

UNIVERSITY OF MINNESOTA



## The Whole Village Project

### Summary of Hinduki, Ipililo, Mwang'holo, and Zebeya in Maswa District

February 2011

**UC DAVIS**  
UNIVERSITY OF CALIFORNIA



**USAID**  
FROM THE AMERICAN PEOPLE

## 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. Household surveys, interviews and focus groups were conducted in Hinduki, Ipililo, Mwang'holo, and Zebeya District during the month of September 2010.

## KEY FINDINGS

The research captured a broad range of information from four villages in Maswa District, Hinduki, Ipililo, Mwang'holo, and Zebeya. 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**

There are a number of common strengths observed among the four villages. In particular, they have a relatively high number of assets as compared to other villages surveyed to date, mosquito net ownership, relatively short distance to weekly market, high rates of child vaccinations for BCG, DPT and polio and a low percentage of child with malnutrition.

Mosquito nets ownership is over 90% in Ipililo, Mwang'holo, and Zebeya; in Hinduki, it is also as high as 85%. In addition, 60-70% of nets had recently been dipped in insecticide treatment. Given the high rates of malaria in the area increasing bed net coverage to 100% and regular dipping of nets should be encouraged.

Maswa district has relatively high ownership of bicycles and cell phones. Over 60% of households surveyed own at least one bicycle (except in Mwang'holo, which is 57%). Also, In Hinduki, Ipililo, and Zebeya, cell phone ownership is higher than 40%.

Infant and young child vaccination rates for BCG, DPT and polio were over 95% in almost all villages (except in Mwang'holo, and DPT vaccination in Ipililo: 92.3%). However, vaccination rates for measles drop to about 60-80%; given the virulence of this disease, clinic officers and health committee members should identify strategies to meet the gaps in measles vaccination. In addition, only 55-75% of infants and children took Vitamin A supplements, again the community should strive for 100% coverage given the low Vitamin A intake in local diets and the significant impact that Vitamin A deficiency has on child development. In most villages the z-score for malnourished children was just 0 to 2%, however in Zebeya, 3% of children were severely malnourished and 6% were moderately malnourished.

## **District Gaps**

Access to drinking water is limited in Maswa district. Although the access to protected water source is very high in Ipililo and Zebeya (83%), it is as low as 13% and 35% in Mwang'holo and Hinduki. In addition, the proportion of households that do something to make the water safe is very low. In Mwang'holo and Hinduki, although the vast majority of water sources are unprotected, only 28% to 35% of households treat the water to make it safe.

Access to quality health services is also limited in the district. In Maswa District, only Ipililo and Zebeya have dispensaries. According to men's and women's focus group discussions, malaria is the number one problem followed by stomach and feet aches and HIV/AIDS.

The food security level is low in Maswa district. Around 25% to 45% of households surveyed worried about food in the last week. Over 80% in all villages had limited food during the last week. Also, as high as 1 out of 10 households in Zebeya went one day and night without food. However, given the low food security level, only 5-15% of households have kitchen garden to alleviate the problem.

The level of one's education is often a predictor of other quality of life factors such economic productivity, food security, and overall health. In Zebeya and Ipililo, the big concern is the significantly lower percent of girls attending secondary school. Girls' education often is a predictor of family health in future; further Tanzania has set increasing girls participation rate in secondary school as a Millennium Development Goal. Other quality factors include a low teacher to student ratio, low textbook to student ratio, and the limited food available at school. Children are the future. However, if they are not able to access quality education their chances for improved quality of life as adults are greatly reduced.

Newcastle Disease is the number one cause of chicken mortality in Tanzania. Vaccination rates against Newcastle Disease are low in Maswa District. Only 6% to 27% households owning chickens vaccinate those chickens against Newcastle Disease. Household surveys revealed that 30% to 45% of chickens had been lost to disease in the past year in these villages.

## **Opportunities**

Safe drinking water is significant to the health condition of the residents. In villages with high access to protected water sources, as Ipililo and Zebeya, the water are mainly from public tap/standpipe and protected well while in Hinduki and Mwang'holo people get water primarily from unprotected well and surface water. If these villages can share the technique of obtaining protected water, the chance of getting disease from drinking water will be decreased significantly. Also, village leader is responsible of spreading the knowledge of how to treat water to make it safer, for example, boiling.

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 Maswa district. Village leaders have the opportunity to convey knowledge about kitchen gardens as a means to alleviate food insecurity.

Girls' participation in secondary school is quite low. The education committees in all villages have an opportunity to work with district leaders to identify opportunities for identifying solutions to this and improving the quality of schools in the district overall. As education creates a foundation for overall family health and economic opportunities, prioritizing education is critical for the future development of this district.

Increasing livestock vaccination rates will reduce the rate of cattle and goats lost to disease, which is still relatively high. In addition, although many households have heard of Newcastle disease, only a small proportion of chickens are vaccinated. Therefore, villages have an opportunity to reallocate resources to increase livestock vaccination rates, which is effective in reducing livestock lost to diseases.

In the past year, only Hinduki and Ipililo were visited by an agricultural extension worker. These agricultural extension workers typically train a small group of local farmers in agricultural best practices and established model farms (growing maize, sunflowers, etc.) as demonstration plots. The trained farmers are expected to transfer knowledge and skills learned to their own farms. Given that the most common complaints of farmers was lack of knowledge of improved farming techniques and other measures, there appears to be an opportunity to further spread agricultural knowledge from model farmers to others and improve the productivity of farming. The district should monitor the impact of the work done by agricultural extension workers.

District leadership also has an opportunity to further protect the children in the district from vaccine-preventable disease. A high percentage of children under-five in Maswa District are vaccinated against tuberculosis (BCG), DPT, and polio, as recommended by the World Health Organization (WHO). However, vaccination coverage is not universal, especially for measles. Given

the already high level of vaccination, the district has an opportunity to reach universal coverage against vaccine-preventable disease given the proper allocation of resources.

		Hinduki	Ipililo	Mwang'holo	Zebeya
<b>THE HOUSEHOLD AND HOUSING</b>					
	Number of households surveyed	60	59	60	60
	Average household size	8.2	8	7.7	8.1
	% households in polygamous marriage (more than 1 wife)	13.3%	33.9%	33.3%	33.3%
	% of households headed by women	19%	22.8%	29.8%	24.1%
	% of households with corrugated roof	33.3%	71.2%	30%	45%
	% of households using a toilet	55%	84.8%	41.7%	81.7%
	Avg time (minutes) required to collect water	66.1	40.7	67.9	177.9
	% households use firewood as primary energy source for cooking	98.3%	96.6%	96.7%	95%
<b>EDUCATION</b>					
	% of all adults without education	28.6%	15.8%	25.7%	26.7%
	% of household heads completed primary school	50.0%	49.1%	36.2%	51.7%
	% of adult men completed primary school	58.8%	66.3%	54.5%	68.4%
	% of adult women completed primary school	50.4%	59.8%	56.1%	52.2%
	Average primary school teacher to student ratio	1:49; 1:121	1:72; 1:67	1:88	1:107
	Average primary school textbook to student ratio	1:5; 1:10	1:6; 1:30	1:3	1:10
	Average secondary school teacher to student ratio	26:587	5:258	N/A	8:469
	Average # of years teachers stay at primary school	7 years; 6 years	4 years; 10 years	10 years	8 years
	Average # of years teachers stay at secondary school	5-7 years	2.5 years	N/A	8 years
	Ratio of female to male gross enrollment rates (primary school)	217:223; 188:176	498:436; 407:536	324:293	420:438

	Ratio of female to male gross enrollment rates (secondary school)	587:0 (Girls School)	81:177	N/A	162:307
<b>HEALTH</b>					
	% of households with at least one mosquito net	85%	91.5%	93.3%	91.7%
	% of households with access to protected drinking water	35%	83.1%	13.3%	83.3%
	% of households that take measures to make the water safe	35%	42.4%	28.3%	28.3%
	# of hospital/dispensary/clinic in the village	0	1	0	1
<b>CHILDREN UNDER 5</b>					
	% of infants exclusively breast fed through 6 months of age	6.2%	8.5%	19.2%	12.1%
	Average age in months at introduction of complementary feeding	4.4	4.6	4.7	4.9
	% of children whose birth mother is still alive and inside the hh	3%	1.3%	0%	2.7%
	% of children moderately to severely underweight	2.4%	0%	0%	0%
	% of children who are vaccinated for BCG	95.1%	98.7%	88.6%	97.3%
	% of children who are vaccinated for polio	96%	96.2%	87.3%	100%
	% of children who are vaccinated for DPT	96%	92.3%	86.1%	98.7%