

UNIVERSITY OF MINNESOTA



## The Whole Village Project

### Summary of Siuyu, Masweya, and Mtunduru in Singida Rural District

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## 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.

In this report, we present a summary of data collected within a single district. Village-level surveys were conducted in Singida Rural District in Siuyu, Masweya, and Mtunduru from May to June 2010.

## KEY FINDINGS

The research captured a broad range of information among the three villages surveyed in Singida Rural 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**

The number of educational buildings indicates a relatively high level of opportunity for children. Overall, there are 5 primary schools and 3 secondary schools among the three villages with Siuyu having 2 primary schools and 2 secondary schools. Moreover, there are a large number of institutions, local and external, that provide assistance to the schools in the form of buildings, food, and fees. The high level of support for schools will likely have a positive impact on those who attend.

Some environmental health indicators appeared to be relatively high in Singida Rural District. Among the three villages surveyed, Masweya, Mtunduru, and Siuyu, there was a high percent of households with latrines. Nearly all households (over 95%) in Mtunduru and Siuyu have access to a latrine. Masweya has the lowest percentage of latrines for households at 80%. Access to latrines and appropriate waste disposal reduce opportunities for communicable disease transmission and water borne diseases.

The number of households with mosquito nets is also very high. Over 90% of households in Masweya have mosquito nets and the village with the lowest number, Mtunduru, still has over three-fourths of households with mosquito nets. The figures show that at least one-third of all mosquito nets in the district are treated with insecticide. Such high proportion of mosquito net ownership further prevents the spread of illness and disease.

## **District Gaps**

A lack of access to clean water is an area of concern for each of the villages. The majority of households in Masweya, Mtunduru, and Siuyu rely on unprotected wells and surface water as their primary water source. Tap water and protected wells and springs constitute less than 10% of the water source in any of the villages. Generally, access to water is further constrained by the distance to the nearest water source. It takes an average of nearly 30 minutes for households in the surveyed villages to collect and bring back water. Moreover, there are relatively few households that take measures to treat water, often described as muddy, prior to drinking. Preventable diseases, such as typhoid, have been attributed to the poor water quality by focus groups and clinic staff.

Disease among children is also an area of concern. Cough and flu among the under five age group has afflicted over half of the children in the Singida Rural villages. Although rate of documentation for pneumonia was relatively low, an under diagnosis as cough and flu may contribute to that low number. The possibility of misdiagnoses may be further exacerbated by focus group's opinion of generally poor quality clinic services. Due to understaffing and high demand, many villagers find health services to be inadequate; Masweya villagers are particularly challenged as they must travel to Mtunduru for their first line of treatment.

The distance to receive health service is another critical problem according to qualitative data particularly in Masweya. This problem has been compounded by the poor road quality that often prevents medical officers and supplies from reaching the villages and dispensaries. However, the inadequate road system also severely impacts access to markets and living costs as higher fees are charged that result from increased transportation costs.

Despite high rates of latrine ownership, the methods of waste disposal are generally unsanitary. Indiscriminate disposal, burning and burying are the primary methods of disposal. Such practices have adverse effects on health, particularly for children as worms have been and can continue to be an issue.

## **Opportunities**

Within the strengths and weaknesses, there are a number of opportunities that district and village leaders can undertake. The already high percentage of mosquito net coverage has established conditions that can make 100% coverage possible. Moreover, the villages can move toward significantly increasing the number of nets treated with insecticide.

The relatively large number of school buildings and groups devoted to education could be expanded. Many focus groups were often satisfied with the schools and quality of education but would also like to see improvements. As there are already a large number of village, government and NGO institutions devoted to enhancing education opportunities, conditions for improving school conditions and quality of teachers may already exist within the villages. Cultivating and continuing relationships with governmental and non-governmental organizations with respect to education would help to further improve facilities and tools necessary for a high quality education.

Vaccination rates for children under five years old are very high in Singida Rural District. The encouraging figures can be seen as an opportunity to achieve a 100% vaccination rate.

Vaccinations for measles and intakes of Vitamin A have been shown to be the least frequent and should be targeted.

Increasing vaccination rates for goats and chickens and maintaining them for cattle will reduce the rate of livestock loss to disease, which is very high for chickens. Veterinarians and community animal health workers in the villages should provide information on Newcastle disease.

Households with kitchen gardens tend to have less serious food insecurity problems. Specifically, villages with higher coverage of kitchen gardens tend to have a lower percentage of households that went to bed hungry, ate limited variety of food, and fewer underweight children. However, kitchen garden training remains very limited in the villages surveyed in Singida Rural district. Village leaders have the opportunity to convey knowledge about kitchen gardens as a means to alleviate food insecurity.

		Singida Rural District		
		Masweya	Mtunduru	Siuyu
<b>THE HOUSEHOLD AND HOUSING</b>				
	Number of households surveyed	59	60	61
	Average household size	5.97	5.57	5.56
	% households in polygamous marriage (more than 1 wife)	31%	22%	7%
	% of households headed by women	11%	25%	21%
	% of households with modern roof	25%	40%	43%
	% of households using a toilet	80%	98%	97%
	Avg time (minutes) required to collect water	31	36	28
	% households use firewood as primary energy source for cooking	98%	97%	97%
<b>EDUCATION</b>				
	% of all adults without education	19%	11%	5%
	% of household heads completed primary school	60%	65%	78%
	% of adult men completed primary school	60%	82%	86%
	% of adult women completed primary school	50%	79%	86%
	Average primary school teacher to student ratio	1 : 99	1 : 68	1 : 51
	Average primary school textbook to student ratio	1 : 8	1 : 5	Not available
	Average secondary school teacher to student ratio	Not applicable	1:53	1:74; 1:12
	Average # of years teachers stay at primary school	3.5	8	5

	Average # of years teachers stay at secondary school	Not applicable	5	3
	Ratio of female to male gross enrollment rates (primary school)	1.02	1.02	.94
	Ratio of female to male gross enrollment rates (secondary school)	Not applicable	.73	.89
<b>HEALTH</b>				
	% of households with at least one mosquito net	92%	77%	83%
	% of households with access to protected drinking water	6.7%	3.3%	8.2%
	% of households that take measures to make the water safe	29%	37%	25%
	# of hospital/dispensary/clinic in the village	0	1	1
<b>CHILDREN UNDER 5</b>				
	% of infants exclusively breast fed through 6 months of age	Not available	Not available	Not available
	Average age in months at introduction of complementary feeding	5.2	5.5	5.3
	% of children whose birth mother is still alive and inside the hh	94%	96%	100%
	% of children moderately to severely underweight	3%	5%	0
	% of children who are vaccinated for BCG	94%	87.5%	98%
	% of children who are vaccinated for polio	93%	98%	97%
	% of children who are vaccinated for DPT	94%	91%	97%
	% of children who are vaccinated for measles	67%	79%	84%
	% of children received Vitamin A supplement	60%	68%	85%
	% children with fever in past 3 months	58%	52%	37%
<b>AIDS KNOWLEDGE</b>				

	% of men with high AIDS knowledge score (5-6 points)	79%	89%	88%
	% of women with high AIDS knowledge score (5-6 points)	86%	82%	89%
	% of women who know that a person can protect themselves from HIV	97%	93%	94%
	% of men who know that a person can protect themselves from HIV	100%	100%	100%
	% of men who have talked with their wife/primary partner about ways to prevent AIDS	90%	86%	73%
	% of women who have talked with their husband/primary partner about ways to prevent HIV/ AIDS	54%	45%	62%
<b>FOOD SECURITY AND NUTRITION</b>				
	% of households worried about food in the past 4 weeks	36%	30%	68%
	% of households ate limited variety of food in the past 4 weeks	55%	75%	85%
	% of hhs went one day and night with no food in the past 4 weeks	0	2%	14%
	% of households that are currently growing kitchen garden	5%	15%	15%
	Avg # of days/times hhs ate meat protein in past week	1.5	1.5	1.6
	Avg # of days/times hhs ate legumes in past week	3	2.5	.9
	Avg # of days/times in last week hh ate foods with Vitamin A	1.6	2.7	2.8
	# of different types of food eaten in last week	5.9	6.7	6.2
	Food Security Index (ranges from 0 to 9 with low scores indicating better security)	2.1	2.3	4.1
<b>ECONOMIC ACTIVITY, AGRICULTURE AND INCOME</b>				
	% households own any agricultural land	88%	97%	93%
	Average acres cultivated per household	7.5	5.1	2.1
	Average # of cattle owned per household	4.9	8	4.5

	Average # of goats/sheep owned per household	4.5	7.5	2.9
	Average # of chickens owned per household	7.2	5.8	4.8
	% of hhs whose chicken are vaccinated for Newcastle disease	0	0	0
	% of cattle lost to disease in the past 12 months	12.1%	4.3%	8.8%
	% of cattle lost to drought in the past 12 months	0	0.7%	0
	% of cattle lost to wildlife in the past 12 months	0	0.1	0
	% of chickens lost to disease in the past 12 months	23%	36%	37%
	% of chickens lost to drought in the past 12 months	0	0	0
	% of chickens lost to wildlife in the past 12 months	15%	10%	10%
	% of goats/sheep lost to disease in the past 12 months	12%	12%	10%
	% of goats/sheep lost to drought in the past 12 months	0	0	2%
	% of goats/sheep lost to wildlife in the past 12 months	3%	2%	1%
	% of household heads with the main occupation of farming	93%	88%	86%
	% of hh heads with the main occupation of livestock keeping	2%	2%	2%
	% of HHs that irrigate the plots in village (from focus group data)	10%	0	0
	% households with bicycle	44%	42%	13%
	% households with radio	51%	53%	49%
	% households with cell phone	22%	38%	28%
KEY INSTITUTIONS				
	Distance to major weekly market	2 km	5 km	5 km

	# of village committees/groups	6	8	10
	# of NGOs	5	4	7
	# of credit, banking services or VICOBA	0	1	1
DEMOGRAPHICS				
	Religion (% Christian; % Muslim; % Traditional)	18%; 68%; 0	8%; 92%; 0	92%; 8%;0
	Dependency Ratio (# of child (0-14 years) and aged (65+) population per 100 intermediate age (15-64 years)	1.17	1.19	1.14
	Child-Woman Ratio (# of children aged 0-4 years per 1,000 women in the age group 15-44 years)	1.08	0.87	1.01
	Sex Ratio (# of males per 100 females)	1.2	1	1.04