PMO-RALG

BARIADI DC CWIQ
Survey on Poverty, Welfare and Services in Bariadi DC

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DEFINITIONS

General

Accessible Village	Within a district, accessible villages are villages located closer to the district capital, all-weather roads, and public transport.
Remote Village	Within a district, remote villages are villages located farther from the district capital, all-weather roads, and public transport.
Socio-economic Group	The socio-economic group of the household is determined by the type of work of the main income earner.
Poverty Predictors	Variables that can be used to determine household consumption expenditure levels in non-expenditure surveys.
Basic Needs Poverty Line	Defined as what a household, using the food basket of the poorest 50 percent of the population, needs to consume to satisfy its basic food needs to attain 2,200 Kcal/day per adult equivalent. The share of non-food expenditures of the poorest 25 percent of households is then added. The Basic Needs Poverty Line is set at TZS 7,253 per 28 days per adult equivalent unit in 2000/1 prices; households consuming less than this are assumed to be unable to satisfy their basic food and non-food needs.

Education

Literacy Rate	The proportion of respondents aged 15 years or older, who identify themselves as being able to read and write in at least one language.
Primary School Age	7 to 13 years of age
Secondary School Age	14 to 19 years of age
Satisfaction with Education	No problems cited with school attended.

Gross Enrolment Rate	The ratio of all individuals attending school, irrespective of their age, to the population of children of school age.
Net Enrolment Rate	The ratio of children of school age currently enrolled at school to the population of children of school age.
Non-Attendance Rate	The percentage of individuals of secondary school-age who had attended school at some point and was not attending school at the time of the survey.

Health

Need for Health Facilities	An individual is classed as having experienced need for a health facility if he/she had suffered from a self-diagnosed illness in the four weeks preceding the survey.
Use of Health Facilities	An individual is classed as having used a health facility if he/she had consulted a health professional in the four weeks preceding the survey.
Satisfaction with Health Facilities	No problems cited with health facility used in the four weeks preceding the survey.
Vaccinations	BCG: Anti-tuberculosis DPT: Diphtheria, Pertussis3, Tetanus OPV: Oral Polio Vaccination
Stunting	Occurs when an individual's height is substantially below the average height in his/her age-group.
Wasting	Occurs when an individual's weight is substantially below the average weight for his/her height category.
Orphan	A child is considered an orphan when he/she has lost at least one parent and is under 18 years.
Foster child	A child is considered foster if neither his/her parents reside in the household

Employment

Working Individual	An individual who had been engaged in any type of work in the 4 weeks preceding the survey.
Underemployed Individual	An individual who was ready to take on more work at the time of the survey.
Non-working Individual	An individual who had not been involved in any type of work in the 4 weeks preceding the survey.
Unemployed Individual	An individual who had not been engaged in any type of work in the 4 weeks prior to the survey but had been actively looking for it.
Economically Inactive Individual	An individual who had not been engaged in any type of work in the 4 weeks prior to the survey due to reasons unrelated to availability of work (e.g. Illness, old age, disability).
Household duties	Household tasks (cleaning, cooking, fetching firewood, water, etc.) that do not entail payment
Household worker	A household worker performs household duties but received payment.
Household as employer	A person is said to be employed by his/her household if he/she does domestic/household work for the household they live in (e.g. a housewife or a child that works on his/her parents' fields or shop). It does not include people whose main job was domestic work for other households (private sector).

Welfare

Access to Facilities	A household is considered to have access to facilities if it is located within 30 minutes of travel from the respective facilities.

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Generic Core Welfare Indicators (2006)

	Total	Margin of error*	Accessible	Remote	Poor	Non-poor
Household characteristics						
Dependency ratio	1.4	0.1	1.4	1.5	1.7	1.3
Head is male	81.6	2.2	82.0	81.2	75.1	83.6
Head is female	18.4	2.1	18.0	18.8	24.9	16.4
Head is monagamous	51.0	2.6	52.1	50.1	48.8	51.7
Head is polygamous	30.5	1.8	29.8	31.0	27.2	31.5
Head is not married	18.5	2.1	18.1	18.8	24.0	16.8
Household welfare						
Household economic situation compared to one year ago						
Worse now	59.7	3.7	52.3	66.1	66.3	57.7
Better now	22.0	2.9	30.7	14.5	18.1	23.2
Neighborhood crime/security situation compared to one year ago						
Worse now	7.3	1.6	4.3	10.0	9.9	6.6
Better now	45.9	3.5	35.4	54.9	49.5	44.7
Difficulty satisfying household needs						
Food	57.5	2.7	51.0	63.1	82.1	49.9
School fees	1.1	0.5	1.1	1.1	0.8	1.2
House rent	0.2	0.2	0.0	0.4	0.0	0.3
Utility bills	0.0	0.0	0.0	0.0	0.0	0.0
Health care	25.3	2.5	18.1	31.6	42.4	20.0
Agriculture						
Land owned compared to one year ago						
Less now	3.9	1.0	4.5	3.3	5.3	3.4
More now	1.9	0.6	1.6	2.2	1.9	1.9
Cattle owned compared to one year ago						
Less now	21.4	2.0	21.7	21.1	21.9	21.2
More now	10.0	1.3	8.5	11.3	4.5	11.7
Use of agricultural inputs						
Yes	46.3	2.8	45.0	47.4	37.4	49.0
Fertilizers	39.4	5.6	53.2	28.1	48.5	37.3
Improved seedlings	59.9	5.2	48.0	69.8	48.0	62.8
Fingerlings	0.0	0.0	0.0	0.0	0.0	0.0
Hooks and nets	0.7	0.7	0.0	1.2	0.0	0.8
Insecticides	52.0	5.2	40.3	61.6	41.9	54.3
Other	0.0	0.0	0.0	0.0	0.0	0.0
Household infrastructure						
Secure housing tenure	2.1	0.6	2.8	1.4	0.6	2.5
Access to water	82.4	3.2	88.8	76.9	79.2	83.4
Safe water source	61.2	6.3	62.1	60.4	55.5	63.0
Safe sanitation	0.0	0.0	0.0	0.0	0.0	0.0
Improved waste disposal	24.0	5.6	6.1	39.6	22.0	24.6
Non-wood fuel used for cooking	0.0	0.0	0.0	0.0	0.0	0.0
Ownership of IT/Telecommunications Equipment						
Fixed line phone	0.0	0.0	0.0	0.0	0.0	0.0
Mobile phone	5.3	1.5	5.9	4.7	1.0	6.6
Radio set	41.7	3.0	46.4	37.6	11.4	51.0
Television set	0.0	0.0	0.0	0.0	0.0	0.0

Employment						
Employer in the main job						
Civil service	0.8	0.4	1.4	0.3	0.0	1.1
Other public serve	0.3	0.2	0.2	0.4	0.8	0.1
Parastatal	0.0	0.0	0.0	0.0	0.0	0.0
NGO	0.2	0.2	0.0	0.3	0.0	0.2
Private sector formal	0.7	0.4	1.0	0.5	0.3	0.9
Private sector informal	30.3	1.3	30.4	30.1	27.6	31.3
Household	61.4	1.4	59.8	62.9	67.2	59.2
Activity in the main job						
Agriculture	43.5	5.5	59.2	29.1	48.5	41.7
Mining/quarrying	0.6	0.3	0.4	0.8	0.6	0.6
Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0
Services	3.1	0.9	1.4	4.6	2.1	3.4
Employment Status in last 7 days						
Unemployed (age 15-24)	0.0	0.0	0.0	0.0	0.0	0.0
Male	0.0	0.0	0.0	0.0	0.0	0.0
Female	0.0	0.0	0.0	0.0	0.0	0.0
Unemployed (age 15 and above))	0.0	0.0	0.0	0.0	0.0	0.0
Male	0.0	0.0	0.0	0.0	0.0	0.0
Female	0.0	0.0	0.0	0.0	0.0	0.0
Underemployed (age 15 and above)	19.2	2.4	25.2	13.6	18.5	19.4
Male	25.2	3.3	32.0	19.0	22.8	26.1
Female	13.9	1.9	19.3	9.0	14.8	13.6
Education						
Adult literacy rate						
Total	54.0	3.0	57.1	51.1	49.5	55.7
Male	67.6	3.1	72.2	63.2	62.8	69.3
Female	41.8	3.2	43.1	40.6	37.4	43.4
Youth literacy rate (age 15-24)						
Total	68.9	3.8	72.2	65.5	66.4	70.0
Male	80.6	4.0	83.7	77.2	74.2	84.2
Female	58.2	5.2	61.0	55.7	56.0	59.0
Primary school						
Access to School	51.9	5.4	55.5	48.9	49.6	53.1
Primary Gross Enrollment	92.7	5.4	97.8	88.4	89.6	94.4
Male	95.1	7.0	104.3	87.3	90.6	97.4
Female	90.5	7.2	91.8	89.5	88.7	91.6
Primary Net Enrollment	60.2	3.3	61.4	59.2	55.4	62.9
Male	55.1	4.0	54.6	55.5	48.9	58.4
Female	64.8	4.3	67.7	62.5	60.8	67.2
Satisfaction	52.1	3.9	50.4	53.7	65.5	45.0
Primary completion rate	6.5	1.6	6.6	6.4	6.5	6.5
Secondary school						
Access to School	12.6	4.4	5.8	18.8	8.5	15.2
Secondary Gross Enrollment	7.3	1.9	9.2	5.5	4.4	9.1
Male	8.7	2.5	9.8	7.5	4.9	11.1
Female	5.8	2.3	8.5	3.6	4.0	6.9
Secondary Net Enrollment	5.1	1.4	5.6	4.6	3.2	6.3
Male	5.9	2.1	4.4	7.5	4.9	6.6
Female	4.2	2.0	7.2	1.8	1.4	6.0
Satisfaction	31.8	11.5	36.0	25.4	11.3	38.1
Secondary completion rate	0.1	0.1	0.3	0.0	0.0	0.2

Medical services						
Health access	24.4	6.0	18.2	29.9	18.1	27.3
Need	24.4	1.4	23.2	25.4	22.1	25.4
Use	26.7	1.6	24.1	29.1	23.5	28.2
Satisfaction	74.0	2.9	69.8	77.1	70.0	75.5
Consulted traditional healer	13.0	1.8	11.6	14.0	11.9	13.4
Pre-natal care	88.1	3.3	90.4	86.2	81.5	90.3
Anti-malaria measures used	58.5	3.2	58.6	58.3	43.9	63.0
Person has physical/mental challenge	0.8	0.2	0.8	0.8	0.7	0.9
Child welfare and health						
Orphanhood (children under 18)						
Both parents dead	0.7	0.3	0.8	0.6	1.0	0.6
Father only	9.2	1.0	8.8	9.6	13.1	7.1
Mother only	1.7	0.5	1.4	2.0	1.7	1.7
Fostering (children under 18)						
Both parents absent	8.1	1.2	9.3	7.2	11.1	6.6
Father only absent	13.0	1.6	11.4	14.2	18.5	10.0
Mother only absent	3.6	1.1	2.9	4.2	2.3	4.3
Children under 5						
Delivery by health professionals	27.6	3.8	30.6	24.8	22.6	29.8
Measles immunization	49.9	3.8	48.0	51.5	43.2	52.8
Fully vaccinated	25.5	3.2	30.8	20.6	25.8	25.3
Not vaccinated	28.4	4.9	32.1	25.0	36.0	25.0
Stunted	28.0	2.7	27.0	28.8	33.3	25.5
Wasted	1.3	0.5	1.4	1.2	0.9	1.5
Underweight	13.8	1.8	14.0	13.6	13.9	13.7

** 1.96 standard deviations*

	2004	2006	Change				
			Estimate	SE	Signif.	95% Confidence Interval	
Net Enrolment Rate							
Primary School	71.6	60.2	-11.4	6.9		-25.5	2.7
Secondary School	6.1	5.1	-1.0	2.5		-6.0	4.0
Rate of Dissatisfaction with School	48.6	48.7	0.1	12.0		-24.1	25.0
Reasons for Dissatisfaction							
Books/Supplies	41.1	45.4	4.3	12.1		-20.5	29.0
Poor Teaching	3.0	26.6	23.6	4.5	***	14.4	32.9
Lack of Teachers	40.0	56.8	16.8	12.6		-9.1	42.3
d Condition of Facilities	0.0	40.0	40.0	4.6	***	30.7	49.4
Overcrowding	11.0	9.1	-1.9	4.6		-11.4	7.5
Health Facility Consulted							
Private hospital	4.2	12.3	8.1	2.6	***	2.7	13.4
Government hospital	59.5	35.0	-24.5	3.9	***	-32.4	-16.5
Traditional healer	7.0	13.0	6.0	2.4	**	1.0	10.9
Pharmacy	10.5	34.9	24.4	4.1	***	15.9	32.8
Rate of Dissatisfaction with Health Facilities	30.8	26.0	-4.8	4.5		-14.0	4.3
Reasons for Dissatisfaction							
Long wait	41.1	40.4	-0.7	9.6		-17.3	21.9
of trained professionals	38.3	10.6	-27.7	10.2	**	-45.9	-4.3
Cost	45.3	32.2	-13.1	10.5		-34.1	8.6
No drugs available	42.5	19.2	-23.3	9.4	**	-39.4	-1.1
Unsuccessful treatment	13.8	14.5	0.7	5.4		-12.7	9.3
Water and Sanitation							
Piped water	10.5	3.8	-6.7	7.5		-22.0	8.7
Protected well	60.9	58.6	-2.3	7.8		-18.3	13.5
No toilet	8.6	27.9	19.3	5.1	***	9.1	29.9
Flush toilet	0.1	0.0	-0.1	0.1		-0.4	0.1
Covered pit latrine	83.8	64.5	-19.3	7.2	**	-34.0	-4.7
Uncovered pit latrine	7.5	7.6	0.1	3.5		-6.9	7.2

Child Delivery							
Hospital or Maternity W	41.8	27.9	-13.9	6.1	***	-67.6	-42.8
Delivery Assistance							
Doctor/Nurse/Midwife	48.1	27.5	-20.6	7.1	***	-34.9	-5.9
TBA	34.0	5.2	-28.8	5.8	***	-40.9	-17.2
Self-assistance	17.9	67.2	49.3	5.3	***	38.6	60.3
Child Nutrition							
Stunted	29.1	28.0	-1.1	4.1		-15.0	1.6
Severely Stunted	9.8	10.0	0.2	0.5	*	-1.9	0.2
Wasted	9.2	1.3	-7.9	3.4		-5.8	8.1
Severely Wasted	0.4	0.0	-1.4	2.6		-6.6	3.8

1 INTRODUCTION

1.1 The Bariadi District CWIQ

This report presents district level analysis of data collected in the Bariadi District Core Welfare Indicators Survey using the Core Welfare Indicators Questionnaire instrument (CWIQ).

The survey was commissioned by the Prime Minister's Office – Regional Administration and Local Governance and implemented by EDI (Economic Development Initiatives), a Tanzanian research and consultancy company. The report is aimed at national, regional and district level policy makers, as well as the research and policy community at large.

CWIQ is an off-the-shelf survey package developed by the World Bank to produce standardised monitoring indicators of welfare. The questionnaire is purposively concise and is designed to collect information on household demographics, employment, education, health and nutrition, as well as utilisation of and satisfaction with social services. An extra section on governance and satisfaction with people in public office was added specifically for this survey.

The standardised nature of the questionnaire allows comparison between districts and regions within and across countries, as well as monitoring change in a district or region over time.

This survey was the second of its kind to be administered in Bariadi DC, located in Shinyanga region, the first one having been administered in 2004. Chapter 9 of this report analyses changes between the two surveys.

Although beyond the purpose of this report, the results of Bariadi CWIQ could also be set against those of other CWIQ surveys that have are being implemented at the time of writing in other districts in Tanzania: Bahi DC, Bukoba DC, Bukombe DC, Bunda DC, Dodoma MC, Hanang DC, Karagwe DC, Kasulu DC, Kibondo DC, Kigoma DC, Kilosa DC, Kishapu DC, Korogwe DC, Kyela DC, Ludewa DC, Makete DC, Maswa DC, Meatu DC, Kahama DC, Mbulu DC, Morogoro DC, Mpwapwa DC, Muheza DC, Musoma DC, Ngara DC, Ngorongoro DC, Njombe DC, Rufiji DC, Shinyanga MC, Singida DC, Songea DC, Sumbawanga DC, Tanga MC, Temeke MC. Other African countries that have implemented nationally representative CWIQ surveys include Malawi, Ghana and Nigeria.

1.2 Sampling

The Bariadi District CWIQ was sampled to be representative at district level. Data from the 2002 Census was used to put together a list of all villages in the district. In the first stage of the sampling process villages were chosen proportional to their population size. In a second stage the sub-village (kitongoji) was chosen within the village through simple random sampling. In the selected sub-village (also referred to as cluster or enumeration area in this report), all households were listed and 15 households were randomly selected. In total 450 households in 30 clusters were visited. All households were given statistical weights reflecting the number of households that they represent.

A 10-page interview was conducted in each of the sampled households by an experienced interviewer trained by EDI. The respondent was the most informed person in the household, as identified by the members of the household. A weight and height measurement was taken by the interviewers for each individual under the age of 5 (60 months) in the surveyed households.

Finally, it is important to highlight that the data entry was done by scanning the questionnaires, to minimise data entry errors and thus ensure high quality in the final dataset.

1.3 Constructed variables to disaggregate tables

The statistics in most tables in this report will be disaggregated by certain categories

of individuals or households. Some of these variables have been constructed by the analysts and, in the light of their prominence in the report, deserve more explanation. This chapter discusses some of the most important of these variables: poverty status, cluster location and socio-economic group.

1.3.1 Poverty Status

The poverty status of a household is obtained by measuring its consumption expenditures and comparing it to a poverty line. It is, however, difficult, expensive and time consuming to collect reliable household consumption expenditure data. One reason for this is that consumption modules are typically very lengthy. In addition, household consumption patterns differ across districts, regions and seasons; hence multiple visits have to be made to the household for consumption data to be reliable.

However, household consumption expenditure data allows more extensive and useful analysis of patterns observed in survey data and renders survey outcomes more useful in policy determination. Because of this, the Tanzanian government has become increasingly interested in developing ways of using non-expenditure data to predict household consumption and, from this, poverty measures.

There is a core set of variables that are incorporated in the majority of surveys. These variables inform on household assets and amenities, level of education of the household head, amount of land owned by the household and others. By observing the relation between these variables and consumption expenditure of the household in an expenditure survey, a relationship can be calculated. These variables are called poverty predictors and can be used to determine household expenditure levels in non-expenditure surveys such as CWIQ. This means that, for instance, a household that is headed by an individual who has post secondary school education, with every member in a separate bedroom and that has a flush toilet is more likely to be non-poor than one where the household head has no education, a pit latrine is used and there are four people per bedroom. This is, of course, a very simplified example; however, these are some of the variables used to calculate the relationship between such information and the consumption expenditure of the household.

For the purpose of this report, the data collected in the Household Budget Survey 2000/01 (HBS) was used to select the poverty predictors and determine the quantitative relationship between these and household consumption. The five-year gap is far from ideal, but the data itself is reliable and is the most recent source of information available. Work was then done to investigate the specific characteristics of Bariadi in order to ensure that the model developed accurately represents this particular district.

Some caveats are in order when tabulating variables used as poverty predictors on poverty status. Poverty status is defined as a weighted average of the poverty predictors; hence it should come as no surprise that poverty predictors are correlated to them. For instance, education of the household head is one of the variables included in the equation used to

Table 1.1 Variables Used to Predict Consumption Expenditure in Shinyanga Region

Basic Variables	***Household Assets***
Age of the houehold head	Ownership of a radio
Household size	Ownership of a bicycle
Level of education of the household head	Ownership of an iron
Main source of income	Ownership of a motor vehicle
Main activity of the household head	Ownership of a watch
	Ownership of a wheelbarrow
Household Amenities	Ownership of a sewing machine
Problems satisfying food needs	Ownership of a bed
Fuel used for cooking	Main material in the walls
Distance to the market	Main material in the floor
Distance to public transport	
Distance to hospital	

Source: HBS 2000/2001 for Shinyanga Region

calculate household consumption. The relationship is set as a positive one, consequently when observing the patterns in the data this relationship may be positive by construction. Table 1.1 lists the variables that have been used to calculate predicted household consumption expenditure.

Once the consumption level of a household has been predicted, it is compared to the Basic Needs Poverty Line set by National Bureau of Statistics (NBS) on the basis of the 2000/01 HBS. The Basic Needs Poverty Line is defined by what a household, using the food basket of the poorest 50 percent of the population, needs to consume to satisfy its basic food needs to attain 2,200 Kcal/day per adult equivalent. The share of non-food expenditures of the poorest 25 percent of households is then added. With this procedure, the Basic Needs Poverty Line is set at TZS 7,253 per 28 days per adult equivalent unit in 2000/01 prices. Households consuming less than this are assumed to be unable to satisfy their basic food and non-food needs1.

The Bariadi 2006 CWIQ uses poverty predictors to classify households as poor or non-poor, i.e. to determine whether a household's monthly consumption per adult equivalent unit is below or above the Basic Needs Poverty Line. This binary approach generates two types of mistakes associated with the prediction:

1. A poor household is predicted to be non-poor
2. A non-poor household is predicted to be poor

One way of determining the accuracy of the poverty predictors is to see how many mistakes of each type the model makes. To do this the poverty predictor model is applied to the actual consumption expenditure data. Results of this exercise are presented in Table 1.2. The model wrongly predicts a non-poor household to be poor in 9.1 percent of the cases, and vice versa in 14.5 percent of the households. This gives an overall percentage of correct predictions of 76.4 percent.

[1] The exact procedure by which this line has been set is described in detail in the 2000/01 HBS report: National Bureau of Statistics, 2002, '*2000/2001 Tanzania Household Budget Survey'*.

Table 1.2 : Predicted and Observed Poverty Rates, Shinyanga Region, 2000/01

Predicted	Observed		
	Non-Poor	Poor	Total
Non-Poor	58.0	14.5	72.5
Poor	9.1	18.4	27.5
Total	67.1	32.9	100.0

Source: HBS 2000/01 for Shinyanga Region

When the model is applied to the CWIQ 2006 data for Bariadi DC, the share of households living in poverty is 24 percent, with a 95 percent confidence interval from 20 to 27 percent, consistent with the 28 percent obtained when applying the same model to the data for Shinyanga region from the HBS. These estimates are lower than the estimated poverty rate with Bariadi 2004 CWIQ (38 percent). However, it must be kept in mind that the aim of the model is not estimating poverty rates, but determining the characteristics of the poor population. Hence, the accuracy of the model does not hinge on the closeness between the estimated and actual poverty rate; but on the percentage of correct predictions as indicated in Table 1.2.

Expenditure surveys, such as the 2000/2001 Household Budget Survey, are much better suited for informing on poverty rates. However, such large scale surveys have insufficient number of observations to inform on district-level trends. The Bariadi CWIQ, on the other hand, is sufficiently large to allow detailed district-level analysis. The accuracy with which households can be classified by poverty status using the CWIQ gives credence to the use of predicted poverty level as a variable throughout this report.

1.3.2 Cluster Location

Cluster Location is constructed on the basis of self-reported travel time of the household to three different locations: the nearest place to get public transport, the nearest all-weather road and the district capital. Travel time is probed for by the household's most commonly used form of transport. For each household, the average travel time is taken across these three locations. For each cluster, the median of the 15 means is calculated. All clusters are then ranked according to this median. The 15 clusters with the lowest median are labelled as accessible and the 15 clusters

Table 1.3: Cluster Location

	Median Time (in minutes) to: District Capital	All-Weather Road	Public Transport	Poverty Rate	Estimated Number of Households
Cluster Location					
Remote	150.0	120.0	240.0	24.5	58,035
Accessible	60.0	45.0	180.0	22.5	50,955

Source: CWIQ 2006 Bariadi DC

Table 1.4: Socio-economic Group, Poverty Rate, and Location

	Poverty Rate	Percentage Living in	
		Remote Clusters	Accessible Clusters
Socio-Economic Group			
Employees	16.6	70.5	29.5
Self-Employed Agriculture	24.4	43.9	56.1
Self-Employed Other	16.5	53.8	46.2
Other	22.7	61.2	38.8

Source: CWIQ 2006 Bariadi DC

with the highest median are labelled as remote. Table 1.3 shows the median of each of the variables used to construct the cluster location.

Table 1.3 shows that the poverty rates differ substantially by cluster location: households in remote villages are more likely to be poor than households in accessible villages. Whereas the poverty rate in accessible villages is 23 percent, the rate in remote villages is 25 percent.

1.3.3 Socio-economic Group

The socio-economic group that a household belongs to depends on the employment of the household head. Throughout the report heads employed in the private sectors, formally or informally, as well as Government and Parastatal employees are categorised as 'Employees'. Self-employed individuals are divided into two groups, depending on whether they work in agriculture ('Self-employed agriculture') or in trade or professional sectors ('Self-employed other'). Finally, those who worked in other activities or who had not been working for the 4 weeks preceding the survey are classed as 'other'.

Table 1.4 shows that the poverty rate is highest for households headed by an individual who is self-employed in agriculture or is inactive, unemployed, unpaid or a domestic worker. In turn, poverty is lowest for households where the head is an employee or is self-employed in non-agricultural activities. In addition, households headed by an employee are the most likely to be located in remote villages, at 71 percent, whereas households headed by a self-employed in agriculture are the most likely to be located in accessible villages, at 56 percent.

The gender composition of the socio-economic group is shown in Table 1.5. Roughly, 4 out of 5 households are headed by a male. The share of female-headed households is highest for the 'other' category at 37 percent.

Table 1.6 shows the breakdown of socio economic groups by main activity of the household heads. As expected, the main economic activity in the district is agriculture, to which 50 percent of the household heads is dedicated. Employees

Table 1.5: Socio-economic Group of the Household and Gender of the Household Head

	Male	Female	Total
Socio-economic Group			
Employees	84.0	16.0	100.0
Self-Employed Agriculture	83.4	16.6	100.0
Self-Employed Other	81.1	18.9	100.0
Other	63.0	37.0	100.0
Total	81.6	18.4	100.0

Source: CWIQ 2006 Bariadi DC

are mostly dedicated to mining, manufacturing, energy or construction, with a share of 86 percent. The self-employed in non-agricultural activities are mostly dedicated to services (90 percent). The 'other' category is almost divided between agriculture, services, and household duties (49, 23, and 27 percent, respectively).

Table 1.6: Socio-economic Group of the Household and Main Economic Activity of the Household Head

	Agriculture	Mining ManufacturingEnergy Construction	Private and Public Services	Household Duties	Other	Total
Socio-economic Group						
Employees	13.7	86.3	0.0	0.0	0.0	100.0
Self-Employed Agriculture	54.3	1.8	19.7	23.5	0.6	100.0
Self-Employed Other	3.8	0.0	89.9	6.3	0.0	100.0
Other	49.4	0.0	23.3	27.3	0.0	100.0
Total	49.7	4.8	23.2	21.9	0.5	100.0

Source: CWIQ 2006 Bariadi DC

1 Introduction

2 VILLAGE, POPULATION AND HOUSEHOLD CHARACTERISTICS

2.1 Introduction

This chapter provides an overview of the Kasulu DC households and population characteristics. The main population characteristics are presented in section two. Section three presents the main characteristics of the households, such as area of residence, poverty status, number of members, and dependency ratio. The same analysis is then conducted for the household heads in section four. An examination of orphan and foster status in the district concludes the chapter.

2.2 Main Population Characteristics

Table 2.1 shows the percent distribution of the population by cluster location and poverty status, by gender and age. Overall, the district's population is young. For instance, 5 percent of the population is over 60 years old, whereas 55 percent is under 15 years old. The remaining 40 percent is between 15 and 59 years old. There are no differences by cluster location, but poor households show higher shares in the 0-14 group and less in the other groups than non-poor households.

The dependency ratio of the district's households is shown in Table 2.2. The dependency ratio is the number of household members under 15 and over 64 years old (the dependant population) over the number of household members aged between 15 and 64 (the working age population). The result is the average number of people each adult at working age takes care of.

The mean dependency ratio is 1.4, meaning that one adult has to take care of more than 1 person. On average poor households and households in remote villages present higher dependency ratios (1.7 and 1.5, respectively) than non-poor households and households from accessible villages (1.3 and 1.4).

The dependency ratio increases with the number of household members, from 0.6 for households with 1 or 2 members, to 1.7 for households with 7 or more members. The breakdown by socio-economic group of the household shows that the self-employed in agriculture have the highest dependency ratio (1.5), whereas the self-employed in non-agricultural activities have the lowest (1.1).

There are no differences in dependency ratio by gender of the household head

Table 2.3 shows the percent distribution of households by number of household members. The mean household size is 6.1 individuals. Households with at most two individuals only represent 5 percent of all households in the district. The figure for households with 7 or more members is 43 percent.

The breakdown by cluster location shows no difference in the mean household size. The breakdown by poverty status shows that poor households report a higher mean

Table 2.1: Percent distribution of total population by gender and age

	Male				Female				Total			
	0-14	15-59	60+	Total	0-14	15-59	60+	Total	0-14	15-59	60+	Total
Total	26.8	18.7	2.6	48.1	28.3	21.0	2.6	51.9	55.0	39.8	5.2	100.0
Cluster Location												
Accessible	26.6	19.5	2.9	49.1	26.8	21.3	2.8	50.9	53.4	40.9	5.7	100.0
Remote	26.9	18.1	2.3	47.3	29.5	20.8	2.4	52.7	56.4	38.9	4.8	100.0
Poverty Status												
Poor	28.1	16.7	1.8	46.6	32.9	18.9	1.5	53.4	61.0	35.6	3.3	100.0
Non-poor	26.2	19.7	3.0	48.8	26.2	22.0	3.1	51.2	52.3	41.7	6.0	100.0

Source:CWIQ 2006 Bariadi DC

Table 2.2: Dependency ratio

	0-4 years	5-14 years	0-14 years	15-64 years	65+ years	Total	Dependency ratio
Total	1.3	2.0	3.4	2.5	0.2	6.1	1.4
Cluster Location							
Accessible	1.3	2.0	3.3	2.6	0.3	6.1	1.4
Remote	1.3	2.1	3.4	2.4	0.2	6.1	1.5
Poverty Status							
Poor	1.8	3.1	4.9	2.9	0.2	8.0	1.7
Non-poor	1.2	1.7	2.9	2.4	0.2	5.5	1.3
Household size							
1-2	0.0	0.0	0.0	1.1	0.7	1.8	0.6
3-4	0.8	0.6	1.5	1.9	0.2	3.6	0.9
5-6	1.3	1.7	3.0	2.3	0.2	5.5	1.4
7+	1.8	3.3	5.1	3.2	0.2	8.5	1.7
Socio-economic Group							
Employee	1.3	2.1	3.4	2.6	0.2	6.2	1.3
Self-employed - agriculture	1.3	2.2	3.5	2.5	0.2	6.2	1.5
Self-employed - other	1.3	1.0	2.3	2.3	0.2	4.8	1.1
Other	1.1	1.5	2.6	2.5	0.6	5.8	1.3
Gender of Household Head							
Male	1.4	2.1	3.5	2.6	0.2	6.3	1.4
Female	0.8	1.9	2.7	2.1	0.3	5.1	1.4

Source:CWIQ 2006 Bariadi DC

Table 2.3: Percent distribution of households by number of household members

	1-2 persons	3-4 persons	5-6 persons	7+ persons	Total	household size
Total	4.9	25.8	26.5	42.9	100.0	6.1
Cluster Location						
Accessible	6.6	22.8	28.9	41.7	100.0	6.1
Remote	3.5	28.4	24.3	43.8	100.0	6.1
Poverty Status						
Poor	0.0	3.6	17.8	78.6	100.0	8.0
Non-poor	6.4	32.6	29.1	31.8	100.0	5.5
Socio-economic Group						
Employee	12.3	42.3	7.3	38.2	100.0	6.2
Self-employed - agric	4.5	23.5	26.5	45.5	100.0	6.2
Self-employed - other	3.3	50.8	23.9	22.0	100.0	4.8
Other	7.2	25.8	34.9	32.1	100.0	5.8
Gender of Household Head						
Male	4.2	23.6	26.8	45.5	100.0	6.3
Female	8.1	35.4	25.1	31.3	100.0	5.1

Source:CWIQ 2006 Bariadi DC

household size than non-poor households, at 8 and 5.5 members respectively.

Regarding socio-economic groups, the employees and the self-employed in agriculture have the highest mean household size, at 6.2 members, while the self-employed in non-agricultural activities have the lowest at 4.8 members.

Finally, households headed by males tend to be larger than female-headed households: the former have 6.3 members in average, whereas the latter have only 5.1 members. This difference partly owes to the fact that, as shown in Section 2.4, female household heads rarely have a spouse.

2.3 Main Household Characteristics

Table 2.4 shows the percent distribution of total population by relationship to the head of household.

Table 2.4: Percent distribution of total population by relationship to head of household

	Head	Spouse	Child	Parents	Other relative	Not related	Total
Total	16.4	13.8	57.9	0.7	10.0	1.2	100.0
Cluster Location							
Accessible	16.4	13.8	56.8	0.9	9.9	2.3	100.0
Remote	16.4	13.8	58.9	0.5	10.1	0.2	100.0
Poverty Status							
Poor	12.5	9.8	62.6	0.5	12.7	1.8	100.0
Non-poor	18.2	15.6	55.8	0.7	8.8	0.9	100.0
Age							
0- 9	0.0	0.0	86.2	0.0	13.1	0.7	100.0
10-19	0.0	1.6	83.2	0.0	13.1	2.1	100.0
20-29	16.6	47.6	22.2	0.0	11.2	2.4	100.0
30-39	44.2	49.8	4.2	0.0	1.2	0.7	100.0
40-49	68.2	27.5	2.5	0.0	1.3	0.5	100.0
50-59	70.8	20.0	4.5	2.8	1.9	0.0	100.0
60 and above	66.0	17.6	0.8	11.1	3.6	0.8	100.0
Gender							
Male	27.8	0.1	62.0	0.3	9.0	0.7	100.0
Female	5.8	26.5	54.1	1.0	10.9	1.6	100.0

Source:CWIQ 2006 Bariadi DC

Table 2.5: Percent distribution of the total population age 12 an above by marital status

	Never married	Married monog	Married polyg	Informal, loose union	Divorced	Separated	Widowed	Total
Total	37.7	34.0	19.8	0.0	0.1	2.2	6.1	100.0
Cluster Location								
Accessible	39.0	34.0	18.9	0.0	0.1	1.7	6.3	100.0
Remote	36.6	34.0	20.5	0.0	0.1	2.7	6.0	100.0
Poverty Status								
Poor	50.3	26.8	14.6	0.0	0.0	3.0	5.3	100.0
Non-poor	32.6	37.0	21.9	0.0	0.2	1.9	6.4	100.0
Age								
12-14	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
15-19	92.4	5.3	2.3	0.0	0.0	0.0	0.0	100.0
20-24	37.3	43.8	16.4	0.0	0.0	2.1	0.5	100.0
25-29	6.5	58.7	28.6	0.0	0.0	6.2	0.0	100.0
30-39	2.0	57.8	33.4	0.0	0.3	2.1	4.5	100.0
40-49	0.4	49.6	36.8	0.0	0.7	2.5	10.0	100.0
50-59	0.0	51.2	23.6	0.0	0.0	6.3	18.9	100.0
60 and above	0.0	35.3	30.2	0.0	0.0	4.1	30.4	100.0
Gender								
Male	42.8	36.0	19.8	0.0	0.0	0.5	1.0	100.0
Female	33.2	32.3	19.8	0.0	0.2	3.7	10.7	100.0

Source:CWIQ 2006 Bariadi DC

No particular trends emerge by analysing by cluster location. However, the analysis by poverty status shows that the share of 'child' is higher in poor households, whereas non-poor households report higher shares of 'head' and 'spouse'.

When analysing by age-groups, it is clear that after the age of 30, most of the population is either head of their own household or spouse to the head of the household.

The gender split-up shows that males are more likely to be household heads than females, with shares of 28 and 6 percent, respectively. In turn, females are more likely to be spouses to the household head than males, at rates of 27 and less than 1 percent, respectively.

Table 2.6: Percent distribution of the total population age 5 and above by socio-economic group

	Employee	Self-employed Agriculture	Self-employed Other	Other	Total
Total	0.8	23.2	1.8	74.2	100.0
Cluster Location					
Accessible	1.4	19.8	1.5	77.4	100.0
Remote	0.3	26.2	2.1	71.4	100.0
Poverty Status					
Poor	0.4	18.5	1.1	79.9	100.0
Non-poor	1.0	25.3	2.1	71.7	100.0
Age					
5- 9	0.0	0.0	0.0	100.0	100.0
10-14	0.0	0.0	0.0	100.0	100.0
15-19	0.2	3.7	0.3	95.9	100.0
20-29	1.6	27.5	4.3	66.6	100.0
30-39	1.4	53.9	3.8	40.8	100.0
40-49	3.2	70.1	3.0	23.7	100.0
50-59	2.4	72.2	4.1	21.3	100.0
60 and above	0.4	49.2	4.4	46.0	100.0
Gender					
Male	1.2	33.4	2.6	62.7	100.0
Female	0.4	13.9	1.0	84.7	100.0

Source:CWIQ 2006 Bariadi DC

Table 2.5 shows the percent distribution of the population age 12 and above by marital status. Overall, 38 percent of the population has never been married. In addition, 34 percent is married and monogamous, and 20 percent is married and polygamous. Despite virtually nobody in the district being 'officially' divorced, 2 percent of the population is 'unofficially' separated and 6 percent is widowed.

The breakdown by cluster location shows no stark differences. In turn, the breakdown by poverty status shows that members of poor households are more likely to have never been married, whereas members of non-poor households are more likely to be in a monogamous or polygamous marriage.

The age breakdown shows that the 'polygamous-married' category peaks at the 40-49 group, at 37 percent. For the population after 25 years old, married-monogamous is the most common category. Neither divorced nor separated show a clear trend, but 'widowed' is higher for the older cohorts. 'Never married' also shows correlation with age, decreasing as the population gets older.

Around 43 percent of the men have never been married, but for women the figure is only 33 percent. While 10 percent of women are widowed and 4 percent separated, the shares for males are 1 and 1 percent, respectively.

Table 2.6 shows the percent distribution of the population age 5 and above by socio-economic group. Overall, 23 percent of the population is self-employed in agriculture, with 74 percent in other activities. Individuals living in remote villages seem to be somewhat more likely to be self-employed in agriculture, as well as non-poor households. Accessible villages and poor households report higher shares in the 'other' category.

The analysis of age-groups is particularly interesting. The share of self-employed in agriculture tends to increase with age, peaking at 72 percent for the 50 to 59 group. On the contrary, the category 'other' tends to decrease with age, showing a sharp decrease between 15-19 and 20-29, from 96 to 67 percent, then decreases steadily until stabilising at around 21 percent and increases in the oldest cohort to 46 percent.

The gender breakdown shows that males are more likely to be self-employed in agriculture than women. In turn, females are more likely to be in the 'other' category, with a share of 85 percent against 63 percent for the males.

Table 2.7 shows the percent distribution of the population aged 5 and above by

highest level of education. Roughly 46 percent of the population has no education, 29 percent has some primary, and 21 percent has completed primary. The remaining levels have shares of at most 2 percent each.

The breakdown by cluster location shows no that remote clusters report a higher share of population with no formal education. In turn, the breakdown by poverty status shows that poor households have higher shares in 'no education' and 'some primary' than non-poor households, who in turn have a higher share in 'completed primary'.

The age breakdown shows that 81 percent of the children between 5 and 9 have no formal education, but 75 percent of the children 10-14 have at least some primary. Rates of no education are lowest for the population 10-19 (23 percent for the 10-14 cohort, 22 percent for the 15-19 cohort). In the groups between 20 and 39 years old, the most common is completed primary.

The gender breakdown shows that females have a higher share of uneducated population than males: 51 against 40 percent. In turn, the shares of males reporting some primary or completed primary are higher than that of females.

2.4 Main Characteristics of the Heads of Household

Table 2.8 shows the percent distribution of household heads by marital status. Overall, 51 percent of the household heads is married and monogamous, 18 percent divorced, separated or widowed, 31 percent married and polygamous, 1 percent has never been married and a virtually none lives in an informal union.

The breakdown by cluster location shows no strong differences. Regarding poverty status, heads of non-poor households are more likely to be married (monogamous or polygamous). In turn, heads of poor households are more likely to be divorced, separated, or widowed.

Analysis by age-groups shows that married-monogamous is the category with the highest share of household heads in every age-group. Some trends may be extracted from this panel. For instance, the married-monogamous category tends to decrease with age, as 'divorced/separated or widowed' increases. The share of household heads married and polygamous peaks at around 35 percent for the 40-49 and 60+ age-groups.

Table 2.7: Percent distribution of the total population age 5 and above by highest level of education

	None	Nursery school	Some primary	Completed primary	Some secondary	Completed secondary	Post secondary	Total
Total	45.8	2.4	28.9	20.8	1.1	0.0	0.9	100.0
Cluster Location								
Accessible	43.1	3.0	29.2	21.6	1.7	0.1	1.3	100.0
Remote	48.2	1.9	28.7	20.1	0.6	0.0	0.6	100.0
Poverty Status								
Poor	50.5	1.9	31.6	15.2	0.5	0.0	0.4	100.0
Non-poor	43.7	2.7	27.7	23.3	1.3	0.0	1.2	100.0
Age								
5- 9	81.3	8.7	9.9	0.0	0.0	0.0	0.0	100.0
10-14	23.1	1.6	74.9	0.4	0.0	0.0	0.0	100.0
15-19	21.6	0.0	51.1	24.6	2.7	0.0	0.0	100.0
20-29	31.3	0.0	11.5	50.9	5.1	0.2	1.0	100.0
30-39	30.8	0.4	14.6	53.0	0.0	0.0	1.1	100.0
40-49	44.5	0.0	14.8	37.9	1.0	0.0	1.8	100.0
50-59	65.3	0.0	13.2	15.5	0.6	0.0	5.3	100.0
60 and above	79.3	0.0	12.6	3.5	0.0	0.0	4.6	100.0
Gender								
Male	40.0	2.5	31.3	23.4	1.2	0.0	1.6	100.0
Female	51.1	2.4	26.7	18.4	0.9	0.0	0.3	100.0

Source:CWIQ 2006 Bariadi DC

Most female household heads are divorced, separated or widowed (94 percent), whereas for males, this category represents less than 1 percent. Most male household heads are married, monogamous (62 percent) or polygamous (37 percent).

Table 2.9 shows the percent distribution of household heads by socio-economic group. It is worth remembering that the socio-economic group of the household is determined by the type of employment of the main income earner of the household, who not always the household head. As expected, the great majority of the district's household heads belongs to the self-employed in agriculture, with a share of 83 percent. The self-employed in non-agricultural activities represent 5 percent of the household heads, the 'other' category (unemployed, inactive and household workers) represents 8 percent, and the employees are a further 3 percent.

The analysis by location shows that the share of household heads self-employed in agriculture in remote villages is higher than in accessible villages, with shares of 85 and 81 percent, respectively. In accessible villages, household heads are more likely to be employees than heads of households in remote villages, with shares of 5 and 1 percent, respectively. Heads of poor households belong to the 'self-employed agriculture' group more frequently than non-poor households.
The breakdown by age of the household head shows interesting insights. For all age-groups, 'self-employed agriculture' is the most important category, representing at least 4 out of 5 household heads in each age-group. The 'employee' category peaks at 8 percent for the 20-29 age-groups. The 'self-employed – other' category starts at 12 percent for the 20-29 group and then decreases for the older cohorts. The 'other' category gains importance in the oldest age-group, with a share 24 percent, as it includes the economically inactive population.

The breakdown by gender of the household head shows that in male-headed households, the main income earner is more likely to be self-employed in agriculture than in female-headed households. In the latter, the main income earner is more likely to be in the 'other' socio-economic group.

Table 2.10 shows the percent distribution of the heads of household by highest level of education. Overall, around only 4 percent of the household heads has any education after primary. 41 percent of the household heads has no education, 16 percent some primary and 39 percent have completed primary.

The breakdown by cluster location shows that, as would be expected, household heads in remote villages are more likely to have no education than the ones from accessible villages, with shares of 46 and 35 percent, respectively. Furthermore,

Table 2.8: Percent distribution of heads of household by marital status

	Never married	Married monogamous	Married polygamous	Informal, loose union	Divorced Separated Widowed	Total
Total	0.8	51.0	30.5	0.0	17.7	100.0
Cluster Location						
Accessible	1.8	52.1	29.8	0.0	16.3	100.0
Remote	0.0	50.1	31.0	0.0	18.8	100.0
Poverty Status						
Poor	2.1	48.8	27.2	0.0	21.9	100.0
Non-poor	0.4	51.7	31.5	0.0	16.4	100.0
Age						
15-19	0.0	0.0	0.0	0.0	0.0	0.0
20-29	5.0	67.5	19.1	0.0	8.4	100.0
30-39	1.1	58.1	29.3	0.0	11.4	100.0
40-49	0.0	48.2	35.7	0.0	16.1	100.0
50-59	0.0	53.1	24.3	0.0	22.6	100.0
60 and above	0.0	35.5	34.7	0.0	29.8	100.0
Gender						
Male	0.4	62.2	37.0	0.0	0.4	100.0
Female	2.7	1.5	1.7	0.0	94.1	100.0

Source:CWIQ 2006 Bariadi DC

Table 2.9: Percent distribution of heads of household by socio-economic group

	Employed	Self-employed Agriculture	Self-employed Other	Other	Total
Total	3.1	83.1	5.4	8.4	100.0
Cluster Location					
Accessible	5.2	81.3	4.1	9.4	100.0
Remote	1.3	84.6	6.5	7.6	100.0
Poverty Status					
Poor	2.2	85.9	3.8	8.1	100.0
Non-poor	3.4	82.2	5.9	8.5	100.0
Age					
15-19	0.0	0.0	0.0	0.0	0.0
20-29	8.2	80.3	11.5	0.0	100.0
30-39	2.9	87.4	7.5	2.3	100.0
40-49	3.9	84.6	2.2	9.4	100.0
50-59	3.4	92.5	2.6	1.6	100.0
60 and above	0.0	70.4	5.5	24.1	100.0
Gender					
Male	3.2	84.9	5.4	6.5	100.0
Female	2.7	74.8	5.6	16.9	100.0

Source:CWIQ 2006 Bariadi DC

household heads in accessible villages are more likely to have completed primary or post-primary education, with shares of 41 and 6 percent against 37 and 3 percent of household heads in remote villages.

Poverty status seems to be strongly correlated with the education of the household heads. This should be no surprise, since education of the household head is one of the poverty predictors used to define poverty status. However, the difference is still important: while 51 percent of heads of poor households has no education, the share for non-poor is 37 percent. In the other extreme, whereas 41 percent of non-poor household heads has completed primary, the share for poor household heads is 32 percent.

The age breakdown shows that 74 percent of household heads aged 60 or over has no education, and a further 17 percent just some primary. Completed primary represents around 55 percent for the groups between 20 and 39; but only 19

Table 2.10: Percent distribution of heads of household by highest level of education

	None	Some primary	Completed primary	Some secondary	Completed secondary	Post secondary	Total
Total	40.7	16.3	38.7	0.8	0.0	3.4	100.0
Cluster Location							
Accessible	35.2	18.1	41.0	0.9	0.0	4.8	100.0
Remote	45.6	14.7	36.8	0.7	0.0	2.3	100.0
Poverty Status							
Poor	50.8	15.7	32.3	0.0	0.0	1.3	100.0
Non-poor	37.7	16.5	40.7	1.1	0.0	4.1	100.0
Age							
15-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20-29	26.4	11.9	53.5	3.2	0.0	5.0	100.0
30-39	23.2	17.1	57.7	0.0	0.0	2.1	100.0
40-49	31.8	16.7	48.2	1.5	0.0	1.8	100.0
50-59	56.3	16.2	19.0	0.9	0.0	7.6	100.0
60 and above	73.9	16.7	5.2	0.0	0.0	4.2	100.0
Gender							
Male	33.1	17.9	44.3	1.0	0.0	3.7	100.0
Female	74.8	9.1	14.1	0.0	0.0	2.1	100.0

Source:CWIQ 2006 Bariadi DC

Table 2.11 - Orphan status of children under 18 years old

	Children who lost mother only	Children who lost father only	Children who lost both father & mother
Total	1.7	9.2	0.7
Cluster Location			
Accessible	1.4	8.8	0.8
Remote	2.0	9.6	0.6
Poverty Status			
Poor	1.7	13.1	1.0
Non-poor	1.7	7.1	0.6
Age			
0-4	0.5	2.8	0.3
5-9	1.7	7.8	0.6
10-14	3.4	15.7	0.4
15-17	2.3	19.7	3.1
Gender			
Male	2.1	8.2	0.6
Female	1.4	10.2	0.8

Source:CWIQ 2006 Bariadi DC

percent in the 50-59, where 'no education' gains importance.

The analysis by gender of the household head shows that female household heads are more likely to have no education than males, with rates of 75 and 33 percent, respectively. Around 44 percent of the male household heads has completed primary, against 14 percent of females.

Table 2.11 shows the percent distribution of children under 18 years old who have lost at least one parent. Overall, about 1 percent of children under 18 lost both parents, 2 percent lost only their mother and 9 percent lost only their father. This amounts to 12 percent of all children under 18 who lost at least one parent at the time of the survey.

2.5 Orphan and Foster Status

There are no strong differences by poverty status or cluster location. However, the age breakdown shows that orphan status is correlated with age: as can be expected, older children are more likely to be orphans than younger children. Around 25 percent of the children between 15 and 17 years lost at least one parent, and 20 percent of the children in that age-group lost their father. There does not seem to be a gender trend in orphan status.

The percent distribution of children under 18 years old by foster status is shown in Table 2.12. A child is defined as living in a nuclear household when both parents live in the household and as living in a non-nuclear household when at least one parent is absent from the household. Note that this makes it a variable defined at the level of the child, rather than the household (a household may be nuclear with respect to one child, but not with respect to another). The table shows that 25 percent of children under 18 were living in non-nuclear households at the time of the survey.

Table 2.12 - Foster status of children under 18 years old

	Children living with mother only	Children living with father only	Children living with no parents	Children living in non-nuclear households
Total	13.0	3.6	8.1	24.7
Cluster Location				
Accessible	11.4	2.9	9.3	23.6
Remote	14.2	4.2	7.2	25.6
Poverty Status				
Poor	18.5	2.3	11.1	31.9
Non-poor	10.0	4.3	6.6	20.9
Age				
0-4	9.7	1.0	5.3	16.0
5-9	12.9	4.3	8.0	25.3
10-14	15.6	5.6	9.6	30.7
15-17	18.0	6.0	14.7	38.7
Gender				
Male	11.7	3.7	7.9	23.3
Female	14.1	3.5	8.4	26.0

Source:CWIQ 2006 Bariadi DC

There is no strong relation between cluster location and foster status, but children from poor households tend to be fostered more often than children from non-poor households (with shares of 32 and 21 percent, respectively).

The analysis of age-groups shows that the share of children living in non-nuclear households increases with age, but is lower and relatively constant for children living with their father only. Finally, there appears to be no strong correlation between gender and foster status.

2 Village, population and household characteristics

3 EDUCATION

This chapter examines selected education indicators in Bariadi DC. These include literacy rate, access to schools, satisfaction rate, dissatisfaction rate and enrolment.

The first section presents an overview on selected education indicators. The second section provides information on dissatisfaction and non-attendance along with the reasons behind them. School enrolment and drop-out rates are presented in the fourth section. These give a picture on the enrolment patterns according to the age of pupils. The final section of the chapter gives information on adult and youth literacy status within the district.

3.1 Overview of the Education indicators

3.1.1 Literacy

Table 3.1 shows the main education indicators for the district. Literacy is defined as the ability to read and write in any language, as reported by the respondent. Individuals who are able to read but cannot write are considered illiterate. The adult literacy rate[1] is 54 percent. Literacy rates differ between accessible and remote villages at 57 and 51 percent respectively.

The breakdown by socio-economic group of the household shows that literacy rates are higher among households where the main income earner is an employee (80 percent) and lowest for the 'other' category (households where the main income earner is unemployed, inactive, unpaid or a domestic worker).

The gender breakdown shows an important literacy rate gap between men and women. The literacy rate among men is 26 percentage points higher than that of women at 68 percent and 42 percent respectively.

Orphaned children have a literacy rate of 73 percent, whereas the rate for non-orphaned is 3 points higher, at 76 percent. Finally, 76 percent of non-fostered children are literate compared to 74 percent of fostered children.

[1] The Adult literacy rate is defined for the population aged 15 and over.

3.1.2 Primary School Access, Enrolment and Satisfaction

Access

Primary school access rate is defined as the proportion of primary school-age children (7 to 13 years) reporting to live within 30 minutes of the nearest primary school. Overall, 52 percent of primary school-age children live within 30 minutes of a primary school. Primary school access is higher in accessible clusters than in remote clusters, at 56 and 49 percent respectively.

More than half (53 percent) of the children aged 7 to 13 living in non-poor households live within 30 minutes of the nearest primary school compared to 50 percent of those living in poor households.

The breakdown by socio-economic group shows that 79 percent of children living in households belonging to the 'employee' category live within 30 minutes of the nearest primary school compared to 50 percent of the children living in households where the main income earner is self-employed in agriculture.

Orphaned children have a higher access rate to primary schools than non-orphaned, at 63 and 50 percent respectively. Similarly, 69 percent of fostered children have access to primary schools, whereas the rate for non-fostered is 51 percent. Lastly, while 57 percent of boys live within 30 minutes of the nearest primary school, the share for girls is 47 percent.

Enrolment

The two main measures of enrolment, the Gross Enrolment Rate (GER) and the Net Enrolment Rate (NER) are analysed in this

section. GER is defined as the ratio of all individuals attending school, irrespective of their age, to the population of school-age children. If there is a large proportion of non-school-age individuals attending school, the GER may exceed 100 percent. Primary school GER informs on the ratio of all individuals in primary school to the population of individuals of primary school-age (7 to 13 years) in the district.

NER is defined as the ratio of school-age children enrolled at school to the population of school-age children. Therefore, primary school NER is the ratio of children between the ages of 7 and 13 years in primary school to the population of children in this age-group in the district.

The NER provides more information for analysis than the GER. While trends in the actual participation of school-age children in formal education are in part captured by the NER, the GER, at best provides a broad indication of general participation in education and of the capacity of the schools. The GER gives no precise information regarding the proportions of individuals of school and non-school-ages at school, nor does it convey any information on the capacity of the schools in terms of quality of education provided.

The primary school GER was 93 percent at the time of the survey. This figure indicates that all individuals who were at primary school constitute 93 percent of all children of primary school-age in the district. The NER further shows that 60 percent of all primary school-age children were attending school.

While the GER for households located in accessible clusters is 98 percent, the share

Table 3.1: Education indicators

		Primary				Secondary			
	Adult Literacy rate	access	gross enrollment	net enrollment	satisfaction	access	gross enrollment	net enrollment	satisfaction
Total	54.0	51.9	92.7	60.2	52.1	7.1	7.3	5.1	31.8
Cluster Location									
Accessible	57.1	55.5	97.8	61.4	50.4	0.7	9.2	5.6	36.0
Remote	51.1	48.9	88.4	59.2	53.7	12.9	5.5	4.6	25.4
Poverty Status									
Poor	49.5	49.6	89.6	55.4	65.5	5.0	4.4	3.2	11.3
Non-poor	55.7	53.1	94.4	62.9	45.0	8.4	9.1	6.3	38.1
Socio-economic Group									
Employee	80.3	79.1	114.5	72.3	27.7	0.0	48.9	29.5	68.6
Self-employed - agriculture	54.5	50.3	93.5	61.0	52.5	7.0	6.2	4.8	25.4
Self-employed - other	53.3	72.7	94.0	49.7	72.9	0.0	0.0	0.0	0.0
Other	41.5	53.1	74.1	49.7	54.2	10.9	5.5	1.5	0.0
Gender									
Male	67.6	57.3	95.1	55.1	52.4	8.1	8.7	5.9	47.8
Female	41.8	46.9	90.5	64.8	51.9	6.0	5.8	4.2	5.4
Orphan status									
Orphaned	72.9	63.0	111.4	67.1	62.2	1.6	4.7	4.7	0.0
Not-orphaned	75.6	50.0	87.2	58.7	49.9	9.8	4.9	4.9	40.6
Foster status									
Fostered	73.6	68.8	90.7	56.4	68.6	0.0	12.8	12.8	21.7
Not-fostered	76.1	51.0	89.1	59.7	51.6	9.0	4.1	4.1	37.6

Source:CWIQ 2006 Bariadi DC

1. Literacy is defined for persons age 15 and above.
2. Primary school:
   Access is defined for children of primary school age (7-13) in households less than 30 minutes from a primary school.
   Enrollment (gross) is defined for all persons currently in primary school (Kindergarden, Grade 1 to Grade 8) regardless of age.
   Enrollment (net) is defined for children of primary school age (7-13) currently in primary school (Kindergarden, Grade 1 to Grade 8).
   Satisfaction is defined for all persons currently in primary school who cited no problems with school.
3. Secondary school:
   Access is defined for children of secondary school age (14-19) in households less than 30 minutes from a secondary school.
   Enrollment (gross) is defined for all persons currently in secondary school (Form 1 to Form 5) regardless of age.
   Enrollment (net) is defined for children of secondary school age (14-19) currently in secondary school (Form 1 to Form 5).
   Satisfaction is defined for all persons currently in secondary school who cited no problems with school.

for households located in remote clusters is lower, at 88 percent. On the other hand, NER does not vary strongly by cluster location. Furthermore, while the GER for non-poor households is 94 percent, the share for poor households is 90 percent. Likewise, NER for non-poor households is higher than that of poor households at 63 and 55 percent respectively.

GER and NER are highest among people living in households where the main income earner is an employee at 115 and 72 percent respectively. On the other hand, GER is lowest among households where the main income earner belongs to the 'other' category at 74 percent and NER is lowest among households belonging to the 'other' and 'self-employed other' categories at 50 percent. Furthermore, while GER for males is 95 percent, the share for females is 91 percent. In contrast, females have higher NER than males at 65 and 55 percent respectively.

The breakdown by orphan status shows higher GER and NER for orphaned children. The same happens with GER for fostered children. However, the small sample size in the orphan and foster categories (see chapter 2) must be kept in mind, as well as the fact that orphaned and fostered children tend to be older than non-orphaned and non-fostered children.

Satisfaction

The satisfaction rate informs on the proportion of primary school pupils who cited no problems with their schools. Information on satisfaction was obtained by asking respondents to identify problems they faced with their schools.

52 percent of all primary school pupils were satisfied with their schools. A higher share of pupils living in remote clusters reported to be satisfied with their schools than pupils living in accessible clusters, at 54 and 50 percent respectively. Likewise, while 66 percent of pupils living in poor households reported to be satisfied with their schools, the share for pupils living in non-poor households is 45 percent.

The breakdown by socio-economic group of the household shows that pupils living in households where the main income earner belongs to the 'self-employed other' category have the highest rate of satisfaction with primary school at 73 percent, while pupils living in households where the main income earner is an employee have the lowest satisfaction rate at 28 percent.

Furthermore, 62 percent of orphaned children reported to be satisfied with primary school compared to 50 percent of non-orphaned children. Likewise, the percentage of fostered children who reported to be satisfied with their primary schools is higher than that of non-fostered children, at 69 and 52 percent respectively.

Lastly, gender does not show strong correlation with primary school satisfaction rates.

3.1.3 Secondary school Access, Enrolment and Satisfaction

Access

Secondary school access rate is defined as the proportion of secondary school-age children (14 to 19 years) reporting to live within 30 minutes of the nearest secondary school.

Only 7 percent of all pupils in secondary school live within 30 minutes of the nearest secondary school. The difference in access to secondary school between people living in remote and accessible clusters is noticeable at 13 and 1 percent respectively. In turn, 8 percent of pupils living in non-poor households live within 30 minutes of the nearest secondary school compared to 5 percent of pupils living in poor households.

The socio-economic status of the household seems to be strongly correlated with the secondary school access rate. While pupils living in households where the main income earner belongs to the 'other' category have the highest rate of access to secondary school at 11 percent, followed by those who belong to the 'self-employed agriculture' category (7 percent) the share for the 'self-employed other' and 'employee' categories is virtually null.

While gender does not show strong correlation with secondary school access, the access rate for non-orphaned children

is 10 percent, higher than that for orphaned children, at 2 percent. On the other hand, while 9 percent of non-fostered children live within 30 minutes of the nearest secondary school, the share for fostered children is virtually null.

Enrolment

As explained before, Gross Enrolment Rate (GER) is defined as the ratio of all individuals attending school, irrespective of their age, to the population of school-age children while the Net Enrolment Rate (NER) is defined as the ratio of school-age children enrolled at school to the population of school-age children. The secondary school-age is between 14 and 19 years old.

The GER and NER at secondary school are very low compared to primary school level. Overall, GER was 7 percent and NER was 5 percent. The secondary school GER for households located in accessible clusters is 3 percentage points higher than that of households located in remote clusters. On the other hand, cluster location of the household does not show strong correlation with NER. Both secondary school GER and NER are higher in non-poor households than in poor households, with a difference of 5 and 3 percentage points respectively.

The breakdown by socio-economic group of the household shows that 'employee' is the category with highest GER and NER, at 49 and 30 percent respectively, whereas the share for the 'self-employed other' category is virtually null. GER rate is higher among male than female-headed households at 9 and 6 percent respectively. Similarly, the NER is 2 percentage points higher among males than females.

Finally, the GER and NER rates do not show important differences among orphaned and non-orphaned children. On

Table 3.2: Percentage of students currently enrolled in school by reasons for dissatisfaction

		Reasons for dissatisfaction							
	Percent dissatisfied	Books/ supplies	Poor Teaching	Lack of teachers	Teachers absent	Lack of space	Facilties in bad condition	High fees	Other
Total	48.7	45.4	26.6	56.8	9.8	9.1	40.0	2.0	3.3
Cluster Location									
Accessible	50.6	64.0	30.2	45.5	19.4	9.4	40.7	0.7	6.6
Remote	46.9	26.4	23.0	68.3	0.0	8.7	39.3	3.4	0.0
Poverty Status									
Poor	36.2	47.5	24.3	54.6	7.0	9.4	42.9	4.4	9.0
Non-poor	55.2	44.7	27.4	57.5	10.7	9.0	39.0	1.2	1.4
Socio-economic Group									
Employee	65.5	26.9	16.3	64.5	0.0	10.4	30.0	0.0	21.7
Self-employed - agriculture	48.3	45.5	28.0	58.2	11.3	9.4	39.6	2.4	2.2
Self-employed - other	25.6	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
Other	49.3	73.0	22.5	38.3	0.0	4.7	45.5	0.0	0.0
Gender									
Male	46.5	43.3	25.2	53.4	10.5	9.0	41.7	1.2	4.6
Female	50.8	47.3	27.9	59.7	9.1	9.2	38.6	2.8	2.2
Type of school									
Primary	47.9	42.7	27.4	56.1	10.7	8.8	39.0	1.3	3.2
Government	47.5	43.3	27.9	56.7	10.8	9.0	38.1	1.3	3.3
Private	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0
Other	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
Secondary	68.2	59.8	21.8	53.6	0.0	3.0	30.4	15.9	3.0
Government	74.7	61.7	22.5	55.3	0.0	3.1	31.3	13.3	3.1
Private	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Other	47.7	65.3	20.9	66.6	7.0	16.5	59.0	0.0	4.7
Government	48.3	65.3	20.9	66.6	7.0	16.5	59.0	0.0	4.7
Private	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source:CWIQ 2006 Bariadi DC

1. Base for column 1 is enrolled students. For columns 2 to 9, dissatisfied students

the other hand, while the GER and NER for fostered children is 13 percent, the share for non-fostered children is 4 percent.

Satisfaction

he majority (68 percent) of the total population enrolled in secondary schools are dissatisfied with their schools. 32 percent of this population reports to be satisfied with their secondary schools. This satisfaction rate is lower than in primary schools (52 percent). The satisfaction rate is higher among people living in accessible clusters than that of people living in remote clusters, at 36 and 25 percent respectively. Similarly, while 38 percent of pupils living in non-poor households reports to be satisfied with their school, the share for those living in poor households is 11 percent.

The breakdown by socio-economic group shows that pupils living in households where the main income earner is an employee have the highest satisfaction rate (69 percent), while the share for those living in households where the main income earner belongs to the 'other' and 'self-employed other' categories is virtually null.

The satisfaction rate for males is noticeably higher than that of females at 48 and 5 percent respectively.

Among the individuals enrolled in secondary schools, non-orphaned children were more satisfied with their schools than orphaned children. While 41 percent of non-orphaned children are satisfied with their schools, the share for orphaned children is virtually null. Similarly, while 38 percent of non-fostered children reports to be satisfied with their secondary schools, the share for fostered children is 22 percent.

3.2 Dissatisfaction

One of the aims of the survey is to inform on perceptions of quality of services received among individuals for whom these are provided. To obtain this information, primary and secondary school students who were not satisfied with the schools they were attending at the time of the survey were asked to provide reasons for their dissatisfaction. Complaints regarding lack of books and other resources were allocated into the 'Books/Supplies' category, while those relating to quality of teaching and teacher shortages were grouped into the 'Teaching' category. The 'Facilities' category incorporates complaints regarding overcrowding and bad condition of facilities. The results are shown in Table 3.2.

Overall, 49 percent of the students who were enrolled in either primary or secondary school reported dissatisfaction with school. 57 percent of students reported lack of teachers as the cause of their dissatisfaction. In addition, 45 percent reported lack of books and supplies whereas, 40 percent reported dissatisfaction due to bad condition of facilities. While 27 percent reported dissatisfaction due to poor teaching, 10 percent reported teachers' absence and 9 percent reports lack of space.

The dissatisfaction rate for people living accessible villages is about 4 percentage points higher than that of those living in remote villages, at 51 and 47 percent respectively. Further breakdown of data shows that the dissatisfaction rate due to lack of books/supplies among people living in accessible clusters is remarkably higher than that of those living in remote clusters at 64 and 26 percent respectively. In contrast, 68 percent of people living in remote clusters reported dissatisfaction due to lack of teachers compared to 46 percent of people living in accessible clusters. On the other hand, dissatisfaction rate for people living in non-poor households is higher than that of people living in poor households at 55 and 36 percent respectively.

The breakdown by socio-economic group shows that the dissatisfaction rate among households where the main income earner is an employee is the highest (66 percent). At the same time the 'self-employed other' socio-economic group reported the lowest dissatisfaction rate (26 percent). It is also observed that while 73 percent of households belonging to the 'other' category reported dissatisfaction due to lack of books/supplies, the share for households where the main income earner is self-employed in non-agricultural activities is virtually null.

Table 3.3: Percentage of children 6-17 years who ever attended school by reason not currently attending

		Reasons not currently attending										
	Percent not attending	Completed school	Distance	Cost	Work	Illness	Pregnancy	Got married	Useless/ uninteresting	Failed exam	Awaits admission	Dismissed
Total	12.7	32.2	0.0	11.0	7.7	15.3	0.0	9.1	16.7	28.9	8.1	1.7
Cluster Location												
Accessible	11.8	13.9	0.0	15.9	10.8	20.3	0.0	14.6	10.6	42.1	5.9	3.8
Remote	13.4	46.5	0.0	7.2	5.3	11.4	0.0	4.9	21.5	18.5	9.8	0.0
Poverty Status												
Poor	12.5	25.5	0.0	8.7	2.3	18.5	0.0	4.2	18.3	25.6	14.5	0.0
Non-poor	12.8	35.7	0.0	12.2	10.5	13.6	0.0	11.7	15.9	30.6	4.7	2.6
Socio-economic Group												
Employee	5.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Self-employed - agric	11.8	27.0	0.0	9.3	6.0	17.0	0.0	7.9	17.2	27.6	9.2	2.1
Self-employed - other	9.9	0.0	0.0	0.0	54.7	0.0	0.0	45.3	100.0	0.0	0.0	0.0
Other	27.5	64.8	0.0	21.7	13.1	0.0	0.0	12.8	8.4	41.1	3.5	0.0
Gender												
Male	13.8	30.0	0.0	8.0	11.7	16.2	0.0	0.0	19.0	24.3	8.1	3.1
Female	11.6	34.7	0.0	14.6	3.1	14.2	0.0	19.8	14.1	34.3	8.1	0.0
Age												
7-13	2.2	0.0	0.0	0.0	0.0	82.4	0.0	0.0	17.6	0.0	8.8	0.0
14-19	28.0	35.8	0.0	12.3	8.6	7.7	0.0	10.2	16.6	32.2	8.0	1.9

Source:CWIQ 2006 Bariadi DC

1. Base for column 1 is school-age children. For columns 2 to 13, not enrolled school children

51 percent of females reported to be dissatisfied with their schools compared to 47 percent of males. Further breakdown of the data shows that the dissatisfaction rate due lack of teachers among females is higher than that among males at 60 and 53 percent respectively.

Those attending primary school reported to be most dissatisfied due to lack of teachers (56 percent) followed by lack of books/supplies (43 percent) while those attending secondary schools reported dissatisfaction due to lack of books/supplies (60 percent) followed by lack of teachers (55 percent).

3.3 Non-attendance

Table 3.3 shows the percentage of school-age individuals (7 to 19 years) that were not attending school and the reasons for not attending. The non-attendance rate is defined as the proportion of school-age individuals who previously participated in formal education and had stopped attending school by the time of the survey.

The district has about 13 percent of 7 to 19 year olds who were not attending school. Around 32 percent of the non-attending population did not attend because they had completed standard seven, O-level or A-level. 29 percent reported that they had failed standard four, seven or form four exams. 17 percent of respondents reported that school was useless or uninteresting. While 15 percent were not attending due to illness, 11 percent of respondents were not attending due to cost. 9 percent were not attending because they had gotten married and none of the respondents reported non-attendance due to pregnancy or distance.

Cluster location and poverty status show no strong correlation with non attendance rates. However, further breakdown of data shows that while 47 percent of children living in remote clusters were not attending school because they had completed standard seven, O-level or A-level, the share for children living in accessible clusters was 14 percent. Likewise, 36 percent of children living in non-poor households were not attending school because they had completed standard seven, O-level or A-level compared to 26 percent of those living in poor households. It is also noticeable that while 12 percent of children living in non-poor households were not attending school because they had gotten married, the share for those living in poor households is only 4 percent.

Furthermore, 28 percent of children from households where the main income earner belongs to the 'other' category do not attend school compared to only 6 percent of those from households where the main income earner is an employee. Further breakdown of data shows that while all (100 percent) of children from households where the main income earner is an employee were not attending school due to illness, the share for those from households belonging to the 'other' and 'self-employed other' categories is virtually null. Instead 65 percent of children from households belonging to the 'other' category were not attending school because they had completed standard seven, O-level or A-level.

Children from male-headed households have slightly higher rates of non-attendance than children from female-headed households at 14 and 12 percent respectively. It is also observed that while 20 percent of children from female-headed households were not attending school due to marriage, the share for children from male-headed households is virtually null.

Almost all primary school-aged children attend school, as their non-attendance rate is 2 percent. On the other hand, 72 percent of secondary school-aged individuals attend school. 36 percent of secondary school-aged individuals not attending secondary school reported having completed school, while 82 percent of primary school-aged children not attending school reported illness.

3.4 Enrolment and Drop-out Rates

This section takes a closer look at the primary and secondary school enrolment and drop-out rates. Rather than looking at primary or secondary school-aged children as a whole, data will be categorized by age and gender. Drop-out rates are calculated by dividing the number of children who left school in the current year by the total number of children enrolled this year plus those that dropped out (children who left school / (enrolled children + children who dropped out)).

Primary School

Table 3.4 shows primary school net enrolment and drop-out rates. The drop-out rates at primary level are generally very low. Disaggregation of the data shows that at the time of the survey, the primary school drop-out rate was virtually null and therefore no solid statistical conclusions could be made on the reasons for dropping-out of school. Therefore, only enrolment rates will be analysed.

Table 3.4: Primary school enrollment and drop out rates by gender

	Net enrollment rates			Drop out rates		
	Male	Female	Total	Male	Female	Total
Total	55.1	64.8	60.2	0.2	0.6	0.4
7	10.7	29.6	20.0	0.0	0.0	0.0
8	39.1	40.8	39.9	0.0	0.0	0.0
9	64.0	70.0	67.2	0.0	0.0	0.0
10	60.1	77.6	68.9	1.4	0.0	0.7
11	73.0	74.3	73.7	0.0	2.4	1.2
12	76.2	75.1	75.6	0.0	0.0	0.0
13	89.3	90.1	89.8	0.0	2.6	1.6

Source:CWIQ 2006 Bariadi DC

1. Base for table is primary school-age population (age 7-13)

Table 3.5: Secondary school enrollment and drop out rates by gender

	Net enrollment rates			Drop out rates		
	Male	Female	Total	Male	Female	Total
Total	5.9	4.2	5.1	6.6	9.5	8.0
14	0.0	0.0	0.0	2.5	0.0	1.3
15	0.0	1.7	0.8	5.7	8.7	7.1
16	7.9	1.6	4.6	6.2	16.2	11.4
17	5.0	18.2	11.0	9.7	20.4	14.6
18	16.5	9.2	13.8	11.1	17.4	13.5
19	12.3	4.3	7.8	7.8	2.7	4.9

Source:CWIQ 2006 Bariadi DC

1. Base for table is the secondary school-age population (age 14-19)

Overall, 60 percent of primary school-aged children were enrolled at the time of the survey. Out of those in primary school-age (7 to 13 years), 65 percent of girls and 55 percent of boys were enrolled. The required age at which children should start standard one is 7 years. However, data on primary school enrolment shows that at the time of the survey only 20 percent of all seven year olds were enrolled. Children are most likely to be in school by the age of 13, where the NER is about 90 percent.

Secondary School

Table 3.5 shows secondary net enrolment patterns by age. Secondary school enrolment rates are much lower than those at primary level. 5 percent of secondary

Table 3.6 - Adult literacy rates by gender (persons age 15 and above)

	Male	Female	Total
Total	67.6	41.8	54.0
15-19 years	81.1	62.5	72.3
20-29 years	74.4	53.0	61.0
30-39 years	68.5	47.4	56.1
40-49 years	73.2	16.8	50.6
50-59 years	49.4	13.7	33.4
60+ years	33.9	3.9	18.9
Accessible	72.2	43.1	57.1
15-19 years	82.2	68.8	76.1
20-29 years	80.2	46.3	60.2
30-39 years	68.2	51.4	58.0
40-49 years	77.1	21.8	51.4
50-59 years	69.3	14.4	52.5
60+ years	42.9	5.9	24.9
Remote	63.2	40.6	51.1
15-19 years	79.9	57.0	68.6
20-29 years	66.9	59.2	61.8
30-39 years	68.8	43.8	54.5
40-49 years	70.1	10.2	49.9
50-59 years	29.4	13.4	20.8
60+ years	23.9	1.9	12.7

Source:CWIQ 2006 Bariadi DC

1. Base is population age 15+

school-aged children was enrolled compared to 60 percent in primary school. For a person following a normal school curriculum, i.e. started standard one at age 7, he/she is expected to start form one at age 14. From this table we see that the biggest difference in enrolment rates is observed between age 18 and 19. Furthermore, 14 percent of 18 year olds reported to be enrolled at the time of the survey. It is also noticeable that the rate of boys and girls enrolled in secondary school at the age of 14 is virtually null.

Secondary school drop-out rates among secondary school-age individuals (14 to 19 years) are higher compared to those of primary school. 8 percent of children of secondary school-age had dropped out in the year prior to the survey. In general, the highest drop-out rate is observed among 17 year olds. The highest drop-out rate among males is at the age of 18 (11 percent), while female drop out rate is highest at the age of 17 (20 percent).

3.5 Literacy

Literacy is defined as the ability to read and write in at least one language. Those who can read but not write were counted as illiterate. The data on literacy was solely obtained by asking the respondent if he/she was able to read and write. Besides this information, no further tests on their ability to read or write were taken. Furthermore, questions that helped determine adult literacy were only asked for individuals aged 15 or older.

Adult Literacy

Overall, 54 percent of the population aged 15 and above in the district are literate. The difference in literacy rates among males and females is about 26 percentage points at 68 and 42 percent respectively. Individuals aged between 15 and 19 have the highest literacy rate (72 percent) while only 19 percent of those who are above 60 years know how to read and write. There are remarkable gender differences in literacy, being larger for the older cohorts.

The literacy rate in accessible villages is 6 percentage points higher than in remote villages. The literacy rate for the 15-19 age-group in remote villages is 69 percent, whereas for accessible villages the rate is 76 percent. Furthermore, in accessible villages the literacy rate of men is 29 percentage points higher than that of women. In remote villages, the difference decreases to 22 percentage points. On the contrary, while the literacy rate of women in accessible villages is about 2 percentage points higher than that of women in remote villages, the difference in literacy rates between men in accessible and remote villages is 9 percentage points. Finally, there is a significant difference in literacy rates among men and women above 60 years in both cluster locations. In both cases, the literacy rates of men over 60 years are above 22 percentage points higher than that of women.

Youth Literacy

Table 3.7 shows literacy rates among the youth by age, gender and residential location. Youth literacy rate is estimated for all persons between 15 and 24 years old. The literacy rate for this group is 69 percent, but the gender difference is important. While the literacy rate for men is 81 percent, the rate for women is 23 percentage points lower, at 58 percent.

Analysis by age-groups shows that 15 to 17 year olds have the highest literacy rate at 77 percent. Youth of 15 to 17 years

have the highest literacy rates in accessible and remote villages at 81 and 74 percent respectively. However, youth literacy rate in accessible villages is higher than that of youth in remote villages at 72 and 66 percent respectively.

Table 3.7 - Youth literacy rates by gender (persons age 15-24 years)

	Male	Female	Total
Total	80.6	58.2	68.9
15-17 years	82.2	71.7	77.2
18-20 years	80.0	44.1	62.2
21-22 years	81.1	49.9	63.3
23-24 years	73.6	58.2	63.2
Accessible	83.7	61.0	72.2
15-17 years	85.4	75.1	80.6
18-20 years	82.3	51.9	67.1
21-22 years	84.7	61.9	72.8
23-24 years	80.5	47.6	60.1
Remote	77.2	55.7	65.5
15-17 years	79.3	69.0	74.2
18-20 years	77.5	35.0	56.5
21-22 years	75.6	37.6	51.9
23-24 years	63.4	67.4	66.3

Source:CWIQ 2006 Bariadi DC

1. Base is population aged 15-24

3 Education

4 HEALTH

This chapter examines health indicators for the population in Bariadi DC. In the first section, selected health indicators are examined for the whole population. The second section analyses the reasons for dissatisfaction with health services. Section three shows the reasons for not consulting a health provider. This section is followed by an analysis of the ill population by specific type of illness. A subgroup of those who had consulted a health provider is then taken from the ill population. In section five, this group is disaggregated by the type of health provider used. Section six presents an analysis of child deliveries. The chapter concludes with an analysis of child nutrition indicators.

4.1. Health Indicators

Throughout this report, a household is said to have access to medical services if it is located within 30 minutes of the nearest health facility. Judgment of the time it takes to travel to the facility as well as what is classed as a health facility is left to the discretion of the respondent. In second place, an individual is classed as having experienced need for medical assistance if he/she reports incidence of illness in the 4 weeks preceding the survey. It must be noted that need is based on self-reported occurrence of illness, rather than a diagnosis by a health professional. Thirdly, the rate of use is defined as the proportion of individuals who had consulted a healthcare provider in the 4 weeks preceding the survey regardless of their health status. Finally, the rate of satisfaction with health services is represented by the proportion of people who had consulted a health provider in the 4 weeks preceding the survey and cited no problems with the service received.

Table 4.1 shows indicators regarding medical services by cluster location, poverty status, socio-economic status, gender and age. Overall, 24 percent of the households have access to medical services. Conversely, 76 percent of the households in the district do not have access to medical services.

Household in accessible villages have lower rates of access to medical services at 18 percent than households in remote villages at 30 percent. Both show similar proportions of need, but households in accessible villages report lower use and satisfaction rates (29 vs. 24 percent and 77 vs. 69 percent) than households in remote villages.

Non-poor households have higher shares of access (27 vs. 18 percent), use (28. 24 percent) and satisfaction (76 vs. 70 percent) than poor households. Both show similar proportion of need.

Table 4.1 - Health Indicators

	Medical Services			
	Access	Need	Use	Satisfaction
Total	24.4	24.4	26.7	74.0
Cluster Location				
Accessible	18.2	23.2	24.1	69.8
Remote	29.9	25.4	29.1	77.1
Poverty Status				
Poor	18.1	22.1	23.5	70.0
Non-poor	27.3	25.4	28.2	75.5
Socio-economic group				
Employee	35.6	23.2	29.5	64.7
Self-employed - agriculture	24.9	24.4	27.0	75.1
Self-employed - other	29.8	23.2	25.6	76.3
Other	12.5	24.8	23.4	63.9
Gender				
Male	25.2	21.3	23.3	75.6
Female	23.8	27.2	30.0	72.9
Age				
0-4	22.8	34.7	51.3	78.2
5-9	24.0	21.0	19.5	74.7
10-14	25.6	16.6	15.8	66.2
15-19	30.1	12.2	10.3	70.8
20-29	25.2	22.3	21.4	72.6
30-39	22.1	19.5	20.1	78.0
40-49	27.5	27.4	22.0	65.0
50-59	33.6	25.3	25.3	0.0
60+	21.5	37.4	34.1	68.8

Source:CWIQ 2006 Bariadi DC

1. Access is defined for persons in households less than 30 minutes from a health facility.
2. Need is defined for persons sick or injured in the four week period preceding the survey.
3. Use is defined for persons who consulted a health practitioner in the four week period preceding the survey.
4. Satisfaction is defined for persons who consulted a health practitioner in the four week period preceding the survey and who cited no problems.
5. Base is total population. For satisfaction, base is population that used medical services.

Regarding socio-economic status, the employees show the highest access, at 36 percent. The self-employed in agriculture and the self-employed in non-agricultural activities show similar rate of need, use, access and satisfaction. The highest need rate was reported by the 'other' socio-economic group at 25 percent while the highest satisfaction rate was reported by the self-employed in agriculture at 27 percent. The highest satisfaction rate was reported by the self-employed in non-agricultural activities at 76 percent.

The gender breakdown shows that females report a higher rate of need at 27 percent while males report 21 percent. In addition, females report a use rate of 30 percent whereas males report a use rate of 23 percent. Both gender show similar rates of access and satisfaction.

Access does vary widely by age-groups, with the under 5 and the over 60 age-groups reporting the lowest access rate at 23 and 22 percent as well as the highest need rates at 35 percent and 37 percent. The highest access rate is reported by the 50 to 59 age-group at 34 percent. The 15 to 19 cohort reports the lowest need rate at 12 percent and the lowest use rate at 10 percent. The children under 5 report the highest use rate at 51 percent and, together with the 30-39 cohorts, the highest satisfaction rate at 78 percent. The lowest satisfaction rate was reported by the 50 to 59 age-group.

4.2 Reasons for Dissatisfaction

Table 4.2 shows the percentage of population who consulted a healthcare provider in the 4 weeks preceding the survey and were not satisfied. Overall, 3 in 10 users of healthcare facilities were dissatisfied, mostly because of long waits (41 percent), cost (32 percent), and drug unavailability (19 percent) facilities not clean (16 percent) and unsuccessful treatment (15 percent).

The analysis by cluster location shows that households in accessible villages reported a higher dissatisfaction rate at 30 percent compared to 23 percent reported by

Table 4.2 - Percentage of persons who consulted a health provider in the 4 weeks preceding the survey and were not satisfied, and the reasons for dissatisfaction.

		Reasons for dissatisfaction						
	Percent dissatisfied	Facilities not clean	Long wait	No trained professionals	Cost	No drugs available	Treatment unsuccessful	Other
Total	26.0	16.1	40.4	10.6	32.2	19.2	14.5	4.2
Cluster Location								
Accessible	30.2	22.4	49.9	13.0	24.2	26.3	15.8	6.5
Remote	22.9	10.1	31.4	8.2	39.8	12.5	13.4	2.1
Poverty Status								
Poor	30.0	20.4	32.6	10.2	44.6	19.1	11.5	2.3
Non-poor	24.5	14.1	44.0	10.7	26.5	19.3	15.9	5.1
Socio-economic group								
Employee	35.3	5.8	51.6	69.4	0.0	0.0	5.8	0.0
Self-employed - agriculture	24.9	14.4	37.0	8.5	36.0	18.6	16.4	4.3
Self-employed - other	23.7	0.0	25.1	9.5	58.0	0.0	7.4	0.0
Other	36.1	41.2	69.4	0.0	6.0	40.8	5.8	7.3
Gender								
Male	24.4	21.4	42.0	5.9	36.5	23.9	11.9	4.4
Female	27.1	12.6	39.4	13.6	29.4	16.2	16.2	4.1
Type of provider								
Public hospital	35.5	19.7	63.2	8.8	12.8	24.4	6.8	6.8
Private hospital	28.5	39.5	40.6	6.6	44.1	44.9	8.1	0.0
Religous hospital	55.4	3.9	45.2	77.5	14.7	0.0	14.7	0.0
Village health worker	55.2	41.2	58.8	0.0	0.0	0.0	0.0	0.0
Private Doctor/Dentist	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pharmacist	16.3	0.0	0.0	0.0	83.1	7.0	13.4	1.3
Trad. Healer	14.4	0.0	0.0	0.0	12.4	0.0	86.8	9.9
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source:CWIQ 2006 Bariadi DC

1. For column 1, the base is population that used medical services. For the rest, the base is the dissatisfied population.

Table 4.3: Percentage of persons who did not consult a health provider in the 4 weeks preceding the survey and the reasons for not consulting

	Percent not consulting	Reasons for not consulting				
		No need	Cost	Distance	No confidence	Other
Total	73.3	96.3	1.2	2.0	0.4	0.3
Cluster Location						
Accessible	75.9	95.5	1.8	1.9	0.6	0.4
Remote	70.9	97.0	0.7	2.2	0.2	0.2
Poverty Status						
Poor	76.5	95.7	0.7	2.9	0.8	0.1
Non-poor	71.8	96.5	1.5	1.6	0.2	0.4
Socio-economic group						
Employee	70.5	92.9	0.0	6.2	0.0	0.9
Self-employed - agriculture	73.0	97.0	0.9	1.4	0.5	0.3
Self-employed - other	74.4	93.4	1.0	5.6	0.0	0.0
Other	76.6	91.6	5.6	4.7	0.0	0.0
Gender						
Male	76.7	96.7	1.0	1.7	0.4	0.2
Female	70.0	95.8	1.4	2.4	0.4	0.3
Type of sickness/injury						
Fever/malaria	5.0	0.0	62.3	51.6	0.0	2.8
Diarrhea/abdominal pains	10.2	14.2	51.8	34.0	0.0	0.0
Pain in back, limbs or joints	10.7	12.6	47.1	12.7	8.0	19.6
Coughing/breathing difficulty	5.9	30.6	58.4	23.8	0.0	0.0
Skin problems	19.8	0.0	68.4	31.6	0.0	0.0
Ear, nose, throat	0.0	0.0	0.0	0.0	0.0	0.0
Eye	19.6	11.1	51.5	22.9	14.5	0.0
Dental	0.0	0.0	0.0	0.0	0.0	0.0
Accident	0.0	0.0	0.0	0.0	0.0	0.0
Other	3.5	0.0	0.0	0.0	100.0	100.0

Source:CWIQ 2006 Bariadi DC

1. For column 1, the base is total population. For columns 2 to 6, population that not consulted medical services.

households from remote villages. Households from accessible villages are more commonly dissatisfied by long wait at 50 percent against 31 percent reported by households in remote villages. Cost was reported as a reason for dissatisfaction by households in remote villages at 40 percent versus 24 percent reported by households from remote villages. Drug unavailability was reported at a rate of 26 percent by households from accessible villages versus 13 percent reported by household in remote villages.

The breakdown by poverty status shows that poor households reported a higher rate of dissatisfaction at 30 percent that non-poor households at 25 percent. Poor households reported cost as the lead reason for dissatisfaction at a rate of 45 percent while compared to non-poor households at 27 percent. Non-poor households reported long wait as the lead reason at a rate of 44 percent compared to poor households at 33 percent. Poor households reported unclean facilities as a reason for dissatisfaction at a rate of 20 percent. Unsuccessful treatment was reported as a reason for dissatisfaction by non-poor households at a rate of 16 percent, 4 points higher than poor households. Both poor and non-poor households reported similar rates on 'no drugs available' at 19 percent.

The highest dissatisfaction rate was reported by the employees and the 'other' socio-economic group with rates of around 35 percent. Long wait was the lead reason for dissatisfaction reported by self-employed in agriculture (37 percent) and 'other' socio-economic group (69 percent). Cost was the lead reason reported by self-employed in non-agricultural activities at a rate of 58 percent. Drug unavailability was reported highest at a rate of 41 percent by 'other' socio-economic group. 'No trained professionals' was reported as a lead reason for dissatisfaction by the employees at 52 percent. Unclean facilities was reported as a reason for

Table 4.4: Percentage of population sick or injured in the 4 weeks preceding the survey, and of those sick or injured the percentage by type of sickness/injury, gender and age

	Sick or injured	Fever or malaria	Diarrhea/ abdominal pain	Pain in back, limbs or joints	Coughing/ breathing difficulty	Skin problem	Ear, nose, throat,	Eye	Dental	Accident	Other
Total	24.4	56.9	19.4	13.4	15.8	1.3	1.1	3.6	0.9	0.6	2.4
Male Total	21.3	55.5	19.0	11.3	14.1	1.8	1.8	4.2	0.8	0.9	2.8
0-4	35.7	62.6	21.5	3.0	12.5	4.4	0.0	6.1	0.0	0.0	0.5
5-9	17.6	59.7	15.0	1.0	7.5	0.0	1.8	7.2	0.0	2.4	8.1
10-14	13.4	53.1	28.1	0.0	17.1	0.0	5.2	7.3	0.0	0.0	8.2
15-29	14.1	49.8	25.0	8.6	12.1	1.7	4.9	0.0	2.3	2.0	3.6
30-49	17.9	55.5	9.8	25.8	15.6	0.0	3.4	0.0	3.8	0.0	0.0
50-64	23.6	49.7	8.2	25.7	45.2	0.0	0.0	3.7	0.0	0.0	3.4
65+	31.4	23.9	19.5	60.0	11.0	0.0	0.0	0.0	0.0	4.9	0.0
Female Total	27.2	57.8	19.6	15.0	17.1	1.0	0.6	3.2	1.0	0.3	2.1
0-4	33.7	73.4	19.3	0.8	10.5	0.6	1.8	4.2	0.0	0.8	1.4
5-9	24.3	67.2	11.2	4.7	21.4	2.8	0.0	6.3	0.0	0.0	0.8
10-14	19.4	54.6	10.4	12.2	24.2	0.0	1.2	4.5	0.0	0.0	2.4
15-29	20.0	53.0	25.1	16.6	11.3	2.7	0.0	2.9	2.0	0.8	5.4
30-49	28.5	52.4	28.3	26.6	13.2	0.0	0.0	0.0	2.2	0.0	1.0
50-64	39.2	42.5	21.3	33.3	29.8	0.0	0.0	0.0	0.0	0.0	0.0
65+	58.1	24.2	19.0	44.1	31.4	0.0	0.0	1.7	3.5	0.0	4.8

Source:CWIQ 2006 Bariadi DC

1. Percentage by type of sickness/injury may add to more than 100% because respondents may report multiple categories.

2. Base is population sick.

dissatisfaction by the 'other' socio-economic group at 41 percent.

Males reported a higher rate of dissatisfaction due to cost at 36 percent compared to females at 29 percent. Long wait was reported at a similar rate by both genders. Drug unavailability was reported at 24 percent by males, a higher rate of dissatisfaction than that reported by females at 16 percent. Females reported 4 percentage points higher of dissatisfaction due to unsuccessful treatment than males.

Regarding type of health provider, religious hospitals and village health workers show the highest dissatisfaction rates at 55 percent. Public hospitals show a dissatisfaction rate of 36 percent. Long wait was the lead reason for dissatisfaction in public hospitals at 63 percent similarly with village health workers at 59 percent. The lead reason for dissatisfaction in private hospitals is drug unavailability at 45 percent and cost at a similar rate. No trained professionals were the lead reason for dissatisfaction for religious hospitals at 76 percent. Cost was the lead reason for dissatisfaction reported by pharmacists at 83 percent.

4.3 Reasons for Not Consulting When Ill

The distribution of the population who did not consult a health provider in the four weeks preceding the survey is shown Table 4.3. The table shows that overall, 73 percent of the population did not consult a health provider, typically because there was no need (96 percent of the cases). 4 percent of the people who did not consult a health provider had other reasons, mainly the distance to a healthcare provider and cost.

The breakdown by cluster location shows that households from accessible villages reported a higher rate of not consulting a healthcare provider at 76 percent, 5 points higher than households from remote villages. However the reasons do not show much variation by cluster location. The split-up by poverty status and gender follow this trend, with poor households and male-headed households showing similar rates as households from accessible villages, whereas the shares for non-poor households and female-headed households are close to the figure for remote clusters.

Table 4.5: Percent distribution of health consultations in past 4 weeks by type of health provider consulted

	Public hospital	Private hospital	Religious hospital	Village health worker	Private doctor, dentist	Pharmacistch emist	Traditional healer	Other	Total
Total	35.0	12.3	3.3	1.2	0.3	34.9	13.0	0.0	100.0
Cluster Location									
Accessible	29.1	12.6	7.4	0.8	0.0	38.5	11.6	0.0	100.0
Remote	39.3	12.1	0.3	1.5	0.5	32.2	14.0	0.0	100.0
Poverty Status									
Poor	34.9	11.2	0.8	0.2	0.0	40.9	11.9	0.0	100.0
Non-poor	35.1	12.7	4.2	1.6	0.4	32.6	13.4	0.0	100.0
Socio-economic group									
Employee	38.2	0.0	28.6	0.0	0.0	33.2	0.0	0.0	100.0
Self-employed - agric	34.7	13.2	2.5	1.2	0.4	35.4	12.5	0.0	100.0
Self-employed - other	44.6	6.2	2.3	4.0	0.0	30.8	12.0	0.0	100.0
Other	32.4	10.6	1.0	0.0	0.0	30.8	25.2	0.0	100.0

Source:CWIQ 2006 Bariadi DC

1. Base is population who consulted a health provider

Regarding socio economic groups, 'other' show the highest rate of not consulting a healthcare provider at 77 percent. All socio-economic groups reported no-need as a reason for not consulting a healthcare provider at a rate of over 92 percent. Distance was reported as the second lead reason for not consulting by employees and, and self-employed other at 6 percent.
The split-up by type of illness shows that for most infirmities, fever (including malaria) the reason for not consulting was reported as cost at 62 percent and distance at 52 percent. This pattern is seen in other types of sickness such as diarrhoea and abdominal pain the reasons for not consulting were cost at 52 percent and distance at 34 percent. For coughing and breathing problems the main cause for not consulting a health practitioner is cost at 58 percent followed by 'no need' at 31 percent. It is worth noticing that for eye, problems 15 percent did not consult a healthcare provider because they had no confidence.

4.4 Type of Illness

Table 4.4 shows the percentage of population sick or injured in the 4 weeks preceding the survey. Overall, fever or malaria is the most common sickness, affecting almost 57 percent of the total population. In turn, diarrhoea, abdominal pain and coughing and breathing difficulties come in second and third place, with 19 and 16 percent of the ill population, respectively. Pain in the back limbs or joints affected 13 percent of the ill population, whereas other illnesses affected minor shares of the population.

The gender breakdown shows no differences in type of sickness. However it shows that females reported a higher rate of being sick or injured at 6 percent than males. On the other hand, the age breakdown shows that the share of sick/injured population starts at around 35 percent for children under 5, decreases for the 5 to 9 cohort, stabilizes around 21 percent, and then starts increasing again for the 30 to 49 cohort, peaking for the population aged 65 and over (31 percent of males and 58 percent of females in that group). The share of ill population affected by malaria comes is lower for the older cohorts, but other problems emerge.

4.5 Health Provider

Table 4.5 shows the percent distribution of health consultations in the 4 weeks preceding the survey. Overall, 35 percent of the consultations were made in a public hospital or to a pharmacist or chemist, 3 percent in a religious hospital, and 13 percent to traditional healers. Private hospitals were consulted in 12 percent of the cases.

The breakdown by location shows no strong correlation with health provider. Households from accessible villages reported visiting religious hospitals at a higher rate (7 percent) than households from remote villages (less than 1 percent). Similarly accessible villages reported visits to pharmacies and chemists at 39 percent, 7 points higher than households from remote villages.

Table 4.6: Percentage of women aged 12-49 who had a live birth in the year preceding the survey by age of the mother and the percentage of those births where the mother received pre-natal care

	12-14 yrs	15-19 yrs	20-24 yrs	25-29 yrs	30-39 yrs	40+ yrs	Total	Pre-natal care
Total	0.0	6.8	40.0	34.4	29.3	9.6	19.2	88.1
Cluster Location								
Accessible	0.0	3.1	38.0	27.0	29.7	11.7	18.2	90.4
Remote	0.0	10.1	42.0	40.5	29.0	6.8	20.2	86.2
Poverty Status								
Poor	0.0	2.4	45.7	41.9	26.8	19.5	15.7	81.5
Non-poor	0.0	9.2	39.3	32.1	30.6	5.7	20.8	90.3
Socio-economic group								
Employee	0.0	0.0	50.3	0.0	22.7	0.0	23.5	76.4
Self-employed - agric	0.0	7.1	40.8	35.9	29.8	11.5	19.4	87.6
Self-employed - other	0.0	17.7	21.8	29.0	33.5	0.0	22.3	90.8
Other	0.0	3.6	56.3	25.9	25.7	0.0	14.1	100.0

Source:CWIQ 2006 Bariadi DC

1. Base is females aged 12 or older.

The breakdown by poverty status shows no difference except poor households reporting higher rates of visiting pharmacist and chemists at 41 percent than non-poor households at 33 percent.

The breakdown by socio-economic group shows that the self-employed in non-agricultural activities reported the highest rate of visiting public hospitals at around 45 percent higher that the rate reported by the self-employed in agriculture at 35 percent, employees at 38 percent and 'other' at 32 percent. The highest rate of visits to private hospitals was reported by the self-employed in agriculture at 13 percent. The highest rate of visits to religious hospitals was reported by the employees at 28 percent. Households belonging to the 'other' socio-economic group reported the highest rates of visits to traditional healers at 25 percent. Pharmacist and chemists were the second leading healthcare provider across the categories where all socio-economic groups reported between 30 -35 percent.

4.6 Child Deliveries

Table 4.6 shows the percentage of women aged 12 to 49 who had a live birth in the year preceding the survey. Overall, 19 percent of women in this age-group gave birth in the past year. No girls aged 14 or under gave birth in the district. Around 7 percent of the females between 15 and 19 gave birth. The rate peaks at 40 percent for the 20 to 24 group, and then decreases, reaching 10 percent for the group aged 40 to 49. In addition, 88 percent of pregnant women received prenatal care.

The breakdown by cluster location shows households in remote villages show highest rates for women between 20 and 24 years old at 42 percent compared to 38 percent reported by households in accessible villages. However households in accessible villages show higher rates of births for women aged 40+ at 12 percent compared to women from households in remote villages at 7 percent.

The analysis by poverty status reveals that 21 percent of women from poor households had a live birth in the year preceding the survey, higher than the share for women from non-poor households at 16 percent. Poor households reported lower rates of women giving birth between the ages of 15 and 19 at 2 percent while women from non-poor households reported 9 percent. Women from poor households reported consistently higher rates in the age-groups above the age of 20 than women from non-poor households except for the 30 to 39 age-group where women from non-poor households reported 4 percentage points higher than women from poor households.

The breakdown by socio-economic status shows that for the 15-19 cohort the highest rate was reported by the self-employed in non-agricultural activities (18 percent). Women from the 'other' socio-economic group reported the highest rate (56 percent) for women in the 20-24 cohort, followed by women from the employees group at 50 percent. Women from the self-

Table 4.7: Percentage distribution of births in the five years preceding the survey by place of birth

	Hospital	Health centre	Dispensary	Health post	At home	Other	Total
Total	15.8	2.8	8.4	0.0	73.1	0.0	100.0
Cluster Location							
Accessible	21.1	5.4	3.5	0.0	70.0	0.0	100.0
Remote	11.2	0.4	12.7	0.0	75.7	0.0	100.0
Poverty Status							
Poor	18.1	1.5	4.4	0.0	75.9	0.0	100.0
Non-poor	14.6	3.3	10.3	0.0	71.7	0.0	100.0
Socio-economic group							
Employee	49.1	0.0	11.3	0.0	39.6	0.0	100.0
Self-employed - agriculture	14.2	1.6	8.6	0.0	75.7	0.0	100.0
Self-employed - other	16.1	5.7	11.6	0.0	66.6	0.0	100.0
Other	20.1	15.7	3.3	0.0	60.9	0.0	100.0

Source:CWIQ 2006 Bariadi DC

1. Base is children under 5 years old.

employed in agriculture reported the highest rate of birth (36 percent) in the 25-29 age-group while women from the self-employed in non-agricultural activities category reported the highest rate of births at 34 percent for the 30-39 age-group. Only women from the self-employed in agriculture reported giving birth at age 40 and above.

Table 4.7 shows the percentage distribution of births in the five years preceding the survey. 16 percent of births in the 5 years preceding the survey took place in a hospital, 73 percent at home, 8 percent at a dispensary and 3 percent at a health centre. The ordering remains across cluster location, poverty status, and socio-economic group of the household head

Households in remote villages reported higher rates of births at home at 76 percent compared to 70 percent reported by households in accessible villages. Households in remote villages reported lower rates of births in hospitals (11 percent) than households in accessible villages (21 percent). However, households from remote villages reported a higher share of births in a dispensary at 13 percent, 9 points higher than the rate reported by households in accessible villages.

The breakdown by poverty status shows that non-poor households reported a lower share of deliveries in hospitals at 14 percent compared to 18 percent of poor households. Similarly, poor households reported higher rates of births at home at 76 percent compared to 72 percent reported by non-poor households. Conversely, poor households reported lower shares of delivers in dispensaries at 4 percent compared to 10 percent reported by non-poor households.

The split-up by socio-economic group of the household shows that homes are the most common place for deliveries, leading rates reported by the self-employed in agriculture at 76 percent, self-employed in non-agricultural activities at 67 percent other socio-economic group at 61 percent. Employees reported the highest shares of births that took place in a hospital at 49 percent more than thrice the rate reported by the self-employed in agriculture at 14 percent. Households from the other socio-economic group reported the highest rates of births that took place in a health centre at 16 percent. Households from the self-employed other category reported the highest rate of births in a dispensary at 12 percent.

Table 4.8 shows the percentage distribution of births in the five years preceding the survey by person who assisted in the delivery of the child. Overall, 3 out of 10 deliveries were attended by a health professional. 67 percent of deliveries were reported to have taken place without assistance, 27 percent of deliveries were attended by midwives, while traditional birth assistants (TBA) and trained TBA accounted for 4 and 1 percent of the shares. Doctors or nurses attended less than 1 percent of the deliveries in the district.

The analysis by cluster location shows that deliveries without assistance were more common in remote villages (71 percent vs.

Table 4.8: Percentage distribution of births in the five years preceding the survey by person who assisited in delivery of child

	Doctor Nurse	Midwife	Trained T.B.A.	T.B.A.	Other Self	Don't know	Total	Delivery by health prof.
Total	0.2	27.3	0.9	4.3	67.2	0.0	100.0	28.5
Cluster Location								
Accessible	0.2	29.7	0.6	6.7	62.6	0.0	100.0	30.6
Remote	0.2	25.2	1.1	2.2	71.2	0.0	100.0	26.6
Poverty Status								
Poor	0.4	23.7	0.9	3.6	71.4	0.0	100.0	25.0
Non-poor	0.2	29.0	0.9	4.7	65.2	0.0	100.0	30.1
Socio-economic group								
Employee	0.0	60.4	0.0	0.0	39.6	0.0	100.0	60.4
Self-employed - agriculture	0.3	24.7	0.8	3.9	70.2	0.0	100.0	25.8
Self-employed - other	0.0	33.4	4.3	5.6	56.6	0.0	100.0	37.8
Other	0.0	39.1	0.0	9.5	51.3	0.0	100.0	39.1

Source:CWIQ 2006 Bariadi DC

1. Base is children under 5 years old.

63 percent), whereas midwives were more common in accessible villages (30 percent vs. 25 percent).

As expected, non-poor households show a higher share of deliveries attended by a professional, 30 percent, against 25 for the poor households. Conversely, poor households report a higher share of deliveries without assistance at 71 percent compared to 65 percent reported by non-poor households. Non-poor households reported a higher share of deliveries attended by a midwife at 29 percent, 5 percentage points higher than the rate reported by poor households.

The breakdown by socio-economic group shows that employees reported the highest rates of births attended by health professionals at 60 percent, mostly attended by midwives. Households in the 'self-employed agriculture' category report the highest share of deliveries without assistance at 70 percent. Self-employed in non-agricultural activities reported higher rates of births attended by trained TBA at 4 percent while the 'other' socio-economic group reported higher rates of births attended by TBA at 10 percent.

4.7 Child Nutrition

Two standards of physical measurement of growth that describe the nutritional status of a child are presented in this chapter:

- Height-for-age (stunting)
- Weight-for-height (wasting)

The level of malnutrition in a population is determined by comparing the weight and height measurements within the population of interest to those of a well nourished population. Children are considered malnourished if their weight and/or height measurements fall outside the distribution of weight and height measurements of the well nourished population. The reference population used, as recommended by the World Health Organisation (WHO), is that of the United States National Centre for Health Statistics (NCHS).

Height-for-age is a measure of linear growth. A child who is below minus two standard deviations from the median of the reference population is considered to be too short for his/her age – stunted. Stunting is a consequence of long term malnutrition; it is indicative of long term inadequacy of nutrient intake, and is commonly associated with poor economic conditions and chronic or repeated infections.

Weight-for-height is a measure of body mass in relation to body height and is an indicator of immediate nutritional status. A child who is below minus two standard deviations from the median of the reference population is classed as too thin for his/her height – a condition called wasting. Wasting is an immediate indicator of acute malnutrition and reflects insufficiency in tissue and fat mass compared to the amount expected according to the child's height. Wasting occurs as a result of inadequate intake of nutrients immediately preceding the survey. Therefore, wasting is not necessarily the result of insufficient food intake, but could also be, for instance, the result of recent severe illness. Occurrence

Table 4.9: Nutritional status indicators and program participation rates

	Nutritional status indicators		Program participation		
	Stunted (-2SD)	Wasted (-2SD)	Nutrition	Weigh-in	Vaccinated
Total	28.0	1.3	32.5	79.5	71.2
Cluster Location					
Accessible	27.0	1.4	25.5	77.2	67.4
Remote	28.8	1.2	38.9	81.5	74.6
Poverty Status					
Poor	33.3	0.9	24.1	71.2	63.6
Non-poor	25.5	1.5	36.2	83.1	74.5
Socio-economic Group					
Employee	7.3	0.0	38.0	79.4	79.4
Self-employed - agriculture	27.4	1.4	32.1	79.4	71.6
Self-employed - other	43.9	0.0	35.6	79.9	64.4
Other	32.0	1.5	32.9	79.6	67.0
Gender and age in completed years					
Male	29.6	0.7	34.2	76.8	67.3
0	22.8	0.0	25.7	63.1	61.0
1	38.8	0.0	46.4	83.6	74.0
2	38.3	0.0	31.6	81.0	67.5
3	25.7	0.0	30.1	75.1	72.0
4	20.9	3.7	39.3	84.4	62.0
Female	26.3	1.9	30.9	82.1	75.0
0	13.8	1.3	25.5	78.1	75.4
1	29.7	0.0	27.2	84.8	81.1
2	26.3	2.5	31.9	78.8	69.5
3	30.8	2.2	32.2	86.6	76.7
4	29.2	3.7	40.2	84.8	74.2
Orphan status					
Orphaned	25.2	0.0	13.1	68.8	63.9
Not-orphaned	27.9	1.4	32.6	79.8	71.4
Foster status					
Fostered	31.1	0.0	12.6	91.6	65.6
Not-fostered	28.3	1.4	33.0	79.5	71.5

Source:CWIQ 2006 Bariadi DC

1. Base of Table is total number of children under 5.

of wasting may be subject to seasonal variations.

Another measurement commonly used is weight-for-age. A child who is below minus two standard deviations from the median of the reference population is considered to be underweight. However, a child may be underweight because he/she is stunted, wasted or both. Interpretation of this indicator is complex and inconclusive; for this reason it was not incorporated into this report.

Overall, 1 percent of the children is wasted, and 28 percent is stunted. 33 percent of children participate in nutrition programs and 71 percent was reported having been vaccinated.

There are no differences in the rates of wasting and stunting by cluster location; however children from households in remote villages reported higher rates of nutritional program participation at 39 percent compared to 26 percent of their counterparts in accessible villages. Similarly children from remote villages reported 7 points higher of children vaccinated than children from households in accessible villages.

The breakdown by poverty status shows that children from poor households reported a higher rate of stunting at 33 percent compared to children from non-poor households at 2 percent. 2 percent of children from non-poor households was

Table 4.10: Percent Distribution of Children Vaccinated by Type of Vaccination Received

	Measles	BCG	DPT1	DPT2	DPT3	OPV0	OPV1	OPV2	OPV3	Vitamin A
Total	49.9	75.2	75.3	69.5	63.4	38.1	75.4	70.1	63.2	45.1
Cluster Location										
Accessible	48.0	73.9	73.0	68.0	61.3	48.6	72.4	66.8	61.8	53.4
Remote	51.5	76.4	77.4	70.9	65.3	28.5	78.1	73.1	64.4	37.6
Poverty Status										
Poor	43.2	65.4	64.9	58.2	51.9	37.3	65.1	58.2	51.8	42.7
Non-poor	52.8	79.5	79.9	74.5	68.4	38.4	79.9	75.3	68.1	46.2
Socio-economic group										
Employed	57.2	79.4	79.4	73.8	73.8	47.0	79.4	79.4	73.8	42.3
Self-employed - agriculture	50.6	74.7	75.1	69.0	62.5	36.8	74.9	69.3	62.3	45.3
Self-employed - other	41.1	84.0	79.4	73.2	67.4	34.9	84.0	73.2	67.4	37.7
Other	44.8	72.8	72.8	70.7	66.6	51.6	72.8	72.8	65.3	50.2
Gender and age in completed years										
Male	50.3	74.1	73.0	67.5	62.3	39.5	73.0	67.4	61.3	42.8
0	15.4	60.8	59.3	44.4	35.2	22.4	57.0	47.7	31.7	5.6
1	45.6	76.5	76.9	71.5	61.8	38.8	73.8	68.4	59.7	45.4
2	71.0	81.2	78.7	77.7	76.7	45.3	80.0	77.7	76.7	55.4
3	60.0	73.3	72.0	71.1	70.2	54.8	75.1	73.1	72.2	55.4
4	66.8	82.1	81.6	77.9	73.1	37.8	83.1	74.1	71.7	59.7
Female	49.4	76.3	77.6	71.5	64.4	36.7	77.7	72.7	65.0	47.4
0	11.7	70.8	69.8	57.7	44.2	27.1	68.3	58.8	44.0	8.8
1	59.3	80.6	80.6	75.9	72.9	43.7	80.6	77.2	74.4	52.0
2	56.1	75.5	78.9	73.7	68.2	34.8	78.9	73.1	68.2	57.9
3	74.3	82.8	86.5	82.9	79.2	47.8	88.6	85.0	80.4	66.5
4	51.2	72.5	71.9	68.4	59.2	31.6	71.9	71.9	60.0	58.0

Source:CWIQ 2006 Bariadi DC

1. Base of table is total number of children under 5.

wasted. Children from non-poor households were reported to have been vaccinated at a rate of 75 percent, 10 points higher than children from poor households.

Regarding socio-economic status, households in the 'self-employed other' group reported the highest rate of stunted children at 44 percent while children from the employee category reported the lowest rate of stunted children at rate of 7 percent. 2 percent of children from the 'other' socio-economic group were reported to be wasted. Children from the employee group reported the highest rate of vaccination at 79 percent.

The gender breakdown shows no difference in rates of stunted or wasted children, but slightly higher rates of stunted children are reported by boys than girls.

The breakdown by orphan status or fostered status shows no differences in rates of stunted or wasted children. However the trend indicates that orphaned as well as fostered children show lower rates of participation in nutritional programs.

Table 4.10 shows the percent distribution of children vaccinated by type of vaccination received. Overall, 50 percent of children under 5 have been vaccinated against measles, 75 percent against BCG, and roughly between 63 and 75 percent received vaccinations against DPT and OPV. Finally, 45 percent of the children in the district receive vitamin A supplements.

There are no differences by cluster location in rates for most of the vaccinations, except for vitamin A where children from remote villages reported at rate of 38 percent compared to children from accessible villages at 53 percent.

The breakdown by poverty status shows that children from households in poor village reported lower rates of vaccination against measles at 42 percent compares to

Table 4.11: Percent Distribution of Children Vaccinated by Source of Information

	Health Card	Other	Total
Total	89.9	10.1	100.0
Cluster Location			
Accessible	87.3	12.7	100.0
Remote	92.2	7.8	100.0
Poverty Status			
Poor	84.1	15.9	100.0
Non-poor	92.2	7.8	100.0
Socio-economic group			
Employed	92.0	8.0	100.0
Self-employed - agriculture	89.5	10.5	100.0
Self-employed - other	87.2	12.8	100.0
Other	96.3	3.7	100.0
Gender and age in completed years			
Male	87.6	12.4	100.0
0.0	81.6	18.4	100.0
1.0	83.9	16.1	100.0
2.0	94.8	5.2	100.0
3.0	89.9	10.1	100.0
4.0	86.9	13.1	100.0
Female	92.2	7.8	100.0
0.0	83.6	16.4	100.0
1.0	98.6	1.4	100.0
2.0	93.8	6.2	100.0
3.0	93.6	6.4	100.0
4.0	92.0	8.0	100.0

Source:CWIQ 2006 Bariadi DC

1. Base of table is total number of children under 5 vaccinated.

their counterparts in non-poor villages at 53 percent.

The analysis by socio-economic groups shows vaccination against measles is highest for children from the 'employee' category at 57 percent, while vaccination against BCG is highest for children from the self-employed in agriculture group at 84 percent. Vitamin A intake is reported highest by children from the 'other' socio-economic group at 50 percent.

The gender breakdown shows no differences. The share of children consuming vitamin A increases with age. Girls reported a higher share consuming vitamin A at 47 percent compared to 43 percent reported by boys. Finally, the vaccination rates for children under 1 years of age are roughly 10 to 30 percent lower than the rest of the children.

Table 4.11 shows the percent distribution of children vaccinated by source of information. Overall, the information for 90 percent of the vaccinated children was supported by a vaccination card.

The breakdown by cluster location shows a higher rate of sources from health card is higher for children from remote villages that children from accessible villages. Conversely, 13 percent of the information from accessible villages was from other sources.
The breakdown by poverty status shows that 14 percent of information from poor households was from other sources.

Regarding socioeconomic status, 13 percent of information from the self-employed in non-agricultural activities was found from other sources.

5 EMPLOYMENT

This chapter examines employment indicators for the population of Bariadi DC. The first section analyses the employment status of the adult population. The second section of the chapter focuses on the working adults, with a special focus on the underemployed population. Trends examined include type of employment, employment sector and employer of the working adults. In the third section, the economically inactive subgroups of the adult population are examined. Next, household activities are studied. Analysis of child labour concludes this chapter.

5.1 Employment Status of Total Adult Population

The adult population of the district is categorised into two main groups: working and non-working. The working population includes all adults who had engaged in any type of work in the 4 weeks preceding the survey. Within the working population, a distinction is made between those employed to capacity and those who are underemployed. The underemployed are those individuals who report willingness to take on additional work. This category reflects the population that is not working as much as they want, so they reflect surplus in the labour supply.

The non-working population consists of individuals who had not engaged in any type of work in the 4 weeks preceding the survey. This group is further subdivided into those who are unemployed and those who are economically inactive. While the economically inactive are individuals who had not engaged in any work in the 4 weeks preceding the survey due to illness, disability, age or school, unemployed individuals are those who were not working due to lack of employment opportunities but were actively looking for a job.

Table 5.1 - Percentage distribution of the population by work status (age 15 and above)

	Working			Not working			
	Employed	Under emp.	Total	Unemploy.	Inactive	Total	Total
Total	75.7	17.9	93.7	0.0	6.3	6.3	100.0
Cluster Location							
Accessible	69.7	23.4	93.1	0.0	6.9	6.9	100.0
Remote	81.4	12.8	94.2	0.0	5.8	5.8	100.0
Poverty Status							
Poor	77.2	17.5	94.7	0.0	5.3	5.3	100.0
Non-poor	75.2	18.1	93.3	0.0	6.7	6.7	100.0
Gender and age							
Male	68.0	23.0	90.9	0.0	9.1	9.1	100.0
15-29	79.2	15.3	94.5	0.0	5.5	5.5	100.0
30-49	61.9	31.7	93.6	0.0	6.4	6.4	100.0
50-64	67.9	24.1	92.0	0.0	8.0	8.0	100.0
65+	44.9	18.2	63.1	0.0	36.9	36.9	100.0
Female	82.7	13.4	96.1	0.0	3.9	3.9	100.0
15-29	89.2	8.8	98.1	0.0	1.9	1.9	100.0
30-49	76.5	21.9	98.4	0.0	1.6	1.6	100.0
50-64	88.2	8.7	96.8	0.0	3.2	3.2	100.0
65+	68.2	3.8	72.0	0.0	28.0	28.0	100.0

Source:CWIQ 2006 Bariadi DC

1. Underemployed includes persons who sought to increase earnings in the seven days preceding the survey.
2. Unemployed includes persons who did not work in the four week period preceding the survey and who looked for work in the same period. The inactive population, primarily students and retired persons, is not included in unemployment.

Table 5.2 - Principal labour force indicators (persons age 15 and above)

	Total population			Heads of household		
	Active population	Unemployment rate	Underemploy-ment rate	Active population	Unemploy-ment rate	Underemploy-ment rate
Total	93.7	0.0	19.2	90.7	0.0	32.2
Cluster Location						
Accessible	93.1	0.0	25.2	89.8	0.0	43.2
Remote	94.2	0.0	13.6	91.5	0.0	22.7
Poverty Status						
Poor	94.7	0.0	18.5	90.1	0.0	35.4
Non-poor	93.3	0.0	19.4	90.9	0.0	31.2
Gender and age						
Male	90.9	0.0	25.2	89.5	0.0	34.3
15-29	94.5	0.0	16.2	98.7	0.0	46.7
30-49	93.6	0.0	33.9	93.4	0.0	34.4
50-64	92.0	0.0	26.2	92.7	0.0	26.5
65+	63.1	0.0	28.8	61.8	0.0	32.3
Female	96.1	0.0	13.9	96.0	0.0	23.3
15-29	98.1	0.0	9.0	100.0	0.0	23.0
30-49	98.4	0.0	22.2	100.0	0.0	36.1
50-64	96.8	0.0	8.9	97.4	0.0	12.2
65+	72.0	0.0	5.3	87.1	0.0	9.7

Source:CWIQ 2006 Bariadi DC

1. Underemployed includes persons who sought to increase earnings in the seven days preceding the survey.
2. Unemployed includes persons who did not work in the four week period preceding the survey and who looked for work in the same period. The inactive population, primarily students and retired persons, is not included.

5.1.1 Work Status

Table 5.1 shows that 76 percent of the adult population is employed and 18 percent underemployed. Unemployment is virtually 0 percent and the inactivity rate is 6 percent. This shows that underemployment is a bigger problem in the area than unemployment. There are no differences by poverty status. In turn, households from remote villages show a higher employment rate than households from remote villages, who show a higher rate of underemployment. For both genders, underemployment peaks for the cohort aged between 30 and 49. Around 32 percent of the males in this group are underemployed, whereas the share for females is 22 percent

The adult population that was no working in the 4 weeks preceding the survey was mostly inactive, rather than unemployed. This means that most of them were students, sick people, etc. rather than people looking for work and ready for it. For the population under 65 years, inactivity fluctuates around 2 percent for women and 6 percent for men. For the population over 65 the number of inactive population goes up, as would be expected, reaching 37 percent of males and 28 percent of females.

5.1.2 Employment of Household Heads

Table 5.2 shows the principal labour force indicators for the adult population compared to the household heads. Activity rates are slightly higher for similar for the total population, and underemployment is higher among the household heads. There are no strong differences by poverty status in the total population, but heads of poor households are more likely to be underemployed than heads of non-poor households. In addition, households from remote villages have higher underemployment rates than households from remote villages. The difference is wider among household heads.

The gender breakdown shows that in the general population and in the subpopulation of household heads males are more likely to be underemployed than females. The breakdown by age-groups shows that underemployment decreases with age of the household head.

Table 5.3 - Percentage distribution of the population by work status (age 15-24)

	Active population				Active		
	Employed	Under emp.	Working	Unemployed	Total	Inactive	Total
Total	86.3	9.1	95.5	0.0	95.5	4.5	100.0
Cluster Location							
Accessible	84.9	8.9	93.8	0.0	93.8	6.2	100.0
Remote	87.8	9.3	97.1	0.0	97.1	2.9	100.0
Poverty Status							
Poor	93.9	4.9	98.9	0.0	98.9	1.1	100.0
Non-poor	83.1	10.9	94.0	0.0	94.0	6.0	100.0
Gender and age							
Male	83.5	10.0	93.5	0.0	93.5	6.5	100.0
15-16	94.4	4.1	98.5	0.0	98.5	1.5	100.0
17-19	85.4	7.6	93.0	0.0	93.0	7.0	100.0
20-21	72.8	13.5	86.3	0.0	86.3	13.7	100.0
22-23	61.2	27.7	88.9	0.0	88.9	11.1	100.0
Female	88.9	8.3	97.3	0.0	97.3	2.7	100.0
15-16	98.7	0.0	98.7	0.0	98.7	1.3	100.0
17-19	83.8	11.6	95.4	0.0	95.4	4.6	100.0
20-21	88.4	6.5	94.9	0.0	94.9	5.1	100.0
22-23	83.1	15.9	99.0	0.0	99.0	1.0	100.0

Source:CWIQ 2006 Bariadi DC

1. Underemployed includes persons who sought to increase earnings in the seven days preceding the survey.
2. Unemployed includes persons who did not work in the four week period preceding the survey and who looked for work in the same period. The inactive population, primarily students and retired persons, is not included.

5.1.3 Youth Employment

Table 5.3 shows the distribution of the youth (ages 15 to 24) by work status. The activity rate of this group is similar to the overall population, at 96 percent. However, underemployment is lower: only 9 percent is underemployed, as opposed to 18 percent for the overall population. Furthermore, the youth from poor households and the youth from households in remote villages have higher employment than their counterparts. In addition, non-poor households report a higher underemployment rate than poor households, at 11 and 5 percent, respectively.

The breakdown by gender shows that underemployment rates among the male and female youth are similar at around 10 percent. It can be seen that underemployment is higher in the 20-24 group, especially for males.

Table 5.4 - Percentage distribution of the working population by employment status

	Employee	Self-employed Agriculture	Self-employed Other	Other	Total
Total	1.5	41.2	3.3	54.0	100.0
Cluster Location					
Accessible	2.5	33.3	2.6	61.6	100.0
Remote	0.6	48.5	3.9	47.0	100.0
Poverty Status					
Poor	0.9	37.6	2.4	59.2	100.0
Non-poor	1.7	42.6	3.6	52.1	100.0
Gender and age					
Male	2.4	60.4	4.9	32.3	100.0
15-29	1.8	23.7	2.7	71.7	100.0
30-49	2.9	88.0	7.4	1.8	100.0
50-64	3.4	89.7	2.7	4.2	100.0
65+	1.5	80.0	8.0	10.5	100.0
Female	0.7	24.9	1.9	72.5	100.0
15-29	0.2	10.0	2.2	87.6	100.0
30-49	1.6	35.0	0.3	63.1	100.0
50-64	0.0	48.9	4.6	46.5	100.0
65+	0.0	36.8	5.6	57.6	100.0

Source:CWIQ 2006 Bariadi DC

5.2 Working population

Table 5.4 shows that the vast majority of the working population is formed by self-employed in agriculture at 41 percent, or in other activities (inactive, unemployed, unpaid workers, domestic workers) at 54 percent. Moreover, employees only account for 2 percent of the working population. The population self-employed

Table 5.5 - Percentage distribution of the working population by employer

	State/NGO/ Other	Private	Household	Total
Total	0.9	44.9	54.2	100.0
Cluster Location				
Accessible	1.3	37.3	61.3	100.0
Remote	0.6	51.8	47.6	100.0
Poverty Status				
Poor	0.8	39.7	59.5	100.0
Non-poor	1.0	46.8	52.2	100.0
Gender and age				
Male	1.7	65.7	32.5	100.0
15-29	1.9	26.9	71.2	100.0
30-49	1.3	96.2	2.5	100.0
50-64	3.4	90.5	6.0	100.0
65+	0.0	89.5	10.5	100.0
Female	0.3	27.0	72.7	100.0
15-29	0.0	12.2	87.8	100.0
30-49	0.7	36.1	63.2	100.0
50-64	0.0	53.5	46.5	100.0
65+	0.0	42.4	57.6	100.0

Source:CWIQ 2006 Bariadi DC

1. Base is working population aged 15+

in agriculture is higher in remote villages and non-poor households, whereas the 'other' group is larger in accessible villages and in poor households.

The gender breakdown shows that males report a higher share of self-employed in agriculture, whereas females report a higher share in 'other'. The cut down by age-groups shows that the share of self-employed in agriculture peaks for 50-64 males (90 percent), the 'self-employed other' for 65+ males (8 percent) and 'other' for 15-29 females (88 percent).

The percentage distribution of the working population by employer is analysed in Table 5.5. The table shows that the private sector (formal or informal) employs more almost 45 percent of the working population, which combined with individuals who work for their own households represent up to 99 percent of the working population.

Households employ higher shares of workers in accessible villages and poor households; and the private sector employs higher shares of workers in remote villages and non-poor households.

The gender breakdown shows that males are more likely to work for a private employer with a share of 66 percent against 27 percent of females. In turn, the latter report a higher share working for the household at 73 percent against 33 percent of males. The breakdown by age-groups shows that in the case of males, the 30-49 cohort reports the highest share working for a private employer. In the case of females, the 50-64 cohort, at 54 percent. The share of males working for the household is remarkably higher for the 15-29 cohort, at 71 percent. The share of females working for the household reduces steadily with age, from 88 for the

Table 5.6 - Percentage distribution of the working population by activity

	Agriculture	Mining/manuf/ energy/constr	Pub & priv services	Domestic duties	Other	Total
Total	84.6	0.7	3.4	11.0	0.3	100.0
Cluster Location						
Accessible	84.6	0.5	3.9	10.5	0.5	100.0
Remote	84.5	0.9	3.0	11.4	0.2	100.0
Poverty Status						
Poor	83.4	0.9	1.3	14.1	0.4	100.0
Non-poor	85.0	0.6	4.2	9.8	0.3	100.0
Gender and age						
Male	82.7	1.3	4.8	10.4	0.7	100.0
15-29	73.6	0.5	3.8	22.0	0.0	100.0
30-49	90.4	2.7	6.1	0.2	0.5	100.0
50-64	89.7	0.0	6.1	4.2	0.0	100.0
65+	83.1	0.0	1.5	7.3	8.0	100.0
Female	86.1	0.2	2.2	11.5	0.0	100.0
15-29	80.5	0.0	2.4	17.1	0.0	100.0
30-49	95.3	0.5	1.8	2.4	0.0	100.0
50-64	83.6	0.0	4.6	11.8	0.0	100.0
65+	72.2	0.0	0.0	27.8	0.0	100.0

Source:CWIQ 2006 Bariadi DC

1. Base is working population aged 15+

Table 5.7 - Percentage distribution of the working population by employment status, sex and activity

	Employee		Self-employed Agriculture		Self-employed Other		Other		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	18.6	24.1	100.0	100.0	0.0	0.0	68.0	84.0	83.1	85.9
Mining & non-primary	0.0	0.0	0.0	0.0	25.9	0.0	0.0	0.2	1.2	0.2
Services	72.8	75.9	0.0	0.0	60.8	83.7	0.0	0.1	4.6	2.2
Domestic duties	0.0	0.0	0.0	0.0	2.9	16.3	32.0	15.7	10.3	11.7
Other	8.6	0.0	0.0	0.0	10.4	0.0	0.0	0.0	0.7	0.0

Source:CWIQ 2006 Bariadi DC

1. Base is working population aged 15+

15-29 cohort to 47 percent for the 50-64 age-group, regaining importance in the 65+ cohort where it reaches 58 percent.

Table 5.6 shows the percentage distribution of the working population by main activity. The categories are agriculture; mining, manufacturing, energy and construction; services (transport, trade, private and public services); domestic duties; and other. Overall, agriculture and domestic duties together account for 96 percent of the working population. 85 percent of the population is engaged in agriculture, and 11 percent in domestic duties.

The breakdown by remoteness of the village does not show important differences. However, poor households report a higher share of working population engaged in domestic duties, whereas non-poor households report a higher share in services, at 4 percent against 1 percent of poor households.

The gender breakdown shows that females are slightly more likely to be engaged in agriculture than males, with shares of 86 and 83 percent, respectively. In turn, males report a slightly higher share in services than females, at 5 and 2 percent, respectively.

The breakdown by age-groups shows that younger cohorts have higher shares dedicated to household duties. The share of males in agriculture increases steadily with age, except for the oldest cohort where 'other' gains importance (reaching 8 percent of the males in that age-group). In turn, the share of women in agriculture is lower for the youngest and the oldest cohorts, where the shares dedicated to domestic duties are higher.

Table 5.7 shows the percentage distribution of the working population by employment status, gender and activity. Overall, around 83 percent of the male labour force is in agriculture, whereas the share for females is slightly higher, at 86 percent. Domestic duties have the second highest shares for both genders: 10 percent for males and 12 percent for females. Each of the remaining activities occupies less than 10 percent of the labour force.

Almost three-quarters of the male employees (73 percent) work in services, and the remaining in agriculture (19 percent) 'other' (9 percent). Similarly, three quarters of the female employees (76 percent) work in services, while the remaining 24 percent works in agriculture. The self-employed in non-agricultural activities work mostly in services, but the activity with the second highest share for males is mining and non-primary, whereas

Table 5.8 - Percentage distribution of the working population by employer, sex and activity

	Government		Private		Household		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	25.1	37.7	91.2	89.1	75.4	85.5	82.2	86.0
Mining & non-primary	5.5	0.0	1.4	1.0	0.0	0.0	0.8	0.2
Services	60.4	62.3	6.1	9.3	0.5	0.4	4.9	2.3
Domestic duties	0.0	0.0	0.2	0.5	24.0	14.0	11.3	11.5
Other	9.0	0.0	1.1	0.0	0.0	0.0	0.8	0.0

Source:CWIQ 2006 Bariadi DC

1. Base is working population aged 15+

Table 5.9 - Percentage distribution of the underemployed population by employment status

	Employee	Self-employed Agriculture	Self-employed Other	Other	Total
Total	3.2	56.0	4.9	36.0	100.0
Cluster Location					
Accessible	4.3	51.3	3.8	40.6	100.0
Remote	1.3	63.9	6.8	28.1	100.0
Poverty Status					
Poor	4.0	58.7	2.4	34.9	100.0
Non-poor	2.8	55.0	5.8	36.4	100.0
Gender and age					
Male	4.4	73.8	8.1	13.7	100.0
15-29	4.0	41.6	9.4	45.1	100.0
30-49	4.2	85.5	7.8	2.6	100.0
50-64	9.7	90.3	0.0	0.0	100.0
65+	0.0	82.3	17.7	0.0	100.0
Female	1.2	28.4	0.0	70.4	100.0
15-29	0.0	5.9	0.0	94.1	100.0
30-49	1.9	35.1	0.0	62.9	100.0
50-64	0.0	45.3	0.0	54.7	100.0
65+	0.0	100.0	0.0	0.0	100.0

Source:CWIQ 2006 Bariadi DC

1. Base is underemployed population aged 15+

Table 5.10 - Percentage distribution of the underemployed population by employer

	State/NGO/Other	Private	Household	Total
Total	1.8	61.7	36.4	100.0
Cluster Location				
Accessible	2.9	56.5	40.6	100.0
Remote	0.0	70.7	29.3	100.0
Poverty Status				
Poor	1.9	61.5	36.6	100.0
Non-poor	1.8	61.8	36.4	100.0
Gender and age				
Male	3.0	82.6	14.5	100.0
15-29	4.0	51.0	45.1	100.0
30-49	1.5	95.9	2.6	100.0
50-64	9.7	83.5	6.8	100.0
65+	0.0	100.0	0.0	100.0
Female	0.0	29.6	70.4	100.0
15-29	0.0	5.9	94.1	100.0
30-49	0.0	37.1	62.9	100.0
50-64	0.0	45.3	54.7	100.0
65+	0.0	100.0	0.0	100.0

Source:CWIQ 2006 Bariadi DC

1. Base is underemployed population aged 15+

for females is domestic duties.

The population in the 'other' group is concentrated in agriculture, with domestic duties showing the second highest share for both males and females.

The percentage distribution of the working population by employer, gender, and activity is shown in Table 5.8. The working population employed by the government is mostly dedicated to services, with agriculture in second place. The labour force working for private employers (whether formal or informal) is mostly concentrated in agriculture, without strong gender differences. Individuals employed by the household either work in agriculture or undertake domestic tasks.

5.3 Underemployed Population

The percentage distribution of the underemployed population by employment status is shown in Table 5.9. Overall, 56 percent of the underemployed population is self-employed in agriculture, 5 percent self-employed in other activities, and the remaining 3 percent is employees. Even though self-employed in agriculture are 41 percent of the population, they represent 56 percent of the underemployed.

The shares of self-employed in agriculture is higher in remote villages, and the share of 'other' is higher in accessible villages. The breakdown by poverty status shows narrower differences.

The gender breakdown shows that in the underemployed population, males are more likely than females to be self-employed in agriculture (with rates of 74 and 28 percent, respectively). In turn, females are more likely than males to be self-employed in other activities (with rates of 70 and 14 percent, respectively).

For the underemployed females, the share of self-employment in agriculture increases with age, as the share in 'other' decreases. For males, the shares in self-employed agriculture peaks for the 50-64 cohort at 90 percent. 45 percent of the underemployed males in the 15-29 cohort are in 'other' (unpaid, unemployed, inactive), but in the older cohorts the shares are virtually null.

Table 5.10 shows the percentage distribution of the underemployed population by employer. Overall, the underemployed population mostly works for a private employer at 62 percent and in

Table 5.11 - Percentage distribution of the underemployed population by activity

	Agriculture	Mining/manuf/ energy/constr	private services	Domestic duties	Other	Total
Total	92.9	0.6	4.8	0.4	1.3	100.0
Cluster Location						
Accessible	92.7	0.0	4.6	0.6	2.1	100.0
Remote	93.2	1.7	5.1	0.0	0.0	100.0
Poverty Status						
Poor	95.7	2.4	0.0	0.0	1.9	100.0
Non-poor	91.9	0.0	6.5	0.5	1.1	100.0
Gender and age						
Male	88.9	1.0	7.9	0.0	2.1	100.0
15-29	86.7	0.0	13.3	0.0	0.0	100.0
30-49	90.7	1.9	5.8	0.0	1.5	100.0
50-64	90.3	0.0	9.7	0.0	0.0	100.0
65+	82.3	0.0	0.0	0.0	17.7	100.0
Female	99.1	0.0	0.0	0.9	0.0	100.0
15-29	100.0	0.0	0.0	0.0	0.0	100.0
30-49	98.5	0.0	0.0	1.5	0.0	100.0
50-64	100.0	0.0	0.0	0.0	0.0	100.0
65+	100.0	0.0	0.0	0.0	0.0	100.0

Source:CWIQ 2006 Bariadi DC

1. Base is underemployed population aged 15+

second place for the household at 36 percent.

The breakdown by cluster location shows that accessible villages report a higher share working for the household than remote villages, whereas the latter report a higher share than the former working for a private employer.

There are no remarkable differences by poverty status, but the gender breakdown reveals that the underemployed male population is vastly concentrated in private employers at 83 percent. The share for females is lower, at 30 percent. In turn, 70 percent of females is employed by the household, whereas the share for males is 15 percent. The age-group analysis shows

Table 5.12 - Percentage distribution of the unemployed population by reason

	No work available	Seasonal inactivity	Student	HH/Family duties	Age: too old	Age: too young	Infirmity	Retired	Other	Total
Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cluster Location										
Accessible	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Remote	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Poverty Status										
Poor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-poor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gender and age										
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50-64	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50-64	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source:CWIQ 2006 Bariadi DC

1. Base is unemployed population aged 15+

Table 5.13 - Percentage distribution of the economically inactive population by reason

	No work available	Seasonal inactivity	Student	HH/Family duties	Age: too old	Age: too young	Infirmity	Retired	Other	Total
Total	0.0	26.5	9.2	0.0	35.3	0.0	22.4	0.0	6.7	100.0
Cluster Location										
Accessible	0.0	37.4	15.1	0.0	25.3	0.0	19.2	0.0	3.1	100.0
Remote	0.0	14.7	2.8	0.0	46.1	0.0	25.9	0.0	10.5	100.0
Poverty Status										
Poor	0.0	28.0	0.0	0.0	39.2	0.0	26.3	0.0	6.5	100.0
Non-poor	0.0	26.0	11.8	0.0	34.1	0.0	21.3	0.0	6.7	100.0
Gender and age										
Male	0.0	38.5	8.8	0.0	26.8	0.0	21.8	0.0	4.1	100.0
15-29	0.0	15.1	35.6	0.0	0.0	0.0	36.2	0.0	13.1	100.0
30-49	0.0	80.4	0.0	0.0	0.0	0.0	19.6	0.0	0.0	100.0
50-64	0.0	61.3	0.0	0.0	28.3	0.0	10.4	0.0	0.0	100.0
65+	0.0	17.8	0.0	0.0	63.0	0.0	17.0	0.0	2.2	100.0
Female	0.0	0.0	10.0	0.0	53.9	0.0	23.8	0.0	12.4	100.0
15-29	0.0	0.0	49.8	0.0	0.0	0.0	14.2	0.0	36.0	100.0
30-49	0.0	0.0	0.0	0.0	0.0	0.0	68.8	0.0	31.2	100.0
50-64	0.0	0.0	0.0	0.0	72.9	0.0	27.1	0.0	0.0	100.0
65+	0.0	0.0	0.0	0.0	86.7	0.0	13.3	0.0	0.0	100.0

Source:CWIQ 2006 Bariadi DC

1. Base is inactive population aged 15+

that in the case of males only the young cohorts have positive shares of underemployed workers working for the household. In the case of females, the shares decline with age. For both genders the share working for a private employer increases with age.

The percentage distribution of the underemployed population by main economic activity is presented in Table 5.11. Overall, 93 percent of the underemployed workers are dedicated to agriculture.

The breakdown by cluster location does not show important differences. In poor households, 96 percent of the underemployed population works in agriculture, whereas the share for non-poor households is lower at 92 percent.

The gender breakdown shows that underemployed women have a higher share dedicated to agriculture than underemployed males, who have a higher share in mining, manufacturing, energy and construction. No particular trends emerge when analysing by age-groups

5.4 Unemployed and Inactive Population

Unemployment refers to a person who is actively looking for a job and is ready to work. If the individual is not working but is not looking for a job or is not ready to work, he or she is part of the inactive population. For instance, a full-time student, an ill individual or a retired person are not unemployed, because they either are not looking for a job (the student and the retired), or are not able to work (the ill person). Table 5.12 shows the main causes for unemployment. Unemployment was reported to be zero in the sampled population.

Table 5.13 shows the main causes of economic inactivity. Overall, being too old is the main reason for inactivity, affecting 35 percent of the inactive population. This is followed by seasonal inactivity (27 percent), and infirmity (22 percent). Around 14 percent of the inactive population reported other causes.

Seasonal inactivity and being a student are more important in accessible clusters than in remote clusters. In turn, in remote cluster being too old and infirmity are more important causes for inactivity. The breakdown by poverty status shows that in non-poor households being a student is a more important cause of inactivity than in poor households, who in turn report higher shares in ‘too old’ and ‘infirmity’.

The breakdown by age-groups shows that infirmity occurs across the whole inactive

Table 5.14 - Activities normally undertaken in the household (age 15 and over)

	Fetching water	Fetching firewood	Cleaning toilet	Cooking	Care of children	Care or elderly/sick
Total	60.4	53.9	48.2	55.0	86.0	96.4
Cluster Location						
Accessible	62.3	54.3	51.9	55.2	84.6	97.1
Remote	58.5	53.4	44.7	54.8	87.3	95.8
Poverty Status						
Poor	59.8	52.0	44.5	51.7	89.3	96.0
Non-poor	60.6	54.5	49.5	56.1	84.8	96.6
Gender and age						
Male	28.6	16.8	35.8	10.6	79.9	95.4
15-29	51.7	25.3	43.7	19.0	74.0	96.7
30-49	16.8	13.2	33.8	6.7	88.5	98.1
50-64	7.6	9.9	29.0	1.8	86.7	96.9
65+	0.9	2.8	17.4	0.0	62.1	77.1
Female	89.1	87.3	59.4	95.1	91.5	97.4
15-29	99.0	92.9	63.9	98.0	91.1	99.6
30-49	95.6	94.4	60.3	99.6	96.9	99.4
50-64	62.5	67.5	56.1	88.7	90.0	96.8
65+	27.7	41.9	30.7	61.6	67.4	74.1

Source:CWIQ 2006 Bariadi DC

population, with similar shares for males and females (22 and 24 percent, respectively).Only males reported seasonal inactivity (39 percent). Being a student is a cause for inactivity only in the 15-29 cohort. Similarly, being too old is reported by people in the 50-64 and 64+ cohorts only.

5.5 Household Tasks

Table 5.14 shows the activities normally undertaken in the household by its members. First the population aged 15 and above is analysed. The most common activities for the population aged 15 and above are taking care of the sick, elderly, and children. All the activities are undertaken by more than 50 percent of the members, except cleaning the toilet undertaken by 48 percent of the population.

Accessible villages report higher shares fetching water and cleaning the toilet than remote villages. There are no stark differences in the other activities. In turn, poor households report lower shares fetching firewood, cleaning the toilet, and cooking, while reporting a higher share of population taking care of the children. There are no strong differences in the shares fetching water or taking care of the elderly and sick.

The most important differences are shown in the gender and age-breakdown. Females report remarkably higher shares in all the activities, with most rates fluctuating between 87 and 97 percent. The shares for males fluctuate from 11 to 36 percent, except for taking care of children (80 percent) or of the sick and elderly (95 percent).

The analysis of age-groups shows that for males the shares tend to decrease with age in all activities. Similarly, in the case of females the shares decrease with age, showing sharp decreases in the oldest cohort.

5.6 Child Labour

Table 5.15 shows that the most common activity for children between 5 and 14 years old is fetching water. Around 60 percent of children fetch water, 37 percent fetch firewood, 28 percent clean the toilet, and 31 percent cook. Taking care of children and sick or elderly report higher shares at 74 and 82 percent, respectively.

Children from accessible villages report higher shares than children from remote villages. Children from non-poor households, in turn, report higher rates than children from poor households, except for taking care of children, where children from poor households report 81

Table 5.15 - Activities normally undertaken in the household (age 5 to 14)

	Fetching water	Fetching firewood	Cleaning toilet	Cooking	Care of children	Care or elderly/sick
Total	60.1	37.4	27.8	30.9	73.5	82.4
Cluster Location						
Accessible	64.8	41.7	30.9	32.7	83.1	91.0
Remote	56.2	33.8	25.2	29.4	65.5	75.3
Poverty Status						
Poor	57.9	34.7	26.4	30.0	80.5	81.6
Non-poor	61.3	38.9	28.5	31.4	69.5	82.9
Gender and age						
Male	49.8	22.0	26.4	14.1	69.2	80.5
5-9	34.9	14.3	19.2	7.1	63.8	73.9
10-14	64.9	29.8	33.8	21.3	74.7	87.1
Female	69.8	51.8	29.0	46.6	77.5	84.2
5-9	49.5	29.9	17.9	22.7	74.9	73.0
10-14	88.3	72.0	39.2	68.6	80.0	94.5
Orphan status						
Orphaned	62.4	40.5	28.9	31.8	67.9	88.5
Not-orphaned	59.7	36.7	27.5	30.9	74.7	81.5
Foster status						
Fostered	63.2	40.9	37.1	25.4	68.2	82.5
Not-fostered	59.4	36.6	27.4	31.2	73.9	82.4

Source:CWIQ 2006 Bariadi DC

percent, whereas children from non-poor households report 70 percent.

The gender breakdown shows that girls report higher rates than boys for all the household activities. The analysis by age-groups shows that the 10-14 cohorts have higher rates than the youngest children, for all household tasks.

The breakdown by orphan status shows that orphaned children are more likely to fetch water or firewood, or to take care of the elderly or sick, whereas non-orphaned children are more likely to take care of children. The breakdown by foster status shows that fostered children are more likely to fetch water or firewood and clean the toilet, whereas non-fostered report higher shares cooking and taking care of children.

The main descriptive statistics for child labour are presented in Table 5.16. The most important result of the table is that 52 percent of the children are economically active. Their main economic activity is mostly household duties at 77 percent, whereas 22 percent are dedicated to agriculture. The share of working children is higher in poor households. The particular activity does not show evident correlation with remoteness or poverty status, but the gender breakdown shows that girls are more likely to participate in household duties, whereas boys report higher shares than girls in agriculture (28 against 18 percent, respectively).

The main difference is given by the age breakdown. Roughly one third of children in the 5-9 cohort were part of the working population, whereas virtually all the children in the 10-14 cohort were working at the time of the survey. Furthermore, the shares in agriculture are higher for the 10-14 cohort. Virtually all the children work in the household, with counted exceptions working for a private employer.

The breakdown by orphan and foster status shows stark differences. Orphaned children are more likely to be working than non-orphaned children, at rates of 81 and 49 percent, respectively. In turn, there are no strong differences by foster status. Orphaned children are more likely to work in agriculture than non-orphaned children, who are more likely to work in household duties. In contrast, non-fostered children are more likely to work in agriculture than fostered children, who are more likely to work in household duties.

Table 5.16 - Child labour (age 5 to 14)

		Main activity			Employer	
	Working	Agriculture	Household	Other	Private	Household
Total	51.6	22.9	76.8	0.3	0.1	99.9
Cluster Location						
Accessible	51.4	22.4	76.9	0.6	0.3	99.7
Remote	51.7	23.3	76.7	0.0	0.0	100.0
Poverty Status						
Poor	55.3	21.7	77.9	0.3	0.3	99.7
Non-poor	49.6	23.6	76.1	0.3	0.0	100.0
Gender and age						
Male	51.4	28.0	71.6	0.4	0.2	99.8
5-9	34.9	19.3	79.9	0.8	0.5	99.5
10-14	97.2	36.7	63.3	0.0	0.0	100.0
Female	51.7	18.2	81.7	0.2	0.0	100.0
5-9	33.7	4.4	95.6	0.0	0.0	100.0
10-14	98.1	30.3	69.3	0.3	0.0	100.0
Orphan status						
Orphaned	80.6	31.1	68.9	0.0	0.0	100.0
Not-orphaned	48.4	21.5	78.1	0.3	0.1	99.9
Foster status						
Fostered	52.9	19.3	80.7	0.0	0.0	100.0
Not-fostered	50.7	23.2	76.5	0.3	0.1	99.9

Source:CWIQ 2006 Bariadi DC

5 Employment

6 PERECPTIONS ON WELFARE AND CHANGES WITHIN COMMUNITIES

This chapter presents the perceptions on welfare status and changes in Bariadi DC. The first section shows perceptions of changes in the economic situation both of the communities and of the households. Section two summarises self-reported difficulties in satisfying a set of household needs. In section three asset ownership and occupancy status, as well as occupancy documentation are analysed. Section four gives information related to agriculture: use of agricultural inputs, landholding, and cattle ownership. Section five shows perceptions of crime and security in the community. Section six shows the main income contributor to the household. A brief analysis of ownership of selected household items concludes the chapter.

6.1 Economic Situation

The analysis of this section is based solely on the perception of the interviewees. The main respondent for this part of the questionnaire was the household head. In cases where the household head was not able to respond i.e. was travelling, sick or had little information on the household's daily practices, then the best-informed household member responded. The respondents were asked to comment on whether the situation had changed for better, worse or remained the same compared to the year prior to the survey.

6.1.1 Perception of Change in the Economic Situation of the Community

Table 6.1 shows the percent distribution of households by the perception of the economic situation of the community compared to the year before the survey. Results show that 26 percent of all households in the district reported a positive change in the economic situation of their community. 22 percent of the population reported observing no changes in their community's economic situation. Even though half the respondents (50 percent) reported the community's economic condition to have deteriorated, 15 percent reported the situation to be much worse.

Cluster location and poverty status of the household show some correlation with the perceived economic change. 61 percent of the households in remote clusters report deterioration in their community's economic situation compared to 39 percent of those living in accessible clusters. Likewise, while 55 percent of poor households report deterioration in their community's economic situation, the share for non-poor households is 49 percent.

The percentage of households with seven or more members who reported deterioration in their community's economic situation is higher than that of households with one or two members at 58 and 47 percent respectively. Furthermore, there is a difference of 6 percentage points between households owning no land and those owning six or more hectares of land who reported an improvement in their community's economic situation at 26 and 20 percent respectively. On the other hand, the percentage of households owning large livestock who reported worsening conditions in their community's economic situation is higher than that of households owning both small and large livestock at 59 and 47 percent respectively.

While 59 percent of households whose main income earner is an employee reported deterioration in their community's economic situation, the share for households whose main income earner belongs to the 'other' category is 33 percent. Furthermore, while 54 percent of households where the household head is monogamous reported deterioration in their community's economic situation, the share for households where the household head has a loose union is virtually null.

Table 6.1: Percent distribution of households by the perception of the economic situation of the community compared to the year before the survey

	Much Worse	Worse	Same	Better	Much Better	Don't Know	Total
Total	15.3	35.4	22.2	24.5	1.0	1.6	100.0
Cluster Location							
Accessible	10.5	27.8	29.4	27.7	2.0	2.6	100.0
Remote	19.4	42.1	15.8	21.8	0.2	0.7	100.0
Poverty Status							
Poor	15.2	39.9	19.6	24.1	0.0	1.2	100.0
Non-poor	15.3	34.1	22.9	24.7	1.3	1.7	100.0
Household size							
1-2	17.0	30.0	23.4	29.5	0.0	0.0	100.0
3-4	20.6	23.1	28.4	23.4	1.7	2.9	100.0
5-6	8.4	38.1	24.8	27.6	0.0	1.0	100.0
7+	16.1	41.8	16.6	22.7	1.4	1.3	100.0
Area of land owned by the household							
None	24.5	32.7	17.3	25.5	0.0	0.0	100.0
< 1 ha	15.7	33.2	30.1	21.1	0.0	0.0	100.0
1-1.99 ha	10.9	25.1	27.1	36.8	0.0	0.0	100.0
2-3.99 ha	11.0	33.0	23.5	27.1	2.5	2.8	100.0
4-5.99 ha	11.2	39.7	24.2	19.1	1.4	4.4	100.0
6+ ha	19.0	41.0	19.5	20.1	0.4	0.0	100.0
Type of livestock owned by the household							
None	15.8	33.5	23.5	26.3	0.0	0.9	100.0
Small only	25.2	31.5	18.8	19.0	1.5	4.0	100.0
Large only	9.3	49.9	15.8	15.8	6.4	3.0	100.0
Both	12.0	34.6	23.8	27.8	0.5	1.3	100.0
Socio-economic Group							
Employee	14.1	44.8	11.2	29.9	0.0	0.0	100.0
Self-employed - agriculture	16.4	35.5	21.5	23.4	1.2	1.9	100.0
Self-employed - other	14.5	40.5	15.3	29.8	0.0	0.0	100.0
Other	5.4	27.6	36.7	30.3	0.0	0.0	100.0
Gender of the head of household							
Male	15.3	37.9	21.2	22.7	1.3	1.6	100.0
Female	15.2	24.5	26.3	32.5	0.0	1.5	100.0
Marital status of the head of household							
Single	0.0	21.6	39.2	39.2	0.0	0.0	100.0
Monogamous	16.4	37.8	21.3	21.7	1.1	1.6	100.0
Polygamous	12.4	39.1	20.0	25.6	1.5	1.5	100.0
Loose union	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Widow/div/sep	17.8	23.0	27.4	30.3	0.0	1.6	100.0
Education level of the head of household							
None	13.6	33.7	27.0	22.0	1.0	2.7	100.0
Primary	15.8	36.1	19.6	26.6	1.1	0.9	100.0
Secondary +	25.0	44.2	8.9	21.9	0.0	0.0	100.0

Source:CWIQ 2006 Bariadi DC

It is also observed that the percentage of households where the head has secondary education or more and reported deterioration in their community's economic situation is 21 percentage points higher than that of households where the head has no education, at 69 and 48 percent respectively. Lastly, while 53 percent of male-headed households reported deterioration in their community's economic situation, the share for female-headed households is 40 percent.

Table 6.2: Percent distribution of households by the perception of the economic situation of the household compared to the year before the survey

	Much Worse	Worse	Same	Better	Much Better	Don't Know	Total
Total	19.8	39.9	18.3	21.2	0.8	0.0	100.0
Cluster Location							
Accessible	19.7	32.6	17.1	29.0	1.7	0.0	100.0
Remote	19.9	46.2	19.4	14.5	0.0	0.0	100.0
Poverty Status							
Poor	25.7	40.5	15.6	18.1	0.0	0.0	100.0
Non-poor	18.0	39.7	19.1	22.2	1.0	0.0	100.0
Household size							
1-2	24.9	28.6	17.2	29.3	0.0	0.0	100.0
3-4	26.2	22.5	23.5	25.5	2.3	0.0	100.0
5-6	12.6	48.2	18.0	21.2	0.0	0.0	100.0
7+	19.8	46.5	15.5	17.8	0.4	0.0	100.0
Area of land owned by the household							
None	28.6	32.1	21.1	18.2	0.0	0.0	100.0
< 1 ha	49.9	25.4	7.9	16.9	0.0	0.0	100.0
1-1.99 ha	15.8	35.3	16.2	32.7	0.0	0.0	100.0
2-3.99 ha	12.6	38.4	25.0	22.7	1.3	0.0	100.0
4-5.99 ha	18.6	44.7	18.3	16.0	2.4	0.0	100.0
6+ ha	22.5	45.4	11.6	20.5	0.0	0.0	100.0
Type of livestock owned by the household							
None	22.4	35.7	20.9	21.0	0.0	0.0	100.0
Small only	25.0	40.2	11.5	20.2	3.0	0.0	100.0
Large only	13.1	50.5	16.9	15.9	3.6	0.0	100.0
Both	14.0	44.6	16.1	25.3	0.0	0.0	100.0
Socio-economic Group							
Employee	8.8	15.2	17.2	58.7	0.0	0.0	100.0
Self-employed - agriculture	20.0	40.2	18.5	20.4	0.9	0.0	100.0
Self-employed - other	34.2	23.3	17.6	24.9	0.0	0.0	100.0
Other	12.6	56.5	17.1	13.7	0.0	0.0	100.0
Gender of the head of household							
Male	20.2	42.0	15.9	21.0	1.0	0.0	100.0
Female	18.2	30.6	28.8	22.4	0.0	0.0	100.0
Marital status of the head of household							
Single	39.2	21.6	0.0	39.2	0.0	0.0	100.0
Monogamous	21.4	40.7	16.9	20.6	0.5	0.0	100.0
Polygamous	16.4	44.5	15.3	22.1	1.7	0.0	100.0
Loose union	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Widow/div/sep	20.2	30.4	28.5	20.9	0.0	0.0	100.0
Education level of the head of household							
None	21.7	38.6	21.0	18.2	0.4	0.0	100.0
Primary	18.8	41.6	16.8	21.7	1.1	0.0	100.0
Secondary +	13.7	30.6	11.8	43.9	0.0	0.0	100.0

Source:CWIQ 2006 Bariadi DC

6.1.2 Perception of Change in the Economic Situation of the Household

Table 6.2 shows the percent distribution of households by the perception of their economic situation compared to the year before the survey. 22 percent of the households reported an improvement in their economic conditions, while the majority 60 percent reported deterioration in their household's economic situation compared to the year preceding the survey.

While 31 percent of people living in accessible clusters reported an improvement of the households' economic

Table 6.3: Percent distribution of households by the difficulty in satisfying the food needs of the household during the year before the survey

	Never	Seldom	Often	Always	Total
Total	7.8	34.7	54.5	3.0	100.0
Cluster Location					
Accessible	11.0	38.0	48.4	2.6	100.0
Remote	5.1	31.8	59.7	3.3	100.0
Poverty Status					
Poor	1.4	16.5	74.9	7.2	100.0
Non-poor	9.8	40.3	48.2	1.7	100.0
Household size					
1-2	24.9	36.0	35.6	3.5	100.0
3-4	6.5	35.2	54.8	3.5	100.0
5-6	4.7	39.6	55.1	0.6	100.0
7+	8.6	31.2	56.0	4.1	100.0
Area of land owned by the household					
None	10.7	23.8	65.5	0.0	100.0
< 1 ha	0.0	56.9	34.2	8.9	100.0
1-1.99 ha	1.3	36.5	51.3	10.9	100.0
2-3.99 ha	7.4	32.0	59.6	0.9	100.0
4-5.99 ha	5.9	37.7	53.8	2.6	100.0
6+ ha	11.3	39.0	46.4	3.3	100.0
Type of livestock owned by the household					
None	6.8	31.1	59.1	3.0	100.0
Small only	6.9	35.2	53.9	4.1	100.0
Large only	2.3	36.9	59.3	1.5	100.0
Both	14.0	42.3	40.5	3.2	100.0
Socio-economic Group					
Employee	24.6	40.1	35.2	0.0	100.0
Self-employed - agriculture	7.5	34.7	54.6	3.1	100.0
Self-employed - other	8.3	50.1	36.0	5.6	100.0
Other	4.4	22.1	72.1	1.4	100.0
Gender of the head of household					
Male	7.3	35.8	53.9	3.0	100.0
Female	10.2	29.6	57.1	3.1	100.0
Marital status of the head of household					
Single	0.0	78.4	21.6	0.0	100.0
Monogamous	6.3	35.3	56.5	1.9	100.0
Polygamous	9.9	36.8	48.5	4.9	100.0
Loose union	0.0	0.0	0.0	0.0	0.0
Widow/div/sep	9.1	27.2	60.4	3.3	100.0
Education level of the head of household					
None	7.2	32.6	56.0	4.2	100.0
Primary	6.7	36.8	54.1	2.4	100.0
Secondary +	29.0	26.5	44.5	0.0	100.0

Source:CWIQ 2006 Bariadi DC

situation, the share for remote clusters is 15 percent. Poor households expressed negative views on the change in their economic condition more frequently than non-poor households, with a difference of 9 percentage points.

The percentage of households with one or two members who reported an improvement in the economic conditions of their households is higher than that of households with seven or more members at 29 and 18 percent respectively. On the other hand, while 68 percent of households owning six or more hectares of land reported deterioration in the economic conditions of their households, the share for households owning no land is 61 percent. Disaggregation of the data further shows that 25 percent of households owning small livestock reported much worse conditions in their

Table 6.4: Percent distribution of households by the difficulty in paying school fees during the year before the survey

	Never	Seldom	Often	Always	Total
Total	96.3	2.6	1.1	0.0	100.0
Cluster Location					
Accessible	96.7	2.2	1.1	0.0	100.0
Remote	96.1	2.9	1.1	0.0	100.0
Poverty Status					
Poor	97.1	2.1	0.8	0.0	100.0
Non-poor	96.1	2.7	1.2	0.0	100.0
Household size					
1-2	100.0	0.0	0.0	0.0	100.0
3-4	100.0	0.0	0.0	0.0	100.0
5-6	96.6	2.9	0.4	0.0	100.0
7+	93.6	4.2	2.2	0.0	100.0
Area of land owned by the household					
None	99.2	0.8	0.0	0.0	100.0
< 1 ha	100.0	0.0	0.0	0.0	100.0
1-1.99 ha	94.8	4.2	1.0	0.0	100.0
2-3.99 ha	96.3	1.8	1.9	0.0	100.0
4-5.99 ha	97.2	2.8	0.0	0.0	100.0
6+ ha	94.6	3.7	1.7	0.0	100.0
Type of livestock owned by the household					
None	97.4	2.4	0.2	0.0	100.0
Small only	99.0	0.0	1.0	0.0	100.0
Large only	91.9	3.8	4.3	0.0	100.0
Both	94.7	3.7	1.6	0.0	100.0
Socio-economic Group					
Employee	82.2	14.1	3.7	0.0	100.0
Self-employed - agriculture	96.3	2.6	1.2	0.0	100.0
Self-employed - other	100.0	0.0	0.0	0.0	100.0
Other	100.0	0.0	0.0	0.0	100.0
Gender of the head of household					
Male	96.0	3.0	0.9	0.0	100.0
Female	97.7	0.7	1.6	0.0	100.0
Marital status of the head of household					
Single	100.0	0.0	0.0	0.0	100.0
Monogamous	96.3	2.9	0.8	0.0	100.0
Polygamous	95.9	2.8	1.3	0.0	100.0
Loose union	0.0	0.0	0.0	0.0	0.0
Widow/div/sep	97.0	1.3	1.7	0.0	100.0
Education level of the head of household					
None	98.0	1.5	0.5	0.0	100.0
Primary	95.8	2.7	1.4	0.0	100.0
Secondary +	86.9	10.3	2.7	0.0	100.0

Source:CWIQ 2006 Bariadi DC

households' economic situation compared to 13 percent of households owning large livestock.

The percentage of households in the 'employee' category who reported an improvement in their households' economic conditions is more than four times as high that of households whose main income earner belongs to the 'other' category at 59 and 14 percent respectively. In contrast, 70 percent of households where the main income earner belongs to the 'other' category reported deterioration in the economic conditions of their households compared to 24 percent of the households in the 'employee' category. In addition, while 39 percent of households where the head is single reported much worse conditions in their household's economic situation, the share for

households where the head has a loose union is virtually null.

62 percent of male-headed households reported deterioration in their economic conditions compared to 49 percent of female-headed households. Likewise, 61 percent of households where the head has no formal education reported deterioration in their economic conditions compared to 45 percent of households where the head has secondary education or more. In contrast, while 44 percent of households where the head has secondary education or more reported an improvement in the economic conditions of their households, the share for households where the head has no formal education is 18 percent.

6.2 Self-reported Difficulties in Satisfying Household Needs

This section analyses the difficulties households faced in satisfying household needs during the year prior to the survey. These household needs are such as food, school fees, house rent, utility bills and healthcare. For each household, the respondent was asked to say whether they never, seldom, often or always experience difficulties in satisfying the specified household need.

6.2.1 Food Needs

Table 6.3 shows the percent distribution of households by the difficulty in satisfying the food needs of the household during the year before the survey. Overall, 43 percent of the district's households never/seldom experienced food shortages while the remaining population experienced food shortages frequently (often/always). While 49 percent of households in accessible clusters never/seldom experienced food shortages, the share for households in remote clusters is 37 percent. Likewise, 50 percent of non-poor households never/seldom experienced food shortages compared to only 18 percent of poor households.

66 percent of landless households frequently experienced problems satisfying food needs compared to 49 percent of households owning six or more hectares of land. Furthermore, while 61 percent of households with one or two members never/seldom experienced food shortages, the share for households with seven or more members is 40 percent. There is also some correlation between livestock ownership and satisfying food needs. While 14 percent of households owning both small and large livestock never experienced food shortages, the share for households owning large livestock is only 2 percent. In contrast, 62 percent of households owning no livestock frequently experienced food shortages.

The socio-economic group of the household also shows some correlation with the household's ability to satisfy its food needs. 73 percent of households belonging to the 'other' socio-economic group reported frequent problems satisfying food needs compared to 35 percent of households where the main income earner is an employee. In contrast 25 percent of the households where the main income earner is an employee never experienced food shortages compared to only 4 percent of the households belonging to the 'other' category. Furthermore, while 78 percent of households where the head is single never/seldom experienced food shortages, the share for households where the head has a loose union is virtually null. On the other hand, 63 percent of households where the head is widowed/divorced or separated frequently experienced food shortages.

The breakdown by gender of the household head shows that female-headed households reported having food shortages more frequently than male-headed households as 60 percent of female-headed households experienced frequent food shortages compared to 57 percent of male-headed households. Likewise, while 60 percent of households where the head has no education experienced food shortages frequently, the share for households where the head has secondary education or more is 45 percent.

Table 6.5: Percent distribution of households by the difficulty in paying house rent during the year before the survey

	Never	Seldom	Often	Always	Total
Total	99.4	0.4	0.2	0.0	100.0
Cluster Location					
Accessible	100.0	0.0	0.0	0.0	100.0
Remote	98.8	0.7	0.4	0.0	100.0
Poverty Status					
Poor	100.0	0.0	0.0	0.0	100.0
Non-poor	99.2	0.5	0.3	0.0	100.0
Household size					
1-2	100.0	0.0	0.0	0.0	100.0
3-4	99.1	0.0	0.9	0.0	100.0
5-6	100.0	0.0	0.0	0.0	100.0
7+	99.1	0.9	0.0	0.0	100.0
Area of land owned by the household					
None	98.4	0.0	1.6	0.0	100.0
< 1 ha	100.0	0.0	0.0	0.0	100.0
1-1.99 ha	100.0	0.0	0.0	0.0	100.0
2-3.99 ha	98.6	1.4	0.0	0.0	100.0
4-5.99 ha	100.0	0.0	0.0	0.0	100.0
6+ ha	100.0	0.0	0.0	0.0	100.0
Type of livestock owned by the household					
None	99.6	0.0	0.4	0.0	100.0
Small only	100.0	0.0	0.0	0.0	100.0
Large only	96.7	3.3	0.0	0.0	100.0
Both	100.0	0.0	0.0	0.0	100.0
Socio-economic Group					
Employee	100.0	0.0	0.0	0.0	100.0
Self-employed - agriculture	99.3	0.5	0.3	0.0	100.0
Self-employed - other	100.0	0.0	0.0	0.0	100.0
Other	100.0	0.0	0.0	0.0	100.0
Gender of the head of household					
Male	99.5	0.5	0.0	0.0	100.0
Female	98.7	0.0	1.3	0.0	100.0
Marital status of the head of household					
Single	100.0	0.0	0.0	0.0	100.0
Monogamous	100.0	0.0	0.0	0.0	100.0
Polygamous	98.7	1.3	0.0	0.0	100.0
Loose union	0.0	0.0	0.0	0.0	0.0
Widow/div/sep	98.7	0.0	1.3	0.0	100.0
Education level of the head of household					
None	100.0	0.0	0.0	0.0	100.0
Primary	98.9	0.7	0.4	0.0	100.0
Secondary +	100.0	0.0	0.0	0.0	100.0

Source:CWIQ 2006 Bariadi DC

6.2.2 Paying School Fees

Table 6.4 shows the percentage distribution of households by the difficulty in paying school fees during the year before the survey. At the time of the survey, 96 percent of the households in the district reported that they never had problems paying school fees and only 1 percent of the households reported that they often/always had problems paying school fees. It is worth noting that children in primary state schools do not pay fees. While children in secondary state schools do pay fees, the secondary school enrolment rates are very low (for more details, see chapter 3).

Cluster location, poverty status and gender do not show strong correlation with the ability to pay school fees. However, smaller households find problems paying school fees less frequently than larger households. While virtually all (100

percent) households with one or two members and those with three to four members never had problems paying school fees, the share for households with seven or more members is 94 percent.

99 percent of households with no land never had problems with paying school fees compared to 95 percent of households owning six or more hectares of land. Similarly, while 97 percent of households with no livestock never had problems with paying school fees, the share for households owning large livestock is 92 percent.

Disaggregation of the data further shows that virtually all households where the main income earner belongs to the 'other' and 'self employed other' categories never had problems with paying school fees compared to 82 percent of households where the main income earner is an employee.

Furthermore, all households where the head is single never had problems paying school fees, compared to 96 percent of 'polygamous' and 'monogamous' households. Finally, while 98 percent of households where the household head has no education never experienced problems paying school fees, the share for households where the head has secondary education or more is 87 percent.

Table 6.6: Percent distribution of households by the difficulty in paying utility bills during the year before the survey

	Never	Seldom	Often	Always	Total
Total	100.0	0.0	0.0	0.0	100.0
Cluster Location					
Accessible	100.0	0.0	0.0	0.0	100.0
Remote	100.0	0.0	0.0	0.0	100.0
Poverty Status					
Poor	100.0	0.0	0.0	0.0	100.0
Non-poor	100.0	0.0	0.0	0.0	100.0
Household size					
1-2	100.0	0.0	0.0	0.0	100.0
3-4	100.0	0.0	0.0	0.0	100.0
5-6	100.0	0.0	0.0	0.0	100.0
7+	100.0	0.0	0.0	0.0	100.0
Area of land owned by the household					
None	100.0	0.0	0.0	0.0	100.0
< 1 ha	100.0	0.0	0.0	0.0	100.0
1-1.99 ha	100.0	0.0	0.0	0.0	100.0
2-3.99 ha	100.0	0.0	0.0	0.0	100.0
4-5.99 ha	100.0	0.0	0.0	0.0	100.0
6+ ha	100.0	0.0	0.0	0.0	100.0
Type of livestock owned by the household					
None	100.0	0.0	0.0	0.0	100.0
Small only	100.0	0.0	0.0	0.0	100.0
Large only	100.0	0.0	0.0	0.0	100.0
Both	100.0	0.0	0.0	0.0	100.0
Socio-economic Group					
Employee	100.0	0.0	0.0	0.0	100.0
Self-employed - agriculture	100.0	0.0	0.0	0.0	100.0
Self-employed - other	100.0	0.0	0.0	0.0	100.0
Other	100.0	0.0	0.0	0.0	100.0
Gender of the head of household					
Male	100.0	0.0	0.0	0.0	100.0
Female	100.0	0.0	0.0	0.0	100.0
Marital status of the head of household					
Single	100.0	0.0	0.0	0.0	100.0
Monogamous	100.0	0.0	0.0	0.0	100.0
Polygamous	100.0	0.0	0.0	0.0	100.0
Loose union	0.0	0.0	0.0	0.0	0.0
Widow/div/sep	100.0	0.0	0.0	0.0	100.0
Education level of the head of household					
None	100.0	0.0	0.0	0.0	100.0
Primary	100.0	0.0	0.0	0.0	100.0
Secondary +	100.0	0.0	0.0	0.0	100.0

Source:CWIQ 2006 Bariadi DC

6.2.3 Paying House Rent

Table 6.5 shows the percent distribution of households by the difficulty in paying house rent during the year before the survey. 99 percent of all households in the district reported that they never had problems paying house rent although a small percentage (3 percent) of households owning large livestock reported that they seldom had problems paying house rent. Other household characteristics such as cluster location, poverty status, household size, land ownership, socio-economic group, gender, marital status and level of education do not show strong correlation with the ability to pay house rent.

6.2.4 Paying Utility Bills

Table 6.6 shows the percent distribution of households by the difficulty in paying utility bills during the year before the survey. The outcome on household's ability to pay utility bills is almost similar to those of paying house rent. Virtually all households in the district faced no problems paying utility bills and all selected household characteristics such as cluster location, poverty status, household size, land ownership, livestock ownership, socio-economic group, gender, marital status and level of education do not show correlation with the ability to pay utility bills.

6.2.5 Paying for Healthcare

Table 6.7 shows the percent distribution of households by the difficulty in paying for healthcare during the year before the survey. 75 percent of the households reported that they never/seldom experienced problems paying for healthcare in the year prior to the survey. Disaggregation of the data further shows that 32 percent of households located in remote clusters frequently experienced problems paying for healthcare compared to 18 percent of households located in accessible clusters. Likewise, while 42 percent of poor households frequently experienced problems paying for healthcare, the share for non-poor households is 20 percent.

32 percent of households with one or two members never had problems paying for healthcare compared to 26 percent of

Table 6.7: Percent distribution of households by the difficulty in paying for health care during the year before the survey

	Never	Seldom	Often	Always	Total
Total	28.9	45.8	23.2	2.1	100.0
Cluster Location					
Accessible	26.0	56.0	18.1	0.0	100.0
Remote	31.5	37.0	27.6	3.9	100.0
Poverty Status					
Poor	14.7	42.9	40.4	2.0	100.0
Non-poor	33.3	46.7	17.9	2.1	100.0
Household size					
1-2	32.4	48.0	19.7	0.0	100.0
3-4	31.8	42.3	22.1	3.8	100.0
5-6	29.8	48.7	19.6	1.9	100.0
7+	26.2	45.9	26.4	1.4	100.0
Area of land owned by the household					
None	33.7	40.1	26.2	0.0	100.0
< 1 ha	13.2	35.7	51.1	0.0	100.0
1-1.99 ha	22.9	44.6	28.9	3.5	100.0
2-3.99 ha	34.4	46.8	17.3	1.6	100.0
4-5.99 ha	18.8	56.8	21.0	3.4	100.0
6+ ha	31.3	41.8	24.4	2.4	100.0
Type of livestock owned by the household					
None	27.7	44.8	25.4	2.1	100.0
Small only	34.6	40.8	24.5	0.0	100.0
Large only	27.4	58.3	11.6	2.7	100.0
Both	29.7	44.2	23.1	3.0	100.0
Socio-economic Group					
Employee	43.3	30.3	26.5	0.0	100.0
Self-employed - agriculture	29.7	45.3	22.5	2.5	100.0
Self-employed - other	42.6	30.0	27.4	0.0	100.0
Other	7.3	67.1	25.6	0.0	100.0
Gender of the head of household					
Male	30.5	45.8	21.1	2.6	100.0
Female	21.6	46.1	32.3	0.0	100.0
Marital status of the head of household					
Single	60.8	39.2	0.0	0.0	100.0
Monogamous	29.5	48.0	21.2	1.3	100.0
Polygamous	32.9	42.1	20.2	4.7	100.0
Loose union	0.0	0.0	0.0	0.0	0.0
Widow/div/sep	18.8	46.3	34.9	0.0	100.0
Education level of the head of household					
None	25.3	50.7	22.8	1.1	100.0
Primary	30.9	43.4	23.0	2.7	100.0
Secondary +	37.2	30.7	28.6	3.5	100.0

Source:CWIQ 2006 Bariadi DC

Table 6.8: Percentage of households owning certain assets

			Livestock				Motor-		Wheel
	Home	Land	Small	Large	Both	Vehicle	cycle	Bicycle	barrow
Total	91.9	85.1	11.5	11.8	21.8	0.0	0.3	55.7	6.0
Cluster Location									
Accessible	89.5	86.4	11.5	11.9	23.4	0.0	0.6	58.2	7.9
Remote	94.0	83.9	11.5	11.7	20.4	0.0	0.0	53.5	4.3
Poverty Status									
Poor	93.4	84.8	10.1	9.8	19.9	0.0	0.0	31.1	2.1
Non-poor	91.5	85.2	11.9	12.4	22.3	0.0	0.4	63.3	7.2
Household size									
1-2	85.8	80.6	20.2	7.7	9.7	0.0	0.0	27.4	5.6
3-4	85.6	74.1	13.6	6.9	10.3	0.0	0.0	48.1	2.4
5-6	93.7	84.8	11.5	12.5	19.6	0.0	0.0	62.4	8.1
7+	95.3	92.3	9.2	14.7	31.4	0.0	0.6	59.3	6.8
Socio-economic Group									
Employee	30.7	30.7	3.7	10.4	15.1	0.0	0.0	61.1	0.0
Self-employed - agriculture	93.4	87.4	10.3	12.9	23.4	0.0	0.1	56.2	5.8
Self-employed - other	92.3	66.1	18.2	0.0	14.8	0.0	2.8	64.8	8.5
Other	100.0	94.5	21.9	9.0	12.7	0.0	0.0	42.9	8.0
Gender of the head of household									
Male	91.9	86.1	11.0	13.0	23.3	0.0	0.3	62.9	7.2
Female	92.0	80.6	13.5	6.5	15.1	0.0	0.0	24.0	0.6

Source:CWIQ 2006 Bariadi DC

households with seven or more members. Likewise, while 73 percent of households owning six or more hectares of land and 74 percent of landless households never had problems paying for healthcare, the share for households owning 1 hectare land is 49 percent.

Furthermore, 35 percent of households owning small livestock never had problems paying for healthcare compared to about 27 percent of households owning large livestock and those owning no livestock at all. Similarly, while 43 percent of households whose main income earner is an employee or self-employed in non-agricultural activities never had problems paying for healthcare, the share for households belonging to the 'other' socio-economic group is 7 percent.

While 61 percent households where the household head is single never had problems paying for healthcare, the share for households where the household head has a loose union is virtually null. Likewise, 31 percent of male-headed households never had problems paying for healthcare compared to 22 percent of female-headed households. Lastly, 37 percent of household heads with secondary education or more never had problems paying for healthcare compared to 25 percent of household heads with no education.

6.3 Assets and Household Occupancy Status

This section discusses ownership of selected assets and household occupancy status. These assets are as house, land, livestock, vehicles, motorcycles, bicycles and wheelbarrows. This section will also provide detailed information on asset ownership by household characteristics. Household occupancy status describes the type of arrangement the household has in terms of their current dwelling. Respondents were asked whether they own, rent, live free or temporarily live in their current dwelling, and if they held any documentation to support the occupancy status. Besides the respondent's testimony, the survey did not use any further methods to verify this information.

6.3.1 Asset Ownership

Table 6.8 shows the percent distribution of households owning a selected group of assets. Overall, 92 percent of the district's households own their dwellings while 85 percent own some land. 22 percent of all households own both small and large livestock while 12 percent of all

households own small or large livestock. While 56 percent of all households own a bicycle, the share of households owning a motorcycle or a vehicle is virtually null.

Table 6.9 shows the percent distribution of households by occupancy status. 94 percent of households located in remote clusters own their dwellings compared to 90 percent of households located in accessible clusters. On the other hand, poverty status and gender do not show strong correlation with asset ownership.

Disaggregation of the data by household size shows that 95 percent of households with seven or more members own their dwellings compared to 86 percent of households with one or two members. Furthermore, while virtually all (100 percent) households whose main income earner belongs to the 'other' category own their dwellings, the share for households where the main income earner is an employee is 31 percent.

Disaggregation of the data further shows that while 63 percent of non-poor households own a bicycle, the share for poor households is 31 percent. It is also observed that 63 percent of male-headed households own a bicycle compared to 24 percent of female-headed households. Likewise, 59 percent of households with seven or more members own a bicycle compared to 27 percent of households with one or two members. Similarly, while 65 percent of households where the main income earner is self-employed in non-agricultural activities own a bicycle, the share for households where the head belongs to the 'other' socio-economic group is 43 percent.

6.3.2Occupancy Documentation

The percent distribution of households by type of occupancy documentation is shown in Table 6.10. Most residents in the district do not have any documentation to verify their occupancy status. Only 2 percent of the households possess formal occupancy documentation, which include a title deed, renting contract or payment receipt. 92 percent of households in this district have no documentation at all.

6.4 Agriculture

The analysis in this section focuse on the distribution of households by use of certain agricultural inputs, land ownership and cattle ownership.

6.4.1 Agricultural Inputs

The survey collected information on agricultural practices. The dataset includes

Table 6.9: Percent distribution of households by occupancy status

	Own	Rent	Free	Other	Total
Total	91.9	2.5	4.4	1.2	100.0
Cluster Location					
Accessible	89.5	2.8	6.6	1.1	100.0
Remote	94.0	2.2	2.6	1.2	100.0
Poverty Status					
Poor	93.4	1.3	3.5	1.8	100.0
Non-poor	91.5	2.8	4.7	1.0	100.0
Household size					
1-2	85.8	0.0	14.2	0.0	100.0
3-4	85.6	6.5	6.9	1.0	100.0
5-6	93.7	1.1	2.8	2.4	100.0
7+	95.3	1.2	2.8	0.6	100.0
Socio-economic Group					
Employee	30.7	12.3	57.0	0.0	100.0
Self-employed - agriculture	93.4	2.2	3.2	1.3	100.0
Self-employed - other	92.3	5.6	0.0	2.1	100.0
Other	100.0	0.0	0.0	0.0	100.0
Gender of the head of household					
Male	91.9	2.1	5.1	0.9	100.0
Female	92.0	4.2	1.5	2.3	100.0

Source:CWIQ 2006 Bariadi DC

Table 6.10: Percent distribution of households by type of occupancy documentation

	Title deed	Renting contract	Payment receipt	Other document	No document	Total	Secure tenure
Total	0.2	1.6	0.4	6.1	91.8	100.0	2.1
Cluster Location							
Accessible	0.0	2.8	0.0	7.0	90.2	100.0	2.8
Remote	0.3	0.4	0.7	5.4	93.2	100.0	1.4
Poverty Status							
Poor	0.6	0.0	0.0	5.1	94.2	100.0	0.6
Non-poor	0.0	2.0	0.5	6.4	91.0	100.0	2.5
Household size							
1-2	0.0	0.0	0.0	0.0	100.0	100.0	0.0
3-4	0.0	5.6	0.0	6.8	87.7	100.0	5.6
5-6	0.0	0.0	0.0	6.1	93.9	100.0	0.0
7+	0.4	0.3	0.9	6.4	92.1	100.0	1.5
Socio-economic Group							
Employee	0.0	12.3	0.0	0.0	87.7	100.0	12.3
Self-employed - agriculture	0.2	1.4	0.5	6.0	92.0	100.0	2.1
Self-employed - other	0.0	0.0	0.0	14.2	85.8	100.0	0.0
Other	0.0	0.0	0.0	4.7	95.3	100.0	0.0
Gender of the head of household							
Male	0.2	1.6	0.5	7.3	90.4	100.0	2.3
Female	0.0	1.3	0.0	0.6	98.1	100.0	1.3

Source:CWIQ 2006 Bariadi DC

information regarding usage of farm inputs and the main source from which the farmers got the inputs. Table 6.11 shows the percent distribution of households using certain inputs. This information is complimented by Table 6.12, which shows the main source of agricultural inputs.

46 percent of farmers applies agricultural inputs to their farms and the majority (60 percent) of those who use farm inputs use improved seedlings. Cluster location of the household does not show strong correlation with use of agricultural inputs. However, further breakdown of the data shows that 53 percent of households in accessible clusters use fertilisers compared to 28 percent of households in remote clusters. In contrast, 70 percent of households in remote clusters use improved seedlings compared to 48 percent of households in accessible clusters. Furthermore, while 49 percent of non-poor households use agricultural inputs, the share for poor households is 37 percent.

Disaggregation of the data further shows that while 50 percent of households with seven or more members use agricultural inputs, the share for households with one or two members is 13 percent. Furthermore, while 51 percent of households where the main income earner is an employee use agricultural inputs, the share for households belonging to the 'self-employed other' socio-economic group is 30 percent. Likewise, use of agricultural inputs in male-headed households is higher than in female-headed households. While 51 percent of male-headed households use agricultural inputs the share for female-headed households is 27 percent.

Most households that use agricultural inputs purchase them at an open market (55 percent) and in second place by preparing them themselves (28 percent). While 17 percent of the households gets their inputs from cooperatives, none reports donor agencies or government as their main source.

The breakdown by cluster location shows that the percentage of households located in accessible clusters who obtain agricultural inputs by preparing them themselves is higher than that of households located in remote clusters at 37 and 21 percent respectively. Likewise, while 37 percent of poor households obtains agricultural inputs by preparing them themselves, the share for non-poor households is 26 percent. In contrast, 55 percent of non-poor households purchase their agricultural inputs at an open market compared to 51 percent of poor

Table 6.11: Percentage of households using agricultural inputs and and the percentage using certain inputs

	% of hhs using	Fertilizer	Improved seedling	Fingerlings	Hooks and nets	Insecticides	Other
Total	46.3	39.4	59.9	0.0	0.7	52.0	0.0
Cluster Location							
Accessible	45.0	53.2	48.0	0.0	0.0	40.3	0.0
Remote	47.4	28.1	69.8	0.0	1.2	61.6	0.0
Poverty Status							
Poor	37.4	48.5	48.0	0.0	0.0	41.9	0.0
Non-poor	49.0	37.3	62.8	0.0	0.8	54.3	0.0
Household size							
1-2	13.3	66.8	33.2	0.0	0.0	15.4	0.0
3-4	40.4	40.7	51.7	0.0	0.0	56.6	0.0
5-6	51.8	37.3	57.5	0.0	0.0	44.9	0.0
7+	50.1	39.3	66.3	0.0	1.5	55.3	0.0
Socio-economic Group							
Employee	50.5	35.9	59.0	0.0	0.0	35.9	0.0
Self-employed - agriculture	48.0	37.0	63.7	0.0	0.8	53.8	0.0
Self-employed - other	29.7	24.1	47.5	0.0	0.0	75.9	0.0
Other	38.4	79.5	20.5	0.0	0.0	25.0	0.0
Gender of the head of household							
Male	50.6	38.0	62.2	0.0	0.8	52.8	0.0
Female	27.0	51.6	41.6	0.0	0.0	44.7	0.0

Source:CWIQ 2006 Bariadi DC

1. Base for column 1 is all households. For columns 2 to 7 is households using agricultural inputs

Table 6.12: Percentage distribution of households using agricultural inputs by the main source of the inputs

	Open market	Government	Donor agency	Coop.	Other	Total
Total	54.5	0.0	0.3	17.2	28.1	100.0
Cluster Location						
Accessible	55.5	0.0	0.0	7.5	37.0	100.0
Remote	53.6	0.0	0.6	25.1	20.7	100.0
Poverty Status						
Poor	50.8	0.0	0.0	12.7	36.5	100.0
Non-poor	55.3	0.0	0.4	18.2	26.1	100.0
Household size						
1-2	17.8	0.0	0.0	15.4	66.8	100.0
3-4	45.8	0.0	0.0	21.4	32.8	100.0
5-6	56.3	0.0	0.0	16.3	27.4	100.0
7+	58.6	0.0	0.7	15.7	25.0	100.0
Socio-economic Group						
Employee	79.5	0.0	0.0	0.0	20.5	100.0
Self-employed - agriculture	56.2	0.0	0.4	18.4	25.0	100.0
Self-employed - other	59.6	0.0	0.0	16.3	24.1	100.0
Other	18.0	0.0	0.0	10.9	71.1	100.0
Gender of the head of household						
Male	58.0	0.0	0.4	16.1	25.5	100.0
Female	25.1	0.0	0.0	25.7	49.3	100.0

Source:CWIQ 2006 Bariadi DC

1. Base is households using agricultural inputs

households.In addition, the percentage of households with one or two members who obtain agricultural inputs by preparing them themselves remarkably higher thanthat of households with seven or more members, at 67 and 25 percent respectively. In contrast, 59 percent of households with 7 or more members purchase their agricultural inputs at an open market compared to 18 percent of households with one or two members.

While 80 percent of households where the main income earner is an employee purchase their agricultural inputs at an open market, the share for households belonging to the 'other' socio-economic group is 18 percent. In turn, 71 percent of households where the main income earner belongs to the 'other' category obtain agricultural inputs by preparing them themselves. Lastly, while 49 percent of female-headed households obtain agricultural inputs by preparing them themselves, the share for male-headed households is 26 percent. In turn, 58 percent of male-headed households purchases their agricultural inputs at an open market compared to 25 percent of female-headed households.

6.4.2 Landholding

Table 6.13 shows the percent distribution of households by the area of land owned. Around 28 percent of households own less than two acres of land (including 15 percent of landless households). 27 percent own between two and four acres and 45 percent own four or more acres. Landless households are more common in remote clusters and households owning large portions of land are more common in accessible clusters. On the other hand, the percentage of households owning more than 4 acres of land among non-poor households is slightly higher than that of poor households, at 46 and 43 percent respectively.

Regarding household size, while 19 percent of households with one or two members are landless, the share for households with seven or more members is 8 percent. In contrast, larger households seem to own larger landholdings more frequently than households with less members.

While households where the main income earner is an employee reported the highest share of landless households (69 percent), the share for households where the main income earner belongs to the 'other' category is 6 percent. Finally, male-headed households have larger landholdings (4 or more acres) compared to female-headed households at 47 and 34 percent respectively. In turn, landless households are more common in female-

Table 6.13: Percent distribution of households by the area (in ha) of land owned by the household

	None	< 1 ha	1-1.99	2-3.99	4-5.99	6+ ha	Total
Total	14.9	1.9	11.4	26.7	18.3	26.7	100.0
Cluster Location							
Accessible	13.6	2.4	9.7	24.6	19.6	30.1	100.0
Remote	16.1	1.5	12.9	28.6	17.1	23.8	100.0
Poverty Status							
Poor	15.2	3.0	10.8	27.8	19.0	24.1	100.0
Non-poor	14.8	1.6	11.6	26.4	18.1	27.5	100.0
Household size							
1-2	19.4	3.5	20.7	14.4	29.0	13.0	100.0
3-4	25.9	1.8	15.3	27.3	18.4	11.3	100.0
5-6	15.2	0.6	12.7	26.6	13.5	31.5	100.0
7+	7.7	2.6	7.2	27.9	19.9	34.6	100.0
Socio-economic Group							
Employee	69.3	8.8	14.1	0.0	7.8	0.0	100.0
Self-employed - agriculture	12.6	1.4	10.0	27.6	19.4	29.1	100.0
Self-employed - other	33.9	5.6	17.6	14.5	13.9	14.5	100.0
Other	5.5	2.5	20.3	36.5	14.0	21.2	100.0
Gender of the head of household							
Male	13.9	1.4	11.6	25.6	18.3	29.2	100.0
Female	19.4	4.2	10.8	31.9	18.1	15.6	100.0

Source:CWIQ 2006 Bariadi DC

headed households than male-headed households.

6.4.3 Cattle Ownership

Table 6.14 shows the percent distribution of households by the number of cattle owned. Overall 67 percent of the households own no cattle at all, and 21 percent own between 2 and 10 heads of cattle. Households in remote clusters are more likely to own no cattle as well as poor households. 83 percent of households with one or two members own no cattle, compared to 54 percent of households with seven or more members. Likewise, while 85 percent of households belonging to the 'self-employed other' own no cattle, the share for households belonging to the 'self-employed agriculture' is 64 percent. Finally, while 78 percent of female-headed households own no cattle, the share for male-headed households is 64 percent.

6.5 Perception of Crime and Security in the Community

This section gives an overview of how the district residents perceive the current crime and security situation compared to the year preceding the survey. Respondents were asked to categorise the current crime and security situation as the same, better or worse than the previous year. Results are shown in Table 6.15

46 percent the households reported that the crime and security situation in the community was improving, 47 percent said it was the same while 8 percent reported it was deteriorating. The percentage of households located in remote clusters who reported the current crime and security situation as improving is higher than that of households located in accessible clusters at 55 and 35 percent respectively. Likewise, 50 percent of poor households reported the current crime and security situation as improving compared to 45 percent of non-poor households.

While 58 percent of households with one or two members reported an improvement in the current crime and security situation, the share for households with seven or more members is 44 percent. Similarly, 55 percent of households owning no land reported the current crime and security situation as improving compared to 45 percent of households owning six or more hectares of land. While 51 percent of households owning no livestock reported the current crime and security situation as improving, the share for households owning both small and large livestock is

Table 6.14: Percent distribution of households by the number of cattle owned by the household

	None	1	2-10	11-20	21-50	50+	Total
Total	66.5	3.7	20.8	5.0	3.3	0.8	100.0
Cluster Location							
Accessible	64.7	3.1	22.4	4.4	4.5	0.9	100.0
Remote	67.9	4.2	19.3	5.5	2.4	0.7	100.0
Poverty Status							
Poor	70.3	6.3	19.1	1.5	2.8	0.0	100.0
Non-poor	65.3	2.9	21.3	6.0	3.5	1.0	100.0
Household size							
1-2	82.7	5.6	11.7	0.0	0.0	0.0	100.0
3-4	82.8	3.7	10.0	3.1	0.0	0.4	100.0
5-6	67.9	3.5	18.8	5.9	3.9	0.0	100.0
7+	53.9	3.7	29.5	6.0	5.3	1.5	100.0
Socio-economic Group							
Employee	74.6	0.0	25.4	0.0	0.0	0.0	100.0
Self-employed - agriculture	63.7	3.8	23.2	4.7	3.8	0.7	100.0
Self-employed - other	85.2	0.0	2.8	9.2	0.0	2.8	100.0
Other	78.2	6.6	6.3	6.5	2.4	0.0	100.0
Gender of the head of household							
Male	63.8	4.1	22.1	5.4	3.8	0.8	100.0
Female	78.4	1.8	15.0	2.9	1.2	0.6	100.0

Source:CWIQ 2006 Bariadi DC

37 percent.

Almost half the households (47 percent) where the main income earner is self-employed in agriculture reported an improvement in the current crime and security situation, 15 percentage points above the employees, at 32 percent. Likewise, 61 percent of households where the household head is single reported an improvement in the current crime and security situation compared to 43 percent of households where the head is widowed, divorced or separated.

Finally, while gender does not show strong correlation with the perception of the current crime and security situation,

Table 6.15: Percent distribution of households by the perception of the crime and security situation of the community compared to the year before the survey

	Much Worse	Worse	Same	Better	Much Better	Don't Know	Total
Total	1.6	5.8	46.5	34.1	11.7	0.4	100.0
Cluster Location							
Accessible	1.4	2.9	60.3	23.4	12.0	0.0	100.0
Remote	1.7	8.3	34.4	43.5	11.4	0.7	100.0
Poverty Status							
Poor	1.1	8.8	40.6	42.6	6.9	0.0	100.0
Non-poor	1.7	4.9	48.3	31.5	13.2	0.5	100.0
Household size							
1-2	0.0	8.9	34.0	36.6	20.5	0.0	100.0
3-4	2.0	2.7	45.9	34.3	13.7	1.4	100.0
5-6	1.4	6.7	48.3	33.1	10.5	0.0	100.0
7+	1.6	6.7	47.1	34.4	10.3	0.0	100.0
Area of land owned by the household							
None	3.4	0.0	39.7	34.0	20.5	2.3	100.0
< 1 ha	0.0	0.0	54.8	24.1	21.1	0.0	100.0
1-1.99 ha	0.0	9.1	47.9	40.1	2.8	0.0	100.0
2-3.99 ha	2.4	4.1	45.1	35.2	13.3	0.0	100.0
4-5.99 ha	0.8	5.8	55.5	27.1	10.9	0.0	100.0
6+ ha	1.0	9.8	44.1	36.2	8.9	0.0	100.0
Type of livestock owned by the household							
None	1.6	3.5	43.0	39.3	11.9	0.6	100.0
Small only	2.3	5.6	53.8	30.9	7.5	0.0	100.0
Large only	3.5	13.7	38.1	29.0	15.7	0.0	100.0
Both	0.0	7.3	55.9	25.6	11.2	0.0	100.0
Socio-economic Group							
Employee	0.0	3.7	64.2	32.1	0.0	0.0	100.0
Self-employed - agriculture	1.9	6.3	44.7	33.9	12.8	0.4	100.0
Self-employed - other	0.0	0.0	58.8	31.3	9.9	0.0	100.0
Other	0.0	5.2	48.9	39.0	6.9	0.0	100.0
Gender of the head of household							
Male	1.4	5.7	46.5	34.4	11.4	0.4	100.0
Female	2.1	6.0	46.1	32.9	13.0	0.0	100.0
Marital status of the head of household							
Single	0.0	0.0	39.2	60.8	0.0	0.0	100.0
Monogamous	1.5	5.5	43.4	33.3	15.6	0.7	100.0
Polygamous	1.3	5.4	50.8	37.9	4.5	0.0	100.0
Loose union	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Widow/div/sep	2.1	7.5	48.0	28.8	13.5	0.0	100.0
Education level of the head of household							
None	1.6	8.5	46.3	33.3	10.2	0.0	100.0
Primary	1.2	3.6	47.2	34.1	13.3	0.6	100.0
Secondary +	6.1	8.2	38.1	42.3	5.2	0.0	100.0

Source:CWIQ 2006 Bariadi DC

Table 6.16: Percentage distribution of households by principal contributor to household income

	Principal contributor of income				
	Head	Spouse	Child	Other	Total
Total	84.2	6.8	6.4	2.6	100.0
Cluster Location					
Accessible	87.9	6.5	4.6	1.0	100.0
Remote	81.0	7.1	7.9	4.0	100.0
Poverty Status					
Poor	80.8	7.8	10.5	1.0	100.0
Non-poor	85.3	6.5	5.1	3.1	100.0
Household size					
1-2	74.8	18.4	0.0	6.8	100.0
3-4	85.5	5.3	4.1	5.1	100.0
5-6	84.6	6.6	6.5	2.3	100.0
7+	84.3	6.5	8.4	0.8	100.0
Socio-economic Group					
Employee	96.3	3.7	0.0	0.0	100.0
Self-employed - agric	91.0	3.6	4.0	1.4	100.0
Self-employed - other	95.1	0.0	2.8	2.2	100.0
Other	5.8	43.8	34.6	15.9	100.0
Gender of the head of household					
Male	87.1	8.3	3.1	1.5	100.0
Female	71.6	0.0	20.7	7.7	100.0

Source:CWIQ 2006 Bariadi DC

the percentage of households where the head has secondary education or more and reported an improvement in the current crime and security situation is 4 percentage points higher than that of household heads with no education, at 47 and 43 percent respectively.

6.6 Household Income Contributions

Table 6.16 shows the percent distribution of households by main contributor to household income. The survey includes information on household income contributions by listing all the income contributors in the households and then identifying the household member who contributes the largest portion. For the majority (84 percent) of households the head is the main contributor.

88 percent of the households located in accessible clusters reported the household head as the main income contributor compared to 81 percent of households located in remote clusters. Likewise, while 85 percent of non-poor households reported the household head as the main income contributor, the share for poor households is 81 percent.

84 percent of households with seven or more members reported the household head as the main income contributor compared to 75 percent of households with one or two members. In contrast while 18 percent of households with one or two members reported the spouse as the main income contributor, the share for households with seven or more members is 7 percent.

The breakdown by socio-economic group shows that 96 percent of the employees reported the household head as the main income contributor compared to only 6 percent of households belonging to the 'other' category. In contrast, 44 percent of households belonging to the 'other' category reported the spouse as the main income contributor.

The breakdown by gender of the household head shows that 87 percent of male-headed households reported the household head as the main income contributor, while the share for female-headed households is 72 percent. It is also observed that while 8 percent of male-headed households reported the spouse as the main income contributor, the share for female-headed households is virtually null. Instead 21 percent of female-headed households reported the child as the main

Table 6.17: Percentage of households owning selected household items

	Electric iron	Refrigerator	Sewing machine	Modern stove	Mattress or bed	Watch or clock	Radio	Televison	Fixed line phone	Mobile phone
Total	16.0	0.0	2.6	1.3	72.9	29.7	41.7	0.0	0.0	5.3
Cluster Location										
Accessible	18.2	0.0	2.8	2.8	77.8	33.2	46.4	0.0	0.0	5.9
Remote	14.0	0.0	2.4	0.0	68.7	26.7	37.6	0.0	0.0	4.7
Poverty Status										
Poor	3.5	0.0	0.0	0.0	45.9	18.8	11.4	0.0	0.0	1.0
Non-poor	19.8	0.0	3.3	1.7	81.3	33.1	51.0	0.0	0.0	6.6
Household size										
1-2	2.4	0.0	0.0	0.0	59.8	26.5	33.0	0.0	0.0	0.0
3-4	14.7	0.0	3.5	2.0	70.7	23.7	35.5	0.0	0.0	4.8
5-6	11.5	0.0	2.0	0.0	76.4	26.2	38.2	0.0	0.0	6.4
7+	21.1	0.0	2.6	1.8	73.6	35.9	48.6	0.0	0.0	5.4
Socio-economic Group										
Employee	62.5	0.0	14.7	10.4	82.6	78.9	78.9	0.0	0.0	55.5
Self-employed - agriculture	14.7	0.0	1.6	1.0	74.3	28.6	41.9	0.0	0.0	3.9
Self-employed - other	25.5	0.0	12.6	2.8	58.9	27.1	45.7	0.0	0.0	2.1
Other	5.3	0.0	1.5	0.0	65.4	24.2	23.1	0.0	0.0	1.5
Gender of the head of household										
Male	19.1	0.0	3.1	1.6	75.3	33.8	47.9	0.0	0.0	6.1
Female	2.4	0.0	0.0	0.0	62.3	11.7	14.0	0.0	0.0	1.5

Source:CWIQ 2006 Bariadi DC

income contributor to their households' income.

6.7 Other Household Items

Table 6.17 shows the percentage distribution of households owning selected household items. 73 percent of households own at least one mattress or bed, 42 percent own a radio, 30 percent own a watch or clock and 16 percent own an iron. Although no household own a fixed line phone, 5 percent own a mobile phone. Households in accessible clusters and non-poor households have higher rates of ownership in almost every selected item.

The breakdown by household size shows that the shares of ownership tend to be larger for larger households and for households headed by males. In addition, 'employees' and 'self-employed in non-agricultural activities' show higher rates of ownership in most of the selected household items than the other socio-economic groups.

7 Household Amenities

This chapter analyses the main amenities of the households in Bariadi DC. The first section presents the main materials used to construct the dwelling, and the type of housing unit the household lives in. Section two reports the main source of drinking water and main type of toilet. In section three, the fuel used by the household is analysed, both for cooking and lighting. Section four reports the distance of the households were the source of drinking water, schools, and food markets. In section five the anti-malaria measures taken by households are analysed.

7.1 Housing Materials and Type of Housing Unit

Table 7.1 shows the distribution of households according to the main material used in the roof of the house. Overall, 70 percent of households have iron sheets as their main roof material and 28 percent have thatch.

The breakdown by cluster location shows that households in remote villages are more likely to use thatch than households in accessible villages at 33 and 23 percent respectively. In turn, households in accessible villages tend to use iron sheets more often than households in remote clusters at 77 and 64 percent respectively. Similarly, 34 percent of poor households use thatch as their main roof material compared to 26 percent of non-poor households. On the other hand, while 73 percent of non-poor households use iron sheets, the share for poor households is only 61 percent.

The breakdown by household size shows that 43 percent of households with up to 2 members use thatch compared to 21 percent of households with seven or more members. In turn, bigger households are more likely to use iron sheets for their roofs, as 77 percent of households with more than 7 members use iron sheets. The split-up by socio economic group shows that the 'self-employed agriculture' category has the highest share of households using thatch for the roof (at 30 percent), and that employees are the group that use thatch less (at 9 percent). On the other hand, employees are the group with the highest rate of use of iron sheets (at 91 percent).

Table 7.1: Percent distribution of households by material used for roof of the house

	Mud	Thatch	Wood	Iron Sheets	Cement/ concrete	Roofing tiles	Asbestos	Other	Total
Total	1.9	27.9	0.0	70.1	0.0	0.0	0.0	0.0	100.0
Cluster Location									
Accessible	0.0	22.6	0.0	77.4	0.0	0.0	0.0	0.0	100.0
Remote	3.6	32.5	0.0	63.8	0.0	0.0	0.0	0.0	100.0
Poverty Status									
Poor	5.2	34.2	0.0	60.6	0.0	0.0	0.0	0.0	100.0
Non-poor	0.9	26.0	0.0	73.1	0.0	0.0	0.0	0.0	100.0
Household size									
1-2	0.0	43.1	0.0	56.9	0.0	0.0	0.0	0.0	100.0
3-4	2.2	33.6	0.0	64.2	0.0	0.0	0.0	0.0	100.0
5-6	2.9	30.5	0.0	66.6	0.0	0.0	0.0	0.0	100.0
7+	1.4	21.2	0.0	77.4	0.0	0.0	0.0	0.0	100.0
Socio-economic Group									
Employee	0.0	8.8	0.0	91.2	0.0	0.0	0.0	0.0	100.0
Self-employed - agriculture	1.8	29.8	0.0	68.4	0.0	0.0	0.0	0.0	100.0
Self-employed - other	5.6	14.4	0.0	80.1	0.0	0.0	0.0	0.0	100.0
Other	1.8	25.7	0.0	72.5	0.0	0.0	0.0	0.0	100.0
Gender of the head of household									
Male	1.1	26.7	0.0	72.2	0.0	0.0	0.0	0.0	100.0
Female	5.8	33.2	0.0	61.0	0.0	0.0	0.0	0.0	100.0

Source:CWIQ 2006 Bariadi DC

Table 7.2: Percent distribution of households by material used for walls of the house

	Mud/ mud brick	Stone	Burnt bricks	Cement/ sandcrete	Wood/ bamboo	Iron sheets	Cardboard	Total
Total	95.9	0.0	3.6	0.5	0.0	0.0	0.0	100.0
Cluster Location								
Accessible	92.6	0.0	6.3	1.1	0.0	0.0	0.0	100.0
Remote	98.7	0.0	1.3	0.0	0.0	0.0	0.0	100.0
Poverty Status								
Poor	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Non-poor	94.6	0.0	4.8	0.7	0.0	0.0	0.0	100.0
Household size								
1-2	90.6	0.0	9.4	0.0	0.0	0.0	0.0	100.0
3-4	95.8	0.0	3.2	1.0	0.0	0.0	0.0	100.0
5-6	97.7	0.0	1.9	0.4	0.0	0.0	0.0	100.0
7+	95.4	0.0	4.4	0.3	0.0	0.0	0.0	100.0
Socio-economic Group								
Employee	58.9	0.0	33.7	7.4	0.0	0.0	0.0	100.0
Self-employed - agriculture	96.8	0.0	2.9	0.3	0.0	0.0	0.0	100.0
Self-employed - other	97.2	0.0	2.8	0.0	0.0	0.0	0.0	100.0
Other	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Gender of the head of household								
Male	95.4	0.0	4.1	0.5	0.0	0.0	0.0	100.0
Female	97.9	0.0	1.5	0.6	0.0	0.0	0.0	100.0

Source:CWIQ 2006 Bariadi DC

The breakdown by gender of the household head shows that male-headed households use iron sheets more often than female-headed households, at 72 and 61 percent respectively.

Table 7.2 shows the distribution of households by type of material used in the walls. Overall, 96 percent of house are built with mud or mud bricks. Burnt bricks occupy the second place, with a share of 4 percent.

The analysis of cluster location reveals that while 99 percent of households in remote villages use mud or mud bricks, the share for households in accessible villages is 93 percent. On the other hand, households in accessible villages have a higher share of burnt bricks than households in remote villages.

The analysis by poverty status reveals that virtually all poor households use mud or mud bricks compared to 95 percent of non-poor households. Similarly, 98 percent of households with 5 to 6 use mud or mud bricks as main material in the walls of the house compared to 91 percent of households with 1 or 2 members. 'Employee' is the category with the highest share living in house made of burnt bricks (34 percent). On the other hand, 'other' is the category with the highest share living in house made of mud or mud bricks (100 percent).

The gender breakdown shows that households headed by females use mud or mud bricks more often than male-headed households, at rates of 98 and 95 percent respectively.

The distribution of households by type of material used in the floor is shown in Table 7.3. Overall, the floor in 96 percent of households is made of mud or dirt, and 4 percent of concrete or cement.

The breakdown by cluster location does not show strong correlation with the type of material used in the floor. On the other hand, all (100 percent) poor households have mud or dirt compared to 95 percent of non-poor households.

The breakdown by household size shows that 99 percent of households with 7 or more members have mud or dirt compared to 92 percent of households with up to 2 members. The split-up by socio economic group of the household shows that employees has the lowest share of mud or dirt (53 percent) and the highest share of concrete (47 percent). All households where the main income earner belongs to the 'other' category have house with mud or dirt floor. Finally, the gender breakdown does not show strong

Table 7.3: Percent distribution of households by material used for floors of the house

	Mud/ earth	Wood/ plank	Tiles	Concrete/ cement	Grass	Other	Total
Total	96.5	0.0	0.0	3.5	0.0	0.0	100.0
Cluster Location							
Accessible	95.7	0.0	0.0	4.3	0.0	0.0	100.0
Remote	97.1	0.0	0.0	2.9	0.0	0.0	100.0
Poverty Status							
Poor	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Non-poor	95.4	0.0	0.0	4.6	0.0	0.0	100.0
Household size							
1-2	92.1	0.0	0.0	7.9	0.0	0.0	100.0
3-4	94.0	0.0	0.0	6.0	0.0	0.0	100.0
5-6	96.2	0.0	0.0	3.8	0.0	0.0	100.0
7+	98.6	0.0	0.0	1.4	0.0	0.0	100.0
Socio-economic Group							
Employee	53.4	0.0	0.0	46.6	0.0	0.0	100.0
Self-employed - agriculture	98.3	0.0	0.0	1.7	0.0	0.0	100.0
Self-employed - other	87.2	0.0	0.0	12.8	0.0	0.0	100.0
Other	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Gender of the head of household							
Male	96.6	0.0	0.0	3.4	0.0	0.0	100.0
Female	96.0	0.0	0.0	4.0	0.0	0.0	100.0

Source:CWIQ 2006 Bariadi DC

correlation with type of material used in the floor.

Table 7.4 shows the percent distribution of households by type of housing unit they occupy. Overall, 71 percent of households occupy the whole building where they live.

Households in accessible clusters are more likely to occupy the whole building than households in remote clusters, at 75 and 67 percent respectively. Similarly, non-poor households are more likely to occupy the whole building than poor households at 73 and 64 percent respectively.

The breakdown by household size shows that 95 percent of households with up to 2 members occupy the whole building compared to 59 percent of households with 7 or more members. On the other hand, while 41 percent of households with 7 or more members occupies the 'other' type of housing unit, the share of households with up to 2 members is virtually null.

The analysis of socioeconomic groups shows that 77 percent of households where the main income earner belongs to the 'other' category occupy the whole building compared to 70 percent of the remaining socioeconomic categories. On the other hand, 29 percent of the 'self-employed agriculture' category occupies the 'other' type of housing unit compared to 8 percent of households where the main income earner is an employee. Finally, while 72 percent of male-headed households occupy the whole building the

Table 7.4: Percent distribution of households by type of housing unit

	Single room	Flat	Two or more rooms	Whole building	Other	Total
Total	0.4	0.0	1.6	70.8	27.2	100.0
Cluster Location						
Accessible	0.3	0.0	1.4	74.9	23.4	100.0
Remote	0.4	0.0	1.9	67.2	30.5	100.0
Poverty Status						
Poor	0.0	0.0	1.3	63.8	34.9	100.0
Non-poor	0.5	0.0	1.8	72.9	24.8	100.0
Household size						
1-2	4.6	0.0	0.0	95.4	0.0	100.0
3-4	0.6	0.0	3.9	84.4	11.1	100.0
5-6	0.0	0.0	2.4	72.3	25.3	100.0
7+	0.0	0.0	0.0	58.9	41.1	100.0
Socio-economic Group						
Employee	4.9	0.0	17.8	69.5	7.8	100.0
Self-employed - agric	0.0	0.0	0.7	70.3	29.1	100.0
Self-employed - other	0.0	0.0	9.8	69.7	20.6	100.0
Other	2.7	0.0	0.0	77.0	20.3	100.0
Gender of the head of household						
Male	0.5	0.0	1.1	71.8	26.7	100.0
Female	0.0	0.0	4.2	66.4	29.4	100.0

Source:CWIQ 2006 Bariadi DC

Table 7.5: Percent distribution of households by main source of drinking water

	Pipe borne treated	Pipe borne untreated	Bore hole/hand pump	Protected well	Unprotected well	Rain water	River, lake or pond	Vendor, truck	Other	Total	Safe source
Total	2.8	1.0	54.0	4.6	20.6	0.1	16.8	0.0	0.0	100.0	61.5
Cluster Location											
Accessible	1.0	1.0	51.3	9.8	26.4	0.3	10.2	0.0	0.0	100.0	62.1
Remote	4.4	1.0	56.4	0.0	15.6	0.0	22.6	0.0	0.0	100.0	60.9
Poverty Status											
Poor	6.0	2.2	47.7	2.7	21.9	0.0	19.5	0.0	0.0	100.0	56.4
Non-poor	1.9	0.6	56.0	5.1	20.2	0.2	16.0	0.0	0.0	100.0	63.0
Household size											
1-2	0.0	0.0	37.1	18.4	24.0	2.4	18.1	0.0	0.0	100.0	55.5
3-4	2.3	0.5	58.3	2.7	20.8	0.0	15.5	0.0	0.0	100.0	63.3
5-6	3.2	0.0	54.4	5.8	19.3	0.0	17.3	0.0	0.0	100.0	63.3
7+	3.3	2.0	53.2	3.4	21.0	0.0	17.2	0.0	0.0	100.0	59.9
Socio-economic Group											
Employee	0.0	11.2	68.5	7.8	8.8	3.7	0.0	0.0	0.0	100.0	76.3
Self-employed - agric	2.5	0.8	52.7	4.8	22.3	0.0	16.9	0.0	0.0	100.0	60.0
Self-employed - other	13.9	0.0	55.5	0.0	14.0	0.0	16.6	0.0	0.0	100.0	69.4
Other	0.0	0.0	60.7	4.5	12.9	0.0	21.9	0.0	0.0	100.0	65.2
Gender of the head of household											
Male	2.3	1.2	53.5	4.8	22.6	0.1	15.5	0.0	0.0	100.0	60.5
Female	5.2	0.0	56.7	3.8	11.9	0.0	22.5	0.0	0.0	100.0	65.6

Source:CWIQ 2006 Bariadi DC

share for female-headed households is 66 percent.

7.2 Water and Sanitation

The percentage distribution of households by source of drinking water is shown in Table 7.5. Overall, 62 percent of households have a safe source of water, whereas 21 percent of them get it from an unprotected well. 17 percent of households get drinking water from river, lake or pond. Safe sources of drinking water are treated pipes, bore holes, hand pumps, and protected wells.

The analysis of cluster location shows that 26 percent of households in accessible villages get drinking water from un protected wells, whereas the share for households in remote villages is 16 percent. On the other hand, 23 percent of households in remote villages get drinking water from river, lake or pond, against 10 percent of households in accessible villages. Poverty status of the household reveals that 63 percent of non-poor households use safe sources of water, against 56 percent of poor households.

When analysing by household size, it is noticed that 60 percent of households with 7 or more members have a safe source of drinking water compared to 56 percent of households with up to 2 members. The shares of households with unprotected wells are 24 percent for smaller households with up to 2 members and 21 percent for households with 7 or more members.

The breakdown by socio economic group of the household shows that ‘employee’, is the category with the highest rate of access to safe sources of drinking water (76 percent), followed by the ‘self employed-other’ category (69 percent), while ‘self-employed-agriculture’ is the category with the lowest access to safe water (60 percent). On the other hand, 22 percent of the households where the main income earner belongs to the ‘self-employed-agriculture’ category get drinking water from unprotected well compared to 13 percent of households where the main income earner belongs to the ‘other’ category. It is also observed that 22 percent of households belonging to the ‘other’ category get drinking water from river, lake or pond.

The split-up by gender of the household head shows that while 66 percent of female-headed households have access to safe sources of drinking water; the share

Table 7.6: Percent distribution of households by main type of toilet

	None (bush)	Flush to sewer	Flush to septic tank	Pan/ bucket	Covered pit latrine	Uncovered pit latrine	Ventilated pit latrine	Other	Total	Safe sanitation
Total	27.9	0.0	0.0	0.0	64.5	7.6	0.0	0.0	100.0	64.5
Cluster Location										
Accessible	26.8	0.0	0.0	0.0	61.7	11.5	0.0	0.0	100.0	61.7
Remote	28.9	0.0	0.0	0.0	67.0	4.1	0.0	0.0	100.0	67.0
Poverty Status										
Poor	33.6	0.0	0.0	0.0	56.3	10.2	0.0	0.0	100.0	56.3
Non-poor	26.2	0.0	0.0	0.0	67.1	6.8	0.0	0.0	100.0	67.1
Household size										
1-2	31.8	0.0	0.0	0.0	62.0	6.2	0.0	0.0	100.0	62.0
3-4	34.1	0.0	0.0	0.0	56.6	9.3	0.0	0.0	100.0	56.6
5-6	22.9	0.0	0.0	0.0	69.2	7.9	0.0	0.0	100.0	69.2
7+	26.8	0.0	0.0	0.0	66.7	6.5	0.0	0.0	100.0	66.7
Socio-economic Group										
Employee	31.2	0.0	0.0	0.0	54.8	14.1	0.0	0.0	100.0	54.8
Self-employed - agriculture	27.1	0.0	0.0	0.0	65.4	7.5	0.0	0.0	100.0	65.4
Self-employed - other	32.4	0.0	0.0	0.0	64.3	3.3	0.0	0.0	100.0	64.3
Other	32.1	0.0	0.0	0.0	59.3	8.5	0.0	0.0	100.0	59.3
Gender of the head of household										
Male	27.3	0.0	0.0	0.0	65.8	6.9	0.0	0.0	100.0	65.8
Female	30.7	0.0	0.0	0.0	58.8	10.5	0.0	0.0	100.0	58.8

Source:CWIQ 2006 Bariadi DC

Table 7.7: Percent distribution of households by fuel used for cooking

	Firewood	Charcoal	Kerosene/ oil	Gas	Electricity	Crop residue/ sawdust	Animal waste	Other	Total	Non-wood fuel for cooking
Total	95.3	1.5	0.0	0.0	0.0	3.2	0.0	0.0	100.0	0.0
Cluster Location										
Accessible	95.3	2.4	0.0	0.0	0.0	2.3	0.0	0.0	100.0	0.0
Remote	95.3	0.8	0.0	0.0	0.0	3.9	0.0	0.0	100.0	0.0
Poverty Status										
Poor	96.3	0.0	0.0	0.0	0.0	3.7	0.0	0.0	100.0	0.0
Non-poor	95.0	2.0	0.0	0.0	0.0	3.0	0.0	0.0	100.0	0.0
Household size										
1-2	92.1	7.9	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
3-4	90.7	4.4	0.0	0.0	0.0	4.9	0.0	0.0	100.0	0.0
5-6	95.7	0.0	0.0	0.0	0.0	4.3	0.0	0.0	100.0	0.0
7+	98.2	0.0	0.0	0.0	0.0	1.8	0.0	0.0	100.0	0.0
Socio-economic Group										
Employee	60.1	35.0	0.0	0.0	0.0	4.9	0.0	0.0	100.0	0.0
Self-employed - agriculture	98.1	0.0	0.0	0.0	0.0	1.9	0.0	0.0	100.0	0.0
Self-employed - other	75.9	7.8	0.0	0.0	0.0	16.3	0.0	0.0	100.0	0.0
Other	93.2	0.0	0.0	0.0	0.0	6.8	0.0	0.0	100.0	0.0
Gender of the head of household										
Male	95.6	1.5	0.0	0.0	0.0	2.8	0.0	0.0	100.0	0.0
Female	93.8	1.5	0.0	0.0	0.0	4.7	0.0	0.0	100.0	0.0

Source:CWIQ 2006 Bariadi DC

for male-headed households is 61 percent. In contrast, 23 percent get drinking water from unprotected well compared 12 percent of female-headed households.

Table 7.6 shows the percentage distribution of households by main type of toilet. Overall, 65 percent of households have safe sanitation, whereas up to 65 percent use a covered pit latrine.

Table 7.8: Percent distribution of households by fuel used for lighting

	Kerosene/ paraffin	Gas	Mains electricity	Solar panels/ generator	Battery	Candles	Firewood	Other	Total
Total	95.6	0.0	0.0	0.3	0.2	0.0	3.3	0.6	100.0
Cluster Location									
Accessible	99.2	0.0	0.0	0.6	0.0	0.0	0.3	0.0	100.0
Remote	92.6	0.0	0.0	0.0	0.4	0.0	6.0	1.0	100.0
Poverty Status									
Poor	92.5	0.0	0.0	0.0	1.0	0.0	6.5	0.0	100.0
Non-poor	96.6	0.0	0.0	0.4	0.0	0.0	2.3	0.7	100.0
Household size									
1-2	89.2	0.0	0.0	2.4	0.0	0.0	8.5	0.0	100.0
3-4	94.3	0.0	0.0	0.6	0.0	0.0	2.9	2.2	100.0
5-6	97.3	0.0	0.0	0.0	0.9	0.0	1.8	0.0	100.0
7+	96.1	0.0	0.0	0.0	0.0	0.0	3.9	0.0	100.0
Socio-economic Group									
Employee	96.3	0.0	0.0	3.7	0.0	0.0	0.0	0.0	100.0
Self-employed - agric	95.5	0.0	0.0	0.2	0.3	0.0	3.4	0.7	100.0
Self-employed - other	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Other	93.7	0.0	0.0	0.0	0.0	0.0	6.3	0.0	100.0
Gender of the head of household									
Male	96.7	0.0	0.0	0.3	0.3	0.0	2.4	0.3	100.0
Female	91.0	0.0	0.0	0.0	0.0	0.0	7.3	1.6	100.0

Source:CWIQ 2006 Bariadi DC

The cluster breakdown shows that 67 percent of households in remote villages have safe sanitation while the share of households in accessible villages is 62 percent. Meanwhile, the percentage of households in accessible villages that use uncovered pit latrine is 12 percent compared with 4 percent of households in remote villages. The breakdown by poverty status shows that 67 percent of non-poor households have safe sanitation compared to 56 percent of poor households. The shares of poor and non-poor households that use 'none or bush' are 34 percent and 26 percent respectively.

Households with 7 or more members have a higher percentage of safe sanitation than households with up to 2 members at 67 and 62 percent respectively. It stands out that up to 34 percent of households with 3 or 4 members have no toilet.

The breakdown by socioeconomic status shows that households belonging to the 'self-employed agriculture' have the highest rate of safe sanitation, at 65 percent while the 'employee' category have the lowest rate of safe sanitation at 55 percent.

The analysis by gender of the household head reveals that male-headed households are more likely to have safe sanitation than female-headed households with rates of 66 and 59 respectively. Furthermore, female-headed households are more likely to have no toilet than male-headed households, with rates of 31 and 27 percent, respectively.

7.3 Type of Fuel

Table 7.7 shows the distribution of households by fuel used for cooking. Overall, 95 percent of households use firewood while only 2 percent of households use charcoal for cooking. While there are no important differences by cluster location, gender and poverty of the household, the breakdown by household size shows that the smallest households (with up to 2 members) tend to use charcoal more often than the rest, at 8 percent, followed by households with 3 or 4 members at 4 percent. On the other hand, 98 percent of households with 7 or more member's use firewood as the main fuel for cooking compared to 92 percent of households with up to 2 members.

The split-up by socioeconomic group of the household shows that 98 percent of households where the main income earner is self-employed in agriculture use firewood compared to 60 percent of the households where the main income earner is an employee. In turn, 35 percent of households belonging to the 'employee' use charcoal for cooking.

Table 7.8 shows the distribution of households according to the fuel used for lightning. Overall, 96 percent of the households in the district use kerosene or paraffin and 3 percent use firewood. Gas, electricity, solar panels, batteries, and candles are virtually not used for lighting in the district.

The analysis by cluster location shows that almost all (99 percent) households in accessible villages use kerosene/paraffin compared to 93 percent of households in remote villages. On the other hand, while 6 percent of households in remote villages use firewood for lighting, the share for households in accessible villages is virtually null. The breakdown by poverty status reveals that 97 percent of non-poor household use kerosene or paraffin compared to 93 percent of poor households. On the other hand, 7 percent of poor households use firewood compared to 2 percent of non-poor households.

The breakdown by household size reveals that 96 percent of households with 7 or more members use kerosene/paraffin compared to 89 percent of households with up to 2 members. The analysis by socioeconomic group of the household shows that virtually all households belonging to the 'self-employed other' category use kerosene/paraffin compared to 94 percent of households belonging to the 'other' category. In turn, 6 percent of households belonging to the 'other' category use firewood.

Finally, male-headed households are more likely to use kerosene/paraffin than female-headed households at 97 and 91 percent respectively. On the other hand, 7 percent of female-headed households use firewood compared to only 2 percent of male-headed households.

7.4 Distances to Facilities

Table 7.9 shows the percent distribution of households by time to reach the nearest drinking water supply and health facility. Although each table gives more detailed information, the analysis of this section will be focused on the 30 minute threshold that was used to define access to a facility. It must be kept in mind that distance to public transportation is one of the variables used to define a cluster as accessible or remote, so it must come as no surprise that distance to public transportation and cluster location are

Table 7.9: Percent distribution of households by time (in minutes) to reach nearest drinking water supply and health facility

	Drinking water supply					Health facility				
	<= 15	16-30	31-60	61+	Total	<= 15	16-30	31-60	61+	Total
Total	47.2	35.2	14.0	3.6	100.0	11.4	13.9	21.4	53.3	100.0
Cluster Location										
Accessible	57.0	31.8	9.7	1.6	100.0	9.2	8.9	26.1	55.8	100.0
Remote	38.7	38.2	17.7	5.3	100.0	13.4	18.3	17.3	51.1	100.0
Poverty Status										
Poor	38.0	41.2	18.1	2.7	100.0	7.0	12.5	18.2	62.3	100.0
Non-poor	50.1	33.4	12.7	3.8	100.0	12.8	14.4	22.4	50.5	100.0
Household size										
1-2	55.7	28.0	13.7	2.5	100.0	4.9	4.0	12.1	78.9	100.0
3-4	41.8	41.3	13.4	3.5	100.0	18.0	16.5	23.1	42.3	100.0
5-6	48.3	32.1	13.9	5.7	100.0	6.7	15.1	22.2	56.0	100.0
7+	48.8	34.3	14.5	2.4	100.0	11.2	12.8	20.9	55.2	100.0
Socio-economic Group										
Employee	66.5	29.7	3.7	0.0	100.0	45.5	0.0	18.2	36.4	100.0
Self-employed - agriculture	45.7	34.5	15.9	3.9	100.0	10.8	14.5	20.1	54.6	100.0
Self-employed - other	52.6	41.1	0.0	6.3	100.0	9.9	26.5	23.2	40.3	100.0
Other	51.2	40.7	8.1	0.0	100.0	5.7	5.6	34.5	54.2	100.0
Gender of the head of household										
Male	48.5	34.0	13.1	4.4	100.0	10.2	13.8	22.4	53.6	100.0
Female	41.6	40.6	17.7	0.0	100.0	16.9	14.4	16.8	51.9	100.0

Source:CWIQ 2006 Bariadi DC

Table 7.10: Percent distribution of households by time (in minutes) to reach nearest primary and secondary school

	Primary school					Secondary school				
	<= 15	16-30	31-60	61+	Total	<= 15	16-30	31-60	61+	Total
Total	23.2	29.0	32.9	14.9	100.0	3.1	9.3	21.6	66.0	100.0
Cluster Location										
Accessible	27.3	26.3	36.2	10.3	100.0	1.1	6.4	19.0	73.5	100.0
Remote	19.7	31.4	30.1	18.9	100.0	4.9	11.8	23.9	59.5	100.0
Poverty Status										
Poor	20.4	27.3	34.7	17.6	100.0	2.6	7.5	21.0	69.0	100.0
Non-poor	24.1	29.5	32.4	14.0	100.0	3.3	9.8	21.8	65.1	100.0
Household size										
1-2	10.4	25.7	41.1	22.8	100.0	0.0	2.4	10.6	87.0	100.0
3-4	28.4	24.1	34.1	13.4	100.0	5.0	12.0	22.7	60.3	100.0
5-6	16.1	30.8	37.5	15.6	100.0	1.1	12.0	21.3	65.6	100.0
7+	26.0	31.1	28.4	14.5	100.0	3.6	6.7	22.4	67.3	100.0
Socio-economic Group										
Employee	75.9	15.2	8.8	0.0	100.0	0.0	22.7	30.0	47.4	100.0
Self-employed - agric	21.5	29.2	33.1	16.2	100.0	3.4	8.3	20.8	67.5	100.0
Self-employed - other	28.9	33.3	37.8	0.0	100.0	0.0	30.9	36.1	33.0	100.0
Other	17.0	29.3	36.7	17.0	100.0	3.6	0.0	17.1	79.4	100.0
Gender of the head of household										
Male	22.8	28.4	33.6	15.2	100.0	3.1	10.0	22.0	64.9	100.0
Female	25.1	31.5	29.7	13.7	100.0	3.3	6.0	19.9	70.8	100.0

Source:CWIQ 2006 Bariadi DC

strongly correlated. However, the rest of the variables, despite not being used to define cluster location, also show strong correlations.

Overall, 82 percent of households are located under 30 minutes of a drinking water supply. In addition, 25 percent of the households are located under 30 minutes of a health facility.

The breakdown by cluster location shows that 89 percent of households in accessible villages have access to a drinking water source and 18 percent to a health facility, whereas the shares for households in remote villages are 77 and 32 percent. Similar differences are observed by poverty status, with non-poor households having higher access rates than poor households.

The breakdown by household size shows that households with up to 2 members have the highest rate of access to sources of drinking water, at 84 percent and households with 3 or 4 members have the highest rate of access to health facilities (35 percent).

Households where the main income earner is an employee have the highest rate of access to drinking water and health facilities at 97 percent and 46 percent respectively. On the other hand, households where the main income earner is self-employed in agriculture have the lowest access to drinking water whereas households belonging to the 'other' category have the lowest access to health facilities at 11 percent.

The breakdown by gender of the household head does not show strong correlation with access rate to drinking water supply. However, female-headed households have a higher access rate to health facilities than male-headed households at 31 and 24 percent respectively.

Table 7.10 shows the percent distribution of households by time to reach the nearest primary and secondary school. Overall, 52 percent of households is located within 30 minutes of a primary school; however, only 12 percent of households live within 30 minutes of a secondary school. Moreover, 88 percent of households is located 60 minutes or more away from the nearest secondary school. Access to school was also analysed in chapter 3 but with a different focus. In chapter 3, access to school was analysed at child level, i.e. the access rate of each child. In this section the focus is the distance of the house to the nearest school.

The analysis of cluster location shows that 54 percent of households in accessible

Table 7.11: Percent distribution of households by time (in minutes) to reach nearest food market and public transportation

	Food market					Public transportation				
	<= 15	16-30	31-60	61+	Total	<= 15	16-30	31-60	61+	Total
Total	16.9	14.7	28.8	39.6	100.0	12.9	10.4	16.8	59.9	100.0
Cluster Location										
Accessible	20.6	14.1	33.3	32.0	100.0	22.3	16.4	25.9	35.4	100.0
Remote	13.7	15.3	24.9	46.2	100.0	4.7	5.2	8.9	81.2	100.0
Poverty Status										
Poor	13.2	19.1	23.5	44.2	100.0	10.0	15.9	15.9	58.2	100.0
Non-poor	18.1	13.4	30.4	38.1	100.0	13.8	8.7	17.1	60.4	100.0
Household size										
1-2	8.9	14.8	29.1	47.1	100.0	6.6	9.9	31.4	52.1	100.0
3-4	20.7	11.9	26.5	40.9	100.0	13.4	7.4	13.4	65.9	100.0
5-6	14.3	12.2	34.8	38.7	100.0	12.6	9.6	14.8	63.0	100.0
7+	17.2	18.0	26.4	38.4	100.0	13.5	12.7	18.5	55.3	100.0
Socio-economic Group										
Employee	34.4	7.8	18.4	39.4	100.0	20.7	7.8	11.2	60.3	100.0
Self-employed - agriculture	16.3	14.3	28.9	40.5	100.0	13.9	9.8	16.9	59.3	100.0
Self-employed - other	28.9	33.7	13.4	24.0	100.0	7.7	5.8	6.5	80.1	100.0
Other	9.1	9.5	41.3	40.2	100.0	3.0	20.4	24.4	52.3	100.0
Gender of head of household										
Male	17.4	14.6	29.3	38.7	100.0	14.3	9.9	16.4	59.4	100.0
Female	14.9	15.1	26.4	43.6	100.0	6.5	12.6	18.7	62.2	100.0

Source:CWIQ 2006 Bariadi DC

villages have access to primary school, against 51 percent in remote villages. For secondary school, the rates go down to 17 percent for remote villages and 8 percent for accessible villages. The access to primary school is higher for non-poor than poor households at 54 and 48 percent respectively. Similarly, the access to secondary education is lower for poor households, at 10 percent against 13 percent of non-poor households.

The analysis of household size shows that households with 7 or more members have higher rates of access to primary (at 57 percent), whereas households with up to 2 members have the lowest rates of access to both primary and secondary school at 36 and 2 percent respectively.

The breakdown by socioeconomic group shows that households in the category 'employee' have the highest rate of access to primary and that households where the main income earner is self-employed in non-agricultural activities have the highest rate of access to secondary schools, at 91 and 31 percent, respectively. Households in the category 'other' have the lowest access rate to primary schools at 46 percent.

Households headed by females have higher access rates to primary school than male-headed households, at 57 percent, against 51 percent for females. In contrast, male-headed households have a higher access rate to secondary school than female-headed households at 13 and 9 percent respectively.

Table 7.11 shows the percent distribution of households by time to reach the nearest food market and public transportation. Overall, 32 percent of households have access to a food market, and 23 percent to public transportation.

The analysis of cluster location shows that 35 percent of households in accessible villages lives within 30 minutes of a food market and, against 29 of households in remote villages. The shares for public transportation are 39 for accessible villages and 10 percent for households in remote villages. Poverty status of the household does not show strong correlation with access to food markets. On the other hand, while 26 percent of poor have access to public transportation the share for non-poor households is 23 percent.

The breakdown by size of the household shows that 35 percent of households with 7 or more members lives within 30 minutes of a food market compared to 24 percent of households with up to 2

members. Similarly, households with 7 or more members have a higher rate of access to public transportation than households with 1 or 2 members at 27 and 17 percent respectively.

The 'self-employed other' category have the highest rate of access to food markets, with 63 percent whereas households where the main income earner is an employee have the highest access rate to public transportation at 29 percent.

Male-headed households have a higher access rates to both facilities at 32 and 24 percent against 30 and 19 percent of females.

7.5 Anti-Malaria Measures

The percentage of households taking anti-malaria measures and the specific measures they take are shown in Table 7.12. Overall, 59 percent of households take measures against malaria. The most commonly taken measures are insecticide treated nets (46 percent), bed nets (37 percent) and maintenance of good sanitation (19 percent).

The analysis of cluster location shows that 54 percent of households in accessible villages use insecticide treated nets compared to 39 percent of households in remote villages. Similarly, use of bed nets is reported more frequently by households in accessible villages (41 percent) than in remote villages (34 percent).

Furthermore, 63 percent of non-poor households takes measures against malaria compared to 44 percent of poor households. It is also observed that while 48 percent of non-poor households use insecticide treated nets, the share for poor households is 38 percent. The rates for maintenance of good sanitation are lower, though poor households reported maintaining good sanitation more often than non-poor households at 30 and 16 percent respectively.

The share of households taking measures tends to increase with the size of the household. While 63 percent of households with 7 or more members takes measures against malaria, the share for households with up to 2 members is 38 percent. The analysis of socioeconomic status shows that 79 percent of households in the category 'employee' take measures, 61 percent of 'self-employed agriculture', 52 percent of 'self-employed other', and only 30 percent of 'other'. Finally, 62 percent of households headed by males take measures against malaria compared to 43 percent of households headed by females. Male-headed households use insecticide treated nets more frequently than female-headed households at 49 and 29 percent respectively. In turn, a higher share of the latter use bed nets at 49 and 35 percent respectively.

Table 7.12: Percentage of households taking anti-malaria measures, by measures taken

	Share taking measures	Use bed net	Insect-icide	Anti-malaria drug	Fumi-gation	Insecticide treated net	Maintain good drainage	Maintain good sanitation	Herbs	Burn leaves	Window/ door net
Total	58.5	36.9	1.1	6.0	0.0	46.2	1.3	18.5	1.9	0.7	0.2
Cluster Location											
Accessible	58.6	40.6	1.8	4.5	0.0	54.1	1.7	5.4	1.5	0.0	0.4
Remote	58.3	33.6	0.5	7.4	0.0	39.4	1.0	29.9	2.2	1.3	0.0
Poverty Status											
Poor	43.9	33.2	1.5	8.0	0.0	37.9	0.0	29.8	2.5	0.0	0.0
Non-poor	63.0	37.7	1.0	5.6	0.0	48.1	1.6	16.0	1.8	0.8	0.2
Household size											
1-2	38.4	49.8	0.0	0.0	0.0	31.6	0.0	18.6	0.0	0.0	0.0
3-4	59.6	31.8	1.4	6.5	0.0	50.7	1.7	12.4	0.0	0.0	0.8
5-6	54.3	40.8	1.1	8.2	0.0	40.2	0.0	19.1	0.0	0.0	0.0
7+	62.7	36.7	1.0	5.0	0.0	47.9	1.8	21.6	4.1	1.5	0.0
Socio-economic Group											
Employee	78.9	18.7	0.0	0.0	0.0	81.3	0.0	0.0	0.0	0.0	4.7
Self-employed - agric	61.0	38.0	1.2	5.7	0.0	44.8	1.5	20.0	1.2	0.8	0.0
Self-employed - other	52.3	26.5	0.0	9.8	0.0	63.7	0.0	5.3	5.4	0.0	0.0
Other	29.7	42.4	0.0	14.0	0.0	22.0	0.0	21.5	14.0	0.0	0.0
Gender of the head of household											
Male	62.0	34.9	1.2	5.6	0.0	49.0	1.5	18.1	2.2	0.8	0.2
Female	42.7	49.3	0.0	8.7	0.0	28.5	0.0	20.8	0.0	0.0	0.0

Source:CWIQ 2006 Bariadi DC

7 Household amenities

8 GOVERNANCE

The PMO-RALG CWIQ expanded the standard CWIQ survey instrument with several questions on governance. This chapter discusses the responses to these questions. The first section discusses attendance at kitongoji, village, ward and district meetings. Section 2 shows the results of questions aimed at measuring satisfaction with leaders at each of these levels. Section 3 concerns public spending at kitongoji, village, ward and district level and discusses to what extent financial information reaches households, as well as their satisfaction with public spending at each level.

8.1 Attendance at Meetings

Table 8.1 summarises responses to the following question "Did you or anyone in your household attend a meeting at [...] level in the past 12 months". This question was repeated 4 times with the dots replaced by kitongoji, village, ward and district. The results show that 84 percent of households had at least one member attending at least one kitongoji meeting in the past 12 months. Attendance at village meetings was slightly lower at 84 percent. Ward and district level meetings did not attain attendance of the majority of households at 25 and 3 percent respectively.

The breakdown by cluster location shows that accessible villages report a higher attendance rate at kitongoji level, while remote villages report higher attendance rates at village and ward level.

The breakdown by poverty status shows that poor households report higher attendance rates than non-poor households, except at district meetings where the former report less than 1 percent and the latter report 4 percent.

The breakdown by socio-economic group shows that the employees report the lowest attendance rates at the lower levels (kitongoji and village) and the highest rates at the higher levels (ward and district). The self-employed in non-agricultural activities report the highest attendance rates at kitongoji and village meetings.

8.2 Satisfaction with Leaders

The main respondent was asked whether he or she considered the leaders at kitongoji, village, ward and district levels of government to be polite and helpful. For those who were not satisfied or answered that they did not know, the reasons for this were asked. For district councillors the question was phrased slightly differently and respondents were asked whether they were satisfied with their work and for those who responded 'no' or 'don't know' the reason for this response was asked.

The results, displayed in Table 8.2, show a trend of satisfaction with leaders going up as the level of government goes down. While, respectively, 95 percent and 86 percent of respondents say they are satisfied with kitongoji and village leaders, 73 percent reported being satisfied with ward leaders and just 48 percent reported satisfaction with district leaders.

This does not, however, mean that respondents specifically reported dissatisfaction with leaders at higher levels of government. In fact, the percentage of people claiming they are dissatisfied with leaders does not differ much between

Table 8.1: Percentage distribution of attendance of meetings (any household member within past 12 months)

	Kitongoji Meeting	Village Meeting	Ward Meeting	District Meeting
Total	84.0	84.2	24.7	3.0
Cluster Location				
Accessible	88.7	81.4	14.8	2.9
Remote	79.9	86.7	33.3	3.0
Poverty Status				
Poor	92.3	88.0	30.5	0.4
Non-poor	81.4	83.1	22.9	3.7
Socio-economic Group				
Employee	68.1	71.8	39.7	17.8
Self-employed - agriculture	84.1	83.9	25.1	2.7
Self-employed - other	93.6	93.2	14.2	2.8
Other	82.7	86.9	21.9	0.0
No. of Obs.	450	450	450	450

Source:CWIQ 2006 Bariadi DC

Table 8.2: Distribution of leaders' satisfaction ratings and reasons for dissatisfaction

	Kitongoji Leaders	Village Leaders	Ward Leaders	District Leaders	District Councillor
Total					
Satisfied	95.3	85.6	72.6	47.7	77.2
Not Satisfied	4.5	13.4	12.9	8.3	17.4
Don't Know	0.1	1.1	14.5	43.9	5.4
Share Satisfied by Cluster Location					
Accessible	95.9	85.4	67.8	46.3	75.2
Remote	94.9	85.7	76.9	49.0	78.9
Share Satisfied by Poverty Status					
Poor	97.1	87.3	67.7	46.9	75.1
Non-poor	94.8	85.0	74.2	48.0	77.8
Share Satisfied by Socio-economic Group					
Employee	87.7	83.6	72.6	53.0	76.5
Self-employed - agriculture	95.8	85.6	73.2	47.3	76.6
Self-employed - other	89.9	80.0	62.4	53.0	79.4
Other	96.8	89.0	73.5	46.8	81.5
Reasons for Dissatisfaction (incl. don't know)					
Political differences	5.2	0.9	1.0	0.0	0.5
Embezzlement/corruption	20.0	45.4	19.1	1.8	12.6
They do not listen to people	19.2	21.5	12.4	1.2	12.8
Favouritism	25.7	25.6	15.8	2.5	11.4
Lazy/inexperienced	9.0	7.7	3.7	0.2	7.6
Personal Reasons	2.5	1.9	3.8	1.0	0.0
I see no results	21.9	28.6	16.9	11.2	32.4
They never visit us	13.8	23.6	70.1	83.8	47.1
No. of Obs.	450	450	450	450	450

Source:CWIQ 2006 Bariadi DC

1. While the question for kitongoji, village, ward and district leaders was framed as: "do you think the leaders at this level are polite and helpful', the question for the district councillor was framed as 'are you satisfied with the work of your district councillor?'

kitongoji, village, ward and district leaders. Rather, the number of people responding with ‘I don’t know’ increases for higher levels of government. Just 8 percent of respondents were not satisfied with the work of their district leaders, while 44 percent answered ‘I don’t know’.

The breakdown by cluster location shows that remote clusters report higher rates of satisfaction at ward and district level, with no strong differences at lower levels of government. In turn, poor households report a higher satisfaction rate with ward leaders, but no strong differences emerge at the remaining levels of government.

The breakdown by socio-economic group shows that the ‘other’ category tends to report higher satisfaction rates than the other socioeconomic groups, whereas the employees and the self-employed in non-agricultural activities tend to report lower rates.

Finally, all respondents who did not report that they were satisfied with the leaders at a certain level of government where asked why this was so. The bottom part of Table 8.2 summarises the responses. Note that the base for the percentages here is the number of people who answered ‘don’t know’ or ‘no’ to the question of whether they were satisfied with their leaders at the specified level.

The reasons for dissatisfaction are very different across the different levels of government. While at kitongoji level only 14 percent of dissatisfied respondents complain that leaders never visit them, this figure goes up to 84 percent for district

Table 8.3: Percentage distribution of households who received financial information in the past 12 months

	Kitongoji Finances	Village Finances	Ward Finances	District Finances
Total	15.9	14.3	2.0	0.8
Cluster Location				
Accessible	20.1	14.6	1.9	0.3
Remote	12.3	14.0	2.1	1.3
Poverty Status				
Poor	18.5	13.3	3.0	1.3
Non-poor	15.1	14.6	1.7	0.7
Socio-economic Group				
Employee	14.1	10.4	10.4	0.0
Self-employed - agriculture	16.2	14.8	1.4	0.8
Self-employed - other	7.3	5.7	4.9	2.8
Other	19.0	16.4	2.7	0.0
Source				
Letter	0.0	0.0	0.0	0.0
Notice board	1.2	0.0	0.0	27.3
Meeting	91.7	96.2	89.3	72.7
Rumours/hear-say	7.1	3.8	10.7	0.0
Radio/newspapers	0.0	0.0	0.0	0.0
No. of Obs.	450	450	450	450

Source:CWIQ 2006 Bariadi DC

leaders. Failure to see any result of the leaders' work, favouritism, corruption and failure to listen to people, by contrast, are the most commonly cited responses at

kitongoji and village, while being less important at ward and district levels. The most common reason for dissatisfaction with district councillors is their failure to pay visits. A very low percentage complains about embezzlement and corruption by the district leaders and the district councillor, while this complaint is more common for ward, village and kitongoji leaders.

8.3 Public Spending

This section discusses the results of questions on the extent to which financial information reached the sample of respondent, as well as their satisfaction with public spending. Table 8.3 shows the distribution of the percentage of respondents that reported having received financial information from four different levels of government. Information on kitongoji and village finances seems to reach the largest share of households at 16 and 14 percent, respectively. Information on ward and district finances reaches 2 and 1 percent of the households, respectively. Overall slightly more households in remote villages report receiving financial information than households in accessible villages, especially on village finances; while the breakdown of households by poverty status does not yield important differences.

The breakdown by socio-economic group shows that the self-employed in non-agricultural activities report the lowest shares receiving information on kitongoji and village finances, where the 'other' category shows the highest shares. The employees report the highest share receiving information on ward finances, whereas the self-employed in agriculture report the lowest. Finally, the employees and the 'other' socio-economic group report virtually null shares receiving information on district finances.

At all levels of government the most important method of acquiring information was attendance to meetings. Information received through rumours or hear-say scores second place at all levels except for district finances, where 'notice board' takes the second place.

Respondents were asked whether they were satisfied with spending at different

levels of government and were requested to respond either 'yes', 'no' or 'I don't know'. Table 8.4 shows the results. Satisfaction with spending is higher for lower levels of government. While around 64 percent of respondents were satisfied with village and 52 percent with kitongoji spending, only 41 and 29 percent, respectively, reported to be satisfied with ward and district spending. This does not, however, mean that respondents specifically report dissatisfaction with spending for higher levels of government, rather the share of respondents reporting 'I don't know' increases. For instance, the share answering 'I don't know' rises from 22 percent at kitongoji level to 61 percent at district level.

The breakdown by cluster location shows that accessible village report a higher rate of satisfaction with kitongoji spending than remote villages, whereas the latter report higher shares of satisfaction with ward and district spending. In turn, poor households report higher shares of satisfaction with kitongoji and village spending, but lower with ward and district meeting than non-poor households.

The breakdown by socio-economic group shows that the 'other' category reports the highest shares of satisfaction at all levels, whereas the self-employed in non-agricultural activities report the lowest shares.

When respondents were further queried why they were not satisfied, or why they did not know whether they were satisfied, the most common response was that they did not receive any information, increasing from 70 percent at kitongoji level to 84 percent at district level. The second most important response was embezzlement and corruption.

Table 8.4: Satisfaction with public spending and reasons for dissatisfaction

	Kitongoji Spending	Village Spending	Ward Spending	District Spending
Total				
Satisfied	63.9	52.1	40.6	29.4
Not Satisfied	14.1	21.5	18.8	9.3
Don' Know	21.9	26.4	40.6	61.3
Share Satisfied by Cluster Location				
Accessible	67.6	52.2	38.1	26.6
Remote	60.7	52.0	42.8	31.8
Share Satisfied by Poverty Status				
Poor	66.9	58.4	38.1	25.4
Non-poor	63.0	50.2	41.4	30.6
Share Satisfied by Socio-economic Group				
Employee	47.9	47.7	43.6	30.4
Self-employed - agriculture	64.8	52.2	41.4	29.4
Self-employed - other	45.3	43.7	24.8	24.8
Other	73.1	58.2	42.3	31.8
Reasons for Dissatisfaction (incl. don't know)				
I see no results	12.7	14.6	8.4	8.4
Embezzlement/corruption	18.5	29.5	21.4	4.7
Favouritism	1.1	1.2	1.9	1.5
This is what I hear	10.2	10.6	10.8	1.6
They give no information	69.9	71.7	80.4	83.5
No. of Obs.	450	449	449	449

Source:CWIQ 2006 Bariadi DC

9 CHANGES BETWEEN 2004 AND 2006

This chapter will use the results of the 2004 Bariadi DC CWIQ to analyse changes in a selected set of indicators between the two surveys. Both the sampling methodology and the structure of the questionnaires allow comparisons between the surveys. 't' tests were performed to ensure statistical significance of the changes that take into account the clustered nature of the dataset. The null hypothesis in all cases was equality of means, so rejection of the null implies that the means are statistically different. These tests rely on two assumptions: normality of the distribution of each variable in the population and equality of variance in both samples. Violation of the first assumption does not pose serious problems in practice. Regarding the second assumption, one may be willing to assume equal variance between the two samples if it is considered that both are representative of the same population in two relatively close points in time.

Being estimates, the changes should not be read as points, but from the corresponding confidence intervals. For instance, Table 9.1 shows that share of female-headed households decreased by 9 percent, and that the confidence interval of the change runs from -15.8 to -1.6 percent. This should be read: 'the share of primary school students satisfied with school decreased between 1.6 and 15.8 percent'. If the confidence interval includes zero, it is said that the change is not significant. For the sake of space, the tables only show the 95 percent confidence intervals.

However, some researchers or policy makers may prefer 90 or 99 percent confidence intervals. Although they are not presented in the tables, stars indicate the significance level of each change. *, **, and *** represent significance at the 90, 95 and 99 percent of confidence. The text only discusses changes at the 95 percent of confidence.

Some caveats must be pointed out. In first place, the sample is not a panel, i.e. the households interviewed in 2004 were not re-interviewed interviewed in 2006. Therefore, only the overall changes can be analysed, not the evolution for individual households. For instance, as shown in Table 9.4, the share of population owning only small livestock did not change significantly between the two surveys. It must be kept in mind that this result does not mean that the households that owned small livestock in 2004 are the same ones that own small livestock in 2006.

In second place, changes in perception may depend on the population interviewed. The same circumstance can be catalogued as 'fair' by some people and 'unfair' by others. The impact of this caveat is minimised by securing randomness in the selection of sampled households.

Table 9.1: Household Characteristics

	2004	2006	Change				
			Estimate	SE	Signif.	95% Confidence Interval	
Household Size							
1-2	10	5	-4.6	3.66		-11.8	3.1
3-4	25	26	1.0	3.67		-6.7	8.2
5-6	34	27	-7.5	3.08	**	-13.7	-1.1
7+	32	43	11.2	8.70		-6.7	28.8
Mean Household Size	5.7	6.1	0.4	0.61		0.55	-0.87
Female-headed Households	27	18	-8.6	3.49	**	-15.8	-1.6

Source: Bariadi DC CWIQ for 2004 and 2006

Finally, the figures are just two dots in time, and do not necessarily imply the existence of a trend between them.

Section one presents changes in household characteristics. In section two, the evolution of education indicators is analysed. Changes in health are reported in section three. The last section presents an analysis of changes in household assets and perceptions of welfare.

9.1 Household characteristics

Household size has remained fairly stable, as would be expected from two surveys with a relatively short time gap. The percent distribution of households by number of members has remained statistically unaltered, except for the share with 5 or 6 members, which has decreased around 8 percentage points. Finally, the share of female-headed households is around 9 points lower in the 2006 survey.

9.2 Education

Neither literacy nor net enrolment rates for primary school changed between the surveys. Net enrolment rate for secondary school decreased in comparison to the figure for 2004. In addition, it must be pointed out that the net enrolment rate for secondary school still lags far behind that for primary school.

Dissatisfaction with school has also remained unaltered. Regarding the reasons for dissatisfaction, the most important increases are observed in poor teaching and bad condition of the facilities.

9.3 Health

The rates of need and use increased between 2004 and 2006, but the rate of satisfaction remained constant. The reasons for dissatisfaction that report the highest reductions are the lack of medicine the shortage of trained professionals.

The share of people who did not consult reduced significantly, roughly between 3 and 16 percentage points. However, the reasons for not consulting did not change at the 95 percent of confidence.

The share consulting government hospitals has decreased significantly, whereas the shares consulting private hospitals, traditional healers, and pharmacists or chemists have increased.

There have not been changes in the percentage of women giving birth in the 15-19 cohort. However, the remaining cohorts show significant increases. There is a significant decrease in the share of pregnant women receiving pre-natal care. The share of women giving birth in hospitals has decreased at the 95 percent of confidence.

The last panel of the table shows child

Table 9.2: Education

	2004	2006	Change				
			Estimate	SE	Signif.	95% Confidence Interval	
Literacy	64	54	-10	7.50		-25.2	5.4
Primary School							
Net Enrolment Rate	72	60	-11	6.92		-25.5	2.7
Satisfaction	53	52	-1	13.12		-27.6	25.9
Secondary School							
Net Enrolment Rate	6	5	-1	2.46		-6.0	4.0
Satisfaction	18	32	14	16.94		-22.3	49.6
Dissatisfaction Rate	49	49	0	12.04		-24.1	25.0
Reasons for dissatisfaction							
Books/Supplies	41	45	4	12.14		-20.5	29.0
Poor Teaching	3	27	24	4.54	***	14.4	32.9
Lack of Teachers	40	57	17	12.59		-9.1	42.3
Bad Condition of Facilities	0	40	40	4.58	***	30.7	49.4
Overcrowding	11	9	-2	4.62		-11.4	7.5

Source: Bariadi DC CWIQ for 2004 and 2006

nutrition indicators, previously defined in section 4. All the indicators have remained statistically stable at the 95 percent of confidence.

9.4 Household Assets and Perceptions of Welfare

Table 9.4 analyses changes in household assets and on welfare perceptions. The share of households owning the same land as the year preceding the survey has increased, but no other changes were observed. The distribution of households of landholding shows statistically significant changes, but of relatively small magnitude. The most important change is the increase in the share of households owning six hectares of land or more. There were no changes for any type of livestock holding either.

There are no significant changes in the percentage distribution of households by

Table 9.3: Health

	2004	2006	Change				
			Estimate	SE	Signif.	95% Confidence Interval	
Medical Services							
Need	10	24	14	2.29	***	9.6	19.0
Use	16	27	11	14.91	***	328.4	389.2
Satisfaction	69	74	5	4.50		-4.3	14.0
Reasons for Dissatisfaction							
Long wait	41	40	-1	9.60		-17.3	21.9
Shortage of trained professionals	38	11	-28	10.19	**	-45.9	-4.3
Cost	45	32	-13	10.46		-34.1	8.6
No drugs available	43	19	-23	9.40	**	-39.4	-1.1
Unsuccessful treatment	14	15	1	5.39		-12.7	9.3
Percentage not Consulting	82	73	-8	3.13	***	-16.0	-3.2
Reasons for not consulting							
No need	95	96	1	0.74		-0.6	2.4
Cost	2	1	-1	0.65		-2.3	0.4
Distance	2	2	0	0.97		-2.4	1.6
Facility Used							
Private hospital	4	12	8	2.64	***	2.7	13.4
Government hospital	60	35	-25	3.89	***	-32.4	-16.5
Traditional healer	7	13	6	2.44	**	1.0	10.9
Pharmacy	11	35	24	4.12	***	15.9	32.8
Women who Had Live-Births							
15-19	6	7	1	2.88		-3.0	8.7
20-24	24	40	16	7.79	***	6.3	38.1
25-29	35	34	0	4.69	***	6.2	25.4
30-39	15	29	15	6.28	**	2.9	28.5
40+	7	10	3	3.79	*	-0.9	14.5
Prenatal care	97	88	-9	0.04	**	-0.2	0.0
Facilities Used in Child Deliveries							
Hospital or maternity ward	42	28	-14	6.08	***	-67.6	-42.8
Delivery Assistance							
Doctor/Nurse/Midwife	48	28	-21	7.10	***	-34.9	-5.9
TBA	34	5	-29	5.80	***	-40.9	-17.2
Other/Self	18	67	49	5.32	***	38.6	60.3
Child Nutrition							
Stunted (-2SD)	29	28	-1	4.06		-15.0	1.6
Severely Stunted (-3SD)	10	10	0	0.49	*	-1.9	0.2
Wasted (-2SD)	9	1	-8	3.42		-5.8	8.1
Severely Wasted (-3SD)	0	0	-1	2.55		-6.6	3.8

Source: Bariadi DC CWIQ for 2004 and 2006

difficulty in satisfying food needs.

There are no significant changes in the percentage distribution of households by source of drinking water. In addition, the 2006 CWIQ recorded a higher share of households with no toilet than the 2004 survey, and less households with covered pit latrines, whereas the shares for flush toilets and uncovered pit latrines are statistically similar.

Finally, the shares of people reporting deterioration of the economic situation of the household and the community have not changed at the 95 percent of confidence.

Table 9.4: Household Assets and Perception of Welfare

	2004	2006	Change				
			Estimate	SE	Signif.	95% Confidence Interval	
Landholding							
No holding	23	15	-8	8.11		-24.7	8.3
Less	5	4	-2	2.36		-6.4	3.3
Same	66	94	28	4.99	***	17.7	38.1
More	5	2	-3	2.15		-7.5	1.3
Difficulty satisfying food needs							
Never	8	8	0	-0.24		-8.6	8.2
Seldom	44	35	-10	11.96		-33.7	15.1
Sometimes	46	54	9	0.15		-22.3	39.4
Always	2	3	1	1.44		-2.0	3.9
Livestock							
No livestock	63	55	-8	6.93		-22.2	6.0
Small only	13	12	-1	2.27		-6.0	3.3
Large only	9	12	3	2.09		-1.7	6.8
Small and large	15	22	7	5.94		-5.2	19.0
Landholding (in acres)							
Mean	4	4	0.4	2.04	**	-9.6	-1.3
0	23	15	-8	8.11		-24.7	8.3
0-0.99	1	2	1	0.65	***	0.5	3.1
1-1.99	12	11	0	1.52	***	7.4	13.6
2-3.99	30	27	-3	2.74	***	9.6	20.8
4-5.99	18	18	0	3.46		-2.1	12.0
6+	16	27	11	6.38	***	-37.2	-11.2
Source of water							
piped water	11	4	-7	7.54		-22.0	8.7
protected well	61	59	-2	7.79		-18.3	13.5
unprotected well	29	38	9	11.31		-31.0	15.1
Type of toilet							
None	9	28	19	5.10	***	9.1	29.9
Flush toilet	0	0	0	0.13		-0.4	0.1
Covered pit latrine	84	65	-19	7.18	**	-34.0	-4.7
Uncovered pit latrine	8	8	0	3.45		-6.9	7.2
Economic Situation Has Deteriorated							
Community	50	51	1	10.85		-21.3	23.0
Household	49	60	11	8.69		-7.2	28.3

Source: Bariadi DC CWIQ for 2004 and 2006