Tanzania-Netherlands

SNV

MBULU DISTRICT CWIQ
Baseline Survey on Poverty, Welfare and Services in Mbulu District

AUGUST 2005

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Foreword

ACKNOWLEDGEMENTS

This research was funded by the Royal Netherlands Embassy through SNV and implemented by EDI (Economic Development Initiatives). The sampling design, listing of households, organisation of the field work and data entry were managed by Sonya Krutikov, Respichius D. Mitti, Henry A. Lugakingira and James Mitchener. The analysis and report writing were carried out by Sonya Krutikov, Neema Bashenyi Teddy, Zavuga Cosmus, Joachim De Weerdt and James Mitchener. Overall budgetary, financial and administrative aspects were supervised by Louise Barnett.

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
HBS	Household Budget Survey
NCHS	National Centre for Health Statistics
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 (e.g. 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).

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1 INTRODUCTION

1.1 The Mbulu District CWIQ

This report presents district level analysis of data collected in the Mbulu 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. Mbulu District CWIQ was the first survey of its kind to be administered in Mbulu. Although beyond the purpose of this study, the results of Mbulu 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, Monduli District, Karatu 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 company 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 Mbulu 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.[1]

The survey started with the listing of all households in the surveyed sub-villages in April 2005. Every one of the 450 sampled households was visited and administered a questionnaire in April 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 employment are examined next. Analysis of village level governance processes concludes the report.

[1] Although Mbulu is generally classed as rural, it still contains some areas which are semi-urban (e.g. Mbulu 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

The survey started with listing and sampling of households. Once the households had been identified, household interviews were administered. Weight and height measurements were taken of every household member under the age of 5. Global Positioning Systems (GPS)[2] were used to record the exact location of each surveyed household at the end of the visit to each household.

In addition to household level interviews, a community level questionnaire was administered in every village visited. Before leaving each village, the GPS co-ordinates of the nearest health facility with the capacity to test for malaria, nearest primary school and nearest location of regular transport were taken. Each part of the survey process is discussed below.

1.2.1 Sampling

Data from the 2002 Census was used to put together a list of all sub-villages in Mbulu district. In the first stage of the sampling process sub-villages (also referred to as Enumeration Areas or clusters) were selected in 2 strata, rural and peri-urban. While 26 rural sub-villages were selected randomly from a list of all rural sub-villages in the district, 4 peri-urban sub-villages were selected randomly from a list of all peri-urban sub-villages. Listing of households was then administered by the Lead Supervisors in each of the selected Enumeration Areas (EAs). Two visits were made to each EA. In the first visit chairmen of the village and the sub-village were asked to compile a list of all residents of the sampled sub-village or produce the Village Register, if one existed. In the second visit, the list prepared, or Village Register, were verified by the Lead Supervisors. Upon completion of the listing process, 15 households were randomly selected from the list of each of the sampled sub-villages.

In total, 450 households were surveyed; 390 of these were located in rural areas and 60 in peri-urban areas (Table 1). All households were given statistical weights reflecting the number of households that they represent.

[2] GPS is a system that uses satellites to locate a geographic position in terms of degrees of longitude and latitude.

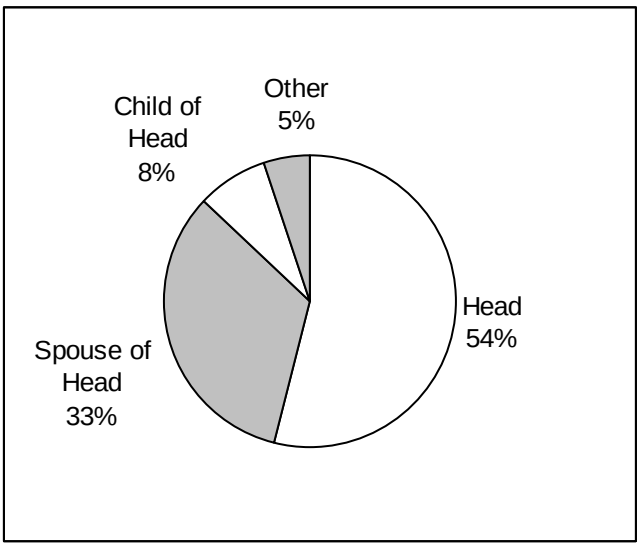
Table 1: Sample Stratification

	Rural		*Peri-urban*		*Total*
	No. of selected Enumeration Areas	No. of selected households	No. of selected Enumeration Areas	No. of selected households	
Mbulu District	26	390	4	60	450

1.2.2 Interviews

A 15 page interview was conducted in each of the sampled households by an experienced interviewer trained by EDI. The respondent was the most informed person in the household, as identified by the members of the household. In the great majority of cases this person was also the head or spouse of the head of household (Figure 1).

Figure 1: Distribution of Household Interview Respondents by Relation to the Head of Household



Further, a community questionnaire was administered in every village visited. In total, 26 community questionnaires were administered in Mbulu district[3]. There are 3 main parts to the community questionnaire. The first is an interview with the village chairman and/or Village Executive Officer (VEO). The second part is an interview with the chairman of the village council Finance and Planning Committee. An interview with the chairman of the village council Security Committee concludes the questionnaire.

[3] The survey was conducted at sub-village level. In Mbulu district, the 30 sub-villages that had been randomly selected were located in 26 villages. The community questionnaire was administered at village level; therefore, in total 26 community level interviews were conducted.

1.2.3 Anthropometric Measurements

A weight and height measurement was taken by the interviewers for each individual under the age of 5 (60 months) in the surveyed households. All interviewers had been trained to take accurate anthropometric measurements of young children by faculty of the Bukoba Regional Hospital.

1.2.4 Distance Measurements

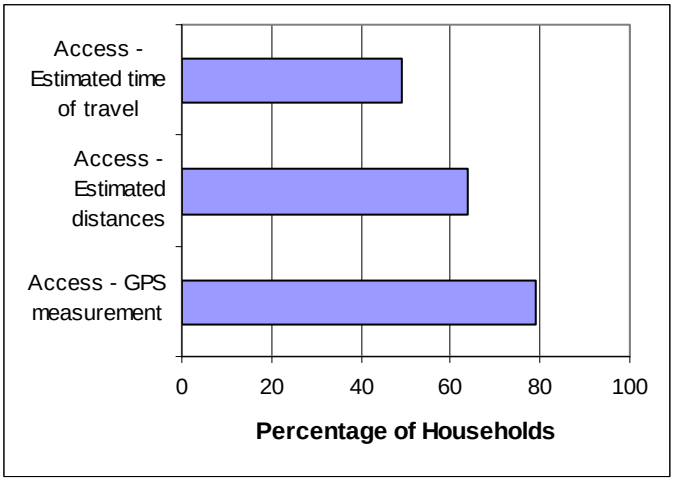
Global Positioning Systems were used to record the position of every interviewed household. In addition, the coordinates of the nearest health facility with the capacity to conduct malaria tests, the nearest primary school and the nearest regular public transport were recorded in every village. These measurements allow calculation of distances between households and these facilities. In addition, they allow calculation of distances from the household to the centre of the sub-village and from the village to the district capital.

In addition to this distance data, household questionnaire respondents were asked to estimate the distance to the nearest source of water, food market, health facility, primary school, secondary school and public transport. As the result, distances to primary school, health facilities and public transport can be expressed in 3 ways. Firstly, as a distance estimated by the respondent. Secondly, as the respondent's estimate of the time it takes to travel to the facility. Thirdly, using the GPS coordinates of the location of the facility and the respondent's residence.

This report will incorporate all 3 measurements to inform on levels of access to facilities in the district. It is, therefore, necessary to be aware of the specific features of each measurement. Measurements based on the estimates of the respondent take account of the local terrain, but are based on the respondent's perception. Figures based on the GPS coordinates are more objective measures of distance, but do not take account of the terrain as they are taken as the bird flies. Figures based on estimates of time have the advantage of taking the mode of transport used into account.

As can be seen from Figure 2, the results acquired using these different measurements are noticeably different. 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 from it. Figure 2 demonstrates levels of access to primary school in Mbulu calculated using the 3 measurements discussed above. Access levels are lowest when using estimated time of travel and highest when the GPS measurement is used. In fact, the access rate calculated using the former method is 30 percentage points lower than that calculated using the latter method, at 49 and 79 percent respectively. Access rate calculated using distance estimation is between that derived using the GPS and estimates time of travel methods, at 64 percent.

Figure 2: Access Rates Using Different Measurements



1.3 Key Findings

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

1. Mbulu district has a population of 252,000 individuals who live in just over 39,000 households. About 35,500, or 91 percent, of these households are located in rural areas; the remaining 9 percent (roughly 3,500 households) are found in areas classed as peri-urban.
2. Results show that the district poverty rate is 62 percent; in other words, over three fifths of the households have a consumption level below the Basic Needs Poverty Line[4]. Poverty rate is significantly higher in rural than in peri-urban areas; while in rural areas the residents of 64 percent of households live under the Basic Needs Poverty Line, in peri-urban areas this proportion is 42 percent.
3. Overall, the literacy rate in Mbulu is 68 percent. There are differences across poverty groups, gender and area of residence. Literacy rate is slightly lower among individuals from poor households than those from non-poor households, at 66 and 71 percent respectively. Women are less likely to be literate than men, with respective literacy rates of 61 and 74 percent. Finally, the literacy rate is lower in rural areas than peri-urban ones, at 67 and 74 percent respectively.
4. Access to a facility is defined as living within 30 minutes of travel from the facility. Nearly half (47 percent) of the primary school age children in the district have access to a primary school. In contrast, less than a fifth (19 percent) of secondary school age children live equally close to the nearest secondary school. Children of primary school age are almost twice as likely to have access to a

[4] Basic Needs Poverty Line is explained in the next chapter

primary school in peri-urban than rural areas. This is also the trend in secondary school access rates.

5. At both primary and secondary levels, access to school is slightly higher among children from non-poor households compared to those from poor households.
6. At the time of the survey, the primary school Gross Enrolment Rate (GER) in Mbulu district was 126 percent. The majority (83 percent) of primary school age children were found to be attending school.
7. Secondary school Net Enrolment Rate (NER) is 11 percent. This means that only 11 out of every 100 individuals of secondary school age were attending secondary school at the time of the survey.
8. Breakdown by age further shows that many children start school late and, therefore, lag behind at school throughout their schooling career. For instance, more than two thirds (69 percent) of Standard I children were older than the correct age for this grade (7 years).
9. Less than a fifth (17 percent) of individuals in Mbulu have access to health facilities. Health facility access rate is more than three times as high in peri-urban than rural areas, at 48 and 15 percent respectively.
10. Results of the survey show that approximately 54,000 individuals, or 21 percent, had been ill in the 4 weeks preceding the survey.
11. 41,000 individuals, or 16 percent, had consulted a health provider in the 4 weeks preceding the survey.
12. Two out of three individuals who had consulted a health provider in the 4 weeks preceding the survey, were satisfied with the services they received. Satisfaction rates were significantly higher in peri-urban than rural areas, at 89 and 65 percent respectively.
13. No one problem was identified as significantly more substantial than others by dissatisfied users of health facilities. Users of health facilities in Mbulu were equally concerned about the condition of health facilities and waiting times, cost of the services, quality of service provision, and lack of necessary supplies.
14. Nearly all women who gave birth in the 12 months preceding the survey received prenatal care (94 percent). Further, roughly half (53 percent) of births from the last 5 years had been conducted in at home.
15. Over a fifth (22 percent) of children under the age of 5 years (60 months) in Mbulu district suffer from chronic malnutrition (stunting); in other words these children are too short for their age. Further, 3 percent of children in this age-group were acutely malnourished (wasted) at the time of the survey; these children were too thin for their height.

Table 2: Mbulu at a Glance

	Rural	Peri-Urban	Total
POPULATION			
Total No. of Individuals	**231,358**	**20,692**	**252,050**
Total No. of Households	**35,536**	**3,699**	**39,235**
POVERTY			
% Households Living Under the Basic Needs Poverty Line	**64**	**42**	**62**
LITERACY			
Literacy Rate (for individuals over the age of 14)	**67**	**74**	**68**
Non-poor	69	79	71
Poor	66	69	66
Male	73	78	74
Female	60	71	61
PRIMARY SCHOOL			
Access	**44**	**80**	**47**
Satisfaction	**53**	**71**	**54**
Gross Enrolment Ratio	**127**	**115**	**126**
Non-poor	138	118	134
Poor	124	113	123
Male	138	123	136
Female	116	107	115
Net Enrolment Ratio	**82**	**91**	**83**
Non-poor	89	96	91
Poor	80	87	81
Male	79	86	80
Female	84	96	85
SECONDARY SCHOOL			
Access	**17**	**38**	**19**
Satisfaction	**43**	**72**	**45**
Gross Enrolment Ratio	**16**	**13**	**16**
Non-poor	22	22	22
Poor	14	7	14
Male	17	10	16
Female	14	19	15
Net Enrolment Ratio	**11**	**8**	**11**
non-poor	17	10	17
Poor	9	7	9
Male	9	6	9
Female	14	10	13
HEALTH			
Access	**15**	**48**	**17**
Need	**21**	**21**	**21**
Use	**16**	**17**	**16**
Satisfaction	**65**	**89**	**67**
NUTRITION			
% of stunted children	**22**	**19**	**22**
Boys	24	29	24
Girls	21	2	20
% of wasted children	**3**	**1**	**3**
Boys	3	3	3
Girls	3	2	3

2 POVERTY PREDICTORS

2.1 Introduction

This chapter discusses the poverty measurements used throughout the report. The scope of the Mbulu 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 the reliability of this variable. 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 districts, regions and seasons; hence multiple visits have to be made to the household for consumption data to be reliable.

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

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 the 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 Mbulu 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 Mbulu in order to ensure that the model developed accurately represents this particular district.

Some caveats are in order when tabulating variables used as poverty predictors on poverty status. Poverty status is defined as a weighted average of the poverty predictors, hence it should come as no surprise that poverty predictors are correlated to them. For instance, education of the household head is one of the variables included in the equation used to 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 consumption expenditure. The actual quantitative relationship between these and consumption expenditure is presented in Table B 1 in Annex 2.

Table 3: Variables Used to Predict Consumption Expenditure

Basic Variables	***Food Security***
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	
Household Assets	***Household Amenities***
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 Mbulu 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 poverty rate is not the purpose of CWIQ. Expenditure surveys, such as the 2000/2001 Household Budget Survey, are much better suited for informing on this variable. However, such large scale surveys have insufficient number of observations to inform on district level trends. The Mbulu 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 Mbulu 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 Mbulu, 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, 62 percent of households in Mbulu have a consumption level below that required to satisfy basic needs. Figure 3 shows the distribution of poverty levels by area of residence. As can be seen, almost two thirds of the households in the rural areas of Mbulu are poor (64 percent); in peri-urban areas this is the case for about two fifths (42 percent) of households.

Figure 3: Poverty Levels by Area of Residence

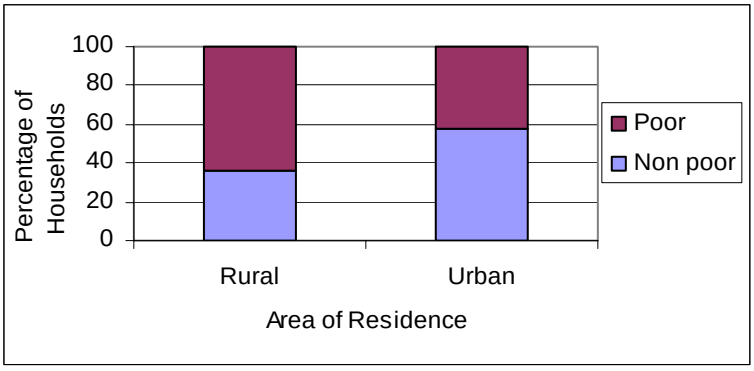
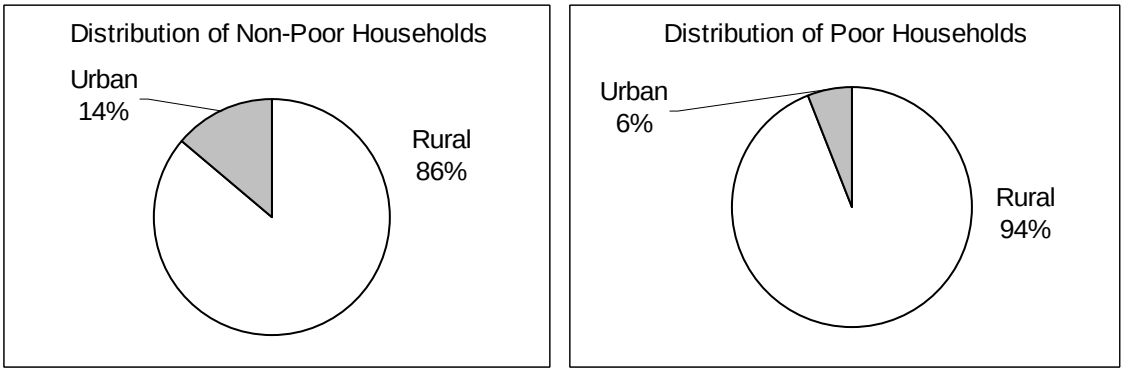


Figure 4 further shows that only 6 percent of all poor households in the district are located in peri-urban areas, compared to 14 percent of non-poor households.

Figure 4: Distribution of Non-Poor and Poor Households by Area of Residence

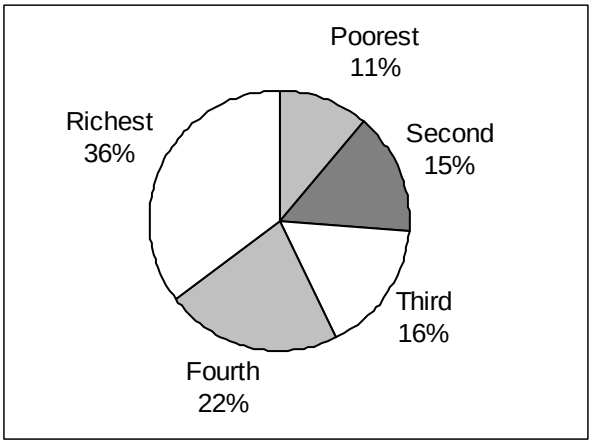


2.3.2 Consumption Inequality

A commonly used measure of consumption 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 5 demonstrates that in Mbulu district the consumption of the richest group (the group with the highest consumption expenditure) accounts for 36 percent of

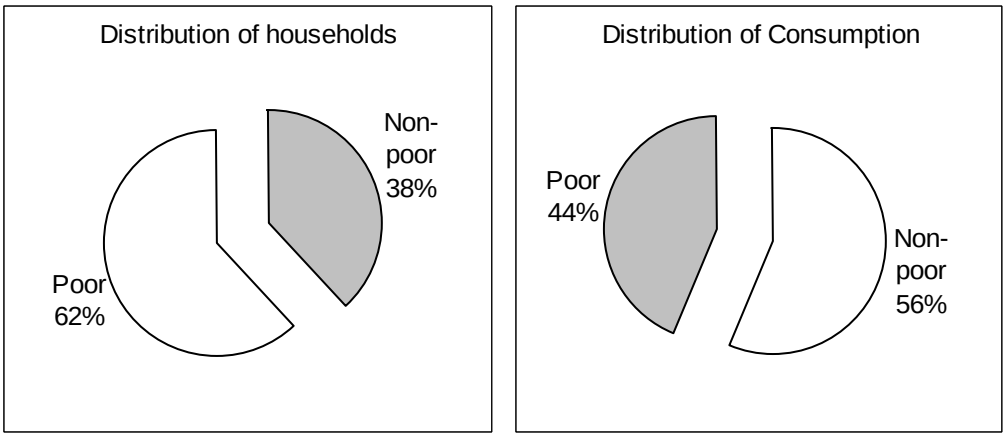
total consumption. In contrast, the consumption expenditure of the poorest group accounts for only 11 percent of the total.

Figure 5: 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 6 shows that while poor household constitute 62 percent of households in the district, their consumption expenditure only accounts for 44 percent of the total.

Figure 6: Consumption Inequality in Mbulu District



2.4 Poverty and Characteristics of Household Heads

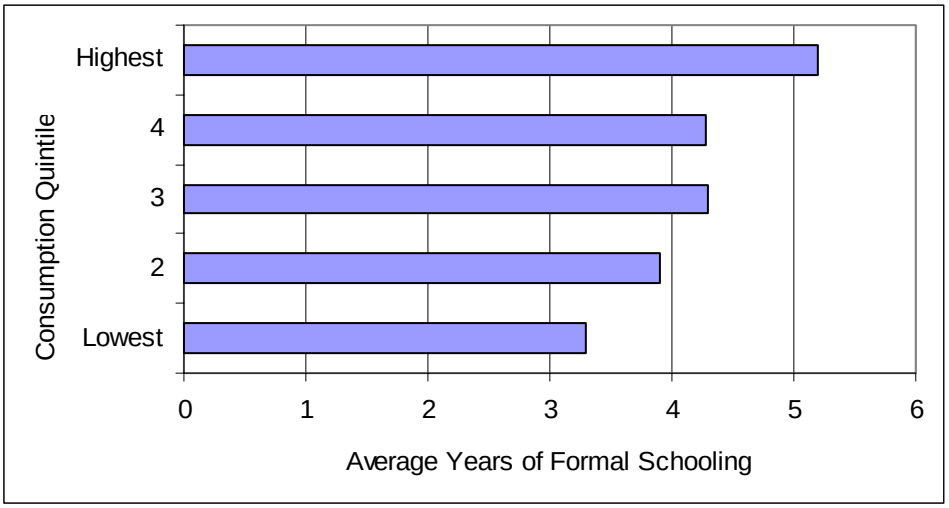
This section examines the differences and similarities in the main characteristics of poor and non-poor households[5] in Mbulu district. Household characteristics, and more specifically characteristics of the household head, are disaggregated by poverty status for this purpose. Characteristics of the household head are the focus of this section as they often affect the whole household. For instance, in Mbulu the head of household is the

[5] 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.

main contributor of income in 85 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 7 shows that while households in the lowest consumption quintile are headed by individuals with an average of just over 3.3 years of formal schooling, heads of households in the highest quintile have, on average, spent 5.2 years in formal 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.

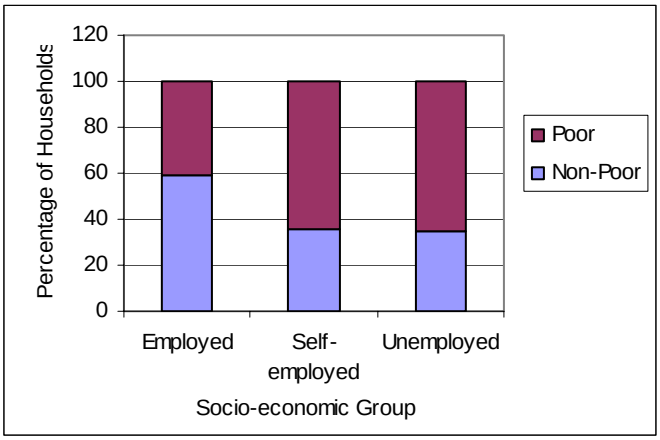
Figure 7: Average Years of Schooling Received by Household Head by Consumption Quintile



The socio-economic group that a household belongs to is determined by the employment of the household head. Throughout the report heads employed in the private sectors, formally or informally, as well as Government and Parastatal employees are categorised as 'Employed'. Self-employed individuals, working in the agricultural, trade or professional sectors are combined into the 'Self-employed' category, while those who had not been working for the 4 weeks preceding the survey are classed as 'Unemployed'.

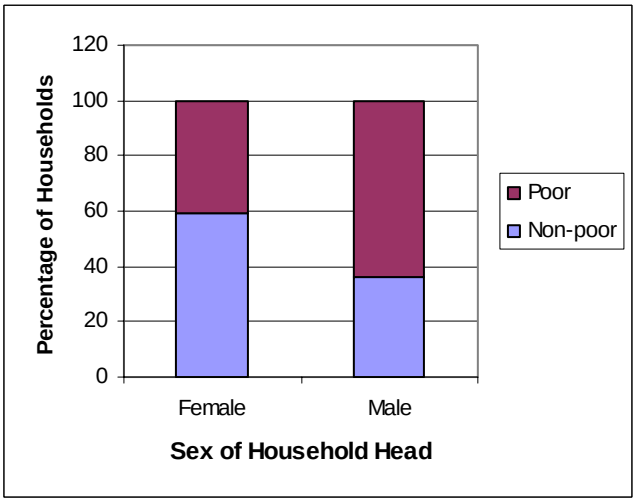
Analysis of poor and non-poor households by socio-economic group shows that there is a significant correlation between household poverty status and employment of the household head. Poor households are least likely to be headed by employed individuals and are most likely to be headed by unemployed individuals. In fact, poor households constitute nearly two thirds (65 percent) of unemployed households, compared to 41 percent of employed households.

Figure 8: Distribution of Poor and Non-poor Households by Socio-economic Status



Finally, contrary to popular belief that female headed households are worse off than male headed households, poverty is significantly more widespread in male than female headed households in Mbulu district. The poverty rate in female headed households is 23 percentage points lower than that in male headed households.

Figure 9: 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 Mbulu's village, household and population characteristics. To begin with, the tribal and religious make up of the villages in this district are examined. This is followed by analysis of the levels of ethnic and religious diversity in Mbulu's villages. Isolation is then looked at in terms of the distribution of households by distance to the district capital and to the centre of the sub-village in which they are located. The next part of the chapter discusses main characteristics of the population in Mbulu, 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 Mbulu concludes the chapter.

3.2 Village Characteristics

3.2.1 Ethnicity and Religion in Mbulu

The tribal and religious make-up of the villages in Mbulu are shown in Table 5. The most commonly found tribe are the Wairaqwi. Members of this tribe live in the majority (97 percent) of the villages in the district. The second largest group are the Wabarbaig, who are found in more than a third (36 percent) of the villages. 30 percent of villages contains tribes found in 1 village only. These tribes are categorised as 'Other'. Among these are the Hus and Hadzabi tribes, for instance. The Wachaga and Wanyiramba inhabit roughly a tenth of the villages, while the Wapare were found in no more than 4 percent of the villages.

The Wairaqwi also make up the majority of the population in the villages where they live. On average, the members of this tribe constitute 92 percent of the residents of the villages where they live. In contrast, while the Wabarbaig are found in over a third of the villages, on average, they constitute less than a fifth (17 percent) of the residents of villages where they are found. The Wachaga and Wanyiramba tend to constitute a small minority of the village population; on average these two tribes constitute 4 and 2 percent of village populations respectively, in areas where they are found.

Lutherans were found in every surveyed village; Lutherans constitute, on average 30 percent of the population. The great majority of villages were also found to contain Roman Catholics, other Protestants and Pagans. Roman Catholics constitute a higher proportion of villagers in places where they live than any other group, at 36 percent. While Muslims were found in roughly a fifth of the villages in Mbulu, they only constitute an average of 4 percent of the populations in these villages. By far the smallest

religious group are the Hindus who were found in 4 percent of the villages and tend to constitute only 5 percent of villagers in places where they are found.

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
Mbulu District Tribes		
Wachaga	11	04
Wairaqw	97	92
Wabarbaig	36	17
Wanyiramba	12	02
Wapare	04	02
Other	30	14
Mbulu District Religions		
Muslim	22	04
Roman Catholic	97	36
Lutheran	100	30
Protestant (other)	97	17
Hindu	04	05
Pagan	96	20

3.2.2 Ethnic Fractionalisation

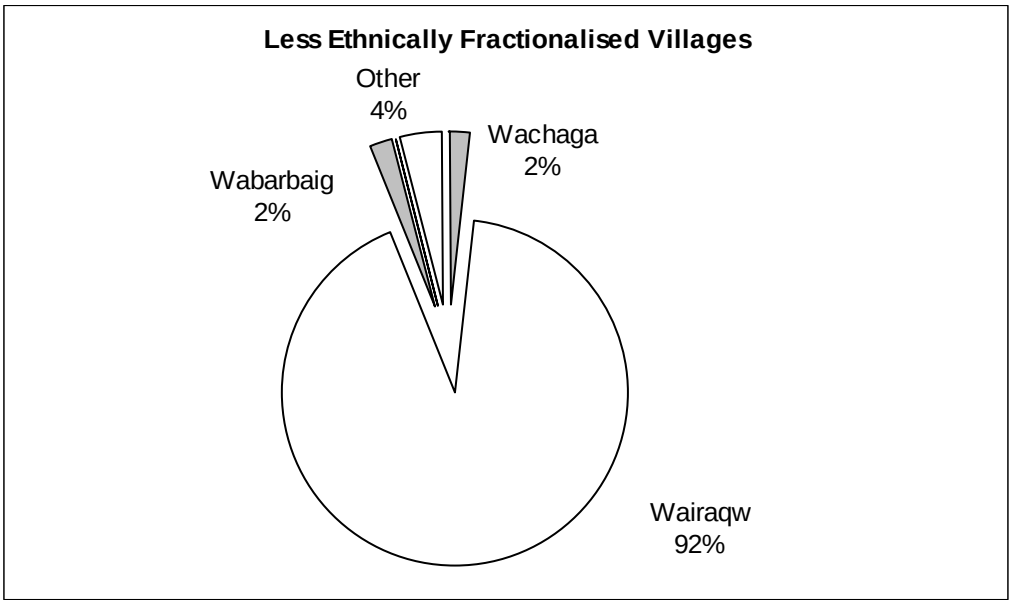
The level of ethnic fractionalisation is a variable that is used throughout this report. Villages are split into those with high ethnic fractionalisation and those with low ethnic fractionalisation. Ethnic fractionalisation is commonly measured as the probability that 2 randomly selected individuals from the same village are from different tribes. If a village is homogeneous this probability is closer to 0. In the extreme case of everyone in the village being from a different tribe, the probability would be 100 percent.

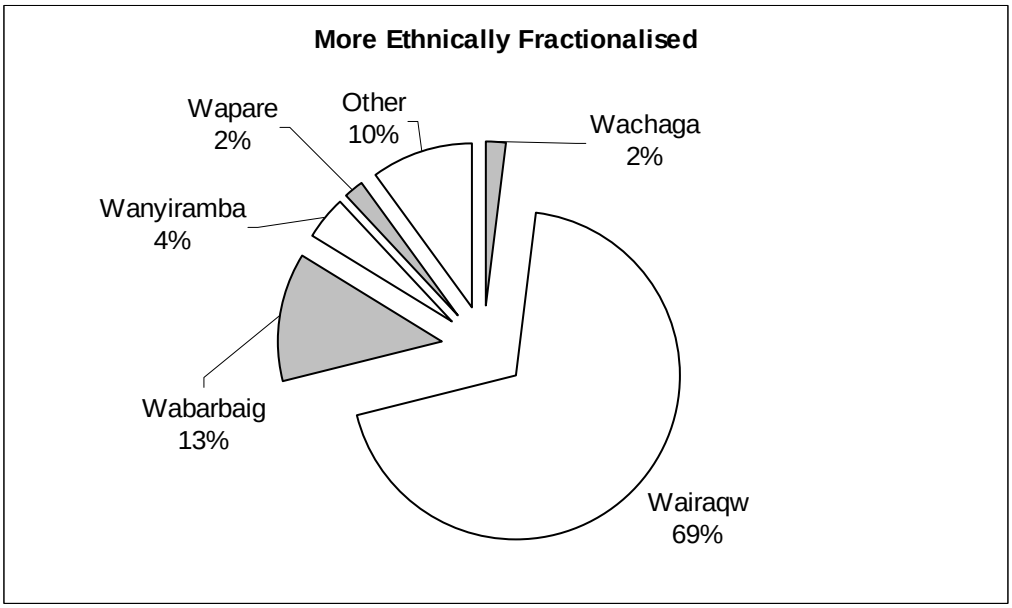
Throughout the report, 2 fractionalisation categories are used: 'Low' and 'High'. The 'Low' category contains 50 percent of villages that have lower levels of fractionalisation. The ethnic fractionalisation index in these areas does not exceed 0.009, indicating that in these villages there is a maximum of l percent chance of randomly selecting 2 individuals belonging to different tribes. The 'High' category contains 50 percent of the villages that have a higher level of ethnic fractionalisation. The ethnic fractionalisation index in these areas ranges from 0.02 to 0.42.

Figure 10 shows the typical make-up of villages in the 'Low' and the 'High' ethnic fractionalisation categories. Less ethnically diverse villages tend to be made up of, predominantly, members of the Iraqw tribe. On average, 92 percent of the population in these villages are from the Iraqw tribe, 2 percent are from the Barbaig tribe, 2 percent are from the Chaga tribe and 4 percent are from other, rarely encountered tribes. In contrast, more ethnically diverse villages are made up of, on average more than 6 tribes. The Wairaqwi still constitute the majority of the population in these villages, but a much smaller majority than in less fractionalised villages, at 69 percent. The Wabarbaig

constitute the second largest groups in these villages, at 13 percent, followed by the Wanyiramba (4 percent). The least widespread tribes, categorised as 'Other', make up 10 percent of these villages. With the exception of tribes in the 'Other' category, members of the Chaga and Pare tribes constitute the smallest proportions of the population in villages allocated to the high ethnic fractionalisation category, at 2 percent each.

Figure 10: Average Make up of More and Less Ethnically Fractionalised Villages

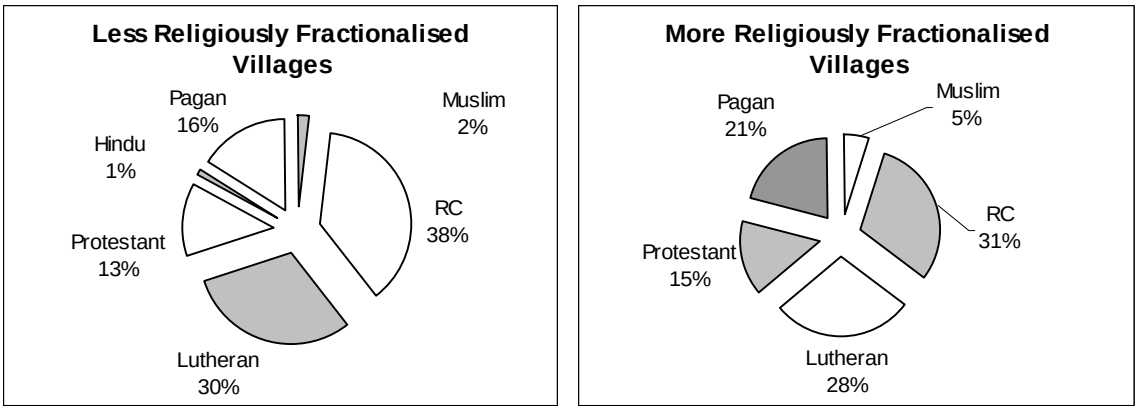




3.2.3 Religious Fractionalisation

As can be seen from Figure 11, the make-up of more and less religiously fractionalised villages differs less than that of more and less ethnically fractionalised areas. The main difference between more and less religiously fractionalised villages is that the distribution of the inhabitants of more fractionalised villages by religion is slightly more even. All religious groups, with the exception of the Muslims, constitute at least 15 percent of the population in more fractionalised areas, compared to less fractionalised villages where half of the religious groups constitute less than 15 percent of the population.

Figure 11: Average Make up of Less and More Religiously Fractionalised Villages



3.2.4 Isolation

Isolation is another indicator that will be used throughout this report; this variable incorporates trends in household and village isolation. While village isolation is determined by the distance of the village from the district capital, the level of household isolation is determined by the distance of the household from the centre of the sub-village (or Enumeration Area). Two isolation categories are used: "Closer to district capital / centre of EA" and "Further from district capital / centre of EA". These refer, respectively, to 50 percent of the closer villages / households and 50 percent of the further villages / households.

Table 6 shows the mean distance to district capital from villages located closer to and further from it, as well as the distance from the closest and the furthest villages in each category to the district capital. There is a noticeable difference between the mean distances to the capital from villages located closer to further from it, at 7 and 26 kilometres respectively. Villages in the closer category are located no further than 12 kilometres from the district capital. In contrast, the distance from the further villages to the district capital ranges from 13 to 38 kilometres.

Table 6: Village Isolation

	Closer to district capital	Further from district capital
Mean Distance	6.9	25.5
Closest	2.7	13.0
Furthest	12.3	37.6

Figure 12 further shows that less isolated villages contain a smaller proportion of poor households and are significantly less ethnically diverse than more isolated villages. For instance, while nearly 3 out of 5 households in more isolated villages are also located in more ethnically fractionalised areas, this proportion is only 21 percent of households in less isolated areas.

Figure 12: Selected Characteristics of Less and More Isolated Villages

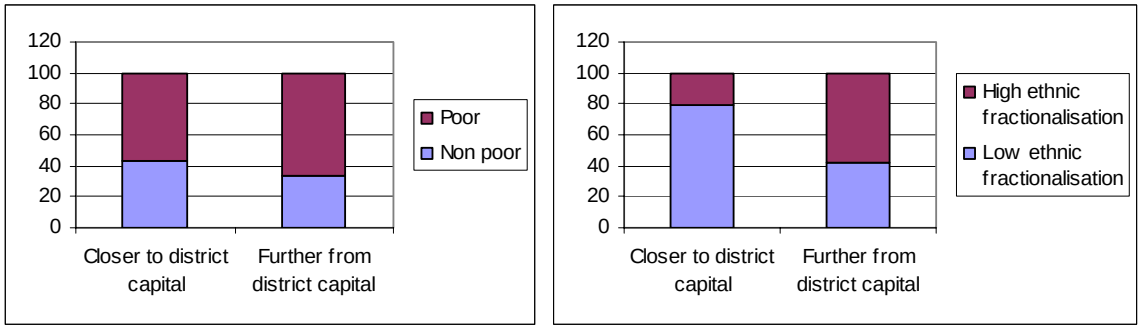


Table 7 shows the mean distance of households in the 'Closer' and 'Further' categories to the centre of the sub-village. While none of the households in the 'Closer' category are located more than 0.9 kilometres from the centre of the sub-village, in the 'Further' category some households are as far as 17 kilometres away from the centre

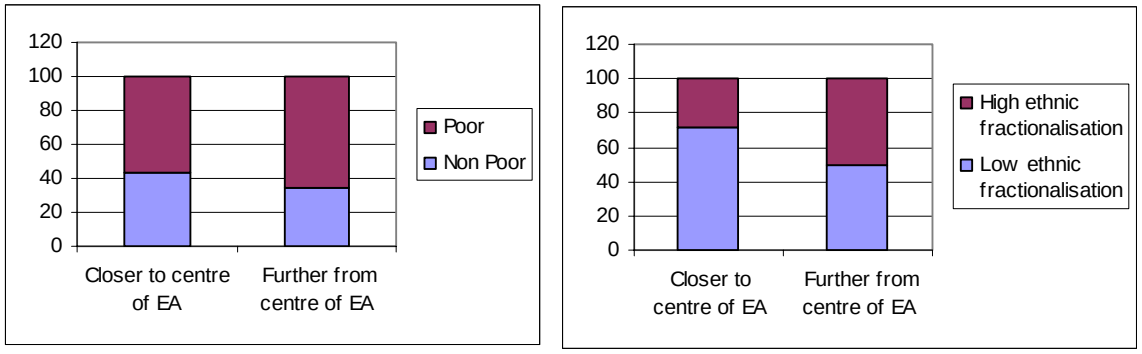
Table 7: Household Isolation

	Closer to centre of EA	Further from centre of EA
Mean Distance	0.4	5.5
Closest	0	0.9
Furthest	0.9	17.4

Figure 13 shows that poor households are slightly more widespread among more isolated households, constituting two thirds of all households located further from the sub-village centre, compared to 57 percent of the households located closer to the sub-village centre. Proportions of more and less isolated households located in more and less ethnically diverse areas differ more substantially; the proportion of households located in ethnically fractionalised areas is significantly higher among households that are more isolated

within the sub-village. This trend suggests that more diverse villages are also more geographically spread out than more homogeneous ones.

Figure 13: Selected Characteristics of Less and More Isolated Households



3.3 Population Characteristics

Overall, 252,000 individuals populate Mbulu district. Only about 21,000 of these people, or 8 percent, live in peri-urban areas (Table 8).

Nearly three quarters of the population (73 percent) live in households characterized by consumption levels below those necessary to satisfy Basic Needs. As discussed in Chapter 2, these households are defined as poor. Men constitute a slightly higher proportion of the district's population than women, at 51 and 49 percent respectively. The results further show that 16 percent of the population over the age of 15 had lost one (15 percent) or both (1 percent) of their parents before the age of 16. At the time of the survey 4 percent of individuals under the age of 16 had lost either his/her mother or his/her father. Less than 1 percent of individuals under the age of 16 had lost both of their parents.

A higher proportion of the population lives in villages located an average distance of 26 kilometres from the district capital, than those living an average of 7 kilometres away. The majority (57 percent) of the population also live at least 0.9 kilometres from the centre of the sub-village. Finally, 3 out of 5 individuals live in villages that are characterized by low levels of ethnic fractionalisation.

Table 8: Population Characteristics

	Weighted population Total	Share of population
Mbulu District	252,050	100
Rural	231,358	92
Peri-urban	20,692	8
Poverty		
Non-poor	67,242	27
Poor	184,808	73
Gender		
Male	129,272	51
Female	122,779	49
Retrospective Orphan Status (individuals over the age of 15 who had been orphaned before the age of 16)		
Non-orphan	103,204	83
Paternal Orphan	12,097	10
Maternal Orphan	6,708	5
Double Orphan	1,716	1
Current Orphan Status (individuals under the age of 16 who have lost one or both parents)		
Non-orphan	123,164	96
Paternal Orphan	2,495	2
Maternal Orphan	2,275	2
Double Orphan	391	0
Village Isolation		
Closer to district capital	113,521	45
Further from district capital	138,529	55
Household Isolation		
Closer to centre of EA	108,548	43
Further from centre of EA	143,502	57
Ethnic Fractionalisation		
Low	152,363	60
High	99,687	40

Mbulu's population is predominantly young, almost half (48 percent) of the residents in the district are under the age of 15; 95 percent are under the age of 65. There is little difference between the age distribution of residents of rural and peri-urban areas. The proportion of older people, however, is 2 percentage points lower in rural than peri-urban areas. Consequently, the median age is slightly higher in peri-urban than rural areas, at 16 and 15 years respectively. The median age across the whole of Mbulu district is 15 years.

Table 2 further shows that there are 103 dependants (people under the age of 15 and over the age of 65) to every 100 economically active individuals. This ratio is the same in both rural and peri-urban areas.

Table 9: Distribution of the Population by Age, Median Age and Dependency Ratios

	<15	15 to 64	65+	Median Age	Dependency Ratio
Mbulu District	48	47	5	15	103
Rural	49	47	4	15	103
Peri-urban	46	48	6	16	103

3.4 Household Characteristics

3.4.1 Households by Area of Residence and Household Size

There are just over 39,000 households in Mbulu district. Only 3,700 of these (9 percent) are found in peri-urban areas. Poor households constitute 62 percent of all households in the district (Table 10).

Just over half (53 percent) of households are located in villages that are located further from the district capital; some of these households are located as far as 38 kilometres from the capital. Households located further from sub-village centre are slightly more widespread than those located closer, at 55 and 45 percent respectively. 60 percent of households in the district are located in less ethnically diverse villages where the average probability of randomly selecting 2 individuals from different tribes is less than 1 percent. The average probability of this occurring in more diverse villages, where 40 percent of Mbulu's household are located, is 16 percent[6].

[6] While in the sample each of the isolation and fractionalization categories contain 50 percent of the households, once the data is weighted the categories become slightly less equal.

Table 10: Households by Area of Residence

	Weighted households	
	Total	Share of population
Mbulu District	39,235	100
Rural	35,536	91
Peri-urban	3,699	9
Poverty		
Non-poor	14,998	38
Poor	24,237	62
Village Isolation		
Closer to district capital	18,489	47
Further from district capital	20,746	53
Household Isolation		
Closer to centre of EA	17,485	45
Further from centre of EA	21,750	55
Ethnic Fractionalisation		
Low	23,350	60
High	15,885	40

Households in Mbulu district are, on average, made up of 6.3 individuals. Just less than half (45 percent) of households in Mbulu have at least 7 members; only 8 percent of households have no more than 2 members (Table 11).

Rural households tend to be larger than peri-urban households, with respective average household sizes of 6.4 and 5.5 members. The proportion of small households (1 to 2 members) is more than twice as high in peri-urban than rural areas. In contrast, while less than a third (30 percent) of peri-urban households contain more than 6 members, this is the case for just less than half (47 percent) of rural households.

Poor households are significantly larger than non-poor households containing, on average, 3 more members than non-poor households. The majority (63 percent) of poor households consist of more than 6 members, compared to only 17 percent of non-poor households. Female headed households tend to be smaller than those headed by men. While female headed households consist of, on average, 4.3 members, the average household size of male headed households is 6.6 members. Further, households headed by unemployed individuals are the smallest in the district, containing on average 4.9 members. In contrast, the average size of households in the self-employed group is 6.4 people.

Households located further from and closer to the sub-village centre and district capital do not vary in average household size by more than 0.6 members. Further, households

located in more and less ethnically diverse villages are, on average, almost the same size, at 6.2 and 6.4 members respectively.

Table 11: 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
Mbulu District	8	17	30	45	100	6.3
Rural	8	17	29	47	91	6.4
Peri-urban	18	15	38	30	9	5.5
Poverty						
Non-poor	22	37	24	17	38	4.4
Poor	0	4	33	63	62	7.5
Gender of household head						
Male	7	15	30	49	90	6.6
Female	25	33	27	16	10	4.3
Socio-economic group						
Employed	2	23	23	52	9	6.3
Self-employed	8	16	29	47	84	6.4
Unemployed	20	17	45	18	6	4.9
Village Isolation						
Closer to district capital	13	16	28	43	47	6.0
Further from district capital	5	17	31	47	53	6.6
Household Isolation						
Closer to centre of EA	11	15	32	42	45	6.1
Further from centre of EA	7	18	28	48	55	6.5
Ethnic Fractionalisation						
Low	8	15	26	50	60	6.4
High	9	19	34	39	40	6.2

3.4.2 Land Holdings

The majority (70 percent) of households in Mbulu have less than 4 acres of land. While 5 percent of households are landless, a tenth have more than 6 acres of land (Table 12).

Landless households are significantly more widespread in peri-urban than rural areas, constituting 21 percent of all households in the former areas and only 4 percent of the households in the latter areas. Further, none of the peri-urban households have more than 6 acres of land, compared to 11 percent of rural households.

Landless households are three times as widespread among non-poor households as poor ones. Trends in amount of land owned are similar between poor and non-poor land owners although the proportion of poor households with 2 to 4 acres of land is 9 percentage points higher than that of non-poor households.

Half of the landless households use land they do not own. The rate of use of land that is not owned by the household decreases with increasing size of owned land. Only 11 percent of households that have over 6 acres of land also rent land or use communal land.

Table 12: Land Holdings

	Acres of land owned by the household					
	None	< 1	1 - 2	2 – 4	4 - 6	6+
Mbulu District	5	10	19	41	15	10
Rural	4	9	19	42	16	11
Peri-urban	21	23	18	26	13	0
Poverty						
Non-poor	9	12	17	35	18	9
Poor	3	9	20	44	14	10
Land used but not owned						
None	52	68	74	83	91	89
Paid	35	20	22	12	9	9
Free	14	12	4	4	0	2

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.

3.4.3 Livestock Holdings

Table 13 shows that a quarter of households in Mbulu districts have no livestock. Just less than half of the households have both large and medium livestock; 28 percent of households hold *either* large *or* medium livestock. While the trend is consistent with that found in rural areas, trends in livestock ownership are noticeably different in peri-urban areas. Here almost half of the households (47 percent) have no livestock, 26 percent have both medium and large livestock and 27 percent hold either one of the two types.

Households with no livestock are more widespread among non-poor than poor households, constituting 36 and 20 percent of the respective households. Further, the proportion of poor households holding both medium and large livestock is higher than that of non-poor livestock owners, at 53 and 36 percent respectively.

Table 13: Livestock Holdings

	Ownership of Livestock			
	None	Medium only	Large only	Both
Mbulu District	26	8	20	47
Rural	24	7	20	49
Peri-urban	47	12	15	26
Poverty				
Non-poor	36	9	19	36
Poor	20	7	20	53

3.5 Characteristics of Household Heads

3.5.1 Gender and Marital Status of Household Heads

The majority of households in Mbulu district are headed by men (90 percent), as shown in Table 14. Female headed households are significantly more common in peri-urban than rural areas, at 30 and 8 percent respectively. Further, the majority (77 percent) of the household heads across the district are in a monogamous marriage. The second largest group of household heads are in a polygamous marriage, at 8 percent. Polygamous and divorced household heads are more widespread in peri-urban than rural areas, while the proportion of heads in a monogamous marriage in rural areas exceeds that in peri-urban areas by 20 percentage points.

Table 14: Gender and Marital Status of Household Heads

	Gender		*Marital Status*					
	Male	Female	Single	Monog-amous	Polyga-mous	Widowed	Divorced	Separated
Mbulu District	35,191	4,044	920	30,108	2,947	2,803	1,127	1,329
	90	10	2	77	8	7	3	3
Rural	32,601	2,935	826	27,924	2,516	2,453	838	979
	92	8	2	79	7	7	2	3
Peri-urban	2,590	1,109	94	2,185	431	350	289	350
	70	30	3	59	12	9	8	9

3.5.2 Household Heads by Socio-Economic Group

The great majority (84 percent) of household heads are in the self-employed group (Table 15). Employees of the private and government sectors constitute the second largest group of household heads, at 9 percent. Only 6 percent of the household heads were unemployed at the time of the survey. While this trend is a representative of rural areas, in peri-urban areas employment in private and government sectors is significantly more widespread than in rural areas, occupying a quarter of the household heads. Further, the

proportion of unemployed household heads is twice as high in peri-urban than rural areas, at 12 and 6 percent respectively.

Table 15: Household Heads by Socio-Economic Group

	Socio-economic group		
	Employed	Self-employed	Unemployed
Mbulu District	3,707	33,108	2,421
	9	84	6
Rural	2,792	30,749	1,995
	8	87	6
Peri-urban	914	2,359	425
	25	64	12

3.5.3 Household Heads by Education

Table 16 shows that the largest proportion of household heads (44 percent) have completed primary education. Household heads with no formal education constitute the second largest sub-group, at 33 percent. Only 4 percent of household heads have some secondary education and none completed secondary education. The proportion of household heads who completed primary education is higher in peri-urban than rural areas, at 55 and 43 percent respectively. In contrast, household heads with no education or incomplete primary education are more widespread in rural than peri-urban areas.

Table 16: Household Heads by Education

	Highest Grade Completed				
	None	Some primary	Complete primary	Some secondary	Complete secondary
Mbulu District	13,034	7,176	17,364	1,524	53
	33	18	44	4	0
Rural	11,968	6,835	15,344	1,336	53
	34	19	43	4	0
Peri-urban	1,065	341	2,020	188	0
	29	9	55	5	0

4 EDUCATION

4.1 Introduction

This chapter examines selected education indicators. The first part focuses on some adult[7] education indicators. These include literacy rate, rate of participation in formal education and average number of years spent in school. The second part of the chapter discusses selected education indicators for the population of primary school age (7 to 13 years). Data presented in this section includes primary school access and enrolment rates, as well as levels of and reasons for dissatisfaction with primary school. The following section analyses some secondary education indicators. These include secondary school access, enrolment and non-attendance rates. A comparison of core education indicators in Mbulu to those of other rural districts in Tanzania concludes the chapter.

4.2 Selected Adult Education Indicators

4.2.1 Literacy

Literacy is one of the main adult education indicators informed on by the Mbulu District CWIQ. Literacy is defined as the ability to read and write in any language, as reported by the respondent[8]. Individuals who are able to read but can not write are considered illiterate.

Overall, 68 percent of adults in Mbulu district are literate. While this literacy rate is representative of rural areas, it is significantly higher in peri-urban areas, at 74 percent (Table 17). Literacy rate among men is also significantly higher than that among women, at 74 and 61 percent respectively.

The results of the survey further indicate that out of the examined household characteristics, socio-economic group and household isolation are most correlated with literacy rate. The proportion of literate adults in households headed by unemployed individuals is significantly lower than that of adults from households headed by employed individuals, at 50 and 74 percent respectively. Further, literacy rate is higher in more central parts of the sub-village. Lastly, while the proportion of literate individuals from poor households is slightly lower than that from non-poor households, the difference is only 5 percentage points.

[7] All individuals aged 15 and up are classed as adults in this chapter.
[8] Note that this result is based solely on the respondents' assertions. Independent tests were not conducted to determine literacy rates.

Neither of the examined village characteristics, proximity to district capital nor level of ethnic diversity, appear to be correlated with adult literacy rate.

4.2.2 Formal Schooling Rate

Formal schooling rate is another useful indicator of the adult education level. It informs on the proportion of adults in the district who have received formal schooling at some point in their life. Roughly 93,000 out of 130,000 adults in the district (72 percent) had attended school at some point. Overall, the formal schooling rate tends to be up to 5 percentage points higher than the literacy rate. The trend in this indicator across selected sub-groups in the population is similar to that in literacy rate (Table 17).

4.2.3 Average Years of Schooling

Results of the survey further show that adults who had gone to school had on average spent 4.5 years in formal education (Table 17). Individuals from rural areas spend an average of a year less in formal education than those in peri-urban ones. Men tend to stay at school half a year longer than women.

Disaggregaion of the adult population by selected household characteristics shows that variation in average time spent at school is most substantial between individuals from different socio-economic groups. While, members of households headed by employed individuals, who had gone to school, had spent an average of 5.3 years in formal education, those from households headed by unemployed individuals did so for only 3.2 years. Although less substantial, there is also some correlation between average time spent at school and household poverty status, as well as location of the household in the sub-village. Members of poor households and those of households located further from the sub-village centre tend to spend an average of between three and four fifths of a year less at school than those from non-poor households and households located closer to the centre of the sub-village.

Table 17: Selected Adult Education Indicators (age 15+)

	Literacy Rate[1]	Formal Schooling Rate [2]	Average Years of Schooling[3]	Share of Population
Mbulu District	88,024	93,150	4.5	130,185
	68	72		100
Rural	79,709	84,645	4.4	119,004
	67	71		91
Peri-urban	8,315	8,505	5.3	11,181
	74	76		9
Poverty				
Non-poor	28,913	30,075	4.9	40,960
	71	73		31
Poor	59,111	63,075	4.3	89,225
	66	71		69
Socio-economic group				
Employed	8,669	9,129	5.3	11,793
	74	77		9
Self-employed	75,393	79,820	4.5	110,532
	68	72		85
Unemployed	3,963	4,201	3.2	7,859
	50	53		6
Gender				
Male	50,047	52,138	4.7	67,892
	74	77		52
Female	37,978	41,013	4.2	62,293
	61	66		48
Village Isolation				
Closer to district capital	39,260	41,020	4.4	59,756
	66	69		46
Further from district capital	48,764	52,130	4.5	70,430
	69	74		54
Household Isolation				
Closer to EA centre	41,526	43,723	4.9	57,455
	72	76		44
Further from EA centre	46,498	49,428	4.1	72,730
	64	68		56
Ethnic Fractionalisation				
Low	54,113	56,853	4.6	78,908
	69	72		61
High	33,911	36,297	4.3	51,278
	66	71		39

[1] Proportion of population over the age of 14 who are able to read and write
[2] Proportion of population over the age of 14 who attended school at some point
[3] 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

Distance

Table 18 shows the cumulative distribution of the population of Mbulu by distance from their households to the nearest primary school. The distance is calculated using household and primary school GPS coordinates.[9]

The great majority (80 percent) of Mbulu's residents live less than 2 kilometres away from the nearest primary school. Further, almost half (48 percent) of Mbulu's population live less than 1 kilometre away from a primary school. This proportion is significantly higher in peri-urban than in rural areas, at 75 and 45 percent respectively. Only 5 percent of individuals in the district live more than 6 kilometres away from a primary school.

The results further suggest that proximity to the nearest primary school is correlated with a number of household characteristics, including household size, socio-economic group and distance from the household to the sub-village centre. On average, larger households appear to be located slightly closer to primary schools than smaller households. While 39 percent of individuals living in 1 to 2 person households are less than a kilometre away from the nearest primary school, this the case for more than half (54 percent) of individuals living in 5 to 6 person households. Further, a significantly higher proportion of members of households headed by employed individuals live less than a kilometre away from the nearest primary school than that of members of households in the self-employed group, at 65 and 46 percent respectively. Individuals from the unemployed group are more likely to live at least 6 kilometres from the nearest primary school than those from the other two socio-economic groups. Finally, proximity to the sub-village centre appears to be positively correlated with proximity to the nearest primary school. Residents of households located closer to the sub-village centre live no further than 3 kilometres from the nearest primary school, while a tenth of those living further from the sub-village centre are also more than 6 kilometres away from the nearest primary school.

Distance from the village to the district capital is less correlated with proximity to the nearest primary school than the level of ethnic diversity within the village. Only 1 percent of residents of less fractionalised villages live more than 6 kilometres away from the nearest primary school, compared to 14 percent of residents of more ethnically diverse areas.

[9] See Chapter 1 for a more detailed explanation of this measurement.

Table 18: Cumulative Distribution of Population by Distance From Their Household to the Nearest Primary School (in kilometres of travel) – GPS Measurement

	Less than 1 km	Less than 2 km	Less than 3 km	Less than 4 km	Less than 6 km	Share of population
Mbulu District	48	80	91	93	95	100
Rural	45	78	89	92	94	92
Peri-urban	75	93	97	97	97	8
Poverty						
Non-poor	52	80	92	92	94	27
Poor	46	79	89	92	94	73
Household size						
1 to 2	39	76	90	90	90	2
3 to 4	42	76	90	90	91	9
5 to 6	54	84	92	93	94	26
7+	46	78	89	92	94	62
Socio-economic group						
Employed	65	87	90	90	99	10
Self-employed	46	79	91	94	95	86
Unemployed	51	74	82	86	86	5
Village Isolation						
Closer to district capital	46	82	90	90	91	45
Further from district capital	49	77	90	94	96	55
Household Isolation						
Closer to EA centre	43	91	100	100	100	43
Further from EA centre	51	70	83	87	90	57
Ethnic Fractionalisation						
Low	40	79	92	96	99	60
High	59	79	86	86	86	40

Access

Primary school access rate is defined as the proportion of primary school age children (7 to 13 years) reporting to live within 30 minutes of travel from the nearest primary school.

Just less than half (47 percent) of primary school age children in Mbulu district are able to get to a primary school within 30 minutes of travel (Table 19). Access rate does not vary by gender. In contrast, it is nearly twice as high in peri-urban than rural areas, at 80 and 44 percent respectively.

Disaggregation of the data by selected household characteristics shows that the primary school access rate varies most by socio-economic group. Access rate is lowest in the

self-employed group where only 45 percent of 7 to 13 years olds are able to get to a primary school within 30 minutes of travel, compared to 72 percent of children in the unemployed group and 56 percent of children in the employed group. Although the access rate among children from non-poor households is slightly higher than that among children from poor households, the difference is only 6 percentage points and is not statistically significant. The location of the household within the sub-village does not appear to be at all correlated with this education indicator.

While proximity of the village to the district capital also does not appear to be correlated with primary school access rate, children living in more ethnically diverse areas are more likely to have access to a primary school than those living in ethnically homogeneous places, with respective access rates of 54 and 43 percent.

4.3.2 Enrolment

There are two main measures of enrolment: the Gross Enrolment Rate (GER) and the Net Enrolment Rate (NER). Both of these measurements are examined in this section.

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

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 in this age-group in the district.

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

At the time of the survey, the primary school GER in Mbulu was 126 percent (Table 19). This figure indicates that all individuals who are at primary school constitute 126 percent of all children of primary school age in the district. The Net Enrolment Rate further shows that 83 percent of all primary school age children were attending primary school at the time of the survey. While the NER among girls is only 5 percentage points higher than that among boys, the GER among boys is 21 percentage points higher than that among girls. The NER is lower in rural areas of Mbulu than in peri-urban ones, at 82 and 91 percent respectively. In contrast, the rural GER exceeds the peri-urban one by 12 percentage points.

Disaggregation of the enrolment data by selected household characteristics shows that primary school enrolment rates vary most by household poverty status and socio-economic group. The GER and the NER are positively correlated with household expenditure; the proportion of primary school age children at school from non-poor households exceeds that from poor households by 10 percentage points. The NER in highest among children from households headed by employed individuals and lowest among those from the unemployed group, at 86 and 65 percent respectively. In contrast, the GER is equal in these 2 groups and significantly higher among those from households headed by the self-employed. Variation in primary school enrolment rates among children living closer to and further from the centre of the sub-village is minimal.

While the NER does not appear to be correlated with either one of the examined village characteristics – proximity of the village to district capital or level of ethnic diversity in the village - the Gross Enrolment Rate is substantially higher in villages located further from the district capital.

4.3.3 Satisfaction

Data on satisfaction with primary school was collected by asking primary school pupils if there were any problems with the school they were attending. The satisfaction rate informs on the proportion of primary school pupils who cited no problems with their schools[10].

At the time of the survey, more than half (54 percent) of the primary school pupils expressed satisfaction with the schools they were attending (Table 19). Girls tend to be more satisfied with the schools they attend than boys. Although variation in satisfaction rates between these two groups is only 7 percentage points, it is statistically significant. The satisfaction rate is also significantly higher in peri-urban than rural areas, at 71 and 53 percent respectively.

The only household characteristic found to be significantly correlated with primary school satisfaction rate is household poverty status. While the majority (58 percent) of primary school pupils from poor households made no complaints about the schools they were attending, only 42 percent of pupils from non-poor households were equally satisfied. Further, there is some variation in satisfaction rates by socio-economic group, however, the differences between categories are below 10 percentage points and are not statistically significant. Nevertheless, pupils from the self-employed group were least satisfied, while those from the unemployed group were most satisfied. Finally, pupils from households located closer to and further from the sub-village centre were equally satisfied with the schools they were attending.

[10] 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.

Neither the proximity of the village to the district capital, nor the level of ethnic diversity in the village, were found to be significantly correlated with primary school satisfaction rates. It should be noted however, that although statistically insignificant, there is a slight difference in satisfaction rates of pupils from more and less ethnically diverse areas; those in the former group are slightly less satisfied.

Table 19: Selected Primary Education Indicators

	Access Rate[1]	Gross Enrolment Rate	Net Enrolment Rate	Satisfaction Rate[2]
Mbulu District	47	126	83	54
Rural	44	127	82	53
Peri-urban	80	115	91	71
Poverty				
Non-poor	52	134	91	42
Poor	46	123	81	58
Socio-economic group				
Employed	56	113	86	60
Self-employed	45	128	83	53
Unemployed	72	113	65	62
Gender				
Male	48	136	80	51
Female	47	115	85	58
Village Isolation				
Closer to district capital	49	114	81	58
Further from district capital	46	135	84	52
Household Isolation				
Closer to EA centre	46	125	86	56
Further from EA centre	48	126	80	53
Ethnic Fractionalisation				
Low	43	125	83	57
High	54	126	82	51

1. Reporting to live within 30 minutes travel to the nearest school
2. Proportion of children at school who cited no problem with the school

4.3.4 A Closer Look at Some of the Indicators

Education data collected in the Mbulu District CWIQ 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 more detail.

Dissatisfaction

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

Overall, less than half (46 percent) of primary school students in the district were not content with the schools they were attending at the time of the survey. The satisfaction rate (Table 19) and the dissatisfaction rate (Table 20) add up to 100 percent; trends in dissatisfaction rates are, therefore, the reverse of trends in satisfaction rates described above.

The two most prominent complaints among primary school students in Mbulu are lack of materials, such as books, as well as low quality of teaching and teacher shortages. The former complaint was cited by exactly half of the dissatisfied students, while the latter by 58 percent. While these are the most prominent complaints in rural areas, in peri-urban areas, however, overcrowding and condition of facilities were also mentioned by a substantial proportion of the students. Here facility related issues were mentioned by 42 percent of the dissatisfied pupils, compared to only 29 percent in rural areas.

Complaints relating to lack of supplies are slightly more widespread among boys than girls and are significantly more common among dissatisfied primary school students from non-poor households, than those from poor households. At 80 percent, the proportion of the reference population from households headed by unemployed individuals complaining about lack of books and supplies exceeds that from any other group. Further, lack of supplies is a more substantial problem for students from less isolated households and villages than those living more remotely. For instance, the proportion of students living close to the sub-village centre, citing this issue, is 15 percentage points higher than that of pupils who live in more remote parts of the sub-village.

Quality of teaching and lack of teachers are a much more substantial concern among dissatisfied pupils from non-poor households. In fact the great majority (84 percent) of pupils in this category cited these issues, compared to less than half (48 percent) of pupils

from poor households. This was also the most prominent concern among dissatisfied students from households headed by employed individuals; it was mentioned by two thirds of this group. Dissatisfied pupils from ethnically diverse areas complained about the teaching more than any other issue, as did pupils living further from the district capital and centre of the sub-village; in all three instances more than three fifths of the dissatisfied pupils cited this issue.

Facility related issues were mentioned less than those related to lack of supplies and teaching across all the selected sub-groups in the population. While lack of supplies and teachers, as well as quality of teaching were cited by higher proportions of dissatisfied pupils from non-poor households, pupils from poor households find overcrowding and bad condition of facilities significantly more problematic than those form non-poor households. Over a third (35 percent) of dissatisfied pupils from poor households complained about these issues, compared to only 14 percent of pupils from non-poor households. Further, students from the unemployed group are less concerned about facilities than those form the self-employed and the employed groups. Finally, the proportions of dissatisfied pupils living further from the centre of the sub-village and those living in more fractionalised parts of the district, who find facilities unsatisfactory are noticeably higher than the district average.

Problems that do not fit into any of the categories describes above (classed as 'Other') were most commonly cited by dissatisfied pupils from rural areas, those from households headed by self-employed individuals and those living further from the district capital.

Table 20: Children Currently at School and Dissatisfied with it and Reasons for Dissatisfaction

		Reasons for Dissatisfaction			
	Dissatisfaction Faction	Books/ Supplies	Teaching[1]	Facilities[2]	Other
Mbulu District	29,953	15,052	17,258	8,787	6,875
	46	50	58	29	23
Rural	28,239	14,052	16,538	8,064	6,791
	47	50	59	29	24
Peri-urban	1,714	1,000	720	723	84
	29	58	42	42	5
Poverty					
Non-poor	8,037	5,146	6,733	1,145	1,653
	58	64	84	14	21
Poor	21,916	9,906	10,526	7,643	5,222
	42	45	48	35	24

	Dissatisfaction Faction	*Reasons for Dissatisfaction* Books/ Supplies	Teaching[1]	Facilities[2]	Other
Socio-economic group					
Employed	2,935	1,683	1,972	926	84
	40	57	67	32	3
Self-employed	26,377	12,855	15,053	7,734	6,791
	47	49	57	29	26
Unemployed	641	514	234	128	0
	38	80	36	20	0
Gender					
Male	17,394	9,477	10,646	4,948	4,227
	49	54	61	28	24
Female	12,558	5,575	6,612	3,840	2,648
	42	44	53	31	21
Village Isolation					
Closer to district capital	11,565	6,517	5,672	3,305	811
	42	56	49	29	7
Further from district capital	18,387	8,535	11,587	5,482	6,064
	48	46	63	30	33
Household Isolation					
Closer to EA centre	11,836	7,031	6,012	2,051	2,447
	44	59	51	17	21
Further from EA centre	18,116	8,021	11,246	6,737	4,428
	47	44	62	37	24
Ethnic Fractionalisation					
Low	16,599	8,382	7,961	3,687	3,514
	43	50	48	22	21
High	13,353	6,670	9,297	5,101	3,362
	49	50	70	38	25

1 Teaching includes: Quality of teaching and teacher shortage
2 Facilities include: Overcrowding and bad condition of facilities

Lagging Behind at School

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

- Incidence of school attendance by children who, for whatever reasons, 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.

The analysis of the results presented in Table 21 and Table 22 help to investigate enrolment rates in Mbulu in terms of both types of trends.

Enrolment by Age

Disaggregation of enrolment rates by age and grade is presented in Table 21. If a child incurs no lag, he /she is expected to enter Standard 1 at the age of 7 and continue through to Standard 7 by the age of 13. The results show that at the age when children are supposed to begin school (7 years), 44 percent actually attend school. Further, only about 1 out of 3 seven year olds is in the correct grade, as indicated by the Standard 1 Net Enrolment Rate of 34 percent.

Trends in the Gross Enrolment Rate throughout primary school show that the intake of pupils as a proportion of all children in the age-group is highest in Standards 3 and 4. For instance, for every 100 children who are 10 years old, there are 180 pupils in Standard 4. The lowest primary level GER is in Standard 7, where to every 100 children who are 13, there are only 67 pupils in Standard 7.

In consistency with trends in the GER there is an overall downward trend in the NER throughout primary school. While 34 percent of 7 year olds were in Standard 1 at the time of the survey, only 1 percent of 13 year olds were in Standard 7. The most substantial decline in the NER occurs between Standards 4 and 5, when it drops from 15 to 3 percent.

Finally, the attendance rate shows the proportion of children in each age-group who are at school, irrespective of the grade. Unlike the GER and NER, the attendance rate steadily increases between the ages of 7 and 13. In fact, while only 44 percent of 7 year olds were receiving some formal education at the time of the survey, this category contains nearly all 13 year-olds, at 96 percent. The largest increase in attendance rates occurs between the ages of 7 and 8, when it increases from 44 to 78 percent.

Table 21: Enrolment by Age

	Age in Years	Corresponding Grade	Gross Enrolment Rate[1]	Attendance Rate[2]	Net Enrolment Rate[3]
Primary School	7	Standard 1	118	44	34
	8	Standard 2	130	78	35
	9	Standard 3	182	85	28
	10	Standard 4	180	92	15
	11	Standard 5	129	96	03
	12	Standard 6	71	92	00
	13	Standard 7	67	96	01

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 22 further shows the age distribution of children in each grade of primary school, as well as the average lag incurred between the ages of 7 and 19. This table provides further insight into the trends observed in Table 21.

There is a distinct downward trend in the proportion of children of the right age in each grade of primary school. While 31 percent of children in Standard 1 are in the correct age group, this proportion declines to 2 percent in Standard 7. Further, only 2 percent of pupils in Standard 7 are younger than the correct age for the grade, while 96 percent are older. On average, by the age of 13, school going children in Mbulu lag behind by 2.9 years; by the age of 16 this lag increases to 4.1 years for children who are still in primary school. Individuals between the ages of 17 and 19 constitute substantial proportions of pupils in higher grades of primary school, starting from Standard 5. In fact, they make up the majority of Standard 7 pupils. Individuals in this age-group, who are still in primary school, incur an average lag of 4.5 years.

Table 22: 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	7	0	0	0	0	0
8	0.5	35	27	3	1	0	0	0
9	0.9	14	22	16	1	0	0	0
10	1.4	13	18	25	8	0	0	0
11	2.1	6	14	21	11	2	2	0
12	2.3	0	5	18	23	10	0	2
13	2.9	0	1	11	21	17	8	2
14	3.4	0	3	6	19	23	14	10
15	3.9	0	1	1	12	18	34	6
16	4.1	0	0	0	4	14	22	27
17 to 19	4.5	0	2	0	0	14	20	53
Total	2.4	100	100	100	100	100	100	100

4.4 Selected Secondary Education Indicators

The sample of individuals who were attending secondary school at the time of the survey is too small to conduct equally in-depth analysis of secondary education indicators as that of 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

Table 23 shows the cumulative distribution of the district's population by proximity of their households to the nearest secondary school. Information about the distance was obtained by asking respondents to estimate how far the nearest secondary school is to their household in kilometres.

Over a third (36 percent) of individuals in Mbulu district live at least 6 kilometres away from the nearest secondary school. Only a tenth of the district's population live within 2 kilometres from the nearest secondary school. Residents of peri-urban areas tend to live closer to secondary schools than residents of rural areas. In fact, while more than two-thirds (68 percent) of individuals in peri-urban areas live less than 3 kilometres away from the nearest secondary school, only a fifth of the rural population live this close to a secondary school..

Distribution of individuals by how far they live from the nearest secondary school varies most by household poverty status, socio-economic group and proximity of the household to sub-village centre. The proportion of individuals from non-poor households living within 2 kilometres from the nearest secondary school is more than twice as high as that of individuals from poor households, at 16 and 7 percent respectively. Further, while 30 percent of individuals in the former group live more than 6 kilometres from the nearest secondary school, nearly two-fifths of individuals from the latter group are in this situation.

Individuals from households headed by employed persons are more likely to live within 4 kilometres from the nearest secondary school than members of households headed by self-employed and unemployed persons. Finally, the proportion of residents of more central parts of the sub-village who also live within 2 kilometres from the nearest secondary school is nearly 3 times greater than that of individuals who live further from the centre of the sub-village. There appears to be little correlation between household size and proximity to secondary school.

The distribution of Mbulu's population by distance to the nearest secondary school does not vary noticeably by village characteristics. Table 23 does, however, show that residents of villages located closer to the district capital are slightly more likely to live less than 6 kilometres away from the nearest primary school than residents of more remote villages. The proportion of individuals living within 4 kilometres from the nearest secondary school is higher among residents of more ethnically diverse villages than those of homogeneous villages.

Table 23: Cumulative Distribution of Individuals by Distance From Their Household to the Nearest Secondary School (in kilometres of travel) – Respondents' Estimates

	Less than 1 km	Less than 2 km	Less than 3km	Less than 4km	Less than 6km	Share of population
Mbulu District	2	10	25	36	64	100
Rural	2	9	21	31	60	92
Peri-urban	5	22	68	88	100	8
Poverty						
Non-poor	4	16	32	47	70	27
Poor	1	7	22	31	61	73
Household size						
1 to 2	0	11	20	35	64	2
3 to 4	3	10	30	48	63	9
5 to 6	4	13	25	36	65	26
7+	1	8	24	33	63	62
Socio-economic group						
Employed	2	10	31	50	68	10
Self-employed	2	10	25	35	65	86
Unemployed	0	2	17	30	51	5
Village Isolation						
closer to district capital	2	9	25	36	69	45
Further from district capital	2	10	24	34	58	55
Household Isolation						
closer to EA centre	4	16	32	38	67	43
Further from EA centre	1	6	21	35	62	57
Tribal Fractionalisation						
Low	2	9	21	30	62	60
High	3	12	32	45	67	40

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 years) who live in households located within 30 minutes of travel from, in this case, the nearest secondary school.

Only 19 percent of secondary school age individuals in Mbulu district have access to secondary school (Table 24). While the access rates among boys and girls of secondary school age are equal, that in peri-urban areas is more than twice as high as in rural areas, at 38 and 17 percent respectively.

Disaggregation of access data by selected household characteristics shows that access is most correlated with socio-economic group. None of the individuals between the ages of 14 and 19 from the unemployed group live within 30 minutes of travel from the nearest secondary school, compared to 19 percent of those from the self-employed group and 17 percent of those from the employed group. This result should, however, be treated with caution due to constraints of the sample size. Further, the access rate among members of non-poor households is slightly higher than that among members of poor households, at 22 and 17 percent respectively. Individuals living closer to and further from the sub-village centre are equally likely to have access to secondary school.

Both of the examined village characteristics are significantly correlated with secondary school access rate. The access rate among residents of villages located further from district capital is more than 4 times higher than that among residents of villages located closer to the district capital. Further, while less than a tenth (8 percent) of secondary school age individuals living in less ethnically diverse areas are able to get to a secondary school within 30 minutes of travel, a third of those living in more diverse parts of the district are in this situation.

4.4.3 Enrolment

As described earlier, the two main measurements of enrolment are the Gross and Net Enrolment Rates. The results of the survey show that 11 percent of the district's populations of secondary school age were attending secondary school at the time of the survey. All individuals attending secondary school constitute 16 percent of all 14 to 19 year olds in the district. While the GER does not vary by gender, the NER of girls is 4 percentage points higher than that of boys. Both the GER and the NER are slightly higher in peri-urban than rural areas.

To varying degrees, there is some correlation between enrolment rates and all of the examined household characteristics. Both the GER and the NER are nearly twice as high among members of non-poor then poor households. Further, at the time of the survey none of the members of the unemployed group were in secondary school. Again, this result should be treated with caution due to constraints of the sample size. Individuals from the employed group are more likely to attend secondary school than those from the self-employed group. Finally, the GER and NER in more central parts of the sub-village are roughly twice as high as those in more remote parts of the sub-village.

While the level of ethnic diversity was not found to be correlated with secondary school enrolment rates, individuals living closer to the district capital appear to be more likely to attend secondary school than those living further away, with respective Net Enrolment Rates of 14 and 9 percent.

Table 24: Secondary School Access and Enrolment Rates

	Access	Gross Enrolment	Net Enrolment
Mbulu District	19	16	11
Rural	17	16	11
Peri-urban	38	13	08
Poverty			
Non-poor	22	22	17
Poor	17	14	9
Socio-economic group			
Employed	17	21	16
Self-employed	19	16	11
Unemployed	0	0	0
Gender			
Male	19	16	09
Female	18	15	13
Village Isolation			
Closer to district capital	8	19	14
Further from district capital	26	14	09
Household Isolation			
Closer to EA centre	19	22	16
Further from EA centre	18	11	07
Ethnic Fractionalisation			
Low	8	15	11
High	33	16	10

4.4.4 Reasons for Non-Attendance

Table 25 gives the reasons 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; 21 percent of secondary school age individuals fall into this category in Mbulu district.

The most common reasons for non-attendance include age, lack of need and failing exams. Each of these was mentioned by over a quarter of the non-attendees. As the most common reason for non-attendance, age was mentioned by as a third of the reference population. Cost was mentioned by 15 percent of non-attendees, while illness and marriage served as a deterrent to less than 5 percent of the reference population.

Table 25: Reasons for Non-Attendance Among Individuals of Secondary School Age

		Non-attendance
	Reference Population[1]	6,495 21
Reasons not currently attending	Too old	2,170 33
	Too far	0 0
	Too expensive	960 15
	Working (home/job)	0 0
	Not interested/useless/no need	1,828 28
	Illness	216 3
	Pregnancy	84 1
	Failed exam	1,664 26
	Got married	254 4
	Beaten	0 0
	Other	665 10

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

4.5 Mbulu's Education Indicators in Context

It is difficult to evaluate education trends without a context. A comparison of the trends found in Mbulu to similar areas is intended to provide this context. Table 26 shows the trends in main education indicators found in recent surveys. The indicators examined include adult literacy rate, proportion of adults who have had at least one year of formal schooling, as well as primary and secondary school Net Enrolment Rates. The surveys used for comparison include the *Household Budget Survey 2000/01,* and CWIQ surveys recently 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 trends in adult education indicators in Mbulu are comparable to those found in Kagera, Shinyanga and across the rural parts of Tanzania. The adult literacy rate lies between that found in rural districts of Shinyanga and Kagera regions.

Further, at 72 percent, the proportion of adults who have had at least one year of formal schooling slightly exceeds that found in HBS and the other CWIQs, all of which are below 70 percent.

Net Enrolment Rates in Mbulu are higher than those found in HBS, as well as Rural Shinyanga and Kagera CWIQs. At the time of the HBS survey (2000/01) 56 percent of primary school age children were in primary school across the rural areas of Tanzania. At the time of the Mbulu CWIQ (2005) this proportion was 83 percent in the district. Trends in other rural areas that have been surveyed recently show that the increase in primary school NER there has been less substantial. In rural parts of both Shinyanga and Kagera regions, Net Enrolment Rates were found to have increased to roughly 76 percent. This change is explained partly by the introduction of the Primary Education Development Plan (PEDP) (2002-2006), as part of which all primary schools are obligated to priorities 7 year-olds for acceptance into Standard 1. The PEDP also introduced other managed growth strategies that are aimed at enrolling every child between the ages of 7 and 13 years into Standard 1 by 2005.

Finally, the proportion of secondary school age individuals attending secondary school in Mbulu is more than 5 times greater than that found in rural Tanzania (HBS). Secondary school enrolment rates in Kagera and Shinyanga regions are also substantially lower than those in Mbulu.

Table 26: Mbulu's Education Indicators in Context of Rural Tanzania

	HBS – Rural Areas (2000/01)	Shinyanga Rural CWIQ (2004)	Kagera Rural CWIQ (2004)	Mbulu CWIQ (2005)
Adult Literacy	67	66	70	68
Adults with at least one year of formal education	69	67	68	72
Primary NER	56	76	77	83
Secondary NER	2	7	4	11

5 HEALTH

5.1 Introduction

This chapter examines health indicators for the population in Mbulu district. First, 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 the type of health provider used and reasons for dissatisfaction with the service received. The set of ill individuals who had not consulted a health provider is focused on next. Lastly, this chapter examines some data on village health workers and bed net use in Mbulu district.

5.2 Selected Health Indicators

5.2.1 Distance to Equipped Health Facilities

The results in Table 27 show the cumulative distribution of individuals by how close they live to the nearest equipped health facility.[11] The distance is calculated using household and equipped health facility GPS coordinates.[12]

Two fifths of the district's population live at least 6 kilometres from the nearest health facility. Only 15 percent live within 1 kilometre, while just over a quarter (27 percent) are less than 2 kilometres away. Residents of peri-urban areas tend to live closer to health facilities than those in rural areas. In fact, the majority (66 percent) of peri-urban residents live less than 1 kilometre from an equipped health facility, compared to only a tenth of rural residents. Further, 44 percent of rural population have to travel at least 6 kilometres to reach an equipped health facility; only 3 percent of peri-urban households are located this far.

Out of the examined household characteristics, household size and socio-economic group appear to be most correlated with proximity to the nearest equipped health facility. Although the proportion of individuals living within 1 kilometre from a health facility is highest among those living in 1 to 2 people households, this is also the group who are most likely to live more than 5 kilometres away. In fact, the majority of individuals in this group live at least 6 kilometres from the nearest health facility, compared to no more than two fifths of the members of larger households. Further, the proportion of individuals from the unemployed group who live less than 1 kilometre from the nearest

[11] As mentioned before, a health facility is considered to be equipped if it has the capacity to test for malaria.
[12] See Chapter 1 for more detailed explanation of this measurement.

health facility is smaller than that of individuals from the employed or self-employed groups, at 9, 19 and 15 percent respectively. Finally, individuals living closer to the sub-village centre are nearly 5 times more likely to also live less than 1 kilometre form the nearest health facility, compared to those living in more remote parts of the sub-village. In contrast, the proportions of residents of more and less isolated parts of the sub-village living more than 5 kilometres form the nearest equipped health facility are almost equal. Household poverty status is not noticeably correlated with proximity to equipped health facilities.

Both of the examined village characteristics are correlated with proximity to equipped health facilities to varying degrees. A higher proportion of households located closer to the district capital are also located more than 5 kilometres from the nearest health facility than that of households located further from the district capital, at 50 and 32 percent respectively. A more significant correlation was found between the level of ethnic diversity in the village and proximity to equipped health facilities. While nearly a quarter of individuals form more ethnically diverse areas are less than 1 kilometre from the nearest facility of interest, less than a tenth of residents of more ethnically homogeneous places are equally close. In contrast, while half of those living in the latter areas have to travel at least 6 kilometres to the nearest equipped health facility, only 28 percent of those living in the former areas are this far away.

Table 27: Cumulative Distribution of Individuals by Distance from their Households to the Nearest Equipped Health Facility

	Less than 1 km	Less than 2 km	Less than 3 km	Less than 4 km	Less than 6 km	Share of population
Mbulu District	15	27	40	52	59	100
Rural	10	21	35	48	56	92
Peri-urban	66	93	97	97	97	8
Poverty						
Non-poor	21	33	43	55	61	27
Poor	13	26	40	52	59	73
Household size						
1 to 2	25	33	42	46	46	2
3 to 4	10	26	37	50	58	9
5 to 6	19	35	51	63	67	26
7+	14	24	36	49	58	62
Socio-economic group						
Employed	19	29	31	52	54	10
Self-employed	15	27	41	53	61	86
Unemployed	9	26	46	48	55	5
Village Isolation						
Closer to district capital	16	28	34	48	50	45
Further from district capital	14	26	45	56	68	55

	Less than 1 km	Less than 2 km	Less than 3 km	Less than 4 km	Less than 6 km	Share of population
Household Isolation						
Closer to centre of EA	27	36	43	56	61	43
Further from centre of EA	6	21	39	51	59	57
Ethnic Fractionalisation						
Low	9	19	32	46	51	60
High	24	39	52	62	72	40

5.2.2 Access to Health Services

Health facility access rate is defined as the proportion of individuals living within 30 minutes travel from the nearest health facility. Judgment of the time it takes to travel to the facility as well as what is classed as a health facility is left to the discretion of the respondent.

Only 17 percent of individuals in the district report living within 30 minutes of travel from the nearest health facility (Table 28). In peri-urban areas, however, this access rate is nearly 3 times as high, at 48 percent. Disaggregation of access data by age shows some fluctuation; the differences do not exceed 5 percentage points, however, and are not statistically significant.

Household characteristics found to be correlated with access rate include socio-economic group, gender of the household head and household isolation. While a fifth of members of households headed by employed individuals have access to health facilities, only 8 percent of individuals from the unemployed group live this close. The proportion of individuals with access to health facilities in households headed by men is twice as high as that of individuals from households headed by women. The access rate among those living closer to the sub-village centre is 9 percentage points higher than that among individuals living in more remote parts of the sub-village. Finally, equal proportions of individuals from poor and non-poor households report having access to health facilities.

In addition to the household characteristics discussed above, some village characteristics also appear to be correlated with access rate. Access to health facilities is slightly higher among individuals living further form the district capital and those in more ethnically diverse areas. The differences between the groups do not, however, exceed 8 percentage points and are not statistically significant.

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 fifth of all individuals in Mbulu district had been ill in the 4 weeks preceding the survey (Table 28). This was the trend in both rural and peri-urban areas. Out of the examined characteristics, age was found to have the strongest correlation with rate of need. Incidence of illness was highest among the elderly (65+ years). The rate of need in this group exceeds the district average by 16 percentage points. In contrast, the proportion of individuals between the ages of 10 and 14 who had been ill in the 4 weeks preceding the survey is almost half of the district average. Overall, the results of the survey show that rate of need increases with age.

Disaggregation of the data by household characteristics shows some variation in rates need by gender of the household head and socio-economic groups. Reported incidence of illness is lower among individuals from male headed households. Further, need is highest in households headed by unemployed individuals and lowest among those from the employed group, at 35 and 17 percent respectively. Variation in rates of need by household poverty status and the location of the household in relation to the centre of the sub-village does not exceed 4 percentage points.

Incidence of illness is equally widespread in villages located closer to and further from the district capital, as well as more and less ethnically diverse villages.

5.2.4 Use of Health Services

The rate of health facility 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 16 percent of Mbulu's residents had consulted a health provider in the 4 weeks preceding the survey (Table 28). This rate of use is 5 percentage points below that of need. There is only 1 percentage point difference in the rates of use between rural and peri-urban areas.

The greatest variation in rates of use was observed between different age-groups and socio-economic groups. While only 6 percent of individuals between the ages of 10 and 14 had consulted a health provider in the 4 weeks preceding the survey, this was the case for nearly a quarter of 0 to 5 and 65+ year olds. Rates of use were also above average among individuals between the ages of 30 and 64.

In consistency with trends in incidence of illness, the rate of use was highest among individuals from households headed by unemployed individuals and lowest among those from the employed group, at 28 and 15 percent respectively. Variation in rates of use among individuals from households characterized by different poverty status and gender of household head was minimal. Similarly rates of use did not vary significantly by

location of the household in relation to the sub-village centre and the district capital, as well as the level of ethnic diversity in the village.

5.2.5 Satisfaction with Health Services

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

Overall, roughly two thirds (67 percent) of those who had used health services were satisfied (Table 28). Patients from peri-urban areas were significantly more satisfied with health services received than those from rural areas, with respective satisfaction rates of 89 and 65 percent.

Individuals aged 65 years and above were least satisfied; only 57 percent of these elderly health facility users had no complaints regarding the services received, compared to 75 percent of the younger users (0 to 4) and between 60 and 70 percent of users in the rest of the age-groups.

Socio-economic group and household isolation are most correlated with satisfaction out of the examined household characteristics. Health facility users from households headed by self-employed individuals were most satisfied, while those from households headed by employed individuals were least satisfied. There is also a slight difference in satisfaction rates among individuals from households located closer to and further from the sub-village centre, at 64 and 69 percent respectively.

Both of the selected village characteristics, village isolation and ethnic fractionalization appear to be correlated with satisfaction. Residents of villages located further from district capital and in more ethnically fractionalised areas are more satisfied than those of more remote and ethnically homogeneous parts of the district.

Table 28: Selected Health Indicators

	Access[1]	Need[1]	Use[1]	Satisfaction[2]
	lives within 30 minutes from health facility	Has been sick in past four weeks	has used a health facility in past 4 weeks	has used a health facility and was satisfied with it
Mbulu District	43,599	54,047	41,338	27,609
	17	21	16	67
Rural	33,749	49,608	37,895	24,535
	15	21	16	65
Peri-urban	9,850	4,439	3,444	3,074
	48	21	17	89
Poverty				
Non-poor	12,116	16,222	12,208	8,116
	18	24	18	66
Poor	31,483	37,825	29,130	19,493
	17	20	16	67
Socio-economic group				
Employed	4,872	4,216	3,711	2,166
	20	17	15	58
Self-employed	37,700	45,635	34,282	23,260
	17	21	16	68
Unemployed	1,028	4,196	3,345	2,183
	8	35	28	65
Gender of household head				
Male	41,957	49,130	38,273	25,623
	18	21	16	67
Female	1,642	4,917	3,065	1,986
	9	28	17	65
Age				
0 to 4	8,187	12,353	11,095	8,290
	18	27	24	75
5 to 9	7,624	5,519	4,134	2,562
	19	14	10	62
10 to 14	5,545	4,054	2,296	1,492
	15	11	6	65
15 to 29	9,944	10,880	8,103	4,642
	16	18	13	61
30 to 49	8,064	12,687	9,659	6,468
	19	30	23	67
50 to 64	2,082	4,262	3,232	2,252
	14	29	22	70
65+	2,153	4,292	2,819	1,604
	19	37	24	57

	Access[1]	Need[1]	Use[1]	Satisfaction[2]
	lives within 30 minutes from health facility	Has been sick in past four weeks	has used a health facility in past 4 weeks	has used a health facility and was satisfied with it
Village Isolation				
Closer to district capital	16,197	24,446	18,449	11,630
	14	22	16	63
Further from district capital	27,402	29,601	22,889	15,979
	20	21	17	70
Household Isolation				
Closer to centre of EA	24,284	23,936	19,048	12,179
	22	22	18	64
Further from centre of EA	19,315	30,111	22,291	15,430
	13	21	16	69
Ethnic Fractionalisation				
Low	21,996	31,288	24,087	15,047
	14	21	16	62
High	21,603	22,759	17,251	12,562
	22	23	17	73

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

Table 29 shows the disaggregation of the health data by illness. Types of illness reported have been divided into 3 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, ear, nose and throat problems.

Two thirds of the individuals who had been ill in the 4 weeks preceding the survey had suffered from fever, malaria or diarrhoea. Chronic disorders were least widespread; this was the cause of illness for only 15 percent of all those who had been ill in the specified time-period. Other disorders, such as dental problems, ear, nose and throat infections and injuries were reported by just over a quarter (27 percent) of individuals from the reference population. While chronic conditions are almost equally widespread in rural and peri-urban areas, both malarial symptoms and other disorders, such as injuries and infections, are slightly more common in rural than peri-urban areas.

Disaggregation of data by selected characteristics shows that incidence of fever, malaria and diarrhoea are most correlated with age. As can be seen from Table 29, there is a steady decline in the proportion of individuals suffering from these illnesses with age. While 80 percent of toddlers (under 5 years) who had been ill in the 4 weeks preceding the survey had been afflicted with symptoms of malaria, only half of the elders who had been ill (65+ years) suffered from the same disorders. Further, a slightly higher

proportion of members of non-poor household suffered from malaria in the 4 weeks preceding the survey than those from poor households, at 72 and 65 percent respectively. A more substantial difference was found between proportions of individuals experiencing this illness from households located closer to and further from the centre of the sub-village, at 74 and 62 percent respectively.

Age was also found to be correlated with incidence of chronic conditions. The trend in occurrence of this illness is the reverse of that of fever, malaria and diarrhoea. While among the youngest group only 4 percent cited chronic disorders, in the oldest group (65+) this proportion constitutes 29 percent of those who had been ill in the specified time-period. Incidence of such disorders increases most drastically between the ages of 30 - 49 and 50 - 64. Although less substantial, some difference was also observed between proportions of individuals from more and less ethnically fractionalised areas suffering from chronic disorders, at 10 and 18 percent respectively. Variation in rates of incidence of chronic conditions across the rest of the examined sub-groups is below 5 percentage points.

Other disorders, such as ear, nose and throat infection and injuries are most common among 5 and 9 year olds and individuals over the age of 49. Further, incidence of this type of illness is significantly more widespread among individuals living further from the centre of the EA and those living further from the district capital.

Table 29: Type of Illness

	Fever/Malaria/ Diarrhoea	Chronic Condition	Other[1]	Share of Population
Mbulu District	36,378	8,043	14,606	54,047
	67	15	27	100
Rural	33,571	7,302	13,657	49,608
	68	15	28	92
Peri-urban	2,808	740	949	4,439
	63	17	21	8
Poverty				
Non poor	11,663	1,888	4,387	16,222
	72	12	27	30
Poor	24,716	6,155	10,220	37,825
	65	16	27	70
Gender				
Male	17,951	3,368	7,136	25,943
	69	13	28	48
Female	18,427	4,675	7,470	28,104
	66	17	27	52

	Fever/Malaria/ Diarrhoea	Chronic Condition	Other[1]	Share of Population
Age				
0 to 4	9,848	527	2,795	12,353
	80	4	23	23
5 to 9	3,700	149	2,078	5,519
	67	3	38	10
10 to 14	2,656	431	1,106	4,054
	66	11	27	8
15 to 29	7,362	1,950	2,351	10,880
	68	18	22	20
30 to 49	8,121	2,426	3,260	12,687
	64	19	26	23
50 to 64	2,602	1,302	1,502	4,262
	61	31	35	8
65+	2,090	1,258	1,514	4,292
	49	29	35	8
Village Isolation				
Closer to district capital	17,174	3,621	5,433	24,446
	70	15	22	45
Further from district capital	19,204	4,421	9,173	29,601
	65	15	31	55
Household Isolation				
Closer to centre of EA	17,794	3,344	4,610	23,936
	74	14	19	44
Further from centre of EA	18,584	4,699	9,997	30,111
	62	16	33	56
Ethnic Fractionalisation				
Low	20,183	5,669	8,829	31,288
	65	18	28	58
High	16,196	2,374	5,778	22,759
	71	10	25	42

1 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

5.3.1 Type of Health Care Provider

Health data collected as part of the Mbulu District CWIQ also informs on the types of health facilities used in the month preceding the survey. As shown in Table 30, pharmacies are the most popular choice of health facilities; two fifths of those who had used a health service in the 4 weeks preceding the survey, had used a pharmacy. A similar proportion (36 percent) of health facility users had chosen public facilities, while

just less than a quarter (23 percent) went to private health providers. Traditional healers were consulted by the smallest proportion of only 3 percent of the health facility users.

Both public and private health facilities were more widely used in rural than peri-urban areas; proportions of public and private health facility users in rural areas exceeded those in peri-urban ones by roughly 10 percentage points. In contrast, while the majority (60 percent) of peri-urban health facility users consulted a pharmacy, this was only the case among 37 percent of rural users. Traditional healers were not consulted in peri-urban areas at all.

All selected household characteristics appear to be correlated with choice of health facilities. The results suggest that individuals from poor households consult public health facilities more than those form non-poor households. In contrast, individuals from non-poor households are slightly more likely to go to a pharmacy. Individuals from households headed by unemployed individuals used private health facilities more than those from households headed by the self-employed or the employed. The proportion of individuals from households headed by employed individuals using public health facilities, on the other hand, is 11 percentage points higher than that of the unemployed, at 42 and 31 percent respectively. Further, traditional healers are only used by individuals from households headed by the self-employed and the unemployed. Finally, the proportion of individuals using public health facilities is 12 percentage points higher among those living centrally within the sub-village than those living more remotely.

Choice of health facility appears to also vary by some village characteristics. Public health facilities are more likely to be used by individuals living closer to the district capital than those living further away, at 41 and 31 percent respectively. Private facilities, on the other hand, are used more by individuals living further from district capital. Individuals from less ethnically fractionalised villages tend to use public health facilities more than those from more diverse areas. Residents of more fractionalised villages, on the other hand, consult private health facilities and pharmacies at a higher rate. For instance, while only a third of health facility users from less diverse areas chose to consult a pharmacy in the 4 weeks preceding the survey, this was the case for nearly half of health facility users from more diverse villages.

Table 30: Type of Health Provider Used

	Private	Public	Traditional	Pharmacy	Share of Population
Mbulu District	8,805	13,840	988	14,986	38,704
	23	36	3	39	100
Rural	8,364	12,938	988	12,969	35,345
	24	37	3	37	91
Peri-urban	441	901	0	2,017	3,359
	13	27	0	60	9
Poverty					
Non-poor	2,521	3,020	236	5,398	11,176
	23	27	2	48	29
Poor	6,283	10,820	753	9,588	27,528
	23	39	3	35	46
Socio-economic group					
Employed	864	1,498	0	1,169	3,530
	24	42	0	33	9
Self-employed	6,783	11,311	897	12,824	31,901
	21	35	3	40	82
Unemployed	1,158	1,031	91	993	3,273
	35	31	3	30	8
Village Isolation					
Closer to district capital	2,971	7,087	626	6,420	17,104
	17	41	4	38	44
Further from district capital	5,834	6,753	362	8,566	21,600
	27	31	2	40	56
Household Isolation					
Closer to centre of EA	3490	7,503	336	6,446	17,776
	20	42	2	36	46
Further from centre of EA	5,314	6,336	652	8,540	20,928
	25	30	3	41	54
Ethnic Fractionalisation					
Low	4,289	9,772	665	7,395	22,207
	19	44	3	33	57
High	4,515	4,068	323	7,591	16,497
	27	25	2	46	43

5.4 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. These problems

can be categorised into 4 groups. The first of these groups is 'Facilities'; it contains those who complain about long waits and/or low levels of hygiene. The second group is 'Cost'; this group is made up of those who complain about costs of health services. Those who mentioned shortages of trained professionals and unsuccessful treatment were allocated to the third group – 'Services'. Finally, complaints regarding lack of supplies and medication were combined into the fourth group – 'Lack of supplies'.

Trends in the dissatisfaction rate (Table 31) are the reverse of those in the satisfaction rate (Table 28), as the satisfaction and dissatisfaction rates add up to 100 percent. Overall, a third of health facility users were not satisfied with the services received.

Complaints regarding long waits and/or low levels of hygiene in health facilities were least widespread; just over a quarter of dissatisfied users (27 percent) mentioned this issue. While this is the situation in rural areas, the great majority (82 percent) of dissatisfied health facility users in peri-urban areas cited these problems. Further, dissatisfied individuals from non-poor households complained about facilities slightly more than those from poor households. The proportion of dissatisfied users from the employed group citing facilities is nearly twice as high as that of individuals from the self-employed group and more than 12 times as high as that of individuals from the unemployed group, at 49, 26 and 4 percent respectively. Facilities were more of a problem for users of public health facilities than of other types of health services; however, the proportion of private health facility users citing this issue is only 6 percentage points lower. This complaint is also more widespread among users from less isolated areas, both at household and village level. In fact, the proportion of dissatisfied users mentioning this issue is more that 3 times higher among those living closer to the district capital than those living further, at 41 and 13 percent respectively. Finally, dissatisfied health facility users from less ethnically diverse areas are twice as likely to complain about the condition of the health facilities as those from more diverse villages.

Complaints about the cost and quality of health service provision, as well as those referring to lack of necessary supplies, were each cited by just under a third (32 percent) of dissatisfied users. Disaggregation of the data by selected household and village characteristics, however, shows different trends.

Cost of services is a significantly more widespread complaint among health facility users from rural households. Similarly, the proportion of dissatisfied users from non-poor households citing this issue is 14 percentage points higher than that of users from poor households. In consistency with the trend in complaints regarding facilities, cost is much more of an issue for individuals from households headed by employed individuals than those from households headed by the self-employed and the unemployed. Further cost is a problem for users of all types of health facilities. However, it concerns users of traditional healers and pharmacies most; over half of the dissatisfied users of both of these facilities complained about cost, compared to less than a fifth (18 percent) of dissatisfied public health facility users. Cost is an equally widespread complaint among dissatisfied health facility users living closer to and further from the sub-village centre and district capital, as well as residents of more and less ethnically diverse areas.

Quality of service provision is a significantly more common complaint in rural than peri-urban areas, at 32 and 4 percent of the respective dissatisfied health facility users. As with cost, quality of services is a more widely cited compliant among health facility users from non-poor households. Further, three quarters of dissatisfied users from households headed by unemployed individuals cited these issues, compared to a quarter of the dissatisfied users from households headed by self-employed individuals. Dissatisfied users of private health facilities, as well as patients of traditional healers, complained about quality of services more than users of any other facilities. Quality of services is also more of a problem among dissatisfied users living further from the sub-village centre. Proportions of the reference population citing these issues do not vary by village isolation and ethnic fractionalisation.

Finally, lack of necessary supplies is a more widespread complaint among dissatisfied health facility users in rural areas and individuals from poor households. In fact, the proportion of dissatisfied users from poor households complaining about lack of supplies is 3 times that of dissatisfied users from non-poor households. Further, while 37 percent of dissatisfied health facility users from the self-employed group mentioned this issue, only 3 percent of those from the employed group did so. Lack of supplies is a more common problem among users of public health facilities than those of other health facilities. Individuals from more and less isolated and ethnically diverse areas were equally concerned about lack of supplies.

As can be seen, gender is not at all correlated with any of the reasons for dissatisfaction. In fact, even the difference in the dissatisfaction rate itself between male and female users (30 and 37 percent) is not statistically significant.

Table 31: Reasons for Dissatisfaction with Health Services

		Reasons for Dissatisfaction[1]			
	Dissatis-faction	Facilities	Cost	Service	Lack of supplies
Mbulu District	13,729	3,700	4,438	4,330	4,337
	33	27	32	32	32
Rural	13,360	3,399	4,386	4,314	4,243
	35	25	33	32	32
Peri-urban	370	301	52	16	94
	11	82	14	4	25
Poverty					
Non-poor	4,092	1,330	1,699	1,653	550
	34	33	42	40	13
Poor	9,637	2,370	2,739	2,677	3,787
	33	25	28	28	39

	Dissatis-faction	*Reasons for Dissatisfaction*[1]			
		Facilities	Cost	Service	Lack of supplies
Socio-economic group					
Employed	1,545	760	657	787	49
	42	49	43	51	3
Self-employed	11,022	2,892	3,676	2,667	4,084
	32	26	33	24	37
Unemployed	1,162	49	105	876	204
	35	4	9	75	18
Gender					
Male	5,971	1,597	1,927	1,714	1,918
	30	27	32	29	32
Female	7,758	2,104	2,511	2,616	2,419
	37	27	32	34	31
Type of provider					
Private	1,769	543	639	1,040	83
	20	31	36	59	5
Public	7,557	2,804	1,338	2,190	3,582
	48	37	18	29	47
Traditional	286	0	167	119	0
	25	0	58	42	0
Pharmacy	3,807	352	2,153	812	671
	25	9	57	21	18
Other	85	0	0	85	0
	100	0	0	100	0
Village Isolation					
Closer to district capital	6,819	2,818	2,350	1,995	2,110
	37	41	34	29	31
Further from district capital	6,910	882	2,088	2,335	2,227
	30	13	30	34	32
Household Isolation					
Closer to centre of EA	6,868	2,308	2,164	1,816	2,267
	36	34	32	26	33
Further from centre of EA	6,861	1,392	2,274	2,514	2,070
	31	20	33	37	30
Ethnic Fractionalisation					
Low	9,041	2,900	3,003	2,948	2,925
	38	32	33	33	32
High	4,689	800	1,435	1,382	1,412
	27	17	31	29	30

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%.

5.5 Reasons for Not Consulting a Health Provider When Ill

Table 32 shows the rate of health service non-use among those who had been sick in the 4 weeks preceding the survey. Further it shows the distribution of non-users by reasons for non-use.

More than a quarter (28 percent) of those who had been ill in the month preceding the survey had not consulted a health provider. While rates of non-use among individuals from rural and peri-urban areas, as well as non-poor and poor households are almost equal, that among individuals from households headed by the employed is 12 percentage points lower than the district average, at 16 percent. There appears to be little correlation between non-consultation rates and gender, type of illness, or location of the household in the sub-village. There is also little variation in consultation rates between ill individuals living closer to and further from the district capital, as well as those in more and less ethnically diverse areas.

The main reason for not consulting a health provider in time of illness in Mbulu is lack of need. Half of those who had been ill in the 4 weeks preceding the survey and had not consulted a health provider gave this reason. This is a significantly more widespread cause for non-use in peri-urban than rural areas. In fact the great majority (87 percent) of peri-urban residents who had been ill and had not consulted a health provider gave this reason, compared to less than half (47 percent) of the reference population from rural areas. Lack of need is a slightly more widespread reason for non-use among individuals from poor households and is a significantly more common reason for non-use among individuals from households headed by employed individuals than those from the other 2 socio-economic groups. The proportion of non-users citing lack of need as the reason is also slightly higher among those living closer to the sub-village centre, compared to those living further, at 55 and 46 percent respectively. Roughly half of ill individuals cited lack of need as a reason for non-use, irrespective of the type of illness or gender. Finally, variation in proportions of individuals citing this reason in more and less isolated and fractionalised villages is minimal.

Cost of health services served as a deterred to 42 percent of those who had been ill in the 4 weeks preceding the survey and had not used a health facility. Cost appears to be a slightly more substantial deterrent to health facility use among men than women. In rural areas this category consists of more than twice as high a proportion of non-users as in peri-urban areas, at 44 and 18 percent of the respective populations. Further, while nearly half (46 percent) of non-users from households headed by unemployed individuals were deterred by cost, this was the reason for non-use among less than a quarter (23 percent) of non-users from the employed group. Lastly, individuals from more ethnically homogeneous villages cited cost as an obstacle to health facility use at a slightly higher rate than the same group in more ethnically diverse areas, at 46 and 37 percent respectively.

Distance is the least commonly mentioned reason for not using health facilities when ill. Only 11 percent of individuals in this group mentioned distance; all of them live in rural areas. It should be noted, however, that the 'Cost' category is also likely to include some of those who live far from health facilities and, therefore, find them costly to use. The differences between proportions of men and women, individuals from poor and non-poor households, sufferers of different illnesses, as well as individuals living closer to and further from the district capital who cited distance as a reason for non-use, do not exceed 4 percentage points. In contrast, while none of the members of households headed by employed individuals cited distance as a deterrent to health facility use, roughly a tenth of individuals in the self-employed and unemployed groups did so. Distance was also a significantly more widespread reason for non-use among individuals living further from the sub-village centre than those living more centrally, at 14 and 5 percent of the respective populations. Finally, a slightly higher proportion of non-users from more ethnically diverse areas had been deterred by distance compared to those living in more ethnically homogeneous villages.

Table 32: Reasons for Not Consulting a Health Provider When Ill

	Reference population[1]	*Reasons for not consulting health professional when ill*[2]		
		No Need	Cost	Distance
Mbulu District	14,899	7,406	6,272	1,586
	28	50	42	11
Rural	13,920	6,554	6,093	1,586
	28	47	44	11
Peri-urban	979	852	179	0
	22	87	18	0
Poverty				
Non-poor	4,862	2,203	1,960	643
	30	45	40	13
Poor	10,037	5,203	4,312	943
	27	52	43	9
Socio-economic group				
Employed	686	531	154	0
	16	77	23	0
Self-employed	13,290	6,541	5,693	1,472
	29	49	43	11
Unemployed	924	334	425	114
	22	36	46	12
Gender				
Male	6,779	3,249	3,099	574
	26	48	46	8
Female	8,120	4,157	3,173	1,012
	29	51	39	12

	Reference population[1]	*Reasons for not consulting health professional when ill*[2]		
		No Need	Cost	Distance
Type of sickness/injury				
Fever/Malaria/Diarrhoea	9,198	4,332	3,924	1,129
	25	47	43	12
Chronic condition	2,269	1,160	991	256
	28	51	44	11
Other	4,086	2,087	1,721	476
	28	51	42	12
Village Isolation				
Closer to district capital	7,065	3,439	3,026	687
	29	49	43	10
Further from district capital	7,833	3,967	3,246	899
	26	51	41	11
Household Isolation				
Closer to centre of EA	6,060	3,329	2,562	315
	25	55	42	5
Further from centre of EA	8,839	4,077	3,710	1,271
	29	46	42	14
Ethnic Fractionalisation				
Low	8,738	4,191	3,986	742
	28	48	46	8
High	6,161	3,215	2,287	844
	27	52	37	14

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%.

5.6 Village Health Workers

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

The results show that 34 percent households are located in villages that have at least one VHW (Table 33). All of these houses are located in rural areas. The proportion of poor and non-poor households located in villages that have a VHW are almost equal. VHWs are, however, significantly more widespread in villages located further from district capital. Half of these villages have a VHW, compared to only 14 percent of less isolated villages. Finally, while 37 percent of households located in ethnically homogenous villages are also based in villages that have a VHW, this is only the case for 29 percent of households in more ethnically diverse villages.

A minority of households in Mbulu are aware of the presence of a VHW in their village. In fact, out of all households located in villages that have a VHW, only 23 percent knew about his/her existence at the time of the survey. Awareness is slightly higher in poor households than non-poor, at 24 and 19 percent respectively. Similarly, the proportion of households aware of the presence of a VHW is more than 3 times higher in less ethnically fractionalised villages than in more diverse areas, at 30 and 9 percent respectively.

Table 33: 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
Mbulu District	34	23
Rural	37	23
Peri-urban	0	NA
Poverty		
Non-poor	31	19
Poor	35	24
Village Isolation		
Closer to district capital	14	27
Further from district capital	50	22
Ethnic Fractionalisation		
Low	37	30
High	29	9

5.7 Bed Nets

Trends in bed net use are presented in Table 34 in conclusion of the health section. The data show that only 7 percent of individuals in Mbulu district had slept under a bed net the night preceding the survey. Use of bed nets is significantly more widespread in peri-urban than rural areas, at 43 and 4 percent respectively. Further, individuals from non-poor households are 4 times more likely to use bed-nets than those from poor households. Bed net use is most widespread among individuals from households headed by employed persons. The proportion of literate individuals sleeping under bed-nets is slightly higher than that of the illiterate, at 9 and 5 percent. Bed net use appears to decline with age, from 8 percent of all 0 to 15 year olds, to only 3 percent of those over the age of 64. While the proximity of the household to the sub-village centre is not correlated with bed net use, proximity to the district capital and the level of ethnic diversity in the village appear to be. Bed net use is significantly more widespread among residents of areas located closer to the district capital, as well as those of more ethnically diverse villages.

Table 34: Proportion of Individuals Sleeping Under Bed Nets

	Proportion of Individuals Using Bed Nets	Share of Population
Mbulu District	7	100
Rural	4	92
Peri-urban	43	8
Poverty		
Non-poor	16	27
Poor	4	73
Socio-economic group		
Employed	23	10
Self-employed	6	86
Unemployed	7	5
Literacy		
Literate	9	61
Non-literate	5	39
Age		
0 to 15	8	48
15 to 64	7	47
65+	3	5
Village Isolation		
Closer to district capital	11	45
Further from district capital	4	55
Household Isolation		
Closer to centre of EA	9	43
Further from centre of EA	6	57
Ethnic Fractionalisation		
Low	3	60
High	14	40

6 CHILD DELIVERY AND NUTRITION

6.1 Introduction

This chapter examines several topics related to reproductive health and child nutrition. 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 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

Table 35 presents the distribution of women who had a live birth in the year preceding the survey by age. Overall, more than half of new mothers are under the age of 30. More than a quarter (29 percent) of all new mothers are between the ages of 20 and 24. Only 3 percent of women who had given birth in the year preceding the survey are over the age of 40. In peri-urban areas the oldest new mothers are between the ages of 35 and 39. The highest proportion of new mothers here are between the ages of 30 and 34, at 31 percent. Further, a higher proportion of new mothers in peri-urban areas are over the age of 24 than those in rural areas, at 77 and 64 percent respectively.

The results further show that the proportion of women under the age of 25 who had given birth in the year preceding the survey is significantly higher among women from non-poor households than that among women from poor households, at 52 and 29 percent respectively. While all new mothers from female-headed households are under the age of 30, this is the case for less than three fifths (58 percent) of new mothers from male headed households. Further, about half of the women who live closer to the sub-village centre and who had a live birth in the specified time-period are in their 30's or older, compared to only 36 percent of women living further from the sub-village centre.

Mothers under the age of 25 constitute slightly less than twice as high a proportion of new mothers living in villages located further from district capital than those living in less isolated villages. Although less substantial, there is a significant difference between proportions of new mothers between the ages of 20 and 24 in more and less ethnically fractionalised villages, at 37 and 23 percent respectively.

Table 35: Cumulative Distribution of Women Who Had a Live Birth in the Year Preceding the Survey by Age and Rate of Utilisation of Pre-Natal Care

	Percentage who had given birth in the last 12 months, before reaching the age of:					
	20	25	30	35	40	Pre-natal care
Mbulu District	6	35	60	83	97	94
Rural	6	36	62	84	97	94
Peri-urban	11	23	39	70	100	88
Poverty						
Non-poor	5	52	78	86	100	100
Poor	6	29	53	81	95	92
Sex of household head						
Male	5	34	58	82	97	94
Female	31	50	100	100	100	100
Village Isolation						
Closer to district capital	4	25	55	85	98	94
Further from district capital	8	43	63	80	95	94
Household Isolation						
Closer to centre of EA	9	27	53	80	98	98
Further from centre of EA	4	40	64	84	96	91
Ethnic Fractionalisation						
Low	7	30	56	83	96	95
High	5	42	65	82	98	92

6.3 Child Delivery

6.3.1 Facilities Used to Give Birth

Outcomes presented in Table 36 show the distribution of live births from the last 5 years by facilities used for child delivery. The majority (53 percent) of babies born in Mbulu over the last 5 years were delivered at home. While the proportion of hospital/maternity ward births in peri-urban areas is more than twice as high as that in rural areas, at 89 and 43 percent respectively, the proportion of home births in rural areas is more than 5 times higher than that in peri-urban areas, at 56 and 10 percent respectively.

The majority (57 percent) of babies born in the last 5 years in poor households had been delivered at home, compared to only 39 percent of children from non-poor households. The results further show that children born in female-headed households are significantly

more likely to be born in a hospital/maternity ward than those born in households headed by men. No substantial correlation was found between choice of facility for child birth and socio-economic group. Hospital use in child delivery is, however, slightly more common among residents of households located closer to sub-village centre and in villages closer to the district capital. Finally, the proportion of children born at home over the last 5 years in ethnically homogeneous areas is 11 percentage points higher than that in ethnically diverse villages.

Table 36: Type of Facilities Used in Child Birth

	Hospital/ Maternity ward	Home	Other	Share of population
Mbulu District	19,219	22,286	550	42,203
	46	53	1	100
Rural	16,832	22,025	517	39,522
	43	56	1	94
Peri-urban	2,387	261	33	2,681
	89	10	1	6
Poverty				
Non poor	5,804	3,702	53	9,560
	61	39	1	23
Poor	13,415	18,583	497	32,643
	41	57	2	77
Gender of household head				
Male	18,162	21,940	550	40,800
	45	54	1	97
Female	1,058	345	0	1,403
	75	25	0	3
Socio-economic group				
Employed	1,647	1,812	0	3,459
	48	52	0	8
Self-employed	16,808	19,516	497	36,969
	45	53	1	88
Unemployed	764	957	53	1,774
	43	54	3	4
Village Isolation				
Closer to district capital	9,649	8,363	108	18,120
	53	46	1	43
Further from district capital	9,570	13,923	442	24,083
	40	58	2	57
Household Isolation				
Closer to centre of EA	9,254	8,664	161	18,078
	51	48	1	43
Further from centre of EA	9,965	13,622	389	24,125
	41	56	2	57

	Hospital/ Maternity ward	Home	Other	Share of population
Ethnic Fractionalisation				
Low	11,357	14,977	75	26,409
	43	57	0	63
High	7,862	7,309	475	15,794
	50	46	3	37

6.3.2 Delivery Assistance

Table 37 presents information on the type of assistance used in child delivery over the 5 years preceding the survey. In consistency with the trend in types of facilities used in giving birth, nearly a half (46 percent) of children in Mbulu had been delivered with the assistance of a formally trained health professional (doctor, nurse or midwife). More than 1 in 3 births (38 percent) had been conducted with the assistance of untrained individuals such as neighbours or family, as well as unassisted. Traditional Birth Assistants (TBA's) had been present at 16 percent of births in the district.

The proportion of children born with the help of a TBA in rural areas is significantly higher than that in peri-urban areas, at 17 and 1 percent respectively. The proportion of live births in rural areas conducted with the assistance of untrained acquaintance or without help is 4 times greater than that in peri-urban areas. While in rural areas the majority of deliveries were conducted by individuals with no formal training and TBAs, in peri-urban areas 80 percent of children had been delivered by a qualified person.

The results of the survey further show that unassisted births and those conducted by untrained individuals and TBAs constitute three fifths of births among women from poor households, compared to 39 percent of births among women from non-poor households. Type of delivery assistance used also varies by gender of the head of household. The proportion of children born with the help of a nurse in female headed households is more than 2 times greater than that in male headed households. In contrast, the majority (55 percent) of live births in male headed households were conducted with assistance of a TBA, untrained individuals or unassisted. These types of assistance are also more widespread in households headed by unemployed individuals than those headed by employed and self-employed individuals at 61, 52 and 54 percent respectively. Finally, while the proportion of deliveries conducted with a midwife is 6 times higher among residents of households located closer to the sub-village centre, TBAs assisted at twice as high a proportion of deliveries among those living more remotely than those living centrally.

The results further show that the assistance of nurses in child delivery is more commonly used in villages located closer to the district capital, while unassisted births and those conducted by untrained acquaintances are more common in villages located further from the district capital. Finally, the trends in types of assistance used in child delivery were not found to vary substantially between more and less ethnically diverse areas.

Table 37: 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
Mbulu District	1,908	16,036	1,359	6,668	16,231	42,203
	5	38	3	16	38	100
Rural	1,762	13,898	1,256	6,652	15,954	39,522
	4	35	3	17	40	94
Peri-urban	146	2,138	104	16	277	2,681
	5	80	4	1	10	6
Poverty						
Non poor	515	4,798	491	1,765	1,990	9,560
	5	50	5	18	21	23
Poor	1,393	11,238	868	4,904	14,241	32,643
	4	34	3	15	44	77
Sex of household head						
Male	1,908	14,978	1,359	6,605	15,950	40,800
	5	37	3	16	39	97
Female	0	1,058	0	64	281	1,403
	0	75	0	5	20	3
Socio-economic group						
Employed	94	1,449	104	940	872	3,459
	3	42	3	27	25	8
Self-employed	1,814	13,894	1,256	5,435	14,570	36,969
	5	38	3	15	39	88
Unemployed	0	692	0	293	789	1,774
	0	39	0	17	44	4
Village Isolation						
Closer to district capital	740	8,081	778	2,446	6,074	18,120
	4	45	4	13	34	43
Further from district capital	1,168	7,955	581	4,222	10,157	24,083
	5	33	2	18	42	57
Household Isolation						
Closer to centre of EA	952	7,221	1,139	1,736	7,030	18,078
	5	40	6	10	39	43
Further from centre of EA	956	8,815	220	4,933	9,201	24,125
	4	37	1	20	38	57

	Doctor	Nurse	Midwife	T.B.A.	Other/Self	Share of population
Ethnic Fractionalisation						
Low	1,043	9,651	714	4,066	10,935	26,409
	4	37	3	15	41	63
High	865	6,385	646	2,602	5,296	15,794
	5	40	4	16	34	37

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).[13]

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

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

[13] More specifically, the anthropometric calculations were conducted using 2000 CDC growth curves

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 Mbulu District

Results presented in Table 38 show the rates of malnutrition among children under the age of 5 in Mbulu district. Roughly 9,000 children in this age group are too short for their age (stunted). These children constitute just over a fifth (22 percent) of all under 5's in the district. Wasting is much less widespread, affecting only 3 percent of the children in the same age group. Both long and short-term malnutrition rates are roughly the same among girls and boys. Stunting is lowest among new-born children at 14 percent. In contrast, more than a quarter (27 percent) of children in the 36 to 48 months age group were stunted at the time of the survey. The rate of wasting is also lowest among infants up to 12 months and highest among 4 year olds, at 1 and 5 percent respectively. Overall, stunting is significantly more widespread in all age-groups than wasting.

While the proportions of stunted children are roughly equal in rural and peri-urban areas, the rate of wasting is lower in peri-urban than rural parts of the district, affecting 1 and 3 percent of children respectively. Although wasting and household poverty status do not appear to be correlated, stunting is significantly more widespread among children from poor households. Stunting is also more widespread among children from households headed by unemployed individuals and least prevalent among those in the employed group, affecting 37 and 14 percent of under 5's in the respective groups. Further, while the proportion of stunted children in male headed households is only slightly higher than that in female headed households, female headed households were not found to contain any wasted children at the time of the survey, compared to 3 percent of under 5's in male headed households. Finally, location of the household within the sub-village does not appear to be correlated with malnutrition.

Disaggregation of the malnutrition data by selected village characteristics shows some variation in rates of malnutrition. Distance of the village from the district capital is negatively correlated with the wasting rate; the proportion of wasted children living further from the district capital is significantly lower than that of children living closer. Long-term malnutrition, on the other hand, is significantly more widespread in ethnically homogeneous areas than in more diverse parts of the district, at 26 and 10 percent of the respective populations of under 5's.

Table 38: Stunting and Wasting Rates Among Children Under the Age of Five

	Stunted (-2 SD)	Wasted (-2 SD)	Share of Population
Mbulu District	9,234	1,205	42,112
	22	3	100
Rural	8,746	1,188	39,483
	22	3	94
Peri-urban	488	16	2,629
	19	1	6
Poor			
Non-Poor	1,341	332	9,508
	14	3	23
Poor	7,893	873	32,604
	24	3	77
Sex of household head			
Male	8,979	1,205	40,709
	22	3	97
Female	255	0	1,403
	18	0	3
Socio-economic group			
Employed	468	0	3,459
	14	0	8
Self-employed	8,107	1,081	36,879
	22	3	88
Unemployed	660	124	1,774
	37	7	4
Village Isolation			
Closer to district capital	4,037	857	18,068
	22	5	43
Further from district capital	5,197	347	24,044
	22	1	57
Household Isolation			
Closer to centre of EA	3,588	431	17,988
	20	2	43
Further from centre of EA	5,646	773	24,125
	23	3	57
Ethnic Fractionalisation			
Low	6,940	808	26,370
	26	3	63
High	2,295	397	15,743
	15	3	37

	Stunted (-2 SD)	Wasted (-2 SD)	Share of Population
Gender			
Male	5,138	656	21,263
	24	3	50
Female	4,096	549	20,849
	20	3	50
Age			
0	1,117	64	8,073
	14	1	19
1	2,362	438	10,206
	23	4	24
2	2,004	198	8,240
	24	2	20
3	2,368	158	8,783
	27	2	21
4	1,383	347	6,811
	20	5	16

6.4.2 Nutritional Status of Children by Selected Characteristics

Characteristics of the Parents

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-makers. It is, therefore, important to look at selected characteristics of the parents of malnourished children.

Table 39 shows that the rate of long-term malnutrition among children under the age of 5 increases with age of parents. For instance, the proportion of stunted children is 10 percentage points higher among those whose mothers are in their 40's, than those whose mothers are in their 20's. Education of the father also appears to be correlated with incidence of long and short-term malnutrition. Children of fathers with some formal education seem to be less likely to be stunted or wasted. For instance, the stunting rate among children whose fathers have had some formal schooling is 21 percent compares to 29 percent among those whose father has no formal education. Education of the mother is not significantly correlated with child stunting and wasting rates.

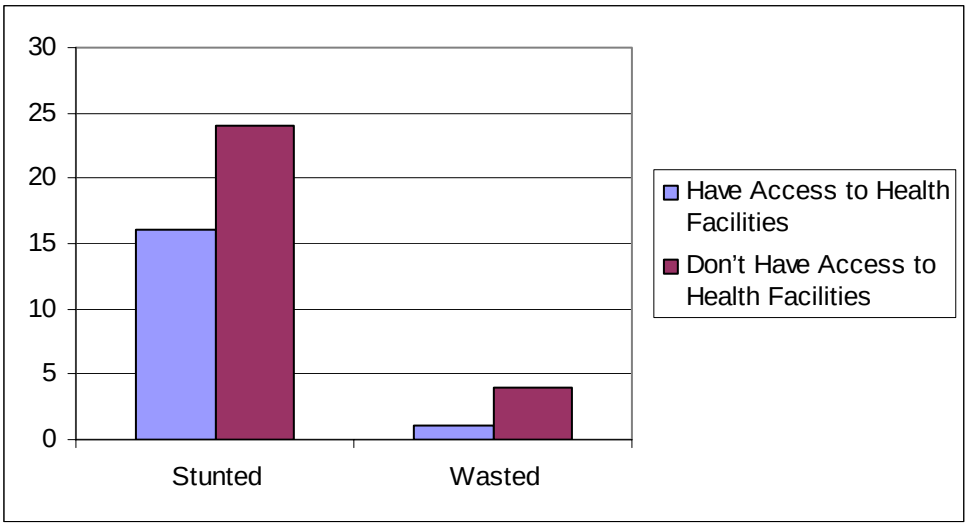
Table 39: Distribution of Malnourished Children by Characteristics of the Parents

	Stunted (-2 SD)	Wasted (-2 SD)	Share of population
Mbulu District	8,243	1,141	37,213
	22	3	100
Age of father			
20 – 29	2,014	135	9,022
	22	1	24
30 – 39	2,635	482	15,596
	17	3	42
40 – 60	3,336	439	11,526
	29	4	31
60+	258	85	1,068
	24	8	3
Formal Education of Father			
None	1,773	370	6,161
	29	6	17
Some	6,470	771	31,052
	21	2	83
Age of mother			
20 – 29	3,283	268	17,900
	18	1	44
30 – 39	3,786	609	16,487
	23	4	41
40+	1,519	263	5,501
	28	5	14
Formal Education of Mother			
None	2,249	406	9,689
	23	4	24
Some	6,531	735	30,978
	21	2	76

Access to Health Facilities

Levels of malnutrition also appear to be correlated with access to equipped health facilities. The stunting rate among children who live within 2 kilometres from the nearest equipped health facility is 8 percentage points smaller than that among children who live further than this. Wasting is 4 times more widespread among children who do not have access to equipped health facilities. It should be noted, however, that while the difference in wasting rates is statistically significant, that in stunting rates is not and may, therefore, be characteristic of the specific sample only.

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[14] population of the Mbulu district. 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 types of employment as well as employment sector and occupation of the working adults. The economically inactive subgroups of the adult population are examined in the concluding section of the chapter.

7.2 Employment Status

The adult population of Mbulu is categorized 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 under-employed. The under-employed 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 economically inactive are individuals who had not engaged in any work in the 4 weeks preceding the survey due to illness, disability, age or school, unemployed individuals are those who were not working due to lack of employment opportunities.

7.2.1 Working Population

The results of the survey show that the great majority (89 percent) of Mbulu's residents over the age of 14 were employed at the time of the survey (Table 40). Among the working adults, a higher proportion claimed to be underemployed than employed to capacity. At the time of the survey, more than half of all adults in the district were underemployed, at 55 percent. Underemployment is slightly more widespread in peri-urban areas, where 65 percent of adults were in this position at the time of the survey, compared to 54 percent in rural areas.

The results further show that employment patterns in Mbulu are not correlated with the majority of selected characteristics. The employment rates among adults from poor and

[14]In this chapter adult population includes all individuals 15 years and older

non-poor households, residents of households located further from and closer to the sub-village centre and district capital, as well as residents of households located in more and less ethnically diverse areas do not vary significantly. The most substantial variation in employment rates was found between men and women; however, even in this case the proportion of working men only exceeds that of women by 4 percentage points. In addition, working adults from more ethnically diverse areas are slightly more likely to be underemployed than those in more homogeneous places.

7.2.2 Non-working Population

At the time of the survey, more than 14,000 adults in Mbulu district claimed to not be working; these individuals constitute 11 percent of the adult population (Table 40). In consistency with the employment trends discussed above, variation in proportions of non-working individuals across examined characteristics does not exceed 4 percentage points.

Table 40: Distribution of the Population by Employment Status

	Working			*Not working*			
	Employed to capacity	Under-employed	Total	Economi-cally inactive	Un-employed	Total	Share of population
Mbulu District	44,655	71,008	115,663	14,072	450	14,522	130,185
	34	55	89	11	0	11	100
Rural	41,902	63,758	105,660	13,040	304	13,344	119,004
	35	54	89	11	0	11	91
Peri-urban	2,753	7,250	10,003	1,032	146	1,178	11,181
	25	65	90	9	1	10	9
Poverty							
Non-poor	13,400	22,984	36,384	4,331	246	4,577	40,960
	33	56	89	11	1	12	31
Poor	31,255	48,024	79,279	9,741	205	9,946	89,225
	35	54	89	11	0	11	69
Gender							
Male	22,277	39,251	61,528	6,159	205	6,364	67,892
	33	58	91	9	0	9	52
Female	22,378	31,757	54,135	7,913	246	8,159	62,293
	36	51	87	13	0	13	48
Village Isolation							
Closer to district capital	20,076	32,628	52,704	6,906	146	7,052	59,756
	34	55	89	12	0	12	46
Further from district capital	24,579	38,380	62,959	7,166	304	7,470	70,430
	35	54	89	10	0	10	54

	Working			*Not working*			
	Employed to capacity	Under-employed	Total	Economi-cally inactive	Un-employed	Total	Share of population
Household Isolation							
Closer to centre of EA	19,375	31,745	51,120	6,063	273	6,336	57,455
	34	55	89	11	0	11	44
Further from centre of EA	25,280	39,263	64,543	8,010	178	8,188	72,730
	35	54	89	11	0	11	56
Ethnic Fractionalisation							
Low	28,944	40,968	69,912	8,995	0	8,995	78,908
	37	52	89	11	0	11	61
High	15,711	30,040	45,751	5,077	450	5,527	51,278
	31	59	90	10	1	11	39

7.3 Type of Employment

Working individuals were asked to identify how they were being paid for their work. This information was used to identify the employment category they belong to. Among those working for someone or an organisation, those who receive a wage or salary are classed as regular employee, while those working for an hourly or a daily wage are classed as casual employees. There is also a self-employed category and a category containing unpaid workers.

In Mbulu district, the great majority of individuals are self-employed (94 percent). Self-employment is more widespread in rural areas than peri-urban areas, occupying 95 and 82 percent of the respective working population, as shown in Table 41. Working individuals in peri-urban areas, on the other hand, are more likely to have casual or regular employment than those in rural areas. In fact, the proportion of regular employees among working individuals from peri-urban areas is 6 times as high as that in rural areas, at 12 and 2 percent respectively.

Table 41 further shows that while regular employment is more widespread among working adults from non-poor households than those from poor households, a higher proportion of individuals from poor households are self-employed compared to those from non-poor households, at 96 and 90 percent respectively. Self-employment is also slightly more widespread among women, only 1 percent of whom have regular employment, compared to 4 percent of working men.

Variation in proportions of individuals in each employment category between adults from households in more and less isolated and ethnically diverse areas, as well as those located closer to and further from the sub-village centre does not exceed 4 percentage points.

Table 41: Distribution of the Employed Population by Type of Employment

	Regular employee	Casual employee	Self- employed	Share of population
Mbulu District	3,113	3,506	108,965	115,663
	3	3	94	100
Rural	1,910	2,909	100,762	105,660
	2	3	95	91
Peri-urban	1,203	597	8,203	10,003
	12	6	82	9
Poverty				
Non-poor	2,240	1,091	32,853	36,384
	7	3	90	31
Poor	674	2,415	76,112	79,279
	1	3	96	69
Gender				
Male	2,013	2,729	56,707	61,528
	3	4	92	53
Female	1,100	777	52,258	54,135
	2	1	97	47
Village Isolation				
Closer to district capital	2,113	1,831	48,681	52,704
	4	3	92	46
Further from district capital	1,000	1,675	60,284	62,959
	2	3	96	54
Household Isolation				
Closer to centre of EA	1,170	1,472	48,399	51,120
	2	3	95	44
Further from centre of EA	1,943	2,034	60,566	64,543
	3	3	94	56
Ethnic Fractionalisation				
Low	1,614	1,931	66,289	69,912
	2	3	95	60
High	1,499	1,575	42,676	45,751
	3	3	93	40

7.4 Employment Sector

Employment data collected as part of the Mbulu CWIQ further informs on the distribution of the working population by employment sector. Four relevant sectors were identified: Government, Private Formal (e.g. business), Private Informal (without contract) and Self-employed. In consistency with trends in distribution of working population by employment types describes above, the largest share of the reference

population (94 percent) are in the self-employed sector. Out of the remaining 6 percent, 4 percent are in the private informal sector, 1 percent are in the private formal sector and 1 percent are in the Government sector. Table 42 shows that while self-employment is more widespread in rural than peri-urban areas, employment in the private informal sector is more common among peri-urban working population. Further, none of the working rural population were employed in the Government sector at the time of the survey, compared to 5 percent of the peri-urban working population.

Results of the survey further show that self-employment is slightly more widespread among the working population from poor households. While employment in the private informal sector is more widespread among men than women, a higher proportion of women are self-employed. Employment in the private informal sector was also found to be more widespread among working adults who live closer to the district capital than those who live further. None of the adults in the latter category were employed in either the Government or private formal sectors.

The location of the household within the sub-village and the level of ethnic diversity within the village do not appear to be correlated with the distribution of the population by employment sector. It should also be noted that all of the differences described above are under 10 percentage points, with the exception of variation in rates of self-employment between rural and peri-urban areas.

Table 42: Distribution of the Working Population by Employment Sector

	Government	Private Formal	Private Informal	Self-employed	Share of population
Mbulu District	911	824	4,681	108,965	115,663
	1	1	4	94	100
Rural	398	593	3,906	100,762	105,660
	0	1	4	95	91
Peri-urban	513	230	775	8,203	10,003
	5	2	8	82	9
Poverty					
Non-poor	827	665	1,756	32,853	36,384
	2	2	5	90	31
Poor	84	158	2,925	76,112	79,279
	0	0	4	96	69
Gender					
Male	684	629	3,509	56,707	61,528
	1	1	6	92	53
Female	227	195	1,173	52,258	54,135
	0	0	2	97	47

	Government	Private Formal	Private Informal	Self-employed	Share of population
Village Isolation					
Closer to district capital	741	517	2,482	48,681	52,704
	1	1	5	92	46
Further from district capital	170	307	2,199	60,284	62,959
	0	0	3	96	54
Household Isolation					
Closer to centre of EA	455	312	1,955	48,399	51,120
	1	1	4	95	44
Further from centre of EA	456	512	2,727	60,566	64,543
	1	1	4	94	56
Ethnic Fractionalisation					
Low	398	593	2,632	66,289	69,912
	1	1	4	95	60
High	513	230	2,050	42,676	45,751
	1	1	4	93	40

7.5 Self employment

Because self-employment is by far the most widespread type of employment among the working adults of Mbulu district, it is necessary to examine the distribution of the self-employed population by occupation in order to gain better understanding of the employment patterns in the district. Individuals who claimed to be self-employed were asked to specify their occupation for this purpose.

The results presented in Table 43 show that the great majority (94 percent) of self-employed adults classify themselves as subsistence farmers[15]. Trading is the second most common occupation among the self-employed; 4 percent of the reference population are in this category. Commercial farmers and professionals[16] only constitute 1 percent of the self-employed population each. While subsistence farming is more widespread in rural than peri-urban areas, the proportion of traders among self-employed residents of peri-urban areas is more than 5 times as high as that among the self-employed in rural areas, at 16 and 3 percent respectively.

Results further show that a slightly higher proportion of self-employed women class themselves as subsistence farmers than men, at 97 and 92 percent respectively. In contrast, trading is more widespread among self-employed men.

[15] 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 are aimed exclusively at providing food for the household.
[16] For example Lawyer, Accountant, Consultant.

Across the examined household characteristics, trends in self-employment vary most by household poverty status. The proportion of self-employed adults from non-poor households engaged in subsistence farming is 8 percentage points lower than that of self-employed individuals from poor households. The proportion of individuals in the former group engaged in trading, however, is more than twice as high as that of individuals in the latter group. Distribution of the self-employed by occupation does not differ by proximity of the household to the centre of the sub-village.

Subsistence farming is more widespread in less ethnically diverse areas than in highly fractionalised areas, occupying 98 and 89 percent of the respective self-employed populations. In contrast, a substantially higher proportion of self-employed individuals are involved in trading in more than less fractionalised areas, at 8 and 1 percent respectively. Trends in self-employment do not differ significantly by proximity of the village to the district capital.

Table 43: Distribution of the Self-employed Population by Occupation

	Commercial Farming	Subsistence Farming	Trading	Professional	Share of Population
Mbulu District	783	102,887	4,450	659	108,965
	1	94	4	1	100
Rural	689	96,263	3,111	514	100,762
	1	96	3	1	92
Peri-urban	94	6,624	1,339	146	8,203
	1	81	16	2	8
Poverty					
Non-poor	439	29,154	2,490	659	32,853
	1	89	8	2	30
Poor	344	73,733	1,960	0	76,112
	0	97	3	0	70
Gender					
Male	567	52,183	3,368	403	56,707
	1	92	6	1	52
Female	215	50,703	1,083	256	52,258
	0	97	2	0	48
Village Isolation					
Closer to district capital	344	46,481	1,342	438	48,681
	1	95	3	1	45
Further from district capital	439	56,406	3,108	221	60,284
	1	94	5	0	55
Household Isolation					
Closer to centre of EA	249	45,693	1,797	474	48,399
	1	94	4	1	44
Further from centre of EA	533	57,194	2,654	185	60,566
	1	94	4	0	56
Ethnic Fractionalisation					
Low	249	64,822	850	293	66,289
	0	98	1	0	61
High	533	38,065	3,600	367	42,676
	1	89	8	1	39

7.6 Economic Inactivity

Table 44 presents the reasons given by economically inactive adults for not working and not seeking work. Age and illness are the most commonly cited deterrents to employment; combined, these reasons explain the economic inactivity of 54 percent of

economically inactive adults. Schooling deters nearly a quarter (23 percent) of the economically inactive individuals, while a fifth were not working at the time of the survey due to other reasons such as pregnancy, child rearing and housekeeping responsibilities. Disability is by far the least significant deterrent, cited by only 4 percent of the economically inactive individuals. The proportion of economically inactive individuals deterred from work by illness is roughly twice as high in peri-urban areas as in rural areas, at 50 and 24 percent respectively. In contrast, age and other reasons explain the economic inactivity of a significantly higher proportion of the inactive population of rural than peri-urban areas. Overall, at the time of the survey, roughly 14,000 individuals over the age of 14 were not working due to reasons other than lack of employment opportunities.

The proportion of economically inactive men deterred from work by studying is almost 3 times as high as that of women, at 36 and 13 percent respectively. In contrast, women are more likely to not seek employment because of other reasons such as housekeeping responsibilities.

The results further suggest that the distribution of reasons for economic inactivity varies by household poverty status and level of isolation. Illness serves as a slightly more substantial work deterrent among non-working individuals from non-poor households than those from poor households. Further, economically inactive adults living closer to the centre of the sub-village tend to cite schooling as a reason for not working more than those living further. Individuals in the latter group, however, are twice as likely to be deterred from work by age as those in the former group.

There is some variation in reasons for economic inactivity by village characteristics. The proportion of individuals deterred from work by illness in villages located further from the district capital is less than half of that in less isolated villages, at 17 and 35 percent respectively. Age, on the other hand, was a more significant deterrent to work in more isolated villages. Finally, in ethnically diverse areas only 1 percent of the economically inactive population were unable to work due to a disability, compared to 6 percent of the non-working adults in more ethnically homogeneous villages.

Table 44: Distribution of the Economically Inactive Population by Reasons for Not Working

	Illness	Disability	Age	School	Other	Share of population
Mbulu District	3,601	590	3,888	3,285	2,708	14,072
	26	4	28	23	19	100
Rural	3,088	590	3,703	3,045	2,614	13,040
	24	5	28	23	20	93
Peri-urban	513	0	185	240	94	1,032
	50	0	18	23	9	7
Poverty						
Non-poor	1,294	71	1,131	939	896	4,331
	30	2	26	22	21	31
Poor	2,307	519	2,757	2,346	1,811	9,741
	24	5	28	24	19	69
Gender						
Male	1,502	0	1,633	2,235	789	6,159
	24	0	27	36	13	44
Female	2,099	590	2,255	1,050	1,918	7,913
	27	7	29	13	24	56
Village Isolation						
Closer to district capital	2,389	357	1,496	1,503	1,162	6,906
	35	5	22	22	17	49
Further from district capital	1,213	234	2,392	1,782	1,546	7,166
	17	3	33	25	22	51
Household Isolation						
Closer to centre of EA	1,866	338	1,157	1,843	858	6,063
	31	6	19	30	14	43
Further from centre of EA	1,735	252	2,731	1,441	1,850	8,010
	22	3	34	18	23	57
Ethnic Fractionalisation						
Low	2,118	537	2,603	2,016	1,721	8,995
	24	6	29	22	19	64
High	1,483	53	1,285	1,269	987	5,077
	29	1	25	25	19	36

8 LOCAL GOVERNANCE

8.1 Introduction

This chapter analyses indicators of participatory governance in Mbulu district. To begin with, some basic aspects of village governance are examined. These include the frequency of elections and meetings and involvement of members of 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. Analysis of indicators of awareness of local government is followed by a discussion of selected data on participation in local governance and decision making. A brief overview of participation in communal activities such as communal works and indigenous insurance groups concludes the chapter.

8.2 Village Governance

8.2.1 Council Membership

Detailed personal data on members of 2 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 26 village visited as part of the Mbulu District CWIQ. Comparison of the data collected on each member to individual level data[17] from the household survey gives an indication of how similar village decision makers are to the community.

Table 45 shows selected characteristics of committee members and the population. Firstly, while women constitute roughly half of the population over the age of 18 in the district, they make up less than 30 percent of the members of both committees. Further, committee members tend to be older than the public. For instance, 71 percent of Finance and Planning Committee members are between the ages of 36 and 64 years, compared to only just over a third of the population of those over the age of 18. Further, although a tenth of the adults in the district are over the age of 64, representatives of this age-group constitute no more than 1 percent of the committee members. Committee members also tend to have attained a higher level of education than members of the public. Less than 5 percent of members of both, the Finance and Planning and the Security Committees have no formal education, compared to nearly a third (31 percent) of individuals over the age of 18 in the community.

[17] 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.

None of the committee members claimed to be unemployed compared to 11 percent of adults in the district. Finally, ownership of the majority of assets is more common among committee members than the general public. For instance, while roughly 80 percent of members of both committees own some large livestock, only 39 percent of the adults in the district are in the same position.

Table 45: Basic Characteristics of Village Council Committee Members and to the Population as a Whole

	Finance & Planning Committee	Security Committee	Mbulu Population
Gender			
Male	81	72	51
Female	19	28	49
Age			
18 to 35	29	39	55
36 to 64	71	60	35
65+	0	1	10
Education level			
None	3	4	31
Primary	88	93	63
Secondary	9	3	6
Occupation			
Employed	9	5	6
Self-employed	91	95	84
Unemployed	0	0	11
Assets			
Bicycle	73	57	39
Motorcycle	0	0	0
Car / truck / tractor	1	0	2
Large livestock	80	82	39
Medium livestock	77	83	28

8.2.2 Activities of the Council

A detailed overview of the activities of the council is beyond the scope of this study. However, some of the basic data on the functioning of the council are presented in Table 46. These data are disaggregated by the level of village isolation from the district capital.

The results show that the most recent village council elections had been held, on average, 4 months preceding the survey, irrespective of the isolation level. Further, an average of 4 public village meetings are held in Mbulu's villages per year. This average is slightly higher in more isolated areas where, 5 meetings are held per year.

In order to gain some understanding of planning strategies in the district, village chairmen were asked whether they compiled a planning document containing the plans

agreed on in public village meetings, accompanied by an implementation strategy, time frame and budget information for each plan. This question is 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. The great majority (87 percent) of the villages in Mbulu use this planning strategy and have a VDP. This proportion is higher in less isolated areas than in more isolated areas, at 92 and 83 percent respectively.

Another important aspect of village governance is the communication of the village council with the next level of government – the district council. This communication is facilitated by the councillor, whose responsibilities include helping village government to compile effective planning strategies that are consistent with national targets and are likely to lead to successful implementation. To obtain an indication of the level of communication between village councils and the councillors, village chairmen were asked to estimate the number of weeks since the last visit of the councillor. Further, to account for abnormalities in communication trends between village and district authorities caused by upcoming elections, village chairmen were asked to comment on whether the usual level of contact with the district is below, above, or the same as their expectations.

Overall, nearly half (46 percent) of the villages in Mbulu had been visited by a councillor within 4 weeks preceding the survey. Two thirds of the villages had been visited within 12 weeks preceding the survey. Villages located closer to and further from the district capital had been visited equally recently. The proportions of village chairmen who ranked the level of communication with the district as below their expectations was 28 percent across the district, 27 percent in villages located closer to the district capital and 29 percent in villages located further.

Table 46: Village Council Activities

	Mbulu	Closer to district capital	Further from district capital
Last Village Council election held (average number of months)	4	4	4
Mean number of public village meetings held per year	4	4	5
Proportion of Villages with a VDP	87	92	83
Last visit of district councillor			
0 to 4 weeks ago	46	46	45
5 to 12 weeks ago	21	20	22
12+ weeks ago	33	34	33
Proportion of Village Chairmen who find the usual level of communication insufficient	28	29	27

8.3 Awareness and Participation

According to the DRDP publication mentioned above, "Participation is the central and focal point of local governance."[18] This statement reflects the importance increasingly attached to participatory planning and governance over the last decade. This section examines 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. Results of the Mbulu District CWIQ inform on a number of awareness measurements that will be discussed in this section.

Sub-Village and Village Meetings

The first of these awareness measures is the proportion of villagers who claimed to know the number of times sub-village and village meetings had occurred in the 12 months preceding the survey

Table 47 shows that while 67 percent of households are aware of sub-village meetings, only 55 percent know about village meetings. Awareness of village and sub-village meetings is significantly lower in peri-urban than in rural areas. For instance, the proportion of households aware of sub-village meetings is as much as 16 percentage points higher in rural than peri-urban areas.

Disaggregation of awareness data by selected characteristics shows that there is a noticeable correlation between levels of awareness and socio-economic group, as well as gender of the household head. Awareness of sub-village and village meetings is highest in households headed by employed individuals, followed by households headed by self-employed individuals. Households in the unemployed group are least informed about village and sub-village meetings. For instance, while 60 percent of households headed by employed individuals know about village meetings, this is the case in only 45 percent of households headed by unemployed individuals. Further, levels of awareness of both village and sub-village meetings are significantly higher in male headed households than female headed households. The proportions of male headed households aware of both village and sub-village meetings exceed those of female headed households by roughly 20 percentage points. In addition, rates of awareness of village and sub-village meetings tend to be slightly higher in poor households, households headed by individuals with

[18] *Making Local Governance a Reality: A Guide to District Facilitators Managing Participatory Planning for Development;* DRDP, 2004; pg.1

some formal education, as well as households located closer to the sub-village centre. None of the differences between the awareness rates in these groups exceed 8 percentage points, however.

While the location of the village in relation to the district capital does not appear to be correlated with awareness, the level of ethnic diversity in the village is of more consequence. Awareness is higher in more ethnically homogeneous villages compared to the more diverse areas. For instance, while 59 percent of households in ethnically homogeneous areas were aware of village meetings, this was only the case in 48 percent of households located in more diverse parts of the district.

Outside Organisations

Another aspect of awareness is knowledge of what is happening in one's community. The results of the survey show that only 5 percent of the households in Mbulu, that are located in villages where outside organizations such as NGO's work, are aware of the presence of these organizations (Table 47). This type of awareness is slightly higher in peri-urban than rural areas, at 8 and 5 percent respectively. It is most correlated with household poverty status and gender of the household head. Poor households are more than twice as likely to know about the presence of outside organizations in the village as non-poor households. Similarly, while 6 percent of male headed households were aware of these organizations, this was the case in only 3 percent of female headed households.

Characteristics such as socio-economic status, education level of the household head, village and household isolation and the level of ethnic diversity within the village were not found to be significantly correlated with this measure of awareness.

Council and Council Activities

Another measure of awareness is the proportion of households that know about 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 council activities.

Just under two thirds (64 percent) of the households in the district were aware of the existence of a Finance and Planning Committee on their village council. Only 8 percent of these households, however, claimed to know a lot about the activities of this committee. This type of awareness is significantly higher in rural than peri-urban areas. While half of the households in peri-urban areas knew about the existence of the Finance and Planning Committee on their village council, 65 percent of rural household were equally well informed. Further, none of the households in peri-urban areas claimed to know a lot about the activities of this committee, compared to 8 percent of rural households.

This measure of awareness appears to be most correlated with characteristics of the household head, as well as the location of the household within the sub-village. Both, awareness of the existence and activities of the Finance and Planning Committee were highest in male headed households. In fact, while none of the households headed by women claimed to know a lot about the activities of the Finance and Planning Committee, nearly a tenth of the households headed by men are in this category. Further, whereas 71 percent of households headed by those with some formal schooling were aware of the existence of the Finance and Planning Committee on the village council, this was the case for only half of the households headed by those with no formal education. Households located closer to the sub-village centre were found to be slightly more likely to be aware of and know a lot about the Finance and Planning Committee. Proportions of households aware of the existence of this committee were roughly equal across the socio-economic groups, however, the proportion of households with in-depth knowledge of the activities of this committee was twice as high in households headed by self-employed individuals than those in the employed group. Out of the examined household characteristics, household poverty status appears to be least correlated with this measure of awareness.

Further, while village isolation and this measure of awareness also do not appear to be correlated, the other selected village characteristic - level of ethnic diversity - does. The proportion of households located in more ethnically homogeneous areas and aware of the existence of the Finance and Planning Committee is 10 percentage points higher than that of households in more ethnically diverse areas.

Table 47: 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[1]	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)
Mbulu District	67	55	5	64	8
Rural	69	56	5	65	8
Peri-urban	53	44	8	51	0
Poverty					
Non-poor	63	51	3	60	10
Poor	70	57	7	66	7
Socio-economic group					
Self-employed	76	60	7	61	4
Employed	67	55	5	64	8
Unemployed	56	45	5	63	5
Gender of head of household					
Male	69	57	6	66	8
Female	49	35	3	49	0
Education of head of household					
None	66	51	6	49	4
Some	68	57	5	71	9
Village Isolation					
Closer to district capital	66	55	5	62	7
Further from district capital	69	55	5	65	8
Household Isolation					
Closer to centre of EA	72	58	6	69	10
Further from centre of EA	64	53	5	60	6
Ethnic Fractionalisation					
Low	71	59	5	68	7
High	63	48	6	58	9

1 Proportion of households aware of the presence of an outside organisation among households located in villages where outside organisations work.

8.3.2 Participation

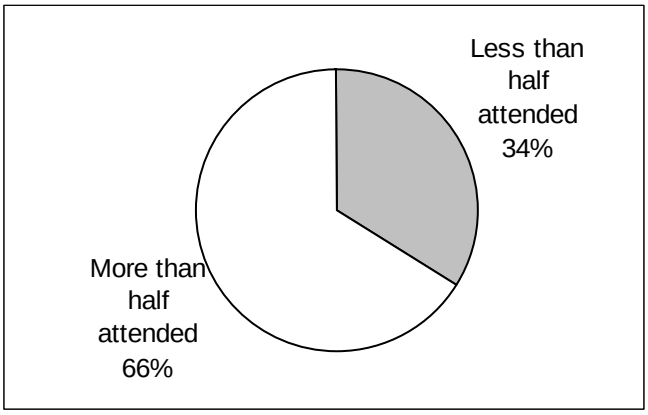
This section presents indicators of the degree to which households participate in decision-making processes and how this differs across household categories.

Attendance

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

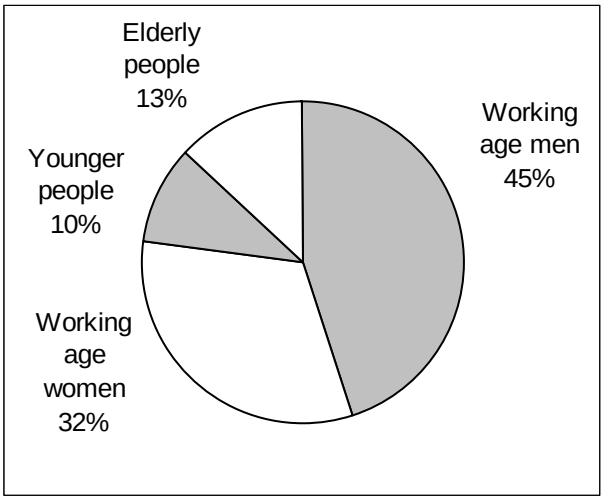
As shown in Figure 15, areas where attendance at public village meetings exceeds 50 percent of the voting age population constitute two thirds of the villages in Mbulu district.

Figure 15: Attendance at Public Village Meetings



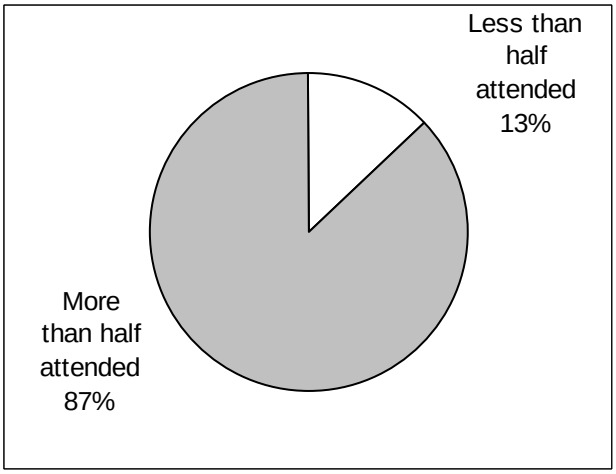
Village Chairmen were asked to approximate the composition of village meetings in terms of 4 gender-age categories: working age men (20 to 65 years), working age women (20 to 65 years), younger people (less than 20 years), and elderly people (65 years and above).
Figure 16 shows that while working age men constitute over two fifths (45 percent) of village meeting attendees, women make up less than a third (32 percent) of this group. On average, 13 percent of those present at village meetings are over the age of 64 and only 10 percent are under the age of 20.

Figure 16: Age and Gender Composition of Public Village Meetings



Another indicator of participation is attendance at the most recent village council elections. This is a particularly relevant measurement as elections had taken place no more than 4 months preceding the survey. The results presented in Figure 17 show that attendance was above 50 percent of those eligible to vote in the great majority (87 percent) of villages.

Figure 17: **Distribution of Villages in Mbulu by Turn-out at Last Village Council Elections**



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.

Table 48 shows that only about a third (36 percent) of sub-village meeting attendees and a fifth (18 percent) of villages meeting attendees had expressed their opinion in at least

one of the meetings in the year preceding the survey. Participation in both village and sub-village meetings is roughly equal in peri-urban and rural areas.

Analysis of these variables in several sub-groups of the population shows most substantial differences across socio-economic groups and male and female headed households. At sub-village level, this type of participation is highest among attendees from households headed by the self-employed and lowest among those from the unemployed group. While participation among members of this group remains lowest at village level, individuals from the employed group tend to participate in meetings at this level more than those from the self-employed group. Nearly a quarter of village meeting attendees from the employed group had expressed their opinion at some of the meetings in the year preceding the survey, compared to only 1 percent of attendees from the unemployed group. Further, participation in both village and sub-village meetings is significantly higher among attendees from male headed households than those from female headed households. In fact, at both village and sub-village level meetings the proportion of attendees speaking out from male headed households is more than twice as high as that of attendees from female headed households.

The results further show that level of education of the household head correlated with rate of participation in both sub-village and village meetings. Overall, the proportion of individuals expressing their opinion at both sub-village and village meetings is nearly 10 percentage points higher among those from households headed by individuals with some formal schooling than among attendees from households headed by individuals with no formal education. Household poverty status and the location of the household within the sub-village are the only examined household characteristics not found to be correlated with participation in public meetings.

Finally neither of the examined village characteristics, distance of the village from the district capital, nor level of ethnic diversity in the village, is noticeably correlated with this measure of participation.

Table 48: Speaking Out at Meetings

	Speak in sub-village meetings	Speak in village meetings
Mbulu District	36	18
Rural	36	18
Peri-urban	32	16
Poverty		
Non poor	38	20
Poor	34	17

	Speak in sub-village meetings	Speak in village meetings
Socio-economic group		
Employed	31	23
Self-employed	37	19
Unemployed	28	1
Gender of head of household		
Male	38	19
Female	15	6
Education of head of household		
None	30	12
Some	38	21
Village Isolation		
Closer to district capital	34	15
Further from district capital	37	21
Household Isolation		
Closer to centre of EA	34	15
Further from centre of EA	38	20
Ethnic Fractionalisation		
Low	34	18
High	38	18

Communication with Local Leaders

Arguably, participation does not solely arise from 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. In order to inform on this type of participation, 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). Communication with these leaders outside of their official capacity, such as casual or friendly visits, is excluded here.[19]

The results presented in Table 49 show that exactly two fifths of households had made an 'official' visit to their sub-village chairman in the months preceding the survey. Further, while nearly half (46 percent) of the households had officially gone to see their 10-cell leaders, less than a quarter visited their village chairman. Councillors had been visited by

[19] This distinction was made in Swahili by specifying that the visit should have been '*rasmi*', which literally translates as 'official' and is commonly understood to be a visit to the leader in his official capacity; not simply a 'friendly' visits.

only 3 percent of the households. Overall, over half (55 percent) of the households in the district had formal communication with at least one of the local leaders.

Out of the examined characteristics, area of residence, household poverty status, as well as socio-economic group are most correlated with communication trends. A higher proportion of rural than peri-urban households had been in contact with at least one of the local leaders in the year preceding the survey, at 56 and 44 percent respectively. Households in rural areas are particularly more likely to contact their 10-cell leader and sub-village chairman that those in peri-urban areas. For instance, sub-village chairmen had been contacted in their official capacity by nearly twice as high a proportion of households in rural than peri-urban areas. Further, a higher proportion of non-poor than poor households had been in contact with one or more of their local leaders, at 62 and 51 percent respectively. Again, rates of communication with the sub-village chairman vary most between these two groups, followed by those with the 10-cell leader. Differences in rates of communication with representatives of higher levels of local government are noticeably smaller.

Households from the unemployed group are less likely to communicate with representatives of local government than those from the employed and the self-employed groups. A higher proportion of households from the employed group had been in contact with each of the representatives of local government with the exception of 10-cell leaders, than households from the other two groups. Most noticeably, the proportion of households in the employed group who had communicated with the councillor is nearly 3 times higher than the district average, at 8 percent.

Trends in formal communication with local leaders do not vary substantially by the rest of the examined household and village characteristics. These include, gender and education of the household head, location of the household within the sub-village, proximity of the village to the district capital, as well as the level of ethnic diversity in the village.

Table 49: 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
Mbulu District	46	40	23	3	55
Rural	47	42	24	4	56
Peri-urban	35	24	17	1	44
Poverty					
Non-poor	51	49	27	4	62
Poor	43	35	21	3	51

	10-cell leader	Sub-village chairman	Village chairman	District councillor (diwani)	At least one local leader
Socio-economic group					
Employed	41	44	30	8	59
Self-employed	47	41	22	3	56
Unemployed	40	34	28	0	45
Gender of head of household					
Male	46	40	24	4	55
Female	48	41	18	1	55
Education of head of household					
None	42	35	21	1	51
Some	48	43	24	4	57
Village Isolation					
Closer to district capital	45	39	20	4	55
Further from district capital	47	42	26	3	55
Household Isolation					
Closer to centre of EA	48	43	22	6	58
Further from centre of EA	45	39	24	2	54
Ethnic Fractionalisation					
Low	45	42	22	4	55
High	48	39	25	2	57

Involvement in Communal Activities

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

Table 50 shows that the great majority (80 percent) of households in Mbulu were participating in communal works at the time of the survey. The level of participation in communal works is significantly higher in rural than peri-urban areas, at 81 and 68 percent respectively.

Household characteristics were found to be more correlated with trends in participation in communal works than village characteristics. While over 80 percent of households in the employed and self-employed groups claimed to be involved in communal works, only three fifths of unemployed households were in this position. Further, while 83 percent of male-headed households were participating in communal works at the time of the survey, this was the case in only 51 percent of female headed households. Finally, there is a positive correlation between education of the household head and the rate of participation in communal works.

Differences in participation rates across the rest of the examined sub-groups were less than 10 percentage points. These sub-groups include poor and non-poor households, households located closer to and further from the district capital and the centre of the sub-village, as well as those located in more and less ethnically diverse areas.

The rate of participation in indigenous insurance groups is very low in Mbulu district. Only 6 percent of households were involved in these at the time of the survey. In peri-urban areas, this proportion is even lower, at 4 percent. Poor households appear to be more likely to participate in indigenous insurance groups than non-poor households. Participation is higher among households headed by employed individuals, compared to those headed by the self-employed and the unemployed. A slightly higher proportion of male headed households and those headed by individuals with some formal schooling were participating in indigenous insurance groups at the time of the survey. Finally, the proportion of households located further from the sub-village centre and participating in indigenous insurance groups is nearly twice as high as that of more central households.

Village characteristics were also found to be correlated with rates of participation in the insurance groups. Those living in villages located further from the district capital, as well as those in more ethically diverse villages were found to be roughly 3 times more likely to participate in indigenous insurance groups than those living closer to the district capital and in more ethnically homogeneous villages. It must be noted, however, that the differences between these groups are not statistically significant and may, therefore, be characteristic of the specific sample only.

Table 50: Distribution of Household Rates of Participation in Communal Activities by Household Characteristics

	Participation in Communal Works	Participation in Indigenous Insurance Groups
Mbulu District	80	6
Rural	81	6
Peri-urban	68	4
Poverty		
Non poor	76	4
Poor	82	7
Socio-economic group		
Employed	88	10
Self-employed	80	5
Unemployed	59	6
Gender of head of household		
Male	83	6
Female	51	4
Education of head of household		
None	72	4
Some	83	6
Village Isolation		
Closer to district capital	79	2
Further from district capital	80	9
Household Isolation		
Closer to centre of EA	76	4
Further from centre of EA	82	7
Ethnic Fractionalisation		
Low	82	3
High	76	9

ANNEX A

Estimates of Sampling Errors

Table A 1 : Confidence Intervals Around Key Estimates

	Estimate	(Standard Error) S.E.	95% Confidence Interval	
Household characteristics			Lower	Upper
Mean Household size	6.332	0.16	6.000	6.663
Percentage of landless households	0.052	0.015	0.022	0.083
Percentage of households with no livestock	0.262	0.037	0.186	0.338
Proportion of self-employed household heads	0.844	0.022	0.798	0.889
Percentage of male headed households	0.897	0.017	0.863	0.931
Percentage of household heads with no formal education	0.332	0.024	0.282	0.381
Education				
Percentage of adults (15+) who have had any formal schooling	0.716	0.017	0.681	0.750
Average years of schooling among adults	4.470	0.134	4.197	4.744
Percentage of literate individuals in the 15+ age group	0.676	0.016	0.642	0.710
Primary education				
Primary school access rate	0.474	0.052	0.367	0.582
Primary school Net Enrolment Rate	0.826	0.031	0.763	0.889
Primary school satisfaction rate	0.544	0.032	0.478	0.610
Secondary education				
Secondary school access rate	0.185	0.060	0.062	0.309
Secondary school Net Enrolment Rate	0.109	0.016	0.077	0.142
Health				
Access	0.173	0.042	0.087	0.259
Need	0.214	0.019	0.176	0.252
Use	0.164	0.013	0.137	0.191
Satisfaction	0.668	0.044	0.577	0.759

	Estimate	(Standard Error) S.E.	95% Confidence Interval	
Reproductive health				
Percentage of women who had given birth in the last 12 months and had used prenatal care	0.939	0.026	0.886	0.992
Percentage of hospital births from the last 5 years	0.455	0.044	0.366	0.545
Child nutrition				
Stunted	0.219	0.029	0.159	0.279
Wasted	0.030	0.010	0.010	0.049
Employment				
Percentage of working individuals in the 15+ age group	0.888	0.011	0.866	0.911
Local Governance				
Percentage of households aware of public village meetings	0.550	0.037	0.474	0.625
Percentage of households aware of the existence of a Finance and Planning Committee on their Village Council	0.639	0.036	0.566	0.712
Percentage of households aware of activity of outside organisations in their village	0.180	0.023	0.133	0.227
Percentage of households expressing opinions at public village meetings out of those aware of the meetings	0.053	0.019	0.012	0.093

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

Dependent 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 followed 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^{th} and 95^{th} percentile of the dataset of 100 poverty predictions. The results of this procedure are summarised in Table B1 below. The poverty rate in the district is 62% and we can say with 95% certainty that it lies between 55% and 68%.

Table B 2: Confidence Intervals for Poverty Predictors (Percentage of Households Living under the Basic Needs Poverty Line)

		95% confidence interval	
	Poverty Rate (%)	Lower Limit	Upper Limit
Mbulu District	62	55	68

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 B2 shows, for example, that poverty among households with access to primary schools is 1 percentage points lower than poverty among households without access to primary school. With 95% certainty this difference lies between -4 and 6 percentage points. The difference is, therefore, not statistically significant. Poverty rates do, however, differ significantly according to the sex of the household head. On average the poverty rate among male headed households is found to be 17 percentage points

higher than in female headed households, but within a 95% confidence interval it may be between 26 and 8 percentage points higher.

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	1	-04	06
Adult (age 15+) is not literate	Adult (age 15+) is literate	6	02	10
Household head is female	Household head is male	- 17	-26	-08

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

This procedure can be criticised when the variable under analysis is also part of the independent variables in the consumption regression. In this case at least some of the correlation between consumption and the variable in question is there by construction. To tackle this, bootstrap results in this report have been performed twice for poverty predictors. Once according to the method described above and a second time with the variable in question dropped from the regression. The results stay by and large the same; we can be confident that the constructed correlation is not driving the results.

Of course, it could still be true that the variable under study is picking up correlation from other correlates. This, however, is inherent to a bi-variate analysis.

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
Mbulu District	78	84	71	71
Rural	78	84	72	71
Peri-Urban	76	83	56	68
Poverty				
Non-poor	71	80	61	60
Poor	80	86	74	75
Socio-economic Group				
Employed	81	86	72	69
Self-employed	78	85	71	71
Unemployed	65	67	69	79
Village Isolation				
Closer to district capital	76	82	69	72
Further from district capital	79	86	72	70
Household Isolation				
Closer to centre of EA	77	83	71	71
Further from centre of EA	78	85	71	71
Ethnic Fractionalisation				
Low	78	84	74	73
High	78	84	66	68

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

	Household Head	Spouse	Other
Mbulu District	85	10	4
Rural	85	10	5
Peri-Urban	85	14	1
Poverty			
Non-poor	89	8	3
Poor	83	12	5
Socio-economic Group			
Employed	84	14	2
Self-employed	90	8	2
Unemployed	27	39	34
Village Isolation			
Closer to district capital	84	11	4
Further from district capital	86	10	4
Household Isolation			
Closer to centre of EA	85	12	4
Further from centre of EA	86	9	5
Ethnic Fractionalisation			
Low	84	12	4
High	87	9	4

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

	Car	Bicycle	Phone	Motor-cycle	Radio	Watch	TV set	Bed	Toilet	Books	Iron	Bank Account
Mbulu District	2	36	2	0	34	52	1	56	84	30	17	4
Rural	1	36	1	0	32	51	0	53	85	29	15	3
Peri-Urban	4	33	12	2	55	64	8	81	82	41	36	14
Poverty												
Non-poor	2	42	5	1	47	59	3	65	89	41	35	8
Poor	1	32	1	0	26	47	0	50	81	24	6	1
Socio-economic Group												
Employed	2	52	6	0	54	68	6	68	93	62	34	17
Self-employed	1	36	2	0	33	51	0	55	84	27	16	3
Unemployed	3	13	2	0	13	33	0	51	78	27	4	2
Village Isolation												
Closer to district capital	0	28	2	0	35	51	2	62	87	24	15	5
Further from district capital	3	43	2	0	33	53	0	51	82	36	19	34
Household Isolation												
Closer to centre of EA	2	30	2	0	36	50	1	61	86	33	20	4
Further from centre of EA	2	40	3	0	32	53	1	52	83	28	15	4
Ethic Fractionalisation												
Low	1	32	1	0	34	54	0	55	90	27	16	4
High	3	42	4	1	34	49	2	58	76	35	19	5

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
Mbulu District	15	0	0	57	28
Rural	14	0	0	56	29
Peri-Urban	18	1	3	69	9
Poverty					
Non-poor	11	0	1	62	27
Poor	17	0	0	54	28
Socio-economic Group					
Employed	7	1	3	76	12
Self-employed	15	0	0	55	29
Unemployed	22	0	0	50	28
Village Isolation					
Closer to district capital	13	0	1	70	16
Further from district capital	17	0	0	46	38
Household Isolation					
Closer to centre of EA	13	0	0	60	26
Further from centre of EA	16	0	0	54	29
Ethnic Fractionalisation					
Low	9	0	0	66	24
High	24	0	0	43	32

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

	Firewood	Charcoal
Mbulu District	97	3
Rural	99	1
Peri-Urban	75	25
Poverty		
Non-poor	93	7
Poor	99	1
Socio-economic Group		
Employed	85	15
Self-employed	98	2
Unemployed	96	4
Village Isolation		
Closer to district capital	95	5
Further from district capital	99	1
Household Isolation		
Closer to centre of EA	98	2
Further from centre of EA	96	4
Ethnic Fractionalisation		
Low	99	1
High	93	7

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

	Kerosene	Electricity	Firewood
Mbulu District	84	2	13
Rural	84	1	15
Peri-Urban	87	13	0
Poverty			
Non-poor	83	5	12
Poor	85	0	14
Socio-economic Group			
Employed	80	9	11
Self-employed	85	1	13
Unemployed	76	4	20
Village Isolation			
Closer to district capital	88	4	7
Further from district capital	81	0	19
Household Isolation			
Closer to centre of EA	90	2	8
Further from centre of EA	80	2	17
Ethnic Fractionalisation			
Low	88	1	10
High	78	4	18

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
Mbulu District	1	2	28	23	46
Rural	0	1	24	25	49
Peri-Urban	6	9	68	0	16
Poverty					
Non-poor	2	4	28	17	48
Poor	0	1	28	26	44
Socio-economic Group					
Employed	3	3	30	19	46
Self-employed	1	2	27	23	47
Unemployed	0	4	38	28	31
Village Isolation					
Closer to district capital	1	3	21	20	54
Further from district capital	1	1	35	25	38
Household Isolation					
Closer to centre of EA	1	4	25	19	51
Further from centre of EA	1	1	30	26	41
Ethnic Fractionalisation					
Low	0	1	9	29	61
High	2	4	56	14	23

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

	Permanent[1]	Non permanent[2]
Mbulu District	27	73
Rural	21	79
Peri-Urban	78	22
Poverty		
Non-poor	44	56
Poor	16	84
Socio-economic Group		
Employed	59	41
Self-employed	24	76
Unemployed	18	82
Village Isolation		
Closer to district capital	32	68
Further from district capital	22	78
Household Isolation		
Closer to centre of EA	34	66
Further from centre of EA	21	79
Ethnic Fractionalisation		
Low	21	79
High	35	65

[1] Iron sheets, cement, concrete, asbestos
[2] Mud, thatch, other

Table C3 9: Distribution of Households by Wall Material

	Permanent[1]	Non permanent[2]
Mbulu District	5	95
Rural	4	96
Peri-Urban	17	83
Poverty		
Non-poor	13	87
Poor	0	100
Socio-economic Group		
Employed	14	86
Self-employed	4	96
Unemployed	6	94
Village Isolation		
Closer to district capital	6	94
Further from district capital	4	96
Household Isolation		
Closer to centre of EA	6	94
Further from centre of EA	5	95
Ethnic Fractionalisation		
Low	3	97
High	8	92

[1] Burnt bricks, cement, sand crete
[2] Mud, mud bricks, wood, bamboo, other

Table C3 10: Distribution of Household by Floor Type

	Cement	Mud	Other
Mbulu District	5	95	0
Rural	3	97	0
Peri-Urban	19	79	3
Poverty			
Non-poor	12	88	1
Poor	1	99	0
Socio-economic Group			
Employed	19	79	3
Self-employed	3	97	0
Unemployed	4	96	0
Village Isolation			
Closer to district capital	6	93	1
Further from district capital	4	96	0
Household Isolation			
Closer to centre of EA	6	94	0
Further from centre of EA	4	96	0
Ethnic Fractionalisation			
Low	3	97	0
High	8	92	1

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

	Mean Number of Rooms	Owns dwelling	Rents dwelling	Nomadic/ Temporary dwelling
Mbulu District	3.3	97	3	0
Rural	3.3	98	2	0
Peri-Urban	3.1	86	10	3
Poverty				
Non-poor	3.2	94	5	1
Poor	3.3	99	1	0
Socio-economic Group				
Employed	3.6	89	8	0
Self-employed	3.2	98	2	0
Unemployed	3.2	96	0	4
Village Isolation				
Closer to district capital	3.3	96	2	1
Further from district capital	3.3	97	3	0
Household Isolation				
Closer to centre of EA	3.3	96	3	0
Further from centre of EA	3.2	98	2	0
Ethnic Fractionalisation				
Low	3.3	99	1	0
High	3.2	94	5	1

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

	0 to 14	15 to 29	30 to 44	45 to 59	60 +
Mbulu District	55	20	13	5	6
Rural	53	21	14	6	7
Peri-Urban	79	9	10	2	0
Poverty					
Non-poor	61	19	13	4	3
Poor	52	20	14	6	8
Socio-economic Group					
Employed	64	15	18	0	3
Self-employed	54	20	13	6	7
Unemployed	61	17	13	4	6
Village Isolation					
Closer to district capital	68	20	10	1	1
Further from district capital	44	19	16	9	11
Household Isolation					
Closer to centre of EA	65	17	11	3	4
Further from centre of EA	47	22	15	7	8
Ethnic Fractionalisation					
Low	57	20	12	4	7
High	52	19	15	8	5

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

	0 to 14	15 to 29	30 to 44	45 to 59	60 +
Mbulu District	8	9	14	7	62
Rural	5	6	13	8	68
Peri-Urban	37	28	25	3	6
Poverty					
Non-poor	11	12	16	10	52
Poor	7	6	13	6	69
Socio-economic Group					
Employed	13	14	12	1	60
Self-employed	7	7	13	8	64
Unemployed	13	19	26	0	42
Village Isolation					
Closer to district capital	8	7	16	6	63
Further from district capital	8	10	12	9	61
Household Isolation					
Closer to centre of EA	11	11	18	7	53
Further from centre of EA	5	7	11	7	70
Ethnic Fractionalisation					
Low	2	5	14	9	70
High	17	14	13	5	51

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

	0 to 14	15 to 29	30 to 44	45 to 59	60 +
Mbulu District	10	7	12	10	61
Rural	8	4	10	11	67
Peri-Urban	25	36	30	3	6
Poverty					
Non-poor	12	9	12	9	58
Poor	8	6	12	10	64
Socio-economic Group					
Employed	19	12	10	6	54
Self-employed	8	6	11	10	64
Unemployed	17	12	27	7	36
Village Isolation					
Closer to district capital	6	8	12	6	69
Further from district capital	13	7	12	14	55
Household Isolation					
Closer to centre of EA	13	7	13	7	60
Further from centre of EA	7	8	11	12	62
Ethnic Fractionalisation					
Low	4	3	11	11	71
High	18	14	13	8	47

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

	Water	Market	Transport	Health Facility	Primary School	Secondary school
Car / dala dala	1	1	0	1	1	2
Bicycle	1	10	10	7	0	6
Motorbike	0	0	0	0	0	0
Foot	98	89	89	92	99	92

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
Mbulu District	0.5	67	33
Rural	0.5	68	32
Peri-Urban	0.7	58	42
Poverty			
Non-poor	0.9	49	51
Poor	0.3	78	22
Socio-economic Group			
Employed	0.9	45	55
Self-employed	0.5	69	31
Unemployed	0.3	81	19
Village Isolation			
Closer to district capital	0.6	63	37
Further from district capital	0.5	71	29
Household Isolation			
Closer to centre of EA	0.6	65	35
Further from centre of EA	0.5	70	30
Ethnic Fractionalisation			
Low	0.6	65	35
High	0.5	71	29

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
Mbulu District	2.3	31	28	14	27
Rural	2.2	31	28	14	27
Peri-Urban	2.2	27	26	12	36
Poverty					
Non-poor	2.3	35	26	14	25
Poor	2.2	28	28	13	30
Socio-economic Group					
Employed	2.3	28	23	20	28
Self-employed	2.2	32	27	14	27
Unemployed	2.3	20	33	1	46
Village Isolation					
Closer to district capital	2.2	23	32	13	32
Further from district capital	2.3	38	23	14	25
Household Isolation					
Closer to centre of EA	2.2	27	28	12	33
Further from centre of EA	2.3	34	26	15	24
Ethnic Fractionalisation					
Low	2.2	32	28	12	28
High	2.3	29	27	15	29

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
Mbulu District	23	41	19	14	0	2
Rural	23	41	19	15	0	2
Peri-Urban	23	39	28	7	0	1
Poverty						
Non-poor	18	43	23	13	0	3
Poor	26	40	17	15	1	1
Socio-economic Group						
Employed	18	52	17	11	0	2
Self-employed	23	40	20	14	1	2
Unemployed	30	35	18	17	0	0
Village Isolation						
Closer to district capital	21	45	18	13	0	3
Further from district capital	25	37	21	15	0	1
Household Isolation						
Closer to centre of EA	18	46	19	13	1	3
Further from centre of EA	27	37	20	15	0	1
Ethnic Fractionalisation						
Low	18	42	21	16	1	3
High	31	39	17	12	0	1

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
Mbulu District	24	43	16	18	0
Rural	24	43	16	18	0
Peri-Urban	24	44	16	16	0
Poverty					
Non-poor	18	43	14	24	0
Poor	27	42	17	13	0
Socio-economic Group					
Employed	14	56	16	14	0
Self-employed	24	41	16	18	0
Unemployed	33	41	13	14	0
Village Isolation					
Closer to district capital	20	45	19	15	0
Further from district capital	27	41	13	20	0
Household Isolation					
Closer to centre of EA	20	46	17	16	0
Further from centre of EA	26	40	15	18	0
Ethnic Fractionalisation					
Low	18	43	21	18	0
High	32	43	9	16	0

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

	Less Now	Same	More Now
Mbulu District	16	64	20
Rural	17	62	20
Peri-Urban	9	79	12
Poverty			
Non-poor	12	70	18
Poor	19	60	20
Socio-economic Group			
Employed	8	76	15
Self-employed	17	61	21
Unemployed	15	83	2
Village Isolation			
Closer to district capital	19	68	14
Further from district capital	14	60	25
Household Isolation			
Closer to centre of EA	14	68	18
Further from centre of EA	18	61	21
Ethnic Fractionalisation			
Low	19	63	17
High	12	65	23

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

	Less Now	Same	More Now
Mbulu District	18	56	27
Rural	18	55	27
Peri-Urban	14	68	18
Poverty			
Non-poor	11	59	29
Poor	22	54	25
Socio-economic Group			
Employed	10	57	33
Self-employed	18	56	26
Unemployed	26	47	28
Village Isolation			
Closer to district capital	20	55	25
Further from district capital	15	56	28
Household Isolation			
Closer to centre of EA	18	61	21
Further from centre of EA	18	52	31
Ethnic Fractionalisation			
Low	20	52	28
High	14	61	25

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

	Less Now	Same	More Now
Mbulu District	2	97	2
Rural	1	97	2
Peri-Urban	4	96	0
Poverty			
Non-poor	2	96	2
Poor	1	97	2
Socio-economic Group			
Employed	1	97	1
Self-employed	2	97	2
Unemployed	3	96	1
Village Isolation			
Closer to district capital	2	96	2
Further from district capital	1	97	2
Household Isolation			
Closer to centre of EA	3	96	1
Further from centre of EA	1	97	2
Ethnic Fractionalisation			
Low	1	97	1
High	2	95	2

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
Mbulu District	97	1	1	1	0
Rural	97	1	1	1	0
Peri-Urban	90	3	3	3	1
Poverty					
Non-poor	91	3	3	3	0
Poor	99	0	0	0	0
Socio-economic Group					
Employed	88	4	4	3	1
Self-employed	98	1	1	1	0
Unemployed	99	1	0	0	0
Village Isolation					
Closer to district capital	95	2	2	2	0
Further from district capital	98	1	1	0	0
Household Isolation					
Closer to centre of EA	95	2	1	1	0
Further from centre of EA	98	1	1	1	0
Ethnic Fractionalisation					
Low	97	1	1	1	0
High	96	1	1	1	0

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[1]
Mbulu District	1	36
Rural	1	24
Peri-Urban	0	49
Poverty		
Non-poor	1	37
Poor	1	34
Socio-economic Group		
Employed	1	49
Self-employed	1	26
Unemployed	0	82
Village Isolation		
Closer to district capital	1	37
Further from district capital	1	32
Household Isolation		
Closer to centre of EA	1	42
Further from centre of EA	1	29
Ethnic Fractionalisation		
Low	1	23
High	1	40

[1] 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
Mbulu District	36	37	10	16
Rural	35	38	11	16
Peri-Urban	50	31	2	13
Poverty				
Non-poor	42	38	8	10
Poor	33	37	11	18
Socio-economic Group				
Employed	32	35	10	21
Self-employed	37	39	10	13
Unemployed	33	17	10	40
Village Isolation				
Closer to district capital	37	34	10	18
Further from district capital	36	40	10	14
Household Isolation				
Closer to centre of EA	35	36	11	17
Further from centre of EA	37	38	9	15
Ethnic Fractionalisation				
Low	37	33	12	18
High	35	43	8	13

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
Mbulu District	53	40	7
Rural	52	40	8
Peri-Urban	59	41	0
Poverty			
Non-poor	64	27	9
Poor	47	47	6
Socio-economic Group			
Employed	44	41	15
Self-employed	50	45	5
Unemployed	83	0	17
Village Isolation			
Closer to district capital	59	37	4
Further from district capital	50	41	9
Household Isolation			
Closer to centre of EA	60	37	3
Further from centre of EA	50	41	9
Ethnic Fractionalisation			
Low	46	45	10
High	75	25	0

ANNEX D
Household Questionnaire

Kumbukumbu Na ☐☐☐☐☐☐☐☐

CORE WELFARE INDICATORS QUESTIONNAIRE

SNV TANZANIA

A - INTERRVIEW 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 dd / mm / yy ☐☐/☐☐/☐☐

A8a TIME START Hr Min ☐☐/☐☐

A8b AM or PM ☐

A9a INTERVIEW END Hr Min ☐☐/☐☐

A9b AM or PM ☐

A10 Qestionnaire No. ☐☐

A11 STATUS ☐

A12 SUPERVISOR ☐☐

A13 INTERPRETER
1=YES
2=NO ☐

A11 STATUS
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.

Kumbukumbu Na | | | | | | | | |

B – LIST OF HOUSHOLD MEMBERS

ID CODE	B1 Orodha ya majina ya wanakaya	B2 Je, [JINA] ni mwanaume au mwanamke? 1=Mwanaume 2=Mwanamke	B3 Je, [JINA] ana umri wa miaka mingapi? (IN YEARS ONLY)	B4 Je, katika kipindi cha miezi 12 iliyopita, ni kwa muda gani [JINA] amekuwa akiishi nje ya kaya hii? 1= Hajawahi kuishi nje ya kaya hii 2= Chini ya miezi 6 3= Miezi 6 na zaidi	B5 Je, [JINA] anachangia kwenye pato la kaya? 1=Ndiyo 2=Hapana	B6 Je, [JINA] ana uhusiano gani na mkuu wa kaya? 1= Mkuu wa Kaya 2= Mke/Mume 3= Mtoto 4= Mzazi 5= Ndugu wengine 6= Hakuna uhusiano
01						
02						
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10						

Kumbukumbu Na | | | | | | | | |

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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Kumbukumbu Na. | | | | | | | | |

C – EDUCATION

ID CODE	C1 IS (NAME) 6 YEARS OR OLDER? 1=Yes 2=No (> NEXT PERSON)	C2 Je, [JINA] anaweza kusoma na kuandika? 1=Ndiyo 2=Hapana	C3 Je, [JINA] amewahi kwenda shule? 1=Ndiyo 2=Hapana (> NEXT PERSON)	C4 Je, ni kiwango gani cha juu kabisa cha elimu [JINA] alichomaliza? (CHOOSE FROM OPTIONS ON THE RIGHT)	C5 Ni mafunzo gani ya zaidi [JINA] ume wahi kupata? (CHOOSE FROM OPTIONS ON THE RIGHT)	C6 Je, [JINA] alikwenda shule mwaka jana? (LAST ACADEMIC YEAR) 1=Ndiyo 2=Hapana	C7 Je, [JINA] anahudhuria shule sasa? 1=Ndiyo 2=Hapana (> C11)	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: C5 CHOICES: 00=None 01=Post P/s 02=Post S/s 03=Vocational 04=Adult education
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02								
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Kumbukumbu Na | | | | | | | | |

C – EDUCATION

ID CODE	C8 Je, ni kiwango gani cha elimu [JINA] alichopo kwa sasa? (CHOOSE FROM OPTIONS ON THE RIGHT)	C9 Je, shule anayosoma [JINA] inaendeshwa na nani? 1=Serikali 2=Dini 3=Binafsi 4=Jumuiya 5=Nyingine	C10 Je, [JINA] aliona matatizo gani ya shule anakosomea? 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) > NEXT PERSON				C11 Je, ni kwa nini [JINA] hasomi shule kwa sasa? 1=Mkubwa/amemaliza 2=Mbali 3=Ghali 4=Anafanya kazi (nyumbani au ajira) 5=Haina maana 6=Mgonjwa 7=Mjamzito 8=Amefeli 9=Ameolewa 10=Alipigwa 11=Nyingine (YOU MAY MARK MORE THAN ONE OPTION)				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
01											
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Kumbukumbu Na. | | | | | | | | |

D - HEALTH

ID CODE	D1 IS [NAME] A FEMALE AGED 13 YRS OR OLDER? 1=Yes 2=No (> D4)	D2 Je, [JINA] alijifungua mtoto hai katika kipindi cha miezi 12 iliyopita? 1=Ndiyo 2=Hapana (> D4)	D3 Je, [JINA] alipata huduma ya kliniki alipokuwa mjamzito 1=Ndiyo 2=Hapana	D4 Je, [JINA] ana ulemavu wowote wa viungo au akili? 1=Ndiyo 2=Hapana	D5 Usiku wa kuamkia leo [JINA] alitumia chandarua kujikinga na mbu? 1=Ndiyo 2=Hapana (> D7) 3=Sijui (> D7)	D6 Je, chandarua alichotumia [JINA] kimewahi kunyunyiziwa dawa kafika kipindi cha miezi 6 iliyopita? 1=Ndiyo 2=Hapana	D7 Je, [JINA] amepata ugonjwa/kujeruhiwa katika wiki 4 zilizopita? 1=Ndiyo 2=Hapana (> D10) 3=Sijui (> D10)	COMMENTS ON D4: INCLUDE PERSON ONLY IF HANDICAP PREVENTS HIM OR HER FROM PARTICIPATING IN ACTIVITY OR SCHOOLING
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02								
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Kumbukumbu Na | | | | | | | | |

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) > NEXT PERSON	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
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Kumbukumbu Na | | | | | | | | |

E – EMPLOYMENT

ID CODE	E1 IS (NAME) 5 YEARS OR OLDER? 1=Yes 2=No (> NEXT PERSON)	E2 Je, [JINA] alifanya kazi yeyote katika kipindi cha siku 7 zilizopita? 1=Ndiyo (> E5) 2=Hapana	E3 Je, [JINA] alifanya kazi yoyote ile katika wiki 4 zilizopita? 1=Ndiyo (> E5) 2=Hapana	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 > NEXT PERSON	E5 Je,[JINA] alikuwa analipwaje kwa kazi yake kuu/muhimu? 1=Mshahara au Posho 2=Kibarua (kwa saa au kwa siku) 3=Kujiajiri mwenyewe (> E7) 4=Kujitolea 5=Nyingine (SPECIFY)	E6 Je, hiyo kazi/muhimu [JINA] alikuwa anamfanyia nani? 1=Serikali 2=Ajira isiyo ya serikali (yennye mkataba)/rasmi 3=Ajira isiyo ya serikali (bila mkataba)/isiyorasmi 4=Nyingine > E8	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 aliyo nayo [JINA] sasa, anaweza kufanya kazi nyingine zaidi? 1=Ndiyo 2=Hapana
01								
02								
03								
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Kumbukumbu Na | | | | | | | | |

F – HOUSEHOLD ASSETS

F1 Je, mwanakaya au kaya hii inamiliki makazi? 1=Ina/anamiliki makazi/nyumba 2=Ina/anapanga makazi/nyumba 3=Ina/anatumia bila kulipa 4=Makazi ya muda	F2 Je, makazi yenu yana vyumba vingapi?	F3 Ekari ngapi za ardhi zinamilikiwa na kaya? (WITH ONE DECIMAL, E.G. 24.7) __ __ . __
F4 Kiasi hiki cha ardhi kinalinganishwje na kile mlichokuwa nacho miezi 12 iliyopita? 1=Ni pungufu kwa sasa 2=Kiasi kile kile 3=Ni zaidi kwa sasa 4=Sijui	F5 Je, kaya hutumia ardhi isiyoimiliki? 1=Hapana (> F7) 2=Ndiyo, ya kukodi 3=Ndiyo, ya kushirikiana 4=Ndiyo, ardhi binafsi ya bure 5=Ndiyo, maliya umma	F6 Je, ni ekari ngapi za ardhi nyingine zisizomilikiwa ambazo hutumiwa na kaya hii? (WITH ONE DECIMAL, E.G. 24.7) __ __ . __
F7 Kiasi hiki cha ardhi kinalinganishwaje na kile mlichokuwa nacho miezi 12 iliyopita? 1=Ni pungufu kwa sasa 2=Kiasi kilekile 3=Ni zaidi kwa sasa 4=Sijui	F8 Je, ni mifugo mikubwa (ng'ombe….) mingapi inayomilikiwa na kaya kwa sasa?	F9 Idadi hii ya mifugo inalinganishwaje na ile mliyokuwa nayo miezi 12 iliyopita? 1=Ni pungufu kwa sasa 2=Kiasi kile kile 3=Ni zaidi kwa sasa 4=Sijui
F10 Je, ni kondoo, mbuzi, ngurue, pamoja na mifugo mingine kama hii mingapi amabayo inamilikiwa na kaya kwa sasa?	F11 Idadi hii ya mifugo inalinganishwaje na ile mliyokuwa nayo miezi 12 iliyopita? 1=Ni pungufu kwa sasa 2=Kiasi kile kile 3=Ni zaidi kwa sasa 4=Sijui	F12 Je, kaya inamiliki chochote kati ya hivi vitu vifuatavyo? 1=Gari au lori 4=Pikipiki 7=Televisheni 10=Vitabu 2=Baiskeli 5=Redio 8=Kitanda 11=Pasi 3=Simu 6=Saa 9=Choo

Kumbukumbu Na | | | | | | | | |

F – HOUSEHOLD ASSETS

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

Kumbukumbu Na | | | | | | | | |

G – HOUSEHOLD AMENITIES

G1 JE, NYUMBA HII IMEEZEKWA KWA KUTUMIA NINI? 1=MATOPE 2=MAKUTI/NYASI 3=MBAO 4=MABATI 5=SARUJI/ZEGE 6=VIGAE 7=MABATI YA SARUJI (ASBESTOS) 8=NYINGINE	G2 JE, KUTA ZA NYUMBA HII ZIMEJENGWA KWA KUTUMIA NINI? 1=MATOPE/MATOFALI YA UDONGO 2=MAWE 3=MATOFALI YA KUCHOMA 4=SARUJI/ZEGE 5=MBAO/MIANZI 6=MABATI 7=MBAOLAINI (CARDBOARD) 8=NYINGINE	G3 JE, SAKAFU YA NYUMBAHII NI YA AINA GANI? 1=SARUJI 2=TOPE 3=NYINGINEZO
G4 Je, ni aina gani ya choo hutumiwa na kaya hii? 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 kisichofunikwa 7=Choo cha shimo chenye bomba la kutolea hewa chafu 8=Nyingine	G5 Je, ni nishati gani kuu itumikayo kwa ajili ya kupikia? 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	G6 Je, ni nishati gani kuu itumikayo kwa mwanga? 1=Mafuta taa 2=Gesi 3=Umeme 4=Genereta 5=Mishumaa 6=Beteri 7=Kuni 8=Nyingine
G7 Je,ni nini chanzo kikuu cha maji ya kunywa? 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		

Kumbukumbu Na | | | | | | | | |

G – HOUSEHOLD AMENITIES

HUDUMA	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 mnayotumia 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]?
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?	G12 Je kaya hii inafaidikaje na kuwepo kwa mhudumu wa afya wa kijiji?
1=Ndiyo 2=Hapana (> NEXT SECTION) ☐	1=Hakuna manufaa 2=Ushauri 3=Mafunzo 4=Vifaa (kama vile vyandarua, ..) 5=Kingine(SPECIFY)_____ ☐

Kumbukumbu Na ☐☐☐☐☐☐☐☐

H – PLANNING AND PARTICIPATION

H1 Kwa kawaida ni mara ngapi **kitongoji** kinahitisha mikutano ya hadhara? (ENTER NUMBER OF TIMES PER YEAR) (DON'T KNOW = 99) ☐	H2 Katika kipindi cha miezi 12 iliyopita ni mikutano mingapi ya kitongoji ilifanyika? (DON'T KNOW = 99) ☐	H3 Je, katika kipindi cha miezi 12 iliyopita umehudhuria mikutano mingapi kati ya hiyo? ☐ (IF= 0 > H5)
H4 Kati ya mikutano uliyohudhuria katika kipindi cha miezi 12 iliyopita ni mingapi ulitoa maoni yako? ☐	H5 Kwa kawaida ni mara ngapi **kijiji** kinahitisha mikutano ya hadhara? (ENTER NUMBER OF TIMES PER YEAR) (DON'T KNOW = 99) ☐	H6 Katika kipindi cha miezi 12 iliyopita ni mikutano mingapi ya kijiji ilifanyika? (DON'T KNOW = 99) ☐
H7 Je, katika kipindi cha miezi 12 iliyopita umehudhuria mikutano mingapi kati ya hiyo? ☐ (IF=0 > H9)	H8 Kati ya mikutano uliyohudhuria katika kipindi cha miezi 12 iliyopita ni mingapi ulitoa maoni yako? ☐	H9 Katika kipindi cha miezi 12 iliyopita kaya yako ilishiriki katika shughuri za jamii za jumla kwa kuchangia nguvukazi, fedha au vitu vyovyote visivyo vya kifedha? ☐ 1=Ndiyo 2=Hapana (> H11)
H10 Je shughuri gani kaya yako ilishiriki kati ya hizi zifuatazo? (MORE THAN ONE ANSWER POSSIBLE) 1=Shule 2=Afya 3=Barabara 4=Maji ☐☐☐ 5=KulinDa mali za kijiji 6=Nyingine (SPECIFY) _____	H11 Katika kipindi cha miezi 12 iliyopita kuna mwanakaya yeyote yule aliyewahi kunufaika na shughuri za Bw./Bibi shamba? 1=Ndiyo 2=Hapana ☐	H12 Katika kipindi cha miezi 12 iliyopita kuna mwanakaya yeyote yule aliyewahi kunufaika na mashirika yoyote yasiyo ya jamii hii? 1=Ndiyo 2=Hapana (> H14) ☐
H13 Je, kaya yako imefaidika na mashirika gani? (USE CODESHEET TO WRITE DOWN APPROPRIATE CODE. IF NOT ON CODESHEET, WRITE NAME) ☐☐☐☐☐ OTHER (SPECIFY) _____		

Kumbukumbu Na | | | | | | | | |

H – PLANNING AND PARTICIPATION

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

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

H20 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)	H21 Kwa ujumula kaya yako inashiriki katika vikundi vingapi kati ya hivi? (SUM ACCROSS MEMBERS) ☐	H22 Mbali na vyama hivyo kuna mwanakaya yeyote anayeshiriki katika vikundi/vyama vingine vya majirani au marafiki? 1=Ndiyo ☐ 2=Hapana (> NEXT SECTION)	H23 Kwa ujumla ni vyama/vikundi vingine vingapi kaya yako/wanakaya wanashiriki? ☐

Kumbukumbu Na ☐☐☐☐☐☐☐☐

I – POVERTY PREDICTORS

I1 Je, kaya hii ina vyumba vingapi vya kulala? ☐	I2 Je, kwa kawaida kaya yako inapata milo 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?	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=Hospitali 2=Nyumbani 3=Kwingineko	1=Daktari 2=Nesi 3=Mkunga 4=Mkunga wa jadi 5=Mwingine			1=Ndiyo 2=Hapana
								___ ___ . ___	___ ___ . ___	
								___ ___ . ___	___ ___ . ___	
								___ ___ . ___	___ ___ . ___	
								___ ___ . ___	___ ___ . ___	

Kumbukumbu Na | | | | | | | | |

K – COMMENTS

ANNEX E
Community Questionnaire

Kumbukumbu Na ☐☐☐☐☐☐☐☐

CORE WELFARE INDICATORS QUESTIONNAIRE

SNV TANZANIA

A - INTERRVIEW 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 dd / mm / yy ☐☐/☐☐/☐☐

A8a TIME START Hr Min ☐☐/☐☐

A8b AM or PM ☐

A9a INTERVIEW END Hr Min ☐☐/☐☐

A9b AM or PM ☐

A10 Qestionnaire No. ☐☐

A11 STATUS ☐

A12 SUPERVISOR ☐☐

A13 INTERPRETER
1=YES
2=NO ☐

A11 STATUS
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.

Kumbukumbu Na | | | | | | | | |

B – LIST OF HOUSHOLD MEMBERS

ID CODE	B1 Orodha ya majina ya wanakaya	B2 Je, [JINA] ni mwanaume au mwanamke? 1=Mwanaume 2=Mwanamke	B3 Je, [JINA] ana umri wa miaka mingapi? (IN YEARS ONLY)	B4 Je, katika kipindi cha miezi 12 iliyopita, ni kwa muda gani [JINA] amekuwa akiishi nje ya kaya hii? 1= Hajawahi kuishi nje ya kaya hii 2= Chini ya miezi 6 3= Miezi 6 na zaidi	B5 Je, [JINA] anachangia kwenye pato la kaya? 1=Ndiyo 2=Hapana	B6 Je, [JINA] ana uhusiano gani na mkuu wa kaya? 1= Mkuu wa Kaya 2= Mke/Mume 3= Mtoto 4= Mzazi 5= Ndugu wengine 6= Hakuna uhusiano
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Kumbukumbu Na | | | | | | | | |

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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Kumbukumbu Na. | | | | | | | | |

C – EDUCATION

ID CODE	C1 IS (NAME) 6 YEARS OR OLDER? 1=Yes 2=No (> NEXT PERSON)	C2 Je, [JINA] anaweza kusoma na kuandika? 1=Ndiyo 2=Hapana	C3 Je, [JINA] amewahi kwenda shule? 1=Ndiyo 2=Hapana (> NEXT PERSON)	C4 Je, ni kiwango gani cha juu kabisa cha elimu [JINA] alichomaliza? (CHOOSE FROM OPTIONS ON THE RIGHT)	C5 Ni mafunzo gani ya zaidi [JINA] ume wahi kupata? (CHOOSE FROM OPTIONS ON THE RIGHT)	C6 Je, [JINA] alikwenda shule mwaka jana? (LAST ACADEMIC YEAR) 1=Ndiyo 2=Hapana	C7 Je, [JINA] anahudhuria shule sasa? 1=Ndiyo 2=Hapana (> C11)	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: C5 CHOICES: 00=None 01=Post P/s 02=Post S/s 03=Vocational 04=Adult education
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Kumbukumbu Na | | | | | | | | |

C – EDUCATION

ID CODE	C8 Je, ni kiwango gani cha elimu [JINA] alichopo kwa sasa? (CHOOSE FROM OPTIONS ON THE RIGHT)	C9 Je, shule anayosoma [JINA] inaendeshwa na nani? 1=Serikali 2=Dini 3=Binafsi 4=Jumuiya 5=Nyingine	C10 Je, [JINA] aliona matatizo gani ya shule anakosomea? 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) > NEXT PERSON				C11 Je, ni kwa nini [JINA] hasomi shule kwa sasa? 1=Mkubwa/amemaliza 2=Mbali 3=Ghali 4=Anafanya kazi (nyumbani au ajira) 5=Haina maana 6=Mgonjwa 7=Mjamzito 8=Amefeli 9=Ameolewa 10=Alipigwa 11=Nyingine (YOU MAY MARK MORE THAN ONE OPTION)				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
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Kumbukumbu Na. | | | | | | | | |

D - HEALTH

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

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) > NEXT PERSON	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
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Kumbukumbu Na | | | | | | | | |

E – EMPLOYMENT

ID CODE	E1 IS (NAME) 5 YEARS OR OLDER? 1=Yes 2=No (> NEXT PERSON)	E2 Je, [JINA] alifanya kazi yeyote katika kipindi cha siku 7 zilizopita? 1=Ndiyo (> E5) 2=Hapana	E3 Je, [JINA] alifanya kazi yoyote ile katika wiki 4 zilizopita? 1=Ndiyo (> E5) 2=Hapana	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 > NEXT PERSON	E5 Je,[JINA] alikuwa analipwaje kwa kazi yake kuu/muhimu? 1=Mshahara au Posho 2=Kibarua (kwa saa au kwa siku) 3=Kujiajiri mwenyewe (> E7) 4=Kujitolea 5=Nyingine (SPECIFY)	E6 Je, hiyo kazi/muhimu [JINA] alikuwa anamfanyia nani? 1=Serikali 2=Ajira isiyo ya serikali (yennye mkataba)/rasmi 3=Ajira isiyo ya serikali (bila mkataba)/isiyorasmi 4=Nyingine > E8	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 aliyo nayo [JINA] sasa, anaweza kufanya kazi nyingine zaidi? 1=Ndiyo 2=Hapana
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Kumbukumbu Na | | | | | | | | |

F – HOUSEHOLD ASSETS

F1 Je, mwanakaya au kaya hii inamiliki makazi? 1=Ina/anamiliki makazi/nyumba 2=Ina/anapanga makazi/nyumba 3=Ina/anatumia bila kulipa 4=Makazi ya muda	F2 Je, makazi yenu yana vyumba vingapi?	F3 Ekari ngapi za ardhi zinamilikiwa na kaya? (WITH ONE DECIMAL, E.G. 24.7) __ __ . __
F4 Kiasi hiki cha ardhi kinalinganishwje na kile mlichokuwa nacho miezi 12 iliyopita? 1=Ni pungufu kwa sasa 2=Kiasi kile kile 3=Ni zaidi kwa sasa 4=Sijui	F5 Je, kaya hutumia ardhi isiyoimiliki? 1=Hapana (> F7) 2=Ndiyo, ya kukodi 3=Ndiyo, ya kushirikiana 4=Ndiyo, ardhi binafsi ya bure 5=Ndiyo, maliya umma	F6 Je, ni ekari ngapi za ardhi nyingine zisizomilikiwa ambazo hutumiwa na kaya hii? (WITH ONE DECIMAL, E.G. 24.7) __ __ . __
F7 Kiasi hiki cha ardhi kinalinganishwaje na kile mlichokuwa nacho miezi 12 iliyopita? 1=Ni pungufu kwa sasa 2=Kiasi kilekile 3=Ni zaidi kwa sasa 4=Sijui	F8 Je, ni mifugo mikubwa (ng'ombe….) mingapi inayomilikiwa na kaya kwa sasa?	F9 Idadi hii ya mifugo inalinganishwaje na ile mliyokuwa nayo miezi 12 iliyopita? 1=Ni pungufu kwa sasa 2=Kiasi kile kile 3=Ni zaidi kwa sasa 4=Sijui
F10 Je, ni kondoo, mbuzi, ngurue, pamoja na mifugo mingine kama hii mingapi amabayo inamilikiwa na kaya kwa sasa?	F11 Idadi hii ya mifugo inalinganishwaje na ile mliyokuwa nayo miezi 12 iliyopita? 1=Ni pungufu kwa sasa 2=Kiasi kile kile 3=Ni zaidi kwa sasa 4=Sijui	F12 Je, kaya inamiliki chochote kati ya hivi vitu vifuatavyo? 1=Gari au lori 4=Pikipiki 7=Televisheni 10=Vitabu 2=Baiskeli 5=Redio 8=Kitanda 11=Pasi 3=Simu 6=Saa 9=Choo

Kumbukumbu Na | | | | | | | | |

F – HOUSEHOLD ASSETS

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

Kumbukumbu Na | | | | | | | | |

G – HOUSEHOLD AMENITIES

G1 JE, NYUMBA HII IMEEZEKWA KWA KUTUMIA NINI? 1=MATOPE 2=MAKUTI/NYASI 3=MBAO 4=MABATI 5=SARUJI/ZEGE 6=VIGAE 7=MABATI YA SARUJI (ASBESTOS) 8=NYINGINE	G2 JE, KUTA ZA NYUMBA HII ZIMEJENGWA KWA KUTUMIA NINI? 1=MATOPE/MATOFALI YA UDONGO 2=MAWE 3=MATOFALI YA KUCHOMA 4=SARUJI/ZEGE 5=MBAO/MIANZI 6=MABATI 7=MBAOLAINI (CARDBOARD) 8=NYINGINE	G3 JE, SAKAFU YA NYUMBAHII NI YA AINA GANI? 1=SARUJI 2=TOPE 3=NYINGINEZO
G4 Je, ni aina gani ya choo hutumiwa na kaya hii? 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 kisichofunikwa 7=Choo cha shimo chenye bomba la kutolea hewa chafu 8=Nyingine	G5 Je, ni nishati gani kuu itumikayo kwa ajili ya kupikia? 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	G6 Je, ni nishati gani kuu itumikayo kwa mwanga? 1=Mafuta taa 2=Gesi 3=Umeme 4=Genereta 5=Mishumaa 6=Beteri 7=Kuni 8=Nyingine
G7 Je,ni nini chanzo kikuu cha maji ya kunywa? 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		

Kumbukumbu Na | | | | | | | | |

G – HOUSEHOLD AMENITIES

HUDUMA	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 mnayotumia 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]?
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?	G12 Je kaya hii inafaidikaje na kuwepo kwa mhudumu wa afya wa kijiji?
1=Ndiyo 2=Hapana (> NEXT SECTION) ☐	1=Hakuna manufaa 2=Ushauri 3=Mafunzo 4=Vifaa (kama vile vyandarua, ..) 5=Kingine(SPECIFY)_____ ☐

Kumbukumbu Na ☐☐☐☐☐☐☐☐

H – PLANNING AND PARTICIPATION

H1 Kwa kawaida ni mara ngapi **kitongoji** kinahitisha mikutano ya hadhara? (ENTER NUMBER OF TIMES PER YEAR) (DON'T KNOW = 99) ☐	H2 Katika kipindi cha miezi 12 iliyopita ni mikutano mingapi ya kitongoji ilifanyika? (DON'T KNOW = 99) ☐	H3 Je, katika kipindi cha miezi 12 iliyopita umehudhuria mikutano mingapi kati ya hiyo? ☐ (IF= 0 > H5)
H4 Kati ya mikutano uliyohudhuria katika kipindi cha miezi 12 iliyopita ni mingapi ulitoa maoni yako? ☐	H5 Kwa kawaida ni mara ngapi **kijiji** kinahitisha mikutano ya hadhara? (ENTER NUMBER OF TIMES PER YEAR) (DON'T KNOW = 99) ☐	H6 Katika kipindi cha miezi 12 iliyopita ni mikutano mingapi ya kijiji ilifanyika? (DON'T KNOW = 99) ☐
H7 Je, katika kipindi cha miezi 12 iliyopita umehudhuria mikutano mingapi kati ya hiyo? ☐ (IF=0 > H9)	H8 Kati ya mikutano uliyohudhuria katika kipindi cha miezi 12 iliyopita ni mingapi ulitoa maoni yako? ☐	H9 Katika kipindi cha miezi 12 iliyopita kaya yako ilishiriki katika shughuri za jamii za jumla kwa kuchangia nguvukazi, fedha au vitu vyovyote visivyo vya kifedha? ☐ 1=Ndiyo 2=Hapana (> H11)
H10 Je shughuri gani kaya yako ilishiriki kati ya hizi zifuatazo? (MORE THAN ONE ANSWER POSSIBLE) 1=Shule 2=Afya 3=Barabara 4=Maji ☐☐☐ 5=KulinDa mali za kijiji 6=Nyingine (SPECIFY) _____	H11 Katika kipindi cha miezi 12 iliyopita kuna mwanakaya yeyote yule aliyewahi kunufaika na shughuri za Bw./Bibi shamba? 1=Ndiyo 2=Hapana ☐	H12 Katika kipindi cha miezi 12 iliyopita kuna mwanakaya yeyote yule aliyewahi kunufaika na mashirika yoyote yasiyo ya jamii hii? 1=Ndiyo 2=Hapana (> H14) ☐
H13 Je, kaya yako imefaidika na mashirika gani? (USE CODESHEET TO WRITE DOWN APPROPRIATE CODE. IF NOT ON CODESHEET, WRITE NAME) ☐☐☐☐☐ OTHER (SPECIFY) _____		

Kumbukumbu Na | | | | | | | | |

H – PLANNING AND PARTICIPATION

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

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

H20 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)	H21 Kwa ujumula kaya yako inashiriki katika vikundi vingapi kati ya hivi? (SUM ACCROSS MEMBERS) ☐	H22 Mbali na vyama hivyo kuna mwanakaya yeyote anayeshiriki katika vikundi/vyama vingine vya majirani au marafiki? 1=Ndiyo ☐ 2=Hapana (> NEXT SECTION)	H23 Kwa ujumla ni vyama/vikundi vingine vingapi kaya yako/wanakaya wanashiriki? ☐

Kumbukumbu Na ☐☐☐☐☐☐☐☐

I – POVERTY PREDICTORS

I1 Je, kaya hii ina vyumba vingapi vya kulala? ☐	I2 Je, kwa kawaida kaya yako inapata milo 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?	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=Hospitali 2=Nyumbani 3=Kwingineko	1=Daktari 2=Nesi 3=Mkunga 4=Mkunga wa jadi 5=Mwingine			1=Ndiyo 2=Hapana
								___ ___ . ___	___ ___ . ___	
								___ ___ . ___	___ ___ . ___	
								___ ___ . ___	___ ___ . ___	
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K – COMMENTS

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