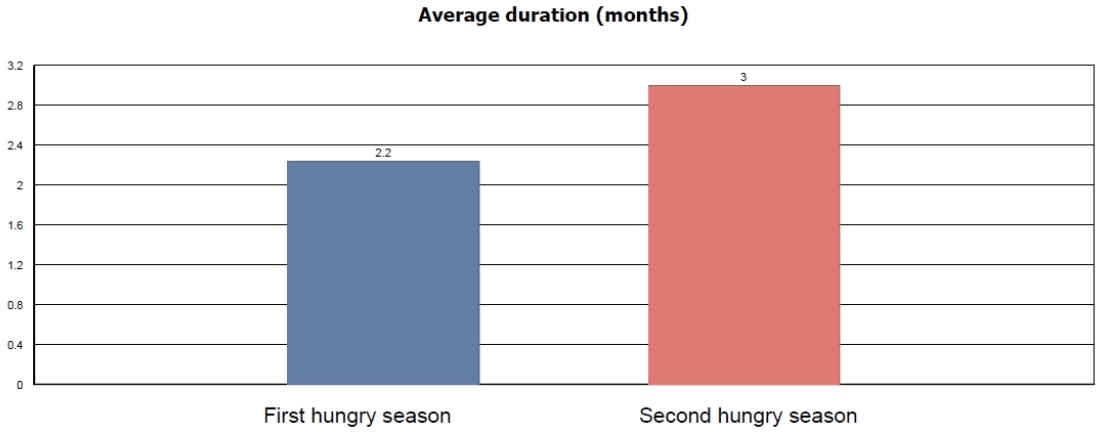

Figure 7(b)-i: ***Average Duration of hungry season (Control)***

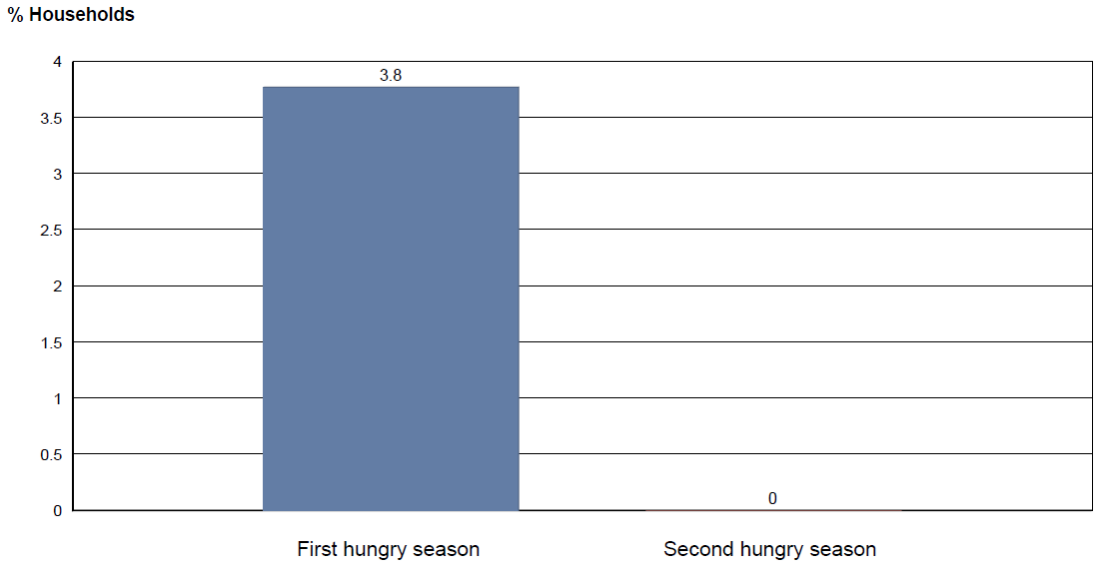

Figure 7 (c): ***Percentage of households experiencing hungry season and length in months (ULIPH Project Area)***

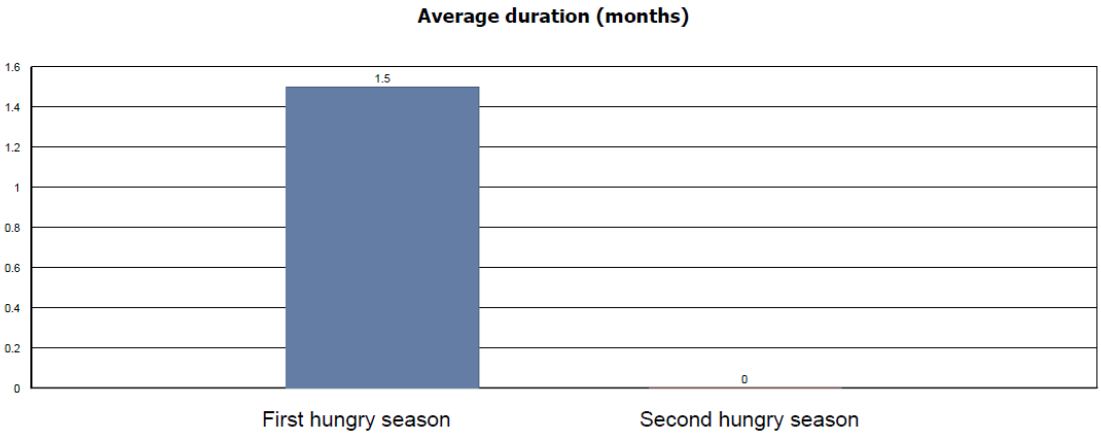

Figure 7(c)-i: ***Average Duration of hungry season (ULIPH Project Area)***

9.0 Household assets

Referring to table 9, it can be observed that households across all the categories have access to electricity, percentage score being 96 percent for project and ULIPH project area and 97 percent for control area HHs. Television is owned by 70 percent of the project, 61 percent of the control and 64 percent of the ULIPH project area HHs and it is the second most common asset to be observed amongst the sample households. It is followed by Refrigerator, wherein 21 percent of the project, 10 percent of the control and 2 percent of the ULIPH project area HHs own one. Some HHs across the three categories also own a motorcycle and other vehicles, but the percentage of such ownership is low as compared with the above mentioned assets.

Table 9: ***Number and percentage of households, by type of asset owned***

SN	Asset	Project		Control		ULIPH Project Area	
		Number	Percentage	Number	Percentage	Number	Percentage
1	Electricity	824	96%	390	97%	51	96%
2	Radio	37	4%	6	1%	0	0%
3	Television	596	70%	245	61%	34	64%
4	Refrigerator	178	21%	39	10%	1	2%
5	Bicycle	4	0%	11	3%	1	2%
6	Motorcycle	73	9%	27	7%	1	2%
7	Vehicle	22	3%	6	1%	0	0%
8	Other Asset	510	60%	222	55%	32	60%
9	Other Asset	2	0%	2	0%	0	0%

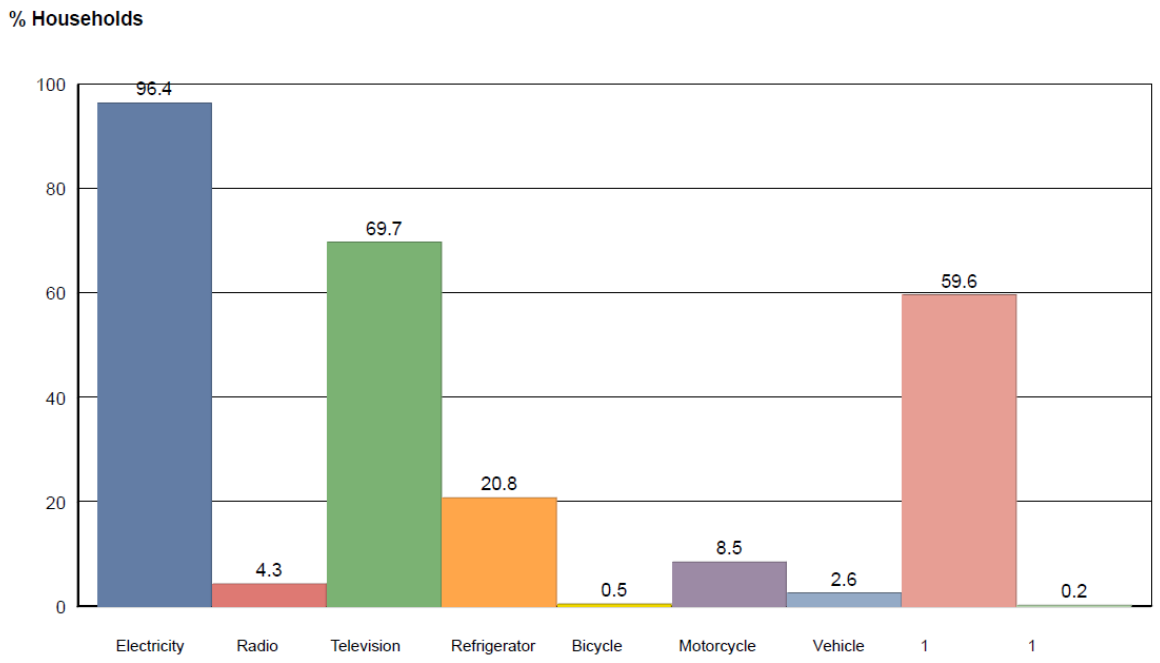

Figure 8(a): ***Percentage of households, by type of asset owned (Project)***

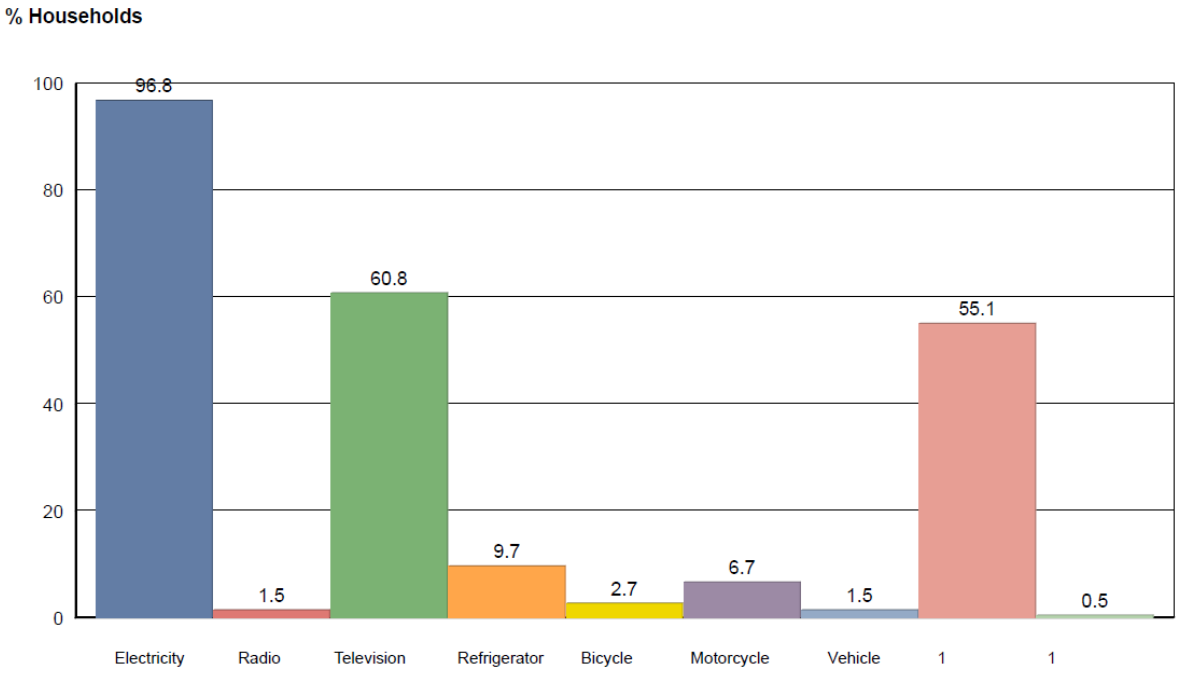

Figure 8(b): ***Percentage of households, by type of asset owned (Control)***

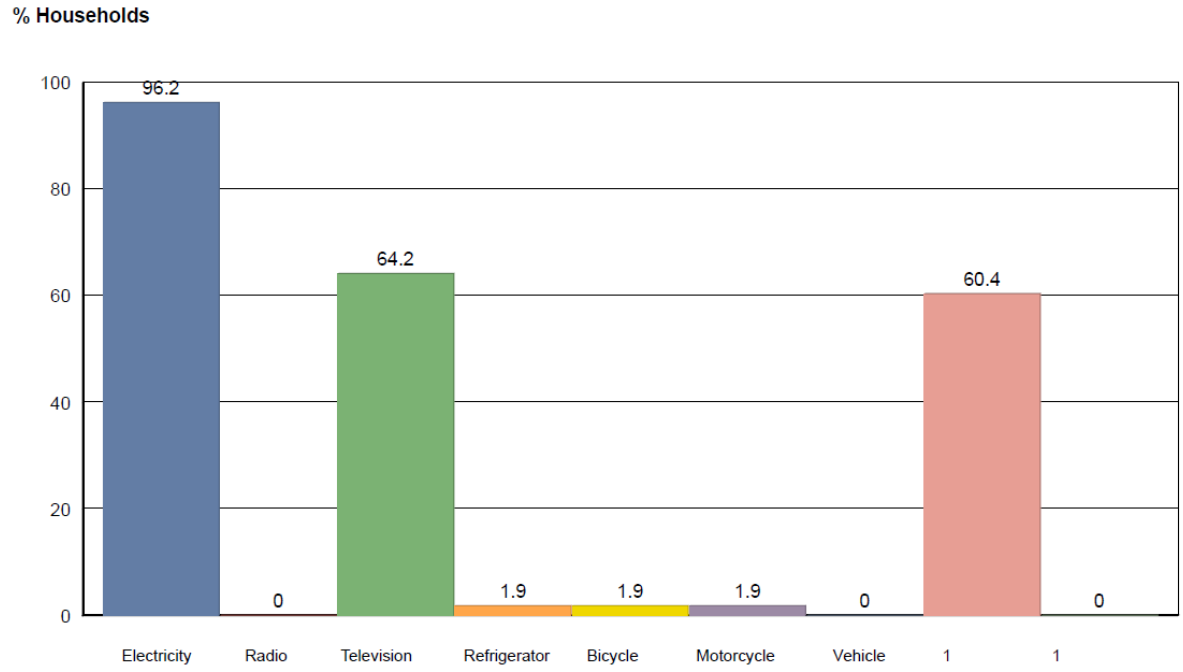

Figure 8(c): ***Percentage of households, by type of asset owned (ULIPH Project Area)***

10.0 Farm assets

It can be inferred from table 10 that cultivation of farmlands is a practice followed by a majority of the HHs. 91 percent of project and ULIPH project area and 94 percent of the control HHs practice agriculture as their main source of livelihood. For this purpose, the HHs mostly use two kinds of farm tools, i.e. Hand tool (hoe-spade) and Animal-Drawn plough with 100 percent dependency score on these two kinds of tools. Use of other techniques such as power tillers and tractors is almost negligible.

Table 10: *Number and percentage of households involved in cultivating farming land and tool used*

SN	Cultivate farm land	Project		Control		ULIPH Project Area	
		Number	Percentage	Number	Percentage	Number	Percentage
1	Yes	774	91%	377	94%	48	91%
2	No	81	9%	26	6%	5	9%
	Valid response	**855**	**100%**	**403**	**100%**	**53**	**100%**
	Invalid responses	0		0		0	
	Total	**855**		**403**		**53**	

SN	Cultivating tool	Project		Control		ULIPH Project Area	
		Number	Percentage	Number	Percentage	Number	Percentage
1	Hand tool(hoe-spade)	450	59%	244	65%	24	50%
2	Animal-Drawn plow	313	41%	132	35%	24	50%
3	Tractor-Drawn plow	4	1%	0	0%	0	0%
4	Power tiller	0	0%	0	0%	0	0%
5	[Survey Farming Tool]	0	0%	0	0%	0	0%
6	Other	0	0%	0	0%	0	0%
	Valid response	**767**	**100%**	**376**	**100%**	**48**	**100%**
	No response	7		1		0	
	Total	**774**		**377**		**48**	

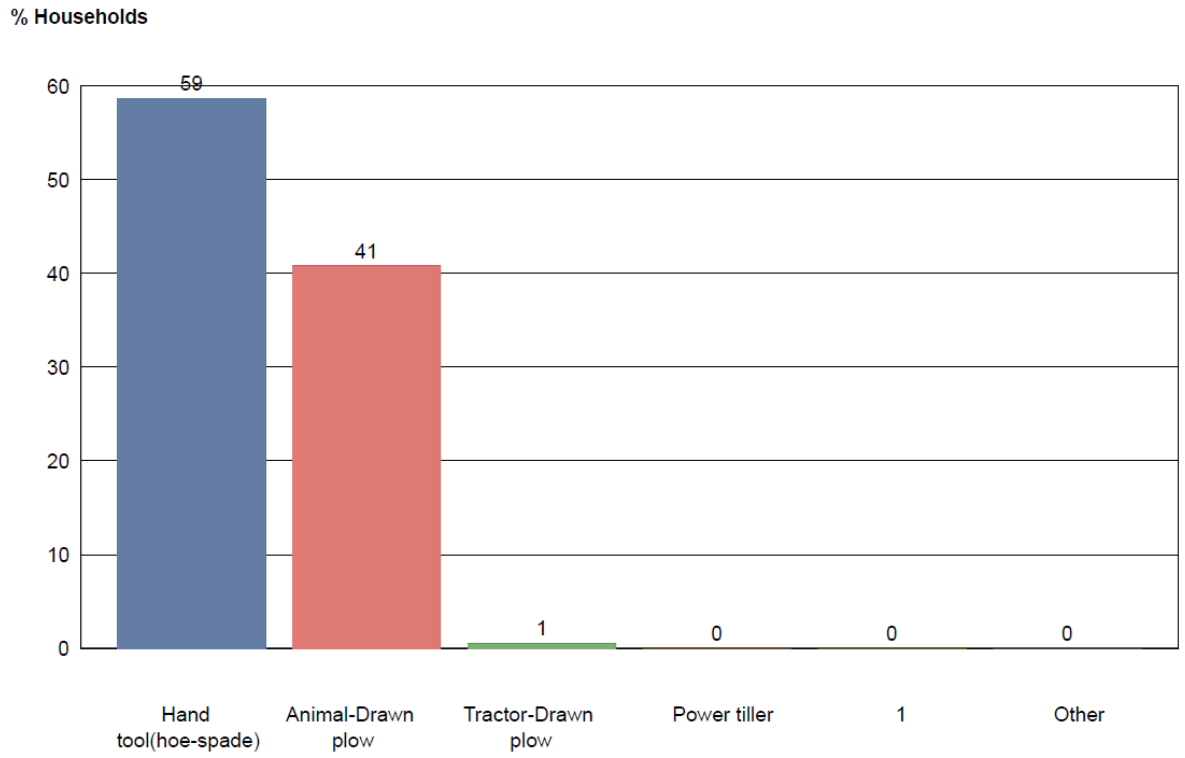

Figure 9(a): ***Percentage of households, by tool used to cultivate farmland (Project)***

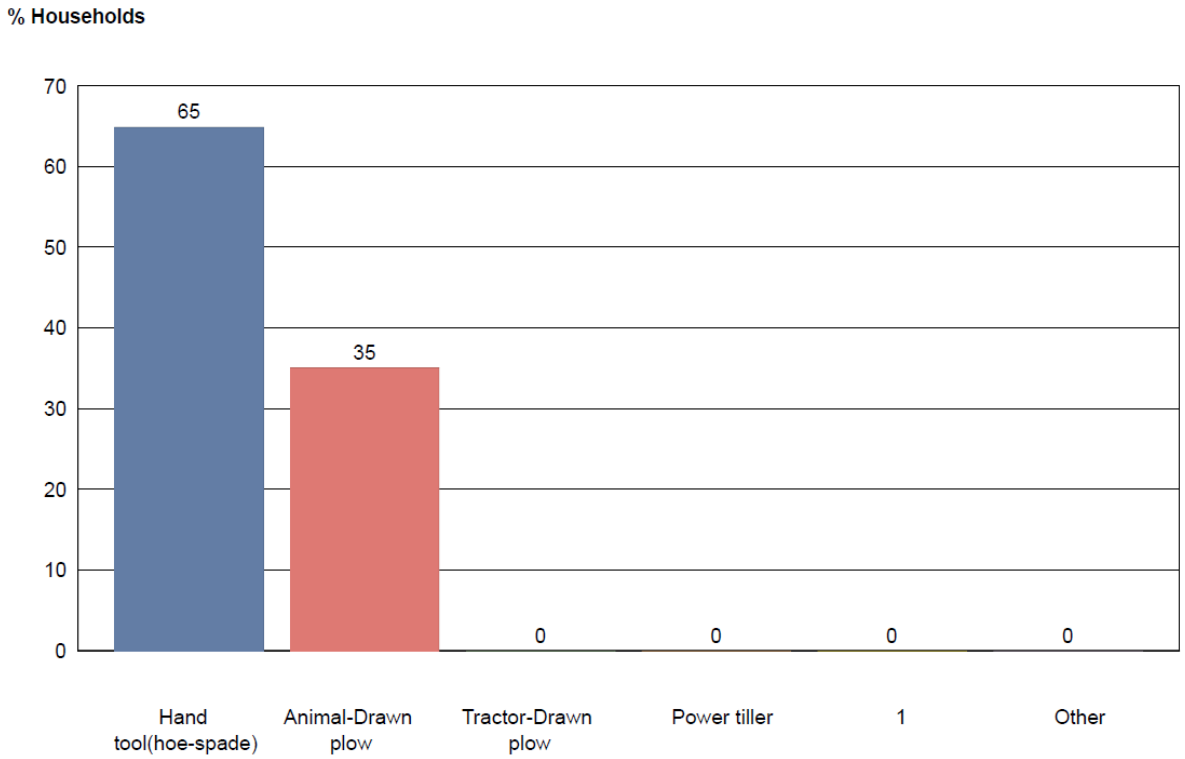

Figure 9(b): ***Percentage of households, by tool used to cultivate farmland (Control)***

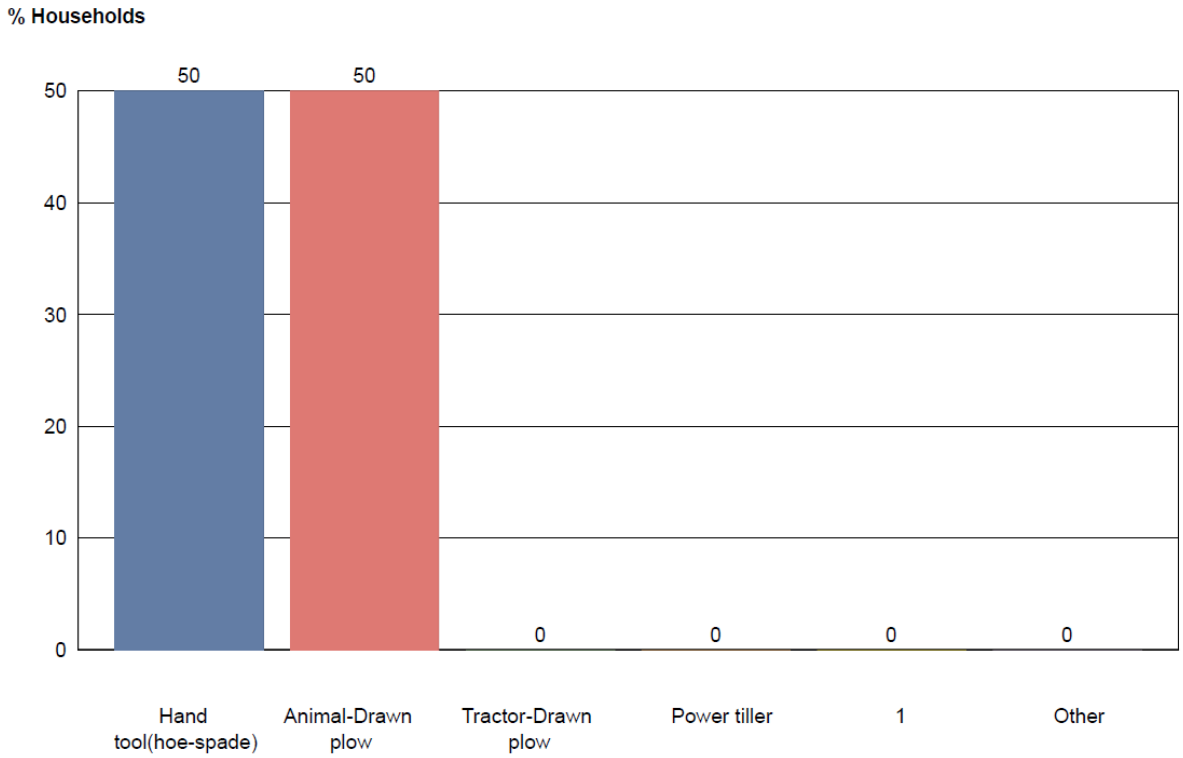

Figure 9(c): *Percentage of households, by tool used to cultivate farmland (ULIPH Project Area)*

11.0 Livestock ownership

Cattle are owned by a majority of the households in the sample area, with approximately 78 percent of the project, control and ULIPH project area HHs owning at least one. It is followed by goats, wherein, 24 percent of the project, 23 percent of the control and 19 percent of the ULIPH project area HHs have one or more than one goats. Chicken and Sheep are some of the other livestock owned by some of the households.

Table 11: *Number and percentage of households, by type of animal owned*

SN	Livestock	Project		Control		ULIPH Project Area	
		Number	Percentage	Number	Percentage	Number	Percentage
1	Chicken	47	5%	15	4%	2	4%
2	Sheep	21	2%	8	2%	0	0%
3	Goat	204	24%	93	23%	10	19%
4	Cattle	668	78%	320	79%	41	77%
5	Other animal	2	0%	1	0%	0	0%
	Total	**26**	**3%**	**17**	**4%**	**53**	**100%**

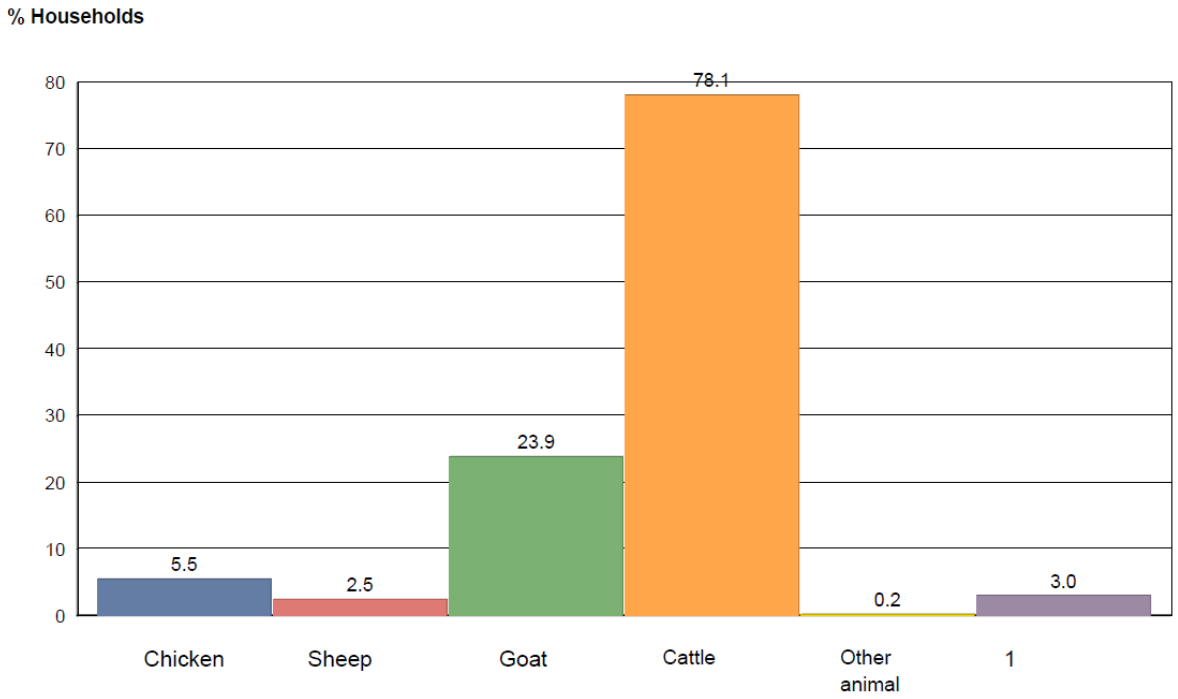

Figure 10(a): ***Percentage of households, by type of animal owned (Project)***

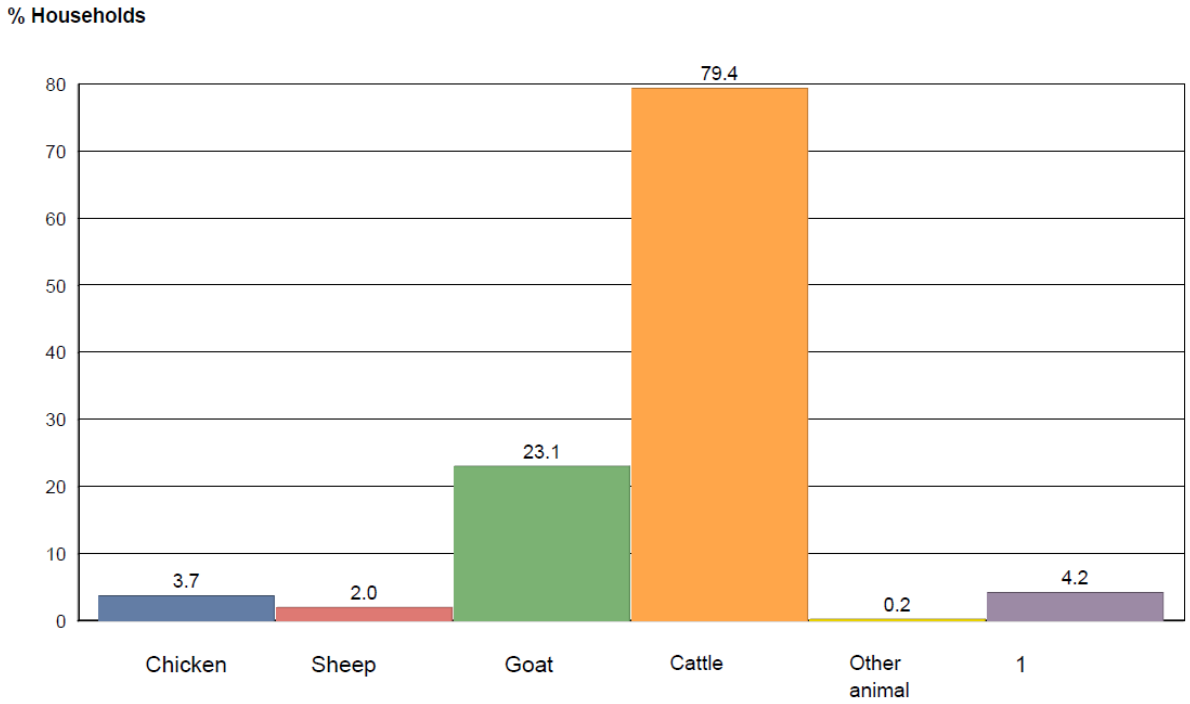

Figure 10(b): ***Percentage of households, by type of animal owned (Control)***

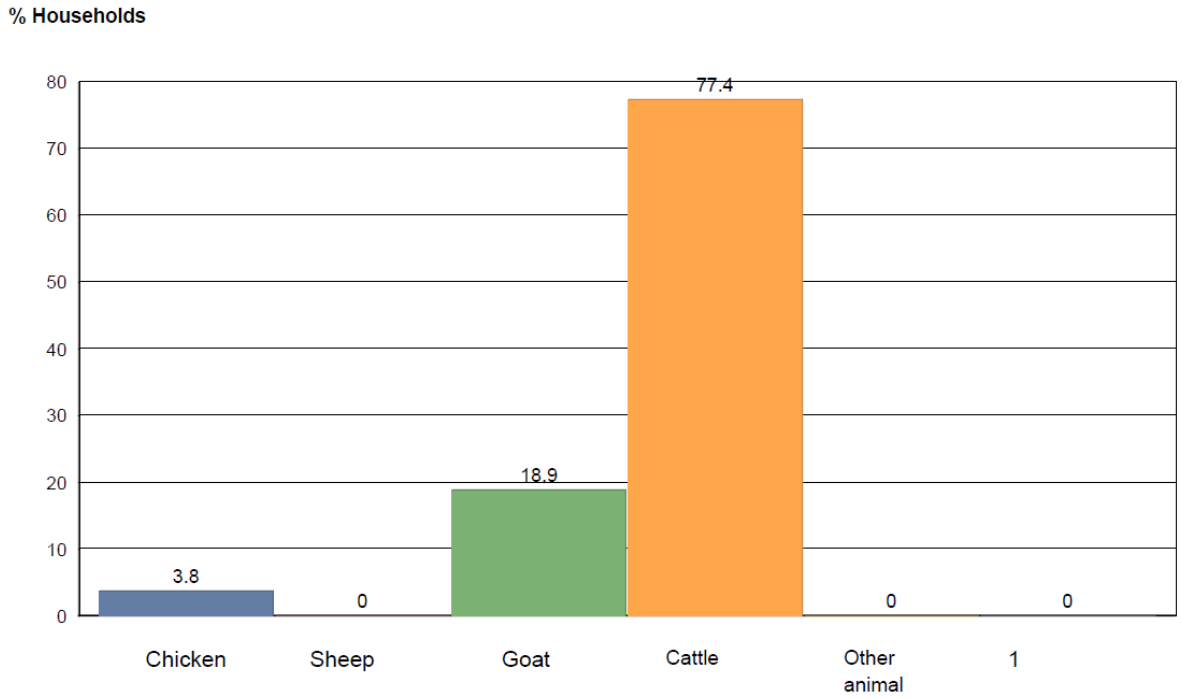

Figure 10(c): ***Percentage of households, by type of animal owned (ULIPH Project Area)***

12.0 Sources of drinking water

It can be inferred from table 14 that the most common sources of drinking water across all the categories of sample areas such as project, control and ULIPH project area are water piped into houses, piped into plots or yards and public taps. It can be observed that the project area HHs are more dependent on water piped into houses with 37 percent of the sample households dependent on it, as compared to the control and ULIPH project area whose respective percentages stand at 25 percent and 15 percent of the sample households. A high percentage of the sample households also depend on the public tap with as high as 42 percent and 37 percent of ULIPH project area and control area sample households respectively, dependent on it. Also, 22 percent of the project, 18 percent of the control and 21 percent of the ULIPH project area households depend on water piped into their plots or yards, as the main source of supply for drinking water. A few project, control and ULIPH project area HHs depend on protected springs and ponds, rivers and stream, although the overall number and percentage of HHs dependent on these sources are low as compared to the other sources discussed.

Table 12: *Number and percentage of households, by source of drinking water*

SN	Drinking water	Project		Control		ULIPH Project Area	
		Number	Percentage	Number	Percentage	Number	Percentage
1	Piped into house	320	37%	101	25%	8	15%
2	Piped into yard or plot	185	22%	73	18%	11	21%
3	Public tap	257	30%	148	37%	22	42%
4	Tubewell - Borehole with pump	18	2%	13	3%	2	4%
5	Protected dug well	0	0%	0	0%	0	0%
6	Protected spring	11	1%	7	2%	4	8%
7	Rainwater collection	4	0%	0	0%	0	0%
8	Bottled water	0	0%	0	0%	0	0%
9	Unprotected dug well	0	0%	2	0%	0	0%
10	Unprotected spring	4	0%	6	1%	3	6%
11	Pond, river or stream	51	6%	50	12%	3	6%
12	Tanker - Truck, wendor	0	0%	0	0%	0	0%
13	Other	5	1%	2	0%	0	0%
	Valid response	**855**	**100%**	**402**	**100%**	**53**	**100%**
	No response	0		1		0	
	Total	**855**		**403**		**53**	

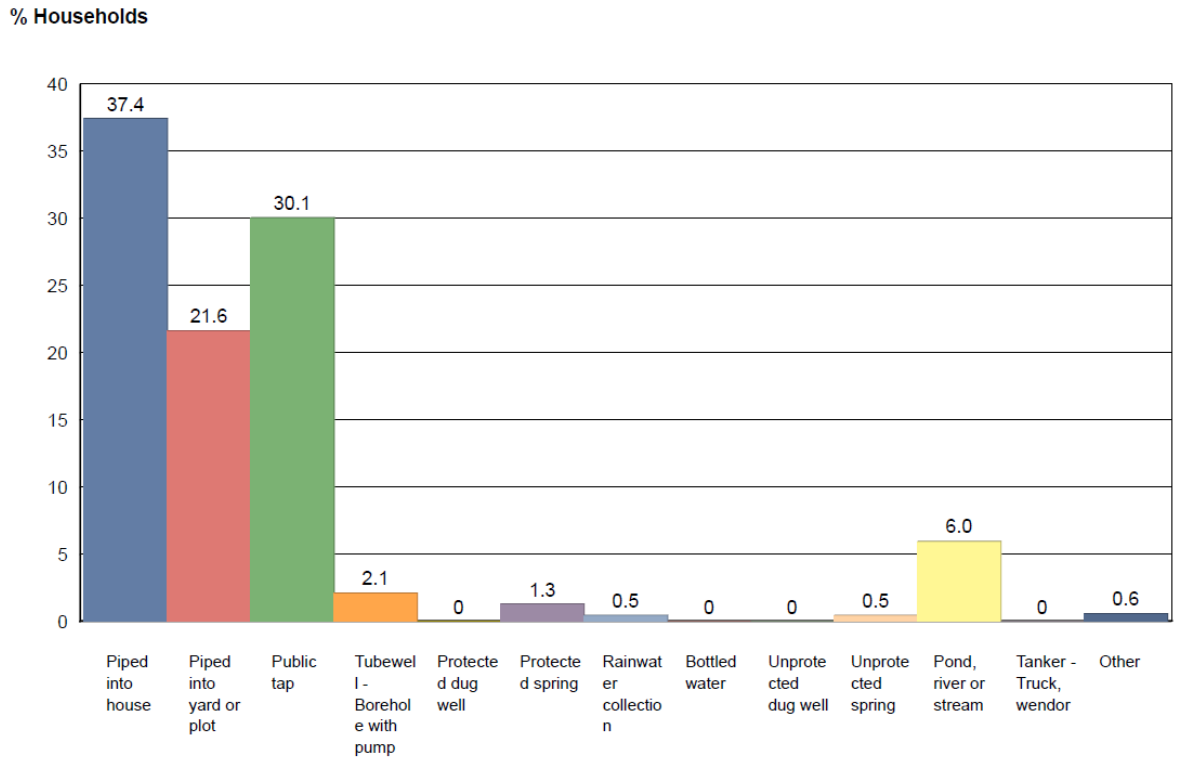

Figure 11(a): *Percentage of households, by source of drinking water (Project)*

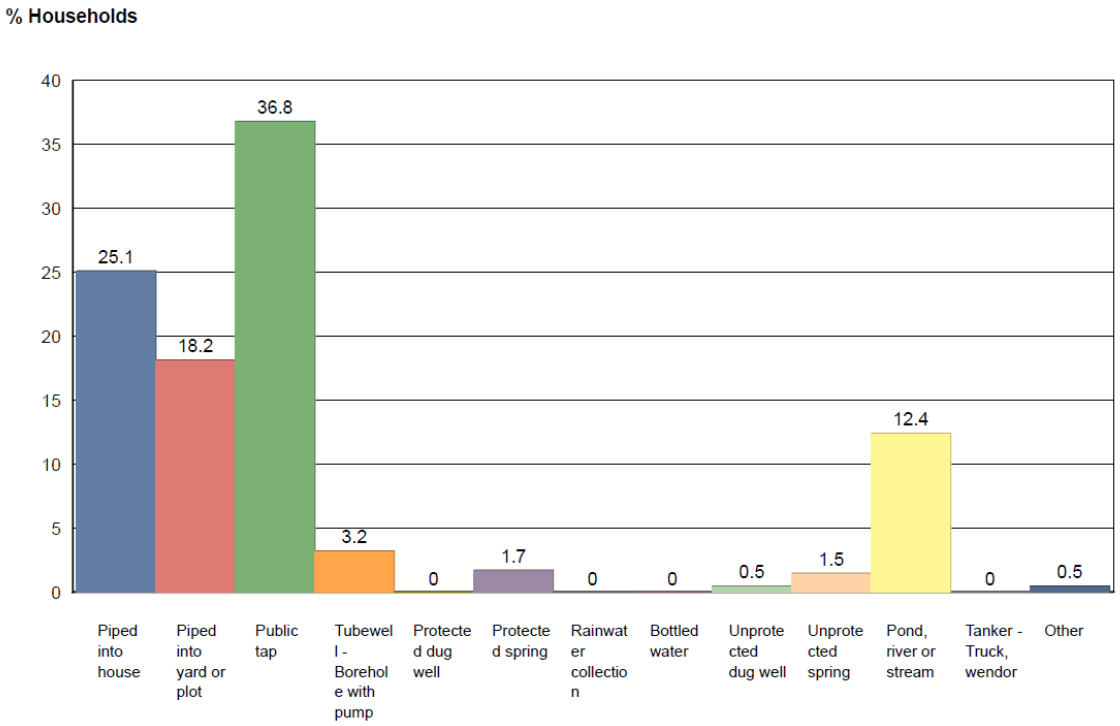

Figure 11(b): ***Percentage of households, by source of drinking water (Control)***

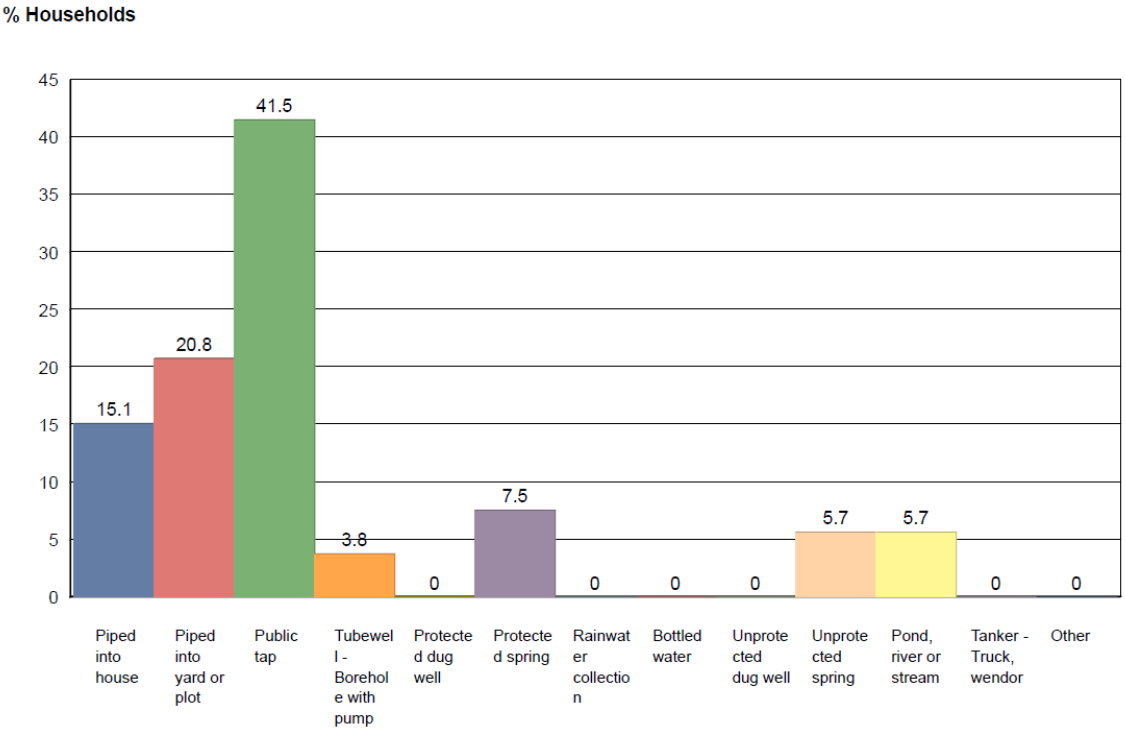

Figure 11(c): ***Percentage of households, by source of drinking water (ULIPH Project Area)***

13.0 Acute malnutrition in children

It was observed that across project, control and ULIPH project areas, boys are more malnourished than the girls. In the chronic malnutrition category as well, the ULIPH project areas fared better than both the project and control areas.

Table 13: *Number and percentage of acutely malnourished (Weight for Height) children under 5 years of age*

SN	Acute malnutrition children	Project				Control				ULIPH Project Area			
		Number	Percentage	Valid observations	Total	Number	Percentage	Valid observations	Total	Number	Percentage	Valid observations	Total
1	Boys	52	10%	502	539	41	17%	243	267	1	5%	21	26
2	Girls	52	10%	543	575	36	13%	274	293	1	3%	36	39
	Total	**104**	**10%**	**1045**	**1114**	**77**	**15%**	**517**	**560**	**2**	**4%**	**57**	**65**

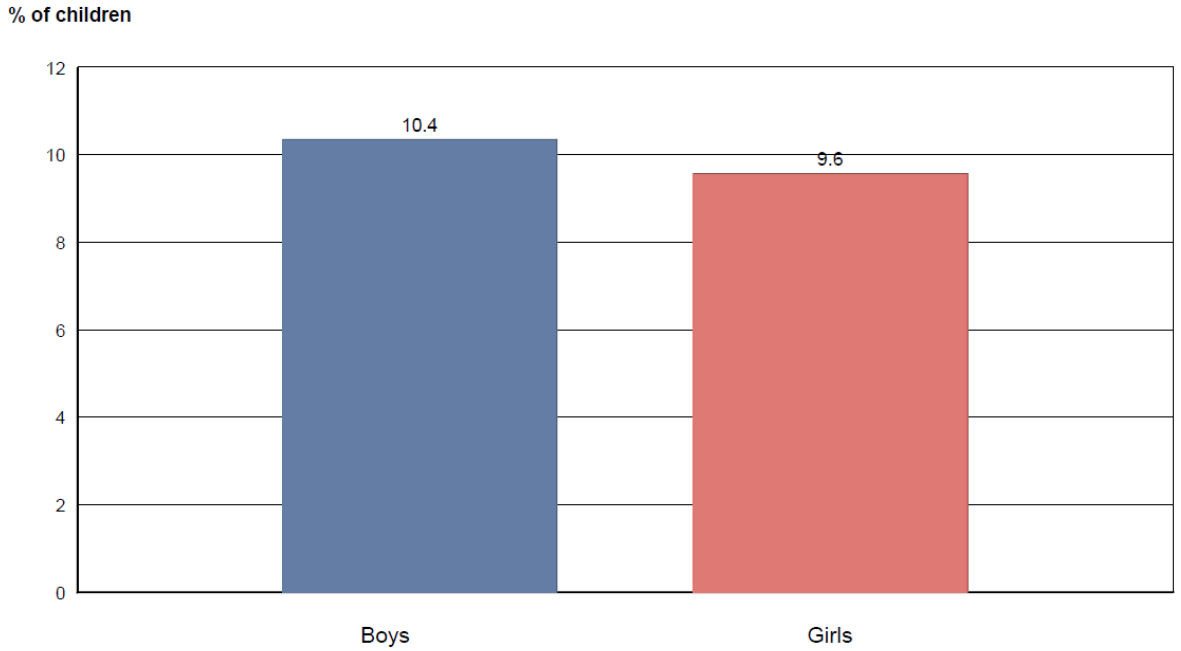

Figure 12(a): *Percentage of acutely malnourished (Weight for Height) children under 5 years of age (Project)*

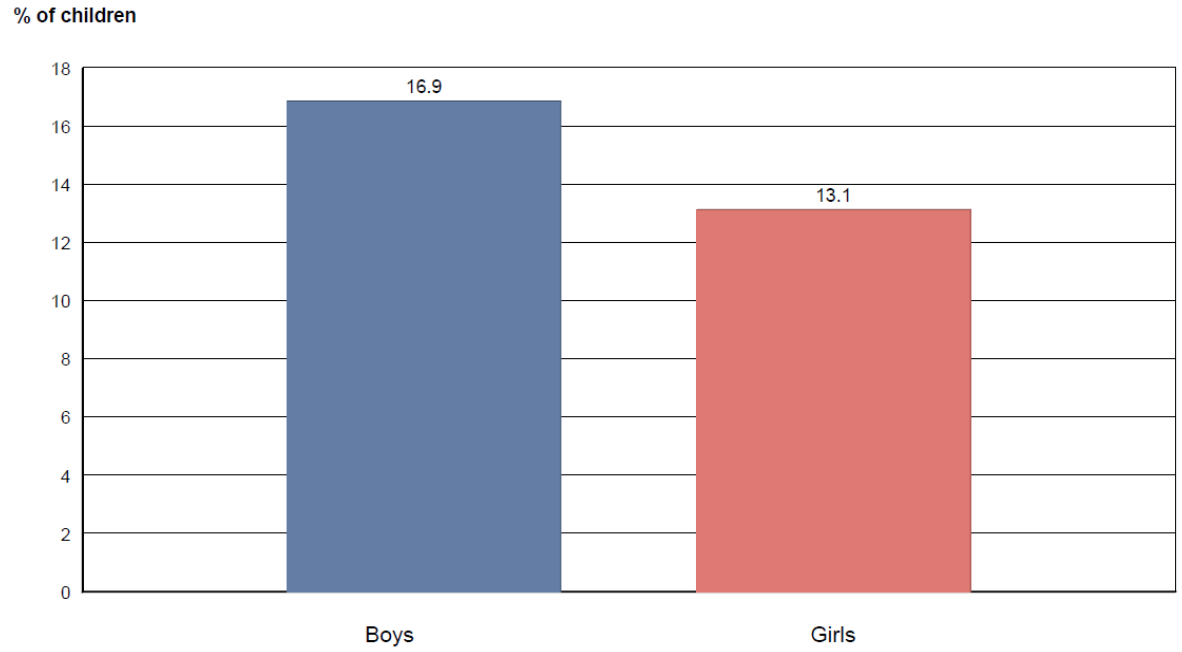

Figure 12(b): ***Percentage of acutely malnourished (Weight for Height) children under 5 years of age (Control)***

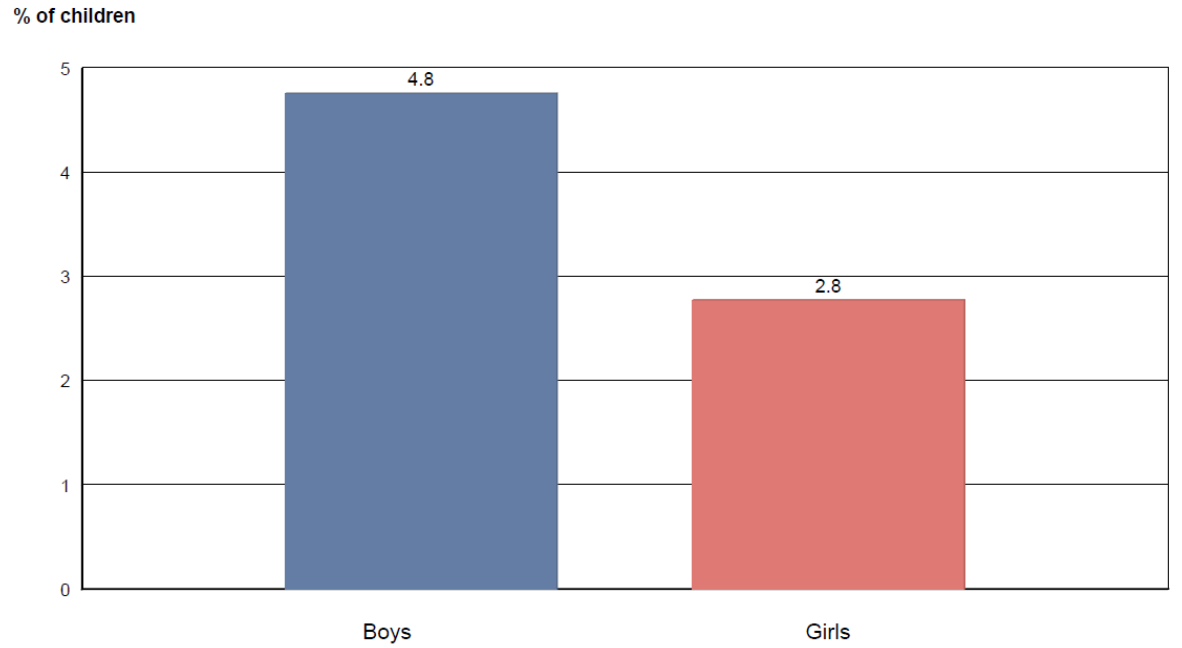

Figure 12(c): ***Percentage of acutely malnourished (Weight for Height) children under 5 years of age (ULIPH Project Area)***

14.0 Chronic malnutrition in children

Even in this category, more percentage of boys were observed to be malnourished than the girls. However, in the ULIPH project area, the percentage score was the same for both boys and girls.

Table 14: *Number and percentage of chronically malnourished (Height for Age) children under 5 years of age*

SN	Chronic malnutrition children	Project				Control				ULIPH Project Area			
		Number	Percentage	Valid observations	Total	Number	Percentage	Valid observations	Total	Number	Percentage	Valid observations	Total
1	Boys	262	52%	502	539	128	53%	243	267	7	33%	21	26
2	Girls	148	27%	543	575	95	35%	274	293	12	33%	36	39
	Total	**410**	**39%**	**1045**	**1114**	**223**	**43%**	**517**	**560**	**19**	**33%**	**57**	**65**

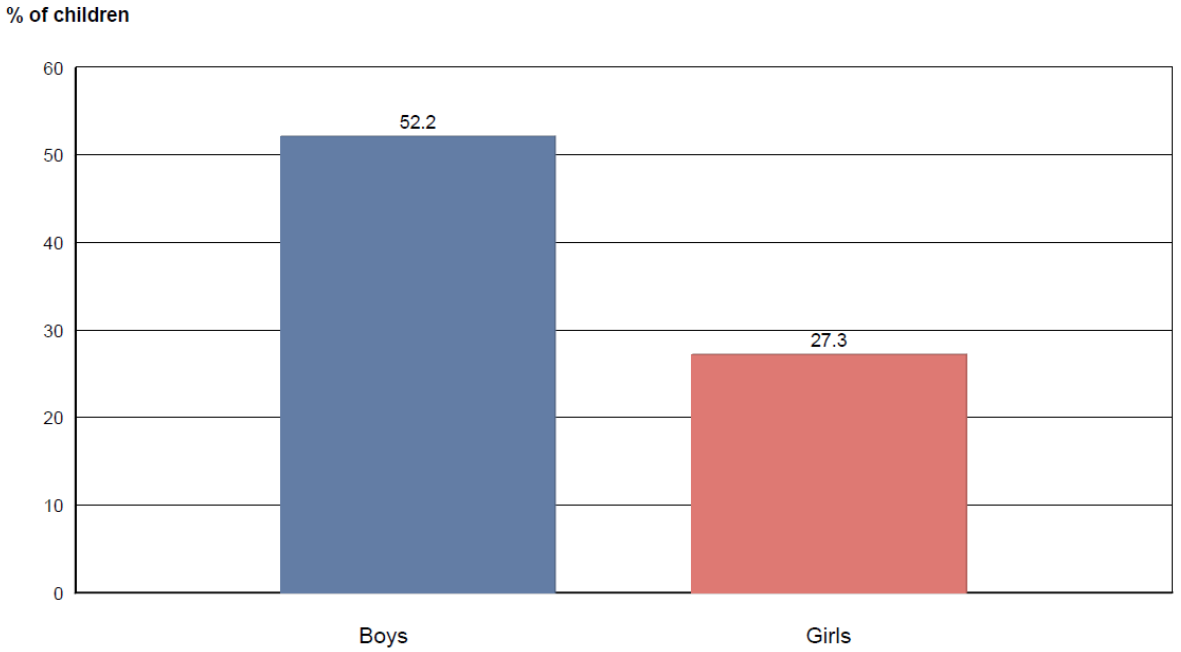

Figure 13(a): *Percentage of chronically malnourished (Height for Age) children under 5 years of age (Project)*

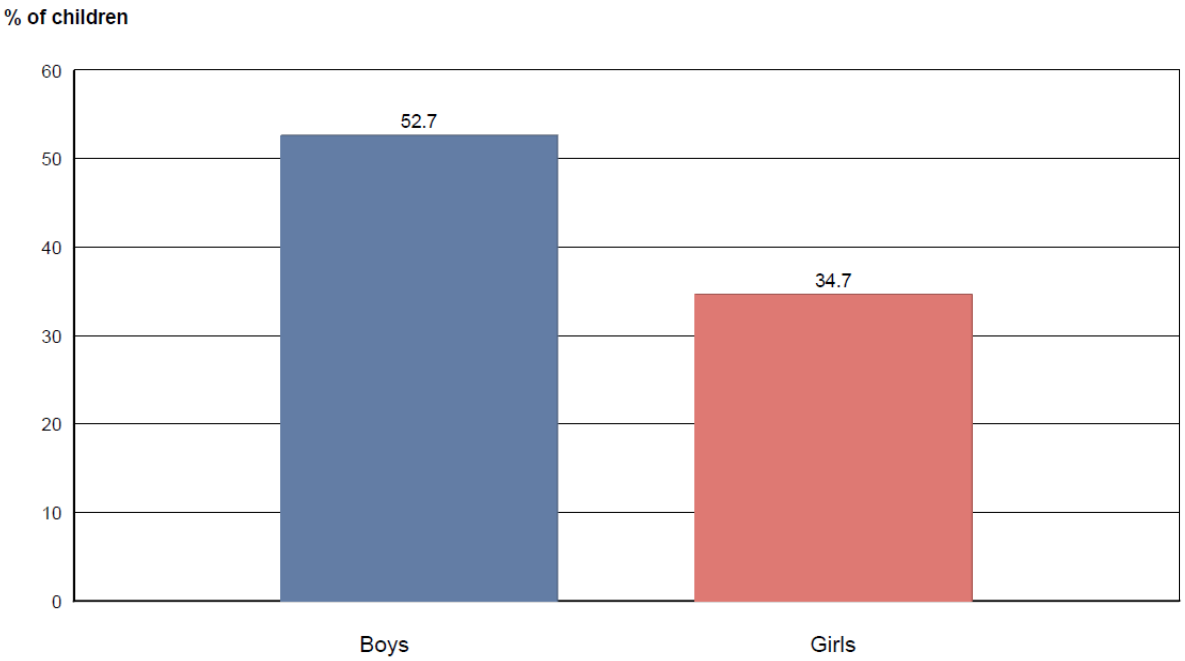

Figure 13(b): *Percentage of chronically malnourished (Height for Age) children under 5 years of age (Control)*

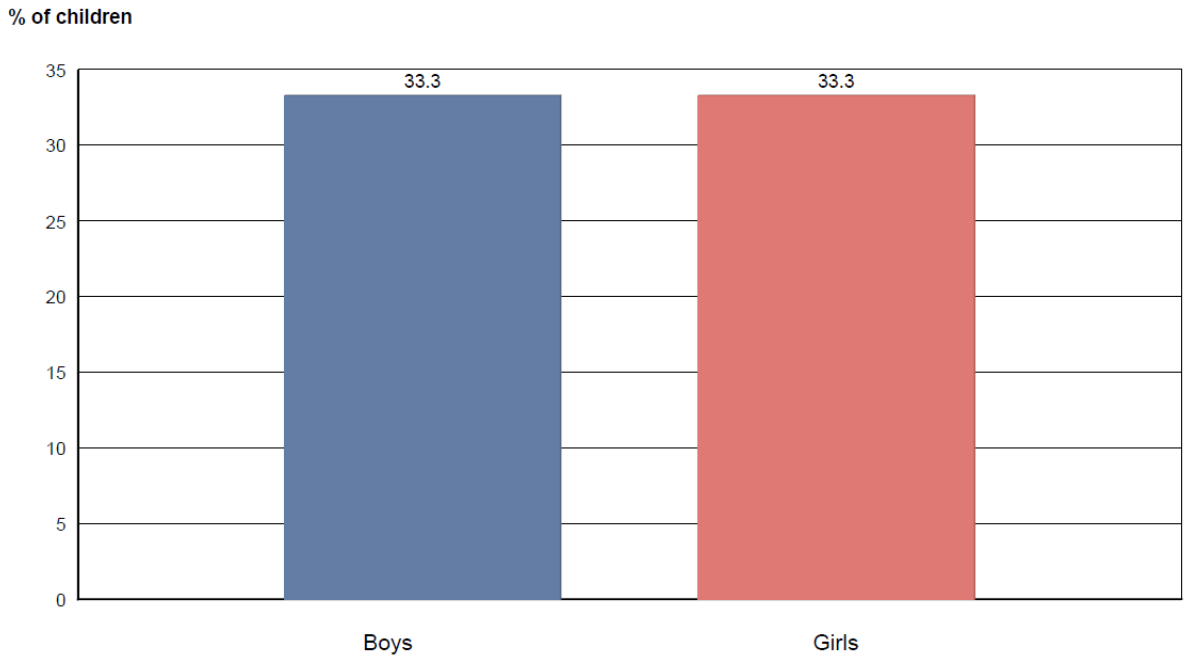

Figure 13(c): *Percentage of chronically malnourished (Height for Age) children under 5 years of age (ULIPH Project Area)*

15.0 Underweight children

A higher percentage of boys were observed to be underweight than the girls, in the project and control areas. However, in the ULIPH project area, a higher percentage of girls were observed to be underweight than the boys.

Table 15: *Number and percentage of underweight (Weight for Age) children under 5 years of age*

SN	Underweight children	Project				Control				ULIPH Project Area			
		Number	Percentage	Valid observations	Total	Number	Percentage	Valid observations	Total	Number	Percentage	Valid observations	Total
1	Boys	137	27%	502	539	90	37%	243	267	2	10%	21	26
2	Girls	73	13%	543	575	60	22%	274	293	6	17%	36	39
	Total	**210**	**20%**	**1045**	**1114**	**150**	**29%**	**517**	**560**	**8**	**14%**	**57**	**65**

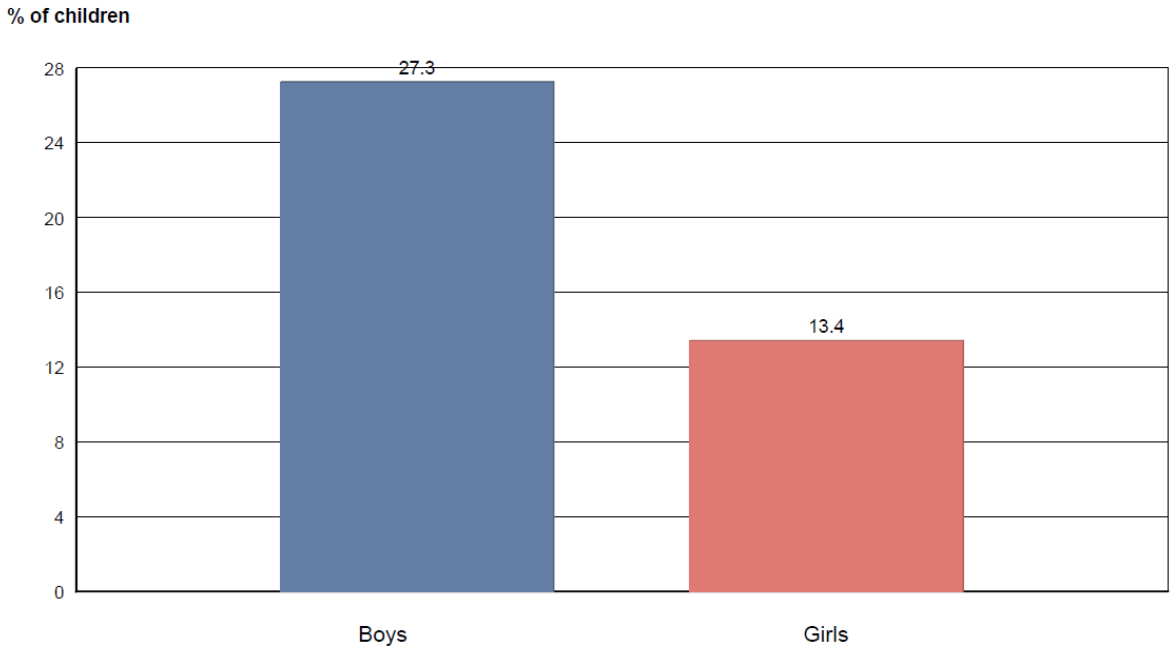

Figure 14(a): *Percentage of underweight (Weight for Age) children under 5 years of age (Project)*

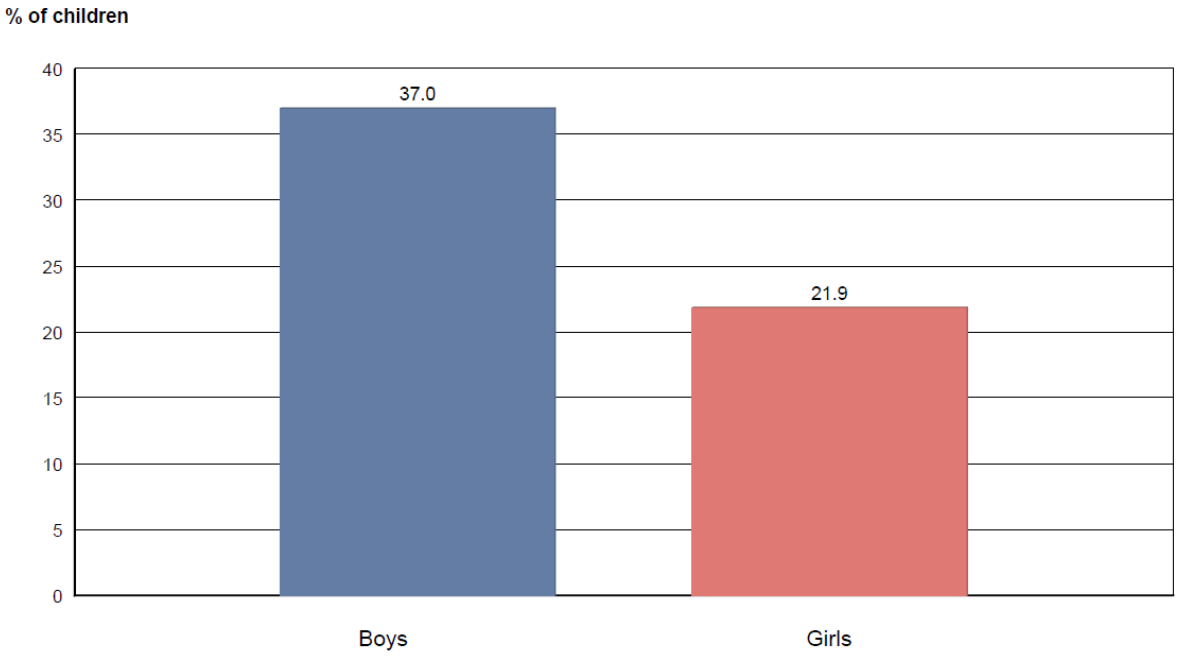

Figure 14(b): ***Percentage of underweight (Weight for Age) children under 5 years of age (Control)***

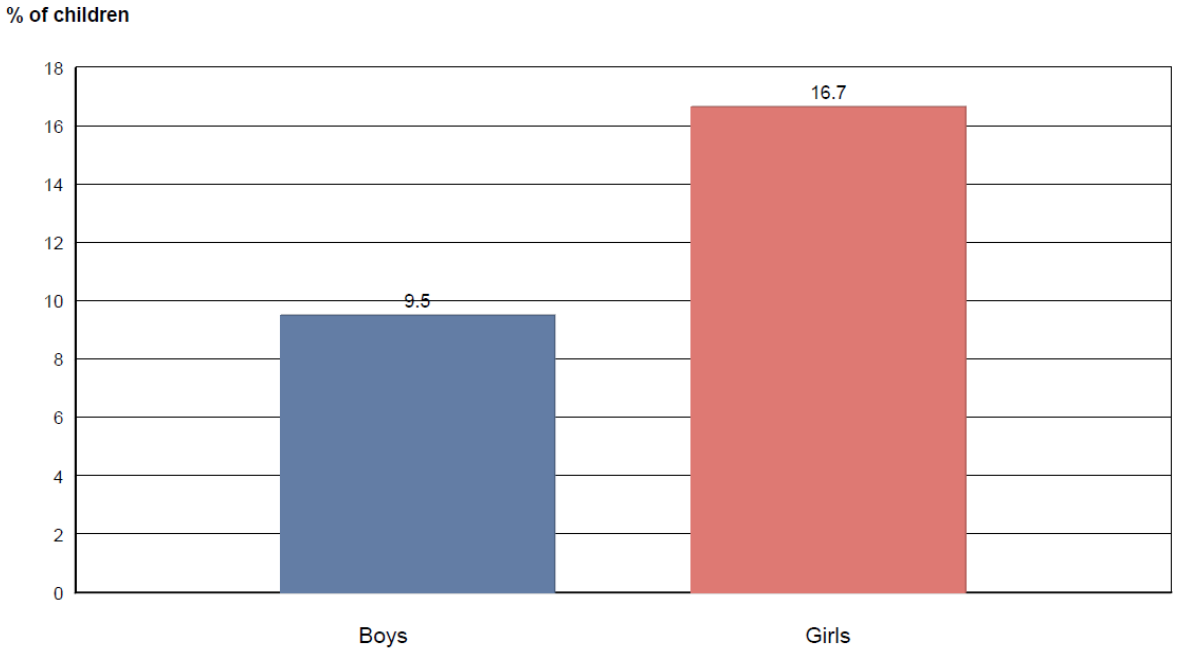

Figure 14(c): ***Percentage of underweight (Weight for Age) children under 5 years of age (ULIPH Project Area)***

Annexure 1:

RIMS Sample

Table A1: ***RIMS HHs in Project Villages***

SN	District	Block	Village	Terrain	RIMS HHs
1.	Almora	Bhaikiysain	Bagarh	Top Hill	11
			Barikote	Mid Hill	14
			Bhikiyasin	Valley	25
		Choukhatiya	Kanauri	Valley	8
			Mall Mohana	Mid Hill	32
			Gogata	Mid Hill	11
		Hawalbagh	Mahat Gaon	Mid Hill	26
			Katarmal Gunth	Top Hill	15
			Bhat Jyaula	Valley	9
		Salt	Barkinnda	Valley	13
			Kuridhar	Mid Hill	18
			Titoli	Top Hill	19
		Syalde	Gwali	Valley	17
			Jaspur	Valley	22
			Chachroti	Valley	11
2.	Bageshwar	Garur	Purara	Valley	8
			Kansyari	Top Hill	15
			Bhojgan	Mid Hill	31
3.	Chamoli	Tharali	Bursol	Top hill	20
			Deorada	Valley	18
			Maal	Mid hill	11
4.	Dehradun	Kalsi	Parihar	Mid Hill	12
			Mandauli	Mid Hill	13
			Koti	Mid Hill	25
		Chakrata	Lawari	Mid Hill	21
			Lohari	Valley	21
			Peruwa	Top Hill	7
5.	Pithoragarh	Munakot	Kuwa Pani	Mid Hill	12
			Majirkanda	Mid Hill	28
			Gaurihat	Mid Hill	12
		Pithoragarh	Rora Gaon	Mid Hill	6
			Balakot	Mid Hill	20
			Jakh	Mid Hill	23
		Kanalichina	Chauki	Mid Hill	15
			Mitari Gaon	Mid Hill	18
			Surun	Mid Hill	18
6.	Rudraprayag	Augustmuni	Kyunja	Mid Hill	10
			Bhatwari Sunar	Mid Hill	20

SN	District	Block	Village	Terrain	RIMS HHs
			Kansheel	Mid Hill	20
		Jakholi	Hariyali	Mid Hill	29
			Dangi	Mid Hill	10
			Naouli	Top Hill	11
7.	Tehri	Chamba	Churer Dhar	Mid Hill	28
			Guruniyal Gaon	Valley	8
			Saur	Top Hill	14
		Jaunpur New	Matlau Malla Talla	Top Hill	22
			Makhret	Mid Hill	11
			Syalsi	Valley	17
8.	Uttarkashi	Bhatwari	Lata	Mid Hill	10
			Netala	Valley	21
			Nismor	Top hill	19
Total					**855**

Table A2: ***RIMS HHs in Control Villages***

SN	District	Blocks	Sample Villages	RIMS HHs
1.	Dehradun	Vikasnagar	Dumet	14
			Ambari	9
		Tyuni	Banpur	8
			Jhitand	8
			Bhatgarhi	8
2.	Uttarkashi	Chinyalisaur	Bangaon	14
			Badli	7
			Kawadha	3
3.	Tehri	Pratapnagar	Bhelunta	9
			Deen Gaon	13
			Harwal Gaon	4
		Devprayag	Nag Chaunda	9
			Malumarora	8
			Jarola	7
4.	Almora	Dwarahat	Pali	7
			Daura	10
			Muniya Chaura	11
			Matela Malla	6
			Kharak	5
		Someshwar	Kantali	16
			Tota Silling	3
			Pachchisi	4
			Raulayana Gunth	4
			Chhani Lwesal	12
		Bhanoli	Suri	8
			Barkote	5

SN	District	Blocks	Sample Villages	RIMS HHs
			Pubhaun	16
			Kande	4
			Thamtoli	6
5.	Bageshwar	Kanda (Pang Chora)	Baikori	8
			Surkali	4
			Saneti	12
6.	Rudraprayag	Ukhimath	Gaurikund	8
			Tausi	6
			Kongarh	10
		Rudraprayag	Mosar	7
			Mahar Gaon	3
			Math Gaon	14
7.	Chamoli	Girsain	Bisauna	6
			Pungaon	8
			Giratoli	9
8.	Pithoragarh	Gangolighat	Batgeri	13
			Siroli	3
			Jatari	7
		Berinag	Karala Pathak	3
			Khola Gaon	14
			Shivali	6
		Munsiari	Dummer	15
			Dharati	6
			Badkor	3
TOTAL				**403**

Table A3: ***RIMS HHs in ULIPH Project Area Villages***

SN	Districts	ULIPH Blocks	Sample Village	RIMS HHs
1.	Almora	Dhauladevi	Pali	10
2.	Tehri	Pratapnagar	Banali	13
3.	Uttarkashi	Naugaon	Thanki	10
4.	Chamoli	Dewal	Hat Kalyani	10
5.	Bageshwar	Kapkote	Jalmani	10
TOTAL				**53**