

# **Tanzania-Netherlands**

**SNV**

## **MONDULI DISTRICT CWIQ Baseline Survey on Poverty, Welfare and Services in Monduli District**

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## **Foreword**



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## **ABBREVIATIONS**

CDC	Centres for Disease Control and Prevention
CWIQ	Core Welfare Indicator Questionnaire
DRDP	District Rural Development Project
EA	Enumeration Area
EDI	Economic Development Initiatives
GER	Gross Enrolment Rate
GPS	Global Positioning System
HBS	Household Budget Survey
NER	Net Enrolment Rate
PEDP	Primary Education Development Plan
TZS	Tanzanian Shilling
VDP	Village Development Plan
VHW	Village Health Worker
WHO	World Health Organisation



## Definitions

### *General*

Peri-urban	Semi-urban areas in rural districts e.g. district capital
Village Isolation	Distance of the village from the district capital
Household Isolation	Distance of the household from the centre of the sub-village (Enumeration Area)
Ethnic Fractionalisation	The probability that 2 randomly selected individuals from the same village are from different tribes

### *Poverty*

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



Access to Primary School	A household is considered to have access to a primary school if it is located within 30 minutes of travel from the nearest primary school.
Access to Secondary School	A household is considered to have access to a secondary school if it is located within 30 minutes of travel from the nearest secondary school.
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 were not attending school at the time of the survey

### *Health*

Access to Health Facilities	A household is considered to have access to a health facility if it is located within 30 minutes of travel from the nearest health facility.
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.
Equipped Health Facility	A health facility is considered equipped if it has the capacity to conduct malaria tests.
Village Health Worker	An individual with no or little formal health training appointed by the village to provide basic medical assistance to the villagers.



### *Child Nutrition*

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.
Chronic Malnutrition	Long-term malnutrition characterised by stunting

### *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 due to lack of work.
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 (eg. Illness, old age, disability).
Regular Employee	An individual who is paid a wage/salary.
Casual Employee	An individual who is paid an hourly/daily wage.
Subsistence Farmer	An individual who claims that his agricultural activities are aimed solely at provision of food for the household.
Commercial Farmer	An individual who claims that some or all of his agricultural activities are intended for commercial purposes.



*Local Governance*

Communal Works

Work carried out by the community often involving the construction or rehabilitation of public goods, like roads, bridges, schools or health facilities.

Indigenous Insurance Group

A clearly defined group of people from a community who have entered into an explicit agreement to help each other in a specified way in case certain events occur (often funerals or hospitalisation).





## Table of Contents

1	INTRODUCTION .....	1
1.1	The Monduli District CWIQ .....	1
1.2	Survey Methodology .....	2
1.3	Key District Findings .....	2
2	POVERTY PREDICTORS .....	7
2.1	Introduction .....	7
2.2	Predicting Household Consumption Expenditure .....	7
2.2.1	Background Information .....	7
2.2.2	Methodology .....	7
2.2.3	Poverty Lines and Poverty Rates .....	8
2.2.4	Accuracy .....	9
2.3	Poverty and Inequality in Monduli District .....	9
2.3.1	Distribution of Poverty by Area of Residence .....	10
2.3.2	Consumption Inequality .....	10
2.4	Poverty and Characteristics of Household Heads .....	11
3	VILLAGE, POPULATION AND HOUSEHOLD CHARACTERISTICS .....	14
3.1	Introduction .....	14
3.2	Village Characteristics .....	14
3.2.1	Ethnicity and Religion in Monduli .....	14
3.2.2	Ethnic and Religious Fractionalisation .....	15
3.2.3	Ethnic Fractionalisation and Poverty .....	16
3.2.4	Village Isolation .....	17
3.2.5	Fractionalisation and Isolation .....	18
3.3	Population Characteristics .....	18
3.4	Household Characteristics .....	20
3.4.1	Households by Area of Residence and Household Size .....	20
3.4.2	Land Holdings .....	22
3.4.3	Livestock Holdings .....	24
3.5	Characteristics of Household Heads .....	24
3.5.1	Gender and Marital status of Household Heads .....	24
3.5.2	Household Heads by Socio-Economic Group .....	25
3.5.3	Household Heads by Education .....	26
4	EDUCATION .....	27
4.1	Introduction .....	27
4.2	Selected Adult Education Indicators .....	27
4.2.1	Literacy .....	27
4.2.2	Formal Schooling Rate .....	28
4.2.3	Average Years of Schooling .....	28
4.3	Selected Primary Education Indicators .....	30
4.3.1	Access to Primary School .....	30
4.3.2	Enrolment .....	34
4.3.3	Satisfaction .....	37
4.3.4	A Closer Look at Some of the Indicators .....	38
4.4	Selected Secondary Education Indicators .....	42



4.4.1	Distance.....	42
4.4.2	Access .....	44
4.4.3	Enrolment.....	45
4.4.4	Reasons for Non-attendance .....	47
4.5	Monduli's Education Indicators in Context.....	48
5	HEALTH.....	49
5.1	Introduction.....	49
5.2	Selected Health Indicators .....	49
5.2.1	Distance to Equipped Health Services.....	49
5.2.2	Access to Health Services.....	51
5.2.3	Need for Health Services .....	52
5.2.4	Use of Health Services.....	53
5.2.5	Satisfaction.....	53
5.3	Type of Illness.....	56
5.4	Type of Health Care Provider .....	59
5.5	Dissatisfaction with Health Providers.....	62
5.6	Reasons for Not Consulting a Health Provider When Ill.....	65
5.7	Village Health Workers .....	68
5.8	Bed Nets.....	69
6	CHILD DELIVERY AND NUTRITION.....	72
6.1	Introduction.....	72
6.2	Reproductive Health .....	72
6.3	Child Delivery.....	74
6.3.1	Facilities Used to Give Birth.....	74
6.3.2	Delivery Assistance .....	76
6.4	Child Nutrition.....	78
6.4.1	Malnutrition in Monduli District .....	79
6.4.2	Nutritional Status of Children by Selected Characteristics.....	82
7	EMPLOYMENT.....	85
7.1	Introduction.....	85
7.2	Employment status.....	85
7.2.1	Working Population.....	85
7.2.2	Non-Working Population.....	86
7.3	Type of Employment .....	88
7.4	Employment Sector.....	89
7.5	Self-employment.....	91
7.6	Economic Inactivity .....	93
8	LOCAL GOVERNANCE.....	96
8.1	Introduction.....	96
8.2	Village Government.....	96
8.2.1	Village Council Committee Membership .....	96
8.2.2	Activities of the Village Council .....	98
8.3	Awareness and Participation.....	99
8.3.1	Awareness.....	99
8.4	Participation .....	104
8.4.1	Attendance .....	104



8.4.2	Expressing Opinions at Meetings .....	106
8.4.3	Communication with Local Leaders .....	108
8.4.4	Involvement in Communal Activities .....	109
ANNEX A	.....	112
ANNEX B	.....	115
ANNEX C	.....	119
ANNEX D	.....	147
ANNEX E	.....	164
References	.....	181



## List of Tables

Table 1: Sample Stratification .....	2
Table 2: Monduli at a Glance.....	5
Table 3: Variables Used to Predict Consumption Expenditure .....	8
Table 4: Accuracy of Poverty Predictors in Categorising Poor and Non-Poor Households .....	9
Table 5: Distribution of the Population by Tribe and Religion at Village Level .....	15
Table 6: Population Characteristics .....	19
Table 7: Distribution by Age, Median Age and Dependency Ratio's .....	20
Table 8: Households by Area of Residence .....	21
Table 9: Household Size: Percentage Distribution of Households by Household Size and Average Household Size .....	22
Table 10: Land Holdings .....	23
Table 11: Livestock Holdings .....	24
Table 12: Gender and Marital Status of Household Heads .....	25
Table 13: Household Heads by Socio-Economic Group .....	26
Table 14: House Heads by Education .....	26
Table 15: Selected Adult Education Indicators (age 15+) .....	29
Table 16: Distribution of Households by Distance to the Nearest Primary School (in kilometres of travel) – GPS measurement .....	33
Table 17: Selected Primary Education Indicators .....	36
Table 18: Children Currently at School and Dissatisfied with it; Reasons for Dissatisfaction .....	39
Table 19: Enrolment by Age .....	41
Table 20: Age Distribution Per Grade in Primary School (in percentage of total number of children attending that grade) .....	42
Table 21: Distribution of Households by Distance to the Nearest Secondary School (in kilometres of travel) – Respondents' Estimates .....	44
Table 22: Secondary School Access and Enrolment Rates .....	46
Table 23: Reasons for Non-Attendance by Age .....	47
Table 24: Monduli's Education Indicators in Context of Rural Tanzania .....	48
Table 25: Distribution of Households by Distance to the Nearest Equipped Health Facility .....	50
Table 26: Selected Health Indicators .....	55
Table 27: Type of Illness .....	58
Table 28: Type of Health Provider Used .....	61
Table 29: Reasons for Dissatisfaction with Health Services .....	64
Table 30: Reasons for Not Consulting a Health Provider When Ill .....	67
Table 31: Presence and Awareness of Village Health Workers .....	69
Table 32: Proportion of Individuals Sleeping Under Bed Nets .....	71
Table 33: Women Who Had a Live Birth in the Year Preceding the Survey by Age; Proportion of Mothers who had a Live Birth and had Received Pre-natal Care in the Year Preceding the Survey .....	73
Table 34: Type of Facilities Used in Child Birth .....	75



Table 35: Distribution of Women who had Given Birth in the Five Years Preceding the Survey by Type of Delivery Assistance Used .....	77
Table 36: Stunting and Wasting Rates Among Children Under the Age of Five.....	81
Table 37: Distribution of Malnourished Children by Characteristics of the Mother.....	83
Table 38: Distribution of the Population by Employment Status .....	87
Table 39: Distribution of the Employed Population by Type of Employment.....	88
Table 40: Distribution of the Working Population by Employment Sector .....	90
Table 41: Distribution of the Self-employed Population by Occupation .....	92
Table 42: Distribution of the Economically Inactive Population by Reason for Not Working .....	95
Table 43: Basic Characteristics of Council Members and the Population as a Whole.....	97
Table 44: Village Council Activities .....	99
Table 45: Distribution of Households by Levels of Awareness of Local Governance Activities at Sub-village and Village Levels .....	103
Table 46: Speaking Out at Meetings.....	107
Table 47: Communication with Local Leaders in their Official Capacity in 12 months preceding the survey .....	109
Table 48: Distribution of Household Rates of Participation by Household Characteristics .....	110



## Annex Table List

Table A 1: Confidence Intervals Around Key Estimates.....	113
Table B 1: Summary Statistics of Regression Results for Predicting Household Consumption Expenditure .....	116
Table B 2: Confidence Intervals for Poverty Predictors (No. of Households Living under the Basic Needs Poverty Line).....	117
Table C3 1: Distribution of Individuals by Orphan Status and co-habitation with parents .....	120
Table C3 2: Distribution of Households by Main Contributor of Household Income ...	121
Table C3 3: Distribution of Households by Possession of Selected Assets .....	122
Table C3 4: Distribution of Households by Type of Toilet Used.....	123
Table C3 5: Distribution of Households by Type of Cooking Energy Used.....	124
Table C3 6: Distribution of Households by Type of Light Energy Used .....	125
Table C3 7: Distribution of Households by Source of Water .....	126
Table C3 8: Distribution of Households by Type of Roof Material .....	127
Table C3 9: Distribution of Households by Wall Material.....	128
Table C3 10: Distribution of Household by Floor Type.....	129
Table C3 11: Distribution of Households by Mean Number of Rooms and Dwelling Ownership.....	130
Table C3 12: Distribution of Households by Time it Takes to Travel to the Nearest Source of Water .....	131
Table C3 13: Distribution of Households by Time it Takes to Travel to the Nearest Food Market.....	132
Table C3 14: Distribution of Households by Time it Takes to Travel to the Nearest Transport .....	133
Table C3 15: Mode of Transport Used to Travel to Facility .....	134
Table C3 16: Distribution of Households by Mean Number of Times Meat is Consumed per Week and Meat Consumption on a Weekly Basis.....	135
Table C3 17: Distribution of Households by Mean Number of Meals Consumed per Day and Incidence of Food Shortages in the 12 Months Preceding the Survey .....	136
Table C3 18: Distribution of Households by Assessment of Community Economic Situation Compared to the a Year Ago .....	137
Table C3 19: Distribution of Households by Assessment of Household Economic Situation Compared to the a Year Ago .....	138
Table C3 20: Distribution of Households by Change in Large Livestock Holding Compared to One Year Ago .....	139
Table C3 21: Distribution of Households by Change in Medium Livestock Holding Compared to One Year Ago .....	140
Table C3 22: Distribution of Households by Change in Land Holding Compared to One Year Ago.....	141
Table C4 1: Distribution of Individuals Who had Some Formal Schooling by Additional Education Received	142
Table C4 2: Distribution of Households by Distance to Nearest Primary School as per Estimation of the Respondent (in kilometres) .....	143



Table C5 1: Distribution of Individuals by Disability; Distribution of Individuals Who Use Bed Nets by Percentage who use Treated Bed Nets.....	144
Table C5 2: Distribution of Individuals who had been Sick by Time Taken Off Work.	145
Table C5 3: Distribution of Households Aware of the Presence of a Village Health Worker in Their Village by Types of benefits Received from the VHW .....	146



## List of Figures

Figure 1: Poverty Levels by Area of Residence .....	10
Figure 2: Distribution of Non-Poor and Poor Households by Area of Residence.....	10
Figure 3: Consumption Inequality .....	11
Figure 4: Consumption Inequality in Monduli District .....	11
Figure 5: Average Years of Schooling Received by Household Head by Consumption Quintile .....	12
Figure 6: Distribution of Poor and Non-poor Households by Socio-economic Status.....	13
Figure 7: Distribution of Poor and Non-poor Households by Gender of Household Heads .....	13
Figure 8: Ethnic and Religious Fractionalisation.....	16
Figure 9: Distribution of Households Located in More and Less Fractionalised Villages by Consumption Quintile.....	16
Figure 10: Distribution of Villages by Distance to District Capital (in kilometres).....	17
Figure 11: Distribution of More and Less Fractionalised Villages by Isolation Level ....	18
Figure 12: Access Rates Using Different Measurements .....	31
Figure 13: The Relation Between Bed Net Use and Malnutrition.....	84
Figure 14: Malnutrition by Access to Health Equipped Health Facilities (defined as living less than 2 kilometres from one).....	84
Figure 15: Attendance of Public Village Meetings.....	104
Figure 16: Age and Gender Composition of Public Village Meetings.....	105
Figure 17: Distribution of Villages in Monduli by proportion of Attendance at Last Village Council Elections .....	105





# 1 INTRODUCTION

## 1.1 *The Monduli District CWIQ*

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

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. Monduli District CWIQ was the first survey of its kind to be administered in Monduli. Although beyond the purpose of this study, the results of Monduli District CWIQ could also be set against those of other CWIQ surveys that have been implemented in other districts and regions of Tanzania: Mbeya Urban District, Singida Urban District, Mtwara Urban District, Rural Kagera Region and Rural Shinyanga Region. African countries that have implemented nationally representative CWIQ surveys include Malawi and Ghana.

The survey was implemented by EDI (Economic Development Initiatives) a Tanzanian registered research, consultancy and training group on behalf of SNV of the Netherlands Embassy. The report is aimed at national, regional and district level policy makers as well as the research and policy community at large.

The Monduli District CWIQ was sampled to be representative at district level. 450 households were chosen in the district to represent its population. Households were clustered in 30 Enumeration Areas and stratified in rural and peri-urban areas.<sup>1</sup>

The survey started with the listing of the households in February 2005. Every one of the 450 sampled households was visited and administered a questionnaire in March 2005.

This report begins with a description of the survey methodology, including the sampling frame. The following chapters focus on poverty trends and population characteristics. Education, health, child delivery and nutrition and employment are examined next. Analysis of village level governance processes concludes the report.

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<sup>1</sup> Although Monduli is generally classed as rural, it still contains some areas which are semi-urban (e.g. Monduli Mjini – district capital). Throughout this report such areas shall be referred to as ‘peri-urban’.



In, perhaps, one or two years time it would be advisable to repeat the survey as it will give an indication of the direction in which the welfare of households is changing and how this is influenced by the policies implemented.

## 1.2 Survey Methodology

Data from the 2002 Census was used to select 15 households in 30 Enumeration Areas of Monduli District. In the first stage sub-villages were selected in 2 strata. In the second stage households were selected in each sub-village (also referred to as Enumeration Area in this report). In total 450 households were surveyed. Households were stratified into rural and peri-urban areas and given statistical weights reflecting the number of households they represent (Table 1). In addition to the administering of the household questionnaire, anthropometric measurements of every child under the age of 5 were made in each of the surveyed households. Further, Global Positioning Systems (GPS)<sup>2</sup> were used to record the exact location of all of the surveyed households and of the vital facilities in the areas. Finally, in addition to 15 household questionnaires, a community questionnaire was conducted in each Enumeration Area. Community level data collected using this instrument informs on, among others, selected basic characteristics of members of local government, the planning strategies used within villages and the level of awareness and involvement of the community in local governance.

**Table 1: Sample Stratification**

	<i>Rural</i>		<i>Peri-urban</i>		<i>Total</i>
	No. of selected Enumeration Areas	No. of selected households	No. of selected Enumeration Areas	No. of selected households	
Monduli District	26	390	4	60	450

## 1.3 Key District Findings

This section discusses the key findings of the survey. Table 2 gives an overview of the core indicators collected in the Monduli District CWIQ survey.

1. Monduli district has a population of approximately 208,000 individuals who live in nearly 42,000 households. About 36,000, or 86 percent, of these households are located in rural areas; the remaining 14 percent (roughly 6,000 households) are found in areas classified as peri-urban.
2. Results show that the district poverty rate is 51 percent; in other words, over half of the households have a consumption level below the Basic Needs Poverty Line<sup>3</sup>.

<sup>2</sup> GPS is a system that uses satellites to locate a geographic position in terms of degrees of longitude and latitude.

<sup>3</sup> Basic Needs Poverty Line is explained in the next chapter



- Poverty rate is significantly higher in rural than in peri-urban areas; while in rural areas the residents of 59 percent of households live under the Basic Needs Poverty Line, in peri-urban areas this proportion is only 2 percent.
3. Overall, the literacy rate in Monduli is 45 percent. However, there are noticeable differences across gender, poverty status and area of residence. Results show that literacy rate among individuals from poor households is as low as 28 percent; it is significantly higher among members of non-poor households, at 62 percent. Similarly, while only 37 percent of females are able to read and write, this proportion is 15 percentage points higher among men, at 52 percent. Lastly, while in rural areas the literacy rate is 38 percent, in peri-urban areas it is as high as 85 percent.
  4. Access to a facility is defined as living within 30 minutes of travel from the facility. Roughly a quarter of the primary school age children in the district have access to a primary school; only 6 percent of secondary school age children live equally close to the nearest secondary school. At both primary and secondary school levels, access is substantially higher in peri-urban than rural areas. At 58 percent, primary school access rate in peri-urban areas is more than twice that in rural areas. Secondary school access rate in peri-urban areas is 25 percent; this is more than 8 times that in rural areas.
  5. The proportion of children from poor households with access to a primary school is 18 percent. This access rate is 12 percentage points below that of children from non-poor households.
  6. At the time of the survey, the primary school Gross Enrolment Rate (GER) in Monduli district was 88 percent. Just less than two thirds of primary school age children (7 to 13 years) were found to be attending school.
  7. Secondary school Net Enrolment Rate (NER) was only 6 percent. This means that roughly only 1 in 17 individuals of secondary school age was attending secondary school at the time of the survey.
  8. Breakdown by age further shows that some children start school late and, therefore, lag behind at school throughout their schooling career. Only 30 percent of Standard I children were of the correct age (7 years) in Monduli; more than half of the children were between the ages of 8 and 10 years.
  9. Just under a fifth (18 percent) of households in Monduli have access to health facilities. Access rate to health facilities in peri-urban areas is nearly twice as high as that in rural areas, at 29 percent and 16 percent respectively.
  10. Results of the survey show that approximately 52,000 individuals, or 25 percent of Monduli's residents, had been ill in the 4 weeks preceding the survey.
  11. The proportions of the population using health facilities differ slightly between rural and peri-urban areas; the rates are 14 and 18 percent respectively.
  12. Over half (57 percent) of all individuals who had consulted a health provider in the 4 weeks preceding the survey, were satisfied with the services they received.



Satisfaction rates in rural and peri-urban areas deviate only slightly from the district average.

13. The most common reason for dissatisfaction with health services in Monduli is the low availability of supplies necessary for treatment; this problem was cited by 56 percent of dissatisfied health facility users. Condition of facilities, including long waiting time and low levels of hygiene, was also mentioned by a substantial proportion of health users.
14. 88 percent of all women who gave birth in the 12 months preceding the survey received prenatal care. Only 23 percent of births, however, were conducted in a hospital or maternity ward.
15. Nearly 8,000 or 32 percent of children under 5 years of age in Monduli district suffer from chronic malnutrition (stunting); in other words these children are too short for their age. Roughly 2,000 children (8 percent) are acutely malnourished (wasted); these children are too thin for their height.

**Table 2: Monduli at a Glance**

	<b>Rural</b>	<b>Peri-Urban</b>	<b>Total</b>
<b>POPULATION</b>			
<b>Total No. of Individuals</b>	<b>179,196</b>	<b>28,326</b>	<b>207,522</b>
<b>Total No. of Households</b>	<b>35,619</b>	<b>6,048</b>	<b>41,667</b>
<b>POVERTY</b>			
<b>% Households Living Under the Basic Needs Poverty Line</b>	<b>59</b>	<b>2</b>	<b>51</b>
<b>LITERACY</b>			
<b>Literacy Rate (for individuals over the age of 14)</b>	<b>38</b>	<b>85</b>	<b>45</b>
<i>Non-poor</i>	52	85	62
<i>Poor</i>	28	86	28
<i>Male</i>	45	90	52
<i>Female</i>	30	80	37
<b>PRIMARY SCHOOL</b>			
<b>Access</b>	<b>19</b>	<b>58</b>	<b>24</b>
<b>Satisfaction</b>	<b>54</b>	<b>49</b>	<b>53</b>
<b>Gross Enrolment Ratio</b>	<b>81</b>	<b>134</b>	<b>88</b>
<i>Non-poor</i>	80	131	94
<i>Poor</i>	81	248	82
<i>Male</i>	86	126	92
<i>Female</i>	74	142	83
<b>Net Enrolment Ratio</b>	<b>60</b>	<b>97</b>	<b>65</b>
<i>Non-poor</i>	62	99	71
<i>Poor</i>	58	50	58
<i>Male</i>	62	98	67
<i>Female</i>	57	97	62



	Rural	Peri-Urban	Total
<b>SECONDARY SCHOOL</b>			
<b>Access</b>	<b>3</b>	<b>25</b>	<b>6</b>
<b>Satisfaction</b>	<b>42</b>	<b>43</b>	<b>42</b>
<b>Gross Enrolment Ratio</b>	<b>5</b>	<b>15</b>	<b>7</b>
<i>Non-poor</i>	12	16	13
<i>Poor</i>	0	0	0
<i>Male</i>	3	11	4
<i>Female</i>	7	16	9
<b>Net Enrolment Ratio</b>	<b>6</b>	<b>13</b>	<b>6</b>
<i>non-poor</i>	10	13	11
<i>Poor</i>	0	0	0
<i>Male</i>	3	11	4
<i>Female</i>	6	13	7
<b>HEALTH</b>			
<b>Access</b>	<b>16</b>	<b>29</b>	<b>18</b>
<b>Need</b>	<b>25</b>	<b>26</b>	<b>25</b>
<b>Use</b>	<b>14</b>	<b>18</b>	<b>15</b>
<b>Satisfaction</b>	<b>56</b>	<b>64</b>	<b>57</b>
<b>NUTRITION</b>			
<b>% of stunted children</b>	<b>36</b>	<b>10</b>	<b>32</b>
<i>Boys</i>	35	14	32
<i>Girls</i>	40	8	32
<b>% of wasted children</b>	<b>9</b>	<b>0</b>	<b>8</b>
<i>Boys</i>	8	0	7
<i>Girls</i>	9	0	8



## **2 POVERTY PREDICTORS**

### ***2.1 Introduction***

This chapter discusses the poverty measurements used throughout the report. The scope of the Monduli District CWIQ did not include collection of household expenditure data. However, using other variables, household consumption expenditure has been predicted to allow a more in-depth analysis of the data. The first part of this chapter explains how predicted consumption was calculated and demonstrates its reliability. An overview of the distribution of poverty across the district and levels of inequality are examined in the section that follows. A brief discussion of household poverty and characteristics of household heads concludes the chapter.

### ***2.2 Predicting Household Consumption Expenditure***

#### **2.2.1 Background Information**

It is 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 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.

#### **2.2.2 Methodology**

There is a core set of variables that are incorporated in the majority of surveys. These variables inform on household assets and amenities, education level of the head of household, amount of land owned by a household and others. By observing the impact these have on the 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 the 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 belong to a higher income quintile 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.

In the case of the Monduli District CWIQ, 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. Work was then done to investigate the specific characteristics of Monduli in order to ensure that the model developed accurately represents this district in particular.

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 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 3 lists the variables that have been used to calculate predicted household income.

**Table 3: Variables Used to Predict Consumption Expenditure**

<i><b>Basic Variables</b></i>	<i><b>Food Security</b></i>
Age of household head	Problems satisfying food needs
Household size	Number of meals per day
Education of household head	Number of days meat was consumed
Activity of household head	
<i><b>Household Assets</b></i>	<i><b>Household Amenities</b></i>
Farm land owned	Source of water
Roof material	Toilet (yes/no)
Wall material	
Radio, radio cassette, music system	
Iron, electric or charcoal	
Saving/current bank account	

### 2.2.3 Poverty Lines and Poverty Rates

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 exact procedure by which this line has been set is described in detail in 2000/01 HBS report. In short, 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. 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.





### 2.2.4 Accuracy

The Monduli District 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 allows 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 – the HBS data. Results of this exercise are presented in Table 4 and show that the first type of mistake happens relatively frequently. The model wrongly predicts a poor household to be non-poor in 11 percent of the cases. The second type of mistake is made slightly less often: 9.6 percent of the households that were predicted to be poor were actually non-poor.

**Table 4: Accuracy of Poverty Predictors in Categorising Poor and Non-Poor Households**

	Actually Poor	Actually Non-poor
Predicted Poor	24.3	9.6
Predicted Non-poor	11.0	55.0

Predicting the regional poverty rate is not the purpose of CWIQ. Expenditure surveys, such as the 2000/2001 Household Budget Survey, are much better suited for this purpose. However, such large scale surveys have insufficient number of observations to inform on district level trends. The Monduli District 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.

## 2.3 Poverty and Inequality in Monduli District

Where feasible, statistics in each chapter will be disaggregated by poverty status. This allows more in-depth analysis of the data and formulation of more poverty focussed interventions. The remainder of this chapter presents an overview of prevalence of poverty in Monduli, the level of consumption inequality in the district, and some household level poverty trends.



### 2.3.1 Distribution of Poverty by Area of Residence

Overall, 51 percent of households in Monduli have a consumption level below that required to satisfy basic needs; nearly all of these households are located in rural areas. Figure 1 shows the distribution of poverty levels by area of residence. As can be seen, roughly 3 out of 5 households in the rural areas of Monduli are poor (59 percent); in peri-urban areas this is only the case for 1 out of 50 households (2 percent).

**Figure 1: Poverty Levels by Area of Residence**

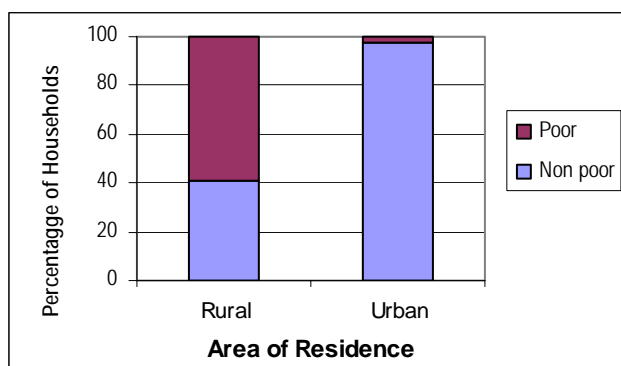
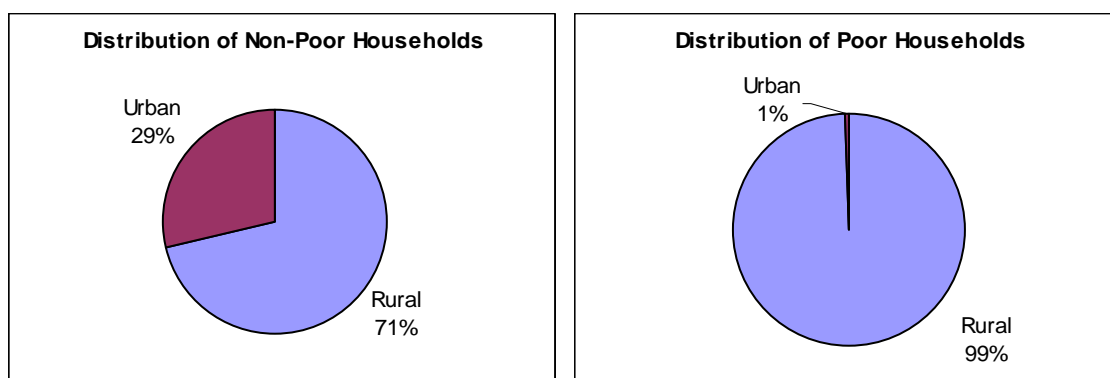


Figure 2 further shows that only 1 percent of all poor households in the district are located in peri-urban areas. The proportion of non-poor households located in peri-urban areas is 29 times greater.

**Figure 2: Distribution of Non-Poor and Poor Households by Area of Residence**



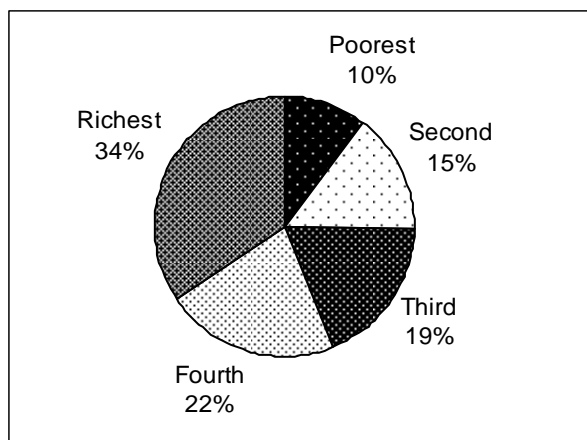
### 2.3.2 Consumption Inequality

A commonly used measure of income inequality is the share of consumption accounted for by households in different expenditure classes. For this purpose households are divided into five groups of equal size according to their consumption expenditure. Figure 3 demonstrates that in Monduli District the consumption of the richest group (the group with the highest consumption expenditure) accounts for 34 percent of total consumption.



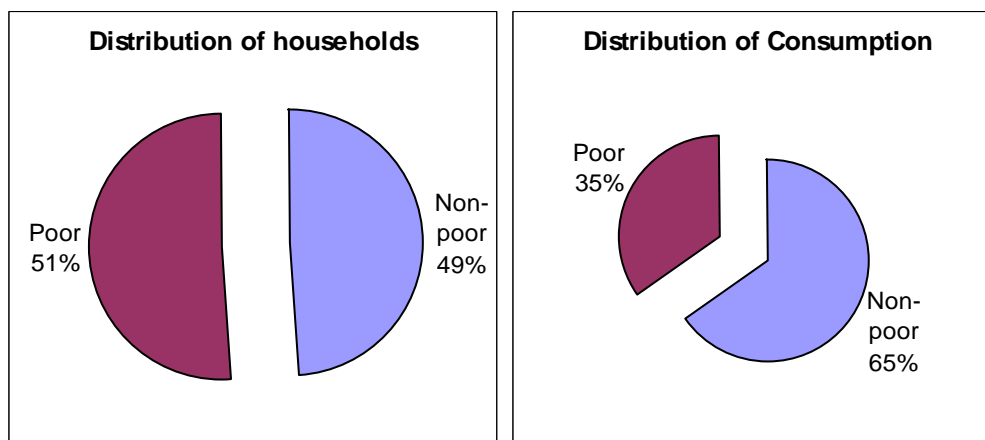
In contrast, the consumption expenditure of the poorest group accounts for only 10 percent of the total.

**Figure 3: Consumption Inequality**



Inequality can also be examined by comparing the proportion of poor households in the district to the proportion of total consumption expenditure accounted for by these households. Figure 4 shows that while poor household constitute 51 percent of households in the district, their consumption expenditure only accounts for 35 percent of the total.

**Figure 4: Consumption Inequality in Monduli District**



## 2.4 Poverty and Characteristics of Household Heads

This section examines the differences and similarities in the main characteristics of poor and non-poor households<sup>4</sup> in Monduli District. Household characteristics, and more specifically characteristics of the household head, are disaggregated by poverty status for

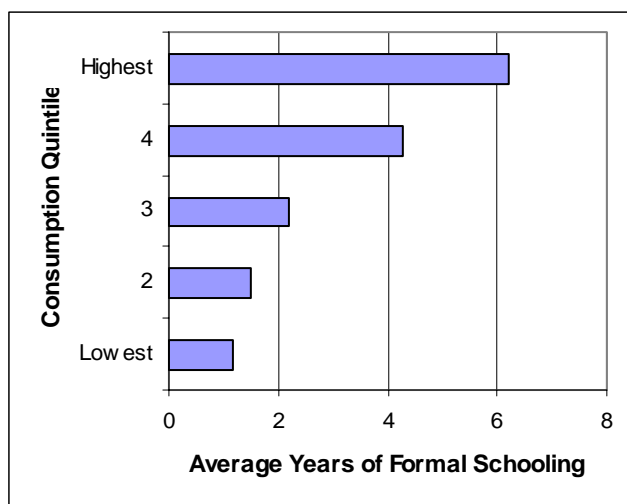
<sup>4</sup> The analysis in this section should be treated with a degree of caution as some of the household characteristics compared across the two groups have also been used to predict poverty. As mentioned before, this means that there may be some inherent correlation between these variables and poverty.



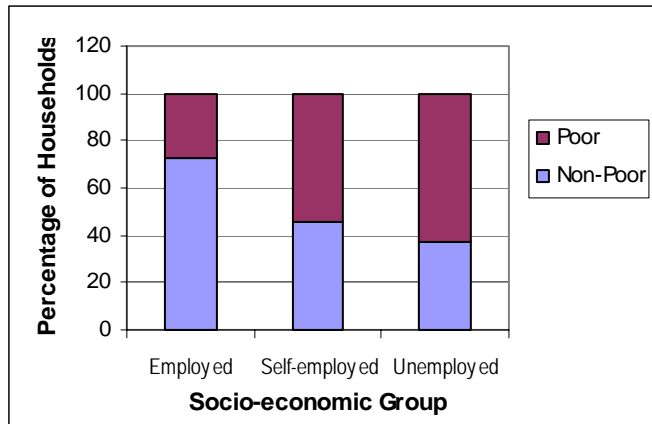
this purpose. Characteristics of the household head are the focus of this section as they often affect the whole household. For instance, in Monduli the head of household is the main contributor of income in 84 percent of all households. Further decomposition by poverty status is presented in each of the relevant sections.

Results of the survey suggest that education of the household head is correlated with the household poverty status. Figure 5 shows that while households in the lowest consumption quintile are headed by individuals with an average of just over 1 year of formal schooling, heads of households in the highest quintile have had, on average, 6 times as much education. Although education of the household head is one of the variables used to predict consumption expenditure, the validity of the observed correlation between poverty and education of household head should not be underestimated as this relationship is statistically significant.

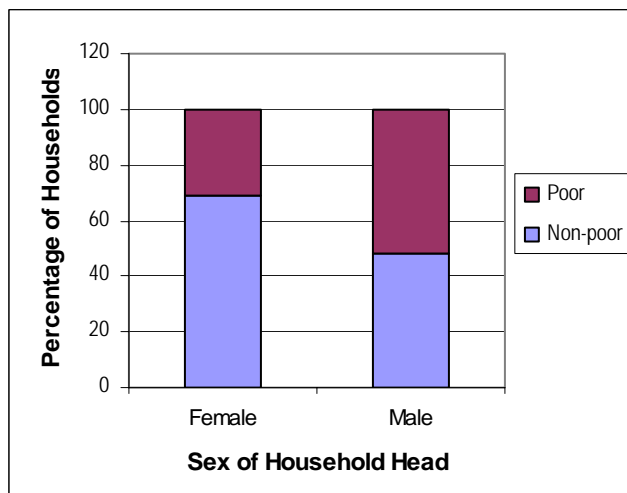
**Figure 5: Average Years of Schooling Received by Household Head by Consumption Quintile**



Analysis of poor and non-poor households by socio-economic group, which is defined by the employment sector of the household head, shows that households in the employed group, that includes those employed by another individual/organisation, tend to be significantly better off than households headed by either self-employed, or unemployed individuals. Households in the latter two groups are predominantly poor. In contrast, poor households constituted only just over a quarter (27 percent) of households in the former group.

**Figure 6: Distribution of Poor and Non-poor Households by Socio-economic Group**

Finally, the results suggest that poverty is more widespread in male headed households. While the difference presented in Figure 7 is not statistically significant, it does show a distinct trend; the majority of male headed households (52 percent) are poor, compared to less than a third (31 percent) of households headed by women.

**Figure 7: Distribution of Poor and Non-poor Households by Gender of Household Head**



### **3 VILLAGE, POPULATION AND HOUSEHOLD CHARACTERISTICS**

#### ***3.1 Introduction***

This chapter provides an overview of Monduli's village, household and population characteristics. To begin with, the tribal and religious make up of Monduli's villages are examined. This is followed by analysis of the ethnic and religious diversity in Monduli district. The levels of isolation in Monduli are then looked at in terms of the distribution of households by distance to the capital and to the centre of the village in which they are located. The next part of the chapter discusses main characteristics of the population in Monduli such as area of residence, gender and poverty. The same analysis is then conducted at household level. An examination of the main characteristics of household heads in Monduli concludes the chapter.

#### ***3.2 Village Characteristics***

##### **3.2.1 Ethnicity and Religion in Monduli**

Table 5 below shows the tribal and religious make-up of Monduli's villages. As can be seen, members of the Masai tribe are found in the great majority of areas in the district. 93 percent of the villages contain this group. Further, the Masai constitute the great majority of the population in these villages; 85 percent, on average. The Wachaga are the second most widespread ethnic group in the district. Members of this tribe, however, are only found in a third of the villages and, on average, make up 4 percent of the villages where they live. There are at least 8 other ethnic groups found in the district. None of these groups, however, live in more than a fifth of Monduli's villages or constitute more than 2 percent of the population in these villages.

Lutheran Protestants, as well as pagan groups are present in all villages in the district. On average, pagans constitute just over half of the population. Lutherans, on the other hand, make up a fifth of this population. Roman Catholics and Protestants are also present in the great majority of villages. Muslims, on the other hand, are least widespread in Monduli; they are found in less than half (47 percent) of villages and, on average, constitute only 4 percent of the population in these villages.

**Table 5: Distribution of the Population by Tribe and Religion at Village Level**

	Proportion of Villages That Contain the Group	Average Proportion of Population Constituted by Group in Villages Where it is Present
<b>Monduli District Tribes</b>		
Wamasai	93.3	85.0
Wachaga	33.3	3.6
Wairaq	16.7	1.3
Warangi	10.0	0.2
Wambulu	16.7	1.2
Wameru	20.0	2.0
Wanyaturu	20.0	0.8
Wanyiramba	16.7	2.3
Wapari	20.0	0.9
Wasandawi	6.7	0.4
Other	30.0	1.8
<b>Monduli District Religions</b>		
Muslim	46.7	3.8
Roman Catholic	90.0	14.1
Lutheran	100.0	20.8
Protestant	96.7	10.5
Pagan	100.0	51.3

### 3.2.2 Ethnic and Religious Fractionalisation

The level of ethnic fractionalisation is a variable that is used throughout the report. Villages are split into those with high ethnic fractionalisation and those with low ethnic fractionalisation. Ethnic fractionalisation is commonly measured as the probability that 2 randomly selected individuals from a village are from a different tribe. If a village is homogeneous this probability is 0. In the extreme case that everyone in the village would be from a different tribe the probability is 100 percent. Figure 8 shows that 71 percent of the villages in Monduli have an ethnic fractionalization index lower than 10 percent.

As shown below, religious fractionalization can be measured in the same way (Figure 8). Religious fractionalisation is higher than ethnic fractionalisation in Monduli. The religious fractionalisation index is below 10 percent in only 4 percent of the villages. In contrast, in the majority of the villages (63 percent) the religious fractionalisation index is at least 30 percent.

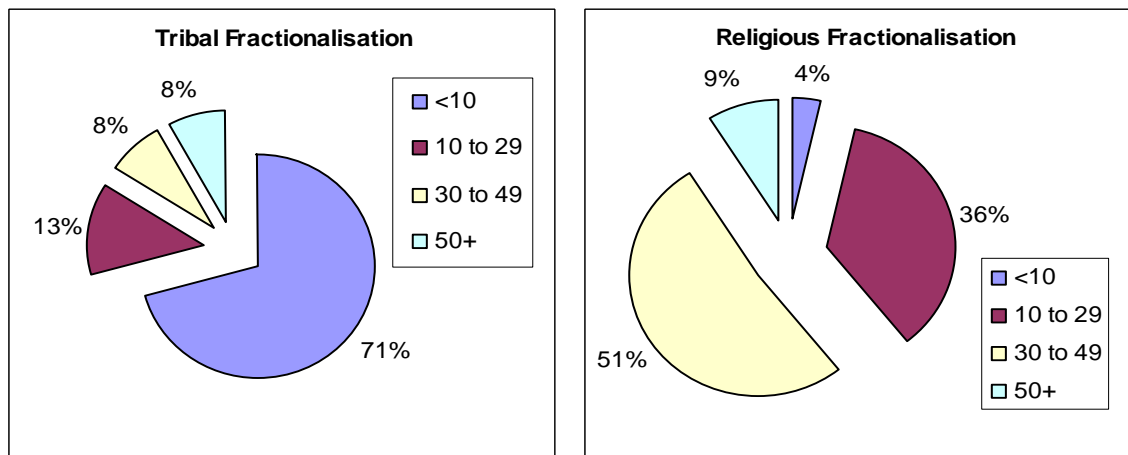
Fractionalisation is important in terms of the internal workings of villages. Commonly in literature on social capital low fractionalization is taken as a sign of high social cohesiveness. It should be noted that in the context of Monduli more traditional villages may show a lower level of ethnic fractionalization.

Throughout the report, two ethnic fractionalisation categories are used – “Low” and “High”. The “Low” category contains the 50 percent of villages that have lower levels of



ethnic fractionalisation. The fractionalisation index in these areas does not exceed 5 percent. The “High” category contains the 50 percent of villages that have a higher ethnic fractionalisation index, that above 5 percent.

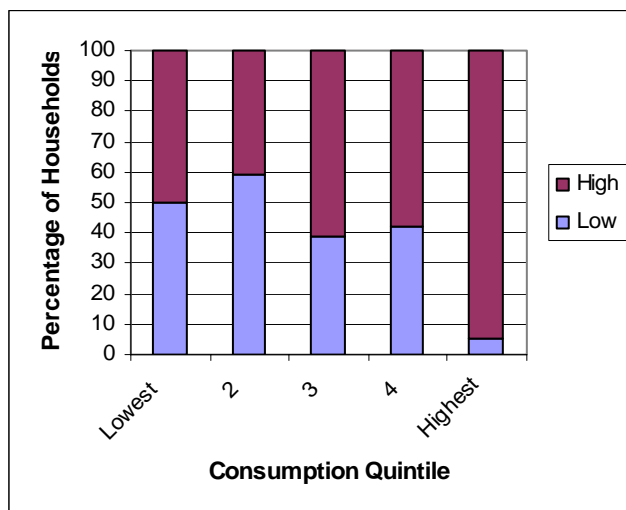
**Figure 8: Ethnic and Religious Fractionalisation**



### 3.2.3 Ethnic Fractionalisation and Poverty

Roughly half of the households in the lowest two consumption quintiles are also located in more homogeneous villages. As shown in Figure 9, there is a positive relationship between ethnic fractionalisation and consumption expenditure. For instance, while nearly 3 out of 5 households in the second consumption quintile are located in less fractionalised villages, this is only the case for 1 out of 20 households in the highest consumption quintile.

**Figure 9: Distribution of Households Located in More and Less Fractionalised Villages by Consumption Quintile**





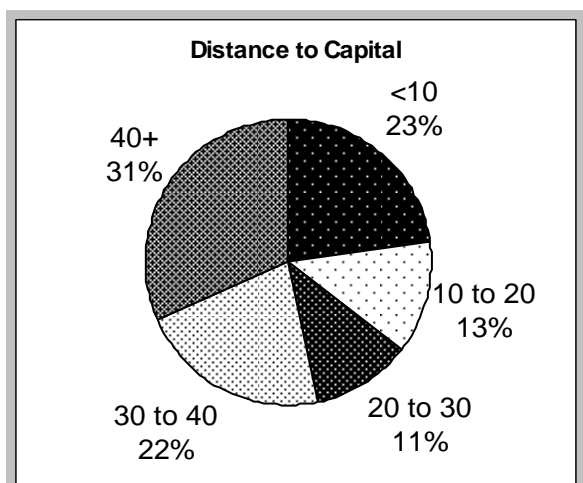


### 3.2.4 Village Isolation

Isolation is another variable that will be used throughout the report. Trends in both village and household isolation will be examined. While household isolation will be discussed later on in this chapter, this section focuses on village isolation. Figure 10 shows that the majority of the villages in the district (54 percent) are located at least 30 kilometres away from the capital. Nearly a quarter (23 percent) of the villages, on the other hand, are located less than 10 kilometres away from the capital.

Throughout this report, two village isolation categories will be used: “Closer to the district capital” and “Further from the district capital”. These refer, respectively, to 50 percent of the closer villages and 50 percent of the further villages.

**Figure 10: Distribution of Villages by Distance to District Capital (in kilometres)**

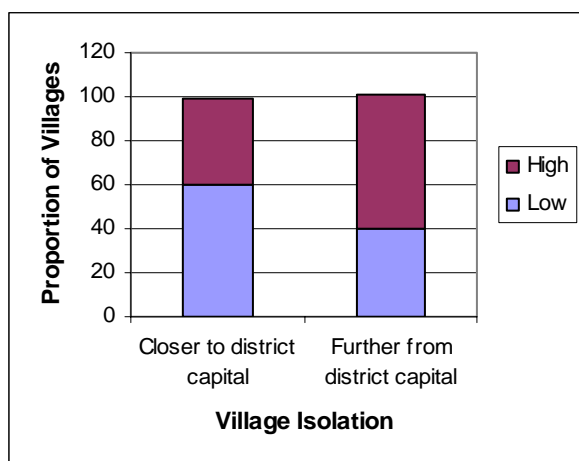




### 3.2.5 Fractionalisation and Isolation

There appears to be a positive relationship between levels of isolation and fractionalisation. As shown in Figure 11, more isolated villages also tend to be slightly more diverse. The majority of villages (60 percent) located closer to the district capital are more homogeneous; the same proportion of villages among those further away from the district capital are more fractionalised.

**Figure 11: Distribution of More and Less Fractionalised Villages by Isolation Level**



### 3.3 Population Characteristics

Over 207,000 people live in Monduli district; the great majority of who (86 percent) live in rural areas. Just less than 30,000 people inhabit peri-urban areas such as Monduli Mjini and, Mto wa Mbu (Table 6).

More than half of the district's population live in households characterised by consumption levels below those necessary to satisfy Basic Needs. As discussed in Chapter 2, these households are defined as poor.

Men make up a slightly higher proportion of Monduli's population than women, at 53 and 47 percent respectively.

Over 20,000 individuals in Monduli are orphans<sup>5</sup>. In total, orphans make up 10 percent of the population. The great majority of these orphans (91 percent) are 'single' orphans. In other words, roughly 9 out of 10 orphans had lost one parent before the age of 15 rather than both. Nearly 2,000 individuals, however, were found to be double orphans.

<sup>5</sup> In consistency with the standard definition, orphans are defined as individuals who had lost one or both of their parents before the age of 15.



Roughly half of the population live in villages located closer to the district capital. Table 6 further shows the distribution of the population by the distance of their household to the centre of the sub-village (Enumeration Area). This is another isolation measurement that will be used throughout the report. Two household isolation categories will be used: “Closer to centre of EA” and “Further from centre of EA”. These refer, respectively, to 50 percent of the closer and 50 percent of the further households. Equal proportions of population live in households located closer and further from the centre of the EA. In contrast, the distribution of the population in more and less ethnically diverse villages is less even; 3 out of 5 people live in ethnically diverse villages.

**Table 6: Population Characteristics**

	Weighted population total	Share of population
<b>Monduli District</b>	207,522	100.0
Rural	179,196	86.4
Peri-urban	28,326	13.6
<b>Poverty</b>		
Non-poor	97,562	47.0
Poor	109,960	53.0
<b>Gender</b>		
Male	108,998	52.5
Female	98,524	47.5
<b>Orphan Status</b>		
Non-orphan	187,072	90.1
Single Orphan	18,672	9.0
Double Orphan	1,777	0.9
<b>Village Isolation</b>		
Closer to district capital	105,930	51.4
Further from district capital	100,266	48.6
<b>Household Isolation</b>		
Closer to centre of EA	102,524	49.7
Further from centre of EA	103,672	50.3
<b>Ethnic Fractionalisation</b>		
Low	82,284	39.7
High	125,238	60.3



The population in this district is predominantly young. Close to half of its residents are under the age of 15 and only 5 percent are aged 65 years and above. Individuals in the economically active age group (15 to 65 years) comprise 49 percent of the population. Because Monduli's population is predominantly young, the median age here is also low at 16. As the proportion of older individuals (over the age of 14) is higher in peri-urban than rural areas, the median age in peri-urban areas is higher, at 20 years.

Table 7 further shows that there are 91 dependents (people under 15 or over 65 years) to every 100 economically active individuals. The ratio is lower in peri-urban areas where there are only 82 dependents to every 100 individuals of economically active age.

**Table 7: Distribution by Age, Median Age and Dependency Ratio's**

	<i>Age Group</i>			Median Age	Dependency Ratio
	<15	15 to 64	65+		
<b>Monduli District</b>	46	49	5	16	91
Rural	46	49	5	16	92
Peri-urban	41	53	6	20	82

### **3.4 Household Characteristics**

#### **3.4.1 Households by Area of Residence and Household Size**

There are just under 42,000 households in Monduli. Only about 6,000 of these are located in peri-urban areas; the other four fifths are based rurally. Table 8 further shows that population and household poverty rates are very similar. While, as mentioned above, 53 percent of Monduli's population live in poor households, these households comprise 51 percent of all households in the district.

The proportion of households located closer to the district capital is slightly higher than the same proportion at population level (Table 6); at 53 and 51 percent respectively. In contrast, the proportion of households located closer to and further from the centre of the EA, as well as, those in more and less ethnically fractionalised villages are equal to those of the population.

**Table 8: Households by Area of Residence**

	Weighted households total	Share of population
<b>Monduli District</b>	41,667	100.0
Rural	35,619	85.5
Peri-urban	6,048	14.5
<b>Poverty</b>		
Non-poor	20,575	49.4
Poor	21,092	50.6
<b>Village Isolation</b>		
Closer to district capital	22,061	53.2
Further from district capital	19,369	46.8
<b>Household Isolation</b>		
Closer to centre of EA	20,864	50.4
Further from centre of EA	20,566	49.6
<b>Ethnic Fractionalisation</b>		
Low	16,279	39.1
High	25,388	60.9

The distribution of households by household size is presented in Table 9. Average household size in Monduli district as a whole and in the rural part is 4.9 members; in peri-urban areas this figure is slightly lower at 4.4 members. Some disparity is observable between poor and non-poor households. While the average size of poor households is 5.1 members, non-poor households are slightly smaller consisting of, on average, 4.6 members. The table further shows that over half (54 percent) of non-poor households in the district consist of 4 members or less; only about a third of poor households (34 percent) are in this size-group. In contrast, 5 to 6 people households are much more widespread among poor households compared to non-poor, at 46 and 29 percent respectively. Little difference is observable in household size trends between male and female headed households.

In contrast households from different socio-economic groups vary noticeably. Households headed by employed individuals are by far the smallest in the district, with, on average, 3.9 members per household. Only 1 in 10 households in this group have more than 6 members. In contrast, households headed by self-employed individuals are, on average, made up of 5 members, with more than 1 in 5 consisting of more than 6 members. Unemployed individuals head the largest household, made up of, on average, 5.3 members.

Households located closer to the district capital tend to be smaller than those located further away, with average household sizes of 4.7 and 5 members. The same difference



exists between households located closer to and further away from the centre of the EA. Finally, households located in less ethnically fractionalised villages were found to be slightly larger than those located in more diverse areas.

**Table 9: Household Size: Percentage Distribution of Households by Household Size and Average Household Size**

	1 - 2 people	3 - 4 people	5 - 6 people	7+ people	Share of population	Average household size
<b>Monduli District</b>	8.2	35.5	37.4	18.9	100.0	4.9
Rural	7.3	34.5	38.9	19.3	85.5	4.9
Peri-urban	13.3	41.6	28.7	16.5	14.5	4.4
<b>Poverty</b>						
Non-poor	12.9	40.6	28.8	17.7	49.4	4.6
Poor	3.6	30.6	45.9	19.9	50.6	5.1
<b>Gender of household head</b>						
Male	8.2	35.4	37.1	19.3	92.3	4.9
Female	7.9	37.1	41.4	13.6	7.7	4.6
<b>Socio-economic group</b>						
Employed	16.0	47.7	26.7	9.6	14.8	3.9
Self-employed	7.6	34.2	37.0	21.2	75.1	5.0
Unemployed	1.7	27.2	55.7	15.4	10.1	5.3
<b>Village Isolation</b>						
Closer to district capital	7.4	41.1	33.9	17.6	53.2	4.7
Further from district capital	8.8	29.6	41.7	19.9	46.8	5.0
<b>Household Isolation</b>						
Closer to centre of EA	10.2	35.3	37.9	16.7	50.4	4.7
Further from centre of EA	5.9	36.1	37.2	20.7	49.6	5.0
<b>Ethnic Fractionalisation</b>						
Low	4.3	36.3	40.0	19.4	39.1	5.0
High	10.7	35.0	35.8	18.5	60.9	4.8

### 3.4.2 Land Holdings

The results of this survey show that 70 percent of households in Monduli own land (Table 10). Further, 53 percent of households own at least 2 acres of land; just over a fifth have 4 or more acres of land. Land ownership is more widespread in rural areas of Monduli than peri-urban ones. In fact, nearly half of the households in the peri-urban part of the district do not own land; in rural areas these households make up only 27 percent of the total. In consistency with this trend the proportion of rural households owning between 2 and 6 acres of land is more than twice as high as that of peri-urban



household, at 44 and 20 percent respectively. Large scale land ownership<sup>6</sup>, however, is almost as widespread in peri-urban parts of Monduli as it is in rural ones, at 11 and 13 percent respectively.

The results of the survey further suggest that poverty status and land ownership are not closely related; there is little difference in land ownership trends among poor and non-poor households. Landless households, for instance, are only slightly more widespread among poor households compared to non-poor ones. The disparity in proportions of poor and non-poor households owning land is largest in the 6+ acres group. Even in this case, however, while 15 percent of non-poor households claimed to own 6+ acres of land, this proportion was only 4 percentage points lower for poor households.

Households that do not own land tend also to not use land. In other words, the majority (73 percent) of landless households do not use land available for rent or provided for free use. Among landless households that do use land a slightly higher proportion rent land than that using land provided for free.

Unsurprisingly, households with less land tend to use land that they do not own more than households with more land. Hence, while 38 percent of households that own less than 1 acre rent land or make use of land provided for free, this proportion only makes up 4 percent of households that own 6 or more acres of land (Table 10).

**Table 10: Land Holdings**

	<i>Acres of land owned by the household</i>					
	None	< 1	1 - 2	2 - 4	4 - 6	6+
<b>Monduli</b>						
<b>District</b>	29.8	4.0	12.9	31.2	9.2	12.9
Rural	26.8	3.9	12.1	34.1	9.8	13.3
Peri-urban	47.9	4.8	17.4	13.9	5.5	10.5
<b>Poverty</b>						
Non-poor	28.5	4.5	14.4	29.7	7.7	15.2
Poor	31.1	3.6	11.4	32.6	10.6	10.6
<b>Land used but not owned</b>						
None	72.5	61.9	95.5	89.1	88.0	95.7
Paid	16.2	20.1	4.0	6.5	8.8	2.9
Free	11.3	18.0	0.6	4.4	3.2	1.4

1. The proportions in the first two categories – area of residence and poverty status – add up to 100 percent as a row total while the proportions in the last category – land used but not owned – add up to 100 percent as a column total.

<sup>6</sup> Large scale land ownership is defines as ownership of at least 6 acres of land



### 3.4.3 Livestock Holdings

Livestock data was collected on two types of livestock: ‘medium’ and ‘large’. Medium livestock includes goats, sheep and pigs. Large livestock refers to cattle such as cows, oxen etc. No data was collected on ownership of small livestock such as poultry.

At the time of the survey, 29 percent of households in Monduli reported that they held no livestock. Disaggregation of this data by area of residence shows a great disparity between rural and peri-urban areas. While in rural areas only a fifth of all households claim to not own livestock<sup>7</sup>, in peri-urban areas this proportion is as high as 82 percent. In both rural and peri-urban areas, ownership of both large and medium size livestock is more widespread than ownership of only one of these. Overall, 56 percent of households in Monduli hold both medium and large livestock, 7 percent hold large livestock only and 9 percent medium livestock only.

Livestock ownership appears to be more widespread in poor households. While almost 90 percent of poor households are livestock owners, the same is true for only just over half of the non-poor households. In the instance of both poor and non-poor households, the great majority of livestock owners hold both medium and large livestock.

**Table 11: Livestock Holdings**

	<i>Ownership of Livestock</i>			
	None	Medium only	Large only	Both
<b>Monduli District</b>	29.0	9.0	6.5	55.5
Rural	20.1	9.5	7.2	63.2
Peri-urban	81.5	5.8	2.4	10.3
<b>Poverty</b>				
Non-poor	47.3	10.6	6.0	36.1
Poor	11.1	7.4	7.0	74.5

## 3.5 Characteristics of Household Heads

### 3.5.1 Gender and Marital status of Household Heads

Results presented in Table 12 show that the great majority of household heads in Monduli district are male; less than one in ten households are headed by a female (8 percent). In peri-urban areas, however, this proportion is much higher; here over a fifth (21 percent) of households are headed by women. In both rural and peri-urban areas heads of household tend to be married monogamously. Overall, 52 percent of household heads are in a monogamous marriage. However, in rural areas polygamy is also widespread. In

<sup>7</sup> Members of the Masai tribe are often hesitant to disclose particulars of livestock ownership, especially numbers of livestock owned as this is considered bad luck.





fact, the proportion of households headed by a polygamist is only 11 percentage points lower than that of households headed by a monogamist, at 38 and 49 percent respectively. This proportion of polygamists is substantially higher than that found in other rural areas. In the rural parts of Shinyanga Region, for instance, only 15 percent of households were headed by a polygamist in 2004<sup>8</sup>. These polygamous households also make up over a third of all households in the district; across Rural Shinyanga Region this proportion was less than half of that, at 13 percent. As expected, polygamy is rare in peri-urban areas of Monduli; only 5 percent of households are headed by a polygamous individual here. Divorced or separated household heads appear to be more common in peri-urban than rural areas. Households headed by single individuals are rare in both rural and peri-urban areas; this is the case in only 2 percent of peri-urban and 5 percent of rural households.

**Table 12: Gender and Marital Status of Household Heads**

	<i>Gender</i>		<i>Marital Status</i>					
	Male	Female	Single	Monogamous	Polygamous	Widowed	Divorced	Separated
<b>Monduli District</b>	38,444	3,223	1,724	21,544	13,719	2,802	575	1,303
	92.3	7.7	4.1	51.7	32.9	6.7	1.4	3.1
Rural	33,635	1,984	1,603	17,447	13,440	2,206	293	631
	94.4	5.6	4.5	49.0	37.7	6.2	0.8	1.8
Peri-urban	4,810	1,239	120	4,097	279	596	283	673
	79.5	20.5	2.0	67.7	4.6	9.9	4.7	11.1

### 3.5.2 Household Heads by Socio-Economic Group

The majority of household heads are self-employed; this result is consistent with expectations as the district under analysis is very rural with a majority of agricultural households. Three quarters of Monduli's households are headed by self-employed individuals (Table 13). Employment by another individual or organisation is not common in this district; out of over 41,500 heads of household, only 6,140 (15 percent) were employed. Finally, unemployment is least widespread; only 1 out of 10 household heads were in this position at the time of the survey.

While in rural areas employment patterns are very similar to those across the whole of the surveyed area, in peri-urban areas different trends were found. Here, a significantly smaller proportion of households were headed by a self-employed individual (55 percent). Employment, on the other hand, was much more widespread here. While in rural areas only 11 percent of households were headed by employed individuals, in peri-urban areas this proportion is more than 3 times as high, at 36 percent. Unemployment was found to be almost equally widespread among household heads in rural and peri-urban areas.

<sup>8</sup> Chapter 3; *Rural Shinyanga CWIQ*; August, 2004

**Table 13: Household Heads by Socio-Economic Group**

	<i>Socio-economic group</i>		
	Employed	Self-employed	Unemployed
<b>Monduli District</b>	6,140	31,196	4,186
	14.8	75.1	10.1
Rural	3,945	27,886	3,644
	11.1	78.6	10.3
Peri-urban	2,196	3,310	543
	36.3	54.7	9.0

### 3.5.3 Household Heads by Education

The majority of households in Monduli District are headed by individuals who have had no formal education (55 percent). The second largest group of household heads (33 percent) have completed primary school (Table 14). In total, only 5 percent of Monduli's households are headed by individuals with at least some secondary education. While this trend is representative of that found in rural areas, the situation in peri-urban areas is very different. Here less than a fifth (17 percent) of all households are headed by individuals with no formal education, while the majority of households are headed by individuals with complete primary education. The proportion of the latter group of households is more than twice as high in peri-urban than rural areas, at 60 and 28 percent respectively. Secondary education is also significantly more widespread among heads of peri-urban households compared to rural ones. The proportion of household heads with this level of education is 4 times as high in peri-urban areas as in rural ones. Lastly, none of the household heads had stopped their education at completion of secondary school. In other words, all those who had completed secondary school had continued onto higher education.

**Table 14: Household Heads by Education**

	<i>Level of formal education</i>					
	None	Some primary	Complete primary	Some secondary	Complete secondary	University
<b>Monduli District</b>	23,101	3,022	13,584	1,888	0.0	72
	55.4	7.3	32.6	4.5	0.0	0.2
Rural	22,063	2,384	9,950	1,221	0.0	0.0
	61.9	6.7	27.9	3.4	0.0	0.0
Peri-urban	1,037	638	3,633	667	0.0	72.0
	17.2	10.5	60.1	11.0	0.0	1.2



## 4 EDUCATION

### 4.1 Introduction

This chapter examines education indicators. In the first part it presents some education indicators for the adult<sup>9</sup> population of the Monduli District. The indicators analysed include literacy rate, rate of participation in formal education and average number of years of schooling. The second part of the chapter focuses on selected education indicators for the primary school aged population and presents data on primary school access and enrolment rates, as well as levels of and reasons for dissatisfaction with school. Due to low secondary school enrolment rates in Monduli, only 16 individuals in the sample were attending secondary school at the time of the survey. Consequently, it is not possible to conduct as detailed a level of analysis of secondary school education indicators as that of primary. However, some secondary education indicators are presented; these include secondary school access, enrolment, satisfaction and non-attendance rates. An overview of education trends in differently structured villages, as well as, in the context of trends in other areas concludes this chapter.

### 4.2 Selected Adult Education Indicators

#### 4.2.1 Literacy

Literacy rate is one of the main adult education indicators informed on by the Monduli District CWIQ. Literacy is defined as the ability to read and write in any language, as reported by the respondent<sup>10</sup>. Individuals who are able to read but cannot write are considered illiterate.

The results of the survey show that less than half of the adults in Monduli were literate at the time of the survey (Table 15). Only 45 percent of individuals aged 15 and over claimed to be able to read and write. This result is representative of rural areas, where 38 percent of adults are literate. In peri-urban areas, however, the literacy rate is much higher at 85 percent.

Adults from poor households were found to be significantly less literate than adults from non-poor households. In fact, individuals from non-poor households are more than twice as likely to be literate as those from poor households, with literacy rates of 62 and 28 percent respectively.

<sup>9</sup> In this section adult population includes all individuals 15 years of age and older.

<sup>10</sup> Note that this result is based solely on the respondents' assertions; independent tests were *not* conducted to determine literacy status.



Individuals living in households with an employed household head were found to be most literate, at 69 percent. Literacy is significantly lower in households headed by self-employed or unemployed individuals, at 42 and 35 percent respectively.

Disaggregation of the data by gender shows that, in this district, men are more likely to be able to read and write than women. Just over half of the men here are literate (52 percent), compared to only 37 percent among women.

Isolation is strongly correlated with literacy. Individuals living in villages further from the district capital and individuals living further away from the centre of the Enumeration Area show lower literacy rates. Finally, villages with low ethnic fractionalisation have lower literacy rates than villages with high fractionalisation, at 29 and 55 percent respectively.

#### **4.2.2 Formal Schooling Rate**

Formal schooling rate is another informative indicator of the adult education level. It indicates the proportion of adults in the region who have received formal schooling at some point. The trends in this indicator closely resemble those of the literacy rate (Table 15).

Overall, out of nearly 113,000 adults in Monduli, just over 51,000 (46 percent) had attended school at some point. In rural areas this proportion is smaller at 39 percent; with 3 out of 5 adults here had never attended school. In contrast, only 15 percent of residents of peri-urban areas were in the same group. In each of the examined categories the formal schooling rate is nearly identical to the literacy rates.

#### **4.2.3 Average Years of Schooling**

Results of the survey further show that the individuals in the 15+ age-group who had gone to school, had, on average, only spent 3.1 years in formal education. While in rural areas this figure is even lower, at 2.5 years, in peri-urban areas it is substantially higher at 6 years.

On average, individuals from non-poor households spent more than twice as long in formal education than those from poor households. The average amount of time spent in school by an individual from a poor household who had attended school was 1.8 years, compared to 4.3 years among the same population from non-poor households.

In line with the trends found in literacy and formal schooling rates, on average, individuals from households headed by someone who is employed stay in formal education for a substantially longer amount of time than those from other socio-economic groups.



Despite the noticeable disparity in literacy and formal schooling rates between men and women in the district, men who had attended school at some point had, on average, spent only 0.4 more years in formal education than women who had done the same.

Individuals living in isolated villages and isolated households are found to have less years of formal schooling. The same difference was observed between less and more fractionalised villages; individuals from villages with higher levels of fractionalisation are found to have, on average, 3.8 years of formal schooling, which compares favourably to 1.8 years in villages with lower levels of fractionalisation.

**Table 15: Selected Adult Education Indicators (age 15+)**

	Literacy Rate <sup>1</sup>	Formal Schooling Rate <sup>2</sup>	Average Years of Schooling <sup>3</sup>	Share of Population
<b>Monduli District</b>	50,211	51,333	3.1	112,650
	44.6	45.6		100.0
Rural	36,083	37,202	2.5	96,059
	37.6	38.7		85.3
Peri-urban	14,127	14,131	6.0	16,592
	85.1	85.2		14.7
<b>Poverty</b>				
Non-poor	33,954	34,440	4.3	54,913
	61.8	62.7		48.7
Poor	16,257	16,893	1.8	57,738
	28.2	29.3		51.3
<b>Socio-economic group</b>				
Employed	9,354	9,284	5.1	13,572
	68.9	68.4		12.1
Self-employed	36,051	36,960	2.8	85,554
	42.1	43.2		76.2
Unemployed	4,587	4,869	2.3	13,161
	34.9	37.0		11.7
<b>Gender</b>				
Male	30,692	31,013	3.0	59,630
	51.5	52.0		52.9
Female	19,519	20,320	2.6	53,020
	36.8	38.3		47.1
<b>Village Isolation</b>				
Closer to district capital	31,691	31,721	3.7	58,699
	54.0	54.1		52.4
Further from district capital	18,069	19,211	2.3	53,264
	33.9	35.9		47.6



	Literacy Rate <sup>1</sup>	Formal Schooling Rate <sup>2</sup>	Average Years of Schooling <sup>3</sup>	Share of Population
<b>Household Isolation</b>				
Closer to EA centre	29,546	29,818	3.6	56,277
	52.5	53.0		50.3
Further from EA centre	20,214	21,065	2.4	55,686
	36.3	18.8		49.7
<b>Ethnic Fractionalisation</b>				
Low	12,741	13,043	1.8	44,536
	28.6	29.3		39.5
High	37,468	38,289	3.8	68,113
	55.0	56.2		60.5

<sup>1</sup> Proportion of population over the age of 14 who are able to read and write

<sup>2</sup> Proportion of population over the age of 14 who attended school at some point

<sup>3</sup> Years of formal schooling received, on average, by individuals over the age of 14

### 4.3 Selected Primary Education Indicators

#### 4.3.1 Access to Primary School

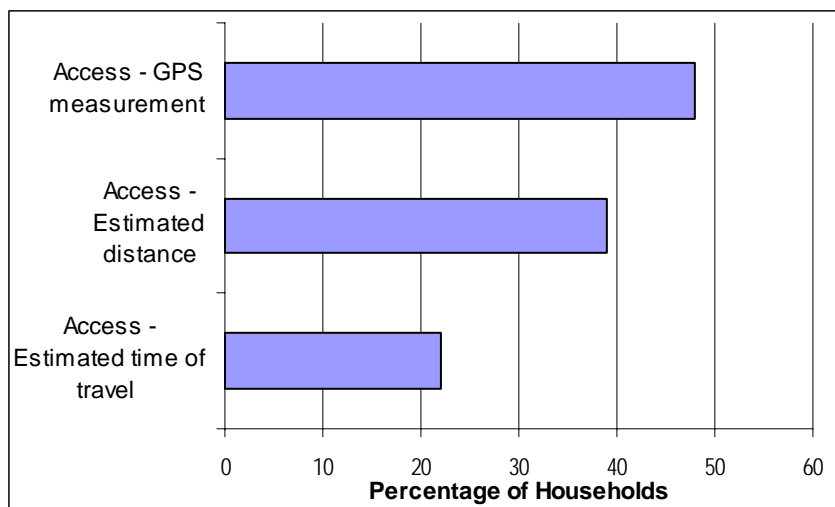
##### Introduction

The Monduli District CWIQ measures access to primary schools in 3 ways. Firstly, by asking the respondent how long it takes him to travel to the nearest primary school. Secondly, by asking the respondent to estimate the distance to the nearest primary school in kilometres. Thirdly, by taking GPS measurements of the location of the primary school and the respondent's residence. The first two measures take account of the terrain, but are based on the respondents' perception. In contrast, the third one is a more objective measure of distance, but does not take account of the terrain (i.e. measures as the bird flies). In addition, the two distance measures do not take account of transport available to the household, while the time estimate does.

It is standard in CWIQ surveys to define households as having access to a facility if they report living within 30 minutes or 2 kilometres of travel. Figure 12 demonstrates levels of access to primary school in Monduli calculated using the three measurements. As can be seen, access levels are lowest when the standard CWIQ measurement is used to calculate the distances and highest when the GPS measurements are used. In fact, the access rate calculated using the former method is less than half of that calculated using the latter method, at 22 and 48 percent of households, respectively. Access rate calculated using distance estimations is closer to that derived from GPS measurements than from reported length of travel. GPS measurements showing higher access rates could be explained by the fact that it does not take account of the terrain.



**Figure 12: Access Rates Using Different Measurements**



This report will incorporate measurements based on GPS coordinates, as well as those based on the estimated time it takes to travel to the facility<sup>11</sup>. Table 16 below shows the distribution of households in the district by distance to the nearest primary school expressed in kilometres using measurements derived from GPS coordinates. Table 17 then presents primary school access rates calculated using data on estimated amount of travel time. The use of the latter measurement is primarily dictated by other CWIQ reports, all of which use this as a measure of access. One of the main advantages of the CWIQ instrument is the comparability of results across countries, regions and districts. Therefore, it is vital to maintain consistency of data used to calculate core indicators such as access to facilities.

### Distance

Just over 3 out of 10 households in Monduli are less than 1 kilometre away from a primary school. This proportion is more than twice as high in peri-urban areas as in rural areas, at 59 and 26 percent respectively.

Poor households tend to be located further away from primary schools than non-poor households. In fact, the proportion of poor households located more than 2 kilometres away from the nearest primary school is almost twice as high as among non-poor households, at 61 and 31 percent respectively.

Larger households appear to be further from primary schools than smaller households. 39 percent of households containing 1 or 2 members were less than a kilometre away

<sup>11</sup> Tabulation of distance to primary school using respondents' estimations in kilometers can be found in Annex C.



from a primary school, in contrast to a quarter of large households (over 6 household members). Large households are more evenly spread across the distance categories than smaller households. Households consisting of between 5 and 6 members are more likely to be located more than 6 kilometres away from the nearest primary school than any other group; 1 in 5 households with 5 to 6 members are this far away compared to 1 in 20 small households.

Households headed by employed individuals tend to be located closer to primary schools than households headed by self-employed or unemployed individuals. For instance, while 69 percent of households headed by employed individuals are located within 2 kilometres from a primary school, this is the case for only 50 percent of households headed by unemployed individuals.

Disaggregation of access data by location of the household in relation to the district capital shows that households in both categories are located similarly close to primary schools. The most substantial difference is observable in the category of households located 6+ kilometres from the nearest primary school; proportion of households located further away from the district capital is nearly twice as high as that of households located closer. Households located further from the centre of the EA are noticeably more remote from primary schools.

Furthermore, households in more fractionalised villages are located significantly closer to primary schools than those in more homogeneous areas. In fact, nearly half of the households in the former group are less than a kilometre away from a primary school, compared to only 12 percent of the households in the latter group.





**Table 16: Distribution of Households by Distance to the Nearest Primary School (in kilometres of travel) – GPS measurement**

	Less than 1 km	1 to 1.9	2 to 2.9	3 to 3.9	4 to 5.9	6+	Share of population
<b>Monduli District</b>	31.3	22.6	10.4	9.8	12.3	13.6	100.0
Rural	26.4	19.9	12.1	11.1	14.4	15.9	85.0
Peri-urban	59.0	37.7	0.8	2.5	0.0	0.0	15.0
<b>Poverty</b>							
Non-poor	38.9	29.9	11.8	7.2	8.7	3.5	50.5
Poor	23.5	15.1	9.1	12.5	15.9	23.8	49.5
<b>Household size</b>							
1 to 2	38.9	34.0	11.9	7.5	2.7	4.9	3.0
3 to 4	36.9	27.7	6.6	10.2	9.3	9.3	27.0
5 to 6	32.2	21.0	8.2	9.2	9.6	19.7	38.2
7+	24.6	19.1	16.3	10.5	19.0	10.6	31.8
<b>Socio-economic group</b>							
Employed	42.4	26.9	10.6	9.0	5.9	5.2	13.0
Self-employed	30.1	21.7	11.2	10.0	13.7	13.3	77.1
Unemployed	27.0	23.3	4.4	9.9	8.1	27.2	9.9
<b>Village Isolation</b>							
Closer to district capital	30.4	24.8	10.2	11.8	12.8	10.0	57.4
Further from district capital	32.4	19.6	10.7	7.3	11.6	18.4	42.6
<b>Household Isolation</b>							
Closer to EA centre	45.1	24.8	8.1	9.7	7.9	4.4	46.9
Further from EA centre	19.0	20.7	12.5	10.0	16.1	21.7	53.1
<b>Ethnic Fractionalisation</b>							
Low	11.8	10.5	14.8	12.7	21.2	28.9	44.3
high	46.8	32.2	7.0	7.5	5.2	1.4	55.7

## Access

Primary school access rate is defined as the proportion of primary school age (7 to 13) children living within 30 minutes of travel from the nearest school. In other words, a primary school access rate informs on the proportion of primary school age children who are able to reach a primary school within 30 minutes of travel.

At the time of the survey, slightly less than a quarter (24 percent) of primary school age children in Monduli district were living in households located within 30 minutes of travel from a primary school (Table 17). The rate of access to primary schools was much greater among children of primary school age living in peri-urban areas than those in rural areas, at 58 and 19 percent respectively.



The rate of access among primary school age children living in non-poor households is significantly higher than that among the same group from poor households. In fact, at 30 percent, the access rate of the former group is nearly twice as high as that of the latter (18 percent).

Access rates vary slightly across socio-economic groups, ranging from 29 percent for primary school age children from households headed by employed individuals to 21 percent for children of the same age group living in households headed by unemployed individuals. The differences between these groups, however, are not statistically significant and may, therefore, be characteristic of the surveyed sample only.

Noticeable differences were found between access rates among girls and boys. While this trend is difficult to explain, it is statistically significant. The proportion of primary school age girls living within 30 minutes of travel from the nearest primary school is 11 percentage points higher than that of boys, at 30 and 19 percent respectively.

While household isolation from district capital has no impact on primary school access rates, household isolation from the centre of the EA is negatively correlated with access. Households located further from the centre of the EA have noticeably lower rates of access; only 18 percent of children from more isolated households are able to get to a primary school within 30 minutes of travel. In contrast, nearly a third (30 percent) of children from households located closer to the EA centre have access to a primary school. An even greater disparity in access rates is observable between children living in more and less fractionalised villages. Only 9 percent of children from more ethnically homogeneous villages have access to primary school; this rate compares unfavourably to that among the same group in more diverse villages where it is 32 percent (Table 17).

### **4.3.2 Enrolment**

There are two main indicators that inform on school enrolment: Gross Enrolment Rate (GER) and Net Enrolment Rate (NER). In the Monduli District CWIQ survey, information on enrolment was collected by asking individuals whether they were currently at school and comparing this to the total number of children in the relevant age category.

Gross Enrolment Rate (GER) is defined as the ratio of all individuals attending school, irrespective of their age, to the population of children of school age. Hence, if there are 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).

Net Enrolment Rate (NER) is defined as the ratio of children of school age currently enrolled at school to the population of children of school age. Therefore, primary school NER is the ratio of children between the ages of 7 and 13 years currently in primary school to the population of children between these ages.



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 age at school, nor does it convey any information on the capacity of the schools in terms of quality of education provided.

Table 17 shows the primary school Net and Gross Enrolment Rates in Monduli District. The Gross Enrolment Rate indicates that those who were in primary school at the time of the survey made up 88 percent of all children of primary school age living in the district. The Net Enrolment Rate further shows that almost two out of three children (65 percent) between the ages of 7 and 13 were attending school at the time of the survey<sup>12</sup>.

In peri-urban areas primary school attendance irrespective of age (GER) and primary school attendance among children of primary school age (NER) are substantially higher than those in rural areas. In fact, while in peri-urban areas nearly all (97 percent) children of primary school age were attending primary school at the time of the survey, in rural areas this proportion was only three fifths of the same population, at 60 percent. In consistency with this trend the peri-urban Gross Enrolment Rate exceeded the rural one by 53 percentage points, at 134 and 81 percent respectively<sup>13</sup>.

The results of the survey further suggest that children from poor households are less likely to attend primary school than children from non poor households. Hence, the NER of children from non-poor households exceeds that of children from poor households by 13 percentage points. In general, individuals from non-poor households attending primary school at the time of the survey constituted a higher proportion of the population of all 7 to 13 year olds from non-poor households, than the individuals from poor households; this difference is 12 percentage points.

In Monduli district, socio-economic group does not appear to have much impact on the GER. Variation in this indicator across the socio-economic groups does not exceed 3 percentage points. Net Enrolment Rates, however, vary by up to 18 percentage points. While almost 3 out of 4 children from households headed by employed individuals were attending primary school at the time of the survey, this was the case for fewer than 2 out of 3 children from households headed by self-employed individuals and slightly more than 1 out of 2 children from households headed by unemployed individuals.

Male primary school students make up a higher proportion of 7 to 13 year old boys in Monduli than do female students of 7 to 13 year old girls. Similarly, a slightly higher proportion of primary school age boys were attending primary school at the time of the survey compared to girls, at 67 and 62 percent of the respective populations.

<sup>12</sup> See end of this chapter for a comparison of these figures to other rural areas.

<sup>13</sup> Note that the GER in peri-urban areas exceeds 100 percent. This means that the number of individuals attending primary school at the time of the survey (irrespective of age) exceeded the number of children of primary school age in the district.



As with access rates, the level of isolation from district capital does not have a significant impact on primary school enrolment rates. The level of isolation from the centre of the EA, on the other hand, is an important variable. Children living closer to the centre of the EA are significantly more likely to go to primary school. While more than three fourths of primary school age children who live close to the centre of the EA were attending primary school at the time of the survey, among children who lived further away from the centre of the EA this proportion barely exceeds a half, at 52 percent. Finally, it was found that primary school enrolment rates are higher in more ethnically diverse areas. For instance, the GER in ethnically diverse areas exceeds that in the more homogeneous ones by 30 percentage points, at 98 and 68 percent.

**Table 17: Selected Primary Education Indicators**

	Access <sup>1</sup>	Gross Enrolment	Net Enrolment	Satisfaction <sup>2</sup>
<b>Monduli District</b>	24.1	87.7	64.6	53.2
Rural	18.8	80.6	59.5	54.3
Peri-urban	57.7	133.7	97.4	49.2
<b>Poverty</b>				
Non-poor	30.4	93.5	71.3	51.8
Poor	17.8	82.0	57.9	54.9
<b>Socio-economic group</b>				
Employed	29.3	84.6	72.6	61.9
Self-employed	23.7	87.7	64.2	48.2
Unemployed	21.1	88.4	55.2	83.0
<b>Gender</b>				
Male	19.0	91.6	66.6	56.1
Female	30.0	83.3	62.4	49.6
<b>Village Isolation</b>				
Closer to district capital	23.8	88.4	63.1	52.8
Further from district capital	23.9	86.4	65.7	53.6
<b>Household Isolation</b>				
Closer to EA centre	29.6	104.5	77.4	59.7
Further from EA centre	18.2	70.8	51.7	43.7
<b>Ethnic Fractionalisation</b>				
Low	9.0	68.3	48.7	59.9
High	32.0	97.9	72.9	50.8

1. Reporting to live within 30 minutes travel to the nearest school

2. Proportion of children at school who cited no problem with school



### 4.3.3 Satisfaction

Data on satisfaction with schools was collected by asking respondents currently at school if there were any problems with the school they were attending. The satisfaction rate informs on the proportion of school-going children who cited no problems with their schools<sup>14</sup>.

Only slightly over half of the children attending primary school at the time of the survey cited no problems with the schools they were attending. Satisfaction rates were slightly higher in rural areas compared to peri-urban ones. This difference did not, however, exceed 5 percentage points and was not statistically significant. Similarly, the difference between satisfaction rates of poor and non-poor students was very small (3 percentage points). In other words, even though students from poor households appear to be slightly more satisfied with school than students from non-poor households, this difference is not statistically significant.

Disaggregation of primary school satisfaction rates by socio-economic group shows that primary school students from households headed by self-employed individuals are least satisfied with their schools. At 48 percent, the satisfaction rate in this group is closest to the district primary school satisfaction rate and is 14 percentage points lower than that among primary school age children from households headed by employed individuals. The difference between these two groups is not, however, statistically significant. Children from households headed by unemployed individuals were most satisfied with the schools they were attending; at 83 percent the satisfaction rate in this group was significantly higher than that among children from households headed by self-employed and employed individuals.

Overall, boys appear to be slightly more satisfied with their schools than girls; this difference was not found to be statistically significant. In both cases roughly half of the students expressed satisfaction with their schools.

School going children from villages located further from and closer to the capital are equally satisfied with the schools they attend. Children living in households further away from the centre of the EA, on the other hand, were significantly less satisfied with their schools than those living closer. Satisfaction rates between the two groups differed by 16 percentage points, at 44 and 60 percent. Similarly, children in less ethnically fractionalised villages were less satisfied than those from more ethnically diverse areas (Table 17).

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<sup>14</sup> As the interview was conducted with the most informed person in the household, often school going individuals were not asked directly about satisfaction with school.



#### 4.3.4 A Closer Look at Some of the Indicators

Education data collected as part of the CWIQ survey allows more in-depth analysis of the indicators discussed above. In conclusion of the primary education indicators section, reasons for dissatisfaction as well as enrolment trends are examined in detail.

##### Dissatisfaction

One of the main aims of the CWIQ instrument is to inform on perceptions of the quality of services received among individuals for whom these services are provided – the client. To gain this information, primary school students who were not satisfied with their schools at the time of the survey were asked to explain their reasons for dissatisfaction<sup>15</sup>.

Roughly 3 out of 5 dissatisfied primary school students named lack of books and supplies as a problem (Table 18). Overcrowding and the condition of facilities, in contrast, were only mentioned by 1 out of 4 dissatisfied primary school students. Quality of teaching and lack of teachers were more problematic in rural areas than peri-urban ones. The proportion of dissatisfied students in rural areas complaining about the teaching exceeded that in peri-urban areas by 13 percentage points. The proportion of non-poor dissatisfied primary school students complaining about teaching was smaller than that of poor students by a similar margin.

Dissatisfaction was highest among students from households headed by self-employed individuals. At 52 percent, this dissatisfaction rate is more than 3 times as high as that among students from households headed by unemployed individuals (17 percent) and is nearly 15 percentage points higher than the dissatisfaction in the employed group.

In consistency with the district trend, primary school students from both self-employed and unemployed groups identified lack of books and supplies, as well as problems with teaching as the main causes for dissatisfaction; among the unemployed group these problems were mentioned by 73 and 87 percent of dissatisfied students respectively. Further analysis shows that the proportion of dissatisfied students on a district level, as well as, in the self-employed and unemployed groups complaining about teaching was twice as high as that complaining about facilities. In contrast, dissatisfied students in the employed group cited problems with teaching less often than with facilities.

Female students appear to be slightly more dissatisfied with the schools they attend than male students. This trend, however, is not statistically significant. The most noticeable difference in reasons given for dissatisfaction by girls compared to boys is in the facilities category. 1 in 3 female primary school students complained about the condition of the facilities and overcrowding; among boys this proportion was less than one in five (17

<sup>15</sup> The complaints of the respondents were sub-divided into three categories:

- “Books/Supplies” refers to problems associated with shortages of the necessary school materials.
- “Teaching” refers to complaints regarding the quality of teaching and shortages of teachers
- “Facilities” refers to complaints about overcrowding and bad condition of school facilities



percent). In contrast, low quality of teaching and teacher shortages, appear to be issues affecting boys more than girls. Lack of books and other supplies, however, remain the reason why the majority are dissatisfied with school, irrespective of gender.

While primary school students living closer to and further from the district capital were equally dissatisfied with their primary schools, their reasons for the dissatisfaction were different. Children living further from the capital complained more about lack of teachers and the quality of teaching than students living closer to the district capital. Facilities, on the other hand, were referred to by a higher proportion of dissatisfied students from the latter group than the former. Lack of teachers and quality of teaching were also the main complaints among primary school students living further away from the centre of the EA, who, in general were more dissatisfied with their schools than children who were less isolated within sub-villages. Dissatisfaction rate was also higher among children living in more fractionalised villages than those living in more homogeneous areas. The main complaint among students in the former group related to lack of books and supplies. In contrast, children living in less fractionalised areas were more concerned about lack of teachers and the quality of teaching.

**Table 18: Children Currently at School and Dissatisfied with it; Reasons for Dissatisfaction**

	Dissatisfac tion	<i>Reasons for Dissatisfaction</i>			
		Books/ Supplies	Teaching	Facilities	Other
<b>Monduli District</b>	17,023	10,407	8,493	4,177	4,859
	46.8	61.1	49.9	24.5	28.5
Rural	13,221	7,843	6,981	3,333	4,449
	45.7	59.3	52.8	25.2	33.7
Peri-urban	3,802	2,565	1,512	844	410
	50.8	67.4	39.8	22.2	10.8
<b>Poverty</b>					
Non-poor	9,339	6,060	4,223	2,623	1,581
	48.2	64.9	45.2	28.1	16.9
Poor	7,684	4,347	4,269	1,554	3,278
	45.1	56.6	55.6	20.2	42.7
<b>Socio-economic group</b>					
Employed	1,444	845	385	472	609
	38.1	58.5	26.7	32.7	42.2
Self-employed	14,437	9,088	7,332	3,500	3,723
	51.8	62.9	50.8	24.2	25.8
Unemployed	653	475	566	69	173
	17.0	72.8	86.6	10.6	26.5



		Reasons for Dissatisfaction			
	Dissatisfacti on	Books/ Supplies	Teaching	Facilities	Other
<b>Gender</b>					
Male	8,941	5,179	4,883	1,539	2,480
	43.9	57.9	54.6	17.2	27.7
Female	8,082	5,229	3,610	2,638	2,379
	50.4	64.7	44.7	32.6	29.4
<b>Village Isolation</b>					
Closer to district capital	8,978	5,678	3,263	2,631	2,438
	47.2	63.2	36.4	29.3	27.2
Further from district capital	7,827	4,728	5,011	1,328	2,420
	46.4	60.4	64.0	17.0	30.9
<b>Household Isolation</b>					
Closer to EA centre	8,547	6,674	3,952	2,330	1,416
	40.3	78.1	46.2	27.3	16.6
Further from EA centre	8,258	3,732	4,323	1,629	3,442
	56.3	45.2	52.3	19.7	41.7
<b>Ethnic Fractionalisation</b>					
Low	3,898	1,666	2,501	847	1,541
	40.1	42.7	64.2	21.7	39.5
High	13,125	8,741	5,990	3,329	3,317
	49.2	66.6	45.6	25.4	25.3

### Lagging Behind at School

Enrolment rates should be analysed in terms of two types of trends:

- Incidence of school attendance by children, who for whatever reason were unable to go to school at the correct age and are too old for the grade they are in.
- Incidence of children being able to begin schooling at the appropriate age (at the age of 7 in Tanzania) and have the opportunity to continue their educational career with no lag.

Analysis of the results presented in Table 19 and Table 20 helps to investigate enrolment rates in Monduli in terms of both types of trends. A level of caution is, however, in order when disaggregating data from Monduli by age; due to the Masai tendency not to count one's age, many of the ages in the survey were estimated.





## Enrolment by Age

Enrolment rates are disaggregated by age and grade in Table 19. Firstly, the results show that if a child incurs no lag, he is expected to enter standard 1 at the age of 7 and continue through to standard 7 by the age of 13. The GER shows that the intake of children from higher age categories is highest relative to the population of the correct age in Standards 2, 3, and 5. For instance, for every 100 children who are 8 years old, there are 117 children in Standard 2 and for every 100 11 year olds, there are 133 children in Standard 5.

The attendance rate shows the proportion of children of each age group receiving any formal schooling. Less than half of 7 year-olds in Monduli were receiving any formal schooling at the time of the survey. This result is consistent with Table 20, which shows that 7 year-olds make up only 30 percent of all children in Standard 1, where the rest of the children are older. A steady increase in the attendance rate is observable between the ages of 7 and 9, when it peaks at 77 percent. After some further variation, attendance rate settles at 77 percent among 13 year-olds.

Finally, the Net Enrolment Rate shows the percentage of children who are in the correct grade for their age. Hence, difference between the attendance rate and the Net Enrolment rate show percentage of children who are at school but are not in the correct grade for their age. In contrast to the trends observed in variation of attendance rates, an overall decrease is observable in the NER between the ages of 7 and 13. While nearly a fifth of all 7 year-olds are in the correct grade for their age, among 13 year-olds this proportion is only 11 percent.

**Table 19: Enrolment by Age**

	Age in Years	Corresponding Grade	Gross Enrolment Rate <sup>1</sup>	Attendance Rate <sup>2</sup>	Net Enrolment Rate <sup>3</sup>
<i>Primary School</i>	7	Standard 1	73.0	42.9	19.2
	8	Standard 2	117.2	63.3	21.8
	9	Standard 3	105.1	77.3	9.0
	10	Standard 4	73.7	64.3	8.5
	11	Standard 5	133.1	72.3	10.9
	12	Standard 6	58.8	70.1	11.3
	13	Standard 7	69.6	77.4	11.1

1. The number of children in each grade, as a percentage of the number of children in the corresponding age category

2. The percentage of children in the age category who are at school (excluding nursery school)

3. The percentage of children in the age category who are in the corresponding grade

## Age Distribution by Grade

Table 20 further shows the age distribution of children in each grade of primary school. This table provides further insight into the trends observed in Table 19. There is an overall downward trend in the proportion of children of the right age constituting each grade. The lowest proportions of children of the right age are found in Standards 3 and 5 (9 percent); the great majority of children in these grades are older than the correct age



for that grade. By the time children reach Standard 7, nearly a fifth of the class is of the correct age of 13 years. On average, however, by the age of 13, school-going children in Monduli lag behind by 2.1 years. By the age of 16, individuals who are still in primary school incur an average lag of 5.3 years.

**Table 20: Age Distribution Per Grade in Primary School (in percentage of total number of children attending that grade)**

Age in years	Average No. of Years School Going Children Lag Behind	Grade of Primary School						
		1	2	3	4	5	6	7
7	0.0	31	19	9	0	0	0	0
8	0.3	23	19	15	7	5	0	0
9	0.9	22	24	9	15	4	0	0
10	1.2	15	24	24	12	6	1	0
11	1.3	2	6	12	23	9	1	3
12	1.7	3	4	8	23	26	21	3
13	2.1	3	1	5	9	14	33	20
14	2.3	0	0	8	4	19	22	37
15	4.2	1	3	8	7	13	14	30
16	5.3	1	0	2	1	4	8	7
Total	1.6	100	100	100	100	100	100	100

#### 4.4 Selected Secondary Education Indicators

As discussed above, the sample of individuals who were attending secondary school at the time of the survey is too small to conduct an equally in-depth level of analysis of secondary education indicators as that for primary. However, the main indicators such as access to secondary school, enrolment rates and non-attendance rates are discussed below. All of these indicators include the non-school going population and can, therefore, be meaningfully analysed using the available data.

##### 4.4.1 Distance

The measurement used to disaggregate Monduli's households by distance to the nearest primary school, is the estimate of the distance in kilometres provided by each of the surveyed households. The great majority (84 percent) of households in Monduli district are located at least 6 kilometres away from the nearest secondary school (Table 21 21). Households in peri-urban areas tend to be located closer to secondary schools than those in rural areas. Over a quarter of the peri-urban population live within 2 kilometres of the nearest secondary school, with 4 percent living less than 1 kilometre away. In contrast, 93 percent of the rural households have to travel a minimum of 6 kilometres to reach the nearest secondary school.

Poor households were found to be located further away from secondary school facilities than non-poor households. In fact, nearly all poor households (99 percent) are located 6



Poor households were found to be located further away from secondary school facilities than non-poor households. In fact, nearly all poor households (99 percent) are located 6 kilometres or more from a secondary school. Only just over two thirds (68 percent) of non-poor households are located equally far away from this facility. In fact, residents of just over 1 in 10 non-poor households have to travel less than 2 kilometres to reach the nearest secondary school.

Irrespective of household size, the majority of households in each household size category were located more than 6 kilometres away from the nearest secondary school. The proportion of smallest households (1 to 2 members) located this far from a secondary school is nearly 10 percentage points lower than that of the largest households (7+ members). Larger households, however, were also more dominant among those located close to secondary schools. At 7 percent, the proportion of large households located within 2 kilometres of a secondary school is the highest across the household size categories.

Disaggregation of this data by socio-economic group shows substantial disparities in distances to secondary schools between households headed by employees of different sectors. Households headed by employed individuals are located closer to secondary schools than households headed by self-employed or unemployed individuals. For instance, while nearly a fifth (17 percent) of the households in the former group are located within 3 kilometres from a secondary school, this is the case for only 7 percent of households headed by self-employed individuals. Further, households headed by unemployed individuals are located at least 6 kilometres from the nearest secondary school in 93 percent of cases, compared to 85 percent of households headed by self-employed individuals and 70 percent of households headed by employed individuals.

Isolation from district capital also has an impact on distance to secondary schools. All of the households located further away from the district capital, are at least 6 kilometres away from a secondary school. In contrast, a fifth of households located closer to the district capital are no more than 4 kilometres away from the nearest secondary school. Similar differences were found between households located closer to and further away from the centre of the EA.

Finally, households located in ethnically diverse areas are also closer to secondary schools. Nearly all (96 percent) households in homogeneous villages are located at least 6 kilometres away from a secondary school, compared to 77 percent of households in more fractionalised villages (Table 21).



**Table 21: Distribution of Households by Distance to the Nearest Secondary School  
(in kilometres of travel) – Respondents' Estimates**

	Less than 1 km	1 to 1.9	2 to 2.9	3 to 3.9	4 to 5.9	6+	Share of population
<b>Monduli District</b>	0.6	4.8	2.8	2.5	5.1	84.2	100.0
Rural	0.0	2.1	0.8	2.7	1.7	92.6	85.0
Peri-urban	4.3	21.8	14.9	1.0	26.4	31.7	15.0
<b>Poverty</b>							
Non-poor	1.2	9.8	5.5	5.0	10.4	68.0	50.5
Poor	0.0	0.3	0.2	0.2	0.3	98.9	49.5
<b>Household size</b>							
1 to 2	0.0	2.3	5.0	9.9	7.2	75.6	3.0
3 to 4	0.9	4.3	6.5	1.9	9.0	77.4	27.0
5 to 6	0.0	4.5	1.7	1.1	4.4	88.3	38.2
7+	1.2	6.1	0.8	4.2	2.6	85.2	31.8
<b>Socio-economic group</b>							
Employed	1.9	6.9	9.5	0.6	10.9	70.3	12.4
Self-employed	0.5	4.5	1.9	3.1	4.7	85.3	77.0
Unemployed	0.0	5.0	0.0	0	1.9	93.1	10.6
<b>Village Isolation</b>							
Closer to district capital	0.5	9.4	5.3	4.8	9.9	70.1	51.9
Further from district capital	0.0	0.0	0.0	0.0	0.0	100	48.1
<b>Household Isolation</b>							
Closer to EA centre	0.5	8.9	5.1	2.8	6.4	76.2	49.5
Further from EA centre	0.0	0.9	0.5	2.2	3.9	92.5	50.5
<b>Tribal Fractionalisation</b>							
Low	0.0	0.0	0.6	3.2	0.5	95.7	39.0
High	1.0	7.9	4.1	2.0	8.1	76.9	61.0

#### 4.4.2 Access

As mentioned previously, access is defined in the CWIQ as the proportion of individuals of, in this instance, secondary school age (14 to 19) who live in households located within 30 minutes of travel from, in this case, the nearest secondary school.

Table 22 below shows that across Monduli district, only 6 percent of secondary school age children have access to a secondary school. The difference in access rates between rural and peri-urban areas is large in magnitude (22 percentage points) but is not statistically significant.



The difference in access rates between poor and non-poor households, however, is statistically significant. Nearly 1 out of 10 individuals of secondary school age from non-poor households live within 30 minutes of travel from the nearest secondary school; among the same group from poor households this proportion is only 1 out of 50 individuals.

Across the socio-economic groups, children of secondary school age living in households headed by self-employed individuals were found to have the highest level of access; none of the households headed by unemployed individuals were located equally close to a secondary school.

As was the case with primary school access rates, girls of secondary school age are significantly more likely to have access to a secondary school than boys.

Secondary school age children who live nearer to the district capital appear to be over 3 times more likely to have access to a secondary school than those who live further, at 7 and 2 percent. This result, however, was not found to be statistically significant. There is an even greater and more significant disparity in access rates between secondary school individuals living closer to and further from the centre of the EA. While only half of a percent of individuals of secondary school age living further away from the centre, live within 30 minutes of travel from the nearest secondary school, this proportion is 20 times as high among individuals from households located closer to the centre of the EA.

Finally, while none of the individuals of secondary school age in homogeneous villages were found to have access to a secondary school, nearly a tenth (8 percent) of the same population live within 30 minutes of travel from the nearest secondary school in more diverse areas.

#### **4.4.3 Enrolment**

Gross and Net Enrolment Rates were much lower for secondary schools than for primary schools. At the time of the survey, only 6 percent of individuals of secondary school age were attending secondary schools in Monduli District (Table 22). All individuals attending secondary school made up a slightly higher proportion of individuals of secondary school age, at 7 percent. Enrolment rates were higher in peri-urban areas; this is consistent with the trends found in primary school enrolment rates. While in rural areas only 5 percent of individuals between the age of 14 and 19 were at secondary school, in peri-urban areas this proportion was 13 percent.

No individuals from poor households were found to be enrolled in secondary schools. While this result is likely to indicate a disparity between enrolment rates of individuals from poor and non-poor households, it should also be treated with caution due to the small size of the sample used (as discussed above). The Net and Gross Enrolment Rates among individuals from non-poor households were found to exceed the district average by roughly 5 percentage points.



Disaggregation of data by employment of household head shows that the only individuals from households headed by employed individuals were enrolled at secondary school. Enrolment rates in this group were drastically higher than the district average; both the GER and the NER were 50 percent.

The NER among females, at secondary school level, were found to be almost twice as high as that among males, at 7 and 4 percent respectively. A similar difference was observed between the female and male GER's.

Gross and Net Enrolment rates are significantly higher in areas closer to the district capital than those further away. Despite differences in access rates, however, disparity in enrolment rates among individuals living further and closer to the centre of the EA are not substantial. In contrast, the level of ethnic fractionalisation has a significant impact on enrolment rates. For instance, the proportion of secondary school age individuals attending secondary school in more fractionalised areas is nearly 4 times higher than then among the same population from more homogeneous areas, at 7 and 2 percent respectively.

**Table 22: Secondary School Access and Enrolment Rates**

	Access	Gross Enrolment	Net Enrolment
<b>Monduli District</b>	5.5	6.5	5.6
Rural	2.7	5.3	4.6
Peri-urban	24.5	14.6	12.5
<b>Poverty</b>			
Non-poor	8.7	12.8	11.1
Poor	2.3	0.0	0.0
<b>Socio-economic group</b>			
Employed	3.8	50.2	50.2
Self-employed	6.6	5.7	4.5
Unemployed	0.0	0.0	0.0
<b>Gender</b>			
Male	2.6	3.8	3.8
Female	7.8	8.5	7.0
<b>Village Isolation</b>			
Closer to district capital	7.4	12.0	10.3
Further from district capital	2.4	0.5	0.5
<b>Household Isolation</b>			
Closer to EA centre	9.8	7.8	5.9
Further from EA centre	0.5	5.4	5.4



	Access	Gross Enrolment	Net Enrolment
<b>Ethnic Fractionalisation</b>			
Low	0.0	2.4	2.4
High	8.4	8.6	7.2

#### 4.4.4 Reasons for Non-attendance

Table 23 gives the reason for non-attendance among individuals of secondary school age. The non-attendance rate is defined as the proportion of individuals of secondary school age who had previously participated in formal education and had stopped attending school by the time of the survey. The reasons given indicate why individuals who had previously been formally educated had since stopped attending school; 43 percent of individuals of secondary school age fall into this category. Note that the sample size is small and many categories contain less than 10 observations.

Two thirds of secondary school age non-attendees, dropped out of school claiming that they were 'too old'; this is the most common reason given for non-attendance. The second most common reason was failing an exam; nearly 1 in 5 (19 percent) gave this as a reason for leaving. The cost of school was mentioned as a contributing factor by 7 percent, while 6 percent had left school due to marriage. The rest of the categories were mentioned by a maximum of 5 percent of the reference population.

**Table 23: Reasons for Non-Attendance Among Individuals of Secondary School Age**

		Non-attendance
Reference Population <sup>1</sup>		6,993
		42.5
Reasons not currently attending	Too old	4,587
		65.6
	Too expensive	517
		7.4
	Working (home/job)	205
		2.9
	Not interested/useless	364
		5.2
	Illness	156
		2.2
	Pregnancy	0
		0.0
	Failed exam	1,303
		18.6
	Got married	443
		6.3
	Other	301
		4.3

1. Children who have attended school at some point but were not attending any school regularly at the time of the survey.



#### 4.5 Monduli's Education Indicators in Context

It is difficult to evaluate education trends without a context. A comparison of the trends found in Monduli to similar areas is intended to provide this context. Table 24 shows the trends in main education indicators found in recent surveys. The indicators examined include adult literacy rate, proportion of adults who have had no formal schooling and Net Enrolment Rate at primary and secondary school levels. The surveys used for comparison include the *Household Budget Survey 2000/01*, and CWIQ Surveys conducted in the rural districts of Kagera and Shinyanga regions. These particular surveys were selected as they contain similar statistics on similar areas in Tanzania.

The results show that adult literacy in Monduli is lower than that found across the rural areas of Tanzania (HBS) and those found in Shinyanga and Kagera regions in particular. In fact, while in Monduli less than half of the adult population are able to read and write, in Kagera Rural, Shinyanga Rural and across rural areas as a whole, roughly two thirds of the adults are literate. In consistency with this trend, the proportion of adults with at least 1 year of education found in Monduli District is more than 20 percentage points lower than those found in other rural areas.

Net Enrolment Rates in Monduli are higher than those found in the HBS, at both primary and secondary school levels. At the time of the HBS Survey (2000/01) 56 percent of primary school aged children were in primary school across the rural areas of Tanzania. At the time of the Monduli CWIQ, this proportion was 65 percent across the district. However, trends in other rural areas that have been surveyed recently show that the increase in primary school NER there has been noticeably more substantial. In rural parts of both Shinyanga and Kagera regions, Net Enrolment Rates were found to have increased to roughly 76 percent. This drastic increase is explained by the introduction of the Primary Education Development Plan (2002-2006), as part of which all primary schools are obligated to prioritise 7 year-olds for acceptance into Standard I. The PEDP also introduced other managed growth strategies that are aimed at enrolling every child between the ages of 7 and 12 years into Standard 1 by 2005. It appears, therefore, that while primary school NER in Monduli has increased, the impact of implementation of the PEDP is not as noticeable here as it is in some other rural areas, such as Shinyanga and Kagera.

**Table 24: Monduli's Education Indicators in Context of Rural Tanzania**

	HBS – Rural Areas (2000/01)	Rural Shinyanga CWIQ (2004)	Kagera Rural CWIQ (2004)	Monduli CWIQ (2005)
Adult Literacy	67.0	66.0	69.6	44.6
Adults with at least one year of formal education	68.7	67.0	67.7	45.6
Primary NER	56.0	76.4	76.6	64.6
Secondary NER	2.3	6.5	4.4	5.6





## 5 HEALTH

### 5.1 Introduction

This chapter examines health indicators for the whole of the population in Monduli District. It is divided into five sections. To begin with, selected health indicators are examined for the whole population. This section is followed by 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; this group is disaggregated by type of health provider used and reasons for dissatisfaction with the service received. The other subgroup of the ill population is focused on last; this group consists of ill individuals who had not consulted a health provider.

### 5.2 Selected Health Indicators

#### 5.2.1 Distance to Equipped Health Services

A novel feature of the Monduli CWIQ is that GPS measurements of the nearest health facility with malaria testing facilities were collected. The table below shows the distribution of households in Monduli by distance to the nearest *equipped*<sup>16</sup> health facility.

As can be seen from Table 25, half of the households in the district are located at least 6 kilometres from the nearest health facility. Less than a fifth (17 percent), are located within 1 kilometre, while over a quarter (28 percent) are less than 2 kilometres away. The proximity of households to health facilities was much higher in peri-urban than rural areas. More than 7 out of 10 peri-urban households are located less than 2 kilometres away from a health facility, compared to only 2 out of 10 rural households. Individuals from 60 percent of rural households have to travel at least 6 kilometres to reach a health facility; no peri-urban households are located this far.

The great majority (72 percent) of poor households are located 6 or more kilometres from the nearest health facility; the proportion of non-poor households in the same position is less than half of that, at 31 percent. The majority of non-poor households (58 percent) are located within 3 kilometres, compared to only a fifth of the poor households.

Disaggregation of the data by household size shows that households containing less than 3 members appear to be less likely to live within 1 kilometre of a health facility than

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<sup>16</sup> For the purposes of this report, a health facility is considered to be equipped if it has the capacity to test for malaria.



larger households. Larger households of over 6 members, on the other hand, tend to be located 6 or more kilometres away from health facility more than smaller households, at 59 percent.

Households with employed heads were found to have the best access to health facilities across the socio-economic groups; half of these households are located within 2 kilometres of a health facility. In contrast, households headed by unemployed individuals were found to have the worst access; 70 percent of these households are located 6 or more kilometres from the nearest equipped health facility.

The isolation of a household in the village is a more important determinant of distance to an equipped health facility than the isolation of the village itself. For example, the proportion of households living more than 6 kilometres from an equipped health facility does not differ greatly between villages further or nearer to the district capital, at 47 and 56 percent respectively. For a given village, however, one will find that only 28 percent of the households living close to the centre live more than 6 kilometres from the health facility, while 70 percent of the households living further away from the centre live more than 6 kilometres away. This suggests that Monduli's equipped health facilities display a reasonable geographic spread across villages, but fail to provide easy access to households that live in isolated areas within the village.

Households living in villages with low ethnic fractionalisation have noticeably worse access rates than those living in villages with high ethnic fractionalisation. In the latter, 26 percent of the households are only 1 kilometre away from the nearest equipped health facility and 35 percent are more than 6 kilometres away. In villages with low ethnic fractionalisation these numbers are 6 and 71 percent respectively.

**Table 25: Distribution of Households by Distance to the Nearest Equipped Health Facility (GPS Measurements)**

	Less than 1 km	1 to 1.9	2 to 2.9	3 to 3.9	4 to 5.9	6+	Share of population
<b>Monduli District</b>	16.9	11.4	10.9	5.0	5.0	50.8	100
Rural	14.4	6.5	8.6	5.6	5.4	59.6	85.3
Peri-urban	31.7	39.9	24.3	1.5	2.5	0.0	14.7
<b>Poverty</b>							
Non-poor	23.7	17.1	16.8	8.5	3.3	30.6	50.8
Poor	9.9	5.4	4.8	1.3	6.8	71.8	49.2
<b>Household size</b>							
1 to 2	3.9	21.5	15.6	8.5	0.0	50.5	3.0
3 to 4	17.6	14.0	12.8	9.8	5.0	40.8	27.0
5 to 6	18.0	15.3	7.6	2.3	5.8	51.0	37.9
7+	16.3	3.6	12.6	3.7	4.6	59.2	32.1



	Less than 1 km	1 to 1.9	2 to 2.9	3 to 3.9	4 to 5.9	6+	Share of population
<b>Socio-economic group</b>							
Employed	25.1	24.5	7.5	3.0	0.0	39.9	13.0
Self-employed	16.5	9.8	12.4	5.6	5.5	50.2	77.0
Unemployed	10.3	6.8	2.4	3.1	7.7	69.7	9.9
<b>Village Isolation</b>							
Closer to district capital	12.9	15.6	14.9	7.3	2.5	46.7	56.6
Further from district capital	22.2	5.9	5.6	1.9	8.3	56.2	43.4
<b>Household Isolation</b>							
Closer to centre of EA	21.7	19.6	19.4	7.2	3.7	28.4	46.4
Further from centre of EA	12.8	4.3	3.5	3.0	6.1	70.3	53.6
<b>Ethnic Fractionalisation</b>							
Low	5.9	3.8	5.3	3.7	9.8	71.4	43.7
High	25.5	17.3	15.2	6.0	1.3	34.8	56.3

### 5.2.2 Access to Health Services

A commonly used measure of access to health services is the respondent's self-reported time of travel to the health facility. This measure is more subjective than the GPS co-ordinates and leaves the mode transport, as well as the choice of the health facility open to the respondent.

As shown in Table 26, nearly a fifth (18 percent) of Monduli's households are located within 30 minutes of travel from the nearest health facility. The access rate is better in peri-urban areas, where it is 29 percent, compared to rural areas where it is 13 percentage points lower.

Non-poor households have only slightly higher access to health facilities than poor households, at 19 and 16 percent respectively. Similarly, at 1 percentage point, the difference in health facility access rates in male and female headed households is very small.

With access rates of around 17 percent, households with unemployed or self-employed household heads are worse off than those with employed household heads. The latter have an access rate of 23 percent.

Disaggregation of the data by age shows that the individuals with the highest level of access are those between the age of 50 and 64; over a fifth of this group live within 30 minutes of travel from a health facility. The lowest and the highest age groups have least access; less than 15 percent of individuals in these groups live in households that have access to health facilities.



Households located further away from the centre of the EA appear to have less access than the more centrally located ones, at 14 and 21 percent respectively. However, households located further away from the capital appear to have better access to health facilities than those closer to the capital, at 21 and 13 percent respectively. While these trends were observed in the data collected, they were not found to be statistically significant and may, therefore, be characteristic of the specific sample only.

Finally, access is substantially higher in more ethnically diverse areas, at 29 percent, than more homogeneous ones, where the access rate is only 7 percent.

### 5.2.3 Need for Health Services

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.

A quarter of all individuals in Monduli district had been ill and required health services in the four weeks preceding the survey. The disparity between rates of need in rural and peri-urban areas was negligible.

Need was slightly higher among individuals from poor households, compared to non-poor, at 27 and 23 percent respectively. Although small, this difference is statistically significant and, therefore, characteristic of the population as a whole rather than just the specific sample.

Across socio-economic groups the need indicator varied from 24 percent in households headed by self-employed individuals to 29 percent in those headed by employed individuals. This may be due to the self-reported nature of illness, whereby the person himself is the judge of whether he was ill or not.

Although there was no difference in the incidence of illness between male and female headed households, the rate of illness was found to vary in different age groups. The elderly (65 years and above) required health services the most; in the 4 weeks preceding the survey, nearly half (45 percent) had been ill. The next highest incidence of illness was found among young children (under 5 years of age) and people between the age of 50 and 64; nearly a third of the individuals in these groups had been sick in the 4 weeks preceding the survey. Lowest rates of need were reported among children between 10 and 14 years of age; less than a fifth (18 percent) of this group had been ill in the specified time period.

While the location of the households in relation to the district capital does not have a significant impact on incidence of illness, and, therefore, rate of need, the location of the household in relation to the centre of the village does. As shown in Table 26, the proportion of individuals who had experienced illness in the 4 weeks preceding the



survey is 6 percentage points higher among those living further from the village centre than those living closer. The level of ethnic diversity within the village was not found to have any impact on rates of need.

#### **5.2.4 Use of Health Services**

The rate of health service use is defined as the proportion of individuals who had consulted a health service provider in the 4 weeks preceding the survey regardless of their health status.

The results show that 15 percent of the population of Monduli district consulted health service providers in the 4 weeks preceding the survey. The rate of need was over 10 percentage points higher than the rate of use. A slightly higher proportion of people from peri-urban areas consulted health services than those from rural areas, at 18 and 14 percent respectively.

In consistency with the finding that sickness was more prevalent among individuals from poor households, the rates of use in this group was 2 percentage points higher than that among individuals from non-poor households, at 16 and 14 percent respectively. A similar difference was found in the rates of use between male and female headed households, at 15 and 13 percent respectively.

Across socio-economic groups there is little difference in the discrepancy between need and use. In all three categories the rate of use is below that of need.

One fifth of toddlers (under 5 years of age) and the elderly (over 65 years of age) had been to see a health provider in the 4 weeks preceding the survey. At 8 percent, the lowest rates of use were found among children between the age of 10 and 14. The rate of need for health services was roughly 10 percentage points higher than the rate of use in most age groups. This gap increases in the older age groups (50 years old and above) to over 15 percentage points.

Rates of use were found to be slightly higher among individuals living in more isolated households. 16 percent of individuals living in households isolated from the district capital had used a health provider in the 4 weeks preceding the survey, compared to 14 percent of individuals from less isolated households. The same rates of use were found among individuals from households located further and closer to the village centre and a similar one in more and less ethnically diverse villages.

#### **5.2.5 Satisfaction**

The rate of satisfaction with health services is represented by the proportion of people that had consulted a health provider in the 4 weeks preceding the survey and cited no problems with the service received.



More than half (57 percent) of those who had used health services were satisfied. Patients from peri-urban areas appeared to be more satisfied with the health service received than those from rural areas, at 64 percent and 56 percent of the respective health facility users.

Patients from non-poor households were noticeably more satisfied than those from poor households. The rates of satisfaction between the two groups differed by 10 percentage points, at 63 and 53 percent respectively.

Satisfaction rates were clearly higher for individuals living in households with unemployed heads. However, one must be careful in the interpretation of this result as at this level of disaggregation sample size becomes quite small.

Members of female headed households were slightly more satisfied with the health service received than those of male headed households. Over three quarters of individuals between the ages of 50 and 64 years cited no problems with the health service they received; this is the most satisfied group. Satisfaction in the other age-groups ranged from 50 to 60 percent.

At both village and district levels individuals who had used a health service from more isolated households appear to have been less satisfied than those from less isolated households. While nearly 2 out of 3 patients who lived close to the district capital were satisfied, this was the case among only about half of the patients from households located further from the capital. This disparity is even greater at village level. Less than half (47 percent) of health facility users living further away from the village centre cited no problems with the service provided, compared to 68 percent of individuals who live closer. In contrast, the level of ethnic fractionalisation within the village appears to have little impact on satisfaction rates; while in more diverse villages the satisfaction rate was 56 percent, it was only slightly higher in more homogeneous areas, at 60 percent.

**Table 26: Selected Health Indicators**

	Access <sup>1</sup> Reports living within 30 minutes from health facility	Need <sup>1</sup> Has been sick in past four weeks	Use <sup>1</sup> has used a health facility in past 4 weeks	Satisfaction <sup>2</sup> has used a health facility and was satisfied with it
<b>Monduli District</b>	36,214	51,976	30,744	17,591
	17.5	25.1	14.8	57.2
Rural	28,122	44,671	25,741	14,385
	15.7	25.0	14.4	55.9
Peri-urban	8,092	7,305	5,003	3,207
	28.6	25.8	17.7	64.1
<b>Poverty</b>				
Non-poor	18,950	22,467	13,383	8,414
	19.4	23.0	13.7	62.9
Poor	17,264	29,510	17,361	9,177
	15.7	26.9	15.8	52.9
<b>Socio-economic group</b>				
Employed	5,836	7,327	5,459	2,761
	22.9	28.8	21.4	50.6
Self-employed	26,524	38,423	21,348	11,686
	16.7	24.2	13.4	55
Unemployed	3,855	5,866	3,577	3,071
	17.3	26.4	16.0	85.9
<b>Gender of household head</b>				
Male	33,738	48,274	28,826	16,425
	17.5	25.1	15.0	57.0
Female	2,477	3,703	1,917	1,166
	16.6	24.8	12.8	60.8
<b>Age</b>				
0 to 4	4,596	10,487	6,674	3,853
	13.7	31.6	19.9	57.7
5 to 9	6,694	6,711	3,806	1,773
	19.6	19.7	11.2	46.6
10 to 14	4,896	4,890	2,508	1,305
	18.0	18.0	9.2	52.0
15 to 29	8,707	10,718	6,681	3,692
	16.9	20.8	12.9	55.3
30 to 49	7,040	10,307	6,771	4,156
	18.8	27.5	18.1	61.4
50 to 64	2,730	4,049	1,914	1,436
	21.0	31.2	14.8	75.0



	Access <sup>1</sup> Reports living within 30 minutes from health facility	Need <sup>1</sup> Has been sick in past four weeks	Use <sup>1</sup> has used a health facility in past 4 weeks	Satisfaction <sup>2</sup> has used a health facility and was satisfied with it
65+	1,552 14.6	4,815 45.3	2,390 22.5	1,375 57.5
<b>Village Isolation</b>				
Closer to district capital	14,398 13.6	25,552 24.1	14,470 13.7	9,113.90 63.0
Further from district capital	21,093 21.0	25,896 25.9	15,745 15.7	7,948.70 50.5
<b>Household Isolation</b>				
Closer to centre of EA	21,704 21.2	22,657 22.2	13,889 13.5	9,433 67.9
Further from centre of EA	13,787 13.3	28,791 27.8	16,327 15.7	7,630 46.7
<b>Ethnic Fractionalisation</b>				
Low	5,975 7.3	20,617 25.1	10,847 13.2	6,449 59.5
High	30,239 24.1	31,359 25.1	19,897 16	11,143 56

1. Percentages taken out of the whole population

2. Percentages taken out of the population who used health services (indicated in previous column)

### 5.3 Type of Illness

Disaggregation of the health data by illness is shown in Table 27. Illnesses reported by individuals who had been sick in the 4 weeks preceding the survey were categorised into three groups. The first of these groups contains those who had suffered from Fever/Malaria or Diarrhoea, the second is made up of sufferers of chronic disorders, while the third contains those complaining of more common and often less serious health problems, such as accidents, injuries, dental problems, skin conditions, eye problems, and ear nose and throat problems. As can be seen, the majority of those who had been ill in the 4 weeks preceding the survey had suffered from Fever/Malaria/Diarrhoea. This category contains over two thirds (67 percent) of the sick population. Chronic disorders were least widespread; out of nearly 52,000 people who had been sick, only just over 7,000 suffered from a chronic condition. Other disorders, such as dental problems, ear nose and throat problems etc. were identified by nearly a third of those who had been sick in the specified time-period.





Malaria, fever and diarrhoea were equally widespread in rural and peri-urban areas. Chronic disorders, however, appear to be much more common among residents of peri-urban areas, a quarter of whom suffered from such conditions, compared to individuals from rural areas, among whom this proportion was only 12 percent. In contrast, more minor illnesses affected twice as high a proportion of rural residents as peri-urban ones.

Household poverty status and individuals' gender do not appear to have an impact on the types of illnesses suffered. Hence, the proportions of individuals from poor and non-poor households suffering from each of the illnesses do not differ by more than 5 percentage points. In the case of the sick men and women this difference is even smaller, not exceeding 2 percentage points.

Disaggregation of the data by age, however, does suggest that types of illness suffered differ by age-group. There appears to be a negative relationship between age and incidence of malaria, and other illnesses with symptoms of fever and diarrhoea. While more than 4 out of 5 small children (under the age of 5) who had been ill in the 4 weeks preceding the survey had suffered from fever/malaria/diarrhoea, less than half of ill individuals over the age of 65 complained of the same ailment. The data suggests that while incidence of malaria and other illnesses with similar symptoms decreases with age, that of chronic disorders increases drastically. The increase in incidence of chronic disorders is particularly noticeable between the 30 to 49, 50 to 64 and 65+ age-groups. Only 18 percent of illnesses reported by individuals between the ages of 30 and 49 were associated with chronic conditions; in the 65+ group this proportion increases almost three-fold. Health problems categorised as other appear to equally affect individuals from all age-groups. There is little variation in rates of incidence of this type of illnesses

Types of illness suffered appear to differ more by how far individuals live from the district capital, than from the sub-village centre. While Malaria/Fever/Diarrhoea appears to be a more common affliction among residents of areas closer to the district capital, disorders categorised as 'Other' (skin condition, ear, nose and throat problems, etc) are much more common in areas further away from the capital. In fact, the proportion of ill individuals complaining of illness from this category from more isolated areas is more than 1.5 times bigger than that of individuals from less isolated areas, at 39 and 23 percent respectively. Finally, types of illnesses suffered are very similar in more and less ethnically diverse areas.

**Table 27: Type of Illness**

	Fever/Malaria/ Diarrhoea	Chronic Condition	Other <sup>1</sup>	Share of Population
<b>Monduli District</b>	34,695	7,288	16,429	51,976
	66.8	14.0	31.6	100.0
Rural	29,702	5,410	15,164	44,671
	66.5	12.1	33.9	85.9
Peri-urban	4,993	1,878	1,265	7,305
	68.4	25.7	17.3	14.1
<b>Poverty</b>				
Non poor	15,338	3,464	6,399	22,467
	68.3	15.4	28.5	43.2
Poor	19,357	3,824	10,030	29,510
	65.6	13.0	34.0	56.8
<b>Gender</b>				
Male	16,590	3,515	7,485	24,331
	68.2	14.4	30.8	46.8
Female	18,105	3,773	8,944	27,646
	65.5	13.6	32.4	53.2
<b>Age</b>				
0 to 4	8,488	215	3,107	10,487
	80.9	2.0	29.6	20.2
5 to 9	4,863	502	2,306	6,711
	72.5	7.5	34.4	12.9
10 to 14	3,478	0	1,643	4,890
	71.1	0.0	33.6	9.4
15 to 29	6,396	1,003	4,486	10,718
	59.7	9.4	41.9	20.6
30 to 49	7,066	1,860	2,127	10,307
	68.6	18.0	20.6	19.8
50 to 64	2,181	1,227	1,098	4,049
	53.9	30.3	27.1	7.8
65+	2,223	2,481	1,661	4,815
	46.2	51.5	34.5	9.3
<b>Village Isolation</b>				
Closer to district capital	18,501	3,959	5,928	25,552
	72.4	15.5	23.2	49.7
Further from district capital	16,029	3,135	10,176	25,896
	61.9	12.1	39.3	50.3



	Fever/Malaria/ Diarrhoea	Chronic Condition	Other <sup>1</sup>	Share of Population
<b>Household Isolation</b>				
Closer to centre of EA	14,597	3,076	7,321	22,657
	64.4	13.6	32.3	44.0
Further from centre of EA	19,933	4,018	8,782	28,791
	69.2	14.0	30.5	56.0
<b>Ethnic Fractionalisation</b>				
Low	14,421	2,829	6,144	20,617
	69.9	13.7	29.8	39.7
High	20,274	4,459	10,285	31,359
	64.7	14.2	32.8	60.3

<sup>1</sup> Other category includes: Accident, dental problem, skin condition, eye problems, and ear nose and throat problems. Disaggregation of the non-use data by each of these is impossible due to sample size constraints

## 5.4 Type of Health Care Provider

The Monduli CWIQ survey also collected information on the use of public and private health care facilities, as well as pharmacies and traditional healers. Public health care facilities include government and regional hospitals and health posts. Private health care providers include private hospitals, private doctors/dentists, and missionary hospitals.

Amongst those who had been sick and consulted a health provider in the 4 weeks preceding the survey, the majority (65 percent) had visited a public health facility. Private facilities were the second most commonly used type; one fifth of those who had been ill and used health services visited private health facilities. Only a small fraction of those who were ill attended a pharmacy (10 percent) or sought health care from a traditional healer (5 percent).

Public health providers were the most widely used health service among residents of both rural and peri-urban areas. The proportion of the reference population using public health facilities in rural areas, however, was substantially bigger than that in peri-urban areas, at 69 percent and 44 percent respectively. Private health service providers were the second most commonly used type of health facilities among the rural population. In peri-urban areas, use of private health facilities was as widespread as use of pharmacies. While traditional healers had been consulted by nearly 1,500 individuals in rural areas, no one in peri-urban areas from the reference population, had used this health care provider.

More than three quarters of the reference population from poor households had visited a public health care provider; in contrast, among individuals from non-poor households this proportion was much lower, at 49 percent. Traditional Healers were also a more popular



choice of health care provider among individuals from poor households compared to non-poor, at 7 and 2 percent respectively. Use of pharmacies and private health care facilities, on the other hand was more widespread among individuals from non-poor households. For instance, at 20 percent, the proportion of pharmacy users among individuals from non-poor households is 10 times greater than that among individuals from poor households (2 percent).

Public health care providers were the most popular choice across all socio-economic groups. However, there is a substantial disparity between the proportions of individuals from the unemployed and employed groups consulting this health care provider, at 81 and 57 percent respectively. Private facilities are used most by individuals from households with employed household heads followed by those from households headed by self-employed individuals. Individuals in the latter group also use pharmacies and traditional healers more than those from the other two groups, at 12 and 6 percent respectively.

The rate of use of private health facilities, such as missionary hospitals, and pharmacies decreases with increasing isolation at both district and village level. For instance, among individuals living closer to the sub-village centre, a third of health facility users had used a private hospital, compared to less than a tenth (8 percent) among those who lived further away from the centre. The use of public facilities and traditional healers, however, is more widespread in more isolated areas, again, both at village and district level. While roughly half of households from the reference population, located close to the district capital, had used public health facilities, in households located further from the district capital this was the chosen health facility in 78 percent of the cases.

Individuals living in more ethnically diverse areas are more likely to use pharmacies and public health facilities than those from more homogeneous villages, who, on the other hand, consult traditional healers 5 times as much as those in the former group.

**Table 28: Type of Health Provider Used**

	Private	Public	Traditional	Pharmacy	Other	Share of Population
<b>Monduli District</b>	5,867	19,257	1,429	2,893	147	29,593
	19.8	65.1	4.8	9.8	0.5	100.0
Rural	4,692	17,439	1,429	1,751	147	25,458
	18.4	68.5	5.6	6.9	0.6	86.0
Peri-urban	1,175	1,818	0	1,142	0	4,135
	28.4	44.0	0.0	27.6	0.0	14.0
<b>Poverty</b>						
Non-poor	3,602	6,120	191	2,543	39	12,495
	28.8	49.0	1.5	20.4	0.3	42.2
Poor	2,266	13,137	1,238	350	108	17,098
	13.3	76.8	7.2	2.0	0.6	57.8
<b>Socio-economic group</b>						
Employed	1,019	2,040	108	303	108	3,577
	28.5	57.0	3.0	8.5	3.0	12.7
Self-employed	4,207	13,013	1,189	2,519	39	20,967
	20.1	62.1	5.7	12.0	0.2	74.7
Unemployed	464	2,848	132	71	0	3,514
	13.2	81.0	3.8	2.0	0.0	12.5
<b>Village Isolation</b>						
Closer to district capital	3,809	6,698	467	2,481	147	13,603
	28.0	49.2	3.4	18.2	1.1	46.8
Further from district capital	1,796	12,371	884	412	0	15,462
	11.6	80.0	5.7	2.7	0.0	53.2
<b>Household Isolation</b>						
Closer to centre of EA	4,357	6,484	525	1,531	39	12,936
	33.7	50.1	4.1	11.8	0.3	44.5
Further from centre of EA	1,248	12,585	827	1,362	108	16,129
	7.7	78.0	5.1	8.4	0.7	55.5
<b>Ethnic Fractionalisation</b>						
Low	2,406	6,606	1,079	580	147	10,817
	22.2	61.1	10.0	5.4	1.4	36.6
High	3,462	12,651	351	2,313	0	18,776
	18.4	67.4	1.9	12.3	0	63.4



### ***5.5 Dissatisfaction with Health Providers***

An individual is classed as being dissatisfied with health services he/she receives if, having used the services, he/she cites one or more problems with them. The satisfaction rates (Table 26) and dissatisfaction rates (Table 29) add up to 100 percent as the population under consideration in both cases consists of individuals who had used a health provider in the four weeks preceding the survey. Therefore, the dissatisfaction rate is the inverse of the satisfaction rate described earlier. Overall, in the four weeks preceding the survey, 43 percent of those who had consulted a health provider expressed dissatisfaction with the service received.

The population of dissatisfied health service users can be further categorised by reasons for dissatisfaction into four groups. The first of these groups - 'Facilities', contains those complaining about long waits / low levels of hygiene. Individuals dissatisfied with the cost of health services constitute the second group - 'Cost'. Those who had mentioned shortages of trained professional and unsuccessful treatment were allocated to the third group - 'Service'. Finally complaints regarding lack of supplies and medication were combined into the fourth group - 'Lack of supplies'.

Over half (56 percent) of dissatisfied health service users cited lack of supplies as a reason for dissatisfaction. Similarly, nearly half of the reference population complained about the condition of the facilities (48 percent). Another common problem highlighted by over a third (36 percent) of the dissatisfied health service users was cost. Service related problems were cited by 23 percent of the reference population.

In peri-urban areas, dissatisfaction with health facilities was more of a problem than in rural areas. 71 percent of dissatisfied individuals in peri-urban areas found the facilities inadequate. This proportion was nearly twice as high as that in rural areas, where 44 percent had similar complaints. The most common issue among dissatisfied individuals in rural areas was lack of supplies; over half cited this problem (56 percent). In peri-urban areas the proportion of individuals with similar complaints constituted nearly the same proportion of the reference population, at 58 percent. Cost and service related issues were much more problematic for dissatisfied health facility users from rural areas, compared to those from peri-urban areas.

Proportions of dissatisfied users complaining about cost and lack of supplies were very similar between groups from poor and non-poor households. Over 1 in 3 dissatisfied individuals in both groups cited cost and over half mentioned lack of supplies. Facilities, on the other hand, were more of a problem among individuals from non-poor households. 3 out of 5 dissatisfied individuals from these households mentioned facility related problems, while only 2 out of 5 people from poor households cited the same problem. In contrast, problems concerning service were more widespread among dissatisfied users from poor households (25 percent) than those from non-poor households (19 percent).

More than half, (57 percent) of people from households headed by employed individuals cited facility related issues as a reason for dissatisfaction; this is the most commonly



mentioned problem within the group. In contrast, health service users from households headed by unemployed individuals, were least concerned about the facilities. Quality of services and lack of supplies were the most commonly felt problems in this group. Finally, individuals from households headed by self-employed individuals were most concerned about the condition of the facilities, as well as lack of supplies, 48 and 60 percent of dissatisfied users from the group mentioned these issues, respectively.

Male and female health facility users were equally dissatisfied with the services received; the dissatisfaction rate in both groups was 43 percent. Compared to men, women were more concerned about the state of the facilities (waiting time and hygiene levels). Men, on the other hand, were much more unhappy about the cost of health services than women; only 29 percent of dissatisfied female health facility users found the cost problematic, compared to 43 percent of men.

The results show that individuals using public health providers were by far the most dissatisfied health facility users. Dissatisfaction rates among users of private health facilities, traditional healers and pharmacies did not exceed 20 percent; among users of public facilities this proportion was 54 percent. The second most dissatisfied group of health facility users consisted of patients of Traditional Healers; nearly a fifth (17 percent) of these individuals were dissatisfied. Public health facility users were mainly dissatisfied with the condition of facilities, as well as, lack of supplies; 49 and 64 percent of them cited these problems, respectively. Facilities were also the predominant issue among users of private health facilities; 52 percent of this group cited the issue. Service received (lack of qualified professionals and unsuccessful treatment) was the only concern among dissatisfied patients of Traditional Healers, as was cost among pharmacy users.

Individuals living in areas more isolated from the district capital, as well as those more isolated from the sub-village centre were noticeably more dissatisfied with the health services received. In both groups, cost and service received were more of an issue than among individuals living closer to the district capital and sub-village centres. The conditions of facilities, however, appeared to be more of a concern among dissatisfied users living closer to the sub-village centre, than those located further away; while 3 out of 5 individuals from less isolated households cited this as an issue, only 2 out of 5 individuals from more isolated households did so. The cost of medical service was more of a problem with individuals living in households further from the capital, 41 percent of the dissatisfied users cited the problem compared to only 29 percent from those who lived nearer. The proportion of dissatisfied users citing problems with service was almost 3 times greater among individuals living further from the district capital.

Dissatisfaction among individuals from more fractionalised areas was higher than that among individuals from more ethnically homogeneous villages in every complaint category, as was the overall dissatisfaction rate.

**Table 29: Reasons for Dissatisfaction with Health Services**

	Dissatisfaction	<i>Reasons for Dissatisfaction<sup>1</sup></i>			
		Facilities	Cost	Service	Lack of supplies
<b>Monduli District</b>	13,152	6,285	4,717	2,991	7,347
	42.8	47.8	35.9	22.7	55.9
Rural	11,356	5,009	4,438	2,751	6,311
	44.1	44.1	39.1	24.2	55.6
Peri-urban	1,796	1,277	279	241	1,036
	35.9	71.1	15.5	13.4	57.7
<b>Poverty</b>					
Non-poor	4,969	2,978	1,781	921	2,746
	37.1	59.9	35.8	18.5	55.3
Poor	8,184	3,307	2,936	2,071	4,601
	47.1	40.4	35.9	25.3	56.2
<b>Socio-economic group</b>					
Employed	1,844	1,576	575	1,473	1,370
	44.1	56.9	20.8	53.1	49.5
Self-employed	9,661	4,589	3,674	1,266	5,724
	45.3	47.9	38.3	13.2	59.7
Unemployed	505	120	181	253	253
	14.1	23.8	35.8	50.0	50.0
<b>Gender</b>					
Male	6,689	2,965	2,857	1,551	3,862
	42.9	44.3	42.7	23.2	57.7
Female	6,463	3,321	1,861	1,441	3,485
	42.7	51.4	28.8	22.3	53.9
<b>Type of provider</b>					
Private	2,198	1,138	610	477	579
	7.1	51.8	27.8	21.7	26.3
Public	10,545	5,147	3,970	2,241	6,768
	53.6	48.8	37.6	21.3	64.2
Traditional	273	0	0	273	0
	17.3	0.0	0.0	100.0	0.0
Pharmacy	137	0	137	0	0
	4.7	0.0	100.0	0.0	0.0
<b>Village Isolation</b>					
Closer to district capital	5,356	2,578	1,531	560	2,868
	37.0	48.1	28.6	10.5	53.6
Further from district capital	7,796	3,708	3,186	2,431	4,478
	49.5	47.6	40.9	31.2	57.4





		Reasons for Dissatisfaction <sup>1</sup>			
		Facilities	Cost	Service	Lack of supplies
<b>Household Isolation</b>					
Closer to centre of EA	4,456	2,731	1,310	601	13,889
	32.1	61.3	29.4	13.5	46.0
Further from centre of EA	8,697	3,554	3,407	2,390	16,327
	53.3	40.9	39.2	27.5	54.0
<b>Ethnic Fractionalisation</b>					
Low	4,399	1,459	1,330	792	1,799
	40.5	33.2	30.2	18.0	41.0
High	8,754	4,826	3,387	2,200	5,547
	44	55.1	38.7	25.1	63.4

1. An individual can cite more than one reason for dissatisfaction, hence the proportions in this part of the table add up to more than 100%.

### 5.6 *Reasons for Not Consulting a Health Provider When Ill<sup>17</sup>*

In addition to data on health status and health facility use, the Monduli District CWIQ provides information regarding those who identified themselves as having been ill in the 4 weeks preceding the survey, but had not consulted a health provider. Nearly half (46 percent) of individuals reporting illness fit into this category. There appears to be a slightly higher proportion of ill individuals not consulting a health provider in rural areas than peri-urban ones.

Cost is the most common reason given for non-consultation in Monduli district, 46 percent of the reference population cited cost as a reason for not consulting a health provider when ill. The distribution of reasons given by individuals living in rural areas was similar to that of the entire Monduli district; people from peri-urban areas gave different reasons. While cost was cited equally often in rural and peri-urban areas, half of peri-urban non-users claimed that they had not consulted a health professional because they thought that there was no need to do so, compared to 36 percent of rural non-users. Distance to health facilities was not a deterrent to health facility use in peri-urban areas. In rural areas, however, this was the reason for non-use for over a third (36 percent) of the reference population.

Rates of non-use were almost equal between individuals from poor and non-poor households. A number of differences are, however, observable in the reasons for non-use between the two groups. Distance to health facilities was substantially more of a deterrent to health facility use among individuals from poor households; in fact the proportion of non-users from poor households citing distance as a reason was more than twice as high as that among individuals from non-poor households, at 42 and 16 percent respectively. Lack of need, on the other hand, deterred a noticeably higher proportion of

<sup>17</sup> The population discussed in this section consists of individuals who had not consulted a formal health provider *or* traditional healer despite having been ill.



people from non-poor households than those from poor households, at 49 and 29 percent respectively.

The distribution of reasons for non-consultation did not vary much across the different socio-economic groups, with the exception of one trend. While the variation in proportions of individuals from different groups referring to lack of need and cost as reasons for non-use of health facilities in time of illness did not exceed 10 percentage points, the variation in proportions of individuals referring to distance was substantially greater. Distance served as a deterrent to health facility use for roughly a third of non-users from households headed by self-employed and unemployed individuals. Distance does not, however, appear to be an obstacle to health facility use among individuals from households headed by employed persons; only 3 percent of non-users in this group mentioned distance as a reason for non-use.

A higher proportion of female non-users did not visit a health facility when sick than men, at 50 and 42 percent respectively. Men appeared to be more concerned with long distances to health facilities and costs than women.

Disaggregated of the non-users by type of illness shows that the cost of services was the most dominant reason for non-use among those suffering from fever/malaria/diarrhoea and chronic conditions. Meanwhile, lack of need was the main reason why people with other disorders, such as skin, dental, ear, nose and throat problems etc. did not seek medical advice; 43 percent of people in this group explained non-use with lack of need, compared to 34 and 37 percent of, respectively, sufferers of malaria/fever/diarrhoea and chronic conditions.

Non-consultation rates were higher among individuals living in villages closer to the district capital, compared to those located further away, at 47 and 40 percent respectively. In households located in villages close to the capital, cost was by far the main deterrent to health facility use, cited by roughly half (49 percent) of the non-users. In areas further away from the capital, lack of need and cost were equally problematic, with distance posing less of a problem.

Rates of non-use did not vary substantially between groups of individuals living further away from and closer to the sub-village centre. Individuals in the former group cited cost more than any other reason as a deterrent to health facility use; this is also the case in the latter group. Distance was found to be more of an obstacle in more remote parts of the villages; hence more than a third (35 percent) of non-users from more remote locations referred to this issue, compared to a quarter of individuals living more centrally.

Individuals living in more homogenous villages appear to be more likely to not consult a health provider in time of illness. Non-consultation rate in this group was 48 percent, compared to 40 percent among ill individuals from more diverse areas. In less fractionalised areas, individuals claim to be unable to use health facilities due to the cost and the distance; lack of need was referred to by a less than a quarter (23 percent) of the



reference population. In contrast, lack of need is the main reason why non-users from more mixed areas do not consult health providers in time of illness.

**Table 30: Reasons for Not Consulting a Health Provider When Ill**

	Reference population <sup>1</sup>	<i>Reasons for not consulting health professional when ill<sup>2</sup></i>		
		No Need	Cost	Distance
<b>Monduli District</b>	23,812	8,429	10,367	6,829
	45.8	37.7	46.3	30.5
Rural	20,643	6,813	8,884	6,829
	46.2	35.5	46.2	35.5
Peri-urban	3,170	1,616	1,483	0
	43.4	51.0	46.8	0.0
<b>Poverty</b>				
Non-poor	10,163	4,886	4,310	1,582
	45.2	49.0	43.2	15.9
Poor	13,649	3,543	6,057	5,248
	46.3	28.6	48.8	42.3
<b>Socio-economic group</b>				
Employed	2,026	866	830	64
	36.9	45.1	43.3	3.3
Self-employed	18,645	6,439	7,910	5,721
	48.5	36.9	45.3	32.8
Unemployed	2,484	949	1,034	806
	42.3	40.4	44.0	34.2
<b>Gender</b>				
Male	10,102	3,542	4,856	3,132
	41.5	37.3	51.2	33.0
Female	13,710	4,887	5,511	3,698
	49.6	37.9	42.7	28.7
<b>Type of sickness/injury</b>				
Fever/Malaria/Diarrhoea	16,006	5,155	7,520	5,089
	46.1	33.9	49.4	33.4
Chronic condition	3,474	1,248	1,775	1,033
	47.7	37.2	52.9	30.8
Other	6,247	2,409	1,788	1,215
	38.0	43.3	32.2	21.9
<b>Village Isolation</b>				
Closer to district capital	11,949	3,747	5,822	3,591
	46.8	31.4	48.7	30.1
Further from district capital	10,434	4,682	4,545	3,238
	40.3	44.9	43.6	31.0
<b>Household Isolation</b>				
Closer to centre of EA	10,246	3,116	4,385	2,437
	45.2	32.0	45.1	25.1
Further from centre of EA	13,488	5,313	5,982	4,393
	46.8	42.0	47.2	34.7



		<i>Reasons for not consulting health professional when ill<sup>2</sup></i>		
	Reference population <sup>1</sup>	No Need	Cost	Distance
<b>Ethnic Fractionalisation</b>				
Low	9,801	2,256	5,457	4,515
	47.5	23.0	55.7	46.1
High	12,583	6,173	4,910	2,314
	40.1	49.1	39.0	18.4

1. Proportion of individuals who had been ill in the four weeks preceding the survey and had not consulted a formal health provider or traditional healer

2. An individual can cite more than one reason for not consulting a health professional, hence the proportions in this part of the table add up to more than 100%.

## 5.7 Village Health Workers

Monduli District CWIQ collected information on Village Health Workers (VHWs). VHWs are individuals appointed, in some manner, by the village to provide medical assistance to the villagers. VHWs often have no formal medical training, although some initiatives have been implemented to provide some basic training.

It was found that there are very few villages in the district that have a VHW. In fact, out of the 24 surveyed villages<sup>18</sup>, only 5 rural villages had a VHW. As shown in Table 31, only 16 percent of the Monduli population are living in villages that have a VHW. None of these individuals live in urban areas; they make up nearly a fifth (18 percent) of all residents of rural areas. The proportion of non-poor individuals living in villages with a VHW is slightly lower than that of poor people, at 14 and 17 percent respectively. A much greater difference was found between areas located further from and closer to the district capital. In fact, over a quarter of individuals (29 percent) living in close proximity to the district capital have a VHW in their villages; among individuals living further away from the capital, this proportion is nearly 15 times smaller, at 2 percent. Finally, VHWs were only found in less fractionalised villages. In fact, two fifths of individuals living in more homogeneous villages had a VHWs in their village.

As can be seen, VHWs are not common in Monduli District. It also appears, however, that those present are not very active. Only 13 percent of individuals living in villages that have a VHWs, were aware of his/her presence. Awareness was noticeably higher among individuals from non-poor households; 22 percent of this group knew that there was a VHW in their village, compared to only 6 percent of individuals from poor households. Awareness was also slightly higher among individuals living in areas close to the district capital than those living further away.

<sup>18</sup> 30 Enumeration Areas were surveyed. These Enumeration Areas were sub-villages. Consequently, while 30 sub-villages were surveyed, they were located in 24 villages. VHW data was collected at village level, hence, discussion of the results refers to 24 villages.

**Table 31: Presence and Awareness of Village Health Workers**

	Proportion of Households Located in Areas with a VHW	Proportion of Households Living in a village with a VHW that are aware of the VHW's presence	Share of Population
<b>Monduli District</b>	15.7	12.7	100.0
Rural	18.2	12.7	86.4
Peri-urban	0.0	0.0	13.6
<b>Poverty</b>			
Non-poor	14.4	21.5	47.0
Poor	16.9	6.0	53.0
<b>Village Isolation</b>			
Closer to district capital	28.6	13.0	51.4
Further from district capital	2.3	9.0	48.6
<b>Ethnic Fractionalisation</b>			
Low	39.7	12.7	39.7
High	0.0	0.0	60.3

## 5.8 Bed Nets

Another new variable collected as part of the Monduli CWIQ is use of bed nets. Each individual was asked if he/she slept under a bed net the night preceding the survey. Results show that less than a fifth (18 percent) of people in the district sleep under a bed net. There is a significant difference in rates of bed net use in rural and peri-urban areas. In fact, the proportion of individuals using bed nets in rural areas is more than 8 times smaller than that in peri-urban areas, at 9 and 74 percent respectively.

Similarly, bed net use is significantly more widespread among individuals from non-poor households than poor. More than 1 in 3 individuals (37 percent) from non-poor households had slept under a bed net the night before the survey, among poor people this proportion was only 1 percent.

Bed net use is most widespread in households headed by employed persons, where 35 percent of individuals sleep under bed nets. This proportion is twice as low among individuals living in households headed by self-employed individuals, at 17 percent, and 6 times as low in households headed by unemployed persons.

Literacy has a significant impact on bed net use. Literate individuals are more than 6 times more likely to sleep under a bed net than illiterate individuals. While the rate of bed net use in the former group is 37 percent, in the latter group it is only 6 percent.



Results of the survey further indicate that older people are less likely to sleep under bed nets than younger people. While this result is not statistically significant, it is true of this sample. Roughly a fifth of all individuals between the ages of 15 and 64 sleep under bed nets, compared to 13 percent of the oldest group (65+).

The level of isolation, both from district capital and sub-village centre was found to have an impact on bed net use. In fact, at 3 percent the proportion of individuals using bed nets in areas further away from the capital, is nearly 11 times smaller than that of individuals using bed nets in more nearby areas (32 percent). Although this disparity is smaller between individuals from households located closer to and further from the centre of the sub-village, the rate of bed net use in the former group is, nevertheless, 3 times higher than in the latter.

Finally, bed net use was found to be significantly more widespread in more diverse villages. Only 3 percent of individuals from homogenous villages had slept under a bed net the night preceding the survey; in more fractionalized areas this proportion was more than 9 times as high, at 28 percent.

**Table 32: Proportion of Individuals Sleeping Under Bed Nets**

	Proportion of Individuals Using Bed Nets	Share of Population
<b>Monduli District</b>	18.2	100.0
Rural	9.4	86.3
Peri-urban	73.6	13.7
<b>Poverty</b>		
Non-poor	37.1	47.1
Poor	1.4	52.9
<b>Socio-economic group</b>		
Employed	35.0	12.3
Self-employed	17.3	76.9
Unemployed	4.8	10.7
<b>Literacy</b>		
Literate	36.5	42.7
Non-literate	6.0	56.9
<b>Age</b>		
0 to 15	18.2	45.6
15 to 64	18.8	49.3
65+	12.9	5.1
<b>Village Isolation</b>		
Closer to district capital	31.7	51.4
Further from district capital	3.1	48.6
<b>Household Isolation</b>		
Closer to centre of EA	27.1	49.6
Further from centre of EA	8.7	50.4
<b>Ethnic Fractionalisation</b>		
Low	2.7	39.7
High	28.4	60.3



## **6 CHILD DELIVERY AND NUTRITION**

### **6.1 Introduction**

Several topics related to reproductive health and child nutrition are examined in this chapter. In the first part, women who had given birth in the year preceding the survey are focused on; birth rates in different age groups, as well as rates of prenatal care use are analysed by selected household characteristics. The focus is then shifted onto type of facilities used in child delivery. The second part of the chapter concerns the nutritional status of children under the age of 5; various potentially related household and individual characteristics of these children are examined in relation to their nutritional status.

### **6.2 Reproductive Health**

Over half of the women who had given birth in the 12 months preceding the survey, were under the age of 25. Table 33 shows that women between the ages of 15 and 24 made up 51 percent of all women who had a child in the previous year. The results further suggest that few women in Monduli give birth after the age of 35. Only 16 percent of women who had given birth were over this age. Out of all the women who had given birth, 12 percent (1,355 in total) had not used pre-natal care.

The age distribution of new mothers in rural areas is similar to that of the whole surveyed area, with only a slightly higher proportion of mothers under the age of 25 (54 percent). In peri-urban areas, however, the pattern is very different. Here the majority of women who had children in the year preceding the survey were between the ages of 25 and 39 (72 percent). In contrast to the trend in rural areas and the district as a whole, only just over a quarter of new mothers were under the age of 25. Older women in peri-urban areas appear to be less likely to give birth than older women in rural areas. None of the women in the 40+ age-group from peri-urban areas had had a live birth in the year preceding the survey, compared to over 1,000 women in rural areas. The proportion of women reporting use of pre-natal care appears to be slightly higher in peri-urban than rural areas. This difference, however, is not statistically significant.

Table 33 further shows that among women who had given birth in the last year from poor households, the majority (61 percent) had been under the age of 25; the same proportion among women from non-poor households was 38 percent. The highest proportion of new mothers from non-poor households were in their early 30's; 48 percent were between the ages of 25 and 39. Use of pre-natal care was significantly more widespread among women from non-poor households compared to those from poor households.

There appear to be some differences in age-distributions of new mothers from male and female headed households. While in male headed households the majority of new





mothers were under the age of 25, at the time of the survey, in female headed households, just under a third of new mothers were in this age group. In contrast, while more than 1 in 3 women who had given birth in the last year were over the age of 34 in female headed households, in male headed households this proportion was only 15 percent. There is also a noticeable difference between the proportions of new mothers receiving pre-natal care in male and female headed households; that in the former group is 17 percentage points higher than that in the latter group. Note, however, that despite the magnitude of this difference, it is not statistically significant and may, therefore, be representative of the selected sample only.

Age distributions of new mothers are similar irrespective of how close they live to the district capital. In contrast, results of the survey suggest that use of pre-natal care is more widespread in more remote areas. This trend should be treated with caution, however, as it is not statistically significant. Overall, new mothers from more ethnically diverse areas were older than those from more homogeneous villages. While in the former group 38 percent of women who had given birth in the week preceding the survey were over the age of 30, in the latter group this proportion was only 24 percent. Use of prenatal care was substantially more widespread in more diverse areas.

**Table 33: Women Who Had a Live Birth in the Year Preceding the Survey by Age; Proportion of Mothers who had a Live Birth and had Received Pre-natal Care in the Year Preceding the Survey**

	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40+	Pre-natal care
<b>Monduli District</b>	2,494	3,284	1,957	1,711	835	1,011	9,878
	22.1	29.1	17.3	15.1	7.4	9.0	87.5
Rural	2,349	3,073	1,577	1,447	552	1,011	8,669
	23.5	30.7	15.8	14.5	5.5	10.1	86.6
Peri-urban	145	211	380	264	283	0	1,210
	11.3	16.4	29.7	20.6	22.1	0.0	94.4
<b>Poverty</b>							
Non-poor	833	1,066	919	1,031	409	705	4,566
	16.8	21.5	18.5	20.8	8.2	14.2	92
Poor	1,661	2,218	1,038	679	426	306	5,313
	26.3	35.1	16.4	10.7	6.7	4.8	84
<b>Sex of household head</b>							
Male	2,432	3,149	1,825	1,638	695	934	9,437
	22.8	29.5	17.1	15.3	6.5	8.7	88.4
Female	62	135	132	72	139	78	442
	10.0	21.8	21.4	11.7	22.5	12.6	71.4
<b>Village Isolation</b>							
Closer to district capital	1,221	1,855	881	607	562	653	4,658
	21.0	32.1	15.0	11.0	10.0	11.0	80.6
Further from district capital	1,273	1,428	1,077	1,104	273	359	5,220
	23.1	25.9	19.5	20	5.0	6.5	94.7



	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40+	Pre-natal care
<b>Household Isolation</b>							
Closer to centre of EA	1,132	1,132	910	424	307	262	4,043
	27.2	27.2	21.8	10.2	7.4	6.3	97
Further from centre of EA	1,362	2,152	1,047	1,287	528	749	5,835
	19.1	30.2	14.7	18.1	7.4	10.5	81.9
<b>Ethnic Fractionalisation</b>							
Low	1,048	1,972	957	373	353	513	4,068
	20	37.8	18.3	7.2	6.8	9.8	78
High	1,446	1,311	1,000	1,337	482	498	5,810
	23.8	21.6	16.5	22.0	7.9	8.2	95.6

## 6.3 Child Delivery

### 6.3.1 Facilities Used to Give Birth

Results of the Monduli District CWIQ show that the great majority of infants were born at home. Outcomes presented in Table 34 show the distribution of the number of births occurring in the last 5 years by facilities used. Out of almost 24,000 births in the district, only 5,500 (23 percent) were conducted in a hospital or a maternity ward. The rest of these births had taken place at home. There is a striking difference between trends in rural and peri-urban areas. The proportion of home-births in peri-urban areas is almost 3 times smaller than that in rural areas. The majority of births here were conducted in hospitals and maternity wards (71 percent).

Disaggregation of data on health facility use in child birth by poverty status reveals that only just over 1 in 10 babies from poor households were born in a hospital or maternity ward. Among babies born in non-poor households, this proportion is nearly four times as high, at 40 percent. Even among babies from non-poor households, however, 3 out of 5 had been born at home in the 5 years preceding the survey.

There does not appear to be a large difference between types of health facilities used in male and female headed households. A slightly higher proportion of babies from female headed households had been born in a hospital or maternity ward than those from male headed households, at 29 and 23 percent respectively. This difference is not, however, statistically significant.

Results of the survey further show substantial differences in facilities used for child-birth between different socio-economic groups. While, over two thirds of babies from households headed by employed individuals had been born in hospitals and maternity wards, among babies from households headed by self-employed individuals, nearly four fifths were born at home. Home births were most widespread among women from



households headed by unemployed individuals. Out of roughly 2,600 infants born in these households in the last 5 years, only 192 had been delivered in a hospital.

A significantly higher proportion of toddlers from areas close to the district capital had been born in hospitals and maternity wards than those from households located further away. In both cases, the majority of children born in the last 5 years had been delivered at home. In more isolated areas, however, this proportion was 20 percentage points higher than in less isolated areas, at 87 and 67 percent respectively.

The location of the household in the sub-village was also found to have an impact on type of health facilities used in child-birth. While only 14 percent of children born in the last 5 years in households far away from the sub-village centre, had been delivered in a hospital or maternity ward, this was the case for a third of the toddlers born in households located close to the village centre.

Finally, there appears to be a positive relationship between the level of tribal fractionalisation and health facility use in child delivery. The results of the survey show that 3 times as high a proportion of children born in more diverse villages had been delivered in a hospital as those born on more homogeneous areas, at 33 and 11 percent respectively.

**Table 34: Type of Facilities Used in Child Birth**

	Hospital/Maternity ward	Home	Share of population
<b>Monduli District</b>	5,501	18,414	23,915
	23.0	77.0	100.0
Rural	3,103	17,452	20,555
	15.1	84.9	86.0
Peri-urban	2,398	962	3,360
	71.4	28.6	14.0
<b>Poverty</b>			
Non poor	3,965	6,026	9,991
	39.7	60.3	41.8
Poor	1,535	12,389	13,924
	11.0	89.0	58.2
<b>Gender of household head</b>			
Male	5,056	17,298	22,354
	22.6	77.4	93.5
Female	445	1,116	1,561
	28.5	71.5	6.5
<b>Socio-economic group</b>			
Employed	1,351	638	1,989
	67.9	32.1	8.8
Self-employed	3,884	14,208	18,092
	21.5	78.5	79.7
Unemployed	192	2,427	2,619
	7.3	92.7	11.5



	Hospital/Maternity ward	Home	Share of population
<b>Village Isolation</b>			
Closer to district capital	3,921	7,817	11,738
	33.4	66.6	49.1
Further from district capital	1,580	10,597	12,177
	13.0	87.0	50.9
<b>Household Isolation</b>			
Closer to centre of EA	3,750	7,668	11,417
	33.0	67.2	47.7
Further from centre of EA	1,751	10,746	12,498
	14.0	86.0	52.3
<b>Ethnic Fractionalisation</b>			
Low	1,135	9,537	10,672
	10.6	89.4	44.6
High	4,366	8,877	13,243
	33.0	67.0	55.4

### 6.3.2 Delivery Assistance

In consistency with the trend in types of facilities used for child birth, assistance of formally trained health workers in child birth is rare. Less than a quarter of babies born in the last 5 years had been delivered with the help of a doctor, nurse or midwife. The great majority of live births (77 percent) had been assisted by a Traditional Birth Assistant, an untrained acquaintance, or were conducted without assistance.

Further, also in consistency with trends observed in health facility use for child birth, there is a significant difference in trends of types of assistance used between rural and peri-urban areas. In rural areas the trend is consistent with the patterns observed in the whole of the surveyed area. In fact, here this trend is slightly magnified – 85 percent of newborns were delivered without professional assistance. In peri-urban areas however, the same category of live-births constitutes only 25 percent of all births from the last 5 years. Over half of the children born in peri-urban areas were delivered by a nurse. Use of midwives was also significantly more common in peri-urban areas than rural, at 20 and 5 percent respectively.

Disaggregation of birth assistance data by poverty status shows that some births in both poor and non-poor households were not formally assisted. However, Table 35 does show that use of trained health professionals was noticeably more widespread for child-births in non-poor households. Midwives, nurses and doctors were used in two fifths of the births in non-poor households in the last 5 years, compared to only just over one tenth in poor households.

As mentioned above, it is difficult to comment on differences in trends of health assistance use in child-birth between male and female headed households due to the small



sample of female headed households. However, from the available data it does not seem that the differences between the trends of these two groups are substantial.

In consistency with trends noted in the previous table, professional assistance in child-birth was more widespread in households headed by employed individuals, than in households headed by either self-employed or unemployed individuals. In fact, a minority (22 percent) of births in households headed by employed individuals in the last 5 years had not been assisted by a formally trained professional, compared to 77 percent of births in households headed by self-employed individuals and 98 percent of births in households headed by unemployed individuals.

Doctors, nurses and midwives were present as a significantly higher proportion of births in households located close to the district capital compared to those located further away. Only 11 percent of births in the latter group had been assisted by a formally trained health professional; in the former group this proportion was 37 percent. A similar relationship was also observed between households located closer and further away from the sub-village centre. Unassisted births constituted nearly half of the births in households located further away from the sub-village centre, compared to just over a quarter of births in households located closer. Professionally assisted births constituted over a third of births in more fractionalised areas compared to only 8 percent of births in the less fractionalised villages.

**Table 35: Distribution of Women who had Given Birth in the Five Years Preceding the Survey by Type of Delivery Assistance Used**

	Doctor	Nurse	Midwife	T.B.A.	Other/Self	Share of population
<b>Monduli District</b>	360	3,580	1,696	9,249	9,031	23,915
	1.5	15.0	7.1	38.7	37.8	100.0
Rural	218	1,849	1,032	9,110	8,347	20,555
	1.1	9.0	5.0	44.3	40.6	86.0
Peri-urban	142	1,731	664	139	683	3,360
	4.2	51.5	19.8	4.2	20.3	14.0
<b>Poverty</b>						
Non poor	218	2,879	869	3,041	2,985	9,991
	2.2	28.8	8.7	30.4	29.9	41.8
Poor	142	701	827	6,209	6,045	13,924
	1.0	5.0	5.9	44.6	43.4	58.2
<b>Gender of household head</b>						
Male	360	3,266	1,696	8,780	8,251	22,354
	1.6	14.6	7.6	39.3	36.9	93.5
Female	0	313	0	469	779	1,561
	0.0	20.1	0.0	30	49.9	6.5



	Doctor	Nurse	Midwife	T.B.A.	Other/Self	Share of population
<b>Socio-economic group</b>						
Employed	0	1,086	265	277	361	1,989
	0.0	54.6	13.3	13.9	18.1	8.8
Self-employed	360	2,360	1,431	6,967	6,974	18,092
	2.0	13.0	7.9	38.5	38.5	79.7
Unemployed	0	60	0	951	1,608	2,619
	0.0	2.3	0.0	36.3	61.4	11.5
<b>Village Isolation</b>						
Closer to district capital	298	2,641	1,262	3,130	4,408	11,738
	3.0	23.0	11.0	26.7	37.5	49.1
Further from district capital	62	939	434	6,119	4,623	12,177
	0.5	7.7	3.6	50.3	38.0	50.9
<b>Household Isolation</b>						
Closer to centre of EA	329	2,583	1,008	4,545	2,953	11,417
	2.9	22.6	8.8	39.8	25.9	47.7
Further from centre of EA	31	996	688	4,705	6,078	12,498
	0.0	8.0	5.5	37.6	48.6	52.3
<b>Ethnic Fractionalisation</b>						
Low	0	403	446	4,987	4,836	10,672
	0.0	3.8	4.2	46.7	45.3	44.6
High	360	3,176	1,250	4,262	4,195	13,243
	3.0	24.0	9.4	32.2	31.7	55.4

## 6.4 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).<sup>19</sup>

<sup>19</sup> More specifically, the anthropometric calculations were conducted using 1978 CDC/WHO growth curves which are a normalised version of the 1977 NCHS reference curves.



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. A child is considered to be severely stunted if he/she is below minus three standard deviations from the median of the reference population. 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, hence a child who is severely wasted, (below minus three standard deviations from the median of the reference population) is at an increased risk of mortality. Wasting is indicative of 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 of wasting is 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.

#### **6.4.1 Malnutrition in Monduli District**

At the time of the survey, there were nearly 24,000 children under the age of 5 (60 months) in Monduli district. Out of these children over 7,641 (32 percent) were found to be stunted. This means that nearly 1 out of every 3 children under the age of 5 was shorter than he should be at his age. Further, over a third of these children, or 11 percent of all children under 5, were severely stunted.

Wasting is much less common in Monduli district. Less than 2,000 children (8 percent) were found to be too thin for their height. Due to sample size constraints, analysis of severe wasting rates is not possible<sup>20</sup>. Malnutrition is much more common among children living in rural areas than peri-urban. For instance, the proportion of stunted children in the rural areas of Monduli is three and a half times greater than that in peri-urban areas. Similarly, severe stunting is more than 6 times as widespread in rural areas as in peri-urban ones. None of the children in peri-urban areas were found to be wasted compared to nearly 2,000 children in the rural parts of the district

<sup>20</sup> There are only 5 severely wasted children in the sample – they constitute 1 percent of the population of under 5's and 13 percent of the wasted children.



Stunting is more common among children from poor households. The proportion of stunted children in poor households is 10 percentage points higher than that in non-poor households. There is little difference in severe stunting and short-term malnutrition rates among children from poor and non-poor households.

The small size of the sample of female headed households makes it difficult to compare trends in levels of malnutrition between male and female headed households. However, the results suggest that the rate of stunting in male headed households is slightly lower than that in female headed households. This result is not statistically significant and may, therefore, reflect only the pattern in this sample only. Severe stunting, on the other hand, appears to be much more widespread in male headed households than in female, at 12 and 4 percent respectively. The difference in wasting rates in male and female headed households does not exceed 1 percentage point.

Disaggregation of malnutrition data by socio-economic groups shows that children from households headed by employed individuals are substantially healthier than those from households headed by self-employed or unemployed individuals. None of the children in households headed by employed individuals were found to be wasted; only 15 percent of children were suffering from long-term malnutrition. The latter rate is less than half of that found in Monduli district as a whole and among children from households headed by self-employed individuals. Note, however, that all of the stunted children in the employed group were severely stunted. Strikingly, it was found that more than half of the children under the age of 5 in the unemployed group were suffering from long term malnutrition at the time of the survey; nearly a fifth of the children in this group were severely stunted. Short-term malnutrition affects children from households headed by self-employed individuals most; almost a tenth of the children in this group were too thin for their height. Among children from households headed by unemployed individuals this proportion was 5 percent.

Both short and long-term malnutrition were widespread in areas further away from the capital. For instance, wasting rate among children living in areas located further from the district capital is nearly 3 times as high as that among children living closer to the district capital, at 11 and 4 percent. In contrast, differences in malnutrition rates between households located closer and further away from the sub-village centre are not substantial. Household isolation within the sub-village, therefore, appears to have no impact on malnutrition levels.

Overall, children under the age of 5 were found to be more malnourished in less fractionalised villages. Both short and long-term malnutrition rates were noticeably higher in more homogeneous villages than in more diverse areas. Over a third (36 percent) of children in less fractionalised villages were found to be stunted and roughly 1 in 10 were wasted; in more diverse areas these rates were 28 and 5 percent respectively.

Both boys and girls appear to be equally likely to suffer from malnutrition. There is almost no difference in long and short term malnutrition rates between the sexes.





Age, however, distinctly does have a bearing on malnutrition levels. Table 36 shows a steady rise in stunting and severe stunting rates with age. This is likely to be due to the cumulative nature of stunting; once a child gets stunted, typically, only partial catch-up to his growth curve will occur. Trends in wasting do not show this pattern. Between the ages of 2 and 4, wasting rates decrease to below 10 percent. Between 48 and 60 months, however, wasting rates increase again to the same level as that between 12 and 24 months. Literature on nutrition does confirm that children aged 12 – 24 months are vulnerable to malnutrition, but the sample size of this survey is too small to draw any strong conclusions.

**Table 36: Stunting and Wasting Rates Among Children Under the Age of Five**

	Stunted (-2 SD)	Severely stunted (-3 SD)	Wasted (-2 SD)	Share of Population
<b>Monduli District</b>	7,641	2,686	1,866	23,915
	32.0	11.2	7.8	100.0
Rural	7,310	2,615	1,866	20,555
	35.6	12.7	9.1	86.0
Peri-urban	331	71	0	3,360
	9.8	2.1	0.0	14.0
<b>Poor</b>				
Non-Poor	2,638	1,299	752	9,991
	26.4	13.0	7.5	41.8
Poor	5,003	1,387	1,114	13,924
	35.9	10.0	8.0	58.2
<b>Sex of household head</b>				
Male	7,084	2,623	1,761	22,354
	31.7	11.7	7.9	93.5
Female	558	63	105	1,561
	35.7	4.0	6.7	6.5
<b>Socio-economic group</b>				
Employed	301	301	0	1,989
	15.1	15.1	0.0	8.8
Self-employed	5,732	1,921	1,640	18,092
	31.7	10.6	9.1	79.7
Unemployed	1,349	464	132	2,619
	51.5	17.7	5.0	11.5
<b>Village Isolation</b>				
Closer to district capital	2,902	1,308	519	11,738
	24.7	11.0	4.4	49.0
Further from district capital	4,740	1,378	1,347	12,177
	38.9	11.3	11.1	50.9
<b>Household Isolation</b>				
Closer to centre of EA	3,932	1,386	768	11,417
	34.0	12.0	6.7	47.7
Further from centre of EA	3,710	1,300	1,098	12,498
	29.7	10.0	8.8	52.3



	Stunted (-2 SD)	Severely stunted (-3 SD)	Wasted (-2 SD)	Share of Population
<b>Ethnic Fractionalisation</b>				
Low	3,886	1,549	1,168	10,672
	36.4	15.0	10.9	44.6
High	3,755	1,137	698	13,243
	28.4	8.6	5.3	55.4
<b>Gender</b>				
Male	4,040	1,342	936	12,796
	31.6	10.5	7.3	53.5
Female	3,601	1,344	930	11,119
	32.4	12.1	8.4	46.5
<b>Age</b>				
0	644	137	197	6,610
	9.7	2.1	3.0	27.6
1	2,066	783	825	6,700
	30.8	11.7	12.3	28.0
2	1,869	445	351	4,667
	40.1	9.5	7.5	19.5
3	1,592	724	183	3,390
	47.0	21.4	5.4	14.2
4	1,470	597	310	2,548
	57.7	23.4	12.2	10.7

## 6.4.2 Nutritional Status of Children by Selected Characteristics

### Characteristics of the Mother

The decisions made concerning the welfare of a child are a crucial determinant of the health and nutritional status of the child. Such decisions are likely to be influenced by factors such as education and age of the decision maker. In most cases this decision maker is the child's mother; it is, hence, important to look at selected characteristics of mothers of malnourished children.

A reasonable proposition is that the age of the mother may have an impact on the nutritional status of the child. The results of the survey are not conclusive due to constraints of the sample size. However, they do suggest that rates of long-term malnutrition may be higher among children of older mothers. For instance, stunting rates are significantly lower among children of teen-age mothers (14 percent) than among children of mothers who are in their 30's (28 percent). Similarly, children of mothers in their 20's appear to suffer from severe stunting less than those of mothers in their 40's, at 11 and 23 percent respectively. Short-term malnutrition, however, is more prevalent among children of younger mothers. As can be seen from Table 37, over a quarter of children of teen-age mothers were found to be too thin for their height at the time of the survey. Among even slightly older mothers, those in their 20's, this proportion decreased to 8 percent. Despite the small size of the sample, this trend is statistically significant.



In order to be able to ensure a nutritious diet for a child, one must have a good understanding of a child's needs. Education of the mother, therefore, may also play an important role in the nutrition status of a child. Results of the survey suggest that while long-term malnutrition is not affected by the education level of the mother, in the short-term, children of mothers with some formal education are less malnourished than those of mothers who have had no formal education. As can be seen from Table 37, the proportion of wasted children among those whose mothers have no formal education is nearly twice as high as that among children whose mothers have had some education. This result is not as robust as it appears, however, since it is not statistically significant.

**Table 37: Distribution of Malnourished Children by Characteristics of the Mother**

	Stunted (-2 SD)	Severely stunted (-3 SD)	Wasted (-2 SD)	Share of population
<b>Monduli District</b>	7,641 32.0	2,686 11.2	1,866 7.8	23,915 100.0
<b>Age of mother</b>				
Teen-age	406 13.9	258 8.8	791 27	2,928 12.2
20 – 29	4,499 38.6	1,259 10.8	976 8.4	11,667 48.8
30 – 39	2,068 28.3	709 9.7	99 1.4	7,296 30.5
40+	669 33.0	459 22.7	0 0.0	2,024 8.5
<b>Formal Education</b>				
Some	3,886 31.2	1,194 10.4	683 5.5	12,469 52.1
None	3,756 32.8	1,492 12.0	1,182 10.3	11,446 47.9

### Use of Bed Nets and Access to Health Facilities

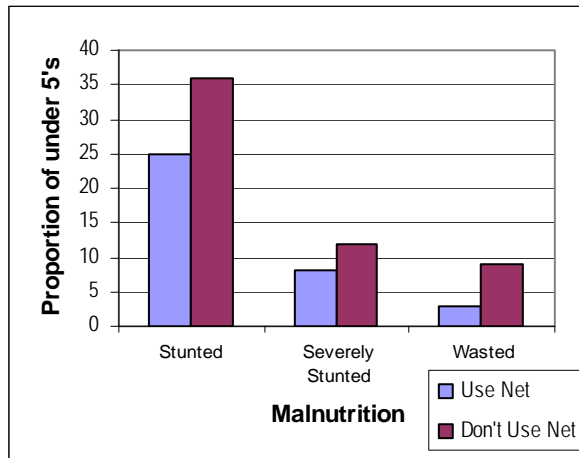
Figure 13 shows a very strong correlation between the use of bed nets and better nutritional status of the children. It is impossible to make any causal inferences based on these data. Bed nets could cause better nutritional outcomes by reduced risk of disease. Alternatively, the result may mean that the type of households that use bed nets are also likely to be the ones to take good care of their children's health in other areas (like nutritious food, adequate medical attention, etc.). These could, for example, be richer or more educated households.

Access to equipped health facilities was found to have a significant positive impact on long-term malnutrition, but not short-term. Figure 14 shows that the correlation of access

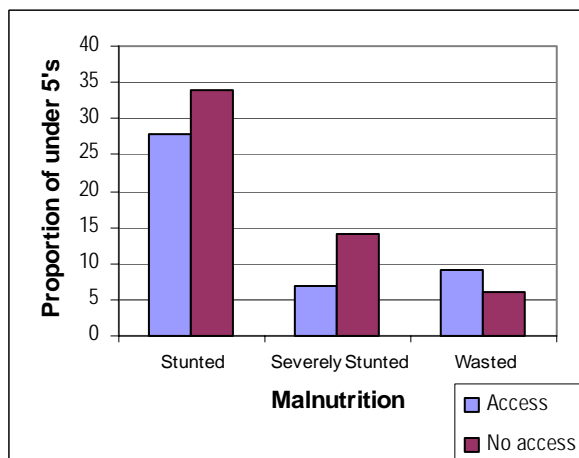


to equipped health facilities and rates of severe stunting is particularly noticeable. The proportion of children suffering from severe stunting in households located within 2 kilometres from an equipped health facility was roughly half of that among children from households with no access.

**Figure 13: The Relation Between Bed Net Use and Malnutrition**



**Figure 14: Malnutrition by Access to Equipped Health Facilities (defined as living less than 2 kilometres from one)**





## 7 EMPLOYMENT

### 7.1 *Introduction*

This chapter examines employment indicators for the adult<sup>21</sup> population of Monduli. The first part analyses the employment status of the whole population over the age of 14. The next part focuses on the working adults; trends examined include type of employment, as well as employment sector and occupation of the working adults. The economically inactive subgroup of the adult population is discussed in the concluding section of the chapter.

### 7.2 *Employment status*

The adult population of Monduli 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 claim that they would be willing to take on additional work.

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 unemployed are individuals who had not engaged in any work in the 4 weeks preceding the survey due to unavailability of work, the economically inactive had not engaged in any work due to illness, disability, age or school. Economically inactive individuals are, in other words, not working and not looking for work.

#### 7.2.1 *Working Population*

A great majority of individuals 15 years and older were employed at the time of the survey. In fact, non-working adults accounted for less than 1 out of 5 individuals in the 15+ age group in Monduli (Table 38). Further, out of nearly 93,000 working adults in Monduli, 65,000 claimed to not be employed to capacity; this is 58 percent of the adult population. This proportion remains constant in rural and peri-urban areas. Only a quarter of the adults in Monduli are employed to capacity; this proportion is slightly higher in peri-urban areas than rural. Although the difference is only 4 percentage points, it is statistically significant.

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<sup>21</sup> In this chapter adult population includes all individuals 15 years of age and older.



The proportion of working individuals from poor households is slightly smaller than that from non-poor. Table 38 shows little difference in the rest of the employment trends between individuals from poor and non-poor households. In contrast, employment patterns among men were found to be significantly different from those among women. The working population of men exceeded that of women by 17 percentage points.

Sub-village and household isolation were not found to have a significant impact on employment status. Overall, differences in employment rates between more and less isolated households, at sub-village and household levels, did not exceed 5 percentage points.

Similarly, differences in proportions of adults in each of the employment categories in more and less ethnically fractionalised villages did not exceed 6 percentage points. Overall, working individuals constituted a higher proportion of adults from more ethnically diverse villages.

### **7.2.2 Non-Working Population**

There are nearly 20,000 non-working individuals in Monduli. Only 31 percent of non-working individuals were in this situation because they were not able to find work; the other 69 percent were economically inactive either because they were otherwise occupied or unable to work. A more detailed analysis of the economically inactive population concludes this chapter.

Unemployment is significantly more widespread in rural areas than in peri-urban ones. Similarly, individuals from poor households are more likely to be unemployed. Rates of economic inactivity do not differ substantially between rural and peri-urban areas as well as between individuals from the poor and non-poor groups.

Further, among the non-working population, women are significantly more likely to be unemployed rather than economically inactive compared to men. Only 14 percent of non-working men were unemployed, compared to 38 percent of women.

As mentioned above, isolation, at sub-village and household level, was not found to have a substantial impact on employment status. Most noticeable disparities include higher rates of under-employment and lower rates of unemployment among individuals living further away from the district capital compared to those living closer. Further, unemployment and economic inactivity are more widespread in less ethnically fractionalised areas. In fact, the proportion of unemployed individuals in less fractionalised villages is twice as high as that in more diverse areas, at 8 and 4 percent of the adult population.

**Table 38: Distribution of the Population by Employment Status**

	<i>Working</i>			<i>Not working</i>			<i>Share of population</i>
	Employed to capacity	Under-employed	Total	Economically inactive	Un-employed	Total	
<b>Monduli District</b>	27,732	65,133	92,865	13,578	6,208	19,785	112,650
	24.6	57.8	82.4	12.1	5.5	17.6	100
Rural	23,037	55,504	78,541	11,455	6,063	17,518	96,059
	24.0	57.8	81.8	11.9	6.3	18.2	85.3
Peri-urban	4,696	9,629	14,325	2,123	145	2,267	16,592
	28.3	58.0	86.3	12.8	0.9	13.7	14.7
<b>Poverty</b>							
Non-poor	14,418	32,762	47,181	6,402	1,330	7,732	54,913
	26.3	59.7	86.0	11.7	2.4	14.1	48.7
Poor	13,314	32,371	45,685	7,176	4,878	12,053	57,738
	23.1	56.1	79.2	12.4	8.4	20.8	51.3
<b>Gender</b>							
Male	16,432	37,586	54,018	4,830	783	5,613	59,630
	27.6	63.0	90.6	8.1	1.3	9.4	52.9
Female	11,300	27,547	38,848	8,748	5,424	14,173	53,020
	21.3	52.0	73.3	16.5	10.2	26.7	47.1
<b>Village Isolation</b>							
Closer to district capital	13,137	36,459	49,596	7,141	1,963	9,104	58,699
	22.4	62.1	84.5	12.2	3.3	15.5	52.4
Further from district capital	14,402	28,224	42,626	6,437	4,201	10,638	53,264
	27.0	53.0	80.0	12.1	7.9	20.0	47.6
<b>Household Isolation</b>							
Closer to centre of EA	14,817	32,643	47,459	6,045	2,773	8,818	56,277
	26.3	58.0	84.3	10.7	4.9	15.6	50.3
Further from centre of EA	12,722	32,041	44,763	7,533	3,391	10,923	55,686
	22.8	57.5	80.3	13.5	6.1	19.6	49.7
<b>Ethnic Fractionalisation</b>							
Low	10,651	24,484	35,135	5,904	3,498	9,401	44,536
	23.9	55.0	78.9	13.3	7.9	21.2	39.5
High	17,082	40,648	57,730	7,674	2,710	10,384	68,114
	25.1	59.7	84.8	11.3	4.0	15.3	60.5



### 7.3 Type of Employment

Employed individuals in Monduli tend to be paid for their work in one of the following ways: *wage/salary*, *hourly/daily payments*, *self (self-employed)* and *unpaid (contributing worker)*. Depending on the specific mode of payment individuals in the working population are, respectively, classed as *regular employee*, *casual employee*, *unpaid worker* and *self-employed*.

In consistency with expectations, self-employment is most widespread in Monduli. In fact, only 1 in 10 working residents of this district was not self-employed at the time of the survey (Table 39). The rest of the employed population were equally split between regular and casual employees.

Self-employment is significantly less widespread in peri-urban areas than in rural ones. Employment, either casual or regular, however, is more than four times as common in peri-urban parts of the district as in rural ones. Nearly 30 percent of the peri-urban workforce were employed either on regular or casual basis.

Disaggregation of the working population by poverty status shows that self-employment is slightly more widespread among individuals from poor households, while formal or informal/casual employment is more common among individuals from non-poor households. Table 39 further shows that women, who make up 42 percent of Monduli's working population, are less likely to be employed on a regular or casual basis than men. Out of nearly 39,000 female workers over 36,000 (93 percent) are self-employed. The self-employed category among men contains a slightly smaller proportion of working men (87 percent).

**Table 39: Distribution of the Employed Population by Type of Employment**

	Regular employee	Casual employee	Self-employed	Unpaid worker	Share of population
<b>Monduli District</b>	4,503	4,612	83,278	399	92,865
	4.8	5.0	89.7	0.4	100.0
Rural	2,465	2,583	73,094	327	78,541
	3.1	3.3	93.1	0.4	84.6
Peri-urban	2,038	2,030	10,185	72	14,325
	14.2	14.2	71.1	0.5	15.4
<b>Poverty</b>					
Non-poor	3,379	3,663	39,932	135	47,181
	7.2	7.8	84.6	0.3	50.8
Poor	1,124	949	43,347	264	45,685
	2.5	2.1	94.9	0.6	49.2



## Employment



	Regular employee	Casual employee	Self-employed	Unpaid worker	Share of population
<b>Gender</b>					
Male	3,519	3,233	47,021	171	54,018
	6.5	6.0	87.0	0.3	58.2
Female	984	1,379	36,257	228	38,848
	2.5	3.5	93.3	0.6	41.8
<b>Village Isolation</b>					
Closer to district capital	3,353	2,953	43,067	150	49,596
	6.8	6.0	86.8	0.3	53.8
Further from district capital	1,078	1,616	39,684	249	42,626
	2.5	3.8	93.1	0.6	46.2
<b>Household Isolation</b>					
Closer to centre of EA	2,692	2,161	42,425	181	47,459
	5.7	4.6	89.4	0.4	51.5
Further from centre of EA	1,739	2,407	40,326	218	44,763
	3.9	5.4	90.1	0.5	48.5
<b>Ethnic Fractionalisation</b>					
Low	1,010	837	33,030	187	35,135
	2.9	2.4	94	0.5	37.8
High	3,493	3,776	50,249	212	57,730
	6.1	6.5	87	0.4	62.2

Individuals more isolated from the district capital also appear to be less likely to have regular employment. The same tendency was found among individuals isolated from the centre of the EA. Individuals from more ethnically fractionalised villages, on the other hand, tend to be employed as regular or casual employees more often than those from more homogeneous areas. For instance, while casual employees constitute 7 percent in the former group, in the latter group this proportion is only 2 percent.

### 7.4 Employment Sector

The distinction between sectors of employment is usually limited to private and public. However, in the Monduli District CWIQ five relevant sectors were identified: *Government*, *Private Formal* (eg. Business), *Private Informal* (without contract) and *Self-Employed*.



In consistency with the employment patterns described in the preceding sections, the self-employed sector is by far the largest in Monduli (Table 40). While trends in self-employment have been described above, working individuals who are not self-employed predominantly belong to the private informal sector; 62 percent of the non self-employed working population were working for a non-government employer without a contract at the time of the survey. These informal employees make up 6 percent of the working population. In peri-urban areas this proportion is more than twice as high at 16 percent. Employees of the Government and the Private Formal sectors also constitute a substantially higher proportions of the peri-urban than rural working population. These trends are consistent with earlier findings that non self-employed types of employment are more widespread in peri-urban than rural areas (Table 39).

Only 1 percent of working individuals from poor households were in the Government or Formal Private sectors; among the non-poor working population, this proportion is 6 percent. In both cases, again, the majority of the work force is in the self-employed sector. While working women are significantly more likely to be self-employed than working men, working men participate in the private informal sector noticeably more, at 8 and 4 percent.

Although the location of the household in the sub-village was not found to have a substantial impact on the distribution of the working population by employment sector, a higher proportion of individuals from villages located further away from the district capital were self-employed compared to those living closer to the district capital. Employment in Government and Private Formal sectors, on the other hand were more widespread among individuals living in close proximity to the district capital, compared to those living further away. For instance, while 4 percent of the working population from the former group were employed in the government sector, this was the case for only 1 percent of that from the latter group. Similarly, employment by another individual or organisation (i.e. not self-employment) is slightly more widespread in more ethnically diverse areas compared to less fractionalised villages.

**Table 40: Distribution of the Working Population by Employment Sector**

	Government	Private Formal	Private Informal	Self-employed	Other	Share of population
<b>Monduli District</b>	2,091	1,157	5,877	83,278	384	92,865
	2.3	1.2	6.3	89.7	0.4	100
Rural	1,109	410	3,539	73,094	312	78,541
	1.4	0.5	4.5	93.1	0.4	84.6
Peri-urban	983	747	2,338	10,185	72	14,325
	6.9	5.2	16.3	71.1	0.5	15.4
<b>Poverty</b>						
Non-poor	1,753	884	4,300	39,932	312	47,181



	Government	Private Formal	Private Informal	Self- employed	Other	Share of population
Poor	3.7 338 0.7	1.9 273 0.6	9.1 1,577 3.5	84.6 43,347 94.9	0.7 72 0.2	50.8 45,685 49.2
<b>Gender</b>						
Male	1,325 2.5	964 1.8	4,349 8.1	47,021 87.0	281 0.5	54,018 58.2
Female	767 2.0	193 0.5	1,528 3.9	36,257 93.3	103 0.3	38,848 41.8
<b>Village Isolation</b>						
Closer to district capital	1,727 3.5	1,064 2.1	3,443 6.9	43,067 86.8	217 0.4	49,596 53.8
Further from district capital	293 0.7	92 0.2	2,390 5.6	39,684 93.1	167 0.4	42,626 46.2
<b>Household Isolation</b>						
Closer to centre of EA	1,425 3	821 1.7	2,638 5.6	42,425 89.4	72 0.2	47,459 51.5
Further from centre of EA	594 1.3	335 0.7	3,195 7.1	40,326 90.1	312 0.7	44,763 48.5
<b>Ethnic Fractionalisation</b>						
Low	213 0.6	348 1.0	1,400 4.0	33,030 94.0	145 0.4	35,135 37.8
High	1,879 3.3	809 1.4	4,477 7.8	50,249 87.0	240 0.4	57,730 62.2

## 7.5 Self-employment

So far the analysis of the employment data from the Monduli District CWIQ has shown that the great majority of the working population here are self-employed. In order to acquire a meaningful overview of the employment patterns in Monduli, it is, therefore, necessary to analyse the self-employed population in more detail. Data on self-employed population has been disaggregated by occupation for this purpose (Table 41).

The majority (87 percent) of self-employed individuals classed themselves as subsistence farmers<sup>22</sup>. Self-employment in the professional sector<sup>23</sup> was least common; out of over 83,000 self-employed individuals only 363 were professionals. The great majority of these (332 individuals) were residents of peri-urban areas. In fact, only subsistence

<sup>22</sup> Please note that no independent assessment was made – the results presented are based solely on the information provided by the respondents. Subsistence farmers are those who had said that their agricultural activities were aimed solely at providing food for the household.

<sup>23</sup> For example: Lawyer, accountant, consultant



these (332 individuals) were residents of peri-urban areas. In fact, only subsistence farming was more widespread in rural than peri-urban areas; in all other cases, commercial farming, trading, professional and other, the proportions of self-employed individuals thus occupied were lower in rural areas. Commercial farming, for instance, is very rare among rural self-employed individuals; only 1 percent of this group identified themselves as commercial farmers, compared to 13 percent in peri-urban areas.

Subsistence farming is more widespread among individuals from poor households; the reverse is true for commercial farming. In fact, there are nearly 10,000 more subsistence farmers from poor households than non-poor in Monduli. Trading, on the other hand, is an occupation that is more widespread among the non-poor self-employed. The proportion of non-poor self-employed individuals involved in trading is more than twice as high as that among poor individuals, at 7 and 3 percent respectively. Overall, there are slightly more people from poor households among the self-employed than non poor; 52 percent of the self-employed group are individuals from poor households.

Very little difference is observable in types of occupation between self-employed men and self-employed women. Overall, 57 percent of the self-employed population of Monduli are male and 44 are female. While isolation from the district capital and from the centre of the EA was not found to have a substantial impact on distribution of the self-employed population by occupation, ethnic diversity within villages was. Subsistence farming is more widespread in more ethnically homogeneous areas, where 90 percent of the self-employed are in this occupation, compared to 79 percent in more diverse villages. The reverse is true in trends of involvement in commercial farming; it is a more common occupation in more fractionalised villages.

**Table 41: Distribution of the Self-employed Population by Occupation**

	Commercial Farming	Subsistence Farming	Trading	Professional	Other	Share of Population
<b>Monduli District</b>	2,322	69,583	4,250	363	6,673	83,191
	2.8	83.6	5.1	0.4	8.0	100.0
Rural	995	63,900	2,757	31	5,323	73,006
	1.4	87.5	3.8	0.0	7.3	87.8
Peri-urban	1,327	5,684	1,492	332	1,349	10,185
	13.0	55.8	14.7	3.3	13.2	12.2
<b>Poverty</b>						
Non-poor	1,580	29,811	2,860	363	5,317	39,932
	4.0	74.7	7.2	0.9	13.3	48.0
Poor	742	39,772	1,390	0	1,355	43,259
	1.7	91.9	3.2	0.0	3.1	52.0



	Commercial Farming	Subsistence Farming	Trading	Professional	Other	Share of Population
<b>Gender</b>						
Male	1,598	39,214	2,162	139	3,864	46,978
	3.4	83.5	4.6	0.3	8.2	56.5
Female	724	30,369	2,088	224	2,809	36,213
	2.0	83.9	5.8	0.6	7.8	43.5
<b>Village Isolation</b>						
Closer to district capital	1,768	36,712	2,640	332	1,615	43,067
	4.1	85.2	6.1	0.8	3.8	52.1
Further from district capital	555	32,706	1,537	31	4,768	39,597
	1.4	82.6	3.9	0.1	12.0	47.9
<b>Household Isolation</b>						
Closer to centre of EA	1,621	35,247	2,260	363	2,935	42,425
	3.8	83.1	5.3	0.9	6.9	51.3
Further from centre of EA	702	34,171	1,918	0	3,448	40,239
	1.7	84.9	4.8	0.0	8.6	48.7
<b>Ethnic Fractionalisation</b>						
Low	334	29,757	1,526	0	1,324	32,942
	1.0	90.3	4.6	0.0	4.0	39.6
High	1,988	39,826	2,724	363	5,348	50,249
	4.0	79.3	5.4	0.7	10.6	60.4

## 7.6 Economic Inactivity

To complete the overview of employment trends in Monduli, it is necessary to examine the economically inactive population in more detail. At the time of the survey, more than 13,500 people in Monduli were economically inactive. In other words, 12 percent of individuals over the age of 15 (Table 38) were not working for reasons other than lack of work.

Disaggregation of the economically inactive population by reason for the inactivity shows that age is one of the most prominent causes (Table 42). More than 1 out of 3 economically inactive persons stated age as the reason. As can be seen from the table, the options provided in the survey do not fully explain the reasons for non-activity. There were also many cases in which none of the pre-coded options explained the individual reason; hence 35 percent of the economically inactive population named



‘Other’ as the reason for the inactivity<sup>24</sup>. Illness and disability, combined, explain the inactivity of 17 percent of the population. Similarly, 13 percent of economically inactive individuals over the age of 14 have no time for work because of school.

In peri-urban areas age is less of a deterrent to work than in rural areas; while in rural areas nearly two fifths of the economically inactive population mentioned age as the reason, in peri-urban areas this proportion was just over one fifth. In contrast, school was a significantly more widespread cause for economic inactivity in peri-urban than rural areas. The proportion of individuals citing school as the reason for inactivity in peri-urban areas was nearly 6 times greater than that in rural areas, at 42 and 8 percent respectively.

Age appears to limit people from poor households more than those from non-poor households. Results of the CWIQ show that age accounts for the economic inactivity of 45 percent of individuals from poor households, compared to only 24 percent of individuals from non-poor households. Schooling, on the other hand, deters nearly 6 times as high a proportion of the economically inactive population from non-poor households as those from poor households. While there is no significant difference between proportions of poor and non-poor individuals who are inactive due to illness, disability appears to be more of a work deterrent among individuals from non-poor households.

There appear to be some differences in reasons for economic inactivity between men and women. Overall, women make up the majority of the economically inactive population in Monduli. Nearly 2 out of 3 economically inactive individuals are women. Illness is more of a deterrent to working among women than men. Age and school, on the other hand, were cited by men much more often than women. For instance, while 46 percent of men gave age as the reason why they were not working and not looking for work, among women this proportion was only 29 percent.

Illness and schooling were more prominent reasons for economic inactivity among individuals living closer to the district capital. In contrast, age deterred one and a half times as high a proportion of residents of more isolated areas than that of individuals living closer to the district capital, at 44 and 28 percent of the respective economically inactive populations. Isolation at household level had a less noticeable impact on reasons for economic inactivity than village level isolation. The most substantial difference found was that between proportions of economically individuals citing schooling as the reason. While this deterrent was cited by nearly a fifth (18 percent) of economically

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<sup>24</sup> According to reports of field work supervisors this category predominantly incorporates individuals who are economically inactive as their time is taken up with house work; house work is not considered to be formal employment. This information is supported by the results. As can be seen from Table 42, ‘Other’ is cited as a reason for economic inactivity by a significantly higher proportion of women than men; 44 percent of women gave ‘Other’ as the reason for being economically inactive, compared to only 19 percent of men. Women are more likely to be occupied by housework and, consequently, not be formally employed.



inactive individuals living closer to the centre of the EA, it was referred to by only 9 percent of individuals living further away.

**Table 42: Distribution of the Economically Inactive Population by Reason for Not Working**

	Illness	Disability	Age	School	Other	Share of population
<b>Monduli District</b>	1,808	469	4,797	1,759	4,746	13,578
	13.3	3.5	35.3	13.0	35.0	100.0
Rural	1,544	255	4,306	865	4,486	11,455
	13.5	2.2	37.6	7.5	39.2	84.4
Peri-urban	264	214	491	894	260	2,123
	12.4	10.1	23.1	42.1	12.2	15.6
<b>Poverty</b>						
Non-poor	867	364	1,564	1,507	2,100	6,402
	13.5	5.7	24.4	23.5	32.8	47.2
Poor	941	105	3,233	252	2,646	7,176
	13.1	1.5	45.0	3.5	36.9	52.8
<b>Gender</b>						
Male	510	261	2,240	918	901	4,830
	10.6	5.4	46.4	19.0	18.7	35.6
Female	1,298	208	2,557	841	3,845	8,748
	14.8	2.4	29.2	9.6	43.9	64.4
<b>Village Isolation</b>						
Closer to district capital	1,256	214	1,967	1,729	1,976	7,141
	17.6	3.0	27.5	24.2	27.7	52.6
Further from district capital	552	255	2,830	30	2,770	6,437
	8.6	4.0	44.0	0.5	43.0	47.4
<b>Household Isolation</b>						
Closer to centre of EA	850	248	2,159	1,071	1,717	6,045
	14.1	4.1	35.7	17.7	28.4	44.5
Further from centre of EA	958	221	2,638	687	3,029	7,533
	12.7	2.9	35	9.1	40.2	55.5
<b>Ethnic Fractionalisation</b>						
Low	1,175	0	2,227	390	2,112	5,904
	19.9	0.0	37.7	6.6	35.8	43.5
High	633	469	2,570	1,369	2,633	7,674
	8.2	6.1	33.5	17.8	34.3	56.5



## 8 LOCAL GOVERNANCE

### 8.1 *Introduction*

This chapter examines indicators of participatory governance in the district. To begin with some basic aspects of village governance are examined. These include the characteristics of the members of two types of council committees compared to the population as a whole, as well as the frequency of elections and meetings and involvement from higher levels of government in the decision making process. The second part of the chapter focuses on the role of the community in village decision making. An analysis of indicators of awareness of local government is followed by a discussion about selected data on participation in local governance and decision making. A brief overview of participation in communal activities, such as communal works, concludes the chapter.

### 8.2 *Village Government*

#### 8.2.1 **Village Council Committee Membership**

Detailed personal data on members of two village council committees was collected in every surveyed village. The Finance and Planning Committee and the Security Committee were selected as they are among the core committees of every village council irrespective of location. This was confirmed by the presence of both of these committees in every one of the 24 village visited as part of the Monduli CWIQ. Comparison of the data collected on each member to individual level data<sup>25</sup> from the household survey gives an indication of how similar village decision makers are to others in the community.

As shown in Table 43, the first noticeable difference between committee members and the population of Monduli as a whole is the gender distribution. While women constitute 48 percent of the population of Monduli, only about 1 in 5 committee members are female. Further, decision makers in this district tend to be more educated than the population as a whole. Roughly 3 out of 4 committee members have had some formal schooling; this is the case for less than half (44 percent) of the population in Monduli.

Committee members tend to be older than the population of voting age. As shown in Table 43, over half (57 percent) of individuals of voting age are between the ages of 18 and 35. Among, committee members, however, individuals of this age constitute only about two fifths of all members. The majority of committee members are between the ages of 36 and 64. Individuals in this age group constitute a third of the voting age population.

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<sup>25</sup> Only individuals over the age of 18 were included in this category for comparative purposes as members of the council must be at least 18 years of age.





The main difference between the distributions of committee members and the community by employment status is the unemployment rate. While none of the committee members were found to be unemployed, nearly a fifth (17 percent) of the villagers were in this position.

The results further suggest that committee members own more assets than the average individual in the community. Table 43 shows that the proportions of committee members owning every type of asset listed are higher than the proportions of individuals living in households that contain these assets. In particular, disparities between proportions of individuals owning a bicycle and large and medium livestock on the council and in the community are especially noticeable. For instance, while the great majority of committee members own medium livestock (82 percent), only a third of the population live in households that have medium livestock. The situation with large livestock is similar; the proportion of individuals on the committees holding large livestock is nearly twice as high as the proportion of individuals living in households with large livestock in the community.

**Table 43: Basic Characteristics of Village Council Committee Members Compared to the Population as a Whole**

	Finance & Planning Committee	Security Committee	Monduli Population
<b>Gender</b>			
Male	77.2	80.49	52.5
Female	22.8	19.51	47.5
<b>Age</b>			
18 to 35	38.9	42.0	57.0
36 to 64	60.1	56.6	32.6
65+	1.0	1.5	10.5
<b>Education level</b>			
None	21.7	27.59	56.2
Primary	63.6	61.58	39.2
Secondary	14.8	10.84	4.7
<b>Occupation</b>			
Employed	11.8	12.2	8.6
Self-employed	88.2	87.8	74.1
Unemployed	0.0	0.0	17.3
<b>Assets</b>			
Bicycle	28.1	31.22	13.9
Motorcycle	2.0	0.49	0.2
Car / truck / tractor	4.9	2.44	3.1
Large livestock	61.6	54.15	35.2
Medium livestock	82.3	75.12	32.6



### 8.2.2 Activities of the Village Council

A detailed overview of the activities of the village council is beyond the scope of this study. However, some of the basic data on the functioning of the village council are presented in Table 44. These data are disaggregated by the distance of the surveyed village from the district capital.

The first variable of interest is the average number of months since the last village council elections. It was found that across Monduli district elections had been held within 3 months preceding the survey. On average, elections had taken place 2.8 months prior to the survey. The level of isolation does not appear to have an impact on occurrence of village council elections.

The results of the survey also inform on the regularity of official communication between village council and the villagers. It was found that, on average, public village meetings take place 4.1 times per year. This figure is slightly lower in less isolated or closer villages at 3.9 times and slightly higher in more remote areas, at 4.3 times.

Village chairmen were also asked to comment on their planning strategies; more specifically they were asked whether they compiled a planning document containing the plans agreed on in village meetings accompanied by an implementation strategy, time frame and budget information on each. This question was intended to inform on the proportion of villages with a Village Development Plan (VDP) as defined in *Making Local Governance a Reality: A Guide to District Facilitators Managing Participatory Planning for Development* released by The District Rural Development Programme (DRDP) in June 2004. Slightly over one in three (38 percent) sub-villages in the district were found to be located in villages with a VDP. This planning strategy is significantly more widespread in areas closer to the district capital. In fact, only 14 percent of the more remote sub-villages were located in villages that implemented this strategy.

Another important element of village governance is the communication of the village council with the next level of government – the district council. Communication between village and district levels of government is intended to help village government to compile effective planning strategies that are consistent with national targets, and are likely to lead to successful implementation. This communication is upheld by the councillor who visits the actual villages. To obtain an indication of the level of communication between surveyed areas and district councils, village chairmen were asked to estimate the number of weeks since the last visit of the councillor. Further, village chairmen were asked to comment on whether the usual level of contact with the councillor is below, above or the same as their expectations.

The results, presented in Table 44 show that nearly three quarters of sub-villages in the district are located in villages that have been visited by a councillor within 4 months preceding the survey. Among villages located closer to the district capital this proportion is even higher, at 89 percent. A noticeably higher proportion of more remote sub-villages are located in villages that had not been visited by the councillor in at least 4 months preceding the survey. In fact, in more remote areas this proportion is four times greater



than that in closer ones. Although overall contact with the councillor appears to be relatively recent, over half of the chairmen noted that it is below their expectations. This may be explained by abnormalities in trends caused by upcoming elections. Recent statistics on visits of the councillor may be reflecting increased involvement prior to the elections; the satisfaction levels among village chairmen, on the other hand, reflect the usual trends. Dissatisfaction among the chairmen was particularly high in remote areas; the chairmen of two out of three more isolated villages noted that contact with that councillor was below their expectations.

**Table 44: Village Council Activities**

	Monduli	Closer to district capital	Further from district capital
<b>Last Village Council election held (average number of months)</b>	2.8	2.7	2.9
<b>Mean number of public village meetings held per year</b>	4.1	3.9	4.3
<b>Proportion of Villages with a VDP</b>	37.5	60.6	14.3
<b>Last visit of councillor</b>			
0 to 4 weeks ago	28.5	14.3	42.9
5 to 12 weeks ago	44.7	75.0	14.3
12+ weeks ago	26.8	10.7	42.9
<b>Proportion of Village Chairmen who find the usual level of communication insufficient</b>	53.5	42.8	64.3

### 8.3 Awareness and Participation

According to the DRDP publication mentioned above, “Participation is the central and focal point of local governance.”<sup>26</sup> This statement reflects the importance increasingly attached to participatory planning and governance over the last decade. This section of the chapter examined some indicators of village level awareness of and participation in local governance.

#### 8.3.1 Awareness

Effective participation of the community is impossible without a certain level of awareness. Individuals cannot be expected to be involved in something they know little or nothing about. Awareness figures may also give an indication of how active the village government itself is, as well as, how successful it is at involving the community.

<sup>26</sup> *Making Local Governance a Reality: A Guide to District Facilitators Managing Participatory Planning for Development*; DRDP, 2004; pg.1



Results of the Monduli District CWIQ inform on a number of awareness measurements that will be discussed in this section.

### **Sub-Village and Village Meetings**

The first of the awareness measures is the proportion of villagers who know the number of times sub-village and village meetings had occurred in the 12 months preceding the survey. The results, presented in Table 45, show that individuals from nearly two thirds of households were able to identify this number. A slightly lower proportion (56 percent) were aware of the number of times that a public village meeting had taken place<sup>27</sup>. In peri-urban areas awareness of sub-village and village meetings was significantly higher than that in rural areas. In fact, the proportions of households aware of both sub-village and village level meetings were more than 20 percentage points higher in peri-urban areas compared to rural ones.

Further, awareness among individuals from non-poor households appears to be higher than that among the poor. There is some variation in rates of awareness between households from different socio-economic groups. A higher proportion of households headed by self-employed and employed individuals knew about sub-village and village meetings that had taken place, than that of households headed by unemployed individuals. While the difference between the groups is not statistically significant, it is substantial in the sample. For instance, more than 2 out of 3 (67 percent) of households were aware of the number of sub-village meetings that had taken place in the 12 months preceding the survey compared to only roughly 1 out of 2 (49 percent) households headed by unemployed persons.

Awareness appears to be slightly higher in male headed households than female. At both sub-village and village level, slightly higher proportions of male headed households knew about the public meetings. However, the differences in proportions do not exceed 5 percentage points and are not statistically significant.

Unlike gender, education of the household head has a substantial impact on awareness. Rates of awareness, at both, village and sub-village levels, increase with education level. For instance, only 52 percent of households headed by individuals with no formal education were aware of public village meetings that had taken place in the 12 months preceding the survey; among households headed by individuals with some formal education this proportion was 10 percentage points higher, at 62 percent.

Disaggregation of awareness data by village characteristics shows that awareness is slightly higher less isolated villages. The proportion of households aware of public village meetings located in close proximity of the capital exceeded that of households located further away by 6 percentage points. Within the villages, more isolated

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<sup>27</sup> Note that the awareness figures are based solely on whether the respondent was able to answer the question. They do not inform of the proportion of households that were able to identify the numbers correctly.



households were also found to be less aware than less isolated households. Neither the impact of village isolation from the district capital, nor of household isolation from the village centre on awareness rate, however, was found to be statistically significant.

In contrast, ethnic fractionalization was found to have a statistically significant impact on awareness. The proportion of household located in highly diverse villages that knew the number of sub-village and village meetings that had taken place in the 12 months preceding the survey, was significantly higher than those in more homogeneous areas. For instance, in more fractionalized villages the majority (62 percent) of households were aware of public village meetings that had taken place; in less fractionalized places this was the case in only 48 percent of households.

### **Outside Organisations**

Another aspect of awareness is knowledge of what is happening in one's community. It was found that less than a fifth of all households in Monduli were aware that there were outside organisations such as NGO's working in their village. In rural areas, awareness was significantly higher than in peri-urban ones, at 20 and 9 percent respectively.

Households headed by self-employed individuals were slightly more informed than those headed by employed individuals. Only 11 percent of households in the unemployed group knew about involvement of outside organizations in their villages. Overall, awareness rates in none of the groups exceeded 20 percent.

Male headed households were aware of the presence of outside organizations in the village more often than female headed households, at 19 and 10 percent respectively. Education of the households head, on the other hand, had little impact on this type of awareness.

Households located closer to the district capital were significantly more aware of the work of outside organizations in their area than those located further away. The positioning of the household within the village, however, does not have an impact on awareness; very similar proportions of households located close to and far from the sub-village centres knew about this type of activity within the village. Similarly, the level of fractionalization was not found to have a significant impact on this measure of awareness.

### **Village Council & Village Council Activities**

Another measure of awareness is the proportion of households that know about village council activities. As mentioned above, the Finance and Planning Committee is a core part of village level government. Villagers' awareness of the existence and activities of their Finance and Planning Committee is, therefore, a good indicator of general awareness of village council activities.

Only half of the households in the district were found to be aware of the existence of a Finance and Planning Committee on their village council. Further, only 15 percent of



households reported having a good knowledge of activities of this committee. In peri-urban areas, where awareness of sub-village and village meetings is higher than in rural areas, knowledge of village council activities was lower. The differences were not, however, significant. Difference in proportions of non-poor and poor households aware of the existence and activities of the Finance and Planning Committee in their villages were even smaller. Nevertheless, the proportion of non-poor households was higher than that of poor households.

Across the socio-economic groups, between 40 and 50 percent of households knew that there was a Finance and Planning Committee on the village council. Households headed by employed individuals, however, claimed to be much less aware of the activities of the committee. Only 4 percent of households in this group had a good knowledge of the activities of the committee, compared to 16 percent in households headed by self-employed individuals and 13 percent of households headed by unemployed individuals.

A significant difference in the level of knowledge was found between proportions of male and female headed households aware of the presence of a Finance and Planning Committee in their villages. While under a third of female headed households were aware of the presence of the Finance and Planning Committee in their village, none were well informed about the activities of this committee. In contrast, half of the male headed households knew about the committee and 15 percent were well informed.

Another characteristic of household heads that appears to have some bearing on the level of awareness is education. The proportion of households headed by individuals with no formal education who were aware of the existence of a Finance and Planning Committee in their village was 12 percentage points lower than that among households headed by individuals with some level of formal education, at 44 and 56 percent respectively.

Awareness of Finance and Planning Committee was higher in more isolated villages. Less than half (45 percent) of the households in villages located close to the district capital were aware of the existence of a Finance and Planning Committee; in more isolated villages this proportion was 55 percent. Proportions of households with a good knowledge of the activities were almost the same irrespective of the location of the village. Isolation within the sub-village, on the other hand, has a negative effect on the level of awareness. While 53 percent of households located closer to the sub-village centre knew about the Finance and Planning Committee, among households located further away, this proportion was 47 percent. Again, knowledge of the activities of the committee was not affected by location of the household.

Finally, households in more fractionalized villages knew significantly more about the village council than households in less fractionalized villages. 54 percent of households from the former group of villages knew about the Finance and Planning Committee; in less fractionalized villages this proportion was 42 percent. Households with an extensive knowledge of activities of the committee, however, were equally widespread in more and less fractionalized villages.



**Table 45: Distribution of Households by Levels of Awareness of Local Governance Activities at Sub-village and Village Levels**

	Know about sub-village meetings	Know about village meetings	Aware of presence of outside orgs in the village	Aware of the existence of a Finance and Planning Committee on the Village Council	Know a lot about activities of Finance and Planning Committee (self-reported)	Share of Population
<b>Monduli District</b>	64.8	56.3	18.3	49.5	14.5	100.0
Rural	61.6	52.6	20.2	50.4	15.1	85.5
Peri-urban	83.7	77.9	9.4	44.3	10.6	14.5
<b>Poverty</b>						
Non-poor	69.7	61.3	20.3	51.0	15.0	49.4
Poor	60.0	51.4	16.6	48.1	13.9	50.6
<b>Socio-economic group</b>						
Self-employed	64.8	55.7	16.2	46.7	3.6	14.8
Employed	66.9	58.3	19.8	50.9	16.2	75.1
Unemployed	49.3	43.6	11.2	43.3	12.9	10.1
<b>Gender of head of household</b>						
Male	65.2	56.5	19	51.1	15.2	92.3
Female	60.2	53.9	10.1	31.1	0.0	7.7
<b>Education of head of household</b>						
None	59.4	51.6	17.6	44.4	12.8	55.4
Some	71.5	62.1	19.2	55.8	16.1	44.6
<b>Village Isolation</b>						
Closer to district capital	67.5	58.7	14.6	44.9	14.8	53.2
Further from district capital	61.8	53.4	22.6	55.0	13.7	46.8
<b>Household Isolation</b>						
Closer to centre of EA	66.0	60.5	19.1	52.6	14.5	50.4
Further from centre of EA	63.5	51.9	17.1	46.6	13.8	49.6
<b>Ethnic Fractionalisation</b>						
Low	59.0	48.1	17.6	42.1	14.8	39.1
High	68.5	61.5	18.9	54.3	14.3	60.9



## 8.4 Participation

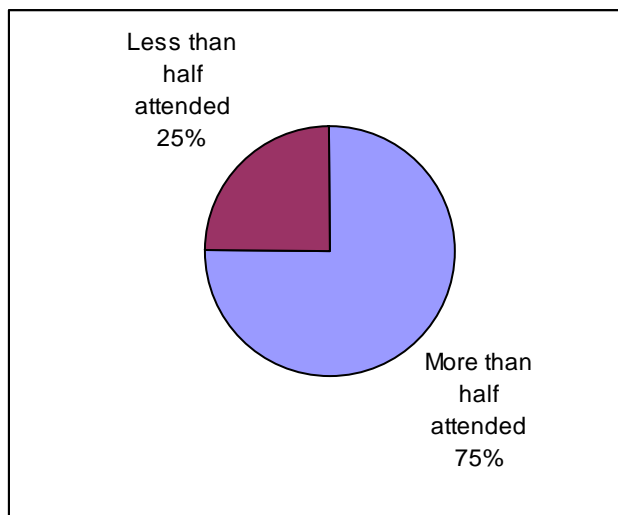
This section presents indicators of the degree to which households participate in decision making processes and how this differs across categories of households.

### 8.4.1 Attendance

This part discusses attendance at public village meetings and village council elections.

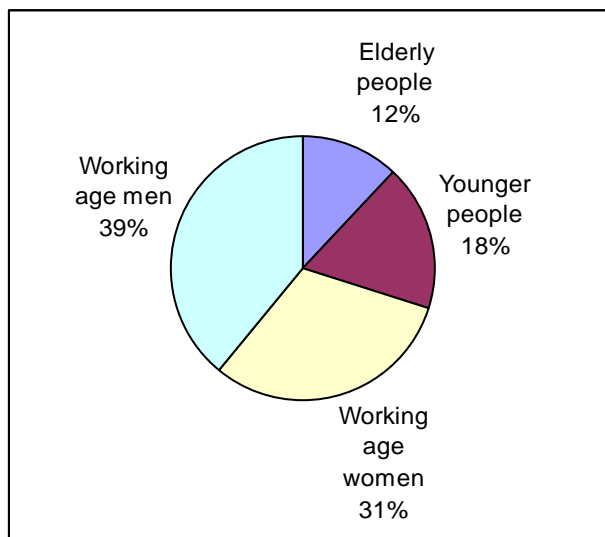
As shown in Figure 15, villages where attendance at public village meetings exceeds 50 percent of the voting age population constitute three quarters of the villages in Monduli. Attendance at public village meetings is below 50 percent in a quarter of the villages in Monduli.

**Figure 15: Attendance of Public Village Meetings**

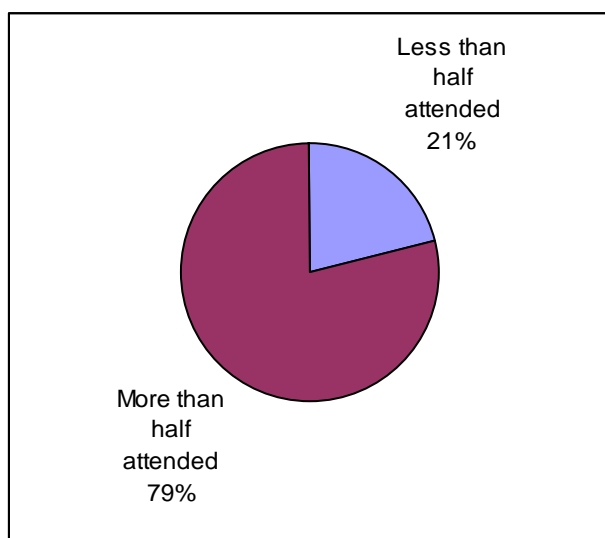


Village chairmen were asked to approximate the composition of village meetings in terms of 4 gender-age categories: working age men (20 to 65 years), working age women (20 to 65 years), younger people (less than 20 years), and elderly people (65 years and more). Figure 16 shows that the 39 percent of the village meeting attendees are working age men, while 31 percent are working age women. Only 12 percent of the individuals attending village meetings are elderly, while 18 percent are younger people.



**Figure 16: Age and Gender Composition of Public Village Meetings**

Another indicator of participation is attendance at the last village council elections. This is a particularly relevant measurement as elections had taken place no more than 3 months preceding the survey. The results, presented in Figure 17, show that in roughly four fifths of the villages, attendance at the last council elections exceeded 50 percent of the population that is eligible to vote. In 21 percent of the villages less than half of the same population were present.

**Figure 17: Distribution of Villages in Monduli by Proportion of Attendance at Last Village Council Elections**



## 8.4.2 Expressing Opinions at Meetings

The presence of an individual at a meeting does not necessarily imply active participation. This section focuses on expression of opinion at public meetings.

Overall, just over a half of those who had attended sub-village meetings in the year preceding the survey, had expressed their opinion at least once (Table 46). This proportion is substantially lower in village meetings, at 29 percent. This kind of participation is less widespread in peri-urban than rural areas. The difference is particularly significant at village level; while in peri-urban areas only 18 percent of public village meeting attendees had expressed their opinion at least once, in rural areas this proportion constitutes 31 percent of the same population.

The results further suggest that individuals from poor households tend to voice their opinions at village and sub-village meetings more often than individuals from non-poor households. For instance, nearly two thirds of sub-village meeting attendees from poor households had expressed their opinion in at least one meeting in the year preceding the survey; among attendees from non-poor households this proportion was less than half, at 44 percent.

In both village and sub-village meetings, representatives of households headed by employed individuals participated less than representatives of households headed by self-employed and unemployed individuals. In fact, at sub-village level, the great majority (72 percent) of individuals from households headed by unemployed individuals had expressed their opinion at, at least, one of the meetings; only 40 percent of households headed by an employed individual did so in the same time-period.

Speaking out at village and sub-village meetings is significantly more widespread among meeting attendees from male headed households than female ones. In fact, at both village and sub-village levels, this informal participation rate is more than twice as high among attendees from male headed households as that among attendees from female headed households. For instance, at village level, the former is nearly 4 times as high as the latter, at 31 and 8 percent respectively.

**Table 46: Speaking Out at Meetings**

	Speak in sub-village meetings	Speak in village meetings
<b>Monduli District</b>	53.2	29.0
Rural	54.9	31.0
Peri-urban	43.8	17.6
<b>Poverty</b>		
Non poor	44.0	24.0
Poor	62.9	33.9
<b>Socio-economic group</b>		
Employed	40.0	22.9
Self-employed	53.6	30.7
Unemployed	71.8	24.5
<b>Gender of head of household</b>		
Male	55.4	30.8
Female	22.1	8.0
<b>Education of head of household</b>		
None	57.2	29.0
Some	48.9	29.0
<b>Village Isolation</b>		
Closer to district capital	48.1	26.0
Further from district capital	60.1	32.5
<b>Household Isolation</b>		
Closer to centre of EA	50.9	27.5
Further from centre of EA	55.9	30.5
<b>Ethnic Fractionalisation</b>		
Low	63.8	34.1
High	46.8	25.7

Participation among attendees from households headed by individuals with no formal education appears to be higher at sub-village level than that among participants from households headed by individuals with some level of formal education. This is not a statistically significant trend however. Further, at village level, education of the household head has no impact on participation.

It was found that in more remote villages participation is higher than in less isolated areas; while 3 out of 5 attendees of sub-village meetings in less isolated areas had spoken at one or more meetings in the year preceding the survey, only 48 percent did the same in closer villages. The same pattern is observed at village level. Households located further



from the sub-village centre appear to be more vocal at sub-village and village levels than those located closer. The differences are not, however, substantial.

Households located in more homogeneous villages are more willing to contribute their opinion at both village and sub-village meetings than those located in more diverse areas. For instance, while nearly two thirds of sub-village attendees in more homogeneous villages had expressed their opinion at a meeting, only 47 percent had in more fractionalized areas.

### 8.4.3 Communication with Local Leaders

Arguably, participation does not solely arise from the active attendance at Public Village Meetings, but could also be established by direct contact with local leaders. A supplementary measure of participation is, therefore, the level of communication between individual households and their representatives. Households were asked whether in the 12 months preceding the survey they had had any communication with either their 10-cell leader, their sub-village chairman, their village chairman or their councillor (diwani). Excluded here is communication with these leaders outside of their official capacity, e.g. casual and friendly visits.<sup>28</sup>

The results, presented in Table 47, show that nearly 60 percent of households had ‘officially’ gone to see their sub-village chairman in the past 12 months. 10-cell leaders and village chairmen follow at 43 and 37 percent respectively. 9 percent of the households reported to have officially seen their councillor in the past 12 months.

The subsequent analysis of these variables in several sub-groups of the population show no main differences across area of residence, poverty status, socio-economic status, and gender of household head. Also the isolation of the village, the isolation of the household within the village and the tribal fractionalisation does not affect communication with local leaders. By all measures this form of participation appears to be happening equally, with the only exception being households headed by unemployed individuals, who communicate noticeably less with their local leaders. The last column of Table 47 shows that 62 percent of the households in Monduli had seen one of the aforementioned local leaders in a period of 12 months preceding the survey.

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<sup>28</sup> This distinction was made in Swahili by specifying that the visit should have been ‘*rasmī*’, which literally translates as ‘official’ and is commonly understood to be a visit to the leader in his official capacity and not simply a ‘friendly’ visits.



**Table 47: Communication with Local Leaders in their Official Capacity in 12 Months Preceding the Survey**

	10-cell leader	Sub-village chairman	Village chairman	District councillor (diwani)	At least one local leader
<b>Monduli District</b>	43.4	59.8	37.2	8.8	62.2
Rural	42.9	50.0	37.6	8.1	62.6
Peri-urban	46.1	48.7	35.1	13.4	60.1
<b>Poverty</b>					
Non-poor	39.6	46.9	34.0	9.7	59.5
Poor	47.0	52.7	40.4	8.0	64.8
<b>Socio-economic group</b>					
Employed	49.1	50.0	37.0	9.1	66.4
Self-employed	44.6	51.9	38.7	9.6	64.7
Unemployed	25.1	32.3	24.4	2.9	36.5
<b>Gender of head of household</b>					
Male	42.9	50.2	37.6	8.9	62.5
Female	49.4	44.6	32.4	7.6	59.2
<b>Education of head of household</b>					
None	46.5	52.4	35.6	7.5	62.9
Some	39.5	46.6	39.2	10.5	61.3
<b>Village Isolation</b>					
Closer to district capital	41.6	49.3	36.9	9.2	62.4
Further from district capital	45.2	50.7	37.7	8.5	61.9
<b>Household Isolation</b>					
Closer to centre of EA	44.1	46.8	35.9	9.2	60.4
Further from centre of EA	42.4	53.1	38.6	8.5	64.0
<b>Ethnic Fractionalisation</b>					
Low	43.7	54.5	41.2	7.2	63.5
High	43.2	46.8	34.7	9.9	61.4

#### 8.4.4 Involvement in Communal Activities

The level of involvement/participation can also be measured by examining rates of household participation in communal activities.

Table 48 shows that 3 out of 4 households in Monduli were participating in communal works at the time of the survey. This number is noticeably lower for households headed by unemployed heads or households headed by women, where participation in communal



works is 67 and 51 percent respectively. While less striking, education of the household head also appears to have an impact on the communal works participation rate. Households headed by individuals with no education tend to participate in Communal Works less than those headed by individuals with some formal education, with respective participation rates of 71 and 79 percent.

There appears to be some difference in levels of participation in communal works between households located in more and less isolated villages. Those in the latter group are more active in this respect. Location of the household in relation to the centre of the sub-village has little bearing on participation levels. The impact of tribal fractionalization levels is also small, although lower fractionalization does appear to lead to slightly higher participation rate.

Participation in indigenous insurance groups lies at around 11 percent in Monduli. In peri-urban areas this proportion is slightly higher at 14 percent. While little difference is observable in participation rates of poor and non-poor households, socio-economic groups have a significant impact. In fact, while participation rates of households belonging to the employed and unemployed categories do not exceed 5 percent, in the self-employed group this proportion is 14 percent. Participation in indigenous insurance groups is more widespread among individuals from male headed households than female, at 12 and 7 percent respectively. Education of the household head and village isolation levels do not appear to have an impact. Household isolation, on the other hand, is negatively correlated with this type of participation; the proportion of household members of such organisations is nearly twice as high among households located closer to sub-village centres. Finally, participation in indigenous insurance groups was found to be higher in more fractionalized villages. Participants constituted 13 percent of households here, compared to 9 percent in more homogeneous areas.

**Table 48: Distribution of Household Rates of Participation by Household Characteristics**

	Participation in Communal Works	Participation in Indigenous Insurance Groups
<b>Monduli District</b>	74.6	11.3
Rural	75.4	10.9
Peri-urban	70.3	14.1
<b>Poverty</b>		
Non poor	75.7	11.8
Poor	73.6	10.9
<b>Socio-economic group</b>		
Employed	76.7	4.9
Self-employed	75.4	13.7
Unemployed	66.7	1.8



	Participation in Communal Works	Participation in Indigenous Insurance Groups
<b>Gender of head of household</b>		
Male	76.6	11.7
Female	51.3	6.9
<b>Education of head of household</b>		
None	70.8	10.6
Some	79.4	12.3
<b>Village Isolation</b>		
Closer to district capital	77.5	10.9
Further from district capital	71.9	11.6
<b>Household Isolation</b>		
Closer to centre of EA	73.3	14.7
Further from centre of EA	76.4	7.7
<b>Ethnic Fractionalisation</b>		
Low	78.3	8.6
High	72.2	13.1



## **ANNEX A**

### **Estimates of Sampling Errors**



**Table A 1: Confidence Intervals Around Key Estimates**

	Estimate	(Standard Error) S.E.	95% Confidence Interval	
<b>Household Characteristics</b>			Lower	Upper
Mean Household size	4.852	0.123	4.599	5.104
Percentage of landless households	0.298	0.063	0.170	0.427
Percentage of households with no livestock	0.290	0.046	0.195	0.385
Percentage of self-employed household heads	0.749	0.024	0.699	0.798
Percentage of male headed households	0.923	0.017	0.887	0.958
Percentage of household heads with no formal education	0.554	0.051	0.449	0.660
<b>Education</b>				
Percentage of adults (15+) who have had some formal schooling	0.456	0.042	0.370	0.542
Average years of schooling among adults	3.051	0.312	2.412	3.690
Percentage of literate individuals in the 15+ age group	0.446	0.043	0.359	0.533
<i>Primary education</i>				
Primary school access rate	0.241	0.051	0.135	0.346
Primary school Net Enrolment Rate	0.646	0.054	0.536	0.756
Primary school satisfaction rate	0.532	0.044	0.442	0.623
<i>Secondary education</i>				
Secondary school access rate	0.055	0.030	-0.005	0.116
Secondary school Net Enrolment Rate	0.056	0.030	-0.005	0.117
<b>Health</b>				
Access	0.175	0.049	0.073	0.276
Need	0.250	0.017	0.215	0.286
Use	0.148	0.016	0.114	0.182
Satisfaction	0.572	0.051	0.467	0.677
<b>Reproductive Health</b>				
Percentage of women who had given birth in the last 12 months and had used prenatal care	0.875	0.079	0.712	1.000
Percentage of hospital births from the last 5 years	0.230	0.044	0.141	0.319
<b>Child Nutrition</b>				
Stunted	0.320	0.027	0.263	0.376
Severely stunted	0.112	0.021	0.070	0.155
Wasted	0.078	0.027	0.023	0.133

# Monduli District CWIQ



	Estimate	(Standard Error) S.E.	95% Confidence Interval	
<b>Employment</b>				
Percentage of working individuals in the 15+ age group	0.824	0.019	0.786	0.863
<b>Local Governance</b>				
Percentage of households aware of public village meetings	0.563	0.042	0.477	0.648
Percentage of households aware of the existence of a Finance and Planning Committee on their Village Council	0.495	0.040	0.414	0.576
Percentage of households aware of activity of outside organisations in their village	0.183	0.044	0.091	0.274
Percentage of households expressing opinions at public village meetings out of those aware of the meetings	0.290	0.032	0.225	0.355



## **ANNEX B**

### **Poverty Predictors**



Table B 1 presents the results of the regression used to predict household consumption expenditure and poverty status.

**Table B 1: Summary Statistics of Regression Results for Predicting Household Consumption Expenditure**

Independent Variables	Description	Coefficient	Standard Error	t-test
Age of household head		-0.002	0.001	-2.02**
Household size		-0.203	0.028	-7.16**
Household size squared		0.008	0.002	3.77**
Education of household head	Primary	-0.021	0.042	-0.5
Education of household head	Secondary +	0.037	0.068	0.55
Occupation of household head	Government/Parastatal/Other	0.105	0.058	1.83*
Occupation of household head	Unemployed	-0.056	0.075	-0.75
Quantity of land owned		0.020	0.003	6.81**
Radio	1 if household has a radio	0.105	0.040	2.66**
Iron	1 if household has an iron	0.177	0.059	3.03**
Bank Account	1 if household has a bank account	0.115	0.047	2.43**
Food Security	1 if food shortages are rarely or never experienced	0.046	0.062	0.74
Meals per day	1 if household has more than 2 meals a day	0.140	0.042	3.3**
Roof	1 if roof is made of metal or asbestos	0.120	0.049	2.42**
Walls	1 if walls are made of bricks or cement	0.106	0.046	2.29**
Weekly meat consumption	Number of times meat is consumed per weeks	0.107	0.015	7.21**
Source of water	Protected	-0.078	0.087	-0.89
Source of water	Piped	0.036	0.047	0.77
Toilet	1 if household has a toilet	0.150	0.073	2.05**

\*\* Significant at 95 percent level of confidence

\* Significant at 90 percent level of confidence



The following bootstrap procedure was used to calculate the standard errors of the poverty predictors:

1. Take a random sample (with replacement) of the HBS data
2. In this sample regress log consumption and save the coefficients
3. Use the saved coefficients on the same independent variables in the CWIQ data set and predict log consumption for each household
4. Predicted poverty for this particular iteration is the number of households that are predicted to lie below the logarithmic of the poverty line

These steps are then repeated 100 times. Each time the predicted poverty figure is saved. The confidence interval is simply the 5<sup>th</sup> and 95<sup>th</sup> percentile of the dataset of 100 poverty predictions. The results of this procedure are summarised in Table B 2 below. The poverty rate in the district is 51% and we can say with 95% certainty that it lies between 39% and 64%.

**Table B 2:** Confidence Intervals for Poverty Predictors (No. of Households Living under the Basic Needs Poverty Line)

Poverty Rate (%)	95% confidence interval	
	Lower Limit	Upper Limit
Monduli District 51	39	64

One can use a similar procedure to test differences of poverty rates across different subsections of the population. For example, to make inferences about differential poverty rates among male headed versus female headed households the following bootstrap method can be followed:

1. Take a random sample (with replacement) of the HBS data
2. In this sample regress log consumption and save the coefficients
3. Use the saved coefficients on the same independent variables in the CWIQ data set and predict log consumption for each household
4. Calculate the percentage point difference between the poverty rates in the two categories (e.g. the poverty rate among males headed households minus the poverty rate among female headed households)
5. Save this difference in a data set

This is repeated 100 times. One can then construct a confidence interval over this difference. Table B 3 shows, for example, that poverty among households with access to primary schools is 15 percentage points lower than poverty among households without access to primary school. With 95% certainty this difference lies between 9 and 22 percentage points. Poverty rates do not differ significantly according to the sex of the household head. On average, the poverty rate among male headed households is found to be 5 percentage points higher than in female headed households, but within a 95%



confidence interval it may be 2 percentage points lower. Thus, we conclude that poverty rates do not differ significantly according to sex of the household head.

**Table B 3: Significance Tests for Poverty Rates**

Category 1	Category 2	mean difference*	95% confidence interval of the difference	
			lower limit	upper limit
household does not have access to a primary school	Household has access to primary school	15	9	22
Adult (age 15+) is not literate	Adult (age 15+) is literate	33	26	41
Household head is female	Household head is male	- 5	-13	2

\* The poverty rate in category 1 minus the poverty rate in category 2



# **ANNEX C**

## **Additional Tables by Chapter**



### CHAPTER 3

**Table C3 1: Distribution of Individuals by Orphan Status and Co-habitation with Parents**

	Father Alive	Mother Alive	Father lives with individual	Mother lives with individual
<b>Monduli District</b>	71.8	85.5	67.2	64.4
Rural	71.1	85.7	70.5	65.2
Peri-Urban	75.8	84.3	47.4	59.1
<b>Poverty</b>				
Non-poor	71.6	85.6	61.7	60.8
Poor	71.9	85.4	72.0	67.7
<b>Socio-economic Group</b>				
Employed	75.4	88.9	59.4	54.9
Self-employed	71.7	86.6	67.3	64.9
Unemployed	67.7	75.2	75.8	73.5
<b>Village Isolation</b>				
Closer to district capital	72.9	85.7	61.9	61.4
Further from district capital	70.7	85.2	72.7	67.5
<b>Household Isolation</b>				
Closer to centre of EA	71.4	83.7	64.1	63.9
Further from centre of EA	72.3	87.2	70.0	64.7
<b>Ethnic Fractionalisation</b>				
Low	72.4	85.9	68.6	66.3
High	71.3	85.2	66.2	63.2



**Table C3 2: Distribution of Households by Main Contributor of Household Income**

	Household Head	Spouse	Other
<b>Monduli District</b>	84.5	10.4	5.2
Rural	84.8	9.8	5.5
Peri-Urban	82.7	13.8	3.5
<b>Poverty</b>			
Non-poor	86.6	8.7	4.7
Poor	82.4	11.9	5.6
<b>Socio-economic Group</b>			
Employed	94.0	6.0	0.0
Self-employed	90.2	6.2	3.6
Unemployed	27.6	48.0	24.4
<b>Village Isolation</b>			
Closer to district capital	87.5	7.3	5.2
Further from district capital	81.2	13.6	5.2
<b>Household Isolation</b>			
Closer to centre of EA	82.4	13.0	4.7
Further from centre of EA	86.8	7.5	5.7
<b>Ethnic Fractionalisation</b>			
Low	84.4	8.3	7.3
High	84.5	11.7	3.8

**Table C3 3: Distribution of Households by Possession of Selected Assets**

	Car	Bicycle	Phone	Motor- cycle	Radio	Watch	TV set	Bed	Iron	Bank Account
<b>Monduli District</b>	2.4	13.6	7.3	0.4	37	49.2	2.1	46.2	7.4	3.6
Rural	2.1	8.8	4.9	0.1	31	47.7	1.0	38.5	49.0	14.7
Peri-Urban	3.6	42	20.9	2.0	72.5	58.2	8.8	91.8	13.5	5.2
<b>Poverty</b>										
Non-poor	3.9	24.2	11.3	0.7	52.3	54.1	4.3	60.8	27	8.5
Poor	0.8	3.2	3.3	0.0	22.2	44.5	0.0	32	0.3	2.0
<b>Socio-economic Group</b>										
Employed	4.2	19.0	26.5	2.5	51.5	61.6	10.0	70.6	29.3	17.5
Self-employed	2.1	13.3	3.6	0.0	37.6	49	0.8	43.1	11.5	2.7
Unemployed	1.5	6.3	4.8	0.0	11.1	32.6	0.0	33.5	4.1	6.3
<b>Village Isolation</b>										
Closer to district capital	3.2	20.1	11.3	0.5	46.8	52.4	3.5	57.5	23.0	6.9
Further from district capital	1.1	6.0	2.3	0.2	26.0	45.7	0.2	33.4	2.4	3.1
<b>Household Isolation</b>										
Closer to centre of EA	2.9	18.9	9.7	0.6	45.8	49.6	3.7	51.1	19.9	8.0
Further from centre of EA	1.4	8.0	4.5	0.1	28.3	48.8	0.2	41.2	6.7	2.2
<b>Ethnic Fractionalisation</b>										
Low	1.7	5.3	4.5	0.2	26	45.1	0.0	27.4	1.8	2.3
High	2.8	18.9	9.0	0.5	44.1	51.9	3.5	58.3	21	7.1

**Table C3 4: Distribution of Households by Type of Toilet Used**

	None	Flush to sewer	Flush to Septic Tank	Covered Pit Latrine	Uncovered Pit Latrine
<b>Monduli District</b>	67.4	0.5	0.6	14.9	16.7
Rural	77.8	0.6	0.5	8.2	12.9
Peri-Urban	5.9	0.0	1.2	54.3	38.6
<b>Poverty</b>					
Non-poor	44.6	1.0	1.3	27.9	25.2
Poor	89.5	0.0	0.0	2.1	8.4
<b>Socio-economic Group</b>					
Employed	39.7	0.0	0.0	38.3	22.0
Self-employed	72.0	0.7	0.8	11.6	14.9
Unemployed	73.9	0.0	0.0	5.1	21.1
<b>Village Isolation</b>					
Closer to district capital	51.9	0.6	0.7	22.7	24.1
Further from district capital	85.4	0.5	0.2	5.6	8.4
<b>Household Isolation</b>					
Closer to centre of EA	51.0	0.0	0.7	23.8	24.4
Further from centre of EA	84.3	1.0	0.2	5.5	9.0
<b>Ethnic Fractionalisation</b>					
Low	93.9	0.8	0.0	2.6	2.7
High	50.3	0.3	1.0	22.7	25.6

**Table C3 5: Distribution of Households by Type of Cooking Energy Used**

	Firewood	Charcoal	Kerosene/Oil
<b>Monduli District</b>	96.9	1.9	1.2
Rural	99.4	0.6	0.0
Peri-Urban	82.6	9.5	8.0
<b>Poverty</b>			
Non-poor	93.8	3.9	2.3
Poor	100.0	0.0	0.0
<b>Socio-economic Group</b>			
Employed	87.6	8.5	3.9
Self-employed	98.4	0.9	0.8
Unemployed	100.0	0.0	0.0
<b>Village Isolation</b>			
Closer to district capital	94.5	3.3	2.2
Further from district capital	99.7	0.3	0.0
<b>Household Isolation</b>			
Closer to centre of EA	94.8	2.9	2.3
Further from centre of EA	99.1	0.9	0.0
<b>Ethnic Fractionalisation</b>			
Low	100.0	0.0	0.0
High	95.0	3.1	1.9

**Table C3 6: Distribution of Households by Type of Light Energy Used**

	Kerosene	Gas	Electricity	Battery	Firewood	Other
<b>Monduli District</b>	73.0	0.2	4.9	0.5	20.9	0.6
Rural	72.7	0.2	1.9	0.6	24	0.7
Peri-Urban	74.6	0.0	23.1	0.0	2.3	0.0
<b>Poverty</b>						
Non-poor	81.9	0.0	10.0	0.0	8.1	0.0
Poor	64.3	0.3	0.0	1.0	33.3	1.1
<b>Socio-economic Group</b>						
Employed	68.9	0.0	21.2	0.0	9.8	0.0
Self-employed	74.6	0.2	2.4	0.4	21.6	0.7
Unemployed	67.5	0.0	0.0	1.7	30.8	0.0
<b>Village Isolation</b>						
Closer to district capital	71.4	0.3	8.9	0.9	18.5	0.0
Further from district capital	75.2	0.0	0.2	0.0	23.4	1.2
<b>Household Isolation</b>						
Closer to centre of EA	77.0	0.3	7.9	0.0	14.8	0.0
Further from centre of EA	69.3	0.0	1.7	1.0	26.8	1.1
<b>Ethnic Fractionalisation</b>						
Low	62.3	0.4	0.2	1.3	35.8	0.0
High	79.8	0.0	8.0	0.0	11.2	0.9

**Table C3 7: Distribution of Households by Source of Water**

	Piped into dwelling/ compound	Public outdoor tap/borehole	Protected Well	Unprotected Well	River, lake, pond	Vendor/ Truck	Other
<b>Monduli District</b>	4.3	3.7	44.8	5.5	30.6	0.1	11.0
Rural	1.5	0.6	43.6	6.3	35	0.1	12.9
Peri-Urban	20.9	21.6	51.8	1.2	4.6	0.0	0.0
<b>Poverty</b>							
Non-poor	8.7	7.4	44.9	2.3	22.8	0.2	13.6
Poor	0.0	0.0	44.6	8.7	38.2	0.0	8.4
<b>Socio-economic Group</b>							
Employed	10.2	11.6	45.6	10.5	13.8	0.6	7.6
Self-employed	2.8	2.4	44.9	4.7	33.5	0.0	11.6
Unemployed	6.7	1.7	42.2	4.5	32.8	0.0	12.2
<b>Village Isolation</b>							
Closer to district capital	7.5	6.6	48.5	4.3	30.9	0.2	1.9
Further from district capital	0.3	0.3	40.6	7.0	30.3	0.0	21.5
<b>Household Isolation</b>							
Closer to centre of EA	7.3	5.7	45	4.7	29.7	0.2	7.5
Further from centre of EA	1.0	1.7	44.7	6.5	31.5	0.0	14.7
<b>Ethnic Fractionalisation</b>							
Low	0.0	0.0	37.0	8.6	49.5	0.2	4.7
High	7.1	6.0	49.7	3.6	18.6	0.0	15

**Table C3 8: Distribution of Households by Type of Roof Material**

	Permanent <sup>1</sup>	Non permanent <sup>2</sup>
<b>Monduli District</b>	24.5	75.5
Rural	14.9	85.1
Peri-Urban	81.3	18.7
<b>Poverty</b>		
Non-poor	46.6	53.4
Poor	3.0	97.0
<b>Socio-economic Group</b>		
Employed	53.6	46.4
Self-employed	20.6	79.4
Unemployed	12.4	87.6
<b>Village Isolation</b>		
Closer to district capital	38.3	61.7
Further from district capital	8.8	91.2
<b>Household Isolation</b>		
Closer to centre of EA	35.1	64.9
Further from centre of EA	13.8	86.2
<b>Ethnic Fractionalisation</b>		
Low	3.3	96.7
High	38.2	61.8

<sup>1</sup> Iron sheets, cement, concrete, asbestos

<sup>2</sup> Mud, thatch, other

**Table C3 9: Distribution of Households by Wall Material**

	Permanent <sup>1</sup>	Non permanent <sup>2</sup>
<b>Monduli District</b>	6.6	93.4
Rural	3.3	96.7
Peri-Urban	26.0	74.0
<b>Poverty</b>		
Non-poor	13.4	86.6
Poor	0.0	100.0
<b>Socio-economic Group</b>		
Employed	16.6	83.4
Self-employed	5.0	95.0
Unemployed	4.1	95.9
<b>Village Isolation</b>		
Closer to district capital	11.1	88.9
Further from district capital	1.3	98.7
<b>Household Isolation</b>		
Closer to centre of EA	10.7	89.3
Further from centre of EA	2.2	97.8
<b>Ethnic Fractionalisation</b>		
Low	1.1	98.9
High	10.2	89.8

<sup>1</sup> Burnt bricks, cement, sand crete<sup>2</sup> Mud, mud bricks, wood, bamboo, other



**Table C3 10: Distribution of Household by Floor Type**

	Cement	Mud	Other
<b>Monduli District</b>	8.7	90.9	0.4
Rural	5.5	94.4	0.1
Peri-Urban	28.6	68.8	2.6
<b>Poverty</b>			
Non-poor	17	82.1	0.9
Poor	1.3	98.7	0.0
<b>Socio-economic Group</b>			
Employed	20.4	79.6	0.0
Self-employed	7.4	92.1	0.6
Unemployed	4.7	95.3	0.0
<b>Village Isolation</b>			
Closer to district capital	14.1	85.9	0.0
Further from district capital	3.1	96.7	0.2
<b>Household Isolation</b>			
Closer to centre of EA	12.9	86.9	0.2
Further from centre of EA	4.6	95.4	0.0
<b>Ethnic Fractionalisation</b>			
Low	1.2	98.8	0.0
High	13.6	85.7	0.7



**Table C3 11: Distribution of Households by Mean Number of Rooms and Dwelling Ownership**

	Mean Number of Rooms	Owns dwelling	Rents dwelling	Uses without paying rent	Nomadic/ Temporary dwelling
<b>Monduli District</b>	2.6	93.9	2.9	2.0	1.1
Rural	2.6	96.4	0.9	1.9	0.9
Peri-Urban	2.7	79.3	15.1	3.2	2.4
<b>Poverty</b>					
Non-poor	2.8	90.7	6.0	2.6	0.7
Poor	2.5	97.0	0.0	1.5	1.5
<b>Socio-economic Group</b>					
Employed	2.4	79.2	14.1	6.7	0.0
Self-employed	2.7	96.0	1.2	1.3	1.5
Unemployed	2.6	99.3	0.0	0.7	0.0
<b>Village Isolation</b>					
Closer to district capital	2.7	91.4	5.6	2.4	0.7
Further from district capital	2.5	96.7	0.0	1.6	1.6
<b>Household Isolation</b>					
Closer to centre of EA	2.7	91.3	5.5	2.5	0.7
Further from centre of EA	2.6	96.5	0.3	1.6	1.5
<b>Ethnic Fractionalisation</b>					
Low	2.6	96.0	0.0	2.0	2.0
High	2.6	92.6	4.8	2.0	0.6



**Table C3 12: Distribution of Households by Time it Takes to Travel to the Nearest Source of Water (in minutes)**

	10 to 14	15 to 29	30 to 44	45 to 59	60 +
<b>Monduli District</b>	29.4	13.5	12.3	3.3	41.6
Rural	21.7	13.5	12.6	3.6	48.6
Peri-Urban	74.3	13.6	10.2	2.0	0.0
<b>Poverty</b>					
Non-poor	44.8	10.4	13.9	3.4	27.6
Poor	14.3	16.5	10.7	3.3	55.2
<b>Socio-economic Group</b>					
Employed	49.3	11.7	8.0	5.3	25.6
Self-employed	24.8	14.3	12.9	3.3	44.7
Unemployed	34.9	8.8	14.3	1.0	40.9
<b>Village Isolation</b>					
Closer to district capital	38.6	9.7	12.0	3.4	36.3
Further from district capital	18.8	17.6	12.7	3.3	47.6
<b>Household Isolation</b>					
Closer to centre of EA	40.1	19.2	11.3	2.2	27.2
Further from centre of EA	18.4	7.5	13.4	4.5	56.2
<b>Ethnic Fractionalisation</b>					
Low	10.7	10.2	8.9	5.9	64.4
High	41.3	15.6	14.5	1.7	26.9



**Table C3 13: Distribution of Households by Time it Takes to Travel to the Nearest Food Market (in minutes)**

	10 to 14	15 to 29	30 to 44	45 to 59	60 +
<b>Monduli District</b>	9.2	6.3	13.9	7.1	63.5
Rural	6.2	4.6	9.7	7.1	72.3
Peri-Urban	26.8	16.2	38.4	7.0	11.6
<b>Poverty</b>					
Non-poor	12.8	11.3	23.5	8.8	43.6
Poor	5.7	1.4	4.5	5.4	82.9
<b>Socio-economic Group</b>					
Employed	17.1	6.2	23.0	5.1	48.5
Self-employed	5.7	7.1	12.5	8.0	66.7
Unemployed	24.2	0.7	11.4	3.3	60.4
<b>Village Isolation</b>					
Closer to district capital	10.2	9.7	16.9	8.3	54.9
Further from district capital	8.2	2.1	10.2	5.8	73.6
<b>Household Isolation</b>					
Closer to centre of EA	11.1	8.8	17.7	8.4	54.0
Further from centre of EA	7.5	3.4	9.8	5.9	73.4
<b>Ethnic Fractionalisation</b>					
Low	1.7	3.5	4.4	5.2	85.2
High	14	8.1	20.0	8.3	49.6



**Table C3 14: Distribution of Households by Time it Takes to Travel to the Nearest Transport (in minutes)**

	10 to 14	15 to 29	30 to 44	45 to 59	60 +
<b>Monduli District</b>	13.2	8.4	14.3	6.8	56.7
Rural	10.5	7.3	10.5	6.5	64.6
Peri-Urban	29.2	15	37.2	8.2	10.4
<b>Poverty</b>					
Non-poor	17.2	10.3	23.4	8.9	40.2
Poor	9.4	6.6	5.4	4.7	72.8
<b>Socio-economic Group</b>					
Employed	21.4	5.3	23.0	5.4	44.8
Self-employed	10.1	10.2	12.6	7.1	60.1
Unemployed	25.1	0.0	15.3	6.6	47.5
<b>Village Isolation</b>					
Closer to district capital	13.2	8.7	18.2	7.5	52.5
Further from district capital	13.1	8.2	9.7	6.0	61.8
<b>Household Isolation</b>					
Closer to centre of EA	16.2	15.2	17.7	9.0	40.9
Further from centre of EA	10.0	1.6	10.8	4.6	73.0
<b>Ethnic Fractionalisation</b>					
Low	5.6	0.5	6.5	4.5	83.0
High	18.2	13.5	19.4	8.2	39.8

**Table C3 15: Mode of Transport Used to Travel to Facility**

	Water	Market	Transport	Health Facility	Primary School	Secondary school
Car / dala dala	0.1	5.2	1.1	4.9	0.7	55.5
Bicycle	0.5	3.1	2.1	2.8	0.0	2.6
Motorbike	0.0	0.1	0.0	0.0	0.0	0.1
Foot	99.4	91.6	96.8	91.8	99.3	41.8



**Table C3 16: Distribution of Households by Mean Number of Times Meat is Consumed per Week and Meat Consumption on a Weekly Basis**

	Mean number of times meat is consumed	None	Some
<b>Monduli District</b>	1.0	57.5	42.5
Rural	0.8	60.7	39.3
Peri-Urban	1.8	38.8	61.2
<b>Poverty</b>			
Non-poor	1.3	48.9	51.1
Poor	0.7	65.9	34.1
<b>Socio-economic Group</b>			
Employed	1.3	48.2	51.8
Self-employed	1.0	57.3	42.7
Unemployed	0.6	73.7	26.3
<b>Village Isolation</b>			
Closer to district capital	1.1	53.2	46.8
Further from district capital	0.8	62.3	37.7
<b>Household Isolation</b>			
Closer to centre of EA	1.1	52.8	47.2
Further from centre of EA	0.8	62.2	37.8
<b>Ethnic Fractionalisation</b>			
Low	0.7	64.5	35.5
High	1.1	53.1	46.9



**Table C3 17: Distribution of Households by Mean Number of Meals Consumed per Day and Incidence of Food Shortages in the 12 Months Preceding the Survey**

	Mean number of meals	Never	Seldom	Sometimes	Often	Always
<b>Monduli District</b>	1.9	9.3	23.3	14.3	49.4	3.6
Rural	1.8	4.8	22.5	14.4	54.5	3.7
Peri-Urban	2.0	36.1	27.7	13.4	19.6	3.2
<b>Poverty</b>						
Non-poor	2.0	17.1	27.7	17.9	36	1.3
Poor	1.8	1.7	19.0	10.8	62.6	5.9
<b>Socio-economic Group</b>						
Employed	1.9	22.2	26.1	17.9	28.5	5.3
Self-employed	1.8	7.6	24.3	14.6	51.5	2
Unemployed	1.9	3.3	11.1	7	66.7	11.8
<b>Village Isolation</b>						
Closer to district capital	2.0	14.5	28.2	16.3	38.5	2.4
Further from district capital	1.7	3.1	18.0	12.2	61.6	5.1
<b>Household Isolation</b>						
Closer to centre of EA	1.9	14.0	26.2	13.4	42.6	3.8
Further from centre of EA	1.8	4.4	20.6	15.4	56.1	3.5
<b>Ethnic Fractionalisation</b>						
Low	1.8	0.8	19.9	12.3	62.2	4.8
High	1.9	14.8	25.5	15.6	41.3	2.9





**Table C3 18: Distribution of Households by Assessment of Community Economic Situation Compared to the a Year Ago**

	Much Worse	A Little Worse	Same	A Little Better	Much Better	Don't Know
<b>Monduli District</b>	56.1	31.8	5.9	6.0	0.1	0.2
Rural	62.3	28.4	4.2	5.0	0.1	0.0
Peri-Urban	19.3	51.6	15.7	12.2	0.0	1.2
<b>Poverty</b>						
Non-poor	46.0	35.0	10.5	8.4	0.2	0.0
Poor	65.9	28.6	1.4	3.7	0.0	0.3
<b>Socio-economic Group</b>						
Employed	35.6	50.7	7.1	6.1	0.5	0.0
Self-employed	59.7	27.4	5.8	6.8	0.0	0.2
Unemployed	59.1	36.0	4.9	0.0	0.0	0.0
<b>Village Isolation</b>						
Closer to district capital	48.4	37.6	6.7	7.0	0.0	0.3
Further from district capital	64.3	25.5	5.1	5.0.0	0.2	0.0
<b>Household Isolation</b>						
Closer to centre of EA	45.7	35.7	9.6	8.5	0.2	0.3
Further from centre of EA	66.1	28.1	2.2	3.5	0.0	0.0
<b>Ethnic Fractionalisation</b>						
Low	67.7	26.9	2.6	2.8	0.0	0.0
High	48.6	34.9	8.0	8	0.1	0.3



**Table C3 19: Distribution of Households by Assessment of Household Economic Situation Compared to the a Year Ago**

	Much Worse	A Little Worse	Same	A Little Better	Much Better
<b>Monduli District</b>	59.4	24.6	6.1	9.8	0.1
Rural	65.5	23.5	3.5	7.4	0.1
Peri-Urban	23.6	31.2	21.4	23.8	0.0
<b>Poverty</b>					
Non-poor	48.9	27.7	10.1	13.2	0.2
Poor	69.7	21.7	2.2	6.4	0.0
<b>Socio-economic Group</b>					
Employed	39	33.5	11.9	15.6	0.0
Self-employed	60.8	23.8	5.3	10	0.1
Unemployed	77.9	18.7	3.4	0.0	0.0
<b>Village Isolation</b>					
Closer to district capital	50.6	28.7	7.6	13.1	0.0
Further from district capital	69.4	20.3	4.4	5.7	0.2
<b>Household Isolation</b>					
Closer to centre of EA	51.6	26.8	10.8	10.7	0.1
Further from centre of EA	67.3	22.8	1.4	8.6	0.0
<b>Ethnic Fractionalisation</b>					
Low	69.3	20.8	3.5	6.4	0.0
High	53.1	27.1	7.7	11.9	0.1



**Table C3 20: Distribution of Households by Change in Large Livestock Holding Compared to One Year Ago**

	Less Now	Same	More Now	Don't Know
<b>Monduli District</b>	46.1	45.0	8.5	0.2
Rural	52.6	37.8	9.2	0.3
Peri-Urban	7.8	87.4	4.8	0.0
<b>Poverty</b>				
Non-poor	26.2	64.5	9.1	0.2
Poor	65.5	26.0	8.0	0.3
<b>Socio-economic Group</b>				
Employed	28.7	58.3	13.0	0.0
Self-employed	50.0	40.8	8.7	0.3
Unemployed	43.6	55.4	1.0	0.0
<b>Village Isolation</b>				
Closer to district capital	34.7	54.9	10.3	0.0
Further from district capital	58.7	34.3	6.2	0.5
<b>Household Isolation</b>				
Closer to centre of EA	31.8	58.1	9.7	0.5
Further from centre of EA	60.3	32.3	7.2	0.0
<b>Ethnic Fractionalisation</b>				
Low	60.6	28	10.7	0.4
High	36.8	55.9	7.1	0.1



**Table C3 21: Distribution of Households by Change in Medium Livestock Holding Compared to One Year Ago**

	Less Now	Same	More Now	Don't Know
<b>Monduli District</b>	51.4	37.6	10.4	0.6
Rural	58.1	29.7	11.6	0.7
Peri-Urban	12.4	84.0	3.6	0.0
<b>Poverty</b>				
Non-poor	31.9	56.1	10.9	1.1
Poor	70.5	19.5	10.0	0.0
<b>Socio-economic Group</b>				
Employed	30.9	55.8	13.3	0.0
Self-employed	56.8	32.4	10.9	0.0
Unemployed	41.9	51.0	1.5	5.6
<b>Village Isolation</b>				
Closer to district capital	39.0	52.1	8.9	0.0
Further from district capital	65.3	21.5	11.9	1.2
<b>Household Isolation</b>				
Closer to centre of EA	37.7	51.3	11.0	0.0
Further from centre of EA	65.1	24.1	9.6	1.1
<b>Ethnic Fractionalisation</b>				
Low	66.3	23.0	10.6	0.0
High	41.9	46.9	10.3	0.9



**Table C3 22: Distribution of Households by Change in Land Holding Compared to One Year Ago**

	Less Now	Same	More Now
<b>Monduli District</b>	2.9	95.8	1.4
Rural	2.4	96.6	1.0
Peri-Urban	5.8	90.7	3.5
<b>Poverty</b>			
Non-poor	3.4	94.4	2.2
Poor	2.3	97.1	0.6
<b>Socio-economic Group</b>			
Employed	2.3	96.6	1.2
Self-employed	2.9	95.5	1.6
Unemployed	3.4	96.6	0.0
<b>Village Isolation</b>			
Closer to district capital	2.6	95.3	2.0
Further from district capital	3.2	96.2	0.7
<b>Household Isolation</b>			
Closer to centre of EA	1.9	95.7	2.4
Further from centre of EA	3.8	95.8	0.4
<b>Ethnic Fractionalisation</b>			
Low	1.9	98.1	0.0
High	3.5	94.2	2.3



## CHAPTER 4

**Table C4 1: Distribution of Individuals Who had Some Formal Schooling by Additional Education Received**

	None	Post Primary	Post Secondary	Vocational	Adult Education
<b>Monduli District</b>	93.4	2.3	2.3	1.9	0.2
Rural	95.9	1.9	1.2	1.0	0.1
Peri-Urban	86.1	3.4	5.3	4.5	0.7
<b>Poverty</b>					
Non-poor	90.2	2.9	3.6	3.0	0.4
Poor	98.9	1.1	0.0	0.0	0.0
<b>Socio-economic Group</b>					
Employed	82.2	5.1	8.2	3.3	1.1
Self-employed	95.3	1.6	1.2	1.8	0.1
Unemployed	97.7	2.3	0.0	0.0	0.0
<b>Village Isolation</b>					
Closer to district capital	90.6	2.8	3.3	3.0	0.3
Further from district capital	97.9	1.6	0.1	0.3	0.1
<b>Household Isolation</b>					
Closer to centre of EA	93.1	1.5	2.3	2.8	0.3
Further from centre of EA	94.4	3.4	1.5	0.6	0.1
<b>Ethnic Fractionalisation</b>					
Low	98.7	1.1	0.2	0.0	0.0
High	91.6	2.6	2.9	2.5	0.3



**Table C4 2: Distribution of Households by Distance to Nearest Primary School as per Estimation of the Respondent (in kilometres)**

	Less than 1 km	1 to 1.9	2 to 2.9	3 to 3.9	4 to 5.9	6+
<b>Monduli District</b>	10.9	17.9	12.8	17.7	15.0	25.7
Rural	9.9	144	10.8	19.7	15.8	29.7
Peri-Urban	17.1	40.6	244	5.8	10.2	2.3
<b>Poverty</b>						
Non-poor	17.6	23.5	16.5	17.3	12.3	12.9
Poor	4.5	12.3	9.1	18.1	17.6	38.4
<b>Socio-economic Group</b>						
Employed	5.5	16.2	21.2	24.8	19.3	13
Self-employed	11.7	17.7	114	174	14.8	27.9
Unemployed	14.4	22.2	12.1	13.3	10.6	27.5
<b>Village Isolation</b>						
Closer to district capital	13.9	15.5	17.8	14.7	18.8	19.3
Further from district capital	7.3	20.8	6.7	20.9	10.7	33.5
<b>Household Isolation</b>						
Closer to centre of EA	13.7	25.6	13.1	14.5	13.9	19.2
Further from centre of EA	84	10.3	12.2	20.7	16.2	32.6
<b>Ethnic Fractionalisation</b>						
Low	5.4	5.7	9.2	16.3	244	39.2
High	14.5	25.5	154	18.6	9.2	17.2



## CHAPTER 5

**Table C5 1: Distribution of Individuals by Disability; Distribution of Individuals Who Use Bed Nets by Percentage who use Treated Bed Nets**

	Disabled	Treated Nets <sup>1</sup>
<b>Monduli District</b>	0.8	44.0
Rural	0.7	35.4
Peri-Urban	1.0	50.9
<b>Poverty</b>		
Non-poor	1.0	43.3
Poor	0.6	59.5
<b>Socio-economic Group</b>		
Employed	1.0	26.8
Self-employed	0.7	47.5
Unemployed	0.8	85.8
<b>Village Isolation</b>		
Closer to district capital	1.0	42.1
Further from district capital	0.5	55.2
<b>Household Isolation</b>		
Closer to centre of EA	1.1	45.5
Further from centre of EA	0.5	36.2
<b>Ethnic Fractionalisation</b>		
Low	0.5	36.9
High	1.0	44.4

<sup>1</sup> Those individuals who had slept under a mosquito net the night preceding the survey, were further asked if the net they sleep under had been treated with repellent in the 6 months preceding the survey





**Table C5 2: Distribution of Individuals who had been Sick by Time Taken Off Work**

	None	Less than 1 week	1 to 2 weeks	More than 2 weeks
<b>Monduli District</b>	33.0	45.0	10.8	10.5
Rural	32.6	46.1	10.2	10.3
Peri-Urban	35.3	38.3	14.6	11.8
<b>Poverty</b>				
Non-poor	34.1	45.4	10.6	9.7
Poor	32.1	44.6	11.0	11.1
<b>Socio-economic Group</b>				
Employed	35.3	42.3	12.9	9.4
Self-employed	33.7	47.6	10.2	7.5
Unemployed	26.3	30.2	12.9	30.6
<b>Village Isolation</b>				
Closer to district capital	36.5	41.0	10.9	11.2
Further from district capital	29.8	48.7	10.8	9.6
<b>Household Isolation</b>				
Closer to centre of EA	30.4	39.5	16.2	12.4
Further from centre of EA	35.3	49.1	6.7	8.8
<b>Ethnic Fractionalisation</b>				
Low	31.3	44.7	9.1	14.8
High	34.1	45.1	12.0	7.7



**Table C5 3: Distribution of Households Aware of the Presence of a Village Health Worker in Their Village by Types of benefits Received from the VHW**

	No benefit	Advice	Training	Materials
<b>Monduli District</b>	42.0	50.2	4.7	3.1
Rural	27.3	50.0	22.7	0.0
Peri-Urban				
<b>Poverty</b>	38.4	50.1	9.1	2.4
Non-poor	38.2	48.0	9.7	4.1
Poor	38.7	53.0	8.3	0.0
<b>Socio-economic Group</b>				
Employed	48.3	19.4	32.3	0.0
Self-employed	33.7	58.8	4.5	3.0
Unemployed	100.0	0.0	0.0	0.0
<b>Village Isolation</b>				
Closer to district capital	41.5	43.6	11.9	3.1
Further from district capital	16.8	83.2	0.0	0.0
<b>Household Isolation</b>				
Closer to centre of EA	29.8	53.5	13.2	3.4
Further from centre of EA	52.2	47.8	0.0	0.0
<b>Ethnic Fractionalisation</b>				
Low	61.4	34.0	0.0	4.6
High	13.8	67.4	18.8	0.0



## **ANNEX D**

### **Household Questionnaire**

CORE WELFARE INDICATORS QUESTIONNAIRE

SNV TANZANIA

A - INTERVIEW INFORMATION

Q1 INTERVIEWER'S NAME	
Q2 NAME OF HEAD OF HOUSEHOLD	
Q3 DISTRICT NAME	
Q4 VILLAGE NAME	
Q5 KITONGOJI NAME	

A1 DISTRICT	A2 CLUSTER	A3 HOUSEHOLD	A4 GPS Coordinates	A5 INTERVIEWER	A6 RESPONDENT ID
A7 DATE	A8a TIME START	A8b AM or PM	A9a INTERVIEW END	A10 Questionnaire No.	A11 STATUS
dd / mm / yy	Hr / Min	AM or PM	Hr / Min		

A12 SUPERVISOR	A13 INTERPRETER	A11 STATUS
	1=YES 2=NO	1=Complete with selected households 2=Complete with replacement - refusal 3=Complete with replacement - not found 4=Incomplete

IMPORTANT

Create a reference number by combining the district cluster, household and questionnaire number.  
Write this number NOW on the top of all pages.



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### B – LIST OF HOUSHOLD MEMBERS

ID CODE	B7 Nini hali ya ndoa ya [JINA]?  1= Hajaoa/hajaolewa (> B9) 2= Ameoa/ameolewa (>B9) 3= Ameoa mke zaidi ya mmoja 4= Wameachana (> B9) 5= Wametengana (> B9) 6= Mjane (> B9)	B8 Ni wanawake wangapi [JINA] anao kwa sasa?	B9 Baba mzazi wa [JINA] yuko hai?  1= Ndiyo 2=Hapana (> B12) 3=Sijui (> B13)	B10 Baba mzazi wa [JINA] anaishi katika kaya hii?  1=Ndiyo 2=Hapana (> B13)	B11 ENTER THE ID CODE OF (NAME'S) FATHER  > B13	B12 Baba mzazi wa [JINA] alifariki wakati [JINA] akiwa na umri gani?  (IN YEARS ONLY)	B13 Mama mzazi wa [JINA] yuko hai?  1=Ndiyo 2=Hapana (> B16) 3=Sijui (> NEXT PERSON)	B14 Mama mzazi wa [JINA] anaishi katika kaya hii?  1=Ndiyo 2=Hapana (>NEXT PERSON)	B15 ENTER THE ID CODE OF (NAME'S) MOTHER  > NEXT PERSON	B16 Mama mzazi wa [JINA] alifariki wakati [JINA] akiwa na umri gani?  > NEXT PERSON
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C – EDUCATION

ID CODE	C1 IS (NAME) 6 YEARS OR OLDER?	C2 Je, [JINA] anaweza kusoma na kuandika?	C3 Je, [JINA] amewahi kwenda shule?	C4 Je, ni kiwango gani cha juu kabisa cha elimu [JINA] alichomaliza?	C5 Ni mafunzo gani ya zaidi [JINA] ume wahi kupata?	C6 Je, [JINA] alikwenda shule mwaka jana? (LAST ACADEMIC YEAR)	C7 Je, [JINA] anahudhuria shule sasa?	C4 CHOICES: 00=Nursery/none 01=P1 02=P2 03=P3 04=P4 05=P5 06=P6 07=P7 08=Form 1 09=Form 2 10=Form 3 11=Form 4 12=Form 5 13=Form 6 14=University:
	1=Yes 2=No (> NEXT PERSON)	1=Ndiyo 2=Hapana	1=Ndiyo 2=Hapana (> NEXT PERSON)	(CHOOSE FROM OPTIONS ON THE RIGHT)	(CHOOSE FROM OPTIONS ON THE RIGHT)	1=Ndiyo 2=Hapana	1=Ndiyo 2=Hapana (> C11)	
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02								
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05								
06								
07								
08								
09								
10								

C5 CHOICES:  
00=None  
01=Post P/s  
02=Post S/s  
03=Vocational  
04=Adult education

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## C – EDUCATION

ID CODE	C8 Je, ni kiwango gani cha elimu [JINA] alichopo kwa sasa?	C9 Je, shule anayosoma [JINA] inaendeshwa na nani?	C10 Je, [JINA] aliona matatizo gani ya shule anakosomea?	C11 Je, ni kwa nini [JINA] hasomi shule kwa sasa?	C8 CHOICES: 00. Nursery/none 01=P1 02=P2 03=P3 04=P4 05=P5 06=P6 07=P7 08=Form 1 09=Form 2 10=Form 3 11=Form 4 12=Form 5 13=Form 6 14=University: 15=Post P/s 16=Post S/s 17=Vocational 18=Adult education
	(CHOOSE FROM OPTIONS ON THE RIGHT)	1=Serikali 2=Dini 3=Binafsi 4=Jumuiya 5=Nyingine	1=Hakuna matatizo (inaridhisha) 2=Uhaba wa vitabu/vifaa 3=Ufundishaji mbaya 4=Ukosefu wa walimu 5=Ukosefu wa nafasi za wanafunzi 6=Hali mbaya ya vifaa 7=Matatizo mengine  (YOU MAY MARK MORE THAN ONE OPTION)	1=Mkubwa/amemaliza 2=Mbali 3=Ghali 4=Anafanya kazi (nyumbani au ajira) 5=Haina maana  (YOU MAY MARK MORE THAN ONE OPTION)	
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### D - HEALTH

ID CODE	D1 IS [NAME] A FEMALE AGED 13 YRS OR OLDER?	D2 Je, [JINA] alijifungua mtoto hai katika kipindi cha miezi 12 iliyopita?	D3 Je, [JINA] alipata huduma ya kliniki alipokuwa mjamzito	D4 Je, [JINA] ana ulemavu wowote wa viungo au akili?	D5 Usiku wa kuamkia leo [JINA] alitumia chandarua kujikinga na mbu?	D6 Je, chandarua alichotumia [JINA] kimewahi kunyunyiziwa dawa kafika kipindi cha miezi 6 iliyopita?	D7 Je, [JINA] amepata ugonjwa/kujeruhiwa katika wiki 4 zilizopita?	COMMENTS ON D4: INCLUDE PERSON ONLY IF HANDICAP PREVENTS HIM OR HER FROM PARTICIPATING IN ACTIVITY OR SCHOOLING
	1=Yes 2=No ( > D4)	1=Ndiyo 2=Hapana ( > D4)	1=Ndiyo 2=Hapana	1=Ndiyo 2=Hapana	1=Ndiyo 2=Hapana ( > D7) 3=Sijui ( > D7)	1=Ndiyo 2=Hapana	1=Ndiyo 2=Hapana ( > D10) 3=Sijui ( > D10)	
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## D - HEALTH

ID CODE	D8 Je, [JINA] alipata jeraha au ugonjwa gani katika kipindi cha wiki 4 zilizopita?  (CHOOSE FROM OPTIONS ON THE RIGHT)  (YOU MAY MARK MORE THAN ONE ANSWER)	D9 Je, ni kwa siku ngapi [JINA] hakuweza kuhudhuria shule au kufanya kazi kutokana na ugonjwa au jeraha katika wiki 4 zilizopita?  1=Aliweza 2=Juma 1 au chini ya hapo 3=Juma 1 au 2 4=Zaidi ya majuma 2	D10 Je, [JINA] alipata ushauri/tiba kutoka kwenye huduma za afya au mganga wa tiba za jadi kwa sababu yoyote ile katika wiki 4 zilizopita?  1=Ndiyo 2=Hapana (> D13) 3=Sijui (> NEXT PERSON)	D11 Je, ni aina gani ya watoa huduma ya afya [JINA] aliwaona?  (CHOOSE FROM OPTIONS ON THE RIGHT)	D12 [JINA] aliona matatizo gani yoyote wakati alipoenda kupata huduma hii?  (CHOOSE FROM OPTIONS ON THE RIGHT)  (YOU MAY MARK MORE THAN ONE ANSWER) <div>&gt; NEXT PERSON</div>	D13 Je, ni kwa nini [JINA] hakutumia huduma za afya katika kipindi cha wiki 4 zilizopita?  (CHOOSE FROM OPTIONS ON THE RIGHT)  (YOU MAY MARK MORE THAN ONE ANSWER)	D8 CHOICES: 1=Homa/Malaria 2=Kuhara 3=Ajali 4=Meno 5=Ugonjwa wa ngozi 6=Macho 7=Masikio,Pua au koo 8=Ugonjwa wa muda mrefu/sugu 9=Mengineyo  D11 CHOICES: 1=Zahanati/hospitali ya binafsi 2=Zahanati/hospitali ya umma 3=Kituo cha afya cha jamii 4=Daktari binafsi/wa meno 5=Mganga wa jadi 6=Hospitali ya Mkoa 7=Zahanati/hospitali ya misheni 8=Duka la dawa 9=Nyingine  D12 CHOICES: 1=Hakuna tatizo(inaridhisha) 2=Vifaa/huduma hazikuwa safi 3=Kusubiri kwa muda mrefu 4=Ukosefu wa wataalamu waliosomea 5=Ghali sana 6=Hakuna/kutopatikana madawa 7=Kushindwa /kutofanikiwa kwa tiba 8=Hakuna vifaa/vifaa havitoshi 9=Nyingine  D13 CHOICES: 1=Hakuna haja 2=Ni ghali mno 3=Ni mbali sana 4=Nyingine
01							
02							
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## E – EMPLOYMENT

ID CODE	E1 IS (NAME) 5 YEARS OR OLDER?	E2 Je, [JINA] alifanya kazi yeyote katika kipindi cha siku 7 zilizopita?	E3 Je, [JINA] alifanya kazi yoyote ile katika wiki 4 zilizopita?	E4 Kwa nini [JINA] hakufanya kazi katika wiki 4 zilizopita?  1=Mgonjwa 2=Mlemavu 3=Mzee sana/mtoto sana 4=Mwafunzi 5=Hakuna kazi 6=Nyingine <div>&gt; NEXT PERSON</div>	E5 Je,[JINA] alikuwa analipwaje kwa kazi yake kuu/muhimu?  1=Mshahara au Posho 2=Kibarua (kwa saa au kwa siku) 3=Kujitajiri mwenyewe (> E7) 4=Kujitolea 5=Nyingine (SPECIFY)	E6 Je, hiyo kazi/muhimu [JINA] alikuwa anamfanyia nani?  1=Serikali 2=Ajira isiyo ya serikali (yenye mkataba)/rasm 3=Ajira isiyo ya serikali (bila mkataba)/isiyorasmi 4=Nyingine <div>&gt; E8</div>	E7 Je, [JINA] amekuwa akifanya kazi gani?  1=Kilimo cha kibiashara 2=Kilimo cha kukidhi mahitaji ya chakula 3=Uchuuzi 4=Utaalam wa kusomea 5=Nyingine	E8 Juu ya kazi aliyonayo [JINA] sasa, anaweza kufanya kazi nyingine zaidi?  1=Ndiyo 2=Hapana
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## F – HOUSEHOLD ASSETS

<p>F13 Je, nyumba hii ina umeme?</p> <p>1=Ndiyo 2=Hapana</p> <div></div>	<p>F14 Je, mara ngapi katika miezi 12 iliyopita mmekuwa na matatizo ya kutosheleza mahitaji ya chakula kwa kaya hii?</p> <p>1=Hata mara moja 2=Mara chache 3=Wakati mwingine 4=Mara nyingi 5=Nyakati zote</p> <div></div>	<p>F15 Je, kwa ujumla unalinganishaje hali ya uchumi wa kaya kwa mwaka huu na ile ya mwaka (1) uliopita?</p> <p>1=Mbaya zaidi sasa 2=Mbaya kidogo sasa 3=Ni ile ile 4=Kiasi ni nzuri sasa 5=Nzuri sana sasa 6=Sijui</p> <div></div>																
<p>F16 Je, kwa ujumla unalinganishaje hali ya uchumi wa jamii na mwaka mmoja (1) uliopita?</p> <p>1=Mbaya zaidi sasa 2=Mbaya kidogo sasa 3=Ni ile ile 4=Kiasi ni nzuri sasa 5=Nzuri sana sasa 6=Sijui</p> <div></div>	<p>F17 Je, ni nani anayechangia zaidi katika pato la kaya ? (RECORD ID NUMBER)</p> <div></div>	<p>F18 IS THIS A POLYGAMOUS HOUSEHOLD IN WHICH THE HEAD OF HOUSEHOLD LIVES IN A SEPARATE HOUSEHOLD BUT CONTRIBUTES TO THE INCOME OF THIS HOUSEHOLD?</p> <p>1=Yes 2=No ( &gt; SECTION G )</p> <div></div>																
<p>F19 Ekari ngapi za ardhi zinamilikiwa na kaya ya mkuwa kaya? (WITH ONE DECIMAL, E.G. 24.7)</p> <div></div>	<p>F20 Je, ni mifugo mikubwa (ng'ombe,...) mingapi inayomilikiwa na kaya ya mkuwa kaya kwa sasa?</p> <div></div>	<p>F21 Je, ni kondoo, mbuzi, nguruwe, pamoja na mifugo mingine kama hii mingapi anabayo inamilikiwa na kaya ya mkuwa kaya kwa sasa?</p> <div></div>																
<p>F22 Je, kaya ya mkuu wa kaya inamiliki chochote kati ya hivi vitu vifuatavyo?</p> <p>1=Gari au lori    4=Pikipiki    7=Televisheni    10=Vitabu 2=Baiskeli    5=Redio    8=Kitanda    11=Pasi 3=Simu    6=Saa    9=Choo</p> <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>																		

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## G – HOUSEHOLD AMENITIES

<p>G1 JE, NYUMBA HII IMEEZEKWA KWA KUTUMIA NINI?</p> <p>1=MATOPE 2=MAKUTI/NYASI 3=MBAO 4=MABATI 5=SARUJI/ZEGE 6=VIGAE 7=MABATI YA SARUJI (ASBESTOS) 8=NYINGINE</p> <div></div>	<p>G2 JE, KUTA ZA NYUMBA HII ZIMEJENGWA KWA KUTUMIA NINI?</p> <p>1=MATOPE/MATOFALI YA UDONGO 2=MAWE 3=MATOFALI YA KUCHOMA 4=SARUJI/ZEGE 5=MBAO/MIANZI 6=MABATI 7=MBAOLAINI (CARDBOARD) 8=NYINGINE</p> <div></div>	<p>G3 JE, SAKAFU YA NYUMBAHII NI YA AINA GANI?</p> <p>1=SARUJI 2=TOPE 3=NYINGINEZO</p> <div></div>
<p>G4 JE, ni aina gani ya choo hutumiwa na kaya hii?</p> <p>1=Hakuna choo 2=Choo cha kuflashi kwenye mifereji ya maji machafu 3=Choo cha kuflashi kwenye tangi/shimo 4=Ndoo 5=Choo cha shimo kilichofunikiwa 6=Choo cha shimo kisichofunikiwa 7=Choo cha shimo chenye bomba la kutolea hewa chafu 8=Nyingine</p> <div></div>	<p>G5 JE, ni nishati gani kuu itumikayo kwa ajili ya kupikia?</p> <p>1=Kuni 2=Mkaa 3=Mafuta ya taa 4=Gesi 5=Umeme 6=Mabaki ya mimea/unga wa mbao 7=Kinyesi cha wanyama 8=Nyingine</p> <div></div>	<p>G6 JE, ni nishati gani kuu itumikayo kwa mwanga?</p> <p>1=Mafuta taa 2=Gesi 3=Umeme 4=Genereta 5=Mishumaa 6=Beteri 7=Kuni 8=Nyingine</p> <div></div>
<p>G7 JE, ni nini chanzo kikuu cha maji ya kunywa?</p> <p>1=Bomba kwenye makazi 2=Bomba la jirani 3=Bomba la nje la umma 4=Kisima kisichojengewa, maji ya mvua 5=Mto, ziwa, bwawa 6=Mbebaji anayepitisha, gari 7=Nyingine</p> <div></div>		

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### G – HOUSEHOLD AMENITIES

	G8 Je, ni muda gani kwa dakika unatumika kutoka hapa hadi kufika kwenye [HUDUMA] iliyo karibu? 1=0-14, 2=15-29 3=30-44 4=45-59 5=60+	G9 Ni aina gain ya usafiri mnyotumia kufika kwenye [HUDUMA]?  1=Gari/dala dala 2=Baiskel 3=Pikipiki 4=Kwa miguu	G10 Ni kama umbali gain kutoka hapa kwa kilomita kufika kwenye [HUDUMA]?
HUDUMA			
Chanzo cha maji hasa ya kunywa			_____ . _____
Soko la vyakula			_____ . _____
Usafiri wa umma (kama basi, daladala,...)			_____ . _____
Shule ya msingi			_____ . _____
Shule ya Sekondari			_____ . _____
Zahanati, kituo cha afya au hospitali			_____ . _____

G11 Je kuna muhudumu wa afya katika kijiji hiki?  1=Ndiyo 2=Hapana (> NEXT SECTION)		G12 Je kaya hii inafaidikaje na kuwepo kwa mhadumu wa afya wa kijiji?  1=Hakuna manufaa 2=Ushauri 3=Mafunzo 4=Vifaa (kama vile vyandara, ..) 5=Kingine(SPECIFY) _____
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Kumbukumbu Na

## H – PLANNING AND PARTICIPATION

	<b>H14</b> Katika kipindi cha miezi 12 iliyopita wewe au mwanakaya yeyote alimuona rasmi [KIONGOZI]?  1=Ndiyo 2=Hapana ( > NEXT OFFICER) 3=NOT APPLICABLE ( > NEXT OFFICER)	<b>H15</b> Ni kwa nini wewe/mwanakaya alimuona rasmi [KIONGOZI]?  1=Kumsalamia tu 2=Shida zako binafsi 3=Maendeleo ya jamii kwa ujumla 4=Nyingine (SPECIFY)	
KIONGOZI			
Mjumbe (10-cell leader)			
Mwenyekiti wa Kitongoji			
Mwenyekiti wa Kijiji			
Diwani			
Mwenyekiti wa madiwani			

<b>H16</b> Je kijiji chako kina [KAMATI]?  1=Ndiyo 2=Hapana ( > NEXT COMMITTEE) 3=Sijui ( > NEXT COMMITTEE) 99 = NOT APPLICABLE ( > NEXT COMMITTEE)	<b>H17</b> Una ufahamu gani kuhusu shughuri za [KAMATI]?  1=Sijui chochote 2=Najua Kidogo 3=Najua mengi	<b>H18</b> Ungeweza kufaham zaidi kama ungetaka?  1=Ndiyo, kirahisi 2=Ndiyo, japo kuna ugumu 3=Haiwezekani	<b>H19</b> Je katika kipindi cha miezi 12 iliyopita umehudhuria mkutano ulioandaliwa na [KAMATI]?  1=Ndiyo 2=Hapana
KAMATI			
Kamati ya huduma za jamii			
Kamati ya fedha na mipango			
Kamati ya ulinzi na usalama			

<b>H20</b> Kuna mwanakaya yeyote anayeshiriki katika vikundi/vyama vya majirani au marafiki vinavyotoa msaada wakati wa kuugua, msiba, wakati mugumu au matukio mengine?  1=Ndiyo 2=Hapana ( > H22)	<b>H21</b> Kwa ujumla kaya yako inashiriki katika vikundi vingapi kati ya hivi? (SUM ACCROSS MEMBERS)	<b>H22</b> Mbali na vyama hivyo kuna mwanakaya yeyote anayeshiriki katika vikundi/vyama vingine vya majirani au marafiki?  1=Ndiyo 2=Hapana ( > NEXT SECTION)	<b>H23</b> Kwa ujumla ni vyama/vikundi vingine vingapi kaya yako/wanakaya wanashiriki?  
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Kumbukumbu Na

## I – POVERTY PREDICTORS

I1 Je, kaya hii ina vyumba vingapi vya kulala?	I2 Je, kwa kawaida kaya yako inapata mlo mingapi kwa siku?	I3 Je, katika siku saba zilizopita (wiki moja) kaya hii ilikula mlo wenye nyama kwa siku ngapi?
I4 Je, katika kaya hii kuna mwanakaya anayemiliki akaunti katika benki?		
1=Ndiyo 2=Hapana		

## J - CHILDREN UNDER 5

J1 FOR EACH CHILD UNDER THE AGE OF 5 ENTER THE CHILD AND MOTHER'S ID CODE FROM THE LIST OF HOUSEHOLD MEMBERS. ENTER 00 IF THE CHILD'S MOTHER IS DECEASED OR IS NOT A MEMBER OF THE HOUSEHOLD	J2 ENTER THE CHILD'S DATE OF BIRTH			J3 Mtoto huyu amezaliwa wapi?	J4 Je, ni nani aliyemhudumia wakati wa kuzaliwa kwa mtoto huyu?  1=Daktari 2=Nesi 3=Mkunga 4=Mkunga wa jadi 5=Mwingine	J5 RECORD EACH CHILD'S WEIGHT (KG) WITH ONE DECIMAL, E.G. 04.6 KG)	J6 RECORD EACH CHILD'S HEIGHT (CM) WITH ONE DECIMAL, E.G. 51.3 CM)	J7 Je, mtoto alishiriki katika mpango wa lishe au upimaji uzito?
CHILD NAME	CHILD ID	MOTHER ID	DAY	MONTH	YEAR			
								1=Ndiyo 2=Hapana

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Kumbukumbu Na

**K – COMMENTS**



# **ANNEX E**

## **Community Questionnaire**

# SNV-CWIQ COMMUNITY QUESTIONNAIRE

## *SNV-TANZANIA*

A1 District Name: \_\_\_\_\_

A2 District Number:

A3 Village Name: \_\_\_\_\_

A4 Cluster Name(s) (enter the cluster(s) to be surveyed in this village):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A5 Cluster Number(s) (enter the cluster(s) to be surveyed in this village):

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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A6 Supervisor's Name: \_\_\_\_\_

A7 Supervisor's ID:

A8 Date:

## B - GENERAL INFORMATION

B1 Position of Respondent:

1. Chairman
2. Retired Chairman
3. Village Extension Officer
4. More than one (enter codes) \_\_\_\_\_

B2 How many people live in this village?

B3 How many households are there in this village?

B4 How many people live in the kitongoji/vitongoji that we are visiting?  
(IF WE ARE VISITING MORE THAN ONE KITONGOJI IN THIS VILLAGE – GET POPULATION DATA FOR EACH ONE)

<i>Cluster Number</i>	<i>Number of People</i>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

B5 How many households are there in the kitongoji/vitongoji that we are visiting?  
(IF WE ARE VISITING MORE THAN ONE KITONGOJI IN THIS VILLAGE – GET HOUSEHOLD DATA FOR EACH ONE)

<i>Cluster Number</i>	<i>Number of Households</i>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

Please give me a break-down of the village population by tribe

B6 Name of Tribe	B7 % of Population

Please give me a break-down of the village population by religion

Religion	B8 % of Population
Muslim	
Roman Catholic	
Lutheran	
Other Protestant	
Hindu	
Other Pagan	
Other (Specify_____)	

### C - DEMOCRATIC PROCESSES IN THE VILLAGE

C1 How often are there public village meetings in this village?

/Year

C2 How are the villagers informed about an upcoming meeting?  
(MORE THAN ONE OPTION ALLOWED)

1=Through the wajumbe (10-cell leaders)

2=Through the wajumbe (members of the village council)

3=Announcements in social gatherings

4=Written notices in public places

5=Tum Tums

6=Other (specify)\_\_\_\_\_

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C3 *Usually*, what proportion of the villagers who are eligible to vote attends the regular public village meetings?

1=0-25%

2=25-50%

3=50-75%

4=75-100%

--

Group	C4 Do [GROUP] ever attend public village meetings  1=Yes 2=No ( > NEXT GROUP)	C5 How often do [GROUP] attend the public village meetings  1=Often 2=Sometimes 3=Rare 4=Only once
Ward level representatives		
District level representatives		
Representatives of outside organizations working in the area		

Please give me a break-down of those who attended the last regular public village meetings

Group	C6 % of those who attend the meeting
Men	
Women	
Young people (teenagers)	
Old people (65+)	

C7 When was the last council election held?

Months ago

C8 What proportion of the villagers who are eligible to vote voted in the last council election?

- 1=0-25%
- 2=25-50%
- 3=50-75%
- 4=75-100%

C9 Does this village have a Village Health Worker?

1=Yes (CONDUCT SECTION A OF *Village Health Worker* QUESTIONNAIRE AFTER COMPLETING SECTION D & REQUEST AN INTERVIEW WITH THE VILLAGE HEALTH WORKER – SECTION B OF *Village Health Worker* QUESTIONNAIRE)

2=No



## D – PLANNING AND PARTICIPATION

D1 Does this village receive support in planning from a Village Facilitation Team?

1=Yes  
2=No

1401

[illegible]

D8 Is there a document in which all the plans [READ FROM D2] are recorded with the budget, implementation strategy and time-frame for each of the projects?

1=Yes

2=No ( > D10)

D9 How often is this plan revised?

/Year

D10 Which of the following information is available in the village?

Type of data	1=Yes 2=No
Village Population Register	
Village revenue and expenditure data	
Strategic District Development Plan	
National Development Vision 2025	
A list of district/national development priorities	



We would like to find out which non-government organisations are *currently* having an impact on this community.

D19 Name of organisation	Code	D20 Project Description	Code

D21 Did your ward councilor assist you in formulating the plans for the village?

1=Yes

2=No

D22 Does the ward councilor live in this village?

1=Yes

2=No

D23 When was the last time the ward councilor looked into village matters?

 Weeks ago

D24 How often does the ward councilor *usually* visit the village/look into village matters?

 /Year

D25 Has the village councilor been involved in village matters as much as you would expect?

1=Yes

2=Less

3=More

## E – PLANNING AND FINANCE COMMITTEE

PART 1: SUPERVISOR – ACQUIRE A LIST OF ALL MEMBERS ON THE VILLAGE *PLANNING AND FINANCE COMMITTEE*. WRITE DOWN THE NAMES OF ALL THE MEMBERS OF THIS COMMITTEE

E1 Names of Committee members
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.

Part 2 – Interview with the Chairman/Secretary of the Finance and Planning Committee

E2 What is the name of the respondent: \_\_\_\_\_

E3 What is the respondent's position on the Finance and Planning Committee?

1=Committee Chairman

2=Committee Secretary

3=Both

4=Other (SPECIFY) \_\_\_\_\_

E4 When was the last time the Finance and Planning Committee met?

weeks ago

E5 How many members of the Committee were at the last meeting?

E6 How many non-members were present at the last meeting of the Finance and Planning Committee?

E7 In the past 12 months how many times were the activities of this Committee discussed at village public meetings?

E8 How are the members of the Committee (s)elected?

1=Appointed by village council

2=Appointed by the village chairman

3=Appointed by the District Council

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4=Appointed at public village meeting

5=Appointed by a majority vote of villagers

6=Appointed by an existing member

7=Other (SPECIFY) \_\_\_\_\_

(MORE THAN ONE OPTION ALLOWED)

E9 How often are the members of the Committee re(s)elected?

Years

We would now like to collect some information about every member of the committee

[illegible]

## F – SECURITY COMMITTEE

Part 1: Supervisor – Acquire a list of all members on the village *Security Committee*. Write down the names of all the members of this committee

F1 Names of Committee members
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.



Part 2 – Interview with the Chairman/Secretary of the Security Committee

F2 Name of the respondent: \_\_\_\_\_

F3 What is the respondent's position on the Security Committee?

1=Committee Chairman

2=Committee Secretary

3=Both

4=Other (SPECIFY) \_\_\_\_\_

F4 When was the last time the Security Committee met?

weeks ago

F5 How many members of the Committee were at the last meeting?

F6 How many non-members were present at the last meeting of the Security Committee?

F7 In the past 12 months how many times were the activities of this Committee discussed at a public meeting?

F8 How are the members of the Committee (s)elected?

1=Appointed by village council

2=Appointed by the village chairman

3=Appointed by the District Council

4=Appointed at public village meeting

5=Appointed by a majority vote of villagers

6=Appointed by an existing member

7=Other (SPECIFY) \_\_\_\_\_

F9 How often are the members of the Committee re(s)elected?

Years



## G – FACILITY COORDINATES

SUPERVISOR:

1. Please find out where the nearest of each of the following facilities is located
2. Please travel to each of the facilities and record its location

[illegible]

## H - COMMENTS



## REFERENCES

District Rural Development Programme. 2004. *Kagera Rural CWIQ: Baseline Survey on Poverty, Welfare and Services in Kagera Rural Districts*, Tanzania

District Rural Development Programme. 2004. *Rural Shinyanga CWIQ: Baseline Survey on Poverty, Welfare and Services in Rural Shinyanga Districts*, Tanzania

District Rural Development Programme. 2004. *Making Local Governance a Reality: A Guide for District Facilitators Managing Participatory Planning for Development*, Tanzania

National Bureau of Statistics. 2002. *Household Budget Survey 2000/01*, Dar es Salaam