

Nutrition and Food Security Survey in Batticaloe District in 2009

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UNICEF

2009

District profile - Batticaloa

Batticaloa district is one of the two districts in the Eastern province of Sri Lanka. Batticaloa town is the capital of the district, which is administered by a District Secretary.

Map of Sri Lanka showing Batticaloa district is given in Figure 1.

Administratively, the district is divided into 14 Divisional Secretary (DS) divisions and 348 Grama Niladhari (GN) divisions. The local government institutions in the province include 1 Municipal Council, 1 Urban Council and 10 Pradeshiya Sabahas¹

The district includes a land area of approximately 2,610 sq.km. with an estimated population of 530,000, population estimated for the year 2008.

Health services in the state sector are provided through one Teaching Hospital, 2 Base hospitals, 5 District Hospitals, 1 Peripheral Unit, 4 Rural Hospitals, 3 Central Dispensary / Maternity Homes, 2 other hospitals and 21 Central Dispensaries. Preventive and promotive health services are provided through 11 Health Unit areas with Medical Officers of Health and field staff.²

The literacy rate among males is 93.4% with that for females being 88.3%³.

A cross sectional descriptive study was carried out to assess the nutritional status of under five children and women in the 15 – 49 year age group and their correlates.

1.Methods

1.1. Selection of households

A sample of 625 (**CHECK**) households from the district of Batticaloa were included in the study. The sampling frame used for selection of clusters was the most recently available population estimate – the 2001 census from the Sri Lanka Department of Census and Statistics. Clusters were defined at the level of a Grama Niladhari (GN) division. GN divisions were identified using the probability proportional to size technique. Within each cluster, 30 households were identified using a systematic sampling procedure.

Map indicating the selected GN divisions is given in Figure 2.

¹ Department of Census and Statistics, 2007.

² Ministry of Health Care and Nutrition, Annual Health Bulletin, 2007.

³ Department of Census and Statistics, Census 2001.

A household was defined as persons routinely sharing food from the same cooking pot and living in the same compound or physical location. Members of a household need not necessarily be relatives by blood or marriage. All selected households were included in the survey, irrespective of whether there was a child under five.

1.2. Composition of the survey teams

Each survey team included three interviewers and one team leader. A Co-ordinator was recruited to take the overall responsibility for the conduct of the survey. All team leaders and team coordinators were trained by staff from Medical Research Institute (MRI) with experience from past surveys.

The three interviewers from the survey team conducted all interviews. The team leader was responsible for selection of households.

1.3. The Household survey included several components.

Administration of the questionnaire : A pre tested questionnaire was administered to the head of the household. Where possible, mothers were interviewed to obtain information on child care practices and maternal nutrition. The minimum age of respondents was 15 years.

Anthropometric assessments: All children aged 0 to 59 months, along with their mothers and any pregnant women in the household, were selected for measurement. All measurements were conducted by team leaders, and standardized procedures for measuring the height/length, weight were used (WHO,1995). Anthropometric measurements were made using UNISCALES and UNICEF measuring boards. For pregnant women, Mid Upper Arm Circumference (MUAC) was measured in addition to height and weight.

Measurement of haemoglobin levels was carried out for all individuals selected for measurements except children less than six months of age using hemocue method, using capillary blood.

1.4. Supervision and quality assurance

Constant supervision and monitoring of all field activities was attempted. Team leaders monitored the work carried out by the interviewers, while team coordinators monitored team leaders as well as the interviewers. Routine field editing of all questionnaires was conducted by the team leaders.

1.5. Data processing and analysis

EPI Info 6.0 software package was used for data management and entry. Data cleaning was carried out in MS Access by sorting records to filter out extreme values and SQL queries to check logical errors. Consistency checks were run to detect and correct data entry errors.

Data analysis was conducted in Anthro and SPSS. Anthro was used to calculate nutrition z-scores for women and children based on the anthropometric measurements, using WHO standards as the reference value..

2. Results

A total of 625 households were included in the survey, with 30.1 percent of households being in the urban sector and 69.9 percent in the rural sector and none in the estate sector

Of the total 2,751 individuals who were usually resident in the selected households, 772 (28.1 percent) were women aged between 15.0 and 49.9 years. Children aged between 5.0 and 14.9 years was 21.9 percent and 14.5 percent were children aged less than 5 years. There were 134 children aged between 2.0-4.9 years, 9.0 percent of the total population.

2.1. Nutritional Status

2.1.1. Nutritional status of children

Prevalence of malnutrition

The three indices of physical growth that describe the nutritional status of children according to WHO growth standards (WHO, 2006) are : Height-for-age, Weight-for-height and Weight-for-age. Each of the four nutritional status indicators expressed in terms of standard deviations from the median (Z-scores) of the reference population was used to assess the prevalence of stunting (height for age $< -2SD$), wasting (weight for height $< -2SD$), underweight (weight for age $< -2SD$) and overweight (weight for height more than $+2SD$). .

Of the of 369 children under five years ,244 were included in the survey. As shown in Table 1, among all children in the age group 0–59 months, 23.3 percent were stunted, 17.6 percent wasted and 30.4percent were underweight . Severe stunting was seen among 3.8 percent of the total group, with the comparable figure for severe wasting and severe underweight being 0.5 and 5.4 percent. None had weight for height values more than $+2SD$.

Comparisons made between sub groups are based on relatively low numbers within each such group, hence have limitations in interpretation..

The prevalence of stunting and underweight shows an increase with increasing age whils prevalence of wasting does not show a consistent pattern. The percentage of children with wasting was marginally high among females.

No consistent pattern was seen in the prevalence of stunting, wasting and underweight with increasing level of maternal education, monthly household income and wealth quintiles,.

Table 1 Prevalence of malnutrition: stunting, wasting, overweight and underweight by background characteristics

Background characteristic	Height-for- age (%)		Weight-for-height (%)			Weight-for-age (%)		Total No of Children
	<-2SD	<-3SD	<-2SD	<-3SD	≥+2SD	<-2SD	<-3SD	
Age of child (months)								
<6	7.7	3.8	19.2	0.0	0.0	11.5	0.0	26
6-11	11.6	2.3	9.3	0.0	0.0	11.6	2.3	43
12-23	21.4	2.9	15.7	5.7	0.0	22.9	8.6	70
24-35	26.3	4.2	17.9	4.2	0.0	34.7	6.3	95
36-47	26.8	3.7	18.3	4.9	2.4	35.4	6.1	82
48-59	32.1	5.7	24.5	3.8	0.0	49.1	3.8	53
Sex of child								
Male	23.6	4.9	19.8	5.5	1.1	27.5	7.1	182
Female	23.0	2.7	15.5	2.1	0.0	33.2	3.7	187
Sector	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Urban	21.9	3.1	18.8	4.2	1.0	32.3	2.1	96
Rural	23.8	4.0	17.2	3.7	0.4	29.7	6.6	273
Mother's education								
No schooling	40.9	6.8	22.7	4.5	0.0	50.0	11.4	44
Primary	20.0	5.7	17.1	5.7	0.0	32.9	5.7	70
Secondary	24.5	2.9	18.0	3.6	0.7	30.2	5.8	139
Passed O' Level	20.8	3.8	22.6	3.8	1.9	34.0	5.7	53
Higher	3.4	0.0	10.3	0.0	0.0	3.4	0.0	29
Monthly household income								
< 9,000	22.4	3.4	20.1	4.6	0.6	32.8	5.7	174
9,000 – 13,999	31.8	6.8	11.4	2.3	0.0	33.0	5.7	88
14,000 – 19,999	21.7	1.4	18.8	4.3	0.0	31.9	5.8	69
20,000 – 31,999	8.0	0.0	24.0	4.0	4.0	12.0	4.0	25
≥ 32,000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7
Wealth index quintile								
Poorest	25.6	5.6	22.4	4.8	0.0	37.6	8.0	125
Second	23.1	2.6	19.2	3.8	0.0	28.2	3.8	78
Middle	19.7	4.5	16.7	6.1	1.5	27.3	7.6	66
Fourth	19.4	0.0	22.6	3.2	3.2	29.0	3.2	31
Richest	25.0	0.0	5.0	0.0	0.0	20.0	0.0	20

Background characteristic	Height-for- age (%)		Weight-for-height (%)			Weight-for-age (%)		Total No of Children
	<-2SD	<-3SD	<-2SD	<-3SD	≥+2SD	<-2SD	<-3SD	
Overall	23.3	3.8	17.6	3.8	0.5	30.4	5.4	369

2.1.2. Anaemia in children

The haemoglobin levels of 350 children in the age group 6–59 months were assessed using the ‘haemocue’ method (cut off point - Hb <11.0 gms %) . As shown in Table 2, the prevalence of anaemia in this group was 30.6 percent, The highest percentage was seen in during the latter half of infancy (48.8 percent), and this percentage declined with increasing age, with the 48–59 months age group showing the lowest (18.2 percent). Male children showed a higher prevalence (32.6 percent) than females(128.5).

There was no consistent pattern in the prevalence of anaemia with increasing maternal education and indicators of income and wealth.

Table 2 Prevalence of anaemia among children 6-59 months of age by background characteristics

Background characteristic	% of children with Anaemia (Hb<11.0g/dl)*	Number of Children who were investigated for Hb
Age of child (months)		
6-11	48.8	43
12-23	43.8	73
24-35	25.8	97
36-47	23.2	82
48-59	18.2	55
Sex of child		
Male	32.6	178
Female	28.5	172
Sector		
Urban	24.4	90
Rural	32.7	260
Mother's education		
No schooling	38.6	44
Primary	30.4	69
Secondary	33.1	127
Passed O' Level	26.4	53
Higher	19.2	26
Monthly household income		
< 9,000	33.3	168

9,000 – 13,999	30.9	81
14,000 – 19,999	29.2	65
20,000 – 31,999	25.0	24
≥ 32,000	0.0	6
Wealth index quintile		
Poorest	33.1	121
Second	25.7	74
Middle	28.1	64
Fourth	19.4	31
Richest	28.6	21
Overall	30.6	350

2.1.3. Birth weight

The birth weights were obtained from the Child Health Development Records (CHDRs). This study included children born within the 5 years preceding the survey. Considering the newborns with a birth weight of less than 2500 grams as being low birth weight (LBW), the overall prevalence was 19.0 percent (Table 3). Birth weight distribution by the current age of the child enables comparison of prevalence of LBW among different birth cohorts. There is no definite pattern observed except that the cohort aged between 0-5 months at the time of the study had the highest prevalence of LBW of 17.6 percent.

The prevalence was higher among male newborns than females. Though based on limited numbers, it is seen that there was a decline in the prevalence with increasing levels of mother's education and with increasing wealth quintiles.

Mean birth weight for the total group was 2.88 ± 0.47 kg with no clear pattern observed between age groups. However, an upward trend was observed in relation to increasing levels of maternal education, income levels and higher wealth quintiles.

Table 3 Prevalence of low birth weight, and mean birth weight among children born in the 5 years preceding the survey, by background characteristics

Background characteristic	Birth Weight				Number of children
	< 2500g (%)	≥ 2500g (%)	Mean (kg)	SD	
Age of child (months)					
0-5	16.0	84.0	2.81	.54	28
6-11	20.5	79.5	2.79	.52	45
12-23	9.9	90.1	2.97	.45	74
24-35	20.4	79.6	2.89	.46	98
36-47	21.3	78.8	2.87	.48	84

Background characteristic	Birth Weight				Number of children
	< 2500g (%)	≥ 2500g (%)	Mean (kg)	SD	
48-59	16.0	84.0	2.88	.43	56
Sex of child					
Male	19.2	80.8	2.86	.49	192
Female	16.0	84.0	2.91	.45	193
Residence					
Urban	15.3	84.7	2.93	.50	103
Rural	18.5	81.5	2.86	.46	282
Mother's education					
No schooling	34.1	65.9	2.62	.47	47
Primary	20.6	79.4	2.85	.46	72
Secondary	17.7	82.3	2.89	.48	144
Passed O' Level	10.7	89.3	2.93	.41	56
Higher	10.3	89.7	3.00	.42	31
Monthly household income (n=2592)					
< 9,000	21.6	78.4	2.82	.46	183
9,000 – 13,999	17.6	82.4	2.87	.43	89
14,000 – 19,999	11.6	88.4	2.97	.52	72
20,000 – 31,999	16.0	84.0	2.95	.45	27
≥ 32,000	0.0	100.0	3.17	.36	8
Wealth index quintile					
Poorest	23.5	76.5	2.84	.47	128
Second	17.1	82.9	2.80	.44	81
Middle	15.9	84.1	2.93	.49	70
Fourth	6.3	93.8	3.07	.40	33
Richest	0.0	100.0	3.14	.41	21
Overall	17.6	82.4	2.88	.47	385

2.2. Nutritional status of women of 15-49 year

2.2.1. Non pregnant women (using Body Mass Index)

A total of 319 non-pregnant women aged between 15 to 49 years, and with a child under 5 years age were included in the assessment of body mass index . As shown in Table 4.4., of the total sample of non-pregnant women, 26.2 percent had BMI less than 18.5, 18.9 percent with values between 25 and 29 (overweight) and 7.3 percent, with BMI values 30 or above (obese).

The prevalence of underweight (BMI less than 18.5) was highest in the 15 -19 age group (8.9 percent). There was a declining pattern in the prevalence with increasing income levels and with higher wealth quintiles

Of all non-pregnant women studied, 26.2 percent were either overweight or obese. This percentage was highest in the 30 – 39 age group. .

Table 4 Distribution of non-pregnant women 15-49 years by BMI levels, by background characteristics

Background Characteristics	BMI category (%)				Total women
	Underweight (BMI<18.5)	Normal (BMI=18.5-24.9)	Overweight BMI=25.0-29.0)	Obese (BMI>30.0)	
Age group (years)					
15-19	38.9	50.0	11.1	0.0	18
20-29	26.9	56.4	12.2	4.5	163
30-39	23.1	37.5	28.8	10.6	111
40-49	25.0	33.3	25.0	16.7	27
Sector					
Urban	16.7	41.0	30.8	11.5	82
Rural	29.5	50.0	14.7	5.8	237
Women's education level					
no schooling	40.5	37.8	16.2	5.4	37
primary	30.9	43.6	20.0	5.5	58
Secondary	26.1	48.7	17.6	7.6	123
Passed GCE (O/L)	19.2	55.8	19.2	5.8	55
Higher	4.3	47.8	34.8	13.0	28
Monthly household income					
< 9,000	29.7	54.7	11.5	4.1	150
9,000 – 13,999	26.9	47.8	20.9	4.5	70
14,000 – 19,999	25.9	33.3	27.8	13.0	60
20,000 – 31,999	12.0	44.0	28.0	16.0	27
≥ 32,000	0.0	25.0	50.0	25.0	6
Wealth index quintiles					
Poorest	44.6	46.3	7.4	1.7	122
Second	16.4	57.5	16.4	9.6	76
Middle	16.7	46.3	29.6	7.4	61
Fourth	9.7	38.7	45.2	6.5	34
Richest	0.0	35.0	30.0	35.0	22

Background Characteristics	BMI category (%)				Total women
	Underweight (BMI<18.5)	Normal (BMI=18.5-24.9)	Overweight (BMI=25.0-29.0)	Obese (BMI>30.0)	
Overall	26.2	47.7	18.9	7.3	319

2.2.2. Pregnant women (using Mid Upper Arm Circumference (MUAC)

Of the 26 pregnant women whose nutritional status was assessed using MUAC, 26.9 were undernourished.

2.2.3. Anaemia in women

Three groups of women were included in this component of the study : i). pregnant women (26) ii.) lactating women (131) iii.) all non pregnant women including lactating women (309).

Pregnant women

As shown in Table 4.6, overall prevalence of anaemia among this group was 30.8 percent. Number of pregnant women in the sub groups are limited , hence no attempt is made to draw any observations on differences between sub groups.

Lactating women

Among lactating women, the overall prevalence was 19.12 percent. There was a consistent decline in the prevalence with increasing level of mother's education, even though no consistent pattern was seen with the changes in the two income related measures.

All non-pregnant women

The overall prevalence among this group was 21. 4 percent.

Table 5 Prevalence of Anaemia*, among i) pregnant women, ii). lactating women and iii). All non-pregnant women by background characteristics

background characteristic	Pregnant		Lactating		All Non-pregnant	
	Percent	Total No of Women	Percent	Total No of Women	Percent	Total No of Women
Age group (years)						
< 20	0.0	2	7.7	13	14.3	21
20-29	30.8	13	22.2	72	21.2	156
30-39	36.4	11	19.5	41	24.8	105
40-49	0.0	0	0.0	4	16.7	24
Residence						

background characteristic	Pregnant		Lactating		All Non-pregnant	
	Percent	Total No of Women	Percent	Total No of Women	Percent	Total No of Women
Urban	50.0	6	24.1	29	22.2	81
Rural	25.0	20	17.6	102	21.1	228
Women's education level						
no schooling	100.0	1	19.0	21	18.9	37
primary	60.0	5	33.3	24	32.1	56
Secondary	25.0	8	12.5	48	17.2	122
Passed GCE (O/L)	28.6	7	10.5	19	21.2	52
Higher	0.0	4	27.3	11	20.8	24
Monthly household income						
< 9,000	50.0	10	17.6	68	21.6	148
9,000 – 13,999	33.3	9	25.8	31	24.6	69
14,000 – 19,999	0.0	5	13.0	23	19.6	56
20,000 – 31,999	0.0	1	20.0	5	15.4	26
≥ 32,000	0.0	1	33.3	3	20.0	5
Wealth quintile of household						
Poorest	50.0	6	20.0	60	23.3	120
Second	25.0	8	25.7	35	25.0	76
Middle	28.6	7	15.0	20	21.1	57
Fourth	33.3	3	11.1	9	3.2	31
Richest	0.0	2	0.0	7	19.0	21
Overall	30.8	26	19.1	131	21.4	309

All tables in this section are given in annex 1.

II

2.3. Childhood Illnesses

Diarrhoea and respiratory infections are the two common illnesses that lead to increased morbidity and mortality among children under 5 years. The present study sought information from respondents related to the occurrence of these two illnesses during the two weeks preceding the interview.

2.3.1 Respiratory illness

Respondents were asked whether their children less than five years of age had one or more symptoms related to respiratory illness (cough, rapid or difficult breathing) during the period of 2 weeks preceding the survey. A child who was having cough with rapid or difficult breathing, was identified as having had symptoms of respiratory illness.

Among the total group, 20.4 percent reported to have had symptoms related to respiratory illness during the specified period (Table A 1)

2.3.2 Diarrhoea

The respondents were asked whether their children under five years had experienced an episode of diarrhea during the two weeks preceding the survey. (Diarrhoea was defined as three or more loose or watery stools per day or blood in stool). If the child had diarrhea, information on giving oral dehydration fluid using the packet 'Jeewani' during the episode of diarrhoea, was inquired into.

Of the total group, 13.8 percent of children who reported to have had diarrhea during the specified period of whom 48.1 percent had given 'Jeevanie'.

2.4. Dietary intake and feeding practices

2.4.1. Breastfeeding practices

Percentage of children less than 24 months years of age who were ever breastfed, currently breastfed and started breastfeeding within one hour / one day of birth are given in Table A 2 . All children were ' ever breastfed'. Of them, 81.0 percent were breast fed within the first hour of birth and 88.6 percent were currently breast fed , given breast milk in the previous 24 hours .

2.4.2. Complementary feeding and bottle-feeding practices

As shown in Table A 2, of the children 6-8 months 86.7 percent were given breast milk and solid / semi solid foods. In the total sample, 35.9 percent of infants under 24 months had been bottle fed.

2.4.3. Food Consumption among children in the age group 6 – 59 months

Food consumption pattern was based on the information about the food items given to children aged 6 – 59 months on the day preceding the interview. Ten different food items were included in this analysis. Table A 3 shows the percentage of children in this age group who were given the food items within the preceding 24 hours, by background characteristics.

For the total sample, 86.0 percent of the children were given grains/roots/tubers, while 84.6 percent were given vitamin A rich fruits and vegetables, 62.7 percent, other fruits and vegetables, and 73.9 per cent, meat fish/ poultry/ organ meats. Eggs and dairy products were given to 58.0 percent and 38.7 percent, respectively. Foods cooked with oil or fat were given to 40.6 percent of children and 58.5 percent had been given fortified food (commercially available cereals) with a much higher percentage (81.0 percent) having been given sugary foods (chocolates, sweets, candies, cakes, biscuits etc.).

2.4.4. Dietary diversity

Dietary diversity is based on the premise that more diverse diets are more likely to provide adequate levels of a range of nutrients.

2.4.5. Individual dietary diversity score for children aged 6-59 months

In this study, individual dietary diversity score for children aged 6 – 59 months was assessed. (according to FANTA⁴) . As shown in Table A 4, for all children in this age group, the IDDS was 4.9 (SD = 2.2) .

The dietary diversity score of children aged 6-59 in the households belonging to the highest wealth quintile was used as a “target to be achieved” based on the assumption that poorer households will diversify their food consumption practices as incomes rise, and thereby attempting to follow the consumption pattern of wealthier households. Table A 4 shows the IDDS among children in the highest wealth quintile was 6.0. Based on this value, the percentage of children yet to achieve the target was assessed. This percentage was 61.6 for the total sample, There was no definite pattern in the percentages, in relation to changes in the wealth indices.

Information on Minimum meal frequency, minimum dietary diversity and minimum acceptable diet for children aged 6-23 months are given in Table A 5.

2.5. Care Practices

Care practices were studied in relation to activities on early childhood development including promoting early learning at household level, practices related to play activities, early childhood education, school enrolment. The age group to be included in the different components in the study of care practices varied, depending on the relevance.

⁴ Anne Swindale & Paula Bilinsky Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide VERSION 2 September 2006

2.5.1. Promoting early learning at household level

As shown in Table A 6, the average number of 'education related activities' undertaken by the children was 4.6. For 74.3 percent of children, an adult was engaged in more than three activities that promoted early learning, during the 3 days preceding the survey. Considering the children under 5 years of age, 22.3 percent were looked after by a child under the age of 10 years, during the week preceding the interview.

2.5.2. Childhood education

As shown in Table A 7, of the children aged 36-59 months, 31.5 percent had attended an early childhood educational programme and 98.9 percent of the children who have completed 5 years by 31st January 2009 were enrolled in grade 1 and 97.9 percent of all children 5-10 years of age were attending Primary School (Table A 8).

Information related to play items and child labour are given in Tables A 9 and A 10 respectively.

2.6. Use of health services

2.6.1. Attendance at Child Welfare Clinic

As shown in Table A 11, 87.4 percent of the children under 5 years had received care at a Child Welfare Clinic (CWC) and 90.1 percent of the children had their Child Health Development Records (CHDRs) with them at the time of interview. Of the mothers who attended the child welfare clinics, 81.9, 82.2 and 75.0 percent received advice on growth, nutrition and early childhood development respectively. Of this group, 19.6 percent of children aged 6-59 months had received at least one packet of thripasha in the previous month.

2.6.2. Vitamin A supplementation for children

Of the group, 95.4 percent of children who had completed 9 months of age had received a mega dose of vitamin with the percentage of children who received a vitamin A mega dose at 18 months, 36 months being 85.6 and 85.3 percent respectively. Considering all children aged 36 months and 82.7 percent had been given 3 mega doses of Vitamin A (Table A 12).

2.6.3. Source of medical care for common childhood illnesses

Source of medical care for those children who reported diarrhoea / respiratory symptoms within the 2 weeks preceding the interview was considered under services provided by the government sector, private sector and other sectors. As shown in Table A 13, 71.3 percent of the total group used services from the government sector and 28.7 percent from the private.

2.6.4. Use of services at antenatal clinics

A total of 88.5 percent of the pregnant mothers had attended antenatal clinics regularly as shown in Table A 14.

2.6.5. Food and nutrient supplementation for women

The two main nutrition supplementation programmes aimed at pregnant women are the provision of a food basket (“poshana malla”) through the Samurdhi programme implemented by the : Ministry of Samurdhi and Poverty Alleviation and the Thriposha programme implemented by the Ministry of Health care and Nutrition. Of all pregnant mothers, 84.0 percent received Thriposha and all women had received “poshana malla” (Table A 14). Recipients of iron tablets totaled to 88.5 percent with 60.9 percent of such recipients using them regularly.

Of the lactating mothers with a child under 6 months of age, 80.0 percent had received “thriposha” (Table A 15) and vitamin A mega dose has been given to 79.1 percent, after childbirth.

2.6.6. Samurdhi beneficiaries

In the households included in the study, there were a total of 186 non pregnant, non lactating women in the age group 15 – 49 years. Of this group, 46.8 percent received *Samurdhi* benefits being members of households that were beneficiaries under the *Samurdhi* programme. (Table A 16). Percentage beneficiaries among the pregnant women and lactating women were 42.9 percent and 39.1 percent respectively.

2.7. Water and Sanitation

2.7.1. Use of improved water sources

As shown in Table A 17, 78.2 percent of the households had improved sources of water. The households with piped water inside the dwelling increased with increasing wealth quintiles, from 54.1 percent in the lowest quintile to 72.8 percent in the highest quintile. A similar increase was seen as the income increases.

Of the households, 68.0 percent used any one of the appropriate water treatment methods to treat their drinking water with ‘straining water through cloth’ being the most frequently used method, practiced by 49.8 percent of the households included in the study (Table A 18). The percentage of households that used boiling as a method of making water safe, increased from the lowest wealth quintile to the highest

2.7.2. Use of sanitary means of excreta disposal

Use of flush toilets connected to sewage systems, or septic tanks was considered as sanitary means of excreta disposal. As shown in Table A 19, the percentage of households using sanitary means of excreta disposal was 89.4 percent

2.7.3. Use of improved water sources and sanitary means of excreta disposal

Table A 20 shows the distribution of households that use both improved sources of drinking water and sanitary means of excreta disposal. For the district sample, 42.9 percent of households reported used both improved water

source and sanitary means of excreta disposal. The percentage of households that had both facilities increased with increasing levels of income and levels of wealth quintiles.

Information on the time consumed to collect water and the person collecting water are given in Tables A 21 and A 22 respectively.

2.8. Food Security and Coping Strategies

2.8.1. Household food consumption

The food items consumed by households were grouped into 11 categories based on the FAO classification of food groups with some modifications to include coconut and sugar separately. These food groups were used in assessing the food consumption pattern as shown in Tables A 23 and A 24 .

Table A 23 provides information on food items consumed within 24 hours preceding the survey. Consumption of rice and rice products, coconuts and sugar was nearly 100 percent and consistent across all sub groups studied. Bread and wheat products were consumed by 54.8 percent of all households.

Of the households, 56.7 percent of households consumed nuts/pulses and 82.3 percent consumed meat/ poultry/ fish or dry fish, and 52.3 percent consumed eggs. . A total of 67.2 percent of households consumed fruits. .

The percentages of households that consumed milk and milk products was 32.3, oils and fats in 61.2 percent of households.

Information on the consumption of different foods for at least 5 days during the week preceding the survey is shown in Table A 24. This information indicated the consistency of consumption of the foods and shows important differences from the Table A. 23, which focused on the consumption pattern during the 24 hours preceding the survey.

Similar to the 24-hour consumption pattern, rice, coconut and sugar were consumed by more than 95 percent of the households. However, the consumption of food groups such as bread and wheat products, nuts and pulses, fruits, meat/poultry/fish and dry fish, eggs, and milk/dairy products were markedly lower during the 7-day period.

Table A 25 provides information on the household members who consume three or more main meals a day.

2.8.2. Household dietary diversity

Household dietary diversity score (HDDS) is a proxy measure of households consuming a variety of food indicating a nutritionally 'satisfactory' diet and the method used to make this assessment is given in Table A 26 . This table indicates that the mean HDDS for the total group was 7.9 (SD 2.0). The value shows an increasing trend with increasing income and wealth quintile. t

The HDDS obtained by the households in the highest wealth quintile category (8.0) was taken as the 'target' to be achieved and the percentage of households yet to achieve the target was calculated. For the total sample, the percentage of households yet to achieve the target was 62.6 .The percentage showed a consistent decline with increasing income and wealth quintiles.

2.8.3. Expenditure on food and other goods and services

Study of broad categories under which household expenditure for a one-month period showed that considering all households included in the study, 40.9 percent of the total household monthly income was spent on food, and 31.7 percent on other goods and services (Table A 27).

Proportion of households by type of food groups by source is given in Table A 28. Food availability at household, food stocks and food aid are given in tables A 29, 30 and 31 respectively.

2.8.4. Coping Strategies

During the periods when there were limitations in food availability, different coping strategies were adopted by households (Table A 32). Use of such strategies during the month preceding the survey was studied paying attention to the frequency of practice. Of the total number of households, 40 percent had adopted 1 or more coping strategies. Of them, more of the households adopted food related coping strategies compared to non-food coping strategies.

The common strategies adopted were: to rely on less preferred food (29.7 percent) and purchased food on credit (17.2 percent). Between 10 - 20 percent, had borrowed food or reduced meal size. The main non-food strategies adopted were : borrowing money from relatives/neighbours (28.8 percent), pawning jewellery (26.4 percent) and using savings (10.6 percent).

The distribution of the households that adopted a specific food-related coping strategy by background characteristics is shown in Table A 33. However, there are limitations in drawing conclusions due to the limited number of households in the sub groups.

Taking loans is a commonly adopted strategy to cope with difficult situations, whether it be food related or not. As shown in Table A 34, 47.9 percent of households had taken loans within the preceding month which were used for: for purchase of food (152.0 percent), medical costs (15.1 percent) and for income generation activities (10.2 percent).

2.8.5. Food insecurity

A state of food insecurity exists when nutritionally adequate and safe foods are not readily available or there is inability to acquire acceptable foods. In this study, food insecurity levels were determined according to the method described by the World Food Programme (WFP), given in annex 2..

2.8.5.1. Household food consumption adequacy score (HFCAS)

As shown in Table A 35, the mean HFCAS for all households was 69.1(SD=16.4). The scores differed between sectors, higher in the urban sector, 72.1 and lower in the *rural* sector, 62.7. Study of HFCAS categories indicates that 0.5 percent of the households had poor food consumption, 2.6 percent were borderline and 97.0 percent, had adequate food consumption.

2.8.5.2. Food insecurity categories

Food insecurity levels obtained by cross-tabulating food access categories (as indicated by percentage expenditure on food) and food consumption categories for households with a child aged less than 5 years (n= 336) are presented in Table 36. Of these households, 0.3 percent were found to be 'severely food insecure' with comparable percentages for 'moderately insecure' and 'secure' were 6.8 and 92.9 percent respectively.

In interpreting food insecurity, the two categories, moderately and severely food insecure categories were considered together. There were no food insecure households in the urban sector.

Considering the key socio-economic indicators included in this study, the marked influences such indicators have on food insecurity is clearly shown. There was an upward trend in the percentage of food secure households, with increasing level of education of the head of the household and increasing income levels and wealth quintiles. However, these observations have to be interpreted with caution as numbers in some of the such categories are small.

ANNEX 1

Table A1 : Percentage of under-5 children who reported symptoms of respiratory illness and diarrhoea by background characteristics

background characteristic	Total number of children	% reported symptoms of		Total No. of children reported Diarrhoea	% Given <i>Jeewanee</i> *
		Respiratory illness	Diarrhoea		
Age of child (months)					
<6	27	7.4	3.7	1	0.0
6-11	44	9.1	13.6	6	50.0
12-23	73	21.9	15.1	11	36.4
24-35	95	26.3	13.7	13	46.2
36-47	83	26.5	22.9	19	63.2
48-59	56	14.3	3.6	2	0.0
Sex of child					

background characteristic	Total number of children	% reported symptoms of		Total No. of children reported Diarrhoea	% Given Jeewanee *
		Respiratory illness	Diarrhoea		
Male	190	22.6	17.4	33	48.5
Female	188	18.1	10.1	19	47.4
Sector					
Urban	101	21.8	11.9	12	25.0
Rural	277	19.9	14.4	40	55.0
Mother's education					
No schooling	47	21.3	12.8	6	66.7
Primary	71	18.3	9.9	7	71.4
Secondary	140	17.1	20.7	29	34.5
Passed O' Level	55	32.7	12.7	7	85.7
Higher	31	16.1	0.0	0	0.0
Monthly household income					
< 9,000	181	19.3	16.0	29	55.2
9,000 – 13,999	85	17.6	11.8	10	20.0
14,000 – 19,999	71	21.1	12.7	9	55.6
20,000 – 31,999	27	33.3	7.4	2	0.0
≥ 32,000	8	12.5	25.0	2	100.0
Wealth quintile					
Poorest	127	22.8	19.7	25	48.0
Second	80	20.0	15.0	12	41.7
Middle	68	25.0	11.8	8	25.0
Fourth	33	18.2	6.1	2	100.0
Richest	21	9.5	0.0	0	0.0
Overall	378	20.4	13.8	52	48.1

Table A 2 : Infant and young child feeding practices by background characteristics.

background characteristic	Percent					No. of children under 2 year	
	Ever breastfed	Currently breastfed	Initiated breastfeeding within one hour of birth*	initiated breastfeeding within one day of birth	Introduced complementary food among infants 6-8 months		
<hr/>							
Age of child in months							
<6	100.0	92.6	74.1	92.6	0.0	8.3	28

background characteristic	Percent					bottle-fed	No. of children under 2 year
	Ever breastfed	Currently breastfed	Initiated breastfeeding within one hour of birth*	initiated breastfeeding within one day of birth	Introduced complementary food among infants 6-8 months		
6-11	100.0	81.8	95.5	100.0	0.0	57.8	45
12-23	100.0	70.0	96.7	100.0	0.0	31.5	74
Sex of child							
Male	100.0	77.4	90.3	96.8	100.0	39.4	72
Female	100.0	83.3	87.5	97.9	75.0	32.4	75
Residence							
Urban	100.0	60.0	80.0	100.0	80.0	40.5	38
Rural	100.0	88.1	91.5	96.6	90.0	34.3	109
Maternal education							
no schooling	100.0	100.0	100.0	100.0	0.0	40.0	15
Primary	100.0	58.3	91.7	91.7	80.0	40.0	25
Secondary	100.0	87.1	87.1	96.8	75.0	30.5	61
Passed GCE (O/L)	100.0	80.0	80.0	100.0	100.0	50.0	18
Higher	100.0	62.5	75.0	100.0	100.0	27.3	13
Monthly household income							
< 9,000	100.0	81.0	92.9	97.6	50.0	30.8	68
9,000 – 13,999	100.0	95.2	85.7	95.2	100.0	38.2	36
14,000 – 19,999	100.0	80.0	100.0	100.0	100.0	41.9	31
20,000 – 31,999	100.0	20.0	60.0	100.0	0.0	50.0	8
≥ 32,000	100.0	100.0	0.0	100.0	0.0	0.0	3
Wealth quintile of household							
Poorest	100.0	82.1	96.4	100.0	100.0	30.0	41
Second	100.0	87.5	93.8	100.0	66.7	50.0	29
Middle	100.0	88.9	88.9	100.0	100.0	33.3	24
Fourth	100.0	60.0	80.0	100.0	100.0	41.7	12
Richest	100.0	50.0	100.0	100.0	0.0	60.0	5
Overall	100.0	81.0	88.6	97.5	86.7	35.9	147

Table A 3 : Percentage of children aged 6-59 months, who were given different food items on the day preceding the interview, by background characteristics

background characteristic	Grains /Roots/ Tubers	Legume/Nuts	Vit A rich fruits and vegetables	Other fruits and vegetables	Dairy product/Milk / yogurt / cheese*	Eggs	Meat/fish/Poultry/organ meats	Food cooked with oil or Fat	Fortified Food	Sugary Food
Age of child in months										
6-11	75.6	33.3	71.1	53.3	42.2	53.3	55.6	11.1	68.9	75.6
12-23	81.1	45.9	87.8	62.2	33.8	59.5	74.3	32.4	52.7	86.5
24-35	84.7	53.1	83.7	70.4	42.9	60.2	77.6	53.1	61.2	82.7
36-47	94.0	47.6	89.3	63.1	35.7	56.0	73.8	42.9	57.1	78.6
48-59	91.1	55.4	85.7	57.1	39.3	58.9	82.1	50.0	55.4	78.6
Sex of child										
Male	85.6	49.7	86.7	63.5	40.3	59.7	75.7	43.6	59.1	83.4
Female	86.4	46.6	82.4	61.9	36.9	56.3	72.2	37.5	58.0	78.4
Residence										
Urban	90.4	52.1	83.0	75.5	55.3	57.4	85.1	42.6	44.7	84.0
Rural	84.4	46.8	85.2	58.2	32.7	58.2	70.0	39.9	63.5	79.8
Maternal education										
no schooling	86.4	54.5	88.6	75.0	40.9	56.8	56.8	40.9	56.8	70.5
primary	84.1	53.6	78.3	55.1	26.1	53.6	69.6	36.2	62.3	79.7
Secondary	82.6	39.4	84.8	59.8	36.4	59.8	78.0	40.2	59.8	80.3
Passed GCE (O/L)	94.3	62.3	92.5	69.8	45.3	64.2	84.9	50.9	60.4	90.6
Higher	85.2	55.6	74.1	63.0	59.3	48.1	77.8	48.1	33.3	92.6
Monthly household income										
< 9,000	84.0	47.9	85.8	53.8	30.8	62.7	70.4	39.6	66.3	80.5
9,000 – 13,999	79.5	37.3	80.7	63.9	34.9	56.6	66.3	33.7	55.4	79.5
14,000 – 19,999	94.0	62.7	88.1	80.6	52.2	50.7	91.0	46.3	58.2	83.6
20,000 – 31,999	96.0	52.0	84.0	64.0	56.0	48.0	84.0	48.0	32.0	88.0
≥ 32,000	85.7	14.3	71.4	57.1	57.1	57.1	71.4	42.9	14.3	71.4
Wealth quintile of household										
Poorest	81.0	46.3	83.5	56.2	29.8	57.9	62.8	37.2	63.6	78.5
Second	87.0	44.2	88.3	66.2	42.9	61.0	75.3	41.6	59.7	84.4
Middle	93.9	56.1	83.3	72.7	48.5	62.1	87.9	47.0	53.0	81.8
Fourth	93.8	53.1	81.3	65.6	34.4	53.1	81.3	28.1	31.3	90.6
Richest	90.5	52.4	90.5	81.0	66.7	66.7	85.7	61.9	66.7	90.5

background characteristic	Grains /Roots/ Tubers	Legume/Nuts	Vit A rich fruits and vegetables	Other fruits and vegetables	Dairy product/Milk / yogurt / cheese*	Eggs	Meat/fish/Poultry/organ meats	Food cooked with oil or Fat	Fortified Food	Sugary Food
Overall	86.0	48.2	84.6	62.7	38.7	58.0	73.9	40.6	58.5	81.0

(*Breast milk was not included)

Table A 4 : Individual dietary diversity score in children (IDDS) according to background characteristics from children 6 – 59 months

Background characteristic	IDDS (range 0-8)		% of individuals yet to	Total number of children
	Mean	SD	achieve the target	
Age of child in months				
6-11	4.0	2.3	77.8	45
12-23	4.8	2.2	62.2	74
24-35	5.3	2.3	50.0	98
36-47	5.0	2.2	63.1	84
48-59	5.2	2.0	66.1	56
Sex of child				
Male	5.0	2.1	60.2	181
Female	4.8	2.3	63.1	176
Residence			0.0	
Urban	5.4	2.2	47.9	94
Rural	4.8	2.2	66.5	263
Maternal education				
no schooling	5.0	2.3	61.4	44
Primary	4.6	2.1	72.5	69
Secondary	4.8	2.3	62.9	132
Passed GCE (O/L)	5.6	1.9	50.9	53
Higher	5.1	2.4	51.9	27
Monthly household income				
< 9,000	4.8	2.2	65.1	169
9,000 – 13,999	4.5	2.3	68.7	83
14,000 – 19,999	5.7	2.0	46.3	67
20,000 – 31,999	5.3	1.8	56.0	25
≥ 32,000	4.6	2.4	71.4	7
Wealth quintile of household				
Poorest	4.5	2.2	68.6	121
Second	5.1	2.1	62.3	77

Background characteristic	IDDS (range 0-8)		% of individuals yet to achieve the target	Total number of children
	Mean	SD		
Middle	5.5	2.0	48.5	66
Fourth	4.9	1.9	71.9	32
Richest	6.0	2.1	33.3	21
Overall	4.9	2.2	61.6	357

Table A 5 : Minimum meal frequency, dietary diversity, and minimum acceptable diet in children 6-23 months, by background characteristics

Background characteristic	Minimum meal frequency		Minimum Dietary diversity score, Mean (range 0-7)	% with minimal dietary diversity (≥4 groups)	Percentage of minimum acceptable diet	Total no. of children
	Breastfed	Non-Breastfed				
Age group in months						
6-8	50.0	14.3	2.4	33.3	13.3	15
9-11	30.0	5.0	4.6	80.0	10.0	30
12-14	33.3	0.0	3.8	52.9	11.8	17
15-17	20.0	7.7	4.7	66.7	11.1	18
18-20	0.0	0.0	4.7	73.9	0.0	23
21-23	33.3	0.0	4.4	62.5	0.0	16
Sex of child						
Male	14.3	6.4	4.3	68.9	6.6	61
Female	36.0	0.0	4.1	60.3	8.6	58
Residence	0.0	0.0		0.0	0.0	
Urban	40.0	0.0	4.5	72.4	3.4	29
Rural	26.5	5.4	4.1	62.2	8.9	90
Maternal education						
no schooling	16.7	0.0	4.3	75.0	8.3	12
Primary	25.0	5.6	4.0	63.6	4.5	22
Secondary	23.5	6.3	4.2	61.2	4.1	49
Passed GCE (O/L)	20.0	0.0	4.3	66.7	6.7	15
Higher	50.0	0.0	4.1	66.7	11.1	9
Monthly household income						
< 9,000	28.6	6.1	4.3	66.7	9.3	54
9,000 – 13,999	20.0	0.0	3.3	43.3	3.3	30
14,000 – 19,999	66.7	4.3	5.1	80.8	11.5	26
20,000 – 31,999	0.0	0.0	4.0	66.7	0.0	6
≥ 32,000	0.0	0.0	5.0	100.0	0.0	2
Wealth quintile of household						
Poorest	17.6	5.9	4.7	70.6	8.8	34
Second	50.0	6.7	3.9	60.0	20.0	25
Middle	50.0	0.0	4.2	65.0	5.0	20
Fourth	0.0	0.0	4.1	63.6	0.0	11
Richest	0.0	0.0	5.6	100.0	0.0	5
Overall	28.2	3.8	4.2	64.7	7.6	119

Table A 6 : Participation of adult members in activities of children aged 2 to 5 years, and percentage of under 5 children cared for by a child <10 years, by background characteristics

Background characteristic	Household adult member involved		father's involvement		Total children 2- up to 5 years	% of children left under the care of <10 year old child in the past week	Total Children under 5 years
	Mean No. of activities	% of children with four or more activities	Mean No. of activities	% of children with at least one activity			
Age in months							
24-35	4.5	75.0	2.0	57.1	84	20.2	84
36-47	4.7	74.0	2.1	51.9	77	27.3	77
48-59	4.7	73.6	2.2	52.8	53	18.9	53
Sex of child							
Male	4.5	73.4	2.0	51.4	109	18.2	137
Female	4.7	75.2	2.2	57.1	105	26.8	127
Residence							
Urban	5.2	84.5	2.4	69.0	58	18.8	69
Rural	4.4	70.5	2.0	48.7	156	23.6	195
Maternal education							
no schooling	4.6	70.4	2.3	51.9	27	16.1	31
primary	4.9	80.0	1.4	37.5	40	28.6	49
Secondary	4.4	70.4	2.4	65.4	81	24.8	101
Passed GCE (O/L)	4.6	75.0	1.9	47.2	36	13.3	45
Higher	5.4	88.2	2.8	70.6	17	15.0	20
Monthly household income							
< 9,000	4.4	70.3	1.9	48.5	101	25.4	122
9,000 – 13,999	4.3	66.0	2.2	61.7	47	25.4	59
14,000 – 19,999	5.2	87.2	2.1	53.8	39	13.7	51
20,000 – 31,999	5.2	88.2	2.2	58.8	17	13.6	22
≥ 32,000	4.8	80.0	2.2	80.0	5	20.0	5
Wealth quintile of household							
Poorest	4.3	67.9	1.8	48.1	81	28.7	101
Second	4.3	68.6	1.7	47.1	51	24.1	58
Middle	4.9	82.6	2.4	60.9	46	19.7	61
Fourth	5.2	85.0	2.7	60.0	20	11.5	26
Richest	5.4	87.5	3.1	81.3	16	5.6	18
Overall	4.6	74.3	2.1	54.2	214	22.3	264

Table A 7: Percentage of children aged 36-59 months who were attending an early childhood education programme, by background characteristics

Background characteristic	Percent attending Preschool Daycare	or	Mean No of days attended in past 7 days		Total number of children
			Mean	SD	
Age group in months					
36-47	27.3		4.0	1.5	77
48-59	37.7		3.9	1.7	53
Sex of child					
Male	39.1		4.0	1.7	69
Female	23.0		4.0	1.3	61
Residence					
Urban	22.9		3.8	1.8	35
Rural	34.7		4.0	1.5	95
Maternal education					
no schooling	22.2		4.5	1.0	18
primary	25.9		4.7	.5	27
Secondary	29.5		3.9	1.7	44
Passed GCE (O/L)	47.6		3.8	1.6	21
Higher	30.0		2.7	2.5	10
Monthly household income					
< 9,000	26.9		4.0	1.5	67
9,000 – 13,999	51.7		4.1	1.2	29
14,000 – 19,999	10.0		2.5	3.5	20
20,000 – 31,999	37.5		3.0	2.6	8
≥ 32,000	33.3		5.0	.	3
Wealth quintile of household					
Poorest	31.3		4.2	1.1	48
Second	31.3		4.5	.8	32
Middle	25.9		3.0	1.9	27
Fourth	46.7		3.4	2.4	15
Richest	25.0		5.0	.0	8
Overall	31.5		4.0	1.5	130

Table A 8 : Percentage of children 5-10 years of age attending Primary School, by background characteristics

background characteristic	Percentage of children of primary school age currently attending Primary School	No. of children of primary school age (5-10 years)	% entered Grade 1	No. of Children Completed 5 yrs By 31 st of Jan 2009
Sex of child				
Male	98.9	187	96.2	26
Female	98.9	183	100.0	22
Residence				
Urban	98.9	93	100.0	19
Rural	98.9	277	96.6	29
Monthly household income				
< 9,000	98.8	165	100.0	19
9,000 – 13,999	100.0	84	100.0	12
14,000 – 19,999	97.4	76	90.0	10
20,000 – 31,999	100.0	21	100.0	4
≥ 32,000	100.0	5	0.0	
Wealth quintile of household				
Poorest	99.1	111	100.0	4
Second	98.4	64	100.0	7
Middle	100.0	61	100.0	3
Fourth	100.0	25	100.0	3
Richest	100.0	18	100.0	2
Overall	98.9	370	97.9	48

Table A 9 : Use of different types of play items by children under 5 years of age, according to background characteristics

Background characteristic	percentage of children who play with:					Total number of children <5 year
	household objects	outdoor material	homemade toys	ready-made toys	3 or more types of play items	
Age group in months						
24-35	89.3	73.8	75.0	51.2	64.3	84
36-47	83.1	76.6	76.6	61.0	67.5	77
48-59	88.7	71.7	86.8	60.4	67.9	53
Sex of child						
Male	86.2	74.3	73.4	57.8	65.1	109
Female	87.6	74.3	83.8	56.2	67.6	105
Residence	0.0	0.0	0.0	0.0	0.0	

Background characteristic	percentage of children who play with:					Total number of children <5 year
	household objects	outdoor material	homemade toys	ready-made toys	3 or more types of play items	
Urban	82.8	67.2	93.1	58.6	62.1	58
Rural	88.5	76.9	73.1	56.4	67.9	156
Maternal education						
no schooling	92.6	81.5	74.1	63.0	77.8	27
primary	90.0	75.0	67.5	52.5	57.5	40
Secondary	86.4	69.1	81.5	51.9	64.2	81
Passed GCE (O/L)	86.1	75.0	77.8	55.6	69.4	36
Higher	88.2	88.2	94.1	88.2	88.2	17
Monthly household income						
< 9,000	90.1	71.3	70.3	50.5	60.4	101
9,000 – 13,999	83.0	70.2	85.1	51.1	66.0	47
14,000 – 19,999	87.2	84.6	87.2	69.2	74.4	39
20,000 – 31,999	88.2	76.5	88.2	70.6	76.5	17
≥ 32,000	80.0	100.0	80.0	100.0	100.0	5
Wealth quintile of household						
Poorest	91.4	70.4	65.4	53.1	63.0	81
Second	74.5	70.6	78.4	41.2	52.9	51
Middle	93.5	80.4	89.1	65.2	76.1	46
Fourth	85.0	85.0	95.0	80.0	85.0	20
Richest	87.5	75.0	93.8	75.0	75.0	16
Overall	86.9	74.3	78.5	57.0	66.4	214

Table A 10 : Percentage of children aged 5-14 years who are involved in child labour activities, and mean hours per week, by background characteristics

Background characteristic	working outside household in the previous week			working outside household in the last year		Total number of children aged 5-14 year
	paid work	unpaid work	mean hours per week	paid work	unpaid work	
Age group in years						
9-11	0.0	7.7	2.25	0.0	6.4	184
12-14	0.8	9.0	2.09	0.0	9.3	181
Sex of child						
Male	0.6	6.9	2.09	0.0	6.7	302
Female	0.0	7.0	2.00	0.0	6.2	301
Residence						

Background characteristic	working outside household in the previous week			working outside household in the last year		Total number of children aged 5-14 year
	paid work	unpaid work	mean hours per week	paid work	unpaid work	
Urban	0.0	2.2	.	0.0	0.0	153
Rural	0.4	8.6	2.05	0.0	8.6	450
Monthly household income						
< 9,000	0.7	7.3	2.55	0.0	7.7	282
9,000 – 13,999	0.0	5.6	2.50	0.0	4.3	131
14,000 – 19,999	0.0	9.0	1.00	0.0	7.0	115
20,000 – 31,999	0.0	8.7	1.00	0.0	8.7	44
≥ 32,000	0.0	0.0	.	0.0	0.0	8
Wealth quintile of household						
Poorest	1.0	8.3	2.38	0.0	8.8	140
Second	0.0	1.9	1.00	0.0	2.0	82
Middle	0.0	7.0	2.50	0.0	4.9	74
Fourth	0.0	11.1	1.50	0.0	11.8	32
Richest	0.0	7.1	3.00	0.0	0.0	23
Overall	0.3	7.0	2.05	0.0	6.5	603

Table A 11: Percentage of children less than 5 years of age who received care at child welfare clinic, by background characteristics

background characteristic		Availability of CHDR	Children Attended CWC	% of children whose mothers received advice on			% Received Thripasha*	Total No. of Children
				Growth	Nutritional status	ECCD		
		%	%					
Age group in months	<6	85.7	88.2	93.8	86.7	78.6	33.3	45
	6-11	91.1	90.5	81.1	86.1	72.2	17.6	74
	12-23	89.2	86.9	88.7	86.8	82.7	19.4	98
	24-35	89.8	84.6	79.7	78.8	73.1	14.3	84
	36-47	92.9	92.1	80.6	83.6	76.1	19.6	56
	48-59	89.3	83.0	75.6	75.6	68.3	33.3	45
Sex of child	Male	91.1	87.2	81.2	81.8	76.0	20.4	181
	Female	89.1	87.7	82.6	82.6	73.9	18.8	176
Residence	Urban	87.4	81.2	70.3	76.6	54.8	18.1	94
	Rural	91.1	89.6	85.2	83.8	80.5	20.2	263
Maternal education**	no schooling	74.5	85.0	74.3	78.4	73.5	15.9	44
	primary	90.3	88.1	76.6	73.0	72.6	23.2	69
	Secondary	93.8	90.3	82.1	83.7	73.1	16.7	132
	Passed GCE (O/L)	96.4	88.7	90.5	88.1	78.6	34.0	53
	Higher	90.3	73.9	86.4	90.9	77.3	14.8	27
Monthly household income*** (up to 9000	92.3	89.9	85.0	84.9	80.4	21.3	169
	9000-13999	87.6	87.2	79.1	77.3	70.1	15.7	83
	14000-19999	88.9	84.4	76.9	81.1	69.2	23.9	67
	20000-31999	88.9	77.3	75.0	81.3	68.8	8.0	25
	32000 +	75.0	83.3	80.0	100.0	60.0	14.3	7
Wealth quintile of household	Poorest	91.4	91.4	83.3	81.1	75.5	22.3	121
	Second	88.9	92.6	88.3	87.1	84.7	18.2	77
	Middle	91.4	81.5	76.9	80.4	72.5	24.2	66
	Fourth	93.9	75.8	87.5	83.3	70.8	25.0	32
	Richest	100.0	73.7	56.3	68.8	43.8	23.8	21
Overall		90.1	87.4	81.9	82.2	75.0	19.6	357

Table A 12 : Percentage distribution of children who received Vitamin A mega dose supplement at 9, 18 and 36 months, by background characteristics.

background characteristic		Children 9-59 months		Children 18-59 months		Children 36-59 months			Of the children 36-59, percentage never received Vit A.
		Number of children	%	Number of children	%	Number of children	%	%	
			received Vit A at 9 months		received Vit A at 18 months		received Vit A at 36 month	received 3 doses of Vit A	
Sex of child	Male	133	96.2	99	83.8	49	87.8	82.7	13.7
	Female	128	94.5	103	87.4	46	82.6	82.6	11.1
Residence	Urban	71	95.8	61	83.6	25	84.0	80.8	5.6
	Rural	190	95.3	141	86.5	70	85.7	83.3	15.0
Maternal education	no schooling	34	88.2	33	81.8	13	76.9	76.9	11.1
	primary	50	98.0	40	85.0	19	84.2	80.0	17.2
	Secondary	91	98.9	62	90.3	27	96.3	89.7	14.0
	Passed GCE (O/L)	43	95.3	34	85.3	19	78.9	78.9	0.0
	Higher	21	85.7	15	80.0	7	71.4	71.4	9.1
Monthly household income	up to 9000	120	95.8	96	84.4	49	87.8	82.7	19.4
	9000-13999	62	93.5	41	85.4	19	84.2	84.2	3.4
	14000-19999	47	100.0	37	89.2	15	93.3	93.3	5.3
	20000-31999	22	90.9	19	84.2	8	75.0	75.0	0.0
	32000 +	5	80.0	4	75.0	1	0.0	0.0	33.3
Wealth quintile of household	Poorest	87	94.3	65	81.5	35	82.9	80.6	21.6
	Second	50	98.0	39	92.3	18	94.4	89.5	6.5
	Middle	51	94.1	43	90.7	20	90.0	85.7	7.7
	Fourth	28	100.0	21	81.0	14	78.6	78.6	0.0
	Richest	17	94.1	16	75.0	5	80.0	80.0	25.0
Overall		261	95.4	202	85.6	95	85.3	82.7	12.5

Table A 13 : Source of care provider for children who had diarrhoea or respiratory illness during 2 weeks preceding survey, by background characteristics

background characteristic	Source of provider (%)			Number of children who had diarrhoea or respiratory illness in previous 2 weeks
	Gov. sector	Private sector	Other	

background characteristic		Source of provider (%)			Number of children who had diarrhoea or respiratory illness in previous 2 weeks
		Gov. sector	Private sector	Other	
Age of child in months	<6	71.4	28.6	0.0	7
	6-11	64.7	35.3	0.0	21
	12-23	74.2	25.8	0.0	37
	24-35	71.8	28.2	0.0	44
	36-47	69.7	30.3	0.0	40
	48-59	75.0	25.0	0.0	18
Sex of child	Male	70.1	29.9	0.0	92
	Female	72.7	27.3	0.0	75
Residence	Urban	59.1	40.9	0.0	47
	Rural	76.8	23.2	0.0	120
Mother's education	No schooling	92.3	7.7	0.0	18
	Primary	70.0	30.0	0.0	34
	Secondary	69.6	30.4	0.0	69
	Passed O' Level	75.0	25.0	0.0	26
	Higher	30.0	70.0	0.0	10
Monthly household income	up to 9000	81.0	19.0	0.0	75
	9000-13999	67.6	32.4	0.0	39
	14000-19999	65.5	34.5	0.0	32
	20000-31999	61.5	38.5	0.0	15
	32000 +	0.0	100.0	0.0	4
Wealth quintile of household	Poorest	76.0	24.0	0.0	63
	Second	68.8	31.3	0.0	35
	Middle	64.5	35.5	0.0	32
	Fourth	80.0	20.0	0.0	13
	Richest	50.0	50.0	0.0	7
Overall		71.3	28.7	0.0	167

Table A 14 : Percent of pregnant mothers who attended antenatal clinics, and who received “poshana malla”, “thriposha” and Iron tablets, by background characteristics.

background characteristic	Regular ANC Visits*	“poshana malla”,	“thriposha”	Iron tablets	Total No. of
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		Percent	Total No of Mothers	Percent	Total No of Mothers	Percent	Total No of Mothers	percent received tablets	Of the received, percent took daily	Total No of Mothers	Pregnant women
Residence	Urban	80.0	5	25.0	4	100.0	3	100.0	60.0	5	6
	Rural	90.5	21	45.5	22	81.8	22	85.7	61.1	21	22
Maternal education	no schooling	100.0	1	0.0	1	100.0	1	100.0	100.0	1	1
	primary	100.0	5	40.0	5	80.0	5	100.0	20.0	5	5
	Secondary	87.5	8	37.5	8	87.5	8	87.5	57.1	8	9
	Passed GCE (O/L)	71.4	7	42.9	7	71.4	7	71.4	80.0	7	7
	Higher	100.0	4	60.0	5	100.0	4	100.0	75.0	4	5
Monthly household income	up to 9000	90.0	10	70.0	10	80.0	10	100.0	60.0	10	11
	9000-13999	80.0	10	20.0	10	80.0	10	90.0	66.7	10	10
	14000-19999	100.0	4	25.0	4	100.0	3	50.0	100.0	4	5
	20000-31999	100.0	1	0.0	1	100.0	1	100.0	0.0	1	1
	32000 +	100.0	1	100.0	1	100.0	1	100.0	0.0	1	1
Wealth quintile of household	Poorest	80.0	5	16.7	6	50.0	6	60.0	66.7	5	6
	Second	88.9	9	33.3	9	88.9	9	100.0	66.7	9	9
	Middle	85.7	7	57.1	7	100.0	7	85.7	50.0	7	7
	Fourth	100.0	4	100.0	3	100.0	3	100.0	50.0	4	4
	Richest	100.0	1	0.0	1	0.0		100.0	100.0	1	2
Overall		88.5	26	42.3	26	84.0	25	88.5	60.9	26	28

*(First visits were excluded)

Table A 15 : Percentage of lactating mothers who received “thripasha” and Vitamin A by background characteristics

background characteristic		“thripasha” (child <6 months)		Vitamin A mega dose (child <24 months)	
		Percent	Total No of Women	Percent	Total No of Women
Sector	Urban	88.9	9	87.5	16
	Rural	75.0	16	77.1	70
Maternal education	no schooling	100.0	3	90.0	10
	primary	100.0	2	69.2	13
	Secondary	81.8	11	80.6	36
	Passed GCE (O/L)	66.7	3	61.5	13
	Higher	75.0	4	88.9	9

background characteristic		"thripasha" (child <6 months)		Vitamin A mega dose (child <24 months)	
		Percent	Total No of Women	Percent	Total No of Women
Monthly household income	up to 9000	92.3	13	83.7	43
	9000-13999	60.0	5	76.0	25
	14000-19999	75.0	4	61.5	13
	20000-31999	100.0	2	100.0	3
	32000 +	0.0	1	100.0	1
Wealth quintile of household	Poorest	66.7	6	79.2	24
	Second	100.0	3	71.4	14
	Middle	75.0	4	71.4	14
	Fourth	0.0	1	85.7	7
	Richest	0.0		100.0	1
Overall		80.0	25	79.1	86

Table A 16 : "Samurdhi" beneficiaries" among women 15-49 years by background characteristics

background characteristic		Pregnant		Lactating		Non-pregnant & non-lactating	
		Percent	Total No of Women	Percent	Total No of Women	Percent	Total No of Women
Residence	Urban	50.0	6	36.7	30	28.8	52
	Rural	40.9	22	39.8	103	53.7	134
Maternal education	no schooling	0.0	1	57.1	21	75.0	16
	primary	80.0	5	60.0	25	42.4	33
	Secondary	44.4	9	27.1	48	53.3	75
	Passed GCE (O/L)	57.1	7	42.1	19	36.1	36
	Higher	0.0	5	8.3	12	25.0	16
Monthly household income	up to 9000	63.6	11	42.0	69	59.3	81
	9000-13999	50.0	10	35.5	31	48.7	39
	14000-19999	0.0	5	47.8	23	32.4	37
	20000-31999	0.0	1	0.0	5	22.7	22
	32000 +	0.0	1	0.0	4	0.0	2
Wealth quintile of household	Poorest	50.0	6	42.6	61	60.7	61
	Second	33.3	9	35.3	34	52.4	42
	Middle	71.4	7	36.4	22	53.8	39
	Fourth	25.0	4	44.4	9	16.0	25
	Richest	0.0	2	28.6	7	20.0	15
Overall		42.9	28	39.1	133	46.8	186

Table A 17 : Distribution of households according to main source of drinking water, and households with improved source of water, by background characteristics

Background Characteristics		Main source of drinking water								Unimproved sources	Improved source of drinking water*
		Improved sources									
		Piped into dwelling	Piped into yard or plot	Public tap /standpipe	Tube well/ borehole	Protected well	Protected spring	Rainwater collection	Bottled water		
Sector	Urban	15.4	3.2	2.1	9.6	47.3	0.0	0.0	0.0	22.3	77.7
	Rural	6.9	0.7	6.9	7.1	56.5	0.5	0.0	0.0	21.5	78.5
	Estate										
Income group	< 9,000	8.1	1.4	6.0	5.3	49.8	0.0	0.0	0.0	29.5	70.5
	9,000 -13,999	5.6	0.7	8.3	9.7	57.6	0.7	0.0	0.0	17.4	82.6
	14,000 – 19,999	15.8	2.6	4.4	10.5	50.0	0.9	0.0	0.0	15.8	84.2
	20,000 – 31,999	13.0	1.9	0.0	9.3	66.7	0.0	0.0	0.0	9.3	90.7
	≥ 32,000	27.3	0.0	0.0	9.1	54.5	0.0	0.0	0.0	9.1	90.9
Wealth index quintiles	Poorest	6.9	1.3	6.9	5.6	50.2	0.4	0.0	0.0	28.8	71.2
	Second	6.4	1.9	5.1	7.1	58.3	0.6	0.0	0.0	20.5	79.5
	Middle	8.7	1.7	4.3	5.2	58.3	0.0	0.0	0.0	21.7	78.3
	Fourth	14.3	1.3	5.2	18.2	48.1	0.0	0.0	0.0	13.0	87.0
	Richest	27.3	0.0	2.3	11.4	54.5	0.0	0.0	0.0	4.5	95.5
National		9.4	1.4	5.4	7.8	53.8	0.3	0.0	0.0	21.8	78.2

Table A 18 : Distribution of households according to drinking water treatment methods used, by background characteristics*

Background	Water treatment method used in the household	Appropriate	Total No
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Characteristics		None	Boil	Add bleach/chlorine	Strain through a cloth	Use water filter	Solar disinfection	Let it stand and settle	Other	water treatment method *	of household
Sector	Urban	18.6	46.8	23.9	20.2	13.3	1.1	23.9	1.1	66.0	188
	Rural	18.3	51.0	26.8	21.7	13.5	0.9	13.0	1.4	68.9	437
Wealth index quintiles	Poorest	27.2	40.8	19.7	20.6	11.2	0.9	10.7	2.1	57.5	233
	Second	16.7	47.4	23.1	23.7	14.1	1.3	16.0	0.6	68.6	156
	Middle	12.2	58.3	32.2	23.5	14.8	1.7	19.1	0.9	77.4	115
	Fourth	7.8	64.9	33.8	20.8	14.3	0.0	22.1	0.0	80.5	77
	Richest	13.6	56.8	38.6	11.4	18.2	0.0	29.5	2.3	75.0	44
Income group	< 9,000	23.5	47.4	21.4	18.2	16.1	1.4	15.1	1.8	64.2	285
	9,000 – 13,999	13.9	53.5	25.7	31.3	9.0	0.0	20.8	0.7	68.1	144
	14,000 – 19,999	14.9	57.9	33.3	20.2	11.4	0.0	10.5	0.0	76.3	114
	20,000 – 31,999	16.7	44.4	31.5	14.8	13.0	3.7	18.5	1.9	68.5	54
	≥ 32,000	0.0	45.5	27.3	36.4	9.1	0.0	36.4	0.0	72.7	11
Overall		18.4	49.8	25.9	21.3	13.4	1.0	16.3	1.3	68.0	625

Table A 19 : Distribution of household members according to type of toilet used by the household, by background characteristics

Background Characteristics		Type of toilet facility used by household					Percentage of population using sanitary means of excreta disposal *	Number of households
		Flush	Pit	Temporary	No toilet	Missing		
Sector	Urban	76.6	17.0	0.5	5.3	0.5	76.6	188
	Rural	44.9	27.5	3.9	22.9	0.9	44.9	437
Wealth index quintiles	Poorest	21.9	26.6	7.3	43.3	0.9	21.9	233
	Second	53.2	39.1	0.6	5.8	1.3	53.2	156
	Middle	81.7	17.4	0.0	0.0	0.9	81.7	115
	Fourth	89.6	10.4	0.0	0.0	0.0	89.6	77
	Richest	97.7	2.3	0.0	0.0	0.0	97.7	44
Income group	< 9,000	46.7	22.5	3.5	26.7	0.7	46.7	285
	9,000 – 13,999	56.9	26.4	4.9	11.1	0.7	56.9	144
	14,000 – 19,999	60.5	26.3	0.9	11.4	0.9	60.5	114
	20,000 – 31,999	72.2	22.2	0.0	5.6	0.0	72.2	54
	≥ 32,000	81.8	18.2	0.0	0.0	0.0	81.8	11
Overall		54.4	24.3	2.9	17.6	0.8	54.4	625

Table A 20 : Distribution of households using both improved drinking water sources and sanitary means of excreta disposal, by background characteristics

Background Characteristics		Percentage of household population using improved sources of drinking water *	Percentage of household population using sanitary means of excreta disposal **	Percentage of household population using improved sources of drinking water and using sanitary means of excreta disposal	Number of household
Sector	Urban	77.7	76.6	62.8	188
	Rural	78.5	44.9	34.3	437
Wealth index quintiles	Poorest	71.2	21.9	14.2	233
	Second	79.5	53.2	40.4	156
	Middle	78.3	81.7	62.6	115
	Fourth	87.0	89.6	76.6	77
	Richest	95.5	97.7	93.2	44
Income group	< 9,000	70.5	46.7	31.6	285
	9,000 – 13,999	82.6	56.9	47.2	144
	14,000 – 19,999	84.2	60.5	50.0	114
	20,000 – 31,999	90.7	72.2	66.7	54
	≥ 32,000	90.9	81.8	81.8	11
overall		78.2	54.4	42.9	625

Table A 21: Distribution of households according to duration to and from the source of drinking water, by background characteristics.

Background Characteristics		Time to source of drinking water				Mean time to source of drinking water (excluding those on premises)	Number of households
		Water on premises	Less than 15 minutes	15 minutes to less than 30 minutes	More than 30 minutes		
Sector	Urban	18.6	62.2	2.1	0.5	4.1	188
	Rural	7.6	73.2	5.5	3.9	6.4	437
Wealth index	Poorest	8.2	69.5	7.7	6.4	8.0	233

Background Characteristics		Time to source of drinking water				Mean time to source of drinking water (excluding those on premises)	Number of households
		Water on premises	Less than 15 minutes	15 minutes to less than 30 minutes	More than 30 minutes		
quintiles	Second	8.3	74.4	3.2	0.6	5.0	156
	Middle	10.4	73.9	2.6	0.9	4.3	115
	Fourth	15.6	61.0	2.6	1.3	4.2	77
	Richest	27.3	61.4	0.0	0.0	2.7	44
Income group	< 9,000	9.5	64.9	5.3	4.9	7.4	285
	9,000 – 13,999	6.3	79.9	4.2	0.7	4.8	144
	14,000 – 19,999	18.4	67.5	5.3	1.8	4.8	114
	20,000 – 31,999	14.8	70.4	1.9	0.0	3.0	54
	≥ 32,000	27.3	63.6	0.0	0.0	2.6	11
Overall		10.9	69.9	4.5	2.9	5.8	625
%							

Table A 22: Distribution of households according to the person collecting water used in the household, by background characteristics

Background Characteristics		Person collecting drinking water					Number of households
		Adult man	Adult woman	Male child (under 15)	Female child (under 15)	Other	
Sector	Urban	17.9	78.2	0.0	0.0	3.8	188
	Rural	12.4	84.3	0.5	1.2	1.5	437
Wealth index quintiles	Poorest	14.1	80.9	0.9	2.3	1.8	233
	Second	8.8	88.2	0.0	0.0	2.9	156
	Middle	10.9	88.1	0.0	0.0	1.0	115
	Fourth	25.4	73.0	0.0	0.0	1.6	77
	Richest	21.1	73.7	0.0	0.0	5.3	44
Income group	< 9,000	12.1	82.2	0.8	2.0	2.8	285
	9,000 – 13,999	15.9	81.1	0.0	0.0	3.0	144
	14,000 – 19,999	17.1	82.9	0.0	0.0	0.0	114
	20,000 – 31,999	12.5	87.5	0.0	0.0	0.0	54
	≥ 32,000	20.0	80.0	0.0	0.0	0.0	11

Background Characteristics	Person collecting drinking water					Number of households
	Adult man	Adult woman	Male child (under 15)	Female child (under 15)	Other	
Overall	14.0	82.6	0.4	0.9	2.2	625

Table A 23 : Proportion of households by type of foods consumed at least once in the day or night preceding the interview , by to background characteristics

Background Characteristic	Food Groups										
	Rice	Wheat	Nuts/pulses	vegetables	fruits	meat/poultry/fish	eggs	milk/dairy products	oils/fats	Coconut	Sugar
No. of members in family											
1-3	98.5	56.8	56.6	85.4	66.8	82.0	57.6	34.5	60.7	98.1	95.6
4-6	99.2	55.7	57.9	89.6	69.2	83.9	50.3	30.6	61.6	98.6	98.6
≥ 7	100.0	38.8	46.9	81.6	55.1	71.4	44.9	34.7	61.2	93.9	95.9
Sector											
Urban	97.3	52.4	35.5	85.1	78.1	87.2	44.1	33.2	59.6	99.5	97.9
Rural	99.8	55.9	65.7	88.5	62.5	80.2	55.9	32.0	61.8	97.5	97.2
Religion of HHhead											
Hindu	99.7	56.3	63.3	90.5	63.3	78.7	52.7	30.8	62.2	98.3	98.0
Islam	98.8	53.3	37.8	82.5	77.6	90.4	49.4	37.0	57.8	98.8	97.0
Catholic	95.9	57.5	64.4	90.4	68.5	83.6	61.6	31.5	64.4	98.6	97.3
Other	100.0	0.0	100.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	100.0
Monthly household income											
< 9,000	98.6	55.8	59.9	85.3	57.0	78.9	50.0	28.8	54.7	96.5	96.1
9,000 – 13,999	100.0	48.3	57.3	90.2	66.4	81.1	52.4	27.3	60.1	99.3	100.0
14,000 – 19,999	99.1	57.5	49.6	91.2	81.6	87.7	53.1	44.2	74.6	99.1	97.4
20,000 – 31,999	100.0	63.0	57.4	83.3	79.6	87.0	61.1	33.3	70.4	100.0	98.1
≥ 32,000	100.0	45.5	27.3	90.9	100.0	81.8	45.5	45.5	63.6	100.0	100.0
Wealth quintile											
Poorest	99.1	47.4	63.8	84.5	52.6	74.6	47.8	25.4	54.7	96.6	96.1
Second	99.4	55.1	52.9	87.2	70.3	84.6	56.8	35.9	54.5	98.1	98.7
Middle	98.3	64.3	53.9	89.6	75.7	90.4	53.0	40.0	73.0	100.0	96.5
Fourth	98.7	61.8	52.6	94.7	85.5	85.5	53.9	35.5	72.4	100.0	100.0
Richest	100.0	55.8	46.5	86.4	79.5	88.6	55.8	30.2	68.2	97.7	97.7

Background Characteristic	Food Groups										
	Rice	Wheat	Nuts/pul ses	vegetables	fruits	meat/poultry/f ish	eggs	milk/diary products	oils/fats	Coconut	Sugar
Overall %	99.0	54.8	56.7	87.5	67.2	82.3	52.3	32.3	61.2	98.1	97.4
Total No.	616	341	352	545	418	513	325	201	381	611	606

Table A 24 : Proportion of households by type of foods consumed in 5 days and more preceding the interview, by background characteristics

Background Characteristic	Food Groups										
	Rice	Wheat	Nuts/pul ses	vegetables	fruits	meat/poultry/f ish	eggs	milk/diary products	oils/fats	Coconut	Sugar
No. of members in family											
1-3	95.1	17.0	7.8	52.4	24.8	45.6	16.5	10.7	32.0	95.6	93.2
4-6	98.1	21.6	9.6	59.4	32.7	45.0	15.0	11.4	36.6	93.2	91.6
≥ 7	95.9	20.4	14.3	61.2	26.5	32.7	18.4	18.4	34.7	95.9	95.9
Sector											
Urban	92.6	28.7	11.7	63.3	46.3	48.4	18.6	22.9	47.1	96.3	92.6
Rural	98.9	16.1	8.3	54.5	22.3	42.3	14.5	6.9	29.7	93.1	92.2
Religion of HHhead											
Hindu	97.5	18.8	9.2	63.9	26.3	44.8	15.4	9.5	34.5	93.6	91.9
Islam	95.8	23.6	9.7	47.6	40.4	42.8	15.7	20.5	38.2	97.0	92.8
Catholic	98.6	20.5	9.6	52.1	23.3	53.4	16.4	5.5	31.5	89.0	93.2
Other	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0
Monthly household income											
< 9,000	95.4	20.0	10.5	51.2	19.3	42.5	11.9	10.5	31.9	93.7	93.3
9,000 – 13,999	97.9	13.4	4.9	58.0	32.9	44.8	14.7	7.0	31.7	96.5	95.8
14,000 – 19,999	98.2	24.6	10.5	68.4	43.9	49.1	22.8	14.9	37.7	93.0	86.0
20,000 – 31,999	98.1	22.2	9.3	59.3	37.0	38.9	20.4	11.1	42.6	96.3	90.7
≥ 32,000	100.0	18.2	18.2	63.6	63.6	27.3	18.2	45.5	72.7	100.0	100.0
Wealth quintile											
Poorest	98.3	13.4	9.5	53.0	16.8	44.8	12.1	7.8	30.2	91.8	92.2
Second	91.7	24.5	7.7	57.1	30.8	46.2	17.9	19.2	36.1	96.8	92.3
Middle	99.1	23.5	10.4	56.5	30.4	38.3	10.4	11.3	35.7	93.9	87.8
Fourth	100.0	22.4	9.2	59.2	42.1	46.1	18.4	7.9	36.8	93.4	96.1
Richest	97.7	25.0	11.4	77.3	68.2	45.5	36.4	13.6	50.0	97.7	97.7
Overall %	97.0	19.9	9.3	57.1	29.5	44.1	15.7	11.7	34.9	94.1	92.3

Background Characteristic	Food Groups										
	Rice	Wheat	Nuts/pulses	vegetables	fruits	meat/poultry/fish	eggs	milk/dairy products	oils/fats	Coconut	Sugar
Total No.	604	124	58	356	184	275	98	73	217	586	575

Table A 25: Household dietary diversity score according to background characteristics

Background Characteristic	Household diversity score		% of households yet to achieve the target	No of households
	mean	SD		
No. of members in Household				
1-3	7.8	2.2	62.0	208
4-6	7.9	1.8	61.6	367
≥ 7	7.2	2.4	71.4	49
Sector				
Urban	7.7	1.8	68.6	188
Rural	7.9	2.1	60.0	437
Religion of HHhead				
Hindu	7.9	2.0	60.6	358
Islam	7.8	1.9	66.9	166
Catholic	8.1	2.1	54.8	73
Other	8.0	0.0	100.0	1
Monthly household income				
< 9,000	7.6	2.1	64.2	285
9,000 – 13,999	7.8	1.9	66.0	144
14,000 – 19,999	8.3	1.8	59.6	114
20,000 – 31,999	8.3	1.8	50.0	54
≥ 32,000	8.0	1.5	63.6	11
Wealth quintile				

Poorest	7.4	2.1	70.4	233
Second	7.9	1.8	58.3	156
Middle	8.3	1.8	55.7	115
Fourth	8.3	2.0	55.8	77
Richest	8.0	1.9	65.9	44
overall	7.9	2.0	62.6	625

Table A 26 : Percentage of household members (in broad age groups) who consume three or more main meals a day, by background characteristics

Background Characteristic	5-17 years		18-59 years		60 years or above	
	male	female	male	female	male	female
No. of members in family						
1-3	92.9	88.9	87.7	86.0	82.4	83.3
4-6	87.3	86.2	86.9	87.1	84.6	92.5
≥ 7	88.6	91.7	76.7	82.2	80.0	100.0
Sector						
Urban	100.0	96.6	98.1	97.2	87.5	94.3
Rural	83.0	83.0	81.2	81.5	79.3	86.1
Monthly household income (LKR)						
< 9,000	81.8	79.8	79.7	78.0	78.9	76.0
9,000 – 13,999	88.1	89.1	89.5	91.0	85.7	100.0
14,000 – 19,999	100.0	95.2	92.5	95.1	82.4	100.0
20,000 – 31,999	92.6	95.8	94.1	94.2	85.7	88.9
≥ 32,000	100.0	100.0	100.0	100.0	100.0	100.0
Wealth quintile						
Poorest	83.0	83.9	78.7	77.8	78.9	68.4
Second	86.7	87.3	87.4	88.9	91.7	100.0
Middle	92.9	88.7	90.3	90.8	82.4	100.0
Fourth	96.0	93.3	97.3	95.9	80.0	90.0
Richest	100.0	94.4	87.8	92.9	100.0	100.0
Overall %	88.3	87.2	86.3	86.4	83.6	90.1

Table A 27 : Average monthly expenditure for food, services, health, education and productive assets, by background characteristics

Background characteristic	Average monthly expenditure in LKR							Number of households
	food	liquor/tobacco	Utility services	health	education	productive assets	Total	
No. of members in family								
1-3	56.7	10.6	15.0	11.5	3.8	2.5	13902	111
4-6	38.6	5.4	9.9	6.7	3.4	36.0	22839	196
≥ 7	60.6	4.5	15.1	11.5	5.2	3.0	13827	29
Residence								
Urban	26.1	3.6	8.1	4.0	2.4	55.7	37973	90
Rural	44.8	6.3	10.4	8.8	4.0	25.7	17714	246
Religion of HHhead								
Hindu	45.9	7.6	11.8	7.3	4.0	23.5	16629	195
Islam	34.4	3.2	9.5	7.3	3.1	42.5	27765	93
Catholic	58.6	9.7	13.3	10.2	6.3	1.9	16388	39
Other								
Education of household Head								
No schooling	67.7	5.1	9.5	9.7	4.6	3.4	12800	28
Primary	37.4	7.3	8.6	7.0	2.5	37.2	17621	105
Secondary	38.7	5.8	9.9	7.1	3.2	35.4	24072	120
Passed O' Level	33.5	3.2	9.6	6.3	5.2	42.2	27254	38
Higher	50.4	0.0	23.7	8.6	7.7	9.5	19790	23
Monthly household income								
< 9,000	59.6	7.1	12.7	11.0	4.4	5.2	12670	156
9,000 – 13,999	57.2	9.9	13.6	11.0	4.8	3.6	15098	77
14,000 – 19,999	39.6	6.5	11.0	6.7	4.2	32.0	24223	66
20,000 – 31,999	16.5	1.6	5.1	3.0	1.3	72.4	58217	24
≥ 32,000	45.9	2.1	28.7	7.0	16.3	0.0	25950	7
Wealth quintile								
Poorest	56.9	11.9	10.4	9.9	3.6	7.3	12813	126
Second	29.8	2.5	7.7	5.6	3.1	51.3	27271	84
Middle	43.5	4.7	12.7	8.9	3.4	26.7	21306	71
Fourth	64.0	4.7	17.5	9.0	4.8	0.0	16324	32
Richest	43.0	4.4	17.2	8.0	7.5	19.9	25324	23
Overall	40.9	5.6	10.6	7.5	3.6	31.7	20690	336

Table A 28 : Food groups by the main and secondary sources

Background Characteristic	Food Groups											
	Rice	Wheat	Nuts/pulses	vegetables	fruits	meat/poultry	fish	eggs	milk/diary products	oils/fats	Coconut	Sugar
Main source												
Own production	7.5	1.8	1.9	4.5	3.9	2.4	7.9	6.7	3.0	2.9	14.0	2.4
Purchase	83.8	79.6	80.4	89.1	81.9	65.3	84.6	77.0	59.1	75.0	80.7	90.2
Purchase on credit	4.7	1.8	2.3	1.9	1.1	0.5	1.0	1.3	1.4	.8	1.6	2.7
Traded goods or services	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.0	0.0	0.0	0.2
Borrowed	0.5	0.5	0.3	0.5	0.5	0.5	0.5	0.3	0.5	0.5	0.6	0.6
Gift from family or relatives	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2
Food aid	0.6	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3
Cash assistance												
Other	2.6	15.7	14.0	3.9	12.4	30.8	5.3	14.0	35.0	20.5	3.0	3.4

Table A 29: Percent of households reported food had run out at some time during the previous 12 months, and months of adequate household food provisioning (MAHFP) by background characteristics

Background characteristic	% household food had run out during past 12 months	Average MAHFP	% yet to achieve the target	No. of Households
No. of members in family				
1-3	40.6	10.6	11.9	208
4-6	44.4	10.6	12.0	367
≥ 7	57.1	9.6	19.7	49
Residence				
Urban	47.9	11.0	8.6	188
Rural	42.7	10.3	14.3	437
Education of household Head				
No schooling	45.1	9.7	19.4	71
Primary	55.2	10.0	16.4	192
Secondary	41.7	10.9	8.9	192
Passed O' Level	37.5	10.7	11.1	80
Higher	18.4	11.6	3.1	38

District Profile: Batticoloa

Background characteristic	% household food had run out during past 12 months	Average MAHFP	% yet to acheive the target	No. of Households
Monthly household income				
< 9,000	52.3	9.9	17.5	285
9,000 – 13,999	42.4	10.9	9.5	144
14,000 – 19,999	39.5	11.0	8.3	114
20,000 – 31,999	16.7	11.6	3.1	54
≥ 32,000	18.2	11.6	3.0	11
Wealth quintile				
Poorest	57.3	9.7	19.1	233
Second	44.2	10.6	11.3	156
Middle	35.7	11.0	8.6	115
Fourth	29.9	11.3	6.2	77
Richest	22.7	11.4	4.9	44
Overall	44.2	10.5	12.6	625

Table A 30 : Current food stock duration, and size compared to last year, by background characteristics

background characteristic	Size of food stock compared to last year				mean No. of days current food stock last	No. of households
	more (%)	same (%)	less (%)	much less (%)		
No. of members in family						
1-3	7.3	40.0	34.5	18.2	5.41	165
4-6	6.3	49.0	31.3	13.3	5.61	300
≥ 7	0.0	28.2	53.8	17.9	4.39	39
Sector						
Urban	9.9	56.7	29.1	4.3	6.92	141
Rural	4.7	39.7	36.1	19.6	4.79	363
Education of household Head						
No schooling	3.4	50.0	24.1	22.4	3.82	58
Primary	6.3	38.8	36.3	18.8	4.64	160
Secondary	5.8	41.3	38.7	14.2	5.13	155
Passed O' Level	7.4	58.8	22.1	11.8	6.77	68
Higher	11.8	55.9	32.4	0.0	12.65	34
Monthly household income						
< 9,000	7.1	33.8	36.4	22.7	3.79	225
9,000 – 13,999	2.6	53.8	35.9	7.7	4.97	117
14,000 – 19,999	7.7	47.3	35.2	9.9	6.69	91
20,000 – 31,999	6.7	68.9	20.0	4.4	10.36	45
≥ 32,000	18.2	45.5	27.3	9.1	11.18	11
Wealth quintile						
Poorest	2.7	34.8	36.4	26.1	3.90	184
Second	9.2	41.7	33.3	15.8	4.45	120
Middle	4.2	56.3	32.3	7.3	5.24	96
Fourth	9.4	54.7	31.3	4.7	8.53	64
Richest	12.5	52.5	35.0	0.0	11.23	40
Overall	6.2	44.4	34.1	15.3	5.44	504

Table A 31: Average number of times a household received food aid in the last 6 months, by background characteristics

Characteristic	Not received food aids	Type of food aid (mean no. of times per 6 month)								No. of households
		WFP /GA	Samurdhi	Food Basket	School feeding	CSB	Thriposha	Food for work	Other	
No. of members in family										
1-3	59.3	4.5	3.5	5.0	5.0	4.6	5.1	0.0	5.0	208
4-6	56.5	7.4	7.9	4.3	91.4	5.1	3.7	2.0	4.2	367
≥ 7	40.8	0.0	4.6	1.0	3.5	6.0	5.0	0.0	0.0	49
Sector										
Urban	60.5	4.3	3.3	3.2	62.3	3.3	2.8	2.0	6.0	188
Rural	54.2	8.0	7.7	5.1	72.0	5.2	4.9	0.0	4.1	437
Monthly household income										
< 9,000	48.9	8.1	4.1	4.6	68.7	5.1	4.7	0.0	4.7	285
9,000 – 13,999	50.7	2.0	11.8	4.5	102.0	5.3	4.4	0.0	4.3	144
14,000 – 19,999	66.1	2.0	4.3	4.0	2.0	4.0	4.3	2.0	4.0	114
20,000 – 31,999	79.6	0.0	4.2	2.5	0.0	0.0	1.7	0.0	0.0	54
≥ 32,000	90.9	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	11
Wealth index quintile										
Poorest	49.3	10.2	4.4	5.4	29.3	5.3	4.5	0.0	3.5	233
Second	50.3	2.7	3.6	2.2	76.5	5.1	4.4	0.0	4.7	156
Middle	58.8	0.0	4.2	4.5	136.7	4.0	4.8	0.0	5.3	115
Fourth	71.4	2.0	32.8	2.5	2.0	4.3	4.4	2.0	4.0	77
Richest	77.3	0.0	3.5	4.5	0.0	0.0	1.6	0.0	0.0	44
Overall	56.1	6.8	6.4	4.4	69.6	5.0	4.3	2.0	4.5	625

Table A 32 : Percent of households with coping strategy adopted in the previous 30 days, with its frequency

Coping Strategy		% of households adopted strategy			Total households	
		Never	Ever			
			Once in a while (1-2 per week)	Pretty often (3-6 per week)		Daily (>24 days)
Food-related coping strategy						
a.	Relied on less preferred food	70.2	15.6	11.4	2.7	621
b.	Borrowed food	66.2	16.4	15.0	2.4	622
c.	Purchased food on credit	66.1	16.7	15.4	1.8	622
d.	Consumed seeds held for next season	85.3	8.2	5.8	0.6	620
e.	Reduced meal size	73.8	15.3	9.5	1.4	621
f.	Reduced number of meals per day	76.0	12.6	9.8	1.6	621
g.	Restricted consumption for adults	79.2	11.5	8.4	1.0	619
h.	Sent children to live with relatives	91.0	4.7	3.7	0.6	619
i.	Reduced expenditure on health and education	85.3	7.4	6.5	0.8	619
Non-food coping strategies		% of Households		Total households		
		No	Yes			
j.	Sold livestock	96.3	3.7		621	
k.	Pawned jewellery	73.6	26.4		621	
l.	Sold agricultural tools, seeds	96.6	3.4		622	
m.	Sold other assets	97.9	2.1		622	
n.	Used savings	89.4	10.6		622	
o.	Borrowed money from relatives/neighbours	71.2	28.8		622	
p.	Took children out of school to earn income	97.1	2.9		622	

Table A 33: Food-related coping strategies adopted during the 30 days preceding the survey, by background characteristics (Take at least once who adopted out of total)

Background	Percent of households adopted strategy at least once during the preceding 30 days
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Characteristic	No of households adopted coping strategies	Relied on less preferred food	Borrowed food	Purchased food on credit	Consumed seeds held for next season	Reduced meal size	Reduced number of meals per day	Restricted consumption for adults	Sent children to live with relatives	Reduced expenditure on health and education
No. of members in Household										
1-3	79	73.8	86.1	84.8	32.9	72.2	59.5	44.3	20.3	30.4
4-6	148	70.7	81.3	82.7	36.4	58.7	56.7	54.4	22.7	36.2
≥ 7	21	90.5	90.5	90.5	42.9	81.0	76.2	61.9	28.6	61.9
Sector										
Urban	82	44.6	67.5	73.5	28.9	54.2	44.6	39.8	9.6	19.3
Rural	167	87.6	91.7	89.3	39.6	70.2	66.7	57.5	28.6	44.9
Religion of HHhead										
Hindu	143	74.5	86.2	85.5	35.6	65.5	65.5	53.5	23.4	37.5
Islam	71	70.8	77.5	84.5	35.2	60.6	43.7	47.9	14.1	31.0
Catholic	21	61.9	81.0	66.7	42.9	57.1	52.4	47.6	33.3	38.1
Other	1	100.0	100.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0
Monthly household income										
< 9,000	140	81.7	85.1	86.4	31.2	75.9	73.0	57.1	25.0	42.9
9,000 – 13,999	54	74.1	81.5	87.3	41.8	57.4	46.3	48.1	23.6	31.5
14,000 – 19,999	32	59.4	90.6	84.4	43.8	53.1	43.8	46.9	9.4	28.1
20,000 – 31,999	13	38.5	61.5	46.2	46.2	30.8	15.4	23.1	7.7	7.7
≥ 32,000	2	33.3	66.7	66.7	66.7	33.3	33.3	33.3	33.3	33.3
Wealth quintile										
Poorest	112	85.8	93.8	91.1	35.4	77.0	74.3	62.5	28.6	45.5
Second	64	70.3	82.8	81.3	25.0	64.1	56.3	46.9	20.3	35.9
Middle	40	64.3	80.5	87.8	46.3	51.2	41.5	53.7	14.6	29.3
Fourth	20	60.0	60.0	66.7	52.4	65.0	60.0	35.0	19.0	25.0
Richest	13	30.8	46.2	53.8	38.5	7.7	0.0	0.0	7.7	0.0
overall	249	73.4	83.7	84.1	36.1	64.9	59.4	51.6	22.3	36.4

Table A 34 : Households taken loans and reasons for borrowing money, by background characteristics

Background Characteristic	Received loan		Main reason for loan (% of the total received loan)								
	No	%	Purchase food	Medical cost	Repair of damaged house	Transport	Repay loan	support additional members	Marriage	Income generation	other
No. of members in Household											
1-3	91	44.0	46.3	21.1	5.3	0.0	9.5	0.0	1.1	9.5	7.4
4-6	178	48.8	53.9	12.2	3.3	0.6	9.4	0.6	1.1	10.6	8.3
≥ 7	28	57.1	57.1	14.3	3.6	3.6	0.0	0.0	3.6	10.7	7.1
Sector											
Urban	90	47.9	45.2	19.4	6.5	1.1	4.3	1.1	2.2	11.8	8.6
Rural	208	47.9	55.0	13.3	2.8	0.5	10.4	0.0	0.9	9.5	7.6
Monthly household income											
< 9,000	150	52.8	59.5	11.8	2.0	0.7	11.1	0.7	1.3	9.2	3.9
9,000 – 13,999	73	50.7	56.2	16.4	2.7	0.0	5.5	0.0	1.4	6.8	11.0
14,000 – 19,999	48	42.5	34.0	24.0	4.0	0.0	8.0	0.0	2.0	14.0	14.0
20,000 – 31,999	20	37.0	30.0	10.0	25.0	5.0	5.0	0.0	0.0	20.0	5.0
≥ 32,000	2	18.2	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Wealth quintile											
Poorest	121	52.4	62.6	8.9	0.8	0.8	12.2	0.0	0.8	8.1	5.7
Second	80	51.6	49.4	23.5	4.9	1.2	4.9	1.2	1.2	8.6	4.9
Middle	57	49.6	40.7	18.6	3.4	0.0	8.5	0.0	3.4	13.6	11.9
Fourth	26	33.8	46.2	11.5	15.4	0.0	0.0	0.0	0.0	15.4	11.5
Richest	14	31.8	33.3	13.3	6.7	0.0	13.3	0.0	0.0	13.3	20.0
overall	298	47.9	52.0	15.1	3.9	0.7	8.6	0.3	1.3	10.2	7.9

Table A 35 : Household Food Consumption Adequacy Score (HFCAS) and prevalence of household food insecurity status, by background characteristics

Background characteristic	Mean HFCAS Score*(SD)		HFCAS Score Category (%)			No. of households
			Poor	Borderline	Adequate	
No. of members in family						
1-3	68.0	(17.6)	1.0	3.9	95.1	206
4-6	69.9	(15.7)	0.3	1.9	97.8	367
≥ 7	67.3	(16.2)	0.0	2.0	98.0	49
Residence						
Urban	72.1	(16.2)	0.0	2.1	97.9	188
Rural	67.7	(16.3)	0.7	2.8	96.6	435
Religion of household Head						
Hindu	68.4	(16.9)	0.6	3.6	95.8	357
Islam	71.2	(14.5)	0.0	0.0	100.0	166
Catholic	70.6	(14.6)	0.0	2.7	97.3	73
Other	69.0	(0.0)	0.0	0.0	100.0	1
Education of household Head						
No schooling	67.6	(18.9)	1.4	2.8	95.8	71
Primary	66.6	(14.9)	0.5	2.6	96.9	192
Secondary	71.1	(15.6)	0.0	1.6	98.4	191
Passed O' Level	72.0	(14.5)	0.0	2.5	97.5	80
Higher	75.5	(13.4)	0.0	2.6	97.4	38
Monthly household income						
< 9,000	66.9	(16.7)	1.1	4.2	94.7	285
9,000 – 13,999	67.4	(15.3)	0.0	1.4	98.6	143
14,000 – 19,999	74.1	(14.6)	0.0	0.9	99.1	114
20,000 – 31,999	73.2	(13.9)	0.0	0.0	100.0	54
≥ 32,000	74.7	(10.7)	0.0	0.0	100.0	11
Wealth quintile						
Poorest	65.3	(17.8)	1.3	3.9	94.8	232
Second	69.7	(16.1)	0.0	3.8	96.2	156
Middle	71.1	(12.4)	0.0	0.0	100.0	115
Fourth	71.7	(14.1)	0.0	0.0	100.0	76
Richest	76.7	(17.9)	0.0	2.3	97.7	44
Overall	69.1	(16.4)	0.5	2.6	97.0	623

Table A 36 : Distribution of households by food security Levels

<i>Food Consumption Food Access (Percent expenditure on food)</i>	Poor	Borderline	Adequate
Poor	0 (0.0)	1 (0.3)	23 (6.8)
Average	0 (0.0)	0 (0.0)	104 (31.0)
Good	0 (0.0)	3 (0.9)	205 (61.0)

Table A 37 : Food Security Levels

<i>Background characteristic</i>	<i>Food Security Level</i>			<i>No. of households</i>
	<i>Food Secure (%)</i>	<i>Moderately Food Secure (%)</i>	<i>Food Insecure (%)</i>	
No. of members in family				
1-3	87.4	11.7	0.9	111
4-6	97.4	2.6	0.0	196
≥ 7	82.8	17.2	0.0	29
Sector				
Urban	98.9	1.1	0.0	90
Rural	90.7	8.9	0.4	246
Education of household Head				
No schooling	96.4	3.6	0.0	28
Primary	88.6	11.4	0.0	105
Secondary	93.3	5.8	0.8	120
Passed O' Level	92.1	7.9	0.0	38
Higher	100.0	0.0	0.0	23
Monthly household income				

District Profile: Batticoloa

< 9,000	87.8	11.5	0.6	156
9,000 – 13,999	93.5	6.5	0.0	77
14,000 – 19,999	100.0	0.0	0.0	66
20,000 – 31,999	100.0	0.0	0.0	24
≥ 32,000	100.0	0.0	0.0	7
Wealth quintile				
Poorest	86.5	12.7	0.8	126
Second	94.0	6.0	0.0	84
Middle	98.6	1.4	0.0	71
Fourth	96.9	3.1	0.0	32
Richest	100.0	0.0	0.0	23
Overall	92.9	6.8	0.3	336