



Shae Thot Baseline Report

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**MARIE STOPES
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List of Abbreviations

ANC:	Antenatal care
AMW:	Auxiliary midwife
BF:	Breastfeeding
CHW:	Community health worker
EBF:	Exclusive breast feeding
FYM:	Farm yard manure
HA:	Health Assistant
HH:	Household
KII:	Key informant interview
LHV:	Lady health visitor
LLIN:	Long-lasting insecticide treated net
MCH:	Maternal and child health
MW:	Midwife
ORS:	Oral rehydration salts
TBA:	Traditional birth attendant
WASH:	Water, sanitation, and hygiene

Executive Summary

Shae Thot is a five-year integrated program funded by the US Agency for International Development (USAID), begun in September 2011 and running through September 2016. Shae Thot is implemented by a consortium of international organizations, including Pact, Cesvi, Marie Stopes International, and UN-HABITAT. The main goal of the project is to reduce suffering and death among the people of Central Burma through the use of an integrated, multi-sectoral approach that addresses the root causes. The specific objectives of the project are to:

1. Decrease maternal, newborn and child mortality.
2. Improve household food security.
3. Increase access to sufficient quantities of safe water, potable water, and improved hygiene.
4. Strengthen social and community institutions for development.

The Shae Thot baseline survey was conducted in 13 townships to describe the current maternal and child health (MCH), livelihoods, and water, sanitation and hygiene (WASH) conditions in the project area, to set a benchmark against which to later evaluate the project and to inform project design and implementation. A total of 4,400 households were surveyed, including 3,080 in areas that will receive project services in the first year and 1,320 households in nearby communities that will not.

Maternal and Child Health

The MCH questions were asked of married women aged 15 to 45 years who had children under the age of five and under the age of two, resulting in samples of 1,203 and 403 respectively.

Antenatal Care

Antenatal care (ANC), birth, and neonatal-related questions were asked of mothers with children less than two years of age. More than 70% of respondents had sought antenatal care from midwives during their last pregnancy. Doctors were the next most common source of ANC, providing care to 14% of pregnant women in treatment areas. Fewer than 25% received the prescribed four abdominal checks, 60% received two or more tetanus toxoid shots, and 83% of women received 180 iron tablets.

Practices at Birth

Only 20% of respondents gave birth at a health facility during their last delivery, while 80% gave birth at home. Slightly more than 45% of respondents who had home deliveries used clean delivery kits. Midwives were the most common caregivers, delivering 37% of home births in treatment areas and 44% in non-treatment areas. Traditional birth attendants were the main unskilled caregivers, attending to 30% and 22% of respondents in treatment and non-treatment areas during their last deliveries.

Postpartum Care

More than 90% of women received at least one postpartum checkup after the birth of their last child, and close to 85% received their first postpartum care within three days after delivery. According to the survey, only 20% of respondents from treatment areas and 24% from non-treatment areas received the prescribed six postpartum care checkups within six weeks following delivery. Midwives were the main postpartum caregivers, seeing over 40% of women after their last delivery. Traditional birth attendants and auxiliary midwives were the main unskilled caregivers, giving 28% and 16% of women in treatment and non-treatment areas their first checkup after delivery. About 10% of respondents did not receive any postpartum care following their last delivery.

Neonatal Care

Looking at the three prescribed guidelines for “good baby practices” to be followed soon after birth, more than 80% of respondents reported having wrapped their newborns within an hour after being born, 40% reported that the umbilical cord was allowed to dry naturally, and 45% reported bathing their child for the first time after the cord dried and fell off naturally.

80% of newborns received at least one neonatal checkup, and 61.6% of newborns received a checkup from a skilled healthcare practitioner. The average number of healthcare visits in the first six weeks after birth was 3.5, fewer than the suggested six visits during that time period.

Breastfeeding Practices

About 65% of children from treatment areas and 57% from non-treatment areas were put to breast within an hour after being born. More than 85% received colostrum during the first three days after birth. The overall exclusive breastfeeding rate was 50%, defined as children 0-5.9 months consuming only breast milk in the 24 hours prior to the survey. This number is higher than nationally reported figures, and possible reasons for the gap are discussed in the text.

Continued breastfeeding was practiced for 95% of children aged between 6-11.9 months. Most of these children received breast milk in addition to other liquids during the day prior to the survey.

Childhood Immunization

According to the study, a complete immunization package comprised 1 BCG, 3 Polio, 3 DPT, 3 Hepatitis B, and 1 MMR vaccine. For the 12-23.9 months age range, 5.2% of children received a complete package. In the 24-59.9 months age group, 10% of children received a complete immunization package. The low rates among older children may be due to the survey not asking about the MMR vaccine among households without immunization cards.

Childhood Illness

Incidence of childhood illnesses in children aged five and below in the two weeks prior to the survey showed 16.5% suffering from diarrhea, 7.7% from symptoms of pneumonia, and 5.2% from fever or malaria-like symptoms. Doctors and midwives were the main caregivers

for children suffering from these illnesses. Respondents also obtained medicines over the counter from local drug stores and consulted with local traditional healers.

More than 37% of children suffering diarrhea received care from skilled caregivers within 24 hours, and 69.4% of children with diarrhea received oral rehydration therapy. Among children with ARI, which proxied for pneumonia, 48.9% received care from skilled health care professionals within 48 hours and 16.3% did so within 24 hours; 11.6% of children received antibiotics. Children with fever went to a skilled healthcare practitioner within one day 37.1% of the time, and 9.5% overall received a malaria blood test. Ninety percent of children slept under mosquito nets, though only 7.8% slept under treated nets.

Contraception

At the time the study was conducted, 43% of women from treatment and non-treatment areas were using birth control methods to delay or avoid pregnancy. Injection was the most common type of contraceptive, and was used by more than 70% of women on birth control. Only a quarter of respondents were able to mention three types of contraceptives. More than a third received birth control information and advice from midwives. Respondents considered four years as the optimum time between pregnancies.

Knowledge of MCH Danger Signs

Generally, the ability to name danger signs related to MCH was low. Asked about danger signs for pregnancy, childbirth, postpartum, diarrhea, pneumonia, and malaria, between 31.2-47.2% of respondents were unable to name any danger signs. These indicators will be used to measure the spread of MCH education due to project interventions.

Livelihoods

The livelihoods module of the survey was asked of the complete sample.

Income

Agriculture, casual labor, and providing services were the main sources of household income. Agriculture was the main source of income for 49.3% of households and casual labor was the main source for 27.6%.

Nearly 70% of households earned between 25,000 and 100,000 kyats per month, with a little more than 40% earning between 50,000 and 100,000 kyats per month. Nearly 55% of the respondents reported “no change in financial wellbeing” from the previous 12 months, while 28% of households reported a “somewhat not good” outlook. About 60% of respondents reported no change in their communities’ employment situation during the last year, while 23% reported that employment opportunities were much less compared to the previous 12 months.

Food Security

Food consumption responses show that almost all households in the treatment and non-treatment areas ate rice, 93% consumed vegetables, 50% consumed beans and pulses, more than a quarter of the households consumed seafood, and a fifth ate eggs in the 24

hours prior to the survey. Ninety-three percent of households consumed three meals in the day before survey.

According to the data, households in the Central Burma regions where the survey was conducted did not face acute food shortages during any time of the year. However, a steady increase in the percent of households facing food shortages occurred from March through June, with a slight drop in households facing food shortages during July and August. During any given month, no more than 20% of households faced food shortages. However, 50.4% of households in treatment areas reported using some type of coping mechanism to deal with household food needs in the four weeks prior to the survey, and 27.8% reported using two or more coping mechanisms.

Borrowing money or food from family, friends, or neighbors was cited as the main coping strategy for 31% and 25% of households in treatment and non-treatment areas, respectively. Borrowing money from shop keepers, money lenders and others was ranked second, followed by pawning household assets and tools to meet food requirements. Nearly 75% of households claimed no change in the food security status from the previous 12 months.

Agriculture

About 60% of households owned agricultural land. Of those, 50% of households in the treatment area and 60% from non-treatment areas owned less than 3 acres of agricultural land. Close to 15% of land-owning households in treatment areas and 23% in non-treatment areas owned less than 0.5 acres of land, and their produce is mainly for household consumption.

Of the landowners, 55% of households grew crops on their farmland. Renting land for agriculture and sharecropping were practiced by less than 3% of households. Sesame, rice, pigeon pea, and groundnut were the most common types of crops in the wet season, and pigeon pea, groundnut, and chickpeas were the most common types of crops in the dry season. In treatment areas, 31.2% of farmers irrigated, while 97.0% used fertilizer or another soil-improvement technique.

About 70% of respondents reported having access to market information and pricing before selling their main produce in the market. Dealers and brokers were the main sources of market information and prevailing prices of produce, and were also the most common buyers of produce. Selling directly in the markets of nearby towns, in markets within the village, and to dealers within the village were other marketing channels available to farming households.

Access to Credit

Sixty-one percent of respondents reported that they had taken a loan in the past twelve months, and 4.8% had an outstanding loan at the time of survey. Credit facilities for agriculture or other purposes were mainly from informal lending agencies such as moneylenders, shopkeepers, and family and friends. Micro-credit providers were accessed by 8% of households in treatment areas and less than 2% from non-treatment areas. Government agencies provided loans to 12% of households, while private banks, farmers' cooperatives, village savings and loans associations were accessed by less than 3% of households. Interest rates were, on average, 5.3% per month, though 14.5% of all loans had a 0% interest rate. Money-lenders had the highest interest rates, at 7.6%.

WASH

Safe Water

Most households, 77.7% in treatment areas, reported having access to protected drinking water sources year round; protected water is not necessarily safe water. More than 65% of households fetch water by foot. On average, it takes a household 53.3 minutes per day to fetch water in the wet seasons and 71.1 minutes in the dry season, which requires going a distance of 192.3 meters in the wet season and 159.8 meters in the dry season.

While about 87% of households reported treating their water before use, most used cloth filtration as their method of treatment, which does little to improve water safety. A little over 21% of households boiled their water or used another sterilization method.

Toilets

Sixty-five percent of respondents used improved toilets, while 13.7% had no toilet access, and 18.9% shared toilets with another household. Of those respondents without toilets, 57% reported that they could not afford one and 27% reported that there was no space to build a toilet.

Hygiene

Seventy-three percent of households had appropriate hand washing stations with designated hand washing areas, water, and a cleansing agent, as observed by surveyors. Sixty-five percent of respondents reported using appropriate hand washing practices.

Conclusion

The baseline findings show that maternal and child health practices rely heavily on midwives and traditional birth attendants, and that many women do not yet have access to all the recommended services during pregnancy, birth, and the neonatal period. Children's access to immunizations and appropriate health care also appear quite low, as is respondents' knowledge related to maternal and child health issues. In livelihoods, agriculture is an important source of income. While reported levels of hunger are low, coping mechanisms to avoid hunger are frequently used, demonstrating food insecurity. Access to credit, though widespread, is constrained by high interest rates. Findings related to water, sanitation, and hygiene show that most households are able to access protected water sources, but spend a great deal of time doing so. Improved toilets are also widespread, but shared toilets and open defecation remain challenges.

This baseline study shows that there is a definite need for improved MCH, livelihoods, and WASH services and behaviors in communities in Central Burma, and gives the Shae Thot project measurements that will be used to adjust program activities to address the most pressing needs and available opportunities for development in target areas. The baseline will also be used to compare household outcomes before project implementation to responses at project midterm and endline. This will enable the Shae Thot project to understand what and how much impact project activities are having, and how the project can be improved to better serve the needs of target beneficiaries.

1. INTRODUCTION

Shae Thot is a five-year integrated program funded by the US Agency for International Development (USAID), begun in September 2011 and running through September 2016. Shae Thot is implemented by a consortium of international organizations, including Pact, Cesvi, Marie Stopes International, and UN-HABITAT. The main goal of the project is to reduce suffering and death among the people of Central Burma through the use of an integrated, multi-sectoral approach that addresses the root causes. The specific objectives of the project are to:

1. Decrease maternal, newborn and child mortality.
2. Improve household food security.
3. Increase access to sufficient quantities of safe water, potable water, and improved hygiene.
4. Strengthen social and community institutions for development.

The main objective of the maternal and child health component is to decrease maternal, newborn, and child mortality in the target areas. The project aims to improve the knowledge of local communities to recognize, prevent, treat, or refer MCH-related illnesses, to provide access to and resources for health care, to improve antenatal care (ANC), delivery, and post-delivery care to mothers, and to increase access to skilled birth attendants. The intervention also aims to improve breastfeeding practices and general nutrition, prevention, and treatment of childhood illnesses for children under two years and under five years of age, and improved nutrition for children under the age of five.

Through the interventions of the Shae Thot project, communities and households in Central Burma are expected to improve their household food security through increased household agricultural production and improved access to fair and sustainable credit, leading to increased income levels. To achieve these objectives, the interventions include access to new and improved seeds, improvement of irrigation systems, improved soil fertility to increase crop yields, improved post-harvest techniques to minimize losses, improved access to credit from formal and informal lending groups, enhanced information regarding prices for agriculture products before market, and access to markets to improve the overall livelihood of households in the project areas.

Rural communities in the project areas obtain drinking water from protected and unprotected water sources. Children under the age of 5 are especially vulnerable to water-borne diseases. Shae Thot aims to improve access to safe, potable drinking water and improved sanitation facilities to reduce incidence of water-borne illnesses among children. The project also seeks to improve hygiene practices among households in project areas.

Civil society in Burma is still nascent. Strong community institutions, able to mobilize resources in response in community needs, are a part of Shae Thot's theory of change and sustainability. Shae Thot aims to enable communities to form strong and responsive institutions by helping target communities form Village Development Committees (VDCs) that will build participatory local civil society.

Shae Thot implements an integrated model for humanitarian assistance in Central Burma, recognizing that health, livelihoods, food security, clean water, and improved sanitation are inextricably linked to each other, and that strong community institutions are necessary to effecting change in these sectors sustainably. By addressing these issues together, the program can improve the lives and livelihoods of beneficiaries in Central Burma.

2. STUDY METHODOLOGY AND IMPLEMENTATION

2.1 Study Objectives

The objectives of the baseline survey described in this report were to record current data in project-targeted areas on:

- ◆ socio-demographic characteristics of households,
- ◆ knowledge, attitudes, and practices in MCH,
- ◆ food security level and agricultural practices, and
- ◆ knowledge, attitudes, and practices related to WASH.

The purpose of recording these baseline data was twofold: first, to provide data that can be used to inform project priorities and activities, and second, to provide a benchmark measurement in treatment and non-treatment communities from which change due to Shae Thot's interventions can accurately be measured at midterm and endline surveys.

The baseline survey did not measure outcomes related to building community institutions, in part because of the political environment at the time the baseline survey was conducted. However, appropriate baseline and subsequent measurements of village development committee performance will be taken throughout the project life. If country context allows, perceptions of civil society and community institutions will be included in the midterm survey and re-evaluated at endline.

2.2 Study Design

Shae Thot's local partner, Myanmar Survey Research, designed, developed, and conducted the baseline field survey. To ensure that results were attributable to the program, a quasi-experimental, longitudinal sampling design was developed, which tracks households, both treatment and non-treatment, across the life of the program.

The baseline survey used a quantitative data-collection instrument. Close-ended structured household questionnaires covering all three modules of the study (MCH, livelihoods, and WASH) were conducted with heads of household and/or mothers living in the household. These were supplemented with surveys of key informants within the villages (village authorities, village elders, community-based trainers/volunteers/extension workers), which provided village context. Results of the key informant surveys can be found in Annex 4.

2.3 Shae Thot Project Area

While Shae Thot has and will into areas outside of Central Burma, the study reflects the initial project design, covering 13 townships in Mandalay, Magway, and Sagaing Regions.

2.4 Sampling Strategy and Sample Size

The treatment sampling frame was statistically representative of all households covered by Shae Thot during the first year of the project. Probability proportional to size (PPS) was utilized to select treatment villages among the 13 initial townships.

Non-treatment villages were selected from the list of villages in the same townships maintained by the Myanmar Information Management Unit (MIMU), which keeps the most

accurate and complete lists available. Because MIMU village information does not include population statistics, these villages were selected without using PPS, resulting in a non-equal probability sample. Utilizing statistical matching procedures in the follow-up midterm survey will help to minimize potential bias. Only eight of the 13 townships were used to select non-treatment villages for the survey. The other five townships were deemed unsuitable for inclusion in the non-treatment group because they were already well covered by similar programming and would not provide an adequate counterfactual for measuring how Shae Thot impacted household outcomes.

The sample size was calculated to show statistically significant change in outcomes of 10% or more in the treatment population and 15% or more in the non-treatment population (at the $p=.05$ level). This sample takes into account the necessity of being able to measure change in the under-five and under-two population in a context, as earlier MSR research has demonstrated that 25% of households have a child under five and 12% have a child under two years old. After some programmatic changes that affected the appropriate sample, 152 treatment villages and 69 non-treatment villages were selected for the survey. In each village, 20 households were selected, yielding a sample of 3,020 treatment households and 1,380 non-treatment households.

Households in each village were selected using a sampling interval. After arriving at a village, MSR met with village authorities. The sampling interval was based on the total number of households as reported by the village authorities and started from the village entrance. Household replacement was allowed after two unsuccessful visit attempts, with replacements being directly adjacent to the originally selected household.

2.5 Survey Instruments

The household survey consists of four modules: demographics, MCH, livelihoods, and WASH. The demographic section records the basic demographic information on household members, including religion, ethnicity, age, sex, educational level, and occupation. The MCH module includes questions on health service utilization, ANC, delivery, post-natal and newborn care, childhood immunization, nutrition, and common illnesses. The livelihoods module includes questions about household material assets, main occupation and source of income, household food security, and agricultural practices and outputs. The WASH module consists of questions on access to safe drinking water, treatment of water, sanitation facilities, and hygiene practices.

The second instrument was a key information interviews (KII) questionnaire, which was administered to key stakeholders within the community: village authorities and elders, community workers, school teachers, and other knowledgeable persons. The questionnaire covered basic information about the communities, including infrastructure, services, and programmatic operations of other organization. In total, 220 KII questionnaires were administered, one for each village. The questionnaire and summary results can be found in Annex 4.

2.6 Field Study and Quality Control

The MSR field survey team consisted of 55 experienced field staff for data collection, 44 interviewers, and 11 supervisors.

Prior to field work, field staff received intensive training regarding study objectives, sampling procedure, question-by-question handling of the survey tools, work ethics, quality assurance, trouble-shooting, and participant confidentiality.

A one-day pre-test of the survey instruments was conducted in three villages in Hmawbi Township near the Yangon region. Debriefing of the pre-test was conducted with the Shae Thot consortium and appropriate modifications made to the survey instruments before the start of the baseline survey. The baseline survey was conducted from June 22 to July 20, 2012.

MSR developed standard operating procedures for data quality and ensured adherence to them, including daily maintenance and checking of field staff records, weekly updates to the Yangon office, field log checks, field visits by project managers, and weekly fieldwork progress reports to the Shae Thot consortium focal person.

2.7 Data Management

All questionnaires were thoroughly checked for their completeness, data reliability, and integrity before data were entered. To ensure quality, data were double-entered to detect errors using CS Pro. Data analysis was done in SPSS, and data visualization in Excel.

2.8 Limitations of the Study

Sampling design

Due to the methods outlined above of selecting the non-treatment villages, selection bias in the results is possible, though using statistical matching in future survey rounds can minimize this.

While the longitudinal design chosen is the most robust design for measuring impact, it is likely to result in a decreased sample size at the midterm and endline rounds. If statistical matching is used, this will also decrease the sample size.

The difference in sample size between the treatment and non-treatment cohorts means that we can measure the treatment group with greater precision than the non-treatment group and have a greater probability of discovering a significant change in the treatment group than in the non-treatment. All of these trade-offs were made with the intention of making the best use of the resources available.

Respondent response

While the questions utilize widely accepted criteria for recall time period, recall bias is a limitation, particularly for questions related to agricultural and health service utilization.

There is concern that some responses may be inaccurate due to cultural norms: respondents may be unwilling to answer questions related to household food security and hunger negatively, thus resulting in the high degree of food security suggested by the survey results.

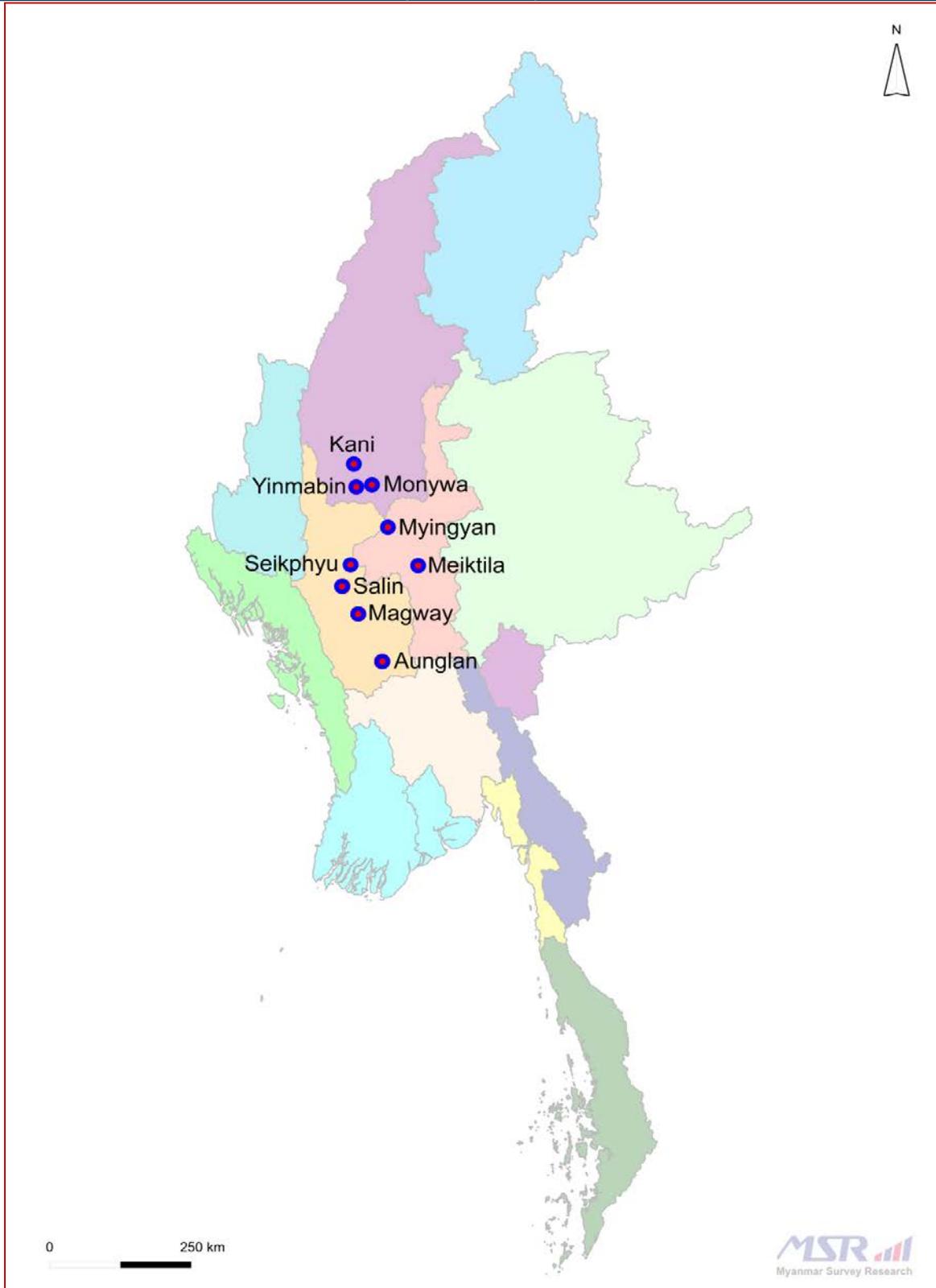
2.9 Stylistic Note

While the treatment versus non-treatment design is essential for estimating programmatic impact, the differences between the two groups is not meaningful in the baseline findings, unless there is a large demographic difference that could affect the validity of later analysis.

In this report, differences in estimates between the treatment and non-treatment groups were not tested and, therefore, are not reported.

To standardize the text of the report, all figures reported are the estimates for the treatment group. When two figures are presented, the first figure presented is the treatment group, followed by the estimates for non-treatment group in (parenthesis).

TOWNSHIPS COVERED BY SHAE THOT IN YEAR 1 (2012-2013)



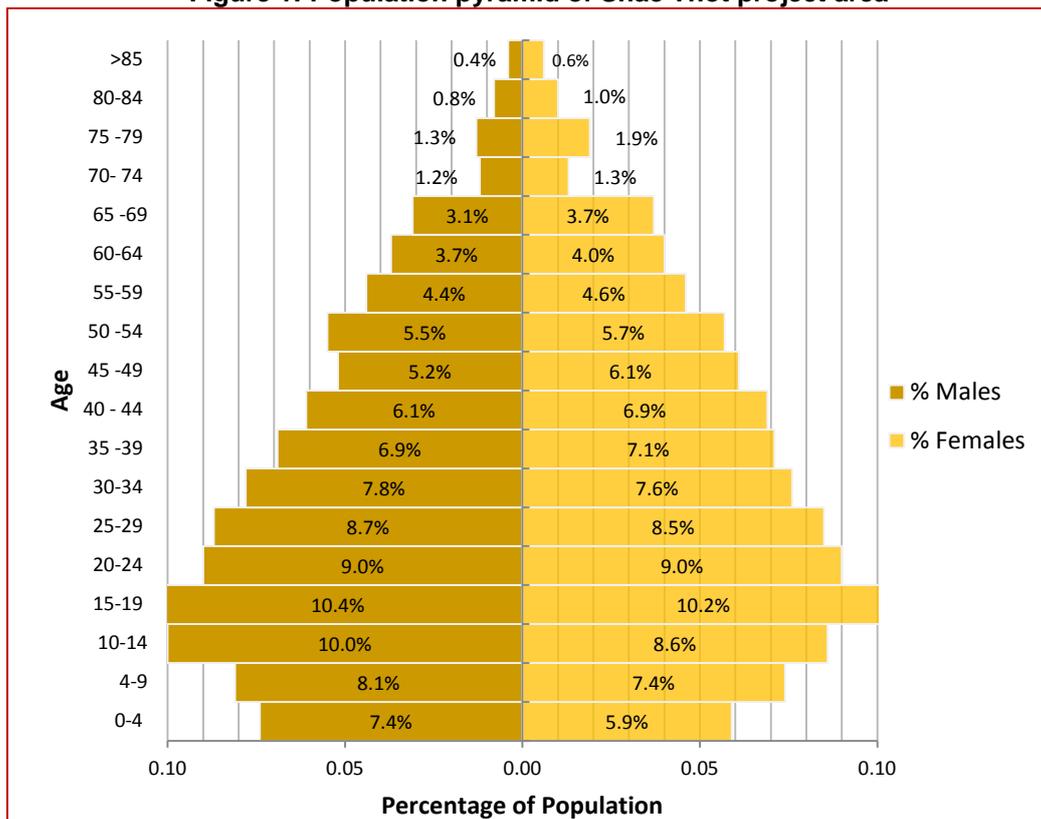
3. DEMOGRAPHY

Of the total 4,400 households, 51.7% interviews were conducted with the head of household, 35.5% with the spouse, and 12.8% of the interviews were held with the de facto head of household. All participants gave informed consent to the enumerator before the surveys were conducted.

3.1 Age-Sex Structure of Population

The following figure shows the age-sex distribution in a population pyramid in the project areas, covering both treatment and non-treatment areas.

Figure 1: Population pyramid of Shae Thot project area



The population pyramid shows a growing young and dependent population below 19 years of age, over 30% of the total. The age group 60 years and over comprises around 10% of the population, indicating a steady decline in the aging population, in contrast with the growing young population, and a somewhat steady working-age population.

The total population of households in the sample numbered 21,204, 14,599 in the treatment areas and 6,605 in the non-treatment areas.¹ Overall, 53.7% (54.9%) were females and 45.9% males, a sex ratio of 1.16 women to men. The average family size was calculated at

¹ These numbers are derived from household respondents' (n=4,400) enumeration of the number of people living in their household, and respondents' answers regarding their household members' age and sex. See Annex 4 for instrument.

4.81 (4.84) members/household. 28.8% (27.0%) of households had at least one child under 5 years old, and 13.6% (11.5%) had a child under two.

3.2 Ethnicity and Religion

Almost all households, 98.6% (99.5%), were Burmese. The remaining were a combination of Rakhine, Chin, Shan, and Kachin. 99.5% (99.9%) of the respondents were Buddhists, and the remaining were Christian and Muslim.

3.3 Education

Government schools are the main centers for learning and education. Out of the 5-30-year old cohorts, 1.8% (1.9%) had attended only monastic school and 1.8% (2.2%) had never attended school.

Primary school net enrollment rate among children 5-13 years old was 95.6% (96.7%). Among males it was 95.5% (96.0%) and among females it was 95.8% (97.3%). The rate of primary school completion (completion of grade 5 or higher) among children aged 11-18 years was 91.7% (91.1%). Rates among males were 93.3% (92.7%) and among females were 90.3% (89.7%).

School attendance tends to drop off after grade 5. Among 18-25 year olds who were no longer attending school, 85.1% (81.8%) had completed primary school. Only 51.3% (51.4%) continued their education after primary school, 18.5% (18.8%) completed grade 11, and 7.1% (7.3%) completed university.

3.4 Birth Registration

Respondents were asked if children in their households under the age of 18 had their birth registered with the Township Medical Officer or with a skilled health care provider. Among children under 18 years of age, 32.0% (29.6%) had their birth registered. Among children under 5, 40.9% (41.6%) had their birth registered.

4. MATERNAL AND CHILD HEALTH

4.1 Maternal and Child Health Sample and Characteristics

To examine maternal and child health, the analyses were restricted to respondents who were married women between 15-45 years old with children under the age of five at the time of survey, a total of 1,203 respondents (27.3% of the sample). The analysis of ante- and neonatal health examines the sub-sample of married women between 15-45 with children under two years old at the time of survey, or 557 respondents (12.7% of the sample).

Table 1: Tabulation of married women respondents 15-45 years old with young children, by treatment group and child age range

	Treatment	Non-Treatment	Total
Children Under 5	841	362	1,203
Children Under 2	403	154	557

On average, married mothers with children five and under were 32.2 years old at the time of the survey. The average age at time of marriage was 21.5 years. The table below presents details of pregnancies for women who were married and of reproductive age, from both treatment and non-treatment areas.

Table 2: Respondents' pregnancy and child histories

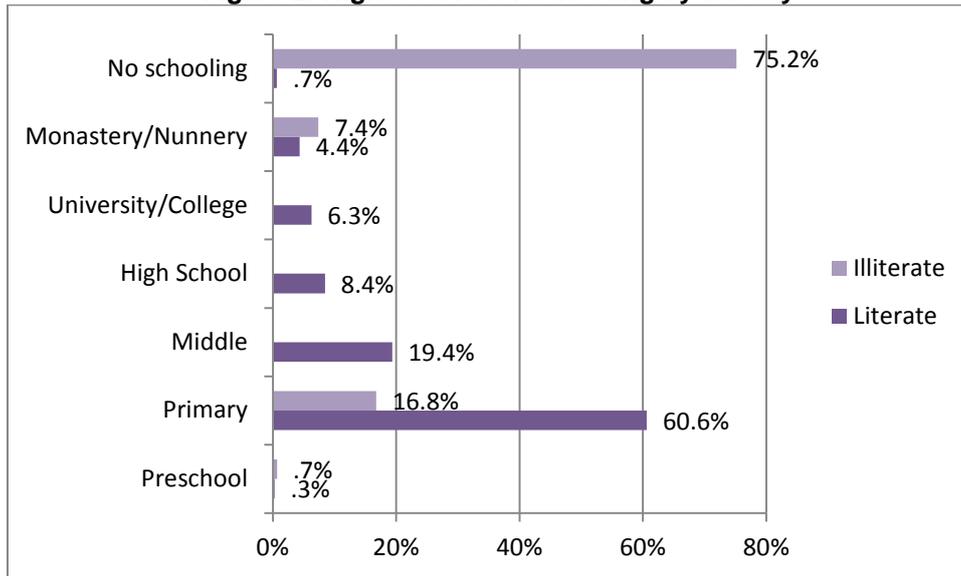
	Treatment (N=841)	Non-treatment (N=362)	Total
Average number of pregnancies (live or otherwise) for women with at least one child under the age of 5	2.9	2.8	2.9
Average number of living children	2.5	2.4	2.5
% of women 15-45 years who had at least one child die	23.1%	21.0%	
% of women who had at least one miscarriage or abortion	7.1%	6.6%	

Women in treatment areas had an average of 2.5 living children and 2.9 pregnancies. The gap is accounted for by miscarriages and child mortality.

4.2 Literacy Levels

Out of 1,203 mothers with children under the age of five, 89% of respondents could read. Figure 2 below shows the highest level of schooling among women according to literacy level. Though most illiterate women reported having no schooling, 16.8% did attend some primary school and 7.4% had received some education through a nunnery or monastery. Eighty percent of literate women's highest level of schooling was primary or middle school; only 6.3% of mothers 15-45 surveyed had attended college or university.

Figure 2: Highest level of schooling by literacy

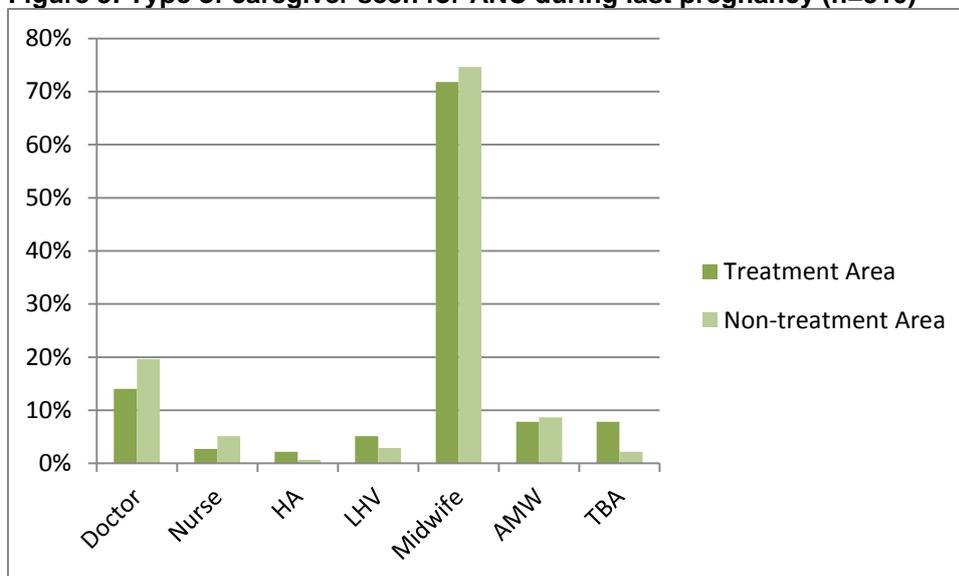


4.3 Antenatal Care, Delivery, and Postpartum Care

4.3.1 Antenatal Care

Respondents with children under two years old were asked details regarding their last pregnancy. Eighty-three percent of respondents from the project areas reported receiving care from a skilled caregiver at least once during their last pregnancy. Figure 3 shows the breakdown of type of caregiver providing ANC care. By far the most common cadres of caregiver were midwives, whom 71.8% of respondents in treatment areas visited. Doctors were second most common, at 14.0% of respondents. Among unskilled caregivers conducting ANC visits were auxiliary midwives (7.8%) and traditional birth attendants (7.8%).

Figure 3: Type of caregiver seen for ANC during last pregnancy (n=510)



4.3.2 The MCH Handbook

The MCH handbook or card for pregnant mothers records all care received by the expectant mother. These include number of abdominal checks, blood pressure tests, a urine check, an HIV/AIDS test, number of tetanus toxoid (TT) injections, and number of iron tablets received.

About 6.9% of respondents from treatment areas and 5.2% from non-treatment areas with children under the age of two years possessed an MCH handbook or card. For these respondents, data on types of ANC received at last pregnancy were taken from the card. For those respondents with no MCH card, data are based solely on recall.

The details of antenatal care received by respondents with children less than two years of age during their last pregnancy are summarized in the table below.

Table 3: Types of ANC received during last pregnancy

Type of Care	Treatment areas (N=403)	Non-treatment areas (N=154)
4 or more abdominal checks	21.6%	24.0%
At least 1 blood pressure check	19.9%	18.2%
HIV/AIDS test	26.1%	17.5%
Tetanus Toxoid Injections		
2 injections	67.3%	61.3%
1 injection	16.4%	17.5%
Urine test	39.2%	35.7%
Received 180 iron tablets	83.6%	82.0%
Blood test	54.3%	48.1%

Less than a quarter of the respondents (22% in treatment, 24% in non-treatment areas) received the prescribed number of abdominal checks. Only 26% and 18% of respondents from treatment and non-treatment areas received an HIV/AIDS test.

Over 15% never received tetanus toxoid injections (16% and 18% in treatment and non-treatment areas, respectively), while 67% of respondents from treatment areas and 61% from non-treatment areas received two or more TT injections during their last pregnancy. Iron tablets to prevent anemia in expectant mothers were received by 83% of women during their last pregnancy. Only two respondents received all of the services listed in Table 3; 24 respondents did all but the blood test, and 55 did all but the blood test and HIV test.

The low number of women who have received the above ANC services may be attributed to type of caregiver, distance from home to the nearest health center, infrequent visits made by midwives to the village, frequency of mobile clinic visits to the area, cost of injections and health care, traditional customs and beliefs, and cost and availability of transport.

4.3.3 Practices at Last Birth

When asked about the place of delivery during their last pregnancy, 80% of the respondents reported delivering their last baby at home, while 20% of the mothers from treatment and non-treatment areas gave birth to their last child in a health facility. Of the 80% who delivered at home, 48% (43%) reported using clean delivery kits (a new, boiled and sterilized

blade or new, sterilized scissors to cut the cord). Care received during delivery is summarized in the following table.

Table 4: Delivery care received by women with children under two, by percent of respondents

	Treatment (N=403)	Non-treatment (N=154)
Delivered at health facility	20.1%	20.8%
Home delivery	79.9%	79.2%
Home delivery with clean delivery kit	47.7%	43.4%
Last birth attended by a skilled health professional	57.5%	64.3%
Doctor	17.4%	17.5%
Nurse	1.2%	0.6%
Midwife	37.7%	44.2%
LHV	1.2%	1.9%
Last birth attended by unskilled health professional	42.9%	35.9%
Traditional Birth Attendant	29.8%	22.1%
AMW	9.9%	6.0%
Community Health Worker	1.0%	1.3%
Family Member	1.5%	4.0%
Self	0.5%	1.9%
HA	0.2%	0.6%

While 83% of respondents received ANC from skilled caregivers, only 57.7% did so when actually giving birth. Skilled health care professionals such as midwives were the most common caregivers during delivery. Among unskilled health professionals, traditional birth attendants were the most common caregivers, with 29.8% of respondents in the treatment area and 22.1% in the non-treatment areas reported that their last birth had been attended by a TBA. This is in contrast to the 7.8% of women who received ANC from TBAs.

4.3.4 Postpartum Care

An important part of maternal and neonatal morbidity and mortality prevention are regular checkups in the first few weeks following delivery. Table 5 below describes the postpartum checkup practices of respondents who gave birth in the two years prior to the survey.

Table 5: Percent of respondents accessing postpartum care

	Treatment areas (N=403)	Non-treatment areas (N=154)
Had at least one checkup after the birth of last child	90.3%	87.7%
Had checkup within one day of birth of last child	80.1%	81.8%
Average number of checkups within first six weeks after delivery among women who had any checkup	3.43	3.79
Had six or more postpartum checkups within six weeks following last delivery	20.8%	24.7%
Received postpartum checkup from skilled health professional	61.0%	68.2%
Midwife	40.4%	46.8%
Doctor	16.4%	18.2%
Nurse	2.5%	1.9%
LHV	1.7%	1.3%
Received a postpartum checkup from an unskilled health professional	29.0%	19.3%
Traditional Birth Attendant	17.9%	11.7%
Auxiliary Midwife	8.9%	5.8%
Community Health Worker	1.0%	0.6%
Health Attendant	0.5%	0.6%
Health Volunteer	0.7%	0.6%

Overall, 90.3% new mothers received at least one checkup after the last birth, and 85.4% received their first check up within two days of giving birth.

Traditional birth attendants were the main unskilled postpartum caregivers. 17.9% of respondents from treatment areas and 11.7% from non-treatment received at least one postpartum checkup from a TBA. These patterns mirror type of birth attendant. It is likely that most women receive postpartum care from the same caregiver who delivered their child.

The average number of postpartum checkups within six weeks after delivery was reported to be 3.5 visits per respondent. This is below the recommended six visits.

4.3.5 Newborn Healthcare

This section describes practices of respondents and caregivers immediately after birth. The survey asked mothers about the following three good practices for newborn babies that should be followed immediately after delivery:

- Wrapping the baby immediately after birth,
- Applying nothing to the cord after it is cut and dried, and
- Bathing the baby for the first time only after cord is completely dried.

Table 6 below details the frequency of new mothers following these good practices.

Table 6: Percent of newborns receiving good baby practices

	Treatment areas (N=403)	Non-treatment areas (N=154)
Wrapped within 1 hour of being born	86.4%	82.5%
Umbilical cord was safely treated/nothing was applied to the cord after it was cut	41.9%	40.3%
Bathed for the first time after the cord dried or fell off	45.2%	38.3%

Nearly 85% (86.4% from treatment areas, 82.5% from non-treatment areas) of respondents reported that their newborn was wrapped within one hour of birth. When asked if anything was applied to the cord, 41.9% (40.3%) applied nothing, 21.7% applied some type of local antiseptic, 14.5% of respondents applied saffron or herbal pastes, and 11% applied antibiotics.

48.1% of respondents reported that their newborn was bathed immediately after birth, and while the remainder waited until after the umbilical cord had dried and fallen off.

4.3.6 Newborn Health Visits

A complete newborn care package requires four or more healthcare visits within the first month after birth, the first checkup within the one week of being born, and the first healthcare checkup from a skilled healthcare professional. Only 18% of children from treatment areas and 26.6% from non-treatment areas received this complete newborn care package; 80% received part of the package.²

Table 7 presents information on the number and type of health visits made or received by newborns within the first day, week, and month after birth.

² The difference between percent of neonates receiving the full recommended care package is statistically significant ($p=0.026$). As with all findings that show a difference in the starting point between treatment and non-treatment areas, a difference in difference method, which compares the changes between the two groups between periods of time, will be used during midterm and endline. In this case, because both numbers are so low, it is unlikely that this difference would confound later analysis—both treatment and non-treatment areas have room for change.

Table 7: Percent of newborns receiving each type of health visit

	Treatment areas (N=403)	Non-treatment areas (N=154)
Newborns born in a health facility or those who received their first visit on the day of delivery	79.9%	85.1%
Newborns who received their first health check within one week after delivery	86.6%	87.7%
Newborns who received 4 or more checks during their first month after birth	28.5%	35.1%
Average number of checks received within 1 month after being born	3.45	3.93
Received first health check from a skilled healthcare professional	61.6%	69.8%
Midwife	40.2%	47.4%
Doctor	16.4%	18.2%
Nurse	3.0%	2.9%
Lady Health Visitor	2.0%	1.3%
Received first health check from an unskilled healthcare professional	30.2%	19.9%
Traditional Birth Attendant	18.1%	13.6%
AMW	9.2%	4.5%
Community Health Worker	1.5%	0.6%
Health Attendant	0.7%	0.6%
Health Volunteer	0.5%	0.6%
Mobile Outreach	0.2%	0.0%

The survey shows that although 79.9% of respondents' last births were at home, 61.6% of newborns (69.8%) received a checkup from skilled caregivers such as midwives, doctors, nurses, or lady health visitors. Midwives were the most common caregivers.

Newborns also received care from untrained traditional birth attendants, with 18.1% (13.6%) receiving a first checkup from a TBA. Overall, type of caregiver for newborn checkups closely followed the percentage distribution of postpartum caregivers.

4.3.7 Breastfeeding

Table 8 summarizes the breastfeeding initiation practices for newborns in the project areas.

Table 8: Initiation of breastfeeding and early breastfeeding practices

	Treatment areas (N=403)	Non-treatment areas (N=154)
% of newborns put to breast within 1 hour after birth	65.0%	57.1%
% of newborns put to breast within 1 day of birth	78.4%	79.9%
% of newborns put to breast during the first three days after birth	90.0%	86.9%
% of newborns given something other than breast milk to drink during the first three days of life	29.0%	31.8%
Newborns given colostrum	89.1%	86.3%

As shown above, the majority of newborns, 65.0%, were first put to breast within one hour of birth, and 78.4% were put to breast within 24 hours of their birth. Only 1.0% (0.6%) was never breastfed.

Colostrum, the thick, yellowish milk produced in the first three days after child birth, was given to 89.1% (86.3%) of newborns. There are often misconceptions about the quality and quantity of this milk, which results in mothers not feeding their child the colostrum or complementing it with other liquid. Of children under two years old, 29.0% (31.8%) were given liquids other than breast milk during these first three days.

Exclusive breastfeeding is defined as children in the age of 0-5.9 months who did not have any solids or any liquids other than breast milk in the 24 hours prior to the survey; 53.2% (42.1%) of children under six months old were being exclusively breastfed (n=107 in treatment areas and 38 in non-treatment areas) according to survey responses. This number is substantially higher than the nationally reported average, which was 23.6% in a national study from 2009-2010.³ There are several possible explanations for the discrepancy. First, the Shae Thot data collection occurred only in Magway, Mandalay, and Sagaing states. The same report showed that these three states have higher than average exclusive breastfeeding rates, at 33.3%, 40.0%, and 43.1% respectively; notably, the reported exclusive breastfeeding rates for non-treatment communities in these areas (42.1%) is within the nationally reported range for those areas. The reported average of 53.2% could represent a real regional variation in practice, with some statistical variation.

Second, some respondents may have misunderstood the definition of exclusive breastfeeding and excluded water from the list of items the infant was given to eat or drink in the previous day. While enumerators are trained to ask about this, actual practice of questioning may vary.

Third, a social desirability bias may cause mothers to over-report breastfeeding.

Finally, some of the surveyed areas of the treatment group had received a Pact MCH intervention, called Strengthening Community Response (SCR), from 2007-2010 that included maternal education on practices such as breastfeeding. Thirty-nine of the surveyed villages had also been part of the SCR intervention, with the result that 780 surveyed households were potentially influenced by this intervention. Of the 30 households in these areas with children under six months of age, 70% were exclusively breastfed. Of the 116 households surveyed not in SCR-intervention areas, the exclusive breastfeeding rate was 44% (p=0.000). This is much closer to the expected breastfeeding rate in those areas.

Of children aged 6-11 months, 98.0% (97.1%) were breastfed a day prior to the survey, and 91.8% (96.3%) of children aged 12-23 months were breastfed a day prior to the survey.

³ Ministry of National Planning and Economic Development and Ministry of Health, Myanmar, 2011. Myanmar Multiple Indicator Cluster Survey 2009 - 2010 Final Report. Nay Pyi Taw, Myanmar. Ministry of National Planning and Economic Development and Ministry of Health, Myanmar.

4.4 Diet Diversity and Minimum Acceptable Diet in Children Under Five

The table below details which types of food children ate in the 24 hours prior to survey. The results are broken into children 0-5.9 months old and 6-59 months old.

Table 9: Percent of children eating each food type the day before survey

Food Groups	Treatment Area (0-5.9m) n=107	Non-Treatment Area (0-5.9m) n=38	Treatment Area (6-59m) n=734	Non-Treatment Area (6-59m) n=324
Cereal or tuber	28.0%	26.3%	98.2%	97.5%
Legume	1.9%	2.6%	38.4%	39.2%
Fruits and vegetables rich in Vitamin A	0.0%	0.0%	46.9	54.6
All other fruits and vegetables	0.9%	0.0%	27.1%	23.2%
Meat, poultry, or fish	1.9%	2.6%	32.7%	30.3%
Eggs (chicken, quail, duck)	0.9%	0.0%	26.7%	28.4%
Yoghurt / other milk products/ tinned/ powder/ fresh milk	2.8%	0.0%	5.2%	6.2%
Any oil or fats or foods made with any of these: Sesame, sunflower, ground nut, palm oil	12.1%	13.2%	76.0%	70.0%
Any sugary foods such as jaggery, chocolates, sweets, candies, pastries, cakes/ or biscuits	5.6%	10.5%	45.4%	48.8%
Salt / savory snacks / fish paste	4.7%	0.0%	17.6%	1.9%
Commercially available baby food (e.g., Dumex)	4.7%	0.0%	2.9%	0.9%
Plain water / sugar water / honey water	43.0%	55.3%	83.8%	84.6%
Juice	0.0%	0.0%	3.7%	3.0%
Broth / soup	0.9%	2.6%	7.1%	8.3%

The average diet diversity score for the youngest child under the age of five was calculated as the total number of food groups consumed in the 24 hours prior to survey by the youngest child. Diet diversity score is calculated differently for children under five than for other groups. While HDDS is used as a proxy for households' access to food, the child's diet diversity score is used as a proxy to measure the quality of an individual child's diet. Because children have different food and energy needs than adults, the diet score uses a different list of food groups, which more closely matches nutritional groups and eliminates groups indicative of socio-economic status, such as sugar and honey. The diet diversity score food groups are: 1) grains, tubers, and root vegetables, 2) vitamin-A rich fruits and vegetables, 3) all other vegetables and fruits, 4) meat, poultry, fish, and seafood, 5) eggs, 6) pulses, legumes, and nuts, and 7) milk and milk products. These are the first seven rows in the table above. For children 6-59.9 months, the average diet diversity score was 2.8 in both treatment and non-treatment. The minimum acceptable dietary diversity score for children is four food groups, which was reported for only 24.1% of children between 6-59 months in treatment and non-treatment areas combined.

Triangulating the responses concerning breastfeeding, the number of meals a child receives, and diet diversity to determine children's diet patterns, the prevalence of children age 6–23 months who received the acceptable minimum diet was 11.5% (7.1%).

4.5 Childhood Immunization

Of the 1,203 respondents with children under five years old, 224 children had immunization cards and 979 children did not. The immunization section of the survey disaggregated children into age groups of 12-23.9 months old and 24-60 months.

The study defined one complete immunization package as one BCG, three oral polio, three DPT, three Hepatitis B, and one MMR vaccine. Immunization details for children 12-23.9 months and 24-60 months are presented in Table 10 below.

Table 10: Childhood immunization rates for children 12-23.9 and 24-60 months

	Children 12m-23.9m N=243		Children 24-60m N=646	
	Treatment areas (N=170)	Non-treatment areas (N=73)	Treatment areas (N=438)	Non-treatment areas (N=208)
1 BCG vaccine	91.4%	90.0%	97.0%	97.1%
3 Polio vaccines	58.0%	54.0%	65.7%	59.9%
3 DPT vaccines	46.2%	41.6%	55.3%	50.5%
3 Hepatitis B vaccines	40.9%	37.3%	46.8%	44.2%
1 MMR vaccine	54.6%	57.4%	11.4%	11.5%
Complete immunization package (all above vaccines)	5.2%	7.4%	10.0%	11.1%

While for children under two years no single vaccine had less than 40.9% coverage (37.3% in non-treatment), the percent of children who had received the complete immunization package was only 5.2% (7.4%). Among children between two and five years of age, most vaccines had coverage of over 46.8% (44.2%), but the MMR vaccine had only 11.4% coverage (11.5%). In children between two and five, the complete immunization rate was 10.0% (11.1%).

It is notable that MMR vaccine coverage is actually lower in older children, while rates for all other vaccines are higher; the MMR vaccine coverage among children 12-23.9 months is 54.6% (57.4%). This result may be influenced in part by the fact that the MMR vaccine was recorded only from immunization cards and not included in the questions asked of respondents without immunization cards. Among children 24-59 months old with an immunization card (n=57), 53.1% had received one MMR vaccine and 21.1% had received two MMR vaccines.

4.6 Childhood Illnesses

This section describes the survey results related to diarrhea, acute respiratory infection, and fever experienced by children under five in the two weeks prior to the survey, as related by the children's parents.

4.6.1 Diarrhea

In the two weeks preceding the survey, 6.5% (7.4%) of the children under five years old had had diarrhea. If more than one child under five in the household had diarrhea during that time period, data were collected for the youngest child. Frequencies of practices related to diarrhea care are tabulated in Table 11 below.

Table 11: Frequency of diarrhea care practices in children under five

Anti-Diarrheal Practices	Treatment (N=62)	Non-treatment (N=30)
Treated by a skilled health care provider	54.7%	29.9%
Doctor	22.5%	13.3%
Midwife	30.6%	13.3%
LHV	1.6%	0%
Nurse	0%	3.3%
Treated by an unskilled healthcare provider	27.4%	26.6%
Drug store	17.7%	13.3%
Traditional health practitioner	6.5%	13.3%
HV	3.2%	0%
Received care within 24 hours from a skilled care provider	37.1%	13.3%
Received care within 48 hours from skilled care provider	9.7%	6.7%
ORS received	69.4%	50.0%
ORS and zinc received	1.6%	0%
Received more solids than usual	3.2%	2.2%
Received more liquids than usual	16.1%	20.0%

Among children with diarrhea (n=92), 69.4% (50.0%) were given oral rehydration solution (ORS). Only 16.1% (20.0%) of children were given more liquids than usual; 33.9% (26.7%) were given fewer fluids than usual, and 45.2% (46.7%) respondents said they did not give children with diarrhea any liquid. While the last number contradicts the percentage who were given ORS, the overall trend indicates poor diarrhea care practices. Similarly poor practices were found with feeding: 3.2% (0.0%) children were given more food than usual, 35.5% (26.7%) were given less usual, and 38.7% (46.7%) did not receive any food.

Most of the caregivers (80.6%) sought treatment for children with diarrhea. Skilled healthcare providers treated children more frequently than unskilled healthcare providers, and midwives followed by doctors were the most common overall.

4.6.2 Pneumonia

Acute Respiratory Illness (ARI) is defined as suffering from a cough with rapid or difficulty breathing, and ARI is used as proxy for pneumonia. Among children under five, 4.3% (1.7%) displayed the symptoms of pneumonia. Among those with signs of pneumonia, 48.9% (57.2%) were taken to a skilled health care provider (n=50). Fourteen percent (0.0%) were not taken anywhere for care and 25.6% (0.0%) were taken only to the pharmacy.

Table 12: Frequency of pneumonia care practices in children under five

	Treatment (N=43)	Non-treatment (N=7)
% of children who were treated by skilled health care provider	48.9%	57.2%
Doctor	25.6%	42.9%
Midwife	18.6%	14.3%
Nurse or LHV	4.7%	0%
% of children who were treated by unskilled health care provider	41.9%	42.9%
Drug Store	25.6%	0%
Traditional health practitioner	2.3%	14.3%
HV, CHW, or HA	14.0%	28.6%
% of children who received care within 24 hours from skilled care provider	16.3%	28.6%
% of children who received care within 48 hours from skilled care provider	9.3%	28.6%
Antibiotics Received	11.6%	0%

Only 25.6% (57.2%) of children with ARI were taken to a skilled care provider within 48 hours. Only 11.6% (0.0%) received antibiotics.

4.6.3 Fever

Twenty-nine children under five, or 2.4% of children in the sample, had a fever in the two weeks before the survey. Out of the fever cases, 61.9% (62.5%) of children received treatment from skilled health care professionals, and 38.1% (25%) consulted Traditional health practitioners for traditional medicines or drug store owners for over-the-counter medications. Of those who sought treatment for the fever from a skilled health professional (n=19), 14.5% (20.0%) were given a blood test to determine if they had malaria; this meant that overall 9.5% (12.5%) of children with fever received a test for malaria.

Table 13: Care received by children under five with fever

	Treatment (N=21)	Non-treatment (N=8)
% of children who were treated by skilled health care provider	61.9%	62.5%
Doctor	19.0%	25.0%
Midwife	28.6%	12.5%
LHV	14.3%	0%
Nurse	0%	12.5%
Mobile Clinic	0%	12.5%
% of children who were treated by unskilled health care provider	33.3%	25.0%
Drug Store	14.3%	12.5%
Traditional health practitioner	9.5%	12.5%
Health Attendant	9.5%	0%
% of children who received care within 24 hours from skilled care provider	57.1%	37.5%
% of children who received care within 48 hours from skilled care provider	42.9%	62.5%
Blood test with finger prick	9.5%	12.5%
Received fever pill	33.3%	25.0%
Received fever syrup	14.3%	12.5%
Received injection	19.0%	0.0%
Received antibiotics	4.8%	0.0%
Received ACT-combination treatment	0.0%	0.0%

An important, cost-effective component of malaria prevention is sleeping under properly treated mosquito nets. Table 14 below describes the current state of mosquito net ownership and usage in treatment areas.

Table 14: Use of mosquito nets in households with children under five

	Treatment Areas (N=841)	Non-treatment Areas (362)
% of HH with child under 5 that had mosquito nets	95.5%	96.7%
% of HH with child under 5 that had LLIN or properly treated net	6.8%	8.8%
% of children under 5 who slept under a bed net	90.8%	90.7%
% of children under 5 who slept under a treated net in the night prior to survey	7.8%	9.1%

Most households (95.5%) had mosquito nets, though few (6.8%) had a long lasting insecticide-treated net (LLIN) or had treated their net within the last 12 months. Among children under five, 90.8% slept under a mosquito net night before, and 95.9% of children under five in a household with mosquito nets slept under one the preceding night. 7.8% of all children under five slept under a LLIN or treated net the day before the survey. While mosquito nets are available and utilized by households, they are not generally properly treated, reducing their beneficial effect.

Of the 29 children with fever in the two weeks prior to the survey, five slept under nets and 24 did not.

4.7 Contraception

Questions related to contraception were asked of married women between 15-49 years old, resulting in a sample of 2,451. Of these women, 43.7% reported that they were currently using contraceptives to delay or avoid pregnancy. The types of contraceptives currently being used in the treatment and non-treatment areas are presented in Table 15 below.

Table 15: Contraception use in married women 15-49 years old

Contraception Details	Married women 15-49 years of age (N=2451)	
	Treatment Area (N=1693)	Non-treatment Areas (N=758)
% of married women who are currently using birth control methods	43.7%	43.8%
Types of contraceptives being used		
Injection	75.4%	70.8%
Pill	16.9%	17.8%
IUD	3.4%	7.3%
Condom	0.1%	0.3%
Tubal ligation	2.8%	1.5%
Vasectomy	0.8%	1.2%
% married women of reproductive age who knew at least three types of contraceptives	26%	21.1%
Received birth control information from a skilled health professional (multiple response)		
Midwife	34.0%	33.2%
Doctor	6.6%	4.5%
Nurse	1.1%	1.5%
LHV	1.8%	0.8%
Mobile Clinic	3.7%	2.5%
Received birth control information from an unskilled health professional (multiple response)		
AMW	5.8%	3.4%
Community Health Worker	1.6%	2.8%
Traditional Birth Attendant	1.1%	0.7%
Health Attendant	0.8%	0.8%
Friends	26.3%	35%
Others/self	17.2%	25%
Did not receive birth control information from anyone	33.0%	37.7%
% of women who did not want another child	66.9%	68.6%
Number of years women considered the optimal time between pregnancies	3.9	3.9

The three most common types of contraceptives respondents reported using were injection, the pill, and the IUD. Injection alone was used by 75.4% (70.8%) of women using

contraception. 26% and 21.1% of respondents in treatment and non-treatment areas, respectively, could mention at least three types of contraceptives. Among women using contraception in the treatment area, 16.8% reported that they would still like to have another child and are presumably using birth control to space pregnancies.

Respondents were asked about their sources of information and advice regarding contraception and birth spacing. The most common source of information was midwives (34.0%), followed by respondents' friends (26.3%). Thirty-three percent of respondents (37.7%) had not received information on contraception from anyone.

When respondents were asked about their desire to have another child in the future, 67% of women responded in the negative, and 13% were still unsure of whether or not they wanted to have another child in the future. Those that said they would prefer not to have more children had a mean of 2.94 children, while women who still wanted more children had a mean of 1.54 children.

Among women who had reported not having received birth control information from anyone, 69.2% said they did not want another child. Respondents felt that four years was an optimal time between pregnancies, suggesting that contraception for birth spacing may be an area of demand.

An unmet need for contraception is defined as a married woman between 15-45 who does not want another child and is not using a modern form of contraception (not counting withdrawal or the calendar method) or is currently breastfeeding, or who specified that the optimal time between pregnancies is for more years than the age of her youngest child and is not using a modern form of contraception or breastfeeding. Unmet contraceptive need was 33.6%% in the treatment areas and 36.4% in the non-treatment areas. Most of this unmet need for birth control is among women who want to space births; women who don't want any more children are more likely to be using birth control.

4.8 Knowledge and Awareness of MCH Topics

This section tests the knowledge of the women of reproductive age around pregnancy, delivery, post-delivery, newborn care, and childhood illness. A total of 3,768 women were asked these questions, 2,574 from treatment areas and 1,194 from non-treatment areas.

Respondents were asked to name three or more danger signs during pregnancy that necessitated seeking professional healthcare; only 9.6% (4.8%) could name at least three or more danger signs. The table below displays the percent of women who were able to name each danger sign (multiple response allowed).

Table 16: Percent of women able to name each pregnancy danger sign

Danger signs during pregnancy	Treatment (n=2,574)	Non-treatment (n=1,194)
Fever and too weak to leave the bed	16.9%	14.4%
Shortness of breath	1.4%	1.3%
Bleeding	28.4%	20.2%
Severe headache/dizziness	11.3%	7.0%
Loss of fetal movement	5.2%	2.0%
Fits	10.3%	6.1%
Severe abdominal pain	3.6%	2.8%
Swelling of face/hands/feet	18.6%	21.0%
Unconsciousness	2.5%	1.4%
Blurred vision	0.7%	0.5%
Significantly decreased urine	0.6%	0.5%
Difficulty breathing	1.4%	1.5%
Others	0.8%	1.3%
Don't know	41.6%	47.2%

Bleeding, swelling of face, hands, and feet, and fever were the three most commonly named danger signs. A large number of women, 41.6%, were unable to name any danger signs that would make them seek care.

Table 17 below shows women's responses when asked to name danger signs during delivery. Only 7.3% (3.8%) of women were able to mention at least three danger signs during delivery that needed emergency attention and care.

Table 17: Percent of women able to name each delivery danger sign

Danger signs during delivery	Treatment (n=2,574)	Non-treatment (n=1,194)
Prolonged delivery of more than 12 hours	41.5%	33.0%
Bleeding	29.4%	22.1%
Retained placenta (over 1 hour)	17.2%	12.0%
Fits	7.9%	5.5%
Shortness of breath	1.6%	1.0%
No abdominal pain within 6 hours after membrane rupture	4.8%	3.5%
Others	0.3%	0.6%
Don't know	34.4%	44.8%

The most common danger signs named were prolonged delivery, bleeding, and retained placenta. More than one-third of respondents, 34.4%, were unable to name any danger signs that would require emergency care.

Table 18 below shows the percentages of women able to name each major postpartum danger sign. Only 3.0% (1.7%) of women could mention at least three danger signs after delivery that needed emergency care and attention.

Table 18: Percent of women able to name postpartum danger signs

Danger signs after giving birth	Treatment (n=2,574)	Non-treatment (n=1,194)
Excessive bleeding	38.3%	31.5%
Fever and too weak to get out of bed	20.0%	12.5%
Smelly vaginal discharge	1.1%	0.4%
Fits	13.4%	12.0%
Severe abdominal pain	2.5%	1.8%
Shortness of breath	1.7%	0.7%
Painful, red, or torn vagina	1.0%	0.6%
Painful, swollen nipples or breasts	2.3%	1.8%
Difficult to urinate	0.5%	0.7%
Incontinence or urine dribbling	0.2%	0.3%
Others	0.8%	2.0%
Don't know	43.2%	50.5%

The most common danger signs named were bleeding, fever, and fits. Among women in treatment areas, 43.2% could not name any postpartum danger signs.

Nearly 12% of respondents could mention at least three danger signs of sickness in newborns that may need emergency care. Table 19 below presents the percentage of women able to name each danger sign.

Table 19: Percent of women able to name each newborn danger sign

Danger signs of newborn health	Treatment (n=2,574)	Non-treatment (n=1,194)
Very small child	4.0%	3.2%
Poor sucking	11.5%	7.2%
Fast noisy breathing, inward drawn chest	8.3%	3.7%
Poor movement	6.6%	3.9%
Fever	24.6%	19.1%
Fits	27.4%	16.7%
Yellow discoloration, jaundice	22.8%	19.2%
Skin infection	3.6%	3.5%
Bleeding from cord or body	1.3%	1.2%
Convulsions	1.5%	1.7%
Grunting	0.5%	0.5%
Condition not improving	0.9%	0.4%
Swollen/redness discharge from eyes	0.1%	0.1%
Others	0.2%	0.5%
Don't know	31.2%	38.6%

The most commonly named danger signs were fits, fever, and jaundice. Forty percent of respondents did not know or could not mention any danger signs in a newborn that may need care outside home.

Table 20 below shows which danger signs of diarrhea in children that respondents were able to name. Only 3% of the total respondents were able to mention at least three danger signs of diarrhea in children.

Table 20: Percent of women able to name diarrhea danger signs

Danger signs of diarrhea	Treatment (n=2,574)	Non-treatment (n=1,194)
Sunken eyes	22.8%	20.3%
Restlessness	3.0%	0.6%
Drowsiness with fatigue	36.8%	33.2%
Intense thirst	7.6%	5.8%
Dry throat	0.7%	0.5%
Pinched skin returns very slowly	1.8%	1.1%
Others	1.6%	3.1%
Don't know	47.7%	50.2%

The most commonly named signs were drowsiness and sunken eyes. Nearly one-half of respondents, 47.7% (50.2%), were not able to mention any danger signs of diarrhea.

Only 0.5% of the total respondents could mention at least three danger signs of pneumonia in children under the age of 5. Table 21 below shows the percent of women able to name each danger sign.

Table 21: Percent of women able to name pneumonia danger signs in children

Danger signs of pneumonia	Treatment (n=2,574)	Non-treatment (n=1,194)
Cough	10.2%	6.8%
Fast/rapid breathing	2.8%	1.7%
Sunken chest/indrawn chest	0.5%	0.3%
Wheezing	1.1%	1.0%
Others	0.1%	0.1%
Don't know	74.2%	78.6%

The most common danger sign named was coughing, followed by rapid breathing. 74.2% of respondents were unable to name any danger signs of pneumonia in children.

Respondents were also asked to name the causes of malaria. The causes named are detailed below.

Table 22: Causes of malaria named by respondents.

Causes of Malaria	Treatment (n=2,574)	Non-treatment (n=1,194)
Mosquito bites	60.8%	53.2%
Rainy season	3.0%	2.5%
Intravenous drug use	0.0%	0.1%
Blood transfusions	0.1%	0.2%
Injections	0.1%	0.3%
Others	4.7%	3.5%
Don't know	36.1%	43.2%

Most respondents, 60.8% in the treatment area, correctly attributed the cause of malaria to mosquito bites. Three percent of respondents mentioned that malaria occurred during the rainy season. Thirty-eight percent did not know what caused malaria in children.

3. LIVELIHOODS

3.1 Household Income

Data on sources of income for households in the treatment and non-treatment areas indicated that agriculture and casual labor were the most common sources of income over the entire sample. Sources of income for households during the previous 12 months are detailed in Table 23 below. The first two columns detail the percent of households reporting that they had any income from that source in the last year, while the second two columns ask households which income source was the most important.

Table 23: Sources of household income during the last year, by percent of households reporting

	Multiple Response		Single Response	
	Treatment Area (N=3,080)	Non-treatment areas (N=1,380)	Treatment Areas	Non-treatment Areas
Grow agricultural crops (all food and non-food cash crops)	56.2%	56.4%	49.3%	50.3%
Casual labor: agriculture, fishery, forestry, other	44.3%	43.3%	27.6%	23.2%
Service provider	10.0%	12.2%	4.7%	6.7%
Full-time employment	10.0%	7.8%	4.0%	4.6%
Small shop/grocery store	7.7%	8.0%	3.8%	3.1%
Remittances/gifts	7.7%	7.1%	2.0%	2.6%
Hawker	6.2%	7.3%	3.2%	3.9%
Livestock and poultry breeding	6.8%	5.2%	1.6%	1.3%
Fish breeding/catching	0.5%	1.2%	0.3%	1.0%
Small-scale trading of agricultural products (all food and non-food cash crops)	.9%	1.7%	0.4%	0.7%
Small-scale trading of livestock and fishery products	0.3%	0.4%	0.2%	0.1%
Small-scale trading of non-agricultural products (forest products and non-timber forest products)	1.1%	2.2%	0.8%	1.5%
Large-scale trader/dealer	1.3%	.7%	1.0%	0.4%
Government (pension) /NGO assistance (cash for work)	1.3%	1.4%	0.4%	0.2%

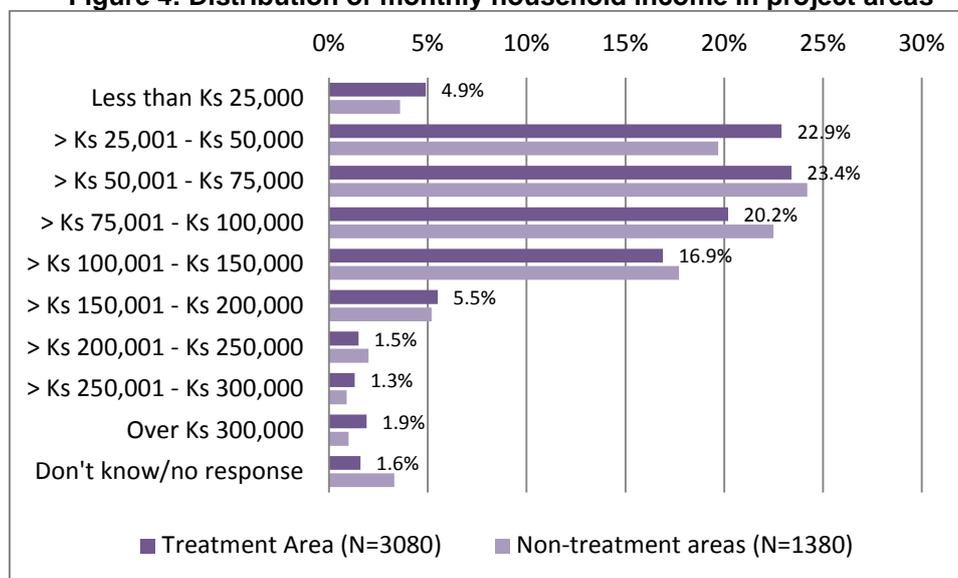
Agriculture, with 56.2% of households listing it as providing some income and 49.3% reporting it as the most important source of income, was the major source of household income in the project areas. Casual labor provided some income to 44.3% of households and was the major source for 27.6%. Service providers – including small businesses such as tailoring, hair cutting, carpentry, weaving, and blacksmiths – and full-time employment both provided some income to 10% of households but were the major source of income for fewer households.

Respondents were asked about their average monthly income. While self-reported income data may not be fully accurate, it provides relative information about household income and

can complement other data such as household assets ownership and land ownership to determine households' overall economic well-being.

The average monthly income for households in treatment and non-treatment areas is presented in Figure 4 below.

Figure 4: Distribution of monthly household income in project areas



Most households (66.5%) made between 25,000 and 100,000 Kyats a month (US\$29-116). Less than 5% made below 25,000 Kyats monthly, and 11.8% made more than 150,000 Kyats monthly (US\$174).

When asked to compare the household's financial well-being in the past 12 months with that of the previous year, 15.8% (15.5%) stated that there had been a positive change. The largest percentage, 55.3% (56.6%), of people felt that it was the same as before. Twenty-nine percent (23.9%) noted a negative change.

Respondents were also asked to compare the availability of employment opportunities in the past 12 months with the previous year. According to the responses received, 62.7% (66.1%) of the households felt there was no change in the employment situation. Over 13% (10.2%) of the households reported "somewhat good or better" job opportunities in the past 12 months, and 23.4% (23.6%) reported that the employment outlook was negative compared to the previous year.

3.2 Food Security and Diet

3.2.1 Household Food Security Patterns

Levels of food consumption in project areas were relatively high, as reported by survey respondents. Over ninety percent of households, 93.6% (90.7%), reported that they had consumed three meals in the 24 hours prior to the survey, while 6.1% (9.2%) ate two meals, and 0.2% (.1%) ate one meal.

Asked month-by-month during which periods they had experienced problems meeting household food needs (see Table 24 below), respondents reported the highest levels of food

insecurity in March-July, which corresponds to the hot season, when food insecurity ranged from 14.2%-21.5% of households. Notably, food insecurity during this time period in non-treatment areas was reportedly much lower in 2012, ranging from 4.1% in March 2012 to 10.4% in June 2012, compared to 17.7% of non-treatment households in July 2011. During these months, 17.5% of treatment households had difficulty meeting food needs in July 2011, and between 14.2-21.5% had difficulty in March through June 2012.

Table 24: Percent of households with difficulty meeting food needs, by month

Month	Treatment Area (N=3,080)	Non-treatment areas (N=1,380)
July, 2011 (Waso)	17.5%	17.7%
August, 2011 (Wagaung)	16.6%	17.6%
September, 2011 (Tawthalin)	6.3%	7.8%
October, 2011 (Thadingyut)	7.7%	7.8%
November, 2011 (Tazaungmon)	5.6%	4.6%
December, 2011(Nadaw)	3.8%	2.0%
January, 2012 (Pyatho)	5.0%	1.8%
February, 2012 (Tabodwe)	7.2%	1.4%
March, 2012 (Tabaung)	14.2%	4.1%
April, 2012 (Tagu)	18.7%	5.9%
May, 2012 (Kasone)	19.5%	8.7%
June, 2012 (Nayone)	21.5%	10.4%

The Household Hunger Scale is a USAID tool that has been intentionally developed and internationally tested for use across different cultures. It classifies households into three categories:

1. little to no hunger,
2. moderate hunger, and
3. severe hunger.

Three variables, rated at never, sometimes, or often, are used to make this categorization:

1. no food of any kind in the household,
2. went to sleep hungry, and
3. went a whole day and night without eating.

Table 25 shows the distribution of responses to these three indicators. Most households reported that they never encountered the food insecurity scenarios described by the indicators in the four weeks prior to the survey. Only results for treatment areas are displayed, but respondents in non-treatment areas give nearly identical answers.

Table 25: Responses to household hunger indicators

	Never	Rarely/Sometimes	Often
No food of any kind in the household	98.6%	1.3%	0.4%
Went to sleep hungry	99.2%	0.7%	0.1%
Went a whole day and night without eating	99.8%	0.2%	0.1%

Accordingly, 99.3% (99.6%) of households were classified as little to no hunger, 0.7% (0.3%) were classified as having moderate hunger, and 0.0% (0.1%) of households were classified as having severe hunger.

This level of food security seems high in a country context in which 28.2% of children under five are moderately or severely underweight, 47.8% are moderately or severely stunted, and 10.0% are moderately or severely wasted.⁴ This may be in part due to issues of diet diversity, explored in Section 3.2.2. Even if households have a high level of food security, malnourishment and its side effects may occur if micronutrients are not being consumed in sufficient quantity. Another possibility is a strong social desirability bias, with respondents perhaps unwilling to report to enumerators that they have food security issues unless the problems are extreme.

While moderate to severe hunger may not have been affecting households, many households had to utilize coping mechanisms to meet their household's food needs. The coping mechanisms were defined as borrowing money, selling or utilizing valuable productive assets, or reducing other essential expenses to meet household food needs. Overall, 50.4% (39.1%) of households used at least one coping mechanism in the four weeks prior to the survey. Nearly 28 percent, 27.8% (14.6%), used two or more distinct coping mechanisms to meet their household's food needs. Table 26 below shows the frequency households reported using each coping mechanism.

⁴ Ministry of National Planning and Economic Development and Ministry of Health, Myanmar, 2011. Myanmar Multiple Indicator Cluster Survey 2009 - 2010 Final Report. Nay Pyi Taw, Myanmar. Ministry of National Planning and Economic Development and Ministry of Health, Myanmar.

Table 26: Percent of households using coping strategies to deal with food shortages in the four weeks prior to survey

	Treatment Area (N=3,080)	Non-treatment areas (N=1,320)
Sell or consume seeds saved for planting in the next season	4.4%	2.6%
Use savings	8.5%	7.0%
Child discontinued school to bring in additional income	2.6%	1.0%
Reduced medicine / health expenses	8.7%	3.9%
Borrowed food or money from friends, relatives, neighbors to meet food requirements	31.1%	25.2%
Borrowed money from money lenders, banks, loan associations, shop keepers	25.6%	16.8%
Sold, pawned, or exchanged any of the household's assets, including tools, equipment, or any other possessions	14.5%	16.8%
Sold or consumed more of own livestock than usual (e.g., cattle, goats, chicken, ducks, pigs, buffalo)	7.6%	5.4%
Sold, mortgaged, or rented any of their land, in order to have enough food to eat	2.1%	1%

The three most commonly used coping mechanisms were borrowing food or money from neighbors, friends, or family; borrowing money from lending agencies, shopkeepers, or banks; and selling, pawning, or trading household productive assets.

Households were asked to describe their general food security in the past 12 months as compared to previous years. Three quarters of the households surveyed reported no change in the general food security status, 9.7% reported a positive change over the previous year, and 15.7% indicated that their household food security situation had deteriorated.

Overall, the responses to food security questions suggest that households are generally able to meet household food needs, but sometimes, particularly in certain months, have to resort to borrowing money or selling possessions in order to meet those needs. It is possible that levels of hunger are underreported due to cultural unwillingness to declare household hunger when present.

3.2.2 Household Diet Diversity Patterns

The Household Diet Diversity Score (HDDS) is a measurement of the number of different food groups consumed over a reference time, the last 24 hours in this survey. HDDS is a proxy measurement for household food access and consumption. HDDS is a strong proxy indicator because diet diversity is an important outcome in and of itself and it is correlated with other improved nutritional outcomes. HDDS groups individual foods into 12 food group categories: 1) cereals, 2) roots and tubers, 3) vegetables, 4) fruits, 5) meat, 6) poultry, offal, and eggs, 7) fish and seafood, 8) pulses, legumes, and nuts, 9) milk and dairy products, 10) oils and fats, 11) sugar and honey, and 12) miscellaneous.

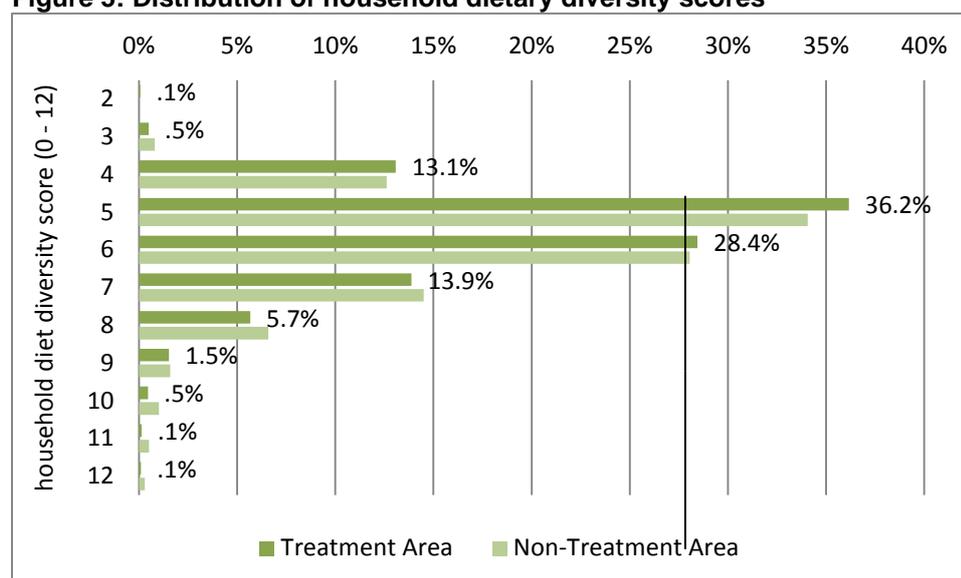
Table 27 below breaks down which food groups respondents said they had consumed in the last 24 hours. Nearly all respondents consumed vegetables (94.3%), while 46.9% (56.6%) consumed pulses, legumes, or nuts, and 35.9% (33.9%) consumed fish or seafood.

Table 27: Types of food consumed in the past 24 hours

Food Group	Percent Respondents Consuming (Treatment)	Percent Respondents Consuming (Non-Treatment)
Consumed vegetables	94.3%	94.1%
Consumed pulses, legumes, or nuts	46.9%	56.6%
Consumed fish or seafood	35.9%	33.9%
Consumed meat	26.4%	26.1%
Consumed fruit	21.5%	22.8%
Consumed eggs	19.6%	21.7%
Consumed sugar, honey, or jiggery	19.5%	17.8%
Consumed tuber vegetables	5.3%	5.7%
Consumed milk or other dairy products	3.0%	4.2%
Used oil/fat in cooking	96.5%	96.2%
Miscellaneous other foods (tea, condiments, etc.)	100%	100%

On average, households consumed 5.7 (5.8) different food groups. 13.7% of respondents consumed fewer than five food groups, while most (64.6%) households consumed five or six food groups. There was a positive correlation between HDDS and number of meals consumed in the previous day in the survey sample.

Figure 5: Distribution of household dietary diversity scores



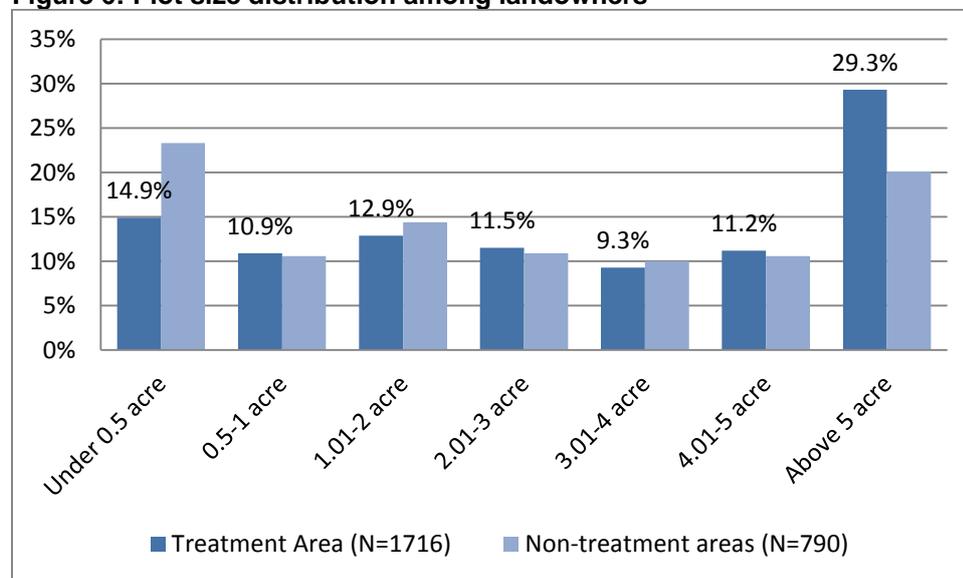
If respondents are underreporting household hunger, change in household diet diversity may be able to proxy for access to food during future survey waves.

3.3 Agriculture

3.3.1 Land Ownership

Approximately sixty percent of households, 59.0% (60.5%), owned land. Figure 6 below presents the distribution of size of plots owned among those respondents who said they owned land.

Figure 6: Plot size distribution among landowners



25.8% (33.9%) of the households in the treatment areas owned small parcels of land of one acre or less, 44.9% (46.0%) owned between one and five acres of land, and 29.3% (20.1%) owned more than 5 acres of land.

3.3.2 Cultivated Land

Generally, it was common for households that owned land to grow crops, but households that did not own land rarely rented land for agriculture or participated in sharecropping. 93.2% (92.6%) of households that owned land had grown crops on that land in the last 12 months, while only 3.8% of non-landowners had done so. Overall, 56.8% of respondents (57.2%) had grown crops on land in the last 12 months. Table 28 below displays the full breakdown of land ownership and cultivation frequency.

Table 28: Distribution of cultivation by land ownership

	Own Land	Do Not Own Land
Grown on own land	93.0%	0%
Grow on rented land	2.0%	2.8%
Grow through sharecropping	1.4%	1.0%

3.3.3 Irrigation

The main sources of irrigation during the dry and wet seasons are presented in Table 29 below.

Table 29: Irrigation practices by treatment area, single response

	Treatment Area (N=468)		Non-treatment areas (N=241)	
	Dry Season	Wet Season	Dry Season	Wet Season
Private boreholes/wells	45.1%	36.8%	68.5%	51.2%
Dams/reservoirs	23.5%	28.9%	6.6%	20.8%
Lakes, streams, rivers	16.9%	19.2%	4.1%	10.7%
Community boreholes/wells	8.5%	8.0%	16.6%	12.5%
Rehabilitated canals	4.5%	6.5%	2.9%	3.0%
Private ponds	0.9%	0.2%	0.4%	0.6%
Community ponds	0.6%	0.5%	0.4%	0.6%
Water systems	0.0%	0.0%	0.4%	0.6%

Wells and private boreholes were the main source of irrigation. This was followed by dams/reservoirs and lakes, streams, and rivers. During the dry season, there was a greater reliance on private boreholes and wells than during the wet season.

3.3.4 Soil

The survey examined perceptions of soil quality. Of farmers, 0.6% (0.7%) of respondents classified the soil on their farmland as very fertile, 17.8% (13.5%) classified their soil as good, 68.5% (70.0%) stated average, and 13.1% (15.2%) said poor.

Overall, 97.0% (97.3%) of all farmers had adopted various techniques to improve their land. Additions of organic and inorganic fertilizers were the most common methods used to improve soil fertility—92.4% (93.2%) and 72.6% (70.6%) respectively. Adding compost to the land was used by 9.0% (7.5%) of households. Other practices, such as green manure, growing compatible crops, growing synergy crops in sequential patterns, and letting the field lie fallow were practiced by less than 5% of all households.

Very few respondents—2.8% (2.4%)—had their soil's quality tested, and 87.5% of those who had tested their soil had tested it by hand without the aid of any machinery or equipment.

3.3.4 Cropping Patterns in the Last 12 Months

There were marked differences in the types of crops grown according to season, and the prevalence of agriculture by season. Of the 2,506 households that reported that they cultivated land during the past year, 84.8% grew crops during the wet season and 62.3% grew crops during the dry season. The most common types of crops grown are presented in Table 30 below. In the wet season, sesame was the most common crop, with 52.8% of respondents reporting that they grew it. Paddy (35.7%), pigeon pea (35.6%), groundnut (18.1%), and green gram (11.5%) were also common. In the dry season, groundnut (23.4% of farmers growing in that season), pigeon pea (22.6%), and chickpeas (22.5%) were the most common.

Table 30: Percent of farmers growing type of crop, by season

Crop	Wet Season (n=2,126)	Dry Season (n=1,562)
Sesame	52.8%	6.8%
Paddy	35.7%	6.8%
Pigeon pea	35.6%	22.6%
Groundnut	18.1%	23.4%
Green gram	11.5%	8.6%
Chilies	4.5%	1.7%
Cotton	3.2%	5.4%
Chickpeas	3.1%	22.5%
Millet and sorghum	2.3%	6.5%
Onion	1.5%	14.1%
Other beans	1.4%	7.6%

3.3.5 Seed and Planting Material Sources

The main source of planting material or seed for the following season was using seeds from previous cropping seasons, which 68.5% (67.6%) of farmers did. Fewer than 15% of farming households purchased seeds from markets or other farmers, though how common this practice was depended on crop type. Millet and sorghum (69.5%), maize (53.3%), chickpeas (21.8%), and tobacco (60%) seeds were more frequently purchased from markets. Betel (41%) and tobacco (33%) relatively often purchased from other farmers.

3.3.6 Yield per Acre

The yield of crops was measured either in baskets or *viss*, a local unit of measurement (approximately 3.6 lbs.), according to the typical measurement of the crop.

The following graphs compare the yields of cereals, legumes, and pulses, oilseeds, and roots and tubers from the rainy and dry seasons. Data reflects the yields from the past 12 months prior to the survey. As is apparent from the figures, yield varies according to crop and to season.

Figure 7: Grain yield per acre, in baskets

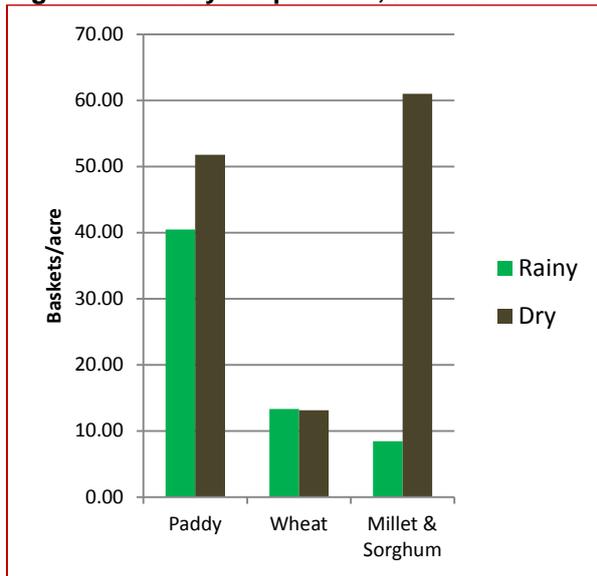


Figure 8: Oilseed yield per acre, in baskets

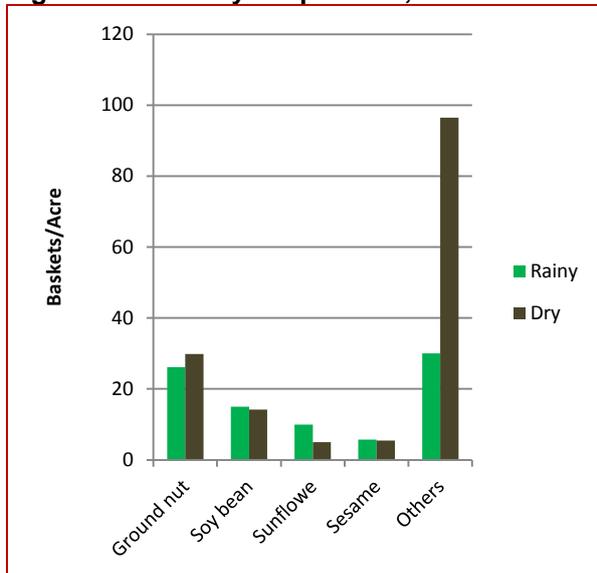


Figure 9: Legume and pulse yield per acre, in baskets

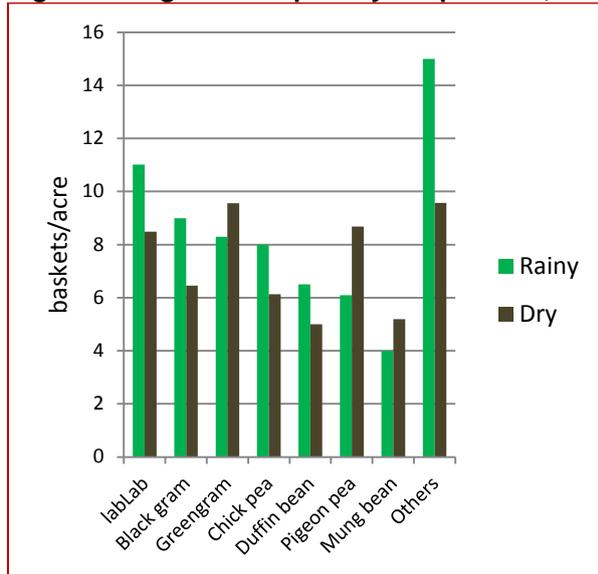
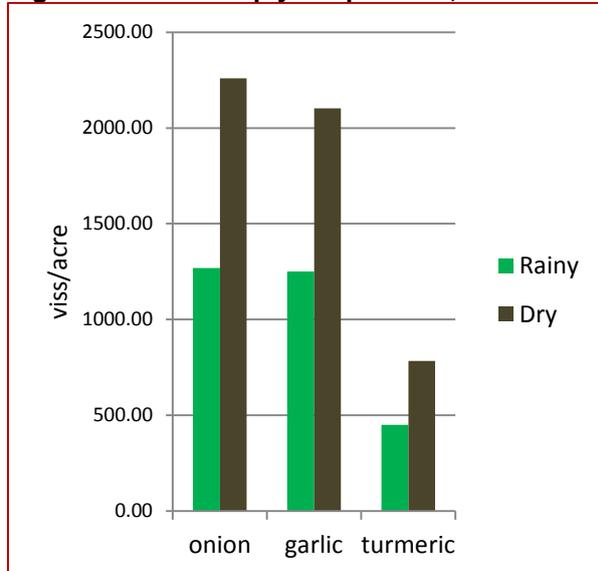


Figure 10: Root crop yield per acre, in viss

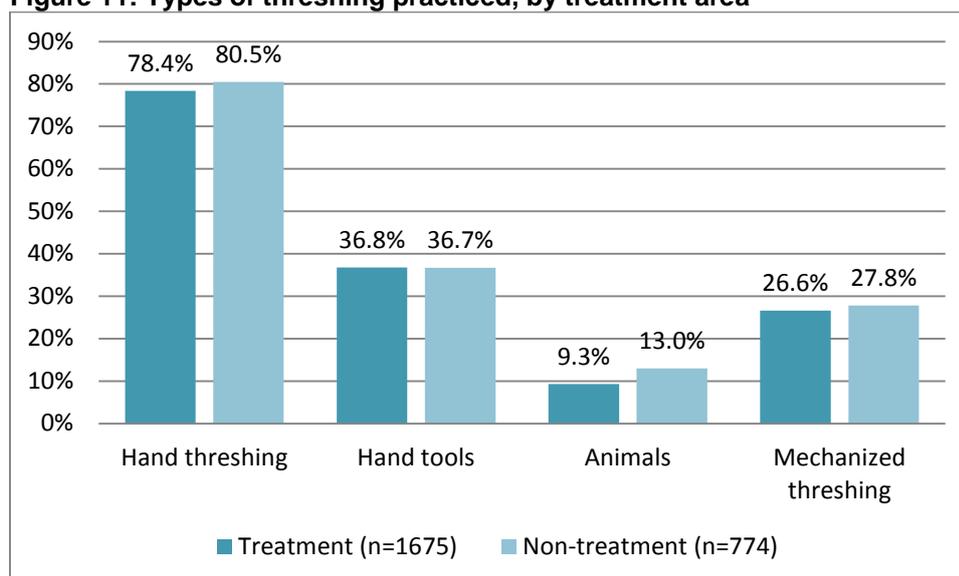


Yield per acre will be examined more closely in the midline follow-up, when it can be compared to test whether any change is associated with programmatic exposure.

3.3.7 Post-Harvest Activities

Almost all farmers, 97.6% (98.0%), threshed their crops. Although labor-intensive and time-consuming, threshing by hand was the most popular method, practiced by 78.4% (80.5%) of the respondents. Threshing with hand tools, mechanized threshing, and animal-powered threshing were somewhat less common. 44.6% of those who threshed their crops reported using more than one method to do so.

Figure 11: Types of threshing practiced, by treatment area



After threshing, respondents regularly dry crops to remove excess moisture. Overall, 91.1% (89.7%) of respondents dried their crops. Sun-drying the produce was practiced by almost all respondents (99.7% for treatment, 99.2% in non-treatment) who dried their harvest.

During the rainy season, 93% of households stored their paddy/rice, and 80% did so during the summer months. This includes storage for household consumption as well as for seed purposes for the next planting season.

More than 90% of the respondents stored their farm produce in their homes. Grain silos and/or grain bins with air vents were owned by 6% of the households.

Nearly 95% of households did not face any problems during storage. The remainder reported rodent and other animal damage, damage due to insects and pests, and dampness to be the three main causes for grain spoilage during the rainy season. In the dry season, damage due to rodents, pests, insects, extreme heat, and fungus were cited as the main reasons for damage or spoilage of stored grains.

At every stage after harvesting – threshing, drying, storage, and milling – there was some loss reported. Delayed harvesting or loss in harvesting time in the field was said to be the major reason for a loss in seed quantities. The second reason was a loss in storage time, which meant poorer quality of seeds stored for the next planting season. Poor seed quality reduces the rate of germination and survival of the seeds, leading to reduced planting operation, susceptibility to environmental changes, and pests and diseases, which in turn results in lower crop yields and income, and increased borrowing of money to buy improved seeds.

3.3.8 Marketing

Almost all (98.1%) of farmers and livestock breeders had sold some of their produce in the last year. Of those who sold their product, the majority, 72.4% (82.7%), sold their products alone rather than in groups or cooperatives. Given the high prevalence of selling produce, respondents' knowledge of market prices is an important component of their livelihoods. Table 31 below details the access to market information for farmers who sell their produce.

Table 31: Access to market information among farmers selling produce

	Treatment areas n=1,770	Non-treatment areas n=808
Access to price of main crop before selling		
Mostly	69.6%	68.7%
Sometimes	19.3%	15.7%
Rarely	5.4%	4.6%
Never	5.8%	11.0%
Source of information on main crop pricing		
Dealer/broker	68.0%	62.3%
Friends/Family	58.1%	65.0%
Radio/TV	10.8%	12.2%
Newspaper/weekly journal	.7%	1.3%
Farmer association/cooperative	1.2%	1.8%
NGO/other organization	0.1%	

Most of the time, respondents had access to the market price for their main crops before they sold the produce in the market, though most of the information came through dealers and brokers (68.0%) or word of mouth from family or friends (58.1%). Information directly from the media was not utilized often. Given these sources of information, particularly from dealers and brokers—who are also the main buyers of farmers’ produce—the accuracy of the information received may be questionable.

Table 32: Common marketing channels for produce

Point of Sale	Treatment areas (n=1,770)	Non-treatment areas (n=808)
Own village/at home	17.6%	19.9%
Other village	2.2%	1.9%
Market in the town	16.1%	21.8%
Dealer in village	10.6%	10.0%
Dealer in township	53.2%	46.4%

A majority of households, 53.2%, sold their products to a dealership within their township. This was followed by selling within their own village (17.6%) and selling to a market in town (16.1%).

Hired vehicles such as open trucks with attached trailers were used by 82.0% of the respondents to transport their produce to the market. Animal carts were used by 10.4% of respondents, and 7.2% carried their products by foot to the nearest market. Other modes of transportation, such as bicycles, boats, and foot, were used less often.

3.3.9 Constraints on Household Crop Production

Respondents who engaged in agriculture were asked what the major constraints that limited the crop their farm was able to yield were. Responses are reported below in Table 33.

Table 33: Reported constraints on household crop production

	Treatment areas (n=1,716)	Non-treatment areas (n=790)
Bad/unreliable weather (including too little or too much rain)	75.3%	69.0%
Lack of money and credit facilities	32.2%	31.3%
Lack of fertilizer (or too expensive)	26.5%	24.2%
Crop pests and disease	23.2%	24.3%
Lack of water resources or irrigation infrastructure	14.7%	17.5%
Lack of casual labor available locally (or too expensive)	13.8%	11.1%
Low prices for the agricultural crops grown	12.2%	9.7%
Lack of pesticides / insecticides / fungicides (or too expensive)	12.0%	10.0%
Lack of seeds (or too expensive)	8.0%	7.3%
Low soil fertility/poor soil structure, etc.	8.4%	5.8%
Little to no potential to market goods	7.7%	6.5%
Lack of other tools and equipment (or too expensive)	6.7%	6.3%
Lack of household labor	7.0%	4.8%
Lack of draught power/mechanical power (or too expensive)	4.7%	4.8%
Lack of land	4.3%	2.7%
Lack of knowledge, skills or experience	0.6%	1.3%
Salinity	0.1%	0.3%

Nature-related constraints, including unreliable weather, which was the most commonly cited constraint on production (75.3%), and crop pests (23.2%) were major concerns for farming households. 14.7% of households cited lack of irrigation infrastructure as a constraint. The second most commonly cited constraint on production (32.2%) was the lack of money and credit facilities. Financial constraints related to purchasing fertilizer (26.5%), finding local labor (13.8%), and purchasing pesticides/insecticides/fungicides (12.0%) were also commonly cited concerns.

3.4 Assets

3.4.1 Productive Assets

88.1% of households who practiced agriculture owned some type of productive asset. On average, farming households owned 2.6 of the 10 assets listed below in Table 34.

Table 34: Percent of all households owning productive assets

Agricultural Equipment	Treatment (n=3,020)	Non-Treatment (n=1,380)
Ploughs/tillage equipment for use with draught animals	44.0%	42.5
Power tiller	2.6%	1.8%
Tractor	1.2%	1.1%
Power thresher	1.3%	1.0%
Backpack sprayer	24.9%	20.6%
Improved crop storage bin or silo	10.7%	13.5
Tarpaulin or seed-drying net	20.2%	15.5%
Irrigation pump	8.2%	8.1%
Animal-drawn cart	34.3%	31.7%
Trailer (drawn by vehicle)	0.5%	0.7%
Seeder	1.8%	3.7%

Animal-drawn ploughs (44.0%) and carts (34.3%) were the most commonly owned agricultural tools. This was followed by backpack sprayers for spraying chemicals on plants (24.9%) and tarpaulin or seed drying nets (20.2%).

3.4.2 Household Livestock Ownership

Overall, 68.5% of households owned livestock, poultry, or both. Table 35 below details the overall percentage of households owning each type of livestock.

Table 35: Types of livestock owned

	Treatment areas (N=3,020)	Non-treatment areas (N=1,380)
Cattle	55.1%	49.2%
Chickens	27.4%	25.8%
Pigs	17.0%	13.7%
Goats and/or sheep	3.3%	2.5%
Buffalo	07%	0.3%
Ducks	0.3%	0.4%
Horses	0.1%	0.3%

Cattle ownership was common (77.6% of respondents who said they owned livestock and 55.1% overall) for farming, milk, and food purposes. Poultry farming was practiced by 27.4% of households, while pig farming was practiced by 17.0% of households. Table 36 below presents the average number of livestock owned, by both mean and median, for households that owned that type of animal. The average household with cattle owned a mean of 3.44 cows, while the average household with chickens owned a mean of 11.58 chickens.

Table 36: Average number of livestock owned among households with that animal

	Mean	Median
Cattle	3.44	3
Horses	1.43	1
Goats and/or Sheep	17.67	15
Buffalo	3.18	2
Pigs	1.88	1
Chickens	11.58	7
Ducks	5.07	4

3.4.3 Housing and Other Household Assets

The household assets list was devised from DHS household asset list. A few assets, such as trawlerjee and trishaw, were added to collect information specific to the Burma context. Beyond giving an understanding of the material wealth of households, the assets, along with agricultural equipment and livestock ownership, can be added together to create a wealth index. The wealth index will be valuable during the midterm and endline surveys as a control for potential differences in economic status between the treatment and non-treatment villages.

Table 37: Housing materials

Housing	Treatment	Non-Treatment
Owns house in which living	98.4%	98.6%
Roof material		
Zinc or corrugated iron	59.0%	61.9%
Plastic Sheet	0.1%	0.1%
Palm frond or thatch	40.6%	37.8%
Brick	0.2%	0.1%
Earthen tiles	0.1%	0.1%
Wall material		
Zinc or corrugated iron	1.2	1.2%
Tarpaulin or plastic	0.1%	0.2%
Bamboo, palm frond or thatch	81.1%	79.1%
Timber	9.0%	8.9%
Bricks, cement, cement block, or cement and stone	8.6%	10.6%
Floor material		
Timber	33.3%	35.6%
Bamboo	37.2%	32.2%
Earth	22.6%	23.3%
Cement	6.9%	8.9%
Lighting source		
From the grid	12.2%	14.3
Village generator	8.7	8.0
Household's generator	2.0	1.6
Shared generator (with other household)	14.3	18.6
Lamp (Kerosene/oil)	0.5	0.4
Candle	7.4	6.4
Battery (Rechargeable)	54.2	50.5
Other	0.8	0.1
Cooking fuel source		
Electricity	2.4%	3.0
Charcoal	2.6%	4.7
Kerosene	0.0%	0.1
Wood	94.8%	92.2%
Other	0.2%	0.0%

Out of 4,400 households surveyed for the study, 98% owned the home they were currently living in.

The predominant lighting source for households was candles, used by 54.2% of households. Only 12.2% of the population received electricity from the grid. Kerosene lamps were used by 7.4% of households.

Wood, used by 94.8% of households, was the predominant cooking fuel.

The main materials for house composition were zinc/corrugated iron for the roofing material (59.0%), bamboo, palm frond, or thatch for the walls (81.1%) and bamboo for the flooring (37.3%).

Table 36 below lists the remaining assets from the modified DHS asset index and the percentages of households who report owning those assets.

Table 38: Household ownership of other assets

	Treatment areas (n=3,020)	Non-treatment areas (n=1,380)
Vehicles		
Bicycle	47.4%	54.2%
Motorcycle	37.2%	41.4%
Trishaw	0.0%	0.1%
Trawlerjee	0.8%	1.1%
Car	0.7%	0.5%
Truck	0.7%	0.7%
Boat without motor	0.8%	2.2%
Boat with motor	0.2%	0.6%
Household Goods		
Bed	45.6%	58.3%
Mattress	4.0%	3.6%
Stove (electric or gas)	4.0%	7.2%
Fuel efficient wood stove	3.1%	1.3%
Chairs	59.2%	68.4%
Table	66.6%	75.6%
Gold / Jewelry	47.4%	51.2%
Radio / Cassette	50.0%	53.0%
TV	25.3%	23.8%
DVD player	24.0%	22.1%
Sewing Machine	7.8%	8.0%
Weaving loom	1.7%	2.4%
Wrist watch	34.5%	32.7%
Solar panel	2.3%	1.1%
Fishing net	0.3%	0.9%
Household savings	3.5%	5.4%

Vehicles and household goods also help to round out the picture of the material wealth of households. Bicycles remained the most popular vehicle owned by the households (47.4%), though this was followed closely by motorcycles (37.2%). Other vehicles were owned by less than one percent of the population.

The majority of households had a table (66.6%), chairs (59.2%), and a radio or cassette player (50.0%). Gold or jewelry was owned by 47.4% of households, a bed by 45.6%, and 34.5% owned a wristwatch. A TV was owned by 25.3% of households, and 24.0% had a DVD player. All other assets were owned by fewer than 10% of households.

3.5 Credit

During the 12 months prior to the survey, 61.0% of households had taken out a loan and 4.8% of households had an outstanding loan. The households who had taken out a loan in

the last 12 months or who currently had outstanding loans are analyzed in more detail below to study borrowing habits.

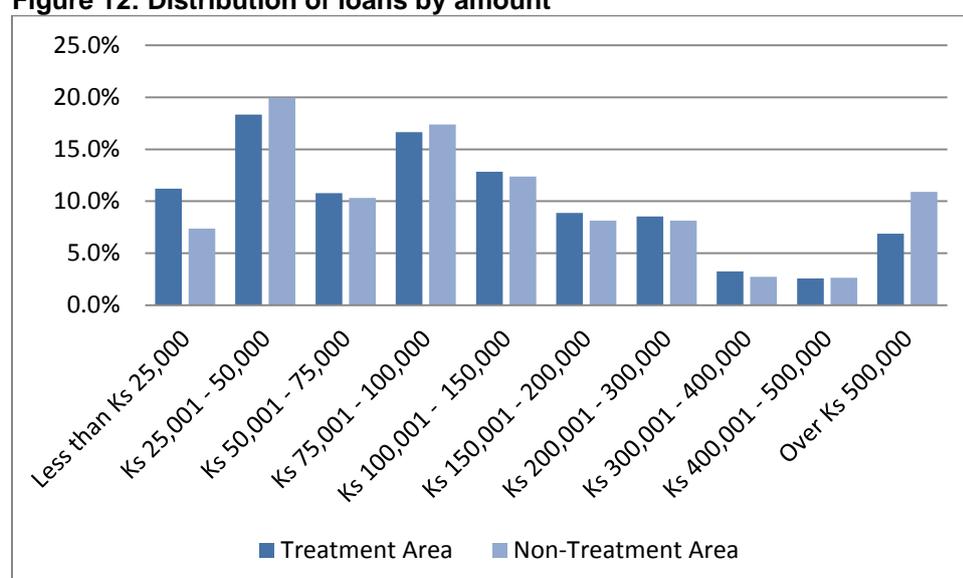
Informal sources of credit were more popular in the area than formal lending agencies. Local money lenders and family/friends were rated as the top money lending sources; over 65% of the loans disbursed came from these sources. Micro-credit and government loans played a lesser role; 7.9% of loans were disbursed from micro-credit, and 11.8% came from government loans.

Table 39: Sources of credit

	Treatment areas (n=2,950)	Non-treatment areas (n=1,989)
Private bank	0.1%	0.0%
Micro-credit provider	7.9%	1.2%
Village savings and loans association	2.5%	1.5%
Family/friend	31.3%	33.9%
Money lender	34.5%	37.3%
Shopkeeper	5.2%	6.1%
Private company	1.4%	.3%
Farmers Association/Cooperative	1.9%	3.0%
Pre-sale of product to trader	3.5%	3.2%
Government	11.8%	13.1%
Others	.0%	.4%

Nearly 57% of loans were for 100,000 Kyats or less. Figure 12 shows the distribution of loans by amount, with a gradual decline in percent of loans taken out as the amount of loans increases. Treatment and non-treatment areas follow a similar pattern.

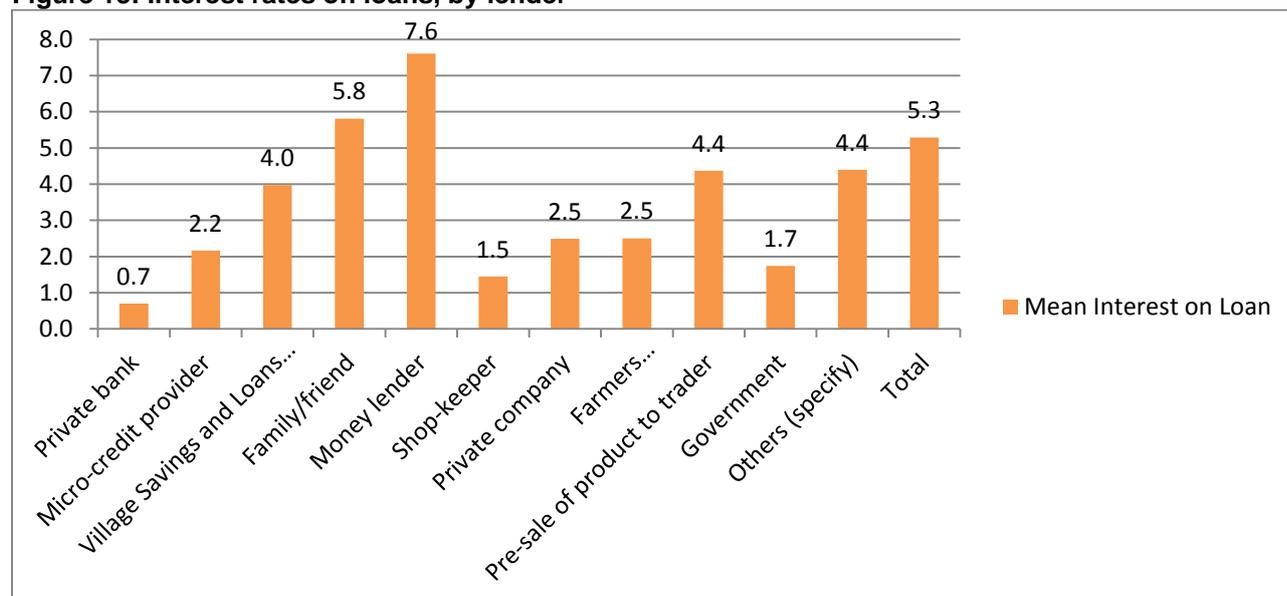
Figure 12: Distribution of loans by amount



Most loans had interest rates of less than 10%, and the mean interest rate was 5.3%. 14.5% of loans were made with 0% interest. The average interest varied by source of loan with the highest interest rates found among money-lenders (7.5%) and family/friends (6.0%), and the

lowest with government loans (1.7%) and shopkeepers (1.2%). Opening up credit to these areas should reduce the need for loans from money lenders and other predatory practices.

Figure 13: Interest rates on loans, by lender



5. WASH

This section describes the current situation of potable and washing water, sanitation facilities, and hygiene practices in project areas.

5.1 Water Sources

5.1.1 Drinking Water

The table below presents details on the main sources of drinking water during the wet and dry seasons from protected and unprotected sources in the project areas.

Table 40: Percent of households accessing different water sources

	Treatment Area (n=3,020)		Non-treatment Area (n=1,380)	
	Dry Season	Wet Season	Dry Season	Wet Season
Protected Drinking Water Sources	80.5%	78.0%	78.7%	78.5%
Piped water into house	0.2%	0.2%	0.5%	0.5%
Piped water into yard	0.5%	0.5%	1.4%	1.4%
Public water tap	6.7%	6.6%	6.2%	6.2%
Protected dug well	18.0%	18.1%	12.0%	11.8%
Tube well with pump	50.8%	47.8%	58.0%	57.9%
Protected spring water	4.0%	4.6%	0.6%	0.6%
Bottled water	0.2%	0.2%	0.1%	0.1%
Year Round Access to Protected Drinking Water Sources	77.7%		77.3%	
Unprotected Drinking Water Sources	19.2%	22.0%	21.3%	21.5%
Unprotected dug well	12.2%	12.1%	17.1%	17.1%
Rain water	0.3%	3.9%	0.0%	0.6%
Surface water (ponds, river, lakes, streams)	6.4%	6.0%	3.4%	3.0%
Unprotected spring water	0.3%	0.0%	0.8%	0.8%

Overall, 77.7% (77.3%) of households had year-round access to protected drinking water. Protected drinking water, such as tube wells, protected dug wells, protected spring water, public water taps, piped water, and bottled water, were used by 80.5% (78.7%) of households during the dry season and 78.0% (78.5%) of households during the dry season.

Unprotected dug wells and surface water were the other main sources of drinking water for 19.2% (21.3%) and 22.0% (21.5%) households during the wet and dry seasons respectively.

Though not used as the main source of household drinking or washing water, 17.2% (11.4%) of households used a household water harvesting system to supplement their households' water needs.

5.1.2 Washing Water

Table 41 shows in detail the main sources of washing water for households during the dry and wet months of the year.

Table 41: Sources of washing water

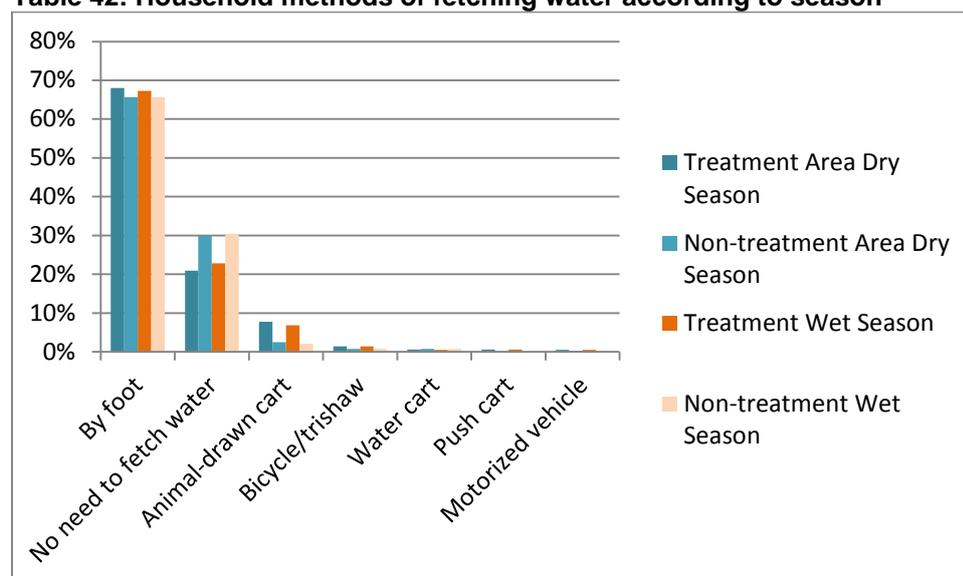
	Treatment Area (n=3,014)		Non-treatment Area (n=1,362)	
	Dry Season	Wet Season	Dry Season	Wet Season
Protected Washing Water Sources	76.4%	69.3%	77.4%	76.8%
Piped water into house	0.3%	0.3%	0.8%	0.8%
Piped water into yard	0.5%	0.5%	2.1%	2.1%
Public water tap	3.8%	3.4%	5.1%	5.1%
Protected dug well	17.8%	17.4%	13.9%	13.7%
Tube well with pump	52.9%	45.4%	55.4%	55.0%
Protected spring water	1.1%	2.3%	0.1%	0.1%
Unprotected washing water sources	23.6%	30.7%	22.6%	23.2%
Unprotected dug well	12.8%	12.8%	16.7%	17.2%
Rain water	0.0%	7.3%	0.0%	0.6%
Surface water (ponds, river, lakes, streams)	10.7%	10.4%	5.0%	4.6%
Unprotected spring water	0.1%	0.2%	0.8%	0.8%

During the dry season and wet season respectively, 76.4% (77.4%) and 69.3% (76.8%) used water from a protected source for washing and other household purposes. Households were more likely to use surface water for washing than for drink in both the wet and dry seasons.

5.2 Fetching Water

The survey results show that the most common method of fetching water is by foot, which more than 65% of households do in both the dry and wet seasons, in both treatment and non-treatment areas. Over 20% (29.9%) of households report that they had no need to fetch water, because there was a water source sufficiently close to their dwelling. Animal-drawn carts were used by 7.8% (2.5%) of households to fetch water. The methods of fetching water do not vary much between the wet and dry seasons.

Table 42: Household methods of fetching water according to season



Methods of fetching water varied depending on whether respondents used protected or unprotected water. Those using unprotected water were much more likely to fetch water by foot in both the wet and dry seasons – 77.1% and 77.7% fetched water in the wet and dry seasons, versus 64.1% and 63.2% who drank water from protected sources – and less likely to state that there was no need to fetch water (12.1% and 12.2% versus 27.6% and 29.4%). A chi-squared test, which tests differences between groups when responses are categorical, shows that these differences are statistically significant ($p=0.000$).

Table 43: Differences in methods of fetching water according to protected/unprotected sources of water

	Dry		Wet	
	Unprotected	Protected	Unprotected	Protected
By foot	77.1%	64.1%	77.7%	63.2%
By push cart	.3%	.5%	.4%	.5%
Bicycle/ Trishaw	1.8%	1.0%	1.9%	1.0%
Water cart	1.0%	.6%	1.2%	.4%
Animal drawn cart	6.9%	5.9%	5.8%	5.3%
Motorcycle/other motorized vehicle	.7%	.3%	.7%	.3%
No need to fetch water	12.1%	27.6%	12.2%	29.4%
	Chi-squared=115.6 p=0.00		Chi-squared=139.6 p=0.00	

5.3 Distance and Time Spent by Respondents to Fetch Water from Source

Respondents reported the distance to water sources as 192.3 meters (80.3 m) during the dry season and about 159.8 (76.8) meters in the wet season.

According to respondents, households spent a daily average of 53.3 minutes (45.9) collecting water in the rainy season, and 71.1 minutes (52.8) in the dry season. This amount of time to fetch water reflects taking multiple trips per day. Respondents reported that 33.6

(35.0) trips per week were necessary to fetch household water in the dry season, and 29.3 (32.2) in the wet season.

Table 44: Time and distance to fetch water, by protected and unprotected sources of water

	Dry			Wet		
	Protected Water	Unprotected Water	p	Protected Water	Unprotected Water	p
Distance to water source, meters	109.5	209.6	0.000	118.6	180.2	0.000
Daily time to fetch water, minutes	75.83	89.82	0.000	57.96	67.70	0.000

Both the daily time spent and the distance to fetch water were longer for households using unprotected water sources than for those using protected sources (see Table 44 above). In the wet season, respondents traveled 118.6 meters to fetch protected water and 180.2 meters to fetch unprotected water, spending 57.96 and 67.70 minutes on average respectively. In the dry season, the times and distances were longer in all groups but followed the same pattern.

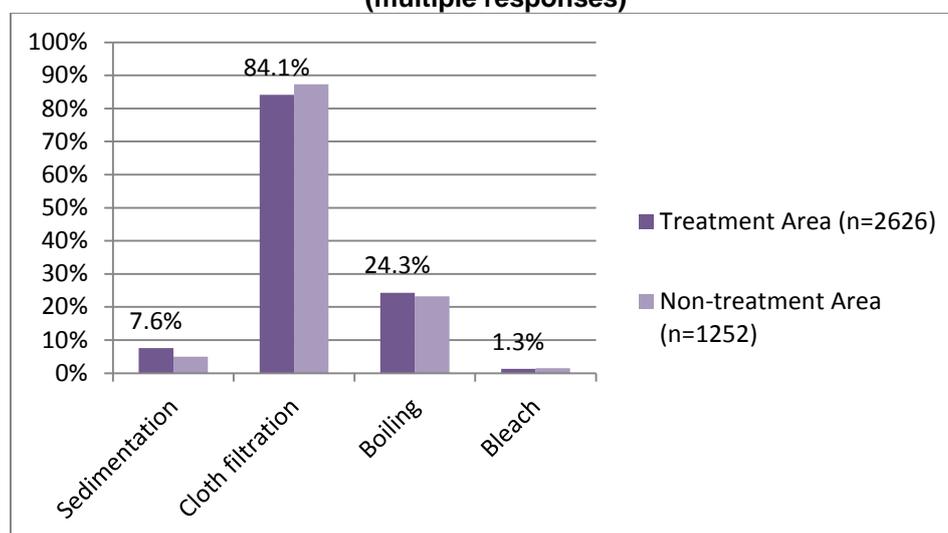
5.4 Difficulty Obtaining Drinking Water during the Previous Year

Most respondents—88.6% (95.6%)—reported no difficulty accessing drinking water at any time during the last year, and even fewer had difficulty accessing washing water. The most difficult month for drinking and washing water was April, where 10.0% and 6.5% respectively had difficulty accessing water. This was followed by May, where 8.7% and 6.1% of households faced problems accessing water.

5.5 Making Drinking Water Safe

When asked about making water safe and methods adopted before consumption of water, 87.0% (90.7%) of households reported that they treated water before household consumption. Of those who treated their water, the most common methods of treating water are shown in Figure 14 below.

Figure 14: Common methods of treating water among households who treat water (multiple responses)



Cloth filtration was the most popular method, used by 84.1% of the households. Cloth filtration is useful only for removing visible solid particles and other extraneous material such as leaves and sticks, but does not make the water safe. Boiling water sterilizes water effectively, but was practiced by only 24.3% of households that treat their water and only 21.1% of households in the treatment area overall. Treatment methods like sedimentation, adding bleach, filtration using ceramic, earthen pots, or sand and solar disinfection were rarely used.

5.7 Alternate Sources of Drinking and Washing Water

While most people had easy access to drinking and washing water, 11.9% (4.9%) sometimes had to use different water sources when the main source of washing and drinking water was not available. The following table details the alternate sources of water for households in the project areas. Most commonly, households used another source within the village for both drinking (7.9%) and washing (5.6%). The survey did not ask details about the alternate water sources, so it is not clear whether alternate sources are less likely to be safe, or whether they are more arduous in terms of time and distance to collect water from.

Table 45: Percent households using alternate sources of water

	Treatment Area (N=3,020)	Non-treatment Area (N=1,380)
Alternate Sources of Drinking Water		
Buy drinking water	3.5%	1.5%
Fetch drinking water from neighboring village	2.7%	0.1%
Fetch drinking water from another source of drinking water in the village	7.9%	4.4%
Alternate Sources of Washing Water		
Buy water	2.6%	1.4%
Fetch water from neighboring village	2.1%	0.2%
Fetch water from another source of domestic use in the village	5.6%	4.1%

5.8 Hygiene

5.8.1 Use of Improved Toilets

Toilets were classified as improved and unimproved. Improved toilets are toilets with a septic tank, ventilated improved pit latrines, pit latrines with slab, composting toilets, and pour flush pit latrines that were used by only one household. Shared toilets more often result in sanitation problems or are not used consistently between households. The table below shows the usage of improved and unimproved toilets in households by treatment area.

Table 46: Rate of use of improved and unimproved toilets

Toilet Type	Treatment Area (n=3,020)	Non-treatment Area (n=1,380)
Improved toilets (any type)	65.7%	63.4%
Flush/pour flush into pit latrine	50.7%	47.4%
Pit latrine with slab	10.7%	9.1%
Latrine with septic tank	2.7%	3.8%
Ventilated improved pit latrine	1.5%	3.0%
Composting toilet	0.1%	0.1%
Unimproved toilets (any type)	1.7%	1.3%
Pit latrine without slab / open pit	1.2%	0.9%
Toilet without pit	0.5%	0.2%
Hanging toilet / latrine	0.0%	0.2%
Shared toilets	18.9%	17.4%
Open defecation / no toilet / bush / field	13.7%	17.8%

Over 65% of households used an improved toilet. The most common type was a pit latrine with a flush or pour flush, used by 50.7% of households. Shared toilets and open defecation were more common than unimproved toilets.

While a majority of households report using toilets that fall into the “improved” category, previous studies have suggested that these latrines are not maintained well enough to be considered sanitary. According to a 2011 UNICEF report, although 75% of households in that study could be classified as having improved latrines, a closer look at the conditions reveals that only 33% have clean floors or slabs, with the result that overall only 25% of the population actually defecate in hygienic conditions.⁵ The following sections more closely examine latrine maintenance and hygiene practices.

5.8.2 Maintenance of Latrines

Toilet maintenance is an important part of long-term toilet sustainability. Below are the rates of current practices for dealing with full toilets.

Table 47: Maintenance of toilets among toilet owners

Methods	Treatment Area (n=2,378)	Non-treatment Area (n=1,025)
Seal off current pit and dig another pit	96.5%	95.5%
Order vehicle tanker and pump out feces	0.8%	1.4%
Let feces out during flood, septic tank is not full	0.2%	0.2%
Run out of space, so former pit is dug and reused	0.1%	0.2%
Put a lot of salt into the pit	0.7%	0.5%

⁵ UNICEF. “Knowledge, Attitude and Practice Study into Water, Sanitation and Hygiene in 24 Townships of Myanmar.” October 2011.

Pour acid into pit	1.6%	2.0%
No pit. Surface latrine	0.2%	0.1%
No pit. Tides or floods carry feces away	0.0%	0.1%

The most common practice was to seal off the full pit and dig a new pit, which was done by 96.5% (95.5%) of households that owned their own toilets. Other practices were uncommon.

Table 48: Frequency of emptying full pit toilets among toilet owners

	Treatment Area (n=2,378)	Non-treatment Area (n=1,025)
Regularly, or when it is full	36.1%	32.3%
Once a year	9.8%	10.0%
Once every two years	13.4%	13.7%
Once every three years	18.3%	17.4%
Once every 4-5 years	15.7%	17.5%
Have dug a very deep hole, no need to empty	6.4%	8.8%
Never	0.3%	0.4%

More than a third of the households regularly cleaned their toilets whenever the toilets were full. The results show that people were aware that full toilets had to be cleaned and flushed out on a regular basis depending on the depth of the toilet.

5.8.3 Latrine-usage Problems Faced by Households

Overall, the majority of households that had a toilet, 69.0% (68.9%), had reportedly not faced any problems. Lack of a roof, which makes using the toilet during the rainy season difficult, was the most common problem, faced by 15.4% (13.9%) of households with a toilet. More than 12% of households with a toilet had problems with the privacy of the toilet. Poor or dangerous floor conditions were cited by 9.6% of households.

Table 49: Problems reported with latrine usage (multiple response)

	Treatment Area (n=2,605)	Non-treatment Area (n=1,135)
No problems	69.0%	68.9%
Lack of roof, difficult to use in rainy season	15.4%	13.9%
Partly visible from the outside	12.7%	7.8%
Floor not strong, dangerous	9.6%	4.5%
Flies and mosquito infested	5.8%	5.6%
Bad smell	5.0%	4.1%
Flooding in the rainy season	4.4%	10.3%
Not enough water to wash	1.8%	0.4%
Difficult for children to use	1.7%	1.1%
Other	1.9%	3.6%

5.8.4 Main Reasons for Not Building Toilets

According to the responses, around 22% of households in the project area did not have toilet facilities (N=999). When asked about their reasons for not owning or using a latrine, the main reasons were not being able to afford to build a toilet (57.1%) and having no space to build a toilet (27.0%). Table 50 below shows the complete results.

Table 50: Reasons for not building toilets

Main reasons for not building latrines	Treatment Area (n=644)	Non-treatment Area (n=355)
Cannot afford to build one	57.1%	47.6%
No space to build toilet	27.0%	35.5%
Not customary to have one	4.5%	7.6%
Cannot dig pit because of swamp / tides	2.3%	4.5%
Cannot dig the pit because of hardness of earth	0.6%	1.1
Neighbors do not approve	0.5	0.3
No one encourages me (family/friends)	3.3	1.1
No one encourages me (health authority)	1.2	0.0
Do not know the consequences	2.6	1.4
Do not know	0.5	0.6
Other (Specify)	0.5	0.3

5.8.5 Disposal of Feces of Children under the Age of 5

Among households with at least one child under 5 (n=1,241), 52.0% (46.8%) safely disposed of the children's feces. This included flushing feces into a surface latrine or sewer system, disposing feces into a pit latrine, or burying the feces. The remaining 48.0% (53.2%) disposed of feces by dumping in their compounds, throwing into river/stream nearby, or tossing out of their compound. Table 51 below shows the distribution of safe and unsafe methods of disposal of children's feces by toilet type, sharing habits, and ownership.

Table 51: Likelihood of safe feces disposal by toilet characteristics

	Safe Feces Disposal	Non-safe feces disposal	n	p
Improved toilet	71.6%	28.4%	1,241	0.000
Does not share toilet with other households	61.5%	38.5%	1,012	0.036
Owns Toilet	59.8%	39.4%	1,012	0.147

Unsurprisingly, safe disposal of children's feces is more likely to happen when households use improved toilets and when they do not share toilets with other households. Note that whether or not households own their toilets does not have a statistically significant relationship with safe disposal of feces despite the apparent difference in percentage.

5.8.6 Hand washing

Respondents were asked about their hand washing practices and knowledge. The following table shows the percent of individuals who reported washing their hands after each activity.

Table 52: Percent of households washing hands after different activities (multiple responses)

Activities	Treatment Area (n=3,020)	Non-treatment Area (n=1,380)
After defecation	65.9%	67.0%
After eating	87.8%	86.4%
After cleaning baby's bottom	8.0%	6.6%
After work	37.0%	43.8%
After handling animals	8.7%	10.1%
Before preparing meals	15.8%	12.8%
Before feeding a child	10.5%	8.9%
Before eating	91.6%	87.8%
Others	1.4%	2.5%

Appropriate hand washing practices require washing after defecation and on at least one of the following occasions: before eating, before preparing food, before feeding a child, or after cleaning a child's bottom. Overall, 64.5% (66.1%) of households practiced appropriate hand washing practices.

Table 53: Percent of households with hand washing stations

	Treatment Area (n=3,020)	Non-treatment Area (n=1,380)
Household has designated place for washing hands	98.5	99.1%
Household has water available at designated hand washing place	96.6	97.8%
Household has designated hand washing place with water and soap or other cleaning agent	72.8%	75.8

Almost all households had a designated hand washing spot (98.5%) and available water at this spot (96.6%). Availability of soap or another cleaning agent (mud, ash, or sand) was less, and only 72.8% of households had all three (a designated place, water, and a cleaning agent). Those respondents who lived in households with designated hand washing stations with both soap and water present were also more likely to practice appropriate hand washing behaviors, as defined above. Still, more than a third of respondents with complete hand washing stations did not report practicing appropriate hand washing behavior.

Table 54: Hand washing stations compared to practices

	Did not have hand washing station with soap and water (n=534)	Had hand washing station with soap and water (n=2,143)	p
Percent of respondents practicing appropriate hand washing behavior	45.6%	66.4%	0.000

6. Conclusion

This baseline study surveyed 4,400 households containing a total of 21,204 people, an average of 4.8 people per household. 28.8% of households had at least one child under five, and 13.6% of households had at least one child under two. Of children between 5-18 years old, 95.6% had completed some primary school; 91.7% had completed primary school, but only 51.3% continued on to secondary school.

The survey results show that women, though they often consult with midwives, are not receiving a full complement of ANC care, usually deliver at home, and do not often seek a full complement of the minimum standard of newborn care. Women of reproductive age are generally not able to state many of the danger signs of maternal health and childhood illnesses. Childhood immunization rates are low. Sick children inconsistently receive skilled healthcare within 48 hours of showing symptoms of diarrhea, pneumonia, or malaria, though rates of visiting skilled healthcare professionals vary according to disease, as does access to appropriate treatment.

Respondents reported low levels of education, low household income, and a heavy reliance on agriculture and casual labor as sources of household income. Most farmers sold their produce, and sold primarily to dealers who were also the primary source of crop price information. While hunger levels appeared low, most households had to resort to some sort of coping mechanism, usually borrowing money, to meet household food needs. Questions on access to credit showed that over 60% of respondents had taken out loans in the last year, mostly from money lenders or friends/family. The average interest rate for these loans was 5.4%.

While 77% of households had access to protected drinking water sources year-round, protected water is not necessarily safe, and household members spend nearly an hour every day fetching water, and report longer times for the dry season. Only 20% of respondents reported properly sterilizing their water. The majority of households reported owning an improved toilet, though nearly 20% of households shared toilets and about 14% had no access to toilets. Sixty-five percent of households reported following appropriate hand washing techniques.

These baseline results will be used by the Shae Thot project to best target interventions to improve the lives and decrease morbidity and mortality in central Burma.

Annex 1: List of townships and villages covered in baseline survey

List of the 13 townships and villages covered in baseline survey for the Shae Thot project (treatment/project village and non-treatment/control village)

No.	State/Region	Township	Status (T=treatment, NT=non- treatment)	Total number of PACT Treatment Village Tracts	Total number of PACT Treatment Villages
1.	Mandalay	Meiktila	T+NT	49	163
2.	Mandalay	Myingyan	T+NT	65	147
3.	Magway	Aunglan	T	48	94
4.	Magway	Salin	T	49	97
5.	Magway	Kama (Kan- ma)	T	14	21
6.	Magway	Magway	T	58	142
7.	Magway	Pakokku	T+NT	6	21
8.	Magway	Seikpyu	T+NT	37	71
9.	Magway	Sinbaungwe	T+NT	8	21
10.	Magway	Thayet	T	13	21
11.	Sagaing	Kani	T+NT	26	92
12.	Sagaing	Monywa	T+NT	35	108
13.	Sagaing	Yinmabin	T+NT	27	83
Total				435	1,081

Sample Village Details

Sr	Region	Township	Village Tract	Village	Village Type
1	Magway	Aung Lan	Dan Daunt	Dan Daunt	Project Village
2	Magway	Aung Lan	Inn Kone	Gyaung	Project Village
3	Magway	Aung Lan	Kwan Laung	Kwan Laung (Kone)	Project Village
4	Magway	Aung Lan	Kyauk Pan Taung	Sa Khan Gyi	Project Village
5	Magway	Aung Lan	Let Myaung	Let Myaung	Project Village
6	Magway	Aung Lan	Maung Ma Hloke	Sin Kyan	Project Village
7	Magway	Aung Lan	Myin Ka Paing	Myin Ka Paing	Project Village
8	Magway	Aung Lan	Nga Pyin	Nga Pyin	Project Village
9	Magway	Aung Lan	Nyaung Pin Seik	Nyaung Pin Seik	Project Village
10	Magway	Aung Lan	Nyaung Pin Waing	Nyaung Pin Waing	Project Village
11	Magway	Aung Lan	Pya Loet	Pya Loet	Project Village
12	Magway	Aung Lan	Sa Mya	Shwe Thu Htay (S)	Project Village
13	Magway	Aung Lan	Shwe Pan Taw Kyi	Shwe Pan Taw Kyi	Control Village
14	Magway	Aung Lan	Te Pin	Yay Paw	Project Village
15	Magway	Aung Lan	Thit Khaung Tee	Thit Khaung Tee	Control Village
16	Magway	Magway	Alae Bo	Alae Bo	Project Village
17	Magway	Magway	Hpoke Kone	Sie Pin Thar	Project Village
18	Magway	Magway	Inn Taing Gyi	Inn Taing Gyi	Project Village
19	Magway	Magway	Kayin (Kan Yin)	Kayin (Kan Yin)	Project Village
20	Magway	Magway	Kyar Kan	Kyar Kan	Project Village
21	Magway	Magway	Kyit Son Pway	Kyit Son Pway	Project Village
22	Magway	Magway	Lat Pa Taw	Si Pin Thar (Hpoek Pauk Kan)	Project Village
23	Magway	Magway	Ma Gyi Kan	Ma Gyi Kan	Project Village
24	Magway	Magway	Mei Hla Taung	Chaung Hpyu	Project Village
25	Magway	Magway	Min Ywar	Tha Put Kyaw	Project Village
26	Magway	Magway	Myin Saing	Htan Pin San	Project Village
27	Magway	Magway	Nan Kat Kyun	Tha Yet Pin Kwet	Project Village
28	Magway	Magway	Nga Saung	Ngar Saung	Project Village
29	Magway	Magway	Nyaung Kan	Nyaung Kan	Project Village
30	Magway	Magway	Nyaung Pin Ywar	Nyaung Pin Ywar	Project Village
31	Magway	Magway	Nyaung Pin Ywar	Kone Gyi	Project Village
32	Magway	Magway	Pa Htana Go	Inn Oo	Project Village
33	Magway	Magway	Pay Pin San	Pay Pin San	Project Village
34	Magway	Magway	Phayar Kone	Phayar Kone	Project Village
35	Magway	Magway	Phyar Pyo	Phyar Pyo (S)	Project Village
36	Magway	Magway	Sar Taing Kan	San Kan	Project Village
37	Magway	Magway	Shar Pin Hla	Shar Pin Hla	Project Village
38	Magway	Magway	Su Kauk San	Su Kauk San	Project Village
39	Magway	Magway	Tel Pin Kan Pauk	Tei Pin Kan Pauk	Project Village
40	Magway	Magway	Tha Pyay San	Tha Pyay San (S)	Project Village
41	Magway	Magway	Tha Yet Lay Pin	Tha Yet Lay Pin	Project Village
42	Magway	Magway	Thit Yar Kauk	Yae Kyaw	Project Village
43	Magway	Magway	Ywar Haung Kan	Ywar Haung Kan	Project Village
44	Magway	Salin	Ah Nauk Kan Baung	Myaung Hla U	Project Village

Sr	Region	Township	Village Tract	Village	Village Type
45	Magway	Salin	Chaung Hpyu (N)	Ah Muu	Project Village
46	Magway	Salin	Kya Pin	Koke Ko Tan	Control Village
47	Magway	Salin	Kyo Wun Gyi	Kyo Wun	Project Village
48	Magway	Salin	Nyaung Inn	Chaung Kauk	Project Village
49	Magway	Salin	Pyoe Khin Kone	Kone Tei	Project Village
50	Magway	Salin	Shan Su	Wet Thaik	Project Village
51	Magway	Salin	Sin Phyu Kyune 1	Thone Pin Taung	Control Village
52	Magway	Salin	Ta Nyaung	Ta Nyaung	Control Village
53	Magway	Salin	Taw Gyi	Na Zin Yine Kone	Control Village
54	Magway	Salin	Tha Mann Kyin	Tha Man Kyin	Control Village
55	Magway	Salin	Tha Yet Chin	Tha Yet Chin	Project Village
56	Magway	Salin	Yone Pin Kan	Maw Nga Kawt Kan	Project Village
57	Magway	Seikphyu	Ah Shey Kan Twin	Ka Paing (E)	Project Village
58	Magway	Seikphyu	Ah Shey Kan Twin	Sin Lan Chaung	Project Village
59	Magway	Seikphyu	Chaung Ma Gyi	Chaung Ma Gyi (East)	Control Village
60	Magway	Seikphyu	Chin Taung	Yae Lel Thaung	Control Village
61	Magway	Seikphyu	Chin Taung	Zee Kat	Control Village
62	Magway	Seikphyu	Hnget Pyar Gyi	Hnget Pyar Gyi	Control Village
63	Magway	Seikphyu	Htan Ma Kauk	Htan Ma Kauk	Project Village
64	Magway	Seikphyu	Ka Shey	Ku Shey Ywar Ma	Project Village
65	Magway	Seikphyu	Koe Taunt	Koe Taunt	Project Village
66	Magway	Seikphyu	Kyauk Gyi	Yae Htwet	Project Village
67	Magway	Seikphyu	Myay Kyan Taw	Gyoke Chaung Gyi	Project Village
68	Magway	Seikphyu	Myin Ka Pa	Su Lay Kone	Control Village
69	Magway	Seikphyu	Taung Ywar Ma	Taung Ywar Ma	Project Village
70	Magway	Seikphyu	Ywar Thar Aye	Leik Chan	Project Village
71	Mandalay	Meikhtila	Ah Lel	Ah Lel	Project Village
72	Mandalay	Meikhtila	Ga Lon Kone	Oke Myay Kan	Control Village
73	Mandalay	Meikhtila	Gway Aing	Gway Aing	Project Village
74	Mandalay	Meikhtila	Hta Mon Kan	Set Pin Taung	Project Village
75	Mandalay	Meikhtila	Hta Mon Kan	Oke Kyin	Project Village
76	Mandalay	Meikhtila	Ka Hpyu	Min Te Kone	Control Village
77	Mandalay	Meikhtila	Kan Ni	Nyaung Kone (East)	Project Village
78	Mandalay	Meikhtila	Kan Thar	Sat Khin Pauk	Project Village
79	Mandalay	Meikhtila	Koke Ko Kone	Koke Ko Kone	Control Village
80	Mandalay	Meikhtila	Koke Ko Kone	Tha Pyay Pin	Control Village
81	Mandalay	Meikhtila	Kwet Nge	Pan Thwin	Project Village
82	Mandalay	Meikhtila	Kyauk Hpu	Da Hat Tan	Control Village
83	Mandalay	Meikhtila	Kyauk Hpu	Kan Kyar (South)	Control Village
84	Mandalay	Meikhtila	Kyaung	Kyaung	Control Village
85	Mandalay	Meikhtila	Kywe Kan	Nyaung Pin That (South)	Control Village
86	Mandalay	Meikhtila	Kywe Ta Lin	Lu Khin Gyi	Project Village
87	Mandalay	Meikhtila	Ma Gyi Su	Nyaung Kone	Project Village
88	Mandalay	Meikhtila	Mei Za Li Kone	Tet Po	Control Village
89	Mandalay	Meikhtila	Mei Za Li Kone	Tet Poe	Control Village
90	Mandalay	Meikhtila	Mway	Oh Ma Twayt	Project Village

Sr	Region	Township	Village Tract	Village	Village Type
91	Mandalay	Meikhtila	Myauk Lel	Myauk Lel	Project Village
92	Mandalay	Meikhtila	Nyaung Kan	Nyaung Kan	Project Village
93	Mandalay	Meikhtila	Nyaung Zauk	Nyaung Zauk	Project Village
94	Mandalay	Meikhtila	Sat Pyar Kyin	Tha Phan Khar Kone	Control Village
95	Mandalay	Meikhtila	Se Kone	Sin Myee	Control Village
96	Mandalay	Meikhtila	Shan Ma Nge	Chaung Gwa	Project Village
97	Mandalay	Meikhtila	Shaw Hpyu Kan	Hlyaw Hpyu Kan	Project Village
98	Mandalay	Meikhtila	Taw Ma	Chauk Pin	Project Village
99	Mandalay	Meikhtila	Tha Yet Pin	Kyee Thar Aint	Project Village
100	Mandalay	Meikhtila	Than Bo	Than Bo	Project Village
101	Mandalay	Meikhtila	Thee Kone	Thee Kone	Project Village
102	Mandalay	Meikhtila	Thee Pin Kone	Thee Pin Kone	Project Village
103	Mandalay	Meikhtila	Yae Wai	Inn Pin Wa	Project Village
104	Mandalay	Meikhtila	Yone Taw Gyi	Yone Taw Gyi	Project Village
105	Mandalay	Meikhtila	Zaung Chan Kone	Gway Tauk Kone	Project Village
106	Mandalay	Myingyan	Aye	Aye	Project Village
107	Mandalay	Myingyan	Ba Lon	Ywar Thar	Project Village
108	Mandalay	Myingyan	Chaung Daung	Chaung Daung (South)	Control Village
109	Mandalay	Myingyan	Chaung Daung	Kyauk Yan	Control Village
110	Mandalay	Myingyan	Gaung Kwe	Gaung Kwe	Project Village
111	Mandalay	Myingyan	Gint Ge	Gint Gei	Project Village
112	Mandalay	Myingyan	Hta Naung Kone	Taung Poet	Control Village
113	Mandalay	Myingyan	Htein Pan	Htain Pan	Project Village
114	Mandalay	Myingyan	Kaing	Kaing	Project Village
115	Mandalay	Myingyan	Kan Swei	Kan Swei	Project Village
116	Mandalay	Myingyan	Kan Taw	Thein Taing	Project Village
117	Mandalay	Myingyan	Koke Ke	Koke Ke	Project Village
118	Mandalay	Myingyan	Kun Saik	Kun Saik	Control Village
119	Mandalay	Myingyan	Kun Thee Pin (Lay Ein Tan)	Aung Pyay Soe	Control Village
120	Mandalay	Myingyan	Kun Thee Pin (Lay Ein Tan)	Bawt Lone	Control Village
121	Mandalay	Myingyan	Kun Thee Pin (Lay Ein Tan)	In Gyin Pin	Control Village
122	Mandalay	Myingyan	Kun Thee Pin (Lay Ein Tan)	Kun Thee Pin (Lay Ein Tan)	Control Village
123	Mandalay	Myingyan	Kun Thee Pin (Lay Ein Tan)	Kyet Shar	Control Village
124	Mandalay	Myingyan	Kun Thee Pin (Lay Ein Tan)	Let Pan Pin	Control Village
125	Mandalay	Myingyan	Kyar Taing	Kyar Taing	Project Village
126	Mandalay	Myingyan	Kyee Pin Kan	Saik Kone	Project Village
127	Mandalay	Myingyan	Lint Gyi	Lint Gyi (S)	Project Village
128	Mandalay	Myingyan	Mee Pauk	Mee Pauk	Project Village
129	Mandalay	Myingyan	Ngar Nan	Ngar Nan (S)	Project Village
130	Mandalay	Myingyan	Pin Lel	Ywar Thar Aye	Project Village
131	Mandalay	Myingyan	Pyar	Pyar	Control Village
132	Mandalay	Myingyan	Pyawt (Shwe Bon Thar)	Shwe Bon Thar	Project Village
133	Mandalay	Myingyan	Shar Taw	Shar Taw	Project Village

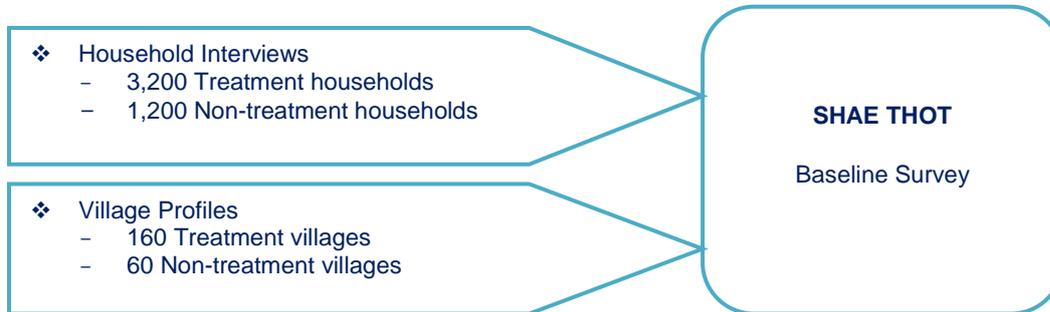
Sr	Region	Township	Village Tract	Village	Village Type
134	Mandalay	Myingyan	Ta Loke Myo	Myo Gyi Kone	Project Village
135	Mandalay	Myingyan	Taw Pu	Taw Pu	Project Village
136	Mandalay	Myingyan	Thar Paung	Ah Neint	Control Village
137	Mandalay	Myingyan	Thar Paung	Myauk Kyun	Control Village
138	Mandalay	Myingyan	Thar Paung	Pat Tar	Project Village
139	Mandalay	Myingyan	Thar Paung	Taung Kyun	Project Village
140	Mandalay	Myingyan	Thar Paung	Te Kone	Control Village
141	Mandalay	Myingyan	Thin Pyun	Khin Ma Kan	Project Village
142	Mandalay	Myingyan	Thit Yon	Thit Yon	Control Village
143	Mandalay	Myingyan	Tu Ywin Bo	Tu Ywin Bo	Control Village
144	Mandalay	Myingyan	Ye Taing	Ye Taing	Control Village
145	Mandalay	Myingyan	Yon Htoe	Ywar Thit (S) Kyi	Project Village
146	Mandalay	Myingyan	Ywar Si	Ywar Si (South)	Project Village
147	Mandalay	Myingyan	Ywar Thar Yar	Ywar Thar Yar	Project Village
148	Mandalay	Myingyan	Zee Taw	Hta Naung Pin Su (South)	Project Village
149	Sagaing	Monywa	Aung Thar	Aung Thar	Control Village
150	Sagaing	Monywa	Bu Ba	Bu Ba	Project Village
151	Sagaing	Monywa	Bu Taung Kan	Bu Taung Kan	Project Village
152	Sagaing	Monywa	Hpan Khar Kyin	Hpan Khar Kyin	Project Village
153	Sagaing	Monywa	Hta Naung Taw	Hta Naung Taw (South)	Project Village
154	Sagaing	Monywa	Kaw La Pya	Kyi Kone	Project Village
155	Sagaing	Monywa	Kha Tet Kan (North)	Kyauk Kwe	Project Village
156	Sagaing	Monywa	Kha Wea Kyin	U Thar Pon Kaing (East)	Project Village
157	Sagaing	Monywa	Kya Paing	Kya Paing	Control Village
158	Sagaing	Monywa	Kyauk Kar (South)	Kyauk Kar (South)	Project Village
159	Sagaing	Monywa	Kyaung Kone	Kyaung Kone	Control Village
160	Sagaing	Monywa	Kyaung Kone	Thar Yar Su	Project Village
161	Sagaing	Monywa	Kyun Gyi	Kyun Gyi (South)	Project Village
162	Sagaing	Monywa	Kyun Ywar Thit	Kyun Ywar Thit	Project Village
163	Sagaing	Monywa	Kywe Ye	Tha Man Tar	Project Village
164	Sagaing	Monywa	Ma Au	Lin Pin	Control Village
165	Sagaing	Monywa	Ma Au	Shwe Son	Control Village
166	Sagaing	Monywa	Ma Yoe Taw	Ma Yoe Taw (North)	Project Village
167	Sagaing	Monywa	Min	Ku Taw Pa Lin (Pu Taw Pa Lin)	Project Village
168	Sagaing	Monywa	Min	Min	Project Village
169	Sagaing	Monywa	Mon Yway	Mon Yway	Control Village
170	Sagaing	Monywa	Mon Yway	Shit Se	Project Village
171	Sagaing	Monywa	Myay Ne	Moe Hnyin Than Boke Day	Control Village
172	Sagaing	Monywa	Nyaung Hpyu Pin	Nyaung Hpyu Pin	Control Village
173	Sagaing	Monywa	Pauk Pin	Pauk Pin	Control Village
174	Sagaing	Monywa	Pu Yit Kone	Taung Pon	Project Village
175	Sagaing	Monywa	Taung Kyar	Kyauk Khwet	Control Village
176	Sagaing	Monywa	Te Gyi Kone	Te Gyi Kone (East)	Project Village
177	Sagaing	Monywa	Thet Kei Kyin	Thet Kei Kyin	Control Village
178	Sagaing	Monywa	Yaung Taw Tone	Yaung Taw Tone	Control Village

Sr	Region	Township	Village Tract	Village	Village Type
179	Sagaing	Monywa	Za Loke	Za Loke (West)	Project Village
180	Sagaing	Yinmarbin	Bant Bway	Bant Bway (North)	Project Village
181	Sagaing	Yinmarbin	Bant Bway	Shwe Su	Project Village
182	Sagaing	Yinmarbin	Byama Dat	Tha Yet Kan	Project Village
183	Sagaing	Yinmarbin	Kan Chaung (Aung Moe)	Let Khoke Pin	Control Village
184	Sagaing	Yinmarbin	Kyat	Kyat	Control Village
185	Sagaing	Yinmarbin	Lel Ngauk	Lel Ngauk	Project Village
186	Sagaing	Yinmarbin	Let Ka Byar	In Taw	Project Village
187	Sagaing	Yinmarbin	Mauk Loke	Mauk Loke	Control Village
188	Sagaing	Yinmarbin	Min Kan Gyi	Min Kan Gyi	Project Village
189	Sagaing	Yinmarbin	Min Zu	Min Zu	Project Village
190	Sagaing	Yinmarbin	Myo Gyi	Myo Gyi	Project Village
191	Sagaing	Yinmarbin	Myo Gyi	None Gyi	Project Village
192	Sagaing	Yinmarbin	Nyaung Kaing	Kwin Sat	Control Village
193	Sagaing	Yinmarbin	Nyaung Pin Gyi Su	Nyaung Pin Gyi Su (West)	Project Village
194	Sagaing	Yinmarbin	Se Gyi (Htan Taw Gyi)	Kyai Sar Kya	Project Village
195	Sagaing	Yinmarbin	Sin Te	Min Ma Kone	Control Village
196	Sagaing	Yinmarbin	Sone Chaung	Gway Chaung	Project Village
197	Sagaing	Yinmarbin	Sone Kyin	Bein Nwe Chaung	Control Village
198	Sagaing	Yinmarbin	Tar Wa	Chaung Kauk (Ywa Thit)	Project Village
199	Sagaing	Yinmarbin	Taung Pu (Kyauk Pyoke)	Hta Yaw Kyin	Control Village
200	Sagaing	Yinmarbin	Tha Min That	Tha Min That	Control Village
201	Sagaing	Yinmarbin	Yin Paung Taing	Pyar Oh (Pya Oh)	Control Village
202	Sagaing	Yinmarbin	Ywar Htaung	Ywar Htaung	Project Village
203	Sagaing	Yinmarbin	Zee Taw	Zee Taw (South)	Project Village
204	Sagaing	Kani	Boke Kone	Kan Taw	Control Village
205	Sagaing	Kani	Chaing	Din Pauk	Control Village
206	Sagaing	Kani	Daing Gyi	Mone Pin	Project Village
207	Sagaing	Kani	Hta Naung Pa Kar	Hta Naung Pa Kar (South)	Control Village
208	Sagaing	Kani	Kin	Nan Su	Control Village
209	Sagaing	Kani	Kin Taung	Kin Taung	Project Village
210	Sagaing	Kani	Lel Shey	Lel Shey Ywar Ma	Project Village
211	Sagaing	Kani	Moke Taw	Moke Taw (East)	Project Village
212	Sagaing	Kani	Nat Gyi	Ywar Thar	Project Village
213	Sagaing	Kani	Ohn Ma	Nyaung Kyoe (Nyaung Hla)	Project Village
214	Sagaing	Kani	Sin Oh	Aing Thar	Control Village
215	Sagaing	Kani	Sue Lay Kone	Su Lay Kone	Project Village
216	Sagaing	Kani	Tha Min Chan	Tha Min Chan	Control Village
217	Sagaing	Kani	Twin	Twin Htei	Project Village
218	Sagaing	Kani	Wa Yar	Wa Yar	Project Village
219	Sagaing	Kani	Yar Gyi	Ywar Ma	Control Village
220	Sagaing	Kani	Yin Thwin	Mi Chaung Pone	Project Village

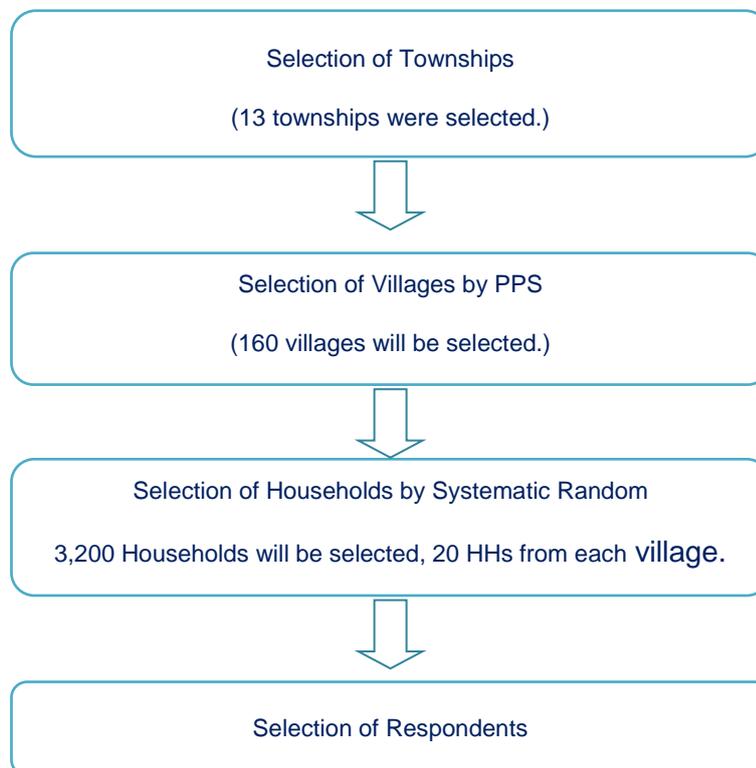
Annex 2: Detailed Methodology

Research Methodology: The study will include household interviews for household level information and KII interviews for village level information.

Sample Size: 3,200 Treatment households and 1,200 non-treatment households



Sample Selection for Treatment Households



Step 1: Selection of Townships

13 townships covered by SHAE THOT will be selected.

Step 2: Selection of Treatment Villages by PPS sampling method

Based on population, sample treatment villages will be selected by PPS method. Selection procedures of sample treatment villages by PPS are as follows:

Step 1: List all the villages in a logical order

Step 2: Insert the number of population in the second column.

Step 3: Calculate the accumulated number of population in the third column.

Step 4: Determine number of sample treatment villages.

Step 5: Calculate the sampling interval by dividing total number of population by number of sample treatment villages.

Step 6: Generate a random number between 1 and the sample interval

Step 7: Locate the first sample village by finding the village whose cumulative population just exceeds the random number.

Step 8: Select the subsequent sample villages by adding interval

Step 4: Selection of Households

A sample of 20 households will be selected from each village, totaling 3,200 households in 160 villages. Households will be selected by systematic random sampling method. Selection procedures of sample households by systematic random sampling method are as follows:

Selection of starting point

- Total number of households in the selected village will be divided by sample size (20) to get an interval. The total number of households will be determined from the household information from respective village authorities.
- A starting point at the village will be determined. (Before sampling, the survey team looks around the village, and chooses the starting point as appropriate, mostly at the entrance to the village or from a significant building such as a school.) The best starting point is the village entrance.
- A random number between 1 and the interval will be drawn from the hat. Suppose the random number is 3, the third household from the starting point will be selected for the first interview.

Movement from the starting point

- Once the starting point is determined, the interviewer will have to place his or her back to the (main) entrance of the HH structure and move to the right (rule: always go to the right). Only those houses on the right side of the street are counted. When the interviewer comes to the end of the village or outer ring, he/she turns around and counts the houses on the right side which were on his/her left previously.
- The next households will be identified by adding the interval.
- All the houses are selected first by the supervisor, and are allocated to each interviewer.

Substitution

- If the interviewer is not successful in the main household, he or she will have to try to make a second and third contact if the respondent is likely to be present at home in the same day. Otherwise, the interviewer substitute the main household and try to make contact at the next household directly to the right (with his or her back to the entrance of the main household); he or she can only visit this household once.
- If the interviewer is not successful at this second household, he or she will have to go to the household directly to the left of the main household, which he or she can only visit once.
- Households on the right and the left of the main household are called substitutions households.
- If the interviewer does not have success at either household, he or she will have to go to the next main household, which he or she can reach by adding intervals from the initial, main household.

Note: If a selected village is very big, the village will be divided into equal clusters based on geographical boundaries and population distribution (for example, northern cluster, southern cluster, western cluster, and eastern cluster) and a cluster will be selected at random. Boundary of each cluster is determined by the street so that they don't overlap. Households will be selected from the selected cluster by systematic random sampling method.

Step 4: Selection of Respondents

One or more appropriate respondents (mother or married women of reproductive age or head of household or major bread earner) will be selected from each sample household. Total number of respondents will be 3,200 or more.

Sample Selection for Non-Treatment villages and Non-treatment Households (To be done by Craig)

A sample of 60 Non-treatment villages will be selected from the 21 townships covered by SHAE THOT.

. Therefore, the selection of non-treatment village will be selected in consultation with PACT and its implementing partners, who are in a better position to identify appropriate non-treatment villages in their respective townships.

A sample of 20 households will be selected from each non-treatment village, totaling 1,200 non-treatment households in 60 non-treatment villages.

Obtaining population data at the village level for the non-treatment proved to be politically and logistically difficult. For treatment villages, this information for treatment villages was usually obtained by the Shae Thot partners directly from the village, so obtaining population data for .To deal with these problems, non-treatment villages with beselected without reference to population): non-equal probability selection among non-treatment villages and households. Issues surrounding non-equal probability selection, particularly generalizability, can be dealt with through weighting.

Questionnaires

MSR, in consultation with PACT and its implementing partners, will develop three modules of questionnaire for the assessment. Module one will include questions about Maternal Child Health/Reproductive Health; the second module will focus on Livelihoods; and the third module will deal with Water, Sanitation, and Hygiene. Institutional strengthening and gender will be included in each of the specified modules.

Village Profiles

In each village, Key Informant interviews will be conducted with one or more of 1) village authorities, and 2) health workers, 3) community based organization members, or community based trainers/ volunteers/ extension workers, if any, 4) school teachers, and other knowledgeable persons in the village.

There will be a total of 220 village profiles— 160 for treatment villages and 60 for non-treatment villages.

Annex 3: KII Tabulations

KII Tabulation		Project Village %	Control Village %	Total %
1.1 # of households	Maximum	1073	917	1073
	Minimum	46	19	19
	Valid N	151	69	220
3.1 Type of land Percentage of : (based on land area) / Le (wet)	Average Acre	22.71	19.20	21.61
	Valid N	151	69	220
3.2 Ya (dry)	Average Acre	67.17	57.42	64.11
	Valid N	151	69	220
3.3 Kaing (Cultivable waste land, islands etc)	Average Acre	4.15	17.65	8.38
	Valid N	151	69	220
Village assets	Average number of Power tiller	3.30	3.80	3.46
	Average number of Thresher	.66	.33	.55
	Average number of Rice mill	1.21	1.78	1.39
	Average number of Tube well(Hand/ treadle pump)	38.66	47.99	41.59
	Average number of Tube well (Motor pump)	14.40	22.30	16.88
	Average number of Shallow well	12.15	9.49	11.31
	Average number of Powered water pump	13.77	21.06	16.05
	Average number of Generator	5.24	4.61	5.04
	Average number of Phone	9.11	13.58	10.51
	Valid N	151	69	220
5.1Distance from village (mile)	Nearest township Average Mile	11.71	10.79	11.42
	Nearest Rural or Sub-rural health centre Average Mile	1.20	1.48	1.29
	Primary school (govt) Average Mile	.03	.10	.05
	Middle school (govt) Average Mile	1.59	1.56	1.58
	High school (govt) Average Mile	4.34	4.14	4.28
	Bank Average Mile	11.83	11.61	11.76
	Community building Average Mile	.12	.01	.08
	Private clinic Average Mile	10.54	14.71	11.81
	Monastery Average Mile	.02	.04	.03
	Market (weekly)Average Mile	7.86	8.80	8.14
	Valid N	151	69	220
5.1b Most common mode of transport/ Rainy Season Nearest township	On foot	3.3%	2.9%	3.2%
	Ox-cart/ horse cart	2.0%		1.4%
	Trailer Jeep	8.6%	8.7%	8.6%
	Bicycle	1.3%	5.8%	2.7%
	Motor cycle	31.1%	37.7%	33.2%
	Car	37.1%	31.9%	35.5%
	Boat	.7%	8.7%	3.2%
	Other	15.9%	4.3%	12.3%
	Total	100.0%	100.0%	100.0%
5.2b Most common mode of transport/ Rainy Season Nearest Rural or Sub-rural health centre	On foot	31.0%	31.8%	31.3%
	Ox-cart/ horse cart	10.0%	18.2%	12.5%
	Trailer Jeep	1.0%	2.3%	1.4%
	Bicycle	3.0%	4.5%	3.5%
	Motor cycle	51.0%	34.1%	45.8%
	Boat		9.1%	2.8%
	Other	4.0%		2.8%
	Total	100.0%	100.0%	100.0%

Annex 4: Shae Thot Baseline Survey Questionnaire

HOUSEHOLD QUESTIONNAIRE

id1	Questionnaire No. _____	_ _ _ _
id2	Village name _____	_ _ _ _
id3	Village MIMU code _____	_ _ _ _
id4	Village tract name _____	_ _ _ _
id5	Township name _____	_ _ _ _
id6	State/Region _____	_ _ _ _
Q1	Interview start time	_ _ : _ _
Q2	Interview end time	_ _ : _ _
Q3	Interview duration	_ _ : _ _
Q4	Interview date	_ _ / _ _ /2012
Q5	Enumerator	_ _ _ _
Q6	Supervisor	_ _ _ _
Q7	Editor	_ _ _ _

Question		Response	Skip	Code
SECTION 1:HOUSEHOLD / RESPONDENT INFORMATION				
1.1	Respondent's name	_____		_____ Code
	Criteria of the respondent	<i>Only head of household or spouse can be used as respondents.</i>		
1.2	Position in the Household	Head of Household1		_____
		Spouse.....2		
		De facto Head of Household3		
1.3	Sex	Male1		_____
		Female2		
1.4	Age	_____ years		_____
	Specify age in years. If specific age is not known, round to the nearest 5 years upwards.			
1.5	Ethnicity	Chin.....1		_____
		Kachin2		
		Kayah3		
		Karen4		
		Mon5		
		Rakhine.....6		
		Burmese7		
		Shan.....8		
		Mix9		
		Other Specify _____99		
1.6	Religion	Buddhist.....1		_____
		Christian.....2		
		Hindu3		
		Muslim.....4		
		Other Specify _____99		
1.7	Total number of HH members	_____		_____

1.8	1.9	1.10	1.11	1.12	1.13	1.14	1.15
-----	-----	------	------	------	------	------	------

HH Id No	Name	Relationship with the Head of Household (Oldest to youngest)	Sex	Age	Highest completed level of schooling for HH members of age over 5 to 30 years old	Are you still in school? (For HH members over 5 to 30 years old)	Birth registration (Children under 18 years old)	Main Occupation of HH members over the age of 12
		Head of HH.....1 Spouse.....2 Son, daughter, son/daughter-in-law.....3 Parent/parent-in-law.....4 Other relative.....5 Non-relative.....6	Male.....1 Female.....2	Specify age in years. If specific age not known, round to the nearest 5 years upwards.	Grade 1 (Thu Nge Tan) .1 Grade 2.....2 Grade 3.....3 Grade 4.....4 Grade 5.....5 Grade 6.....6 Grade 7.....7 Grade 8.....8 Grade 9.....9 Grade 10.....10 Grade 11.....11 College/ University.....12 Monastic education.....13 Never been to school 99	Still in school.....1 Drop out..... 2 Never attended school.....3	Yes..... ...1 No.....0	Agriculture (raise own crops).....1 Raising own livestock (poultry, pigs, cattle etc.)..2 Fishing/shrimp farming.....3 Agricultural wage labor.....4 Non-agric unskilled wage labor.....5 Salary (government, military, private).....6 Own account sales/service (incl. Street vendor or house front sales).....7 Sales/service employee (daily wage).....8 Shop or business owner.....9 Unpaid family work.....10 Dependent.....11 Student.....12 Retired/pensioner.....13 Other (specify.....).....99
1	Head of the HH	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
9		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
10		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

11		<input type="text"/>						
12		<input type="text"/>						
13		<input type="text"/>						
14		<input type="text"/>						
15		<input type="text"/>						

MATERNAL AND CHILD HEALTH

Interviewer: If the household has more than one child under the age of 5, list all children under 5 yrs old in the following table with their age, circle the youngest child and go for the youngest child only.

	Name	Born		Age		Male 1
		Year	Month	Year	Month	Female 2
Youngest child						
Second youngest child						
Third youngest child						

Question		Response categories	Skip to	Response
Section 1. Identifying Information				
M1.1	Name of Mother		
M1.2	Age	Age (in completed years).....		<input type="text"/>
M1.3	Can you read?	Yes.....1 No.....2		<input type="text"/>
M1.4	Can you write?	Yes.....1 No.....2		<input type="text"/>
M1.5	What is the highest level of school you attended? (SA)	Preschool.....1 Primary.....2 Middle.....3 Higher.....4 University/College.....5 Monastery/Nunnery.....6 No schooling.....7		<input type="text"/>

M1.6	What was your age at the time of your marriage?	Years.....		<input type="checkbox"/>
M1.7	How many pregnancies have you had? Times		<input type="checkbox"/>
M1.8	Number of sons or daughters to whom you have given birth who are now living?	Number of Children.....		<input type="checkbox"/>
M1.9	Number of Children who died after birth		<input type="checkbox"/>
M1.10	Number of miscarriage/abortion		<input type="checkbox"/>
M1.11	Is (name) <i>youngest child</i> adopted?	Yes.....1 No.2	>>Sec 6	<input type="checkbox"/>

Section 2: ANC,Delivery (for mothers with children under 2 years of age/youngest child underneath 2yrs)

M2C. Child Code

M2.1	Did you see anyone for antenatal care during your last pregnancy? Any checkups during pregnancy?	Yes.....1 No.2	>>M2.1 9	<input type="checkbox"/>
M2.2	If YES, who did you see?	Doctor.....1 Nurse.....2 Health Assistant.....3 Lady Health Visitor4 Midwife5 Auxiliary midwife.....6 Traditional Birth Attendant7 Other (Specify)99		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
M2.3	Where did you see the antenatal care giver?	Government hospital.....1 Private hospital.....2 Private clinic3 Rural health center4 Sub rural health center5 Mobile clinic/outreach6 In the village7 Other (Specify)99		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

M2.4	Do you have a pregnancy card or MCH handbook?	Yes.....1 No.2	>>M2.7	<input type="checkbox"/>
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Question		Response categories	Skip to	Response	
M2.5	If code 1 in question no. 2.4, please record the number of medical checkups from the handbook.			Number of visits as recorded in handbook	Number of visits made but not recorded in handbook
		1. Number of Abdominal examinations		<input type="text"/>	<input type="text"/>
		2. Number of tetanus toxoid injections		<input type="text"/>	<input type="text"/>
		3. Number of iron tablets		<input type="text"/>	<input type="text"/>
		4. Number of blood pressure checks		<input type="text"/>	<input type="text"/>
		5. Number of blood test		<input type="text"/>	<input type="text"/>
		6. Any urine test		<input type="text"/>	<input type="text"/>
		7. HIV/AIDS test		<input type="text"/>	<input type="text"/>
	8. Others -----		<input type="text"/>	<input type="text"/>	
M2.6	Was the handbook clearly written?	Yes.....>>M2.19 No.....>>M2.19		<input type="text"/>	
M2.7	Did you receive any abdominal examination? (for those who do not have a MCH handbook)	Yes.....>>M2.10 No.....>>M2.10		<input type="text"/>	
M2.8	How many times did you receive Abdominal examination?	_____Times		<input type="text"/>	
M2.9	How many of these visits were with a doctor, or nurse, or midwife, or LHV?	_____Times		<input type="text"/>	
M2.10	Did you receive tetanus toxoid injections?	Yes.....>>M2.12 No.....>>M2.12 Don't know>>M2.12		<input type="text"/>	
M2.11	How many times did you receive Tetanus toxoid injection?	_____Times		<input type="text"/>	
M2.12	Did you receive any iron tablets?	Yes..... No..... Don't know9		<input type="text"/>	

Question		Response categories	Skip to	Response
M2.13	Did you receive a blood test?	Yes 1 No 2 Don't know 96	>>M2.1 5 >>M2.1 5	_
M2.14	How many times did you receive Blood test?	_____Times		_
M2.15	Did you receive blood pressure checks?	Yes 1 No 2 Don't know 96	>>M2.1 7 >>M2.1 7	_
M2.16	How many Blood pressure checks?	_____Times		_
M2.17	Did you receive urine tests?	Yes 1 No 2 Don't know 96		_
M2.18	Did you receive a HIV / AIDS test?	Yes 1 No 2 Don't know 96		_
Only for mothers with children under 2 years old				
M2.19	Where did you give birth to your last child? (SA)	Government hospital 1 Private hospital 2 Private clinic 3 Rural health center 4 Sub rural health center 5 At home 6 Others (specify) _____ 99	>>M2.2 1 >>M2.2 1 >>M2.2 1 >>M2.2 1 >>M2.2 1	_
M2.20	If you delivered your last child at home, did you use delivery kit?	Yes 1 No 2		_
M2.21	When you gave birth, who assisted you with the delivery? (Single answer only, mentioning the highest person who assisted with the birth)	Doctor 1 Nurse 2 Health assistant 3 Lady Health Visitor 4 MW 5 AMW 6 TBA 7 Community Health Worker 8 Mother / relative 9 Self 10		_

Question		Response categories	Skip to	Response
Section 3: Post-Partum Care (for mothers with children under 2 years of age/youngest child underneath 2 yrs)				
M3C. Child Code ____				
M3.1	After delivery, did you have a check-up?	Yes..... 1 No 2 Don't know/don't remember..... 96	>>Sec 4 >>Sec 4	____
M3.2	How long after giving birth did you have your first check up? (number of days including the days spent at hospital)	On the same day..... 1 _____ day..... 2		____ _____ day
M3.3	With whom did you have your first check up?	Doctor 1 Nurse 2 Health Assistant 3 Lady Health Visitor 4 MW..... 5 AMW 6 Community Health Worker (Gov)..... 7 Health volunteer (INGOs/NGOs) 8 TBA..... 9 Persons/staffs from mobile clinics..... 10		____
M3.4	How many checkups did you have within six weeks of delivery?	_____ Times		____
Section 4 - New Born Care (for mothers with children under 2 years of age/youngest child underneath 2 yrs)				
M4C. Child Code ____				
M4.1	After the baby was delivered, what was applied to the cord after it was cut and dried? (SA)	Nothing..... 1 Antibiotics (powder/ointment) 2 Antiseptic..... 3 Saffron (herbs) 4 Don't know 96 Other (Specific) 99		____
M4.2	How shortly after delivery was the child wrapped?	_____ hours		____
M4.3	When was the child bathed after being delivered?	immediately after delivery..... 1 After the chord dried and fallen off..... 2 other..... 3		____
M4.4	How many new born visits did you receive/make in one month after birth of the baby?	Number of visits _____ Don't remember..... 96		____
M4.5	When was the first visit made? (SA)	On the day of delivery..... 1 Within 1 week after delivery..... 2 Between 1 week and 1 month after delivery 3 No visits made..... 4 Don't remember..... 5	>>M5.1 >>M5.1	____
M4.6	With whom did you have your first check up?	Doctor 1 Nurse 2 Health Assistant 3 Lady Health Visitor 4 MW..... 5 AMW 6 Community Health Worker (Gov)..... 7 Health volunteer (INGOs/NGOs) 8 TBA..... 9 Persons/staffs from mobile clinics..... 10		____
Question		Response categories	Skip to	Response

Section 5: Breast Feeding (for mothers with children under 2 years of age/youngest child underneath 2 yrs)				
<i>M5C. Child Code</i> ____				
M5.1	Are you presently breastfeeding your youngest child (child under 2 years of age)?	Yes (if yes, write the name of new born.....)1 No2		____
M5.2	How soon after birth, did you put your child to the breast?	Within 30 minutes1 Within 1 hour2 Within 24 hours3 Within ... days after birth (Specify days)4 Do not remember96 Did not put to breast98	>>Sec6	____ ____da ys
M5.3	Did you give (NAME) colostrums? (yellowish milk in the first three days after birth)	Yes.....1 No2 Don't know/remember96		____
M5.4	During the first 3 days after delivery did you give anything to drink other than breast milk?	Yes.....1 No2 Don't know/remember96		____
Section 6: Nutrition (For children under 5 yrs of age, if more than one child, target youngest child)				
<i>M6C. Child Code</i> ____				
M6.1	Since this time yesterday has (Name) received the following food?			
	Any rice, rice noodle, sticky rice, corn, wheat flour?1 Any locally available root or tuber; potato, arrowroot or taro?2 Locally available pumpkin, carrots, golden sweet potato (Other locally available vegetables with orange/red flesh)3 Any foods made from beans, peas, lentils or nuts? Eg Peanut (ground nut), Lentil (dahl), chick peas or beans4 Any dark green leafy vegetables? Eg watercress, gourd (pumpkin) leaves, green spinach, tamarind leaves.5 Any locally available fruits with orange or red flesh? Eg papaya, ripe mango6 Any other fruits or vegetables? E.g. Tomatoes, bananas, guava, eggplant, cucumber, onion, garlic ..7 Liver, kidney, heart or other organ meats?8 Any meat such as beef, lamb, goat, chicken, rat or frog?9 Fresh or dried fish, shellfish, or seafood?(oysters, mussels, squid (not fish paste)10 Eggs? (chicken, quail, duck)11 Yoghurt / other milk products/ tinned/ powder/ fresh milk?12 Any oil or fats or foods made with any of these? Eg Sesame, sunflower, ground nut, palm oil13 Any sugary foods such as jaggery, chocolates, sweets, candies, pastries, cakes or biscuits?.....14 Salt / savory snacks / fish paste15 Commercially available baby food (Dumex)16 Tea/coffee17 Plain water / sugar water / honey water18 Juice / juice drink19 Broth / soup20			1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 10. ____ 11. ____ 12. ____ 13. ____ 14. ____ 15. ____ 16. ____ 17. ____ 18. ____ 19. ____ 20. ____
M6.2	How many meals did you feed (Name) from this time yesterday till now? (A meal consists of solid or mushy food)	_____times Breast milk only.....99		____
M6.3	How many snack did you feed (Name) from this time yesterday till now?	_____times Breast milk only.....99		____

Question		Response categories	Skip to	Response
M7.8	Has (name) ever received a Hep-B vaccine in the thigh or buttock – to prevent him/her from getting Hepatitis B? (Probe: Hep B is sometimes given along with polio)	Yes.....1 No2 Don't know.....96	>>Sec 8 >>Sec 8	<input type="text"/>
M7.9	How many times did your child (NAME) receive the HepB vaccine?	-----times Do not remember96		<input type="text"/>
Section 8: Childhood Illnesses: Diarrhea (For children under 5 yrs of age, if more than one child who suffered Diarrhea, target youngest child)				
M8C. Child Code <input type="text"/>				
M8.1a	Have any children under-five in the family suffered from diarrhea in the past 2 weeks? Youngest	Name _____ Yes.....1 No2	>>M8.2	<input type="text"/>
M8.1b	Have any children under-five in the family suffered from diarrhea in the past 2 weeks? Second youngest	Name _____ Yes.....1 No2	>>M8.2	<input type="text"/>
M8.1c	Have any children under-five in the family suffered from diarrhea in the past 2 weeks? Third youngest	Name _____ Yes.....1 No2	>>Sec9	<input type="text"/>
M8.2	Did you seek treatment from any source?	Yes.....1 No2	>>M8.5	<input type="text"/>
M8.3	From whom did you seek treatment? (MA)	Doctor..... 1 Nurse..... 2 Health Assistant..... 3 Lady Health Visitor 4 MW..... 5 AMW 6 Community Health Worker (Gov) 7 Health volunteer (INGOs/NGOs)..... 8 Persons/staffs from mobile clinics..... 9 Quack..... 10 Drug store..... 11 Other (Specify) 99		1. <input type="text"/> 2. <input type="text"/> 3. <input type="text"/> 4. <input type="text"/> 5. <input type="text"/> 6. <input type="text"/> 7. <input type="text"/> 8. <input type="text"/> 9. <input type="text"/> 10. <input type="text"/> 11. <input type="text"/> 99. <input type="text"/>
M8.4	When did you take the child for treatment / after how many days since the diarrhea began? (SA)	Within 24 hours.....1 With 48 hours.....2 After 2 days3 After 3 days.....4 Do not remember96		<input type="text"/>
M8.5	During the diarrhea period, how did you feed the child compared to usual days?	More than usual.....1 Less than usual2 Fed nothing3 No change from usual.....4 Don't remember.....5		Solids <input type="text"/> Liquids <input type="text"/>
M8.6	During the incidence of diarrhea, did you give your child any of the following?			Yes..... 1 No 0 DK 96
		ORS from a packet, after mixing it with boiled and cooled water?1 Other recommended home-made fluid?2		<input type="text"/>
M8.7	Was there anything else given to the child to treat diarrhea?	Yes.....1 No0	>>Sec 9	<input type="text"/>
M8.8	If YES, what else was given to treat the diarrhea?			Yes..... 1 No 0 DK 96
		Herbal medicine1 Antibiotics2 Syrup.....3 Pill.....4 Gave zinc5 Injection6 Others (specify)99		1. <input type="text"/> 2. <input type="text"/> 3. <input type="text"/> 4. <input type="text"/> 5. <input type="text"/> 6. <input type="text"/> 7. <input type="text"/>

	Question	Response categories	Skip to	Response
Section 9: Childhood Illnesses - Acute Respiratory Infection (For children under 5 yrs of age, if more than one child who suffered acute respiratory infection, target youngest child)				
M9C. Child Code ____				
M9.1	In the past two weeks, has any child under-five in the family, suffered from cough? Youngest	Name _____ Yes 1 No 0		____ ____
M9.2	In the past two weeks, has any child under-five in the family breath faster than usual/with difficulty? Youngest If code 1 for both 9.1 and 9.2, then go to 9.7. If code 0 for any of 9.1 and 9.2, then go to 9.3.	Name _____ Yes 1 No 0		____
M9.3	In the past two weeks, has any child under-five in the family, suffered from cough? Second youngest	Name _____ Yes 1 No 0		____ ____
M9.4	In the past two weeks, has any child under-five in the family breath faster than usual/with difficulty? Second youngest If code 1 for both 9.3 and 9.4, then go to 9.7. If code 0 for any of 9.3 and 9.4, then go to 9.5.	Name _____ Yes 1 No 0		____ ____
M9.5	In the past two weeks, has any child under-five in the family, suffered from cough? Third youngest	Name _____ Yes 1 No 0		____ ____
M9.6	In the past two weeks, has any child under-five in the family breath faster than usual/with difficulty? Third youngest If code 1 for both 9.5 and 9.6, then go to 9.7. If code 0 for any of 9.5 and 9.6, then go to Section 10.	Name _____ Yes 1 No 0		____ ____
M9.7	Did (Name) take the treatment?	Yes 1 No 2 Don't remember 96	>>M9 .10 >>M9 .10	____
M9.8	If 'yes,' when did you take the child for treatment / after how many days since cough and rapid breathing began?	Within 24 hours 1 With 48 hours 2 After 2 days 3 After 3 days 4 Do not remember 96		____
M9.9	From whom did you seek treatment?	Doctor 1 Nurse 2 Health Assistant 3 Lady Health Visitor 4 MW 5 AMW 6 Community Health Worker (Gov) 7 Health volunteer (INGOs/NGOs) 8 Personal staffs from mobile clinics 9 Quack 10 Drug store 11 Other (Specify) 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 10. ____ 11. ____ 99. ____

	Question	Response categories	Skip to	Response
M9.10	Was the child given any drug for treatment?	Yes 1 No 2 Don't remember 96	>>Sec10 >>Sec10	
M9.11	What type of drug(s) was the child given for treatment?	Antibiotics 1 Paracetamol 2 Cough Tablets / syrup 3 Vitamins / tonic 4 Others (specify) 99 Don't know 96		1. 2. 3. 4. 99. 96.
Section 10: Childhood Illness - Malaria (For children under 5 yrs of age, if more than one child who suffered from malaria, target youngest child)				
M10C. Child Code				
M10.1	Has any child in your household been ill with fever in the last two weeks? Youngest	Name _____ Yes 1 No 0	>>M10.4	
M10.2	Has any child in your household been ill with fever in the last two weeks? Second youngest	Name _____ Yes 1 No 0	>>M10.4	
M10.3	Has any child in your household been ill with fever in the last two weeks? Third youngest	Name _____ Yes 1 No 0	>>M10.10	
M10.4	Did you seek advice or treatment from any source?	Yes 1 No 2 Don't remember 96	>>M10.7 >>M10.7	
M10.5	From where did you seek treatment?	Doctor 1 Nurse 2 Health Assistant 3 Lady Health Visitor 4 MW 5 AMW 6 Community Health Worker (Gov) 7 Health volunteer (INGOs/NGOs) 8 Persons/staffs from mobile clinics 9 Quack 10 Drug store 11 Other (Specify) 99		1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 99.
M10.6	How long after you noticed <NAME's> fever did you seek treatment from that person or place?	Within 24 hours 1 With 48 hours 2 After 2 days 3 After 3 days 4 After a week 5 Do not remember 96		
M10.7	Was the child tested by blood test through finger prick?	Yes 1 No 2		
M10.8	Was (name) given any drugs?	Yes 1 No 2	>>M10.10	

	Question	Response categories	Skip to	Response
M10.9	What medicines were given to the child?	Herbal medicine..... 1 Fever pill (mention name)..... 2 Fever syrup (mention name)..... 3 Antibiotics (mention name)..... 4 Chloroquine 5 Quinine 6 Injection..... 7 Other medicine (mention name)..... 8 ACT—combo drug..... 9 Don't know.....96 Others (specify)99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 96. ____ 99. ____
M10.10	Do you have mosquito net(s) in your house?	Yes 1 No..... 2	>>Sec 11	____
M10.11	Are the bed nets of the long lasting insecticide net or regular net (needs regular treating)?	Long lasting insecticide net..... 1 Regular net..... 2 Don't know.....96	>>M10.13	____
M10.12	How long ago was the bednet treated?	Less than 6 months 1 More than 6 months ago 2 Never treated bed net 3 Do not remember.....96		____
M10.13	Did (Name) sleep under the net last night? Youngest	Yes 1 No..... 2		____
M10.14	Did (Name) sleep under the net last night? Second youngest	Yes 1 No..... 2		____
M10.15	Did (Name) sleep under the net last night? Third youngest	Yes 1 No..... 2		____
M10.16	Did (Name) sleep under the net last night? Mother	Yes 1 No..... 2		____
Section 11: Contraception (married women between and including 15-49 years of age)				
M11.1	Are you pregnant now?	Yes 1 No..... 2 Not sure/Don't know 96	>>M11.4	____ ____
M11.2	Are you or your partner currently using any method to delay or avoid a pregnancy?	Yes 1 No..... 2	>>M11.4	____
M11.3	If you are currently using contraceptives to avoid pregnancy, can you tell me what method you are using? (Select major method)	Injection 1 Pill..... 2 IUD 3 Condom 4 Tubal ligation 5 Vasectomy..... 6 Lactational amenorrhea 7 Abstinence..... 8 Calendar method 9 Withdrawal..... 10 Implant..... 11 Others (specify) 99		____

	Question	Response categories	Skip to	Response
M11.4	Can you please list methods of contraception? (No probe)	Injection 1 Pill 2 IUD 3 Condom 4 Tubal ligation 5 Vasectomy 6 Lactational amenorrhea 7 Abstinence 8 Calendar method 9 Withdrawal 10 Implant 11 Don't know 96 Others (specify) 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 10. ____ 11. ____ 96. ____ 99. ____
M11.5	Who did you go to for advice regarding contraception and birth spacing? (MA)	Doctor 1 Nurse 2 Health Assistant 3 lady health visitor 4 Midwife 5 Auxiliary Midwife 6 Community health worker 7 Personnel from mobile clinic 8 Traditional birth attendant 9 Friends/neighbors 10 Spouse 11 No One 12 Other 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 10. ____ 11. ____ 12. ____ 99. ____

	Question	Response categories	Skip to	Response
M11.6	From where did you receive services regarding contraception / services? (MA)	Doctor..... 1 Nurse..... 2 Health Assistant 3 Midwife 4 AMW..... 5 Community health worker / Trained volunteer 6 Personnel from mobile clinic 7 Local pharmacist..... 8 Didn't receive services..... 9 Other (Specify)..... 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 99. ____
M11.7	I would like to ask you some questions about the future: would you like to have another child, or, would you prefer not to have any more children?	Have another child 1 No more children / none 2 Undecided / don't know 96		____
M11.8	In your opinion, what is optimal time to wait between giving birth and becoming pregnant (in years)	_____ Year		____
Section 12 - Knowledge				
M12.1	What are the danger signs during pregnancy indicating the need to seek health care	Fever and too weak to leave the bed 1 Shortness of breath..... 2 Bleeding 3 Severe headache/dizziness 4 Loss of fetal movement 5 Fits..... 6 Severe abdominal pain 7 Swelling of face/hands/feet..... 8 Unconsciousness..... 9 Blurred vision 10 Significantly decreased urine 11 Difficulty breathing 12 Don't know 96 Other (specify) 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 10. ____ 11. ____ 12. ____ 96. ____ 99. ____
M12.2	What are the danger signs during delivery that indicates the need to seek emergency care outside home? (Don't probe)	Prolonged delivery of more than 12 hours... 1 Bleeding..... 2 Retained placenta (over 1 hour)..... 3 Fits..... 4 Shortness of breath..... 5 No abdominal pain after 6 hours after membrane rupture 6 Don't know 96 Others (specify) 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 96. ____ 99. ____
M12.3	What are the danger signs after giving birth indicate the need to seek emergency care outside home? (Don't probe)	Excessive bleeding 1 Fever and too weak to get out of bed 2 Smelly vaginal discharge 3 Fits..... 4 Severe abdominal pain 5 Shortness of breath..... 6 Painful, red, or torn vagina 7 Painful, swollen nipples or breasts 8 Difficult to urinate 9 Incontinence or urine dribbling 10 Don't know 96 Others (specify) 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 10. ____ 96. ____ 99. ____

	Question	Response categories	Skip to	Response
M12.4	Can you mention any danger signs indicating the newborn may be sick and you need to seek health care?	Very small child..... 1 Poor sucking 2 Fast noisy breathing, inward drawn chest 3 Very sleepy, fatigue, poor movement 4 Fever 5 Poor movement..... 6 Fits..... 7 Yellow discoloration, jaundice 8 Skin infection..... 9 Bleeding from cord or body 10 Convulsions 11 Grunting 12 Condition not improving..... 13 Swollen/redness discharge from eyes 14 Don't know 96 Other (specify) 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 10. ____ 11. ____ 12. ____ 13. ____ 14. ____ 96. ____ 99. ____
M12.5	Do you know the danger signs of pneumonia? / Can you identify the danger signs of pneumonia?	Cough..... 1 Fast/rapid breathing 2 Sunken chest/indrawn chest 3 Wheezing..... 4 Don't know..... 96 Others (specify) 99		1. ____ 2. ____ 3. ____ 4. ____ 96. ____ 99. ____
M12.6	Can you identify at least 3 signs of diarrhea in children?	Sunken eyes 1 Restlessness..... 2 Drowsiness with fatigue 3 Intense thirst 4 Dry throat 5 Pinched skin gets back very slowly 6 Don't know 96 Other (specify) 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 96. ____ 99. ____
M12.7	Now, I would like to ask you what causes malaria?	Mosquito Bites 1 Witchcraft..... 2 Rainy season..... 3 Intravenous drug use 4 Blood transfusions..... 5 Injections..... 6 Don't know 96 Other (specify) 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 96. ____ 99. ____

Section 13 - Health Contacts and Sources of Information					
			Never0	Something(1-3 times)1	Frequent (4 times).....2
M13.1	During the last month, how often have you come in contact with each of the following?	Doctor (Government)1 Doctor (Private)2 Nurse (Government)3 Nurse (Private clinic).....4 Midwife5 Community health volunteer6 Mobile clinic / outreach7 Traditional Birth Attendant8 Traditional Healer 9		1. <input type="text"/>	2. <input type="text"/>
M13.2	Who is your primary source for information or advice on health and nutrition?	No one1 Government doctor2 Government nurse3 Private doctor4 Private nurse5 Mobile clinic6 Midwife 7 Community health worker 8 Trained volunteer.....9 TBA10 Husband 11 Mother/Mother in law 12 Friend/Neighbor13 Traditional healer 14 Village elder 15 Others (specify) 99		1. <input type="text"/>	2. <input type="text"/>
M13.3	In the past month, have you received any health messages from the following:	Radio 1 Newspaper 2 Television 3 Community health worker 4 Traditional healer5 Midwife 6 TBA7 School teacher 8 Community based organizations 9 Not received10 Other (specify) 99		1. <input type="text"/>	2. <input type="text"/>

LIVELIHOOD

Question		Response categories	Skip to	Response
SECTION 2: SOURCES OF HH INCOME (Fold corner, and mark as 1.)				
L1.1	What were the sources of income for your household during the previous 12 months? (Multiple responses)			Yes-----1 No-----0
	Grow Agricultural crops (all food and non-food cash crops) -----1			1. ____
	Livestock and poultry breeding -----2			2. ____
	Fish breeding/catching-----3			3. ____
	Small scale trading of agricultural products (all food and non-food cash crops) -----4			4. ____
	Small scale trading of livestock and fishery products -----5			5. ____
	Small scale trading of non-agricultural products (forest products and non-timber forest products) -----6			6. ____
	Small Shop/grocery store -----7			7. ____
	Hawker -----8			8. ____
	Large scale trader/dealer-----9			9. ____
	Casual labor- agriculture, fishery, forestry, other-----10			10. ____
	Government (pension)/NGO assistance (cash for work)-----11			11. ____
	Full time employment -----12			12. ____
	Service Provider -----13			13. ____
	Remittances/Gifts -----14			14. ____
	No Income -----15		>>1.3	15. ____
	Other (Specify) _____ -----99			99. ____
L1.2	List the three most important sources of income for your household during the last 12 months	1. _____ 2. _____ 3. _____		1. ____ 2. ____ 3. ____
L1.3	What is the average total income for your household from all sources in a year?	Less than Ks 25,000 1 > Ks 25,001 – Ks 50,000 2 > Ks 50,001 – Ks 75,000 3 > Ks 75,001 – Ks 100,000 4 > Ks 100,001 – Ks 150,000 5 > Ks 150,001 – Ks 200,000 6 > Ks 200,001 – Ks 250,000 7 > Ks 250,001 – Ks 300,000 8 Over Ks 300,000..... 9 Don't know/not response 96		____
L1.4	How do you describe your household's	Very good 1 Somewhat good..... 2		____

	financial well being over the past 12 months with the previous year?	Neutral (the same as before)3 Somewhat not good.....4 No good at all5		
Question		Response categories	Skip to	Response
SECTION 2: CASUAL EMPLOYMENT (NOT FULL-TIME)				
L2.1	How do you describe the employment availability in the past 12 months in this area this year with the previous year?	Very good1 Somewhat good.....2 Neutral (the same as before)3 Somewhat not good.....4 No good at all5		_____
SECTION 3: HOUSEHOLD DIET DIVERSITY SCORE				
L3.1	Now I would like to ask you about the types of foods that you or anyone else in your household ate yesterday during the day and night. Did you or anyone else in your HH eat: (Multiple responses)			
	Any rice, sticky rice, or any other food made from rice, sticky rice, maize, wheat, barley, oats, millet, sorghum? -----1			1. _____
	Any noodles, bread, biscuits or any other foods made from of flour/sticky rice -----2			2. _____
	Any potatoes, cassava, yams, taro, or any food made from roots or tubers? -----3			3. _____
	Bamboo shoot, mushroom, etc. -----4			4. _____
	Any vegetables? -----5			5. _____
	Any fruits? -----6			6. _____
	Any beef, pork, lamb, goat, rabbit, chicken, duck, other birds, other meats or organs such as liver, heart, kidney etc? -----7			7. _____
	Any other meats from frogs, rats, snakes, dogs, cats etc? -----8			8. _____
	Any eggs from chickens, quails, ducks or other birds? -----9			9. _____
	Any fish, crabs, prawns, or shellfish, either fresh or dried? -----10			10. _____
	Any food made from gram, peas, cowpeas, pigeon peas, lentils, beans, peanuts or other nuts? -----11			11. _____
	Any milk, milk solids, yogurt, cheese, or other milk products? -----12			12. _____
	Any food made with peanut oil, coconut oil, palm oil, sesame oil, sunflower oil or other oils, animal fat, butter or margarine? -----13			13. _____
	Any sugar, jaggery, honey? -----14			14. _____
	Coffee, tea, green tea, black tea, pickle tea -----15			15. _____
	Any condiments such as salt, pepper, curry, or chillies etc? -----16			16. _____
L3.2	How many meals did your household eat yesterday?	1 meal.....1 2 meals.....2 3 meals.....3		_____
L3.3	Over the past week, how many days did you eat (3.7 to3.10)? (beef, pork, lamb, goat, rabbit, chicken, duck, other birds, eggs, organ meats, fish, prawn, crabs, snake, frog, rat)	-----days		_____

Question		Response	Skip	Code
SECTION 4: MONTHS OF ADEQUATE HOUSEHOLD FOOD PROVISIONING				
L4.1	I'll read out the months here. Which of these months did you have problems meeting food needs of your household? Fill in Code "1" if the respondent identifies that month as one in which the household DID NOT HAVE enough food. If the respondent does not identify that month fill in Code "0".	June, 2011 Nayone1 July, 2011 Waso.....2 August, 2011 Wagaung3 September, 2011 Tawthalin4 October, 2011 Thadingyut5 November, 2011 Tazaungmon ...6 December, 2011 Nadaw7 January, 2012 Pyatho.....8 February, 2012 Tabodwe.....9 March, 2012 Tabaung.....10 April, 2012 Tagu11 May, 2012 Kasone.....12 June, 2012 Nayone13 July, 2012 Waso.....14		1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____
SECTION 5: COPING STRATEGIES AND HOUSEHOLD HUNGER SCALE				
	In the past four weeks, did your household have to engage in strategies because there was not enough food?			
L5.1	In the past four weeks, did your family reduce the size and/ or the number of meals eaten in a day because there was not enough food to eat?	Never.....0 Rarely or sometimes.....1 Often2		_____
L5.2	In the past four weeks, did your family change the family diet to cheaper or less-preferred foods, in order to have enough food to eat?	Never.....0 Rarely or sometimes.....1 Often2		_____
L5.3	In the past four weeks, did your family eat wild food (e.g. berries, fruits, roots, leaves, insects, small animals etc) more frequently than usual, in order to have enough food to eat?	Never.....0 Rarely or sometimes.....1 Often2		_____
	Household hunger scale			
L5.4	In the past four weeks, was there any time when there was no food to eat of any kind in your household?	Never.....0 Rarely or sometimes.....1 Often2		_____
L5.5	In the past four weeks, did you or any member of your household go to sleep at night hungry?	Never.....0 Rarely or sometimes.....1 Often2		_____
L5.6	In the past four weeks, did you or any member of your household go a whole day and night without eating?	Never.....0 Rarely or sometimes.....1 Often2		_____
	In the past 12 months, did you or any member of your HH have to do any of the following activities, so that you had enough food to eat?			
L5.7	In the past 12 months, did your HH sell off (or consume) seeds meant for planting next season's crops in order to have enough food to eat?	Yes.....1 No0		_____
L5.8	In the past 12 months, did your HH use savings in order to have enough food to eat?	Yes.....1 No0		_____

<i>Question</i>		<i>Response</i>	<i>Skip</i>	<i>Code</i>
L5.9	In the past 12 months, did one or more children from your HH discontinue school in order to save money or work to bring in additional income, so that your HH had enough food to eat?	Yes..... 1 No 0		____
L5.10	In the past 12 months, did you or any member of your HH decrease money spent on health or medicines, so that your HH had enough food to eat?	Yes..... 1 No 0		____
L5.11	In the past 12 months, did your HH borrow food or money for food from relatives, friends or neighbors, in order to have enough to eat?	Yes..... 1 No 0		____
L5.12	In the past 12 months, did your HH borrow money from money lenders, loans associations, banks, traders or shop keepers in order to buy enough food to eat?	Yes..... 1 No 0		____
L5.13	In the past 12 months, did your HH sell, pawn or exchange any of the household's assets, including tools, equipment or any other possessions, in order to buy enough food to eat?	Yes..... 1 No 0		____
L5.14	In the past 12 months, did your HH sell (or consume) more of your livestock than usual (e.g. cattle, goats, chicken, ducks, pigs, buffalo) in order to have enough food to eat?	Yes..... 1 No 0		____
L5.15	In the past 12 months, did your HH sell, mortgage or rent any of your land, in order to have enough food to eat?	Yes..... 1 No 0		____
L5.16	Overall, how would you describe your household general food security in the past 12 months with the previous year?	Very good..... 1 Somewhat good..... 2 Neutral (the same as before) 3 Somewhat not good..... 4 No good at all 5		____

	Question	Response	Skip	Code
SECTION 6: ACCESS TO LAND FOR AGRICULTURE (Everyone)				
L6.1	Does your household or any of its members own any agriculture land?	Yes1 No0	>> L6.3	____
Note: Ownership should be considered very broadly to include cases where land is formally titled and registered in one or more household member's name; land that has been purchased, transferred or inherited but not formally titled (or if titled not registered in the household's name); land leased from government; and, land where the household believes it has an established right (formal or informal) to use the land, a right that is generally recognized by the community.				
L6.2	If yes, What is the total area of land that your household owns?	Unit _____		____
L6.3	In the past 12 months, did you grow any crops?	Yes1 No0	>>If "no" for all, skip to section 11	Own land ____ Rent land in cash or kind ____ Share crop ____
L6.4	In the past 12 months, Largest area cultivatedacre		Own land ____ Rent land in cash or kind ____ Share crop ____
L6.5	In the past 12 months, Irrigate on?	Yes1 No0	>>If "no" for all, skip to section 7.	Own land ____ Rent land in cash or kind ____ Share crop ____
L6.6	largest area under irrigationacre		Own land ____ Rent land in cash or kind ____ Share crop ____

L6.7	What is the main source of irrigation during the dry and wet seasons?	Rehabilitated canal..... 1 Lake, stream, river 2 Community ponds 3 Dam/reservoirs..... 4 Water system 5 Private pond..... 6 Community boreholes/wells 7 Private boreholes/wells 8 Not applicable.....96 Others (specify).....99		Dry _____ Rainy _____
SECTION 7: AGRICULTURE INPUTS (FERTILIZER)				
L7.1	Does the household apply pesticides on crops?	Yes..... 1 No 0		_____
L7.2	Does the household apply on crops? (please specify all of them)	Compost or Farm yard manure1 Chemical fertilizer2 Mixed3		1. _____ 2. _____ 3. _____

SECTION 8: CROPPING PATTERNS in the last 12 months (PLEASE LOOK AT CROP CODES PROVIDED BELOW)

L8.1	L8.2	L8.3	L8.4	L8.5	L8.6	L8.7	L8.8	L8.9	L8.10	L8.11	L8.12	L8.13	L8.14	L8.15	L8.16
Crops Cultivated (Code)	Source of planting material (seed source)	Acres planted	Total yield/acre (baskets / viss)	Quantity retained for HH consumption (baskets/viss)	Quantity retained as seed for next cropping season	Quantity Sold (baskets/viss)	Quantity used to repay loans (basket / viss)	Quantity milled/ husked	Quantity after milled/ husked	Do you store your farm products?	Where do you store your farm products?	Did you have the problems in keeping/storing your products?	If yes, what are these problems? (multiple choices)	How much seed do you lose in total?	Reasons for losses
Code	Code									Yes.... 1 No 2 DK96 If Code 2 & 96, Skip to 8.15	Code	Yes..... 1 No..... 2 DK 96 If Code 2&96, skip to 8.15.	Code		Code
Monsoon season															
1	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _
2	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _
3	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _
Dry season															
4	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _
5	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _
6	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _	_ _

L8.1 Crop codes and unit measures

Cereals	Other leafy or steam vegetables - Kyat..... 33	Thanatphet - Viss..... 68
Paddy - Basket..... 1	Chillies (dry) - Viss..... 34	Toddy palm –Jiggery viss..... 69
Wheat - Basket..... 2	Chayote - Viss..... 35	Sugarcane - Ton 70
Millet and Sorghum - Basket ..3	Tomato - Viss 36	Cotton - Viss 71
Maize - Kyat 4	Other fruit bearing vegetables - Kyat..... 37	Jute - Viss 72
Other grains/ cereals - Basket5	Raddish/carrot - Viss 38	Coconut - Number..... 73
Pulses and beans	Other root, bulb and tuberous vegetables - Kyat..... 39	Rubber - Viss 74
Black gram - Basket 6	Citrus fruits	Other crops
Green gram (Pecisein)-Basket7	Orange - Number..... 40	Flowers - Kyat 75
Chick pea - Basket 8	Pomelo - Number 41	Betel leave - Viss 76
Pigeon - Basket..... 9	Other citrus fruits - Kyat 42	Betel nut - Viss 77
Duffin bean (Pephyukalay) - Basket 10	Other fruits and nuts	Animal feed crop - Kyat..... 78
Lablab bean (Pegyi) - Basket11	Apple - Number 43	Any other crop - Kyat..... 79
Rice bean (Peyin) - Basket..12	Pear - Number..... 44	
Mung bean (Penauk) - Basket13	Plums - Viss 45	
Other beans - Basket..... 14	Tamarind - Viss 46	
Oil crop	Banana - Kyat..... 47	
Groundnut with shell - Basket15	Custard apple - Number..... 48	
Soybean (Peboke) - Basket.16	Guava - Kyat 49	
Sunflower - Basket 17	Mango - Number..... 50	
Mustard - Basket 18	Papaya - Number 51	
Sasame - Basket..... 19	Pineapple - Number..... 52	
Oil palm - Bunch.....20	Water melon - Number 53	
Other oilseed crops - Basket21	Cucumber - Number 54	
Root crop and tuber	Durian - Number 55	
Potato - Viss..... 22	Rambutan - Viss 56	
Onion - Viss..... 23	Jack fruit - Number 57	
Garlic - Viss..... 24	Da-nyin - Number 58	
Sweet potatoes - Viss..... 25	Grapes - Viss..... 59	
Taro - Viss..... 26	Strawberry - Viss 60	
Tumeric - Viss 27	Other fruits - Kyat 61	
Ginger - Viss 28	Cashew nut - Viss..... 62	
Others (yams, arrow root) - Kyat..... 29	Other nuts - Kyat 63	
Vegetables	Beverage crop	
Cauliflower - Number..... 30	Tea - Viss 64	
	Coffee – Pound (lb)..... 65	
	Other beverage crop – Kyat 66	
	Other industrial crops	
	Tobacco - Viss..... 67	

Cabbage - Number.....31
 Mustard - Kyat.....32

L8.2	L8.12	L8.14	L8.16
Seed from previous crop....1	Keep it open.....1	Pest Damage.....1	Loss in harvesting time and in the field.....1
From market.....2	Keep it inside the house.....2	Rodent and other animal damage.....2	Loss while moving from the field to threshing floor2
Myanmar Agri Service.....3	Keep it covered.....3	Fungus.....3	Loss in threshing time.....3
Local NGOs.....4	Keep it in a building/shed with air passing through4	Dampness.....4	Loss in milling/cleaning/winnowing time.....4
INGOs.....5	Others (specify).....99	Extremely hot.....5	Loss in storage time.....5
Other farmers.....6		Low market potential.....6	
Community seed bank.....7		Scarce source of labor.....7	
Others (specify).....99		Other (specify) -----99	

Question		Response	Skip	Code
L8.1 7	How do you rate the quality of the soil on your agricultural land? (SA)	Very Fertile..... 1 Good..... 2 Average..... 3 Poor 4 Others (specify) _____ 99		____
L8.1 8	What measures did you take to improve the fertility of your land? (MA)	Add compost 1 Add Green manure..... 2 Growing synergy crops with sequential pattern..... 3 Growing compatible crops 4 Mulching/growing cover crops 5 Contouring 6 Soil testing 7 Leave land fallow for a season ... 8 Add organic fertilizer..... 9 Add inorganic fertilizer 10 Did nothing..... 11 Don't know 96 Others (specify) _____ 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 10. ____ 11. ____ 96. ____ 99. ____
L8.1 9	Have you tested your soil in the last 12 months?	Yes..... 1 No 2	>>Sec 9	____
L8.2 0	Have you tested your soil in the last 12 months?	By hand..... 1 By hand with equipments 2 By machines (Soil test kit) 3 Others (specify) _____ 99		1. ____ 2. ____ 3. ____ 99. ____
SECTION 9: POST-HARVEST ACTIVITIES				
L9.1	Did you thresh your crops during the last 12 months? (SA)	Yes..... 1 No 2	>>L9.3	____
L9.2	If yes, how did you thresh? (MA)	By hand..... 1 By hand with equipments 2 By animals 3 By machines 4 Others (specify) _____ 99		1. ____ 2. ____ 3. ____ 4. ____ 99. ____
L9.3	Did you dry your crops after harvesting? (SA)	Yes..... 1 No 2 Don't know 96	>>Sec 10 >>Sec 10	____
L9.4	Where do you dry your crops?	On farms 1 At home 2 On the street 3 Others (specify) _____ 99		1. ____ 2. ____ 3. ____ 99. ____
L9.5	How do you dry your crops?	Sunlight..... 1 Dry in shade..... 2 Under roof of home 3 Fan dry 4 With drying machine..... 5 Others (specify)..... 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 99. ____

Question		Response	Skip	Code
SECTION 10: CONSTRAINTS TO CROP PRODUCTION				
L10.1	What are the major constraints or problems limiting your HH's crop production? (Why didn't your household produce more baskets of crop?) Do not read out the answers. (Multiple responses)	lack of money to buy the necessary inputs (or lack of credit)..... 1 lack of land..... 2 lack of draught power/mechanical power (or too expensive)..... 3 lack of other tools and equipment (or too expensive) 4 lack of fertilizer (or too expensive) 5 lack of seeds (or too expensive). 6 lack of household labor 7 lack of casual labor available locally (or too expensive) 8 lack of pesticides / insecticides / fungicides (or too expensive)..... 9 lack of knowledge, skills or experience 10 not interested/grows enough/too risky to grow more..... 11 low prices for the agricultural crops grown 12 bad/unreliable weather (including too little or too much rain)..... 13 lack of water resources or irrigation infrastructure 14 crop pests and disease 15 low soil fertility/poor soil structure etc..... 16 Salinity 17 Lack of market potential 18 Other (specify) 99		1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____ 19. _____
SECTION 11: HOUSEHOLD OWNERSHIP AND ACCESS TO AGRICULTURAL EQUIPMENT AND MACHINERY (Everyone)				
				Not own.....0 Own1 Shared.....2
L11.1	Does your household currently own any of the following agricultural equipment and machinery? Record the answer in the space provided – ownership can be full or shared ownership with other households. (Multiple responses)	Ploughs/tillage equipment for use with draught animals 1 Power tiller 2 Tractor 3 Power thresher..... 4 Backpack sprayer..... 5 Improved crop storage bin or silo 6 Tarpaulin or seed drying net..... 7 Irrigation pump 8 Animal drawn cart 9 Trailer (drawn by vehicle) 10 Seeder 11 Other 1 (specify)..... 12 Other 2 (specify)..... 13 Other 3 (specify)..... 14		1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____

SECTION 12: HOUSEHOLD LIVESTOCK OWNERSHIP (Everybody)					
L12.1	How many animals does your household currently own? Does your household share the ownership of any livestock with others? (Multiple responses) Record the number in the spaces provided (include both mature and young).		Yes -----1 No -----2	OwnNumber	SharedNumber
		Cattle.....1	1. ____	1. ____	1. ____
		Horses.....2	2. ____	2. ____	2. ____
		Goats and/or sheep3	3. ____	3. ____	3. ____
		Buffalo4	4. ____	4. ____	4. ____
		Pigs5	5. ____	5. ____	5. ____
		Chickens.....6	6. ____	6. ____	6. ____
		Ducks7	7. ____	7. ____	7. ____
		Other 1 (specify)8	8. ____	8. ____	8. ____
		Other 2 (specify)9	9. ____	9. ____	9. ____
		Other 3 (specify)10	10. ____	10. ____	10. ____
SECTION 13: MARKETING (Refer to folded corner 1, question 1.1)					
Interviewer: Go to folded corner 1. In question L1.1, if "1" for all or any of code 1 to 3, then continue this section. Otherwise, skip this section.					
L13.1	Did your household sell your main products alone or did you sell in a group? (SA)	Sold alone only1 Sold in group only2 Sold alone and in group3			____
L13.2	Were you able to access information on prices for the main products before you sold it?	Mostly1 Sometimes.....2 Rarely3 Never4	>>L 13.4		____
L13.3	If you were able to access information on prices, where did you get this information from? NOTE: Do not read the options. (MA)	Radio/TV.....1 Newspaper/weekly journal2 Friends/Family3 Farmer association/cooperative ..4 NGO/other organization5 Dealer/broker6 Other (specify)99			1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 99. ____
L13.4	Where did you sell your main crop?	Own village/at home1 Other village2 Market in the town3 Dealer in village4 Dealer in township5 Other (specify)99	>> Sec 14		____
L13.5	How did you transport your produce to the market? (MA)	On foot.....1 Bicycle.....2 Push cart.....3 Animal cart.....4 Motorcycle5 Hired vehicle.....6 Boat.....7 Other (specify)99			1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 99. ____
SECTION 14: CREDIT					
L14.1	Have you or any household member taken a loan in the last 12 months ?	Yes.....1 No.....2	>>L14.3a		____
L14.2	Do you have any outstanding loan?	Yes.....1 No.....2	>>Sec 15		____

Interviewer: Record all loans taken in the last 12 months and any outstanding loans.

	L14.3a	L14.3b		L14.3c	L14.3d	L14.3e
	Source of loan	Loan taken in the month of:		Amount of loan	Interest on loan	Purpose of loan
	Private bank 1 Micro-credit provider 2 Village Savings and Loans Association 3 Family/friend 4 Money lender 5 Shop-keeper 6 Private company 7 Farmers Association/Cooperative 8 Pre-sale of product to trader 9 Government 10 Others (specify) 11			Less than Ks 25,0001 Ks 25,001 – 50,0002 Ks 50,001 – 75,0003 Ks 75,001 – 100,0004 Ks 100,001 – 150,0005 Ks 150,001 – 200,0006 Ks 200,001 – 300,0007 Ks 300,001 – 400,0008 Ks 400,001 – 500,0009 Over Ks 500,00010 No debt11		Home improvement including water supply 1 House purchase or construction 2 Construction other than house 3 Land purchase/rent 4 Purchase of working tools or equipment5 Food purchases f 6 Purchase of agricultural inputs7 Purchase of animals/medicine for animals 8 Purchase of other assets9 Socail affairs 10 Health emergency 11 Business investment 12 Repayment of loans 13 School/education fees/costs 14 Other (specify)99
		Month	Year			

SECTION 15: OTHER HOUSEHOLD ASSETS

L15.1	What is the major source of lighting in your household? (SA)	Electricity from the grid..... 1 Village generator..... 2 Own generator 3 Shared generator with household(s) 4 Lamp (kerosene/oil) 5 Candle 6 Battery (rechargeable) 7 Other (specify)99		<input type="text"/>
L15.2	What is the major source of cooking fuel in your household? (SA)	Electricity 1 Gas..... 2 Charcoal 3 Kerosene 4 Wood 5 Dung..... 6 Other (specify)99		<input type="text"/>
				No.....0 Yes1 Shared.....2
L15.3	Does your household, including the head, spouse and all members, own any of the following items? Read the following list to respondents – record if these are shared with other households.	Bicycle 1 Motorcycle 2 Trishaw 3 Trowlarjeep 4 Car..... 5 Truck 6 Bed..... 7 Mattress..... 8 Stove (gas or electric) 9 Fuel efficient wood stove.....10 Chairs11 Table12 Gold/ Jewelry13 Radio/cassette14 TV / satellite dish15 DVD player16 Sewing machine17 Weaving loom18 Wrist Watch19 Solar panel20 Boats without motor21 Boats with motor22 Fishing nets23 Fish/aquaculture pond24 Household savings.....25 Other 1 (specify)26 Other 2 (specify)27		1. <input type="text"/> 2. <input type="text"/> 3. <input type="text"/> 4. <input type="text"/> 5. <input type="text"/> 6. <input type="text"/> 7. <input type="text"/> 8. <input type="text"/> 9. <input type="text"/> 10. <input type="text"/> 11. <input type="text"/> 12. <input type="text"/> 13. <input type="text"/> 14. <input type="text"/> 15. <input type="text"/> 16. <input type="text"/> 17. <input type="text"/> 18. <input type="text"/> 19. <input type="text"/> 20. <input type="text"/> 21. <input type="text"/> 22. <input type="text"/> 23. <input type="text"/> 24. <input type="text"/> 25. <input type="text"/> 26. <input type="text"/> 27. <input type="text"/>
L15.4	Does your household own the house you are living in?	Yes 1 No..... 0		<input type="text"/>
L15.5	What is the main material of the house roof, walls and floors? If possible answer based on observation – if more than one house record for the best house. Roofing material	Zinc sheets or corrugated iron.... 1 Tarpaulin or plastic sheet 2 Palm frond or thatch..... 3 Brick 4 Earthen tiles..... 5 Timber 6 Other (specify)99		<input type="text"/>
L15.6	Wall material	Zinc sheets or corrugated iron.... 1 Tarpaulin or plastic sheet 2 Bamboo, palm frond or thatch ... 3 Timber 4 Bricks, cement, cement block, or cement and stone 5 Mud bricks/mud 6 Other (specify)99		<input type="text"/>

L15.7	Floor material	Timber 1 Bamboo 2 Earth 3 Cement 4 Other (specify)99	<input type="text"/>
SECTION 16: TRAINING			
			No.....0 Yes1
L16	Over the past 3 years, has any member of your household received any training in crop production?..... 1		1. <input type="text"/>
	Over the past 3 years, has any member of your household received any training in livestock production?..... 2		2. <input type="text"/>
	Over the past 3 years, has any member of your household received any training in fisheries (aquaculture)?..... 3		3. <input type="text"/>
	Over the past 3 years, has any member of your household received any training in any other vocational skill?..... 4		4. <input type="text"/>

WASH

	Question	Response categories	Skip to	Response
Section 1: Water Source & Utilization				
W1.1	What is your main source of drinking water in the dry and wet seasons? (SA)	Piped water into house..... 1 Piped water into yard2 Public water tap3 Protected dug well4 Unprotected dug well5 Tube well with pump6 Rain water.....7 Surface water (pond, river, lake, etc.)8 Protected Spring water9 Unprotected spring water 10 Other (specify) 99		Dry Season <input type="text"/> Rainy season <input type="text"/>
W1.2	What is your main source of water for washing and bathing water during the dry and wet seasons?(SA)	Piped water into house..... 1 Piped water into yard2 Public water tap3 Protected dug well4 Unprotected dug well5 Tube well with pump6 Rain water.....7 Surface water (pond, river, lake, etc.)8 Protected Spring water9 Unprotected spring water 10 Other (specify) 99		Dry Season <input type="text"/> Rainy season <input type="text"/>
W1.3	Does your household have any water harvesting system?	Yes1 No2		<input type="text"/>

	Question	Response categories	Skip to	Response
W1.4	If you had problems in obtaining water for drinking and washing purposes, what months of the year did you face these difficulties?	Yes=1 No =0 January 1 February 2 March..... 3 April 4 May..... 5 June..... 6 July 7 August 8 September 9 October 10 November, 11 December 12	Drinking water 1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 10. ____ 11. ____ 12. ____	Washing water 1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 10. ____ 11. ____ 12. ____
W1.5	How far is the water source from your house? (in feet) (SA)	Dry Season _____feet Wet Season _____feet		Dry Season ____ Rainy Season ____
W1.6	How does the person fetch water? (SA)	By foot 1 By push cart 2 Bicycle/trishaw 3 Water cart 4 Animal drawn cart 5 Motorcycle/other motorized vehicle 6 No need to fetch water 7 Others (specify)..... 99	>>W1.9	Dry Season ____ Rainy season ____
W1.7	How long does it take to go there, get water (including queuing), and come back (one trip)? *We need to code at data collection rather than after data collection.	Dry Season _____ minutes Wet Season _____ minutes		Dry Season ____ Rainy season ____

		faeces away.....8	
		Other (Specify).....99	

	Question	Response categories	Skip to	Response
W2.7	How often do you deal with the situation of your septic tank/pit getting full? (SA)	Regularly (whenever it is full) 1 Once a year 2 Once in every two years 3 Once in every three years 4 Once in every four – five years 5 Have dug a very deep hole. Do not need to empty it 6 Never 96		____
W2.8	Have you ever had problems with the latrine? (MA)	Not enough water to wash 1 Had flies and mosquitoes 2 Bad smell 3 Flooding in the rainy season 4 Difficult for children to use 5 The toilet floor is not strong. It is dangerous 6 Difficult to use in the rainy season (no roof) 7 It can partly be seen from outside 8 No problems 9 Other (Specify) 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 99. ____
W2.9	What is the main reason for not building and utilizing a latrine? (SA) If “yes” in Q2.5, skip this question.	No space to build it 1 Can't dig the pit (swamp/daily tide) 2 Can't dig the pit (hardness of earth) 3 Neighbours do not approve 4 Can't afford to build one 5 Not customary 6 No one urges me (Health/authority) 7 No one urges me (family/friends) 8 Do not know the consequences 9 Other (Specify) 99 Do not know 96		____
W2.10	Now, I would like to ask you about disposal of feces of children under 5 years of age. Where are the feces disposed? If there are no children under the age of 5, skip to Q-22 (MA)	Into the surface latrine 1 Into the sewer system 2 In the pit latrine 3 In the compound 4 Bury 5 Into the river / stream 6 Outside the compound 7 Others (specify) 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 99. ____
W2.11	What activities (before or after activity) necessitate hand washing practices? (MA)	After defecation 1 Before preparing meals 2 Before feeding a child 3 Before eating 4 After eating 5 After cleaning baby's bottom 6 After work 7 After handling animals 8 Other (Specify) 99		1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 99. ____
W2.12	Observation only (SA) Please show me where members of your household most often wash their hands.	Observed 1 Not observed (not in dwelling/ yard / plot) 2 Refused permission to see 3	>>End >>End	____
W2.13	Observation only: Observe availability of water for hand washing (SA)	Water available 1 Water not available 2		____
W2.14	Observe availability of soap / detergent or other cleansing agent (SA)	Soap present (bar/liquid/powder/paste) 1 Ash/mud/sand 2 None 3		____

Thank You.

PROFILE OF VILLAGE

Questionnaire No

SECTION 1: GENERAL INFORMATION

1.1	Village name		_ _ _ _
1.2	Village MIMU code		_ _ _ _
1.3	Village tract name		_ _ _ _
1.4	Township name		_ _ _ _
1.5	State/Region		_ _ _ _
1.6	Project Village/ Control Village	Project Village1 Control Village2	_ _ _ _
1.7	Interview date	____/____/2012	____/____/2012

		Name	Code
1.8	Enumerator		_ _
1.9	Supervisor		_ _
1.10	Editor		_ _

	Name of PACT Implementing Partners who are working or plan to work in this village	Activities
1		
2		
3		
4		
5		

	Name of other organizations who have worked in this village in the last 5 years or currently working/ plan to work?	Activities
1		
2		
3		
4		
5		

Respondent information

	Name	Sex	Designation/Occupation
		Male--- 1 Female--2	
Respondent—1			
Respondent—2			
Respondent—3			
Respondent—4			
Respondent—5			
Village telephone no.			

SECTION 2: VILLAGE LEVEL INFORMATION

1. Households		Total
1.1	# of households	_____
2. Village population		Total
2.1	Male	_____
2.2	Female	_____

3. Land

Sr	Type of land (record for the major types present in village)	Percentage of : (based on land area)
3.1	Le (wet)	_____
3.2	Ya (dry)	_____
3.3	Kaing (Cultivable waste land, islands etc)	_____
3.4	Garden	_____
3.5	Dani (swamp lands)	_____
3.6	Taungya (shifting cultivation)	_____
3.7	Other(specify)_____	_____
3.8	Other(specify)_____	_____
3.9	Other(specify)_____	_____
	Total	

4. Village assets		Total
4.1	Power tiller	_____
4.2	Thresher	_____
4.3	Rice mill	_____
4.4	Pond	_____
4.5	Tube well(Hand/ treadle pump)	_____
4.6	Tube well (Motor pump)	_____
4.7	Shallow well	_____
4.8	Powered water pump	_____
4.9	Generator	_____
4.10	Trawlarjee	_____
4.11	Repair shop	_____
4.12	Grocery shop	_____
4.13	Phone	_____
4.14	Other 1 (Please specify).....	_____
4.15	Other 2 (Please specify).....	_____
4.16	Other 3(Please specify).....	_____
4.17	Other 4(Please specify).....	_____

5. Village access and proximity to services								
		Distance from village (mile)(if within village, record as '0'. If "0", then skip b, c, d, e, f, g for that response.)	Most common mode of transport		Time needed (One-way) (minutes)		Cost (Kyats) (One-way)	
			Rainy Season	Dry	Rainy Season	Dry	Rainy Season	Dry
			a	b	c	d	e	f
5.1	Nearest township							
5.2	Nearest Rural or Sub-rural health centre							
5.3	Primary school (govt)							
5.4	Middle school (govt)							
5.5	High school (govt)							
5.6	Bank							
5.7	Grain bank/seed bank							
5.8	Community building							
5.9	Private clinic							
5.10	Monastery							
5.11	Market (weekly)							

Codes for Column b and c:

On foot.....	1	Motor cycle.....	5
Ox-cart/ horse cart	2	Car	6
Trailer Jeep	3	Boat.....	7
Bicycle.....	4	Other Specify.....	99

6. Standard of road access to the village: TICK ONE THAT BEST DESCRIBES THE SITUATION

No road reaching all the way to the village (eg access by water sea/river)	1	_____
Rough track reaching all the way to the village (bullock cart or walking only)	2	
Rough track Suitable for trawlargee but not for cars/trucks	3	
Accessible by car/truck in dry weather only	4	
Accessible by car/truck in all weather	5	

7. Selling village products (fill in as applicable to the village)**Main products sold by HHs in this village**

	Where sold (mostly)?	No product.....0 Own village.....1 Another village.....2 Township.....3
7.1	Monsoon paddy.....1	1. _____
7.2	Summer paddy.....2	2. _____
7.3	Sesame and other oil crops.....3	3. _____
7.4	Peas and beans (pulses)4	4. _____
7.5	Ground nuts (peanuts)5	5. _____
7.6	Maize.....6	6. _____
7.7	Wheat.....7	7. _____
7.8	Potatoes, sweet potato.....8	8. _____
7.9	Onions, garlic, ginger, turmeric, chilies.....9	9. _____
7.10	Fresh fruit and vegetables.....10	10. _____
7.11	Sugar cane.....11	11. _____
7.7	Nippa palm.....12	12. _____
7.13	Coconut.....13	13. _____
7.14	Betel nut/leaf.....14	14. _____
7.15	Toddy (jaggery, alcohol)15	15. _____
7.16	Other (Specify)16	16. _____
7.17	Other (Specify)17	17. _____
7.18	Other (Specify)18	18. _____
7.19	Other (Specify)19	19. _____

NOTE: Include any other manufactured products sold by village households in the rows for *Other*.

	Type	Yes....1 No.....0	If 'yes', No. of HH
8. Availability of electricity			
8.1	Electricity (Govt)	_____	_____
8.2	Electricity organized by village	_____	_____
8.3	Electricity (Private/commercialgenerator)	_____	_____

9. Source of credit in this village

Sr	Type of lender	Interest rate (%)	Repayment Cash..... 1 Kind Specify 99	Collateral needed Yes..... 1 No 0
	a	b	c	d
9.1				
9.2				
9.3				
9.4				
9.5				

NOTE: In the "Type of lender" column, fill in the following codes:

- Private bank 1
 Micro-credit provider (low interest, less than 3%) 2
 Village Savings and Loans Association 3
 Family/friend 4
 Money lender 5
 Shop-keeper 6
 Private company 7
 Farmers Association/Cooperative 8
 Pre-sale of product to trader 9
 Government 10
 Other (specify) _____ 99

10. Complete the following table.

	(only for code 1,2,3,7,8,10 in Q 9.a) Name of S&L group or microcredit provider		Main objective for providing credit	Total no. current loans in village from these sources	No. current loans to women
	Name	Code			
	a				
10.1					
10.2					
10.3					
10.4					
10.5					
10.6					

Note: Main objective for providing credit codes:

- Agri 1
 Fishery 2
 Small business 3
 Non farm IGA Specify _____ 4
 Other Specify _____ 5

11. Water sources in the village

	Main water source	Quantity	Purpose of use	All-year-round availability
			Drinking.....1 Other HH uses.....2 Both.....3	Yes.....1 No.....0
		a	b	c
11.1	River	1	<input type="checkbox"/>	<input type="checkbox"/>
11.2	Creek	2	<input type="checkbox"/>	<input type="checkbox"/>
11.3	Pond	3	<input type="checkbox"/>	<input type="checkbox"/>
11.4	Brick well	4	<input type="checkbox"/>	<input type="checkbox"/>
11.5	Hand-dug well	5	<input type="checkbox"/>	<input type="checkbox"/>
11.6	Tube Well (Motor pump)	6	<input type="checkbox"/>	<input type="checkbox"/>
11.7	Tube well (Hand pump)	7	<input type="checkbox"/>	<input type="checkbox"/>
11.8	Spring water (natural)	8	<input type="checkbox"/>	<input type="checkbox"/>
11.9	Spring water (stored)	9	<input type="checkbox"/>	<input type="checkbox"/>
11.10	Public water supply system	10	<input type="checkbox"/>	<input type="checkbox"/>
11.11	Dam	11	<input type="checkbox"/>	<input type="checkbox"/>
11.12	Rain water storage tank	12	<input type="checkbox"/>	<input type="checkbox"/>
11.13	Other (specify) _____	13	<input type="checkbox"/>	<input type="checkbox"/>
11.14	Other (specify) _____	14	<input type="checkbox"/>	<input type="checkbox"/>
11.15	Other (specify) _____	15	<input type="checkbox"/>	<input type="checkbox"/>

12. Malaria

12.1	Have there been cases of Malaria in the past 12 months in this village?	Yes....1 No.....0
		<input type="checkbox"/>

■ Thank you

