

UNIVERSITY OF MINNESOTA



The Whole Village Project

**Village Reports for Elerai, Eworendeke,
Kimoukuwa, Tingatinga, Kiserian, Sinya, and
Kitendeni in Longido District**

August 2010

Revised December 2010 with Addendum for Kiserian

Revised June 2011 with Addendum for Sinya and Kitendeni



NOTE: THE VILLAGE OF KISERIAN WAS SURVEYED IN NOVEMBER 2010; MONTHS LATER, IN MARCH 2011, SINYA AND KITENDENI WERE SURVEYED, OVER ONE YEAR FOLLOWING THE SURVEYING OF THE ORIGINAL VILLAGES IN LONGIDO DISTRICT. RESULTS FROM KISERIAN, SINYA AND KITENDENI WERE NOT AVAILABLE AT THE TIME THE ORIGINAL REPORT WAS WRITTEN. A BRIEF SUMMARY OF RESULTS FROM KISERIAN, SINYA AND KITENDENI CAN BE FOUND IN APPENDIX C.

INTRODUCTION

The purpose of this report is to present district officials and local leaders with multi-sectoral data across several villages in this district. We hope these data may be useful in seeing the strengths and weaknesses of different sectors and the variation across villages. These data may be useful in prioritizing future development projects. The villages represented here were selected by our donors for their project purposes and therefore they cannot be seen as representatives of the district. The data however, illustrate the diversity of economic and social development activities occurring across villages in the district.

The Whole Village Project (WVP) is collecting and analyzing comprehensive data at village level over an extended period of time. A collaborative project between Savannas Forever Tanzania (SFTZ), a Tanzanian NGO, and the University of Minnesota, USA, the Whole Village Project has a **vision** to work with people in rural Tanzanian villages to acquire and use knowledge for improving long-term health and well-being while sustaining natural resources. To achieve this goal, quantitative and qualitative data are systematically collected in villages across northern Tanzania by the Savannas Forever team in partnership with staff from the National Institutes of Medical Research (NIMR) and the Tanzanian Wildlife Research Institute (TAWIRI). The data are sent to the University of Minnesota for analysis and then returned to Tanzania. The SFTZ team returns to each village to present the data to villagers for their own use and decision-making. WVP intends to return to each village every two to three years in order to assess the sustainability of development projects over time and identify best practices.

This report presents a summary of data collected within a single district. Village-level surveys were conducted in Longido district in Elerai, Eworendeke, Tingatinga and Kimoukuwa from October to December, 2009.

KEY FINDINGS

The research captured a broad range of information about myriad aspects of three villages in Longido district. Overarching district strengths, gaps, and opportunities were pulled from the abundance of data collected and analyzed and are presented below. Detailed results and discussion are presented in Section 4.

District Strengths

In general, vaccination rates of children under five are relatively high in Longido district. Almost 95 percent of children under five in Elerai, Eworendeke, Tingatinga and Kimoukuwa have been vaccinated against tuberculosis (BCG), DPT, and polio. Although coverage rates are lower for measles and vitamin A supplementation, the coverage is still respectable: 70-90 percent of children under five have had a measles vaccine and 80-90 percent has received vitamin A supplements.

Children under five are more likely to survive and be healthy if the biological mother is alive. In Longido district, the biological mother is alive in almost every household surveyed. Furthermore, either both parents or the mother alone are the primary caretakers of the children indicating a relatively strong family structure, which further contributes to the long-term health and well-being of children under five.

District Gaps

Education levels are very low in the villages surveyed in Longido District although Tingatinga's adult primary school completion rate is twice that of the other three villages. Eworendeke's education levels are particularly low where over three-quarters of the adult population has had no formal education and only one in seven head of households (14%) have completed primary school. A proxy measure of the relative development of a community is often the education levels of its female population. In Eworendeke, only 7 percent of female adults (n=4) surveyed have completed primary school and no female household head has. Eworendeke also has the highest dependency ratio (the ratio of the combined under 14 and over 65 years population to 15 to 64 year olds) of 2.4 compared to 2.0 in Kimoukuwa, 1.8 in Elerai and 1.5 in Tingatinga.

All villages surveyed in Longido district suffer from high food insecurity and have households, in general, and children under five, specifically, consuming too little food and too limited a diet. It should be noted that these surveys were conducted in late 2009, during a drought when food insecurity was most acute. Elerai and Eworendeke are the most food insecure; in the four weeks preceding the household survey, two-thirds of households in Elerai and Eworendeke had no food, almost three-quarters had a household member go to sleep hungry, and over half had a household member go one day and one night without food. Yet, Kimoukuwa has the highest percentage of children under five (12.7%) considered severely malnourished.

Livestock keeping is the primary source of income for most households surveyed, yet the close proximity of the villages to wildlife habitat and protected areas creates frequent wildlife-human conflict, most frequently livestock loss to predators such as lions and hyenas. In addition, over one-third of households in Eworendeke and one-fifth of households in both Elerai and Kimoukuwa ate bush-meat in the last 12 months compared to just 8% of households in Tingatinga. Such frequent consumption of bush-meat could reflect easy access due to close and regular wildlife-human contact, or attempts to supplement limited diets.

Only 1 in 10 households have any mosquito net in Elerai and fewer than 1 in 30 Elerai homes have a mosquito net treated with insecticide, which is the lowest mosquito net coverage rate among villages surveyed in Longido district. Kimoukuwa has the highest coverage rate, yet only one-third of households own any mosquito net. Low mosquito net coverage is reflected in high disease burden, specifically fever, among children under five. Over 90 percent of children under five in households surveyed have suffered from fever.

Opportunities

Livestock keeping is the main source of income for all households surveyed. Yet in all four villages, over 90 percent of households have lost livestock to either drought or disease. Such high loss exacerbates the financial security of a household since it depends mainly on that livestock for income. Although more livestock are lost to drought than disease, livestock in Longido district are at high risk of disease due to very low vaccination rates. For example, no cows in either Elerai or Kimoukuwa were vaccinated against any disease. To increase financial security at household and

village level, the district has the opportunity to decrease risk of infection, and thereby livestock and income loss, by increasing vaccination rates.

Given the significant proportion of households headed by women, it is disheartening to see that girls are at a disadvantage when it comes to education. Low enrollment and attendance rates, in addition to other obstacles, prevent girls from acquiring skills and knowledge that may be of great use to them as future heads of household. Correcting this disparity by enrolling girls in school at the same rate as boys, removing unnecessary impediments to their learning, and instituting vocational training for girls and boys alike would not only benefit girls individually, but would have a positive effect on the rest of the village as well.

Each village surveyed in Longido district has a primary school, each of which has teacher-to-student and classroom-to-student ratios that are manageable. Despite such encouraging information, primary school completion rates are very low—especially among girls—and student attendance is sporadic. An exploration of the root causes of such low rates of attendance and primary school completion should be undertaken in order to appropriately address these shortcomings.

Health treatment-seeking behavior among households surveyed reflects the challenges families have in reaching health services. For example, as many as 70 percent of households surveyed (in Eworendeke) takes a child under five to a hospital for treatment when sick, as there is no clinic or dispensary in the village. No village surveyed has a dispensary, which means all families accessing services from a health clinic must travel to do so. Thus access to health services is not limited by behavior, but by availability (existence, proximity) of services. The district has an opportunity to increase access by providing more health clinic services that are closer to the people, thereby capitalizing on the current treatment-seeking behavior. Increasing access to treatment could contribute to decreasing the high disease burden among children under five in the district.

Although there are relatively low rates of agricultural production in these villages, in focus groups villagers all cited that severe soil erosion is a problem. All villages would benefit from some training on improved agricultural techniques and methods to control for soil erosion.

		Elerai	Eworendeke	Kimoukuwa	Tingatinga	Kiserian	Sinya	Kitendeni
THE HOUSEHOLD AND HOUSING								
	Number of households surveyed	60	75	70	60	75	60	60
	Average household size	5.28	4.03	4.97	5.2	7.8	6.32	6.77
	% households in polygamous marriage (more than 1 wife)	60%	49.3%	51.4%	42%	63%	55%	35%
	% of households headed by women	48.3%	46.7%	59.2%	38%	77.3%	55%	47%
	% of households with corrugated roof	13.3%	8%	12.9%	17%	3%	0%	20%
	% of households using a toilet	13.3%	2.7%	14.3%	27%	3%	1.7%	41.7%
	Avg time (minutes) required to collect water	98.85	15.21	73.64	59.6	230.2	173.8	27.5
	% households use firewood as primary energy source for cooking	100%	96%	95.7%	97%	98.3%	98.3%	100%
EDUCATION								
	% of all adults without education	61%	75.8%	55.9%	26%	61.3%	47.8%	43.5%
	% of household heads completed primary school	15%	6.7%	25.4%	45%	5%	16.7%	30%
	% of adult men completed primary school	27.6%	23.8%	38.1%	66%	33.4%	29.1%	50.5%
	% of adult women completed primary school	23.1%	7%	31.5%	69%	25.3%	14.1%	42.6%
	Average primary school teacher to student ratio	1:35	1:38	1:49	1:59	8:398	1:84	1:66
	Average primary school textbook to student ratio	1:2	1:4	1:4	1:1	1:3	1:3	1:3
	Average secondary school teacher to student ratio	--	1:64	--	--	--	--	--
	Average # of years teachers stay at primary school	5 years	3 years	4 years	3 years	14 years	9 years	10 years
	Average # of years teachers stay at secondary school	--	3 years	--	--	--	--	--
	Ratio of female to male gross enrollment rates (primary school)	155:162	236:257	202:258	84:94	178:220	215:451	193:159
	Ratio of female to male gross enrollment rates (secondary school)	--	163:225	--	--	--	--	--
HEALTH								
	% of households with at least one mosquito net	10%	14.7%	34.3%	32%	84%	90%	76.7%
	% of households with access to protected drinking water	80%	85.3%	20%	87%	13.3%	30%	100%
	% of households that take measures to make the water safe	31.7%	10.7%	31.4%	45%	28%	25%	43%
	# of hospital/dispensary/clinic in the village	0	0	0	1	1	1	1
CHILDREN UNDER 5								
	% of infants exclusively breast fed through 6 months of age	9.2%	24.6%	12.7%	16.7%	31%	11.2%	4.3%
	% of children whose birth mother is still alive and inside the hh	100%	96.5%	95.8%	100%	96.0%	--	--
	% of children moderately to severely underweight	0%	1.8%	12.7%	2%	7%	1.2%	0%
	% of children who are vaccinated for BCG	96.9%	94.7%	94.4%	100%	94.9%	97.8%	95.9%
	% of children who are vaccinated for polio	96.9%	93%	95.8%	98%	95.9%	97.8%	97.9%
	% of children who are vaccinated for DPT	96.9%	94.7%	94.4%	98%	94.9%	93.4%	96.9%
	% of children who are vaccinated for measles	90.8%	71.9%	81.7%	81%	81.4%	75.8%	78.4%
	% of children received Vitamin A supplement	87.7%	80.7%	80.3%	83%	77.3%	79.1%	76.3%
	% children with fever	92.3%	89.5%	94.4%	91.7%	57.7%	44%	63.9%
AIDS KNOWLEDGE								

	% of men with high AIDS knowledge score (5-6 points)	15%	8.7%	22.2%	26%	29%	5%	36%
	% of women with high AIDS knowledge score (5-6 points)	16.4%	4.4%	13.7%	10%	16%	0%	22%
	% of women who know that a person can protect themselves from HIV	51.7%	25.9%	61.4%	59.3%	67%	22%	62%
	% of men who know that a person can protect themselves from HIV	84.2%	61.9%	86.7%	61.8%	53%	35%	92%
FOOD SECURITY AND NUTRITION								
	% of households worried about food in the past 4 weeks	86.7%	84.7%	78.4%	73%	68%	81.4%	69.5%
	% of households ate limited variety of food in the past 4 weeks	95.0%	90.3%	94.6%	85%	93%	89.8%	79.7%
	% of hhs went one day and night with no food in the past 4 weeks	48.3%	62.5%	37.8%	39%	43%	44.1%	8.5%
	% of households that are currently growing kitchen garden	1.7%	0.0%	6.8%	3%	0%	--	--
	Avg # of days/times hhs ate meat protein in past week	0.9	2.0	1.3	1.2	0.8	1.1	0.9
	Avg # of days/times hhs ate legumes in past week	1.0	1.6	1.6	1	1.3	0.4	2.7
	Avg # of days/times in last week hh ate foods with Vitamin A	8	6.5	3.1	6.2	0.5	1.0	3.0
	# of different types of food eaten in last week OR NUTRITION DIET DIVERSITY SCORE	4.6	4	3.4	4	3.2	3.3	5.9
ECONOMIC ACTIVITY, AGRICULTURE AND INCOME								
	% households own any agricultural land	76.7%	70.7%	85.70%	80%	83%	8.3%	93.3%
	Average acres cultivated per household	1	0.6	1.1	0.8	2.4	0.3	3.6
	Average # of cattle owned per household	5.4	3.1	5.1	6.2	3.1	5.4	7.8
	Average # of goats/sheep owned per household	10	6.1	9.4	13.6	11.4	15.5	11.7
	Average # of chickens owned per household	0.3	1.4	0.7	1.7	0.2	--	5.8
	% of hhs whose chicken are vaccinated for Newcastle disease	20%	17%	20%	18%	0%	0%	5.6%
	% of cattle lost to disease in the past 12 months	19%	29%	34%	23%	33.4%	23%	39%
	% of cattle lost to drought in the past 12 months	73%	62%	58%	57%	43.4%	43%	37%
	% of cattle lost to wildlife in the past 12 months	20%	4%	1%	4%	3.5%	7%	7%
	% of chickens lost to disease in the past 12 months	6%	4%	31%	38%	0%	0%	20%
	% of chickens lost to drought in the past 12 months	17%	0%	0%	0%	0%	0%	2%
	% of chickens lost to wildlife in the past 12 months	34%	4%	5%	11%	50%	0%	28%
	% of goats/sheep lost to disease in the past 12 months	25%	19%	25%	29%	30%	25%	36%
	% of goats/sheep lost to drought in the past 12 months	35%	35%	34%	34%	23%	27%	23%
	% of goats/sheep lost to wildlife in the past 12 months	6%	16%	10%	12%	8%	12%	9%
	% of household heads with the main occupation of farming	22%	0%	3%	17%	11%	0%	80%
	% of hh heads with the main occupation of livestock keeping	67%	85%	75%	70%	84.9%	93.3%	11.7%
	% of HHs that irrigate the plots in village (from focus group data)	0%	0%	0%	100%	0%	NA	0%
	% households with bicycle	8%	11%	20%	43%	9.3%	8.3%	23.3%
	% households with radio	35%	24%	40%	45%	13.3%	11.7%	35%
	% households with cell phone	22%	27%	31%	50%	50.7%	28.3%	38.3%
KEY INSTITUTIONS								
	Distance to major weekly market	--	--	--	20 km	41 km		
	# of village committees/groups	8	6	9	10	1		
	# of NGOs	10	8	3	10	5		
	# of credit, banking services or VICOBA	1	0	0	0	0		

DEMOGRAPHICS								
	Religion (% Christian; % Muslim; % Traditional)	95%; 0%; 5%	57%;1%; 19%	80%;1%;19%	90%;0%: 10%	41.3%;0 %;2.7%	86.7%;0 %;1.7%	88.3%;0%; 0%
	Dependency Ratio (# of child (0-14 years) and aged (65+) population per 100 intermediate age (15-64 years)	1.8	2.4	2	1.5	1.34	1.75	1.23
	Child-Woman Ratio (# of children aged 0-4 years per 1,000 women in the age group 15-44 years)	1.15	1.2	0.98	0.79	0.66	0.85	0.56
	Sex Ratio (# of males per 100 females)	1	0.92	0.87	1.1	1.12	1.09	1.09

APPENDIX C – KISERIAN, SINYA, KITENDENI

Kiserian and Sinya are primarily pastoralist villages where virtually the entire population is Maasai. In Kitendeni, farming is the primary occupation and though Maasai comprise the majority of the population, 20% of those surveyed report being of Arusha ethnicity. Overall, the villages have low rates of adult levels of education, low numbers of household assets, high mosquito net ownership, low usage of toilets, high rates of polygamy (with the exception of Kitendeni), and thus high numbers of female-headed households.

Food insecurity is severe in all three villages. Significant percentages of villagers reported losing goats, chicken and cattle to drought, disease, and wildlife. Villagers in Kiserian and Sinya averaged three food types in their diet in a given week while Kitendeni reported 6 food types. Access to clean drinking water is a major issue in Kiserian for both households and the local primary school. Sinya reported 30% of households had access to protected drinking water while Kitendeni reported 100% of villagers had access.

Most household heads are livestock keepers in Kiserian (83%) and Sinya (94%). In Kitendeni, the majority of household heads are farmers (86%). Kiserian and Sinya stand out by the fact that less than one in five households has a radio. Nearly 50% of households in Kiserian have a cell phone. Though numbers are less in Sinya and Kitendeni, nearly 30% of households report having cell phones.

The majority of household heads are women in Kiserian (77%) while in Sinya (55%) and Kitendeni (47%) nearly half of households are headed by women. This high proportion of female heads can be partly be attributed to polygamous households. The Tanzanian government considers all households of second, third and additional wives as “female-headed.”