# 2016 ANNUAL REPORT 2016 ANNUAL REPORT 2016 ANNUAL REPORT 2016 ANNUAL REPORT Partnership Program



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Michigan State University 202 International Center East Lansing, MI, USA 48824-1035 P: +1-517-353-8570 TANZANIA PARTNERSHIP PROGRAM PARTNERS Milola Village, Lindi Rural District, Tanzania Naitolia Village, Monduli District, Tanzania Michigan State University (MSU) Institute of Resource Assessment (IRA), University of Dar es Salaam Dar es Salaam University College of Education (DUCE) Sokoine University of Agriculture (SUA)

Aga Khan Foundation (AKF)

# Tanzania Partnership program

The Tanzania Partnership Program (TPP) is the first initiative of the Partnerships for Sustainable Community Development (PSCD), a longterm collaborative alliance of local and international organizations dedicated to improving local livelihoods. Tanzania was selected as the initial location for PSCD based on need, potential for success, university experience in the region, and an array of interested partners.

# CORE PRINCIPLES

**Ensure Sustainability:** Increase community strengths, enhance community resiliency, and promote community empowerment while maintaining economic well-being, environmental health, and social equity.

**Commit to an Integrative Approach:** Remove the barriers that separate research, education and development to create a dynamic and synergistic relationship.

**Engage in Interdisciplinary Research:** Draw on a range of disciplines and perspectives to address the interrelated and complex nature of challenges faced by communities in the developing world.

**Promote Participation:** Unite the knowledge, skills and experiences of villagers, local government officials, researchers, and development professionals to expand understanding, enhance responsiveness and improve practice.

Adaptive Learning: Focus on a process that continually improves the research, education and development activities and involves villagers, scholars, development professionals, and local government.

**Establish Long-term Commitments:** Create relationships based on mutual trust that welcome research and innovation while at the same time are responsive to new challenges.

### **OUR MISSION**

To find long-term solutions, build capacity and create collaborations that promote resilient and sustainable communities.

To unite development, education and research that boldly pushes the frontiers of knowledge and the role universities play in transforming local communities and the lives of individuals.

### **OUR GOAL**

Promote resilient communities in Milola and Naitolia, Tanzania and create a model for sustainable prosperity.

### **OUR STRATEGY**

Acknowledge interdependency and create long-term partnerships among local communities, governments, non-governmental organizations, private corporations, universities and invested individuals to address local challenges and respond to emerging opportunities in economic development, food security, public health, education and community empowerment.

# Educational Access and Quality

A teacher gives a Milola mother her child's report card.

Though primary school enrollment in Tanzania is estimated at 94 percent, the number of children passing their exams in recent years has fallen. In fact, it is estimated that only a third of children who have been in primary school for three years can read (UWEZO 2011). Challenges include a low quality of education, low attendance, lack of preparation for primary school students, and lack of motivation and training for teachers.

High-quality education is central to improving community economic and social well-being, so TPP has focused its efforts on pre-primary, primary and secondary school education in three key areas: teacher professional development, infrastructure development, and improving the overall learning environment.

Over the past year, TPP has made strides against some of biggest barriers to educational success in Naitolia and Milola villages including: improving student achievement, reducing hunger of school children, promoting girls' education, enhancing teaching skills, and introducing experiential learning that's connected to the national curriculum.

### **BOTH COMMUNITIES**

- TPP continued efforts in Naitolia and Milola to improve parental and community support for education by meeting with parents and School Committees. The meetings stressed the importance of children's attendance and performance, as well has how education can improve their children's future economic opportunities.
- Teachers held meetings with parents to let them know their children's grades and ranks in the national exams, helping to ensure parental involvement and support.

### NAITOLIA

• Despite falling pass rates across the country, the Naitolia primary school's national exam scores improved significantly, moving the school from 41st position in the District to 11th this year.

### MILOLA

- \* The new improved pit latrines at each school have improved hygiene and children say that the clean latrines are an additional reason for them to attend.
- Playgrounds as places to play and spaces to learn were built at Milola A, Milola B and Ngwenya schools. A soccer field and netball court were installed at the Milola Ward secondary school. Play360, a U.S. based NGO, led the construction efforts. Dar es Salaam College of Education (DUCE) faculty provided training for teachers on how to use the playgrounds as sites for experiential learning. Teachers have observed that the playgrounds have increased school attendance.
- Two classrooms in Milola B that were not safe or conducive to learning were repaired. Grades I and II are now being held in these refurbished classrooms.
- In 2015, the Tanzanian national government widened the main road in Milola, which meant the removal of water lines to the Milola secondary school. TPP is working with the Lindi Rural District government to replace the water lines and hook up the water pump to the new electric lines in order to restore water to the school.

### NGWENYA, MILOLA SUB-VILLAGE

- In 2013, children in Ngwenya did not attend school because younger pupils could not walk to the distance to Milola. TPP supported the construction of a new school for 92 pre-primary pupils. Today, enrollment has increased to 103 in pre-primary, first and second grade.
- To meet the growing number of students and classes at Ngwenya, the District has assigned two new teachers, bringing the total number of teachers at Ngwenya to three.
- The teachers have moved into the newly completed duplex housing, with the two new teachers sharing a unit. The housing project was funded by the TAG Philanthropic Foundation and TPP.



Tire calculator in a Milola playground.



New Ngwenya teacher in one of the temporary classrooms.



A playground in Milola.



Student receives a meal through the Naitolia school feeding program.

## **Teacher Professional Development**

Well-prepared and motivated teachers are key to providing high-quality education. In Tanzania, teachers in rural schools tend to be relatively less prepared and experienced, and because of difficult teaching and living environments these schools face higher teacher turnover as well. TPP is working to improve teachers' skills and the teaching environment.

### NAITOLIA

- TPP conducted a needs assessment to understand the challenges facing teachers in the primary schools of Naitolia, Mswakini Chini, and Mswakini Juu villages located in Mswakini Ward, Monduli District.
- Based on the needs assessment, TPP held a seven-day training for 25 teachers from the three Ward primary schools focusing on learning and teaching theories, the new national curriculum, what it means to be a good teacher, and self-assessment.
- Students and teachers planted a 1.5-acre school garden to provide food for the school feeding program and create a space for experiential learning. Teachers developed lesson plans to teach various subjects in the garden setting such as geometry, plant science, nutrition, and agricultural economics.
- Naitolia teachers attended a three-day training at ECHO, a local NGO, to learn bio-intensive agriculture techniques and the role gardens can play in improving nutrition and reducing food insecurity.

## School Feeding Programs

Children who come to school hungry have trouble learning. School feeding programs provide a nutritious daily meal to schoolchildren and give parents an incentive to send their children to school. By alleviating hunger, students are motived to attend school and are better able to concentrate and learn during their classes.

- During 2016, TPP supported school feeding programs in Naitolia and Milola serving 27,600 meals to approximately 2,300 children. The program was supported by parents' contribution of corn and beans, and contributions from TPP and the 2015 MSU study abroad students.
- Teachers and students planted a 3-acre school farm at the Naitolia school. The initial harvest yielded 20 kilograms of beans and cowpeas for the school feeding program.
- Seeds, supplies and farming implements were provided to the Milola
  A, Milola B and Ngwenya school farms for the current planting season.
  Beans and maize were planted to make porridge and sesame was
  planted as a cash crop to raise funds for additional food.

### Girls' Education

In Tanzania, girls' enrollment in primary school is equal to that of boys. Despite this, girls face many challenges related to retention, completion and transition to secondary school. According to a 2014 national study, only 37 percent of primary school girls go on to secondary school and fewer than four percent of girls actually graduate. At Milola Secondary School, which serves seven villages, not a single girl has graduated in the past three years. The challenges are many: long distance to school, early pregnancies, abuse and sexual harassment en route to school or in rental housing, lack of private and hygienic latrines, household work demands placed on girls, and lack of parental support.



Milola girls playing netball.

#### MILOLA

- Over the last year, TPP began working with adolescent girls in Milola to improve their education and well-being. Initial efforts include a needs assessment in which girls are asked what can be done to improve their lives.
- The idea of forming girls' clubs was introduced to the community. Girls were invited to attend and women were identified to be mentors. The clubs began in August 2016.

### **RESEARCH HIGHLIGHT**



Milola students in a focus group identify educational needs.

# Identifying Educational Challenges for Girls

#### **BY EMILIANA MWITA**

To improve girls' education, it is important to first understand the educational challenges facing girls in Milola. A study was conducted to identify these challenges and possible solutions.

Methods included focus groups with parents, teachers and girls; a survey using a randomized sample; key informant interviews; and group meetings. Secondary data was collected on economic and social status, school enrollment and performance, girl's education, and educational policies from Lindi Rural District Education Department, ward and village government offices, Milola A and B primary schools, and Milola Secondary School.

Study results indicate that the major impediments to girls' educational achievements are deeply rooted in culture, community ignorance, and lack of attention from the government.

Recommendations of how these challenges can be addressed include raising community awareness about the importance of girls' education, economic empowerment of girls and their families, and government support to improve the teaching and learning environment.



# IMPROVING Human Health

Naitolia women at Tea with a Midwife.

Tanzania has made substantial progress to improve child survival rates but improvements in maternal and newborn survival and family planning lag behind. Tanzania's under-five mortality rate continues to fall, yet maternal mortality rates remain stubbornly high at approximately 400 maternal deaths per 100,000 live births in 2015. A major contributing factor is that more than half of births in Tanzania occur at home in unsanitary conditions without the assistance of medically-trained attendants.

### Maternal, Infant and Reproductive Health

In February 2015 Patricia Peek, professor emeritus of MSU's College of Nursing, found that the vast majority of Naitolia women give birth at home with the assistance of an untrained Traditional Birth Attendant (TBA).

The conditions for birthing are usually not sanitary. Often women develop post-partum infections and need medical treatment one to two weeks after delivery. Women who have complications during delivery must walk or hire a motorbike to reach the dispensary located as far as 10 kilometers from their homes.

Even in the midst of significant medical complications, there are often delays in seeking treatment. According to the clinic's nurse midwife, by the time a woman arrives at the clinic, her life can often be saved but the life of the infant cannot. To address these problems, TPP developed two pilot activities.

## Delivery Kit Project

- Ten delivery kits were left at the Makuyuni clinic to be given out to Naitolia women during their last trimester of pregnancy. The kits contain supplies women need for deliveries at the clinic. In addition to the kits, educational materials are given to the women at each prenatal visit.
- Educational materials, stereoscopes, and blood pressure cuffs were given to the Makuyuni dispensary to help educate and attend to pregnant women.
- Four wall-size *Danger Signs of Pregnancy* posters were provided to display at the Makuyuni Health Clinic, the Naitolia Health Dispensary, and the District Medical and Health offices. In addition, 100 poster handouts designed to fit inside women's prenatal cards were distributed to pregnant women during their prenatal visits to the Makuyuni Health Clinic.



Naitolia mother and child.



MSU professor emeritus Patty Peek discusses the Danger Signs of Pregnancy poster with the Makuyuni Clinic midwife.

# Dalili za hatari wakati wa ujauzito Ibulabul lemesidan tengata endwaishu



Danger Signs During Pregnancy poster given out during Tea with a Midwife.

bensanders.com.au

## Tea with a Midwife

- Tea with a Midwife introduced villagers to the Makuyuni Clinic doctor and midwife. The needs assessment demonstrated that the village women knew little about reproductive health, though they had received information about HIV/AIDS from a local NGO. They were eager to understand how their bodies worked, what to do when they were pregnant, and how to ensure their babies were born healthy. They also encouraged their husbands to participate.
- Over 50 people attended the tea including women and men of reproductive age, the eight Naitolia traditional birth attendants (TBAs), village leaders, village health workers and the village health committee.
- The doctor and midwife introduced themselves and shared information on reproductive health, including the *Danger Signs During Pregnancy* poster (see page 8). They encouraged use of family planning and urged women to deliver their babies at the clinic.
- The *Danger Signs During Pregnancy* poster was printed as a brochure to go inside the prenatal cards given to the women who come to the clinic. It was also displayed in a large format at both the local clinic and the district health center.



Naitolia traditional birth attendants at Makayuni clinic.

# How community partnership saved the life of a newborn

Tea with a Midwife provided an opportunity for the Makuyuni doctor and midwife to travel to Naitolia, introduce themselves, and educate the village's women and men about reproductive health and family planning. The doctor and midwife described the danger signs that mean a woman needs to go to the clinic to deliver. They then invited both women and men for prenatal visits and explained the benefits of delivering at the clinic.



The night of the event, a young mother went into labor with her first child. Her husband was gone and her two TBAs were very worried. The woman was hemorrhaging heavily.

In a Maasai community, it is the husband who decides if a woman should see a medical professional. However, the TBAs recognized hemorrhaging as one of the danger signs they learned about during the tea and knew the woman needed help. They called for a motorbike and took her to the clinic. At the clinic, the midwife quickly stabilized the mother and a few hours later a healthy 8-lb baby girl was born. According to the midwife, if the woman had delivered in the village, it's likely both mother and baby would have died.

TPP will conduct a follow-up evaluation to determine if the initial success of Tea with a Midwife has continued. If so, this project will be expanded to nearby communities.

Patty, the first Naitolia baby born at the Makuyuni Clinic as a result of Tea with a Midwife.

# Water Access and Quality

Naitolia water access at health dispensary.

In 2009 when TPP first began working in Naitolia, over 85 percent of Naitolia households got their water from unsafe sources and women spent many hours hauling water to their homes. By 2015, in collaboration with the District government and village members, TPP installed a water distribution system that draws from a deep well with safe water. The water system now reaches all but one sub-village in this sprawling Maasai community. TPP trained the Village Water Committee that oversees the system and installed rainwater harvesting systems at the school and village health dispensary. But just as a solution to water access was in sight, unseasonably heavy rains and flooding damaged key parts of the water system. A new pump house was constructed well above the 100 year flood plain and repairs were made to the generator which supplies electricity to pump water to distant parts of the village.

### Naitolia

• A new Village Water Committee was formed after the national 2015 elections. The new members received training on repair and maintenance of the water system, financial management and relationships with the District Water Department.

- A new water storage tank was built near the well to replace the old and leaking water storage tank. The new tank will greatly reduce water waste and make the system less costly to operate.
- In early February, unseasonable and exceptionally heavy rains caused the river to flood, inundating the pump house at the well and causing damage to the generator. Repairs were done and the generator is now in operation. Even though the pump house was built above the flood plain, shifting and unpredictable weather patterns prompted a decision to move the pump house to a higher elevation. Villagers contributed local materials and labor for the construction.
- Rainwater harvesting systems were installed at the new health dispensary consisting of two tanks at 15,000 liters each. The tanks supply water to the clinic which makes it much easier to maintan sanitary conditions. The rainwater system also reduces the cost and time required of health care workers to provide safe water for health services.
- Despite improved access to safe water, during the rainy season many people still collect water from unsafe, but free, sources. Community education has begun on the importance of drinking safe water and on how to make water safe to drink.



Water sources that are unsafe, but free, were frequently used.

### **RESEARCH HIGHLIGHT**



# Water Quality Analysis

# TULA NGASALA, COLLEGE OF ENGINEERING, MICHIGAN STATE UNIVERSITY

As a girl growing up in Dar es Salaam, Tanzania, Tula Ngasala lived with the constant frustration of too little water and ongoing water quality problems. Tula is in her second year of doctoral studies in MSU's College of Engineering, and in 2014 Tula began working with TPP on water issues in Naitolia village. She conducted research in the village around water access and water quality, leading education efforts with villagers about cost effective and simple ways to treat drinking water while exploring longer-term solutions. The work also involved MSU undergraduates in the Tanzania sustainable communities study abroad program.

#### Tula Ngasala collects water samples.

Water scarcity, poor water quality and animal waste management are major challenges facing the people of Naitolia. Water scarcity in particular greatly affects families, especially women and children. Tula's study assessed water sources, water quality and access to water and makes recommendations to improve the health and well-being of the residents of Naitolia.

A total of 42 households were interviewed. After the interviews, household water samples were collected and analyzed. Longitudes and latitudes of each household were recorded for mapping distance to water sources.

Survey results showed that 85 percent of families use two buckets of water per family per day. The World Health Organization (WHO) standard is five to seven buckets per family (or one bucket per person). Of the eight drinking water sources identified, the most reliable and safe is the Naitolia well. Yet 80 percent of families said that they still get their water from unsafe sources because they cannot afford to pay for water from the community well. Only two of those interviewed treat their water by boiling before drinking, yet the majority of people said they get sick "all the time" with preventable waterborne diseases such as diarrhea and Amoeba.

TPP is educating families on the benefits of using safe water. The cost of using safe water is low compared to the healthcare costs associated with treatment for waterborne diseases. The next phase of the water project will include piloting household water treatment systems, beginning with demonstrations in schools and the health clinic.



A Naitolia farmer herds cows.



Naitolia cattle dip.

# Improving Animal Health and Productivity

In 2014, a cattle dip was constructed in Naitolia as a joint initiative of the Naitolia community, Monduli District, and TPP. The cattle dip improves animal health by controlling tick-borne diseases.

- An office for the cattle dip committee and store room for hazardous chemicals were completed at the cattle dip.
- A rain water harvesting system with a 20,000 liter water tank was installed on the new office building. The tank collects rainwater and can also be filled with water from the well. This continuous supply of water makes it possible to operate the cattle dip continuously at a lower cost.
- The holding corral and cattle chute were improved with small gauge fencing to control and protect the smaller animals including goats and sheep.
- During fiscal year 2016, the cattle dip experienced challenges related to water supply and drought. Given these interrelated challenges, the number of cattle being dipped in Naitolia fell and costs increased.
  - o Due to the problem with the generator and water pump, water had to be purchased and trucked to the dip.
  - o A long dry season resulted in a lack of pasture which made it risky to dip cattle that were weak from lack of food.
  - o Some herds were moved to other areas where they could get pasture.



MSU researcheres with Naitolia village elder.

## **RESEARCH HIGHLIGHT**



# Saving Livestock and Protecting Women

### **BY JOHN B. KANEENE**

In Maasai communities like Naitolia, livestock provide both economic security and a cultural identity. Yet a high prevalence of infectious disease in cattle and goats can threaten the herds, and in turn, the lives of people in the community.

As part of a long-term project, MSU and Tanzanian researchers are examining diseases that can spread from animals to humans, especially to women of childbearing age. The baseline study will provide researchers with data to design prevention and control programs, increase reproductive health knowledge in the community, and reduce maternal mortality.

The data will include the prevalence of infectious disease in cattle, goats, and humans, the species and strains of bacteria that are present, and risk factors associated with infectious disease in humans and livestock. The data will also serve as a baseline study to monitor infection within herds and households over the long term.



Researchers John Kaneene (MSU) and S.I. Kimera (SUA).

In an increasingly interconnected and complex world, research is critical to understanding and developing responses to real-world problems. Grand challenges such as climate change, globalization and population growth are having a major impact on communities around the world.

However, research can only be effective in addressing these trends if it's coupled with strong community partnerships, long-term commitments, collaboration, and interdisciplinary cooperation. TPP's research generates new knowledge within the context of community development, empowering communities to co-create innovative, self-sufficient solutions to improve lives.

### FY 2016 Research Awards

A One-Health Approach for Studying Zoonotic Diseases and Women's Health in Selected Districts of Tanzania. John B. Kaneene, Barbara Smith, Patricia Peek, S. I Kimera, E. K Batamuzi, Ester Ngadaya, MD, Elia Mmbaga, Jonathan Yusto and Joyce Shangali. (FYs 2016 and 2017). This baseline study will collect preliminary data on the prevalence of brucellosis in livestock and the associations between brucellosis status and the health of women of childbearing age. The findings will be used to design prevention and control programs for brucellosis and for maternal health, and will also provide a study population and baseline data for a longitudinal study to monitor infection dynamics within herds and households.

**Girls' Mentoring Clubs in Milola.** Bethany Wilinski and Emiliana Mwita (FY 2016).

This study focused on understanding how mentoring clubs in Milola affect girls' educational experiences, and provides feedback to tailor mentoring club model as we scale it up in future years. The three phase study focused on: 1) baseline data about community stakeholders' perspectives on girls' education and the role of girls' mentoring clubs; 2) perceptions of mentor teachers and girls who are participating in the mentoring clubs; and 3) community members' perceptions of mentoring clubs and club participants' experiences.

## **Reports and Publications**

- Amber L. Pearson, Adam Zwickle, Judith Namanya, Amanda Rzotkiewicz, and Emiliana Mwita (2016). *Seasonal Shifts in Primary Water Source Type: A Comparison of Largely Pastoral Communities in Uganda and Tanzania. Int. J. Environ. Res. Public Health 2016, 13(2)*: 169.
- Amber L. Pearson, Amanda Rzotkiewicz, and Adam Zwickle. Using remote, spatial techniques to select a random household sample in a dispersed, semi-nomadic pastoral community: Utility for a longitudinal health and demographic surveillance system. International Journal of Health Geographics 14(1) • November 2015.
- Girls' Educational Achievement Challenges: A Case Study of Milola Ward, Lindi Rural District—Tanzania. (September 2015) Unpublished TPP research report by Emiliana Mwita.
- Impacts of Population Increase on Water Resource Utilization: A Case of Milola and Kinyope villages in Lindi District, Tanzania (September 2015) MSc. Natural Resources Assessment and Management Dissertation University of Dar Es Salaam by Samwel Mtafya.
- Conservation Agriculture and Its Implications on Livelihood Security in Tanzania: The Case of Lindi Region. (August 2015) MSc. Natural Resources Assessment and Management Dissertation, University of Dar Es Salaam by Beatrice R. Sawe.
- Understanding Language Contact in Education Sector In Tanzania: The Question Of 'Arusha' And 'Maasai' School-Children At Naitolia Village In Monduli District Of Tanzania (January 2016). Unpublished TPP research report by Amani Lusekelo.

Research focus group.

DEKEZO

Villagers conduct capacity building and planning.

# Study Abroad

2016 TPP study abroad group on safari.

MSU faculty Jonathon Choti, University of Dar es Salaam faculty Faustin Maganga and Emiliana Mwita, and Sokoine University of Agriculture faculty S.I. Kimera led a group of six MSU and six Tanzanian undergraduates on a study abroad trip to Naitolia Village in northern Tanzania. An MSU graduate student and two UDSM graduate students participated as assistants.

Students engaged in several learning experiences including:

- Two weeks of Kiswahili language study and a home stay.
- Homestays with families.
- Education with school children on the relationship between water quality and health.
- Research on water scarcity and quality related to village water sources; pre-primary and primary education; and animal health.

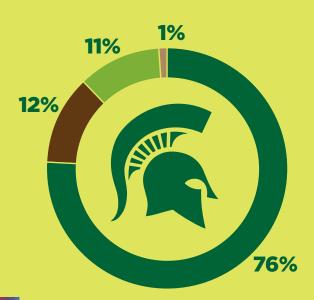
### TANZANIA PARTNERSHIP PROGRAM

### Fiscal Year 2016 Program Allocations

Total donor funds expended in Fiscal Year 2016 were \$596,202. Of this amount, 76% was spent on in-country implementation (\$452,912); 12% was spent on MSU Administration (\$73,742); 1% on MSU/TZ research (\$7,000), and 11% on the Study Abroad Program (\$62,548). Michigan State University expended an additional \$357,790 toward the project.

During Fiscal Year 2016, the majority of funds supported infrastructure development with the construction of teacher housing, a preschool, and playgrounds; extending water supply to educational and health care facilities; women's health; school feeding and gardening programs; and study abroad Program.







The Tanzania Partnership Program is a private-public partnership supported generously by individuals, academic institutions and a coalition of diverse partners advancing the mission of TPP. Executive leadership is provided by Michigan State University. The initiative is committed to good stewardship of the resources and assets entrusted to the program. We are dedicated to the highest level of accountability.

### **FISCAL YEAR 2016** (July 1, 2015 - June 30, 2016)

Donor Funds MSU Funds Total Income Income \$964,810 \$357,790 \$1,322,600

Donor Funds\$59MSU Funds\$35Total Expenses\$95Carry Forward to FY 2017\*\$36

Expenses \$596,202 \$357,790 \$953,992 \$368,607

\*Carry-forward to FY17 includes funds encumbered of \$147,687 for activities which overlap multiple fiscal years, \$55,210 for study abroad activities that cross fiscal years, and \$165,710 for additional development projects in FY17.



The Tanzania Partnership Program is made possible through the generous support of our donors.

To make a gift in support of the program, please contact: Sarah Blom Executive Director of Individual Giving (517) 884-1091 • blom@msu.edu



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Photos courtesy of Kristen Gmerek, Alyssa Morley, Tula Ngasala, Clare O'Kane, and Diane Ruonavaara