



Southern Highlands Participatory Organization – SHIPO Report for 2020

SOUTHERN HIGHLANDS PARTICIPATORY ORGANIZATION

SHIPO

ANNUAL REPORT - 2020



Njombe Region - Tanzania (2020)

Our Aim is "To contribute effectively to a sustained improvement in the living standard of poor people in Tanzania"





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Foreword

SHIPO help to obtain sustained improvement in the living standards of people in Tanzania. It exist to facilitate and provide sustainably products and services to its customers and beneficiaries, which contribute effectively to improved capacity and behavior, based on their demand, needs and capacities and through Multi Stakeholder Participation.

The projects implemented by SHIPO during 2019 in collaboration with LGA at District and Regional levels will take advantage of leading up to contribute on achievement of the important milestones of the country level by the year 2030, such as Education quality, Gender equality, Clean water and sanitation, and Climate action.

SHIPO is a major player in water and sanitation. Citizens of Njombe Region are among those in Tanzania with better access to safe water partly due to SHIPO and its collaboration with authorities and stakeholders in the water and health sectors e.g. RUWASA. We want to continue the strong relationships and take a step further to push low-cost WASH technologies to national approval. At the same time we want to develop our expertise in the sectors of Natural Resource Management and Sustainable Farming.

In the Education sector SHIPO has mainly assisted in infrastructure and education improvement trainings. Also, conducted various sensitization and awareness meetings among parents and communities to understand about the importance of education, child rights and protection. Also introduced child protection committees in 19 villages of Mbozi District Council to contribute on reducing children and women violence/abuse within communities served by SHIPO.

All done the SHIPO way with maximum contribution from communities (to create sense of ownership) and always based on the needs, priorities and capacities of the people involved. It is our intention that education programs supported through SHIPO interventions can be developed to also include capacity building of the relevant government institutions.

Enjoy reading this report and I hope to receive your comments, in our common efforts to obtain sustained improvements in the living standards of poor people in Tanzania


Protas Mwanyika,

SHIPO's Board Chairperson





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Executive summary

Water & Sanitation

In spite of substantial investments over the past decades, access to water supply continues being a challenge in rural Tanzania. Piped water supplies are the exception rather than the rule, and many people still have to walk long distances (more than 30 minutes) to fetch water, mostly from surface water sources, which are prone to contamination and strong fluctuation of availability. This place a high burden in terms of time and health, much of which is carried by women and girls.

The Tanzania Development Agenda include the Tanzania Development Vision (TDV) 2025 (<https://www.mof.go.tz/mofdocs/overarch/vision2025.htm>). The realization of TVD is carried out through Five Year Development Plans. Currently, the GoT is implementing the Second Five Year Development Plan

Ref: (FYDP II), 2016/17 – 2020/21 (https://mof.go.tz/mofdocs/msemaji/Five%202016_17_2020_21.pdf).

The Government adopted the TDV in the mid-1986s for socio-economic reforms and continue to be implemented to date. Better and improved water and sanitation services contribute to one of the attributes of Vision 2025 which is on high quality livelihood.

Many people, especially in rural areas, are not aware of the need to treat drinking water and many times think that the ceramic filters that we try to promote contain chemicals that can be bad for their health.

People are very used to drinking soda instead of water when they are eating outside home and they are not aware of that unhealthy habit. They prefer buying a bottle of soda than a bottle of water.

In the area of sanitation, we sense that in rural areas of the Southern Highlands of Tanzania, there are problems related to poor sanitation and lack of awareness on the topic but we have not conducted any proper research to get the real picture and get to know the challenges.

For to contribute to access of clean water and sanitation (SDG 6), SHIPO's projects focused on to:



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- i. Raise awareness amongst the people served about the importance of clean drinking water and sanitation facilities related to health and Wellbeing;
- ii. Improving access to clean and safe water be managed by community;
- iii. Raising community awareness on the prominence of safely managed drinking water for good health;
- iv. Enhancing for integrated water resources management at LGA's level;
- v. Promoting SMART Technologies (Simple, Market based, Affordable, and Repairable Technologies) application for access of clean and safe water;
- vi. Enabling environment of suitable policies, strategies and regulation for suitable water resources development and management among the communities; and
- vii. Advocating on water resources management at community level through application of SMART Technologies.

Education

The Tanzanian Education Sector Development Plan (ESDP) for 2016/17 to 2020/21 is guided by the national 'Education and Training Policy 2014', focusing on universal basic education; expansion of technical and vocational education, combined with greater enrolment in science and mathematics; and a consistent focus on quality teaching and learning, and inclusion.

In Tanzania, according to the reading, writing and mathematics assessment which was conducted by NECTA, a large percentage of children are able to read (almost 80% scored at least 78% on the reading test); however only 23% attained a satisfactory level of reading with comprehension. The national early grade mathematic assessment (2018) for Grade II students shows an alarming result of 36%.

Following the introduction of the national Big Result Now campaign in 2013 there has been a steady improvement in Primary School Leaving Examination (PSLE) pass rates to 50.6% in 2013, 57.0% in 2014, 67.8% in 2015 and 70.4% in 2016. National Primary retention has gradually decreased, from a reported retention of 100% in 2009, to 85% in 2013 and just 56% in 2016. Dropout at national level rose



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by almost a third at primary between 2009 and 2016, to an average annual rate of 6.4%.

Results from schools served by SHIPO showed that the dropout average annually is at 3% (3% m and 2% f). Should the current situation in terms of dropout and year-on-year promotion prevail in the future, just 64% of children commencing primary today would expect to finish the primary cycle (62% m/67% f). Despite achievements recorded in the implementation of the policy like high enrolment of children in pre and primary schools, there are still challenges facing quality of primary education especially in rural areas such as Mbozi and Ludewa Districts. These include: Poor engagement of parents & community in the education process of their children, poor school attendance among girls and boys, poor teaching quality in target schools; unsupportive learning environment for pupils, malnutrition, and low performance of the school management.

Accessibility has been a pronounced challenge throughout the project implementation due to dirty and rough roads in the rural areas. The challenge becomes worse when there are rain falls where we do push the vehicles as they are frequently trapped in muddy roads. This challenge makes it difficult for the people to collect materials be it for construction or learning purposes

Distance to schools is also a challenge as some children have to walk on foot more than 5 kilometers from their homes to school.

Shortage of the learning materials including textbooks and e-devices where for instance one book might be shared by ration from 1 to 10 pupils. In some cases some textbooks are completely not available.

For to contribute to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (SDG 4), SHIPO implements projects focused on:

- i. Increasing capacity of schools and communities to ensure equitable access and successful completion of basic education, with particular attention to excluded and marginalised pupils;
- ii. Improving learning outcomes of pupils in the target schools;



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- iii. Enhancing skills development for learning, personal empowerment and active citizenship;
- iv. Improving performance of education sector governance, planning, management and coordination systems at LGA levels;
- v. Improving access to safe learning environment;
- vi. Increasing community and parental awareness and participation in education process of the children;
- vii. Improving teaching competencies among teachers in service;
- viii. Improving awareness on crosscutting issues for parents and children; and
- ix. Strengthening effective school Leadership and Management.



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List of Abbreviations

- AIDS** - Acquire Immunodeficiency Syndrome
- CBWSOs** - Community Based Water Supply Organizations
- CI** – Connect International
- CLTS** - Community Lead Total Sanitation
- HIV** - Human Immunodeficiency Virus
- HWTS** - Household Water Treatment and Storage
- IWRM** - Integrated Water Resource Management
- MAMMIE**- The Mawengi, Mlangali and Milo Integrated Education
- MUS** - Multiple Use Services
- NGO** – Non- Governmental Organization
- ODF** - Open Defecation Free
- PCF** – Pestalozzi Children Foundation
- SHIPO** – Southern Highlands Participatory Organizati
- SMARTechs**- Simple, Market based, Affordable, Repairable Technologies
- STDs** - Sexually Transmitted Diseases
- STIs** - Sexually Transmitted Infections
- TLM** - Teaching and Learning Materials
- VEOs** - Village Executive Officers
- WCDOs** - Ward Community Development Officers
- WECs** - Ward Education Coordinators
- WEOs** - Ward Executive Officers



CHAPTER ONE

1.0 INTRODUCTION AND ORGANIZATION BACKGROUND

This chapter of the report comprises of an introduction of the organization (SHIPO) basing on its registration status to express its legality form; organization structure presenting the Board members represent expertise in important sectors in Njombe Region like Law, Human Resource Management, Financial Accounting, Agriculture, Business and Community Development. The Secretary of the Board is the General Manager of the Organization; vision and mission of the organization showing the purpose of its existence; values that guides SHIPO in its operations; objectives that organization expect to achieve once the planed activates are implemented; the program implemented overview, expressing the organization experience and expertise on various project implemented basing on education, WASH, Entrepreneurship and agriculture sector; and The generic approaches applied by SHIPO in all its projects.

1.2 About SHIPO:

SHIPO is a Tanzanian Non- Governmental Organisation (NGO) based in Njombe Region 5 km South of Njombe Town Centre along the Makambako-Songea Tarmac and Main Road.

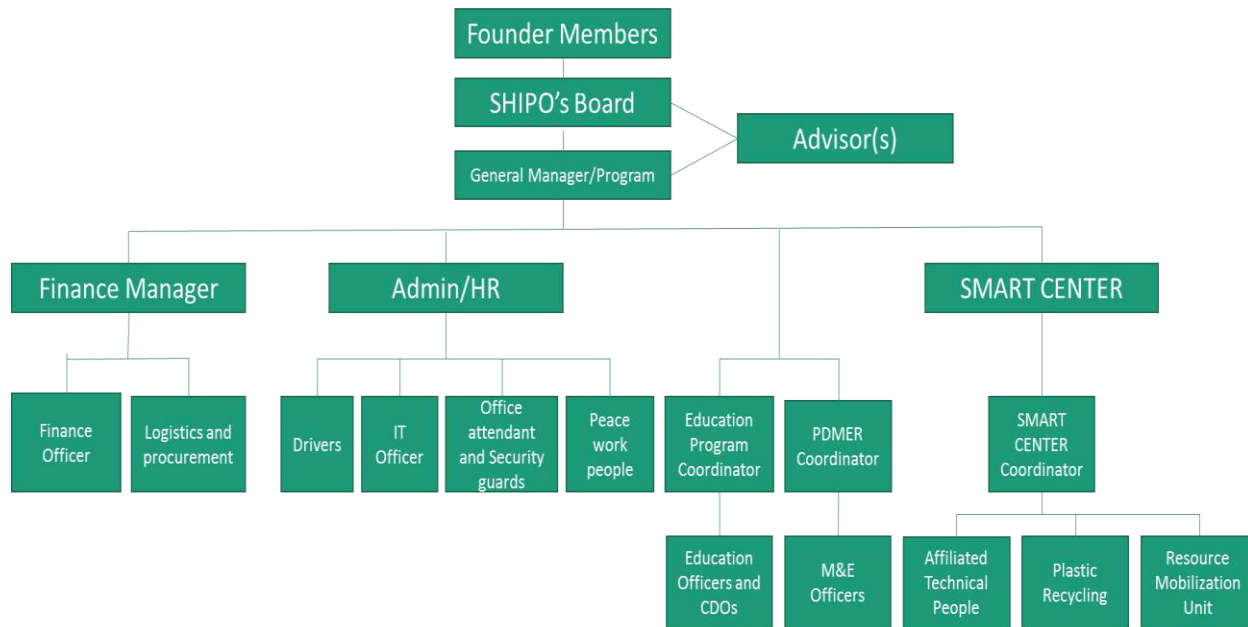
SHIPO has been registered on 7th May 2001 with the Ministry of Home Affairs under the Society Ordinance Act of 1954 and provided with a Certificate of Compliance No. 1629 on 27th Sept 2005 in the Vice-President’s Office under the Non-Governmental Organization Act 2 Sect. 11 (3) of Act 24 of 2002.

The three founder members, Mr. Walter Mgina, Mrs. Ester Mgina-van Vugt and Mr. Protas S. Mwanyika are still active as board member. SHIPO board has 8 members. Since December 2007 has its own offices with training Centre on the Songea Road. The premises host SHIPO staff as well as staff of other NGO’s and organizations and is used for trainings and meetings.

SHIPO started in an initial strong partnership with the Dutch Organization, Connect International (CI) as well as other Dutch fundraising contacts. Through the years SHIPO has developed partnerships with other organizations in- and outside Tanzania which has helped SHIPO to develop itself into a strong local NGO.



1.3 SHIPO’s Organization structure: *Organogram*



In place of the organogram shown above, SHIPO Executive Management Team consists of the General Manager; Program Development Manager; Finance Manager; and Administrative Manager. Management meetings are conducted in monthly basis while involving heads of community development; program development; SMART center; and SKAT Programs. SHIPO has 12 employed staffs and 4 volunteers (total of 16 staffs).

1.4 Mission:

SHIPO wants:

To obtain sustained improvement in the living standards of people in Tanzania.

1.5 Vision:

SHIPO exists:

To facilitate and provide sustainably products and services to its customers and beneficiaries, which contribute effectively to improved capacity and behavior, based on their demand, needs and capacities and through Multi Stakeholder Participation.



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1.6 Values:

Values to which SHIPO base its mission are:

- Ownership (Commitment, Co-operation & Flexibility);
- Pride (Honesty, Integrity & Purpose); and
- Good Governance (Accountability, Transparency and good Decision-making).

1.7 Objectively:

- SHIPO has a focus on sustainability, whether it concerns products and/or services it provides as an organization or whether they are realized in the community or by service providers which have been trained by SHIPO (example see the academic performance results trend due to In-service trained teachers for primary schools, improvement of water management resources due to communities sensitization and water bodies trained, engagement of parents on their children's education process, etc);
- The product and services provided are those that fit to the needs and demand of the target group /consumer which means products are SMART (Simple, Market based, Affordable, Repairable Technologies) and provide inclusive and equitable services;
- Capacity building (including training and coaching) of people in the community like entrepreneurs, committee members, school leaders and local leaders will allow our beneficiaries and clients to develop and improve their livelihoods by gaining access to demanded products (for instance a water pump) and services (like for maintenance, or sustainable management). In the same way, people will get opportunities to realize behavior change (example hand-washing, drinking clean and safe water, ownership, etc.); and
- SHIPO believes it can only achieve substantial and sustainable impact through the participation and the coordinated effort of multiple stakeholders.

1.8 Programs overview

Currently, SHIPO has 4 organizational units namely: Finance; Administration/HR; Program development, Monitoring and Evaluation; and SMART Center units.

These units comprise of multidisciplinary team of professionals including engineers, technicians, officers, coaches and support officers- which are converged by a motivated and a strong management team. Through the joint efforts and



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collaboration from all the units, SHIPO has been a successful achiever of its projects, planned objectives, outcomes and goals. SHIPO programmes involve the intervention in Education improvement, Agriculture, Water and sanitation, Child development and protection.

As an NGO we aim to improve poor people's living standard in Tanzania through the WASH, Education, Agriculture and Entrepreneurship sector, SHIPO is engaged in a multitude of activities through its projects in a bid to achieve the overarching objective by: Supporting communities to have sustainable supply and access to safe and clean water; access to quality education; and sustained improvement in the living standard of poor people in Tanzania.

In water sector, SHIPO does this by using various means of methods to supply water to communities either by low-cost technologies (SMARTechs) such as boreholes, open wells with rope pumps, gravity water systems, and rain-water harvesting systems, water recharging and Pumping Systems.

As well as, supporting families and communities in improving Sanitation standards by constructing latrines in schools as well as slabs for those latrines. In this area, SHIPO also working as a voicing platform by providing advocacy on issues relating to Hygiene and Sanitation.

Also, working with communities to improve and develop the education and health sectors. Together with communities, we are building structures for classes, staff houses, and dormitories in different levels of education with a view of improving education environment in the country and training teachers in-service.

In the health sector, together with communities and other partners, we are working on improving a health environment by constructing structures for dispensaries and health centers as well as providing health materials.

Likewise, SHIPO works to create a conducive environment for the poor communities to access microcredit loans by establishing microfinance programs that give loans to communities through Community Sacco's Banks. And normally the loans are given for low-cost water technologies.

SHIPO also running a SMARTechs Training Center which provides training to NGO's, CSO's, Institutions, Private Entrepreneurs and Individuals on low- cost water technologies. The training includes tube well drilling, hand dug wells, rope



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pump production and Installation and ground water recharging systems to mention a few.

Besides, SHIPO core areas of operations are in the southern highlands of Tanzania although we are also working in other parts of the country and also collaborate with some other countries in the African continent like Malawi, Zambia Uganda, Kenya, Burkina Faso and Mozambique with special permit.

Our main ongoing programs are:

- MAMMIE program (see Chapter 2)
- Boresha Elimu Mbozi (see Chapter 3)
- SMART Center projects : SKAT project, Plastic recycling (see Chapter 4).

1.9 SHIPO's approaches

The participatory approach

SHIPO merely helps communities, organized groups and small and medium entrepreneurs to help themselves in their efforts to raise their own living standards and alleviate poverty. We call it self-help or self-awareness. Based on the need and requests we link stakeholders with each other to secure efficient assistance.

Multi Stakeholder Participation (MSP)

It is through Multi Stakeholder Participation that SHIPO SMARTechs and other interventions can be sustainably implemented. MSP is used in order to be able to work more efficiently and effectively, to participate in and contribute to the development of value and supply chains, to be able to tackle substantial problems and to create leverage and create opportunities for private sector development.

Skills development

Project always contain skills development as a component of capacity building whether it is to empower individuals, entrepreneurs, groups in the communities or with other development stakeholders.

Specific approaches

In interventions of WASH; and Child development & Child protection, SHIPO applies the following specific approaches:

In WASH:



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| Specific approach | Explanation |
|---|--|
| SMARTechs , (Simple, Market based, Affordable, Repairable Technologies) skills development | Includes MUS (Multiple Use Services) and water for irrigation, IWRM technologies, HWTS (Household Water Treatment and Storage) solutions, green house and drip irrigation package. |
| IWRM (Integrated Water Resource Management). | Includes protection of water sources, recharge/3R, MUS, reduced use, environmental conservation and rehabilitation, formation of entities for Operation & management of water structures (example CBWSOs). |
| CLTS (Community Lead Total Sanitation) and MTUMBA | Includes CLTS triggering, Open Defecation Free (ODF) communities, hygiene behavior and practices on food hygiene and safety. Behavioral change focus. |
| SMARTech water and sanitation marketing | Includes household and community (public) self-supply, provision of basic services, demand driven, and affordable design. |
| WASH Entrepreneurship | Including training of entrepreneurs and supply chain development |
| Water supply schemes | Includes SHIPO implementing (larger and subsidized) WASH projects, Multi stakeholder, and formation of entities for Operation & management of water structures. |
| Productive sanitation and conservation agriculture | To improve food security & income generation (example green-house, etc.) |
| SMARTechs branding and quality control | Through SMART Centre network and advocacy |

In Child Development and Child Protection:

| Specific approach | Explanation |
|--|--|
| TLM (Teaching and Learning Materials) | Including capacity building of producers, marketing and dissemination of TLM, and training in the schools about Montessori approach and active learning methodology (Improvisation). |
| Productive schools | Including vegetable gardening, entrepreneurship, selling avocados to finance the schools (Income Generating Activities). |



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| Specific approach | Explanation |
|---|--|
| Improving school infrastructure and equipment | By building classrooms, latrines, changing rooms for girls, water points, teachers’ offices, kitchens and dining halls and by improving the access of the schools to teaching materials, playgrounds and sports materials, furniture, books etc. |
| Supporting teachers for better teaching practices and school governance | With personalized coaching through academic officers visiting the schools and the teachers and with training good governance, leadership and curriculum implementation of selected subjects. |
| Supporting school committees for further involvement of the parents in school governance | With personalized coaching and training on the roles of the school committees and with sensitization on the importance of parents participating and supporting the schools. |
| Supporting local education authorities for better supervision and accountability | Providing to local education authorities with training and tools to successfully accomplish their duties (including support for transport and stationaries). |
| Improving school meals and pupils’ health | Nutrition training, cooking training and school gardens for better nutrition meals at the school and with Menstrual Hygiene Management training for girls attending to school, their teachers and their parents. |
| Sensitization campaigns for children rights for education, health and against violence and abuse | Sensitizing parents, pupils and authorities about children rights, because creating a conducive learning environment is the duty of the entire school community. |
| Measuring Quality education | Measuring performance through NECTA results and by conducting Uwezo test (sometimes school inspections) while working close with School’s quality assurer. |
| Child to Child approach | Includes school clubs, girls, child protection, health and environmental clubs in the community, and entrepreneurial skills. |
| Disability inclusion | Including support and consideration to children with a disability |
| Building up Child | Including violence and abuse, safety networks |



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| Specific approach | Explanation |
|---------------------|---|
| protection networks | that know how to respond to diminish the risk and process cases. Formation and training of child protection committees at village, ward and District level. |



CHAPTER TWO

2.0 MAMMIE Project ACTIVITIES REALIZED AND IMPACTS (2020)

This section provides the status of implemented projects, achievements, lessons learned and area for improvement in MAMMIE unit of the organization’s operations.

2.1 MAMMIE Unit

The Mawengi, Mlangali and Milo Integrated Education (MAMMIE) Project is aimed to improve the quality of education in 24 rural primary schools located in those wards at Ludewa District, and is one of the largest project being implemented by SHIPO.

2.2 Activities implemented on MAMMIE Project during 2020

During this stage of project implementation, MAMMIE Project achieved the following accomplishment:

2.2.1 Project information

| | | |
|---------------------|--|---------------------------|
| Project Name: | MAMMIE Project II (Mawengi, Mlangali and Milo Integrated Education Project - Second Phase) | |
| Project Number: | TZNJ 094G | |
| Project Duration: | From: September 2017 | To: September 2020 |
| Reporting period: | From: October 2019 | To: September 2020 |
| Donor | Weworld | |
| Planned budget: | Tsh: 212,500,000.00 | 100% |
| Spent budget and %: | Tsh: 202,145,000.00 | 95.13% |

2.2.2 Project Introduction

MAMMIE II it is the continuation of a series of project interventions started by ACRA and WeWorld (former Intervita) in cooperation with SHIPO and the Njombe Development Office in 2009. MAMMIE II became the 4th intervention in the series.

The first intervention was aimed at supporting primary education. During that first phase (2009-2011), the main focus was the support to the provision of a safe and conducive environment for primary education in 8 schools of the project area. The programme carried out some renovation works in the schools and provided school equipment to the targeted schools. Moreover, trainings for



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teachers were carried out in collaboration with the Education Department of the Ludewa District.

During the second phase (2012-2014), interventions in pre-primary and primary schools of the area were scaled up to encompass 13 schools. The objective was to contribute to the guaranteeing of a safe living and learning environment and, together with the local District Authorities, trainings for teachers were organized in order to support the provision of better quality education.

The third intervention is MAMMIE (Mawengi Mlangali and Milo Integrated Education) project and started in 2014. In this project ACRA is not involved anymore and SHIPO leads the implementation instead. 7 new schools were added to the project to complete a list of 20 primary and preprimary schools, covering almost the totality of the public primary Schools in Mawengi, Milo, Mlangali and Lubonde wards (Mlangali ward fragmented in 2015 in to the Current Mlangali and Mawengi wards).

All in all, MAMMIE II was the second phase of MAMMIE project and at the same time the 4th intervention supported by WeWorld in collaboration with SHIPO and the District Authorities since 2009.

In collaboration with local communities and authorities, the aim of the MAMMIE II Project ‘2017-2020’ is to contribute effectively to the development of quality education in 20 primary schools in the Ludewa district, creating a conducive learning environment for about 1.094 pre-primary and 6.427 primary school students and 172 teachers.

2.2.3 Project Objectives

Overall objective: The General Objective of the MAMMIE II Project is to contribute to improve the quality of education and the wellbeing of children attending pre and primary public schools in rural areas of Tanzania (ESDP - Education Sector Development programme 2017-21).

Specific Objective 1:

R1: Teaching competences are improved among the teachers of the 20 target schools.

| | |
|-------|---|
| A1.1: | Residential training on subjects for new curricula (STD 1,2) and pre-primary with focus on 3R |
| A1.2: | Residential INSET training in English and Kiswahili for STD 3, 4, 5, 6, 7 teachers |



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| | | |
|---|---------|---|
| | A1.3: | Residential INSET training in Math and Science for STD 3, 4, 5, 6, 7 teachers |
| | A1.4: | Uwezo test |
| <p><u>Specific Objective 2:</u> R2: Improved leadership, management and governance in the 20 target schools</p> | A2.1: | Activation and implementation of a coaching program for the 20 target schools in collaboration with the Ward Education Coordinators |
| | A2.2: | Workshops for teachers on academic and school management in all 20 schools based on the coaching program |
| | A2.3: | Workshops for school committees on school management in all 20 schools based on the coaching program |
| <p><u>Specific Objective 3:</u> R3: Improved infrastructures and learning environment in the 20 target schools</p> | A3.1: | Construction of 16 blocks of latrines with urinal for boys and changing room for girls |
| | A3.1.1: | Infrastructure and school readiness (safe reopening of schools after the COVID-19 emergency): provision of hand washing facilities and water storage tanks to school; construction of 1 shallow well; dissemination of the “Safe School Environment” protocols (MoEST) and training |
| | A3.2: | School Based Training in Menstrual Hygiene Management (MHM) for teachers, pupils and mothers |
| | A3.3: | Construction of 2 kitchens with dining hall |
| | A3.4: | School based training in school gardening and provision of seeds, tools and supervision in the 20 target schools, in collaboration with the Ward Extension Officers |
| | A3.5: | School based training in avocado planting in the 20 target schools, in collaboration with the Ward Extension Officers |



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| | | |
|---|-------|--|
| <p><u>Specific Objective 4:</u> R4: Increased awareness on child rights and child protection among the 20 school communities</p> | A4.1: | Residential training in Child Rights, Child protection and Nutrition for school committees and local leaders |
| | A4.2: | School based training in Child Rights and Child Protection for pupils, parents, school committee members, teachers, ward authorities and village leaders |
| | A4.3: | School based training on reproductive health for pupils, parents and teachers |
| | A4.4: | Theatre of the oppressed in gender and nutrition |
| | A4.5: | Global Action Week sensitization events |
| <p><u>Specific Objective 5:</u> R5: Strategies to increase enrolment/attendance of the most vulnerable children and to improve children’s health and nutritional status are defined based on the studies conducted</p> | A5.1: | Mapping of education and nutrition programs in Njombe |
| | A5.2: | Conduction of a study on nutritional status of school children, school meals and nutrition practices |
| | A5.3: | Conduction of a study on Out-of-School children |
| | A5.4: | Workshops to present the findings of the studies |
| | A5.5: | COVID-19 Preparedness and Response: Communication and advocacy; Teacher training and learning; Plan for continuity of learning during school closure |

2.2.4 Results per project outcome(s) and Outputs

| | |
|-------------------|--|
| Outcome 1: | Quality pre-primary and primary education is provided to 20 schools in Ludewa district in order to enhance the performances of 7.521 pupils (3.671 boys, 3.850 girls) enrolled in the 20 target schools by 2020. |
|-------------------|--|



Achievements:

- 89% of the grade IV pupils passed their NECTA 2019 examinations. This is equal to 100% achievement relative to expected 89% where the baseline was 74%. Passes by gender were as follows: Girls: 92%, Boys: 87% and the Average: 89%
- 80% of the grade VII pupils passed their NECTA 2019 examinations. This is equivalent to 110% achievement of the expected 73% as the baseline was 61%. Pass rates by gender were as follows: Girls: 84%, Boys: 76% and Average: 80%
- The results surpassed target by 10%
- 44% of the grade IV pupils obtained grade B in the 2019 NECTA examination, which is 94% achievement relative to expected 47%. The achievement is below 100% due to some factors including missing some text books as the new curriculum recommends. The pass rates by gender were as follows: Girls: 45% , Boys: 43% and the Average: 44%
- 40% of the grade VII pupils obtained grade B in the 2019 NECTA examination, which is 237% achievement relative to the expected 17%. The achievement surpassed target by 137% entailing great efforts by school management, teachers and pupils. It is assumed that all the interventions carried out under WeWorld support contributed to this remarkable attainment. The pass rates by gender were as follows: Girls: 38%, Boys: 44% and the Average: 40%

Challenges/Setbacks:

The UWEZO TEST results were generally not good; most of the sampled pupils could not respond as per the Uwezo tool guidance. The noted causes for the failure included: poor relationship among the pupils-parents and teachers, shortage of teaching and learning materials, shortage of the teaching staff and committed supervision.

English performance during the Uwezo test dropped from 5.5% '2017' to 1.2% '2020'.

Notable challenges during the assessment exercise included:

- Dirty roads associated with heavy rainfall made accessibility difficult. School like Kiteweale and Wecha were reached with great difficulties where the team had to leave the cars and walk in some areas.
- Some pupils had not acquired the reading skills in both



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| | |
|---|---|
| | <p>Swahili and English. More to be revealed statically in the UWEZO test analysis results</p> <ul style="list-style-type: none"> ▪ Parents do not prioritize the education of their children; it seems they even do not follow up on the progress of their children. ▪ Most pupils, as reflected in the analyzed information ‘annex 3c’ were not able to appropriately read English as from the letters, words, paragraphs and story including responding to the corresponding questions. Some heads of schools upon feedback provision regarded it as national wide problem that requires substantial attention. ▪ Shortage of learning materials (particularly books) hence a limitation for pupils to practice the reading, writing and arithmetic skills ▪ Teachers: students do not meet the set standards by the responsible Ministry of Education Science and Technology. A number of schools were not having enough teachers something that adversely affected the learning process including acquisition of the desired literacy and numeracy skills. ▪ General poor performance for the assessed subjects during the Uwezo test. |
| Output 1.1: | Done in Y1 and Y2 |
| Output 1.2: | Improved leadership, management and governance in the 20 target schools |
| <p>Achievements:</p> <p>A.2.1 Activation and implementation of a coaching program for the 20 target schools in collaboration with the Ward Education Coordinators:</p> <ul style="list-style-type: none"> • Ten (10) participants (125%) participated – two CDOs from SHIPO participated (the SHIPO staff were not initially included in the plan) • Ten (100%) quarterly follow up meetings were successfully conducted • Dropout rate attained was 0.03% which is equal to 460% achievement relative to the expected 0.17%. the target has highly been surpassed meaning that the project interventions including teachers trainings, school committees trainings, child rights trainings, school infrastructures | |



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improvement, school meals improvement and the various awareness forums and sensitization event have greatly contributed to these very positive achievements.

A.2.2 Workshop for teachers on academic and school management in all 20 schools based on the coaching program:

- 98 (98%) out of the 100 SBW were conducted. All the 5 SBWs were conducted
- 159 (110%) participated; this is out of the 145 expected participants (154 teachers, 4 WECs, 1 District officer).
- The workshops were conducted in all the 20 primary schools (100%)

A.2.3 Workshop for school committees on school management in all 20 schools based on the coaching program:

- Four (4) 100% workshops have been conducted
- 985 (109%) out of the expected 900 participated in the school committees workshop for the previous two years. The achievement surpassed target by 9%
- SBW done in all 20 (100%) schools

Challenges/Setbacks:

There was a challenge during conduction of both school based workshops for teachers on academic and school management and the one for school committees:

- Road pass ability was a challenge where Kiteweale primary school was not reachable.

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| Output 1.3: | Improved infrastructures and learning environment in the 20 target schools |
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Achievements:

A.3.1: COVID-19 Response and Recovery:

- The need assessment of WASH facilities was successfully conducted in all 20 project schools. This is 100% achievement.
- 20 (100%) improved hand washing facilities were supplied in all 20 project schools
- 6 water storage tanks (150%) were installed in 6 selected needy schools relative to initially planned 4 schools. It was possible to install 2 more water infrastructures as some of the planned activities to respond to COVID-19 were not implemented post schools re-opening. The funds were then re-allocated for the facilities.
- Protocols issued by the responsible ministries and agencies (including ministry of education science and technology, ministry of health, community development, children, elderly and gender, WHO and UNICEF) were disseminated to all the 20 project schools. They included:
 - Mwongozo wa udhibiti wa maambukizi ya ugonjwa wa Corona (COVID-19) katika shule, vyuo na taasisi za elimu nchini (version I &II)
 - Tanzania basic education sector response and recovery plan due to effects of coronavirus disease (COVID-19)
 - Maandalizi ya mazingira ya shule, chuo na taasisi za elimu kabla ya kufunguliwa
 - Jielimishe kuhusu ugonjwa wa Corona (COVID-19)
 - How to use mask
- 211 (80%) out of the expected 265 School Committees as “school health safety committee”, Education Officers, teachers and community leaders from the 20 schools were trained on the COVID 19 response protocols.

A.3.4 School based training in school gardening and provision of seeds, tools and supervision in the 20 target schools, in collaboration with the Ward Extension Officers:

- There was provision of 8 types of seeds to all 20 primary schools plus facilitation to ward extension officers who monitored and advised on proper gardening in all 20 project schools.



A.3.5 School based training in avocado planting and production in all 20 schools in collaboration with Ward Extension Officers:

- The 4 ward extension officers were facilitated and worked with the SHIPO hired CDO to monitor and advise on the proper keeping of the 20 schools avocado plantations

Challenges/Setbacks:

The big challenge encountered during the distribution of vegetable seeds exercise was rainfall that led to some passability difficulties in some roads. Kitewe primary school was completely not reachable hence its seeds were delivered to the Mawengi ward education officer who delivered them to the respective head teacher

Unconducive weather and pest attacks were some reasons indicated by the WAEOs to have caused the failures in production and provision of the meals ingredients by some schools

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| Output 1.4: | Increased awareness on child rights and child protection among the 20 school communities |
|--------------------|--|

Achievements: *[show A4.1 to A4.4 achievements according to the project targets]*

A.5.1 Mapping of education and nutrition programs in Njombe:

- A total of 9 technical working groups on nutritional affairs were reached.

A.5.2 Conduction of a study on nutritional status of school children, school meals and nutrition practices:

- The activity was not conducted due to the outbreak of COVID-19 pandemic

A.5.3 Conduction of a study on Out-of-School children

- The activity was not conducted due to the outbreak of COVID-19 pandemic

A.5.4 Workshops to present the findings of the studies

- The activity was not conducted due to the outbreak of COVID-19 pandemic

A.5.5 COVID-19 Preparedness and Response: Communication and advocacy; Teacher training and learning; Plan for continuity of learning during school



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closure

- A total of 712 COVID-19 awareness materials (including posters and manuals/guidelines) were printed and distributed to all the 20 project schools.
- 15 villages (100%) were sensitized via the public addressing system using the COVID-19 awareness audios provided by the ministry of health
- Only 54 persons (64%) including 31 teachers, 19 head teachers and 4 ward education officers) were reached. This is out of the expected 85..

Challenges/Setbacks:

- Schools were closed and meetings/gatherings banned by the government due to COVID-19 outbreak. This caused the activities planned between March and June 2020 not to be conducted.
- It was observed that a good number of teachers are not possessing smart phones hence not active in using Whatsapp (communication challenges)



2.3 Finances

2.3.1 Implementation rate (IR)

| | Planned Budget for 2020 | Spent | IR |
|-------------------------------|-------------------------|-----------------------|---------------|
| Direct Activities Costs | 104,125,000 | 96,957,500 | 93.12% |
| Administrative Costs | 36,125,000 | 36,125,000 | 100% |
| Human Resources Costs | 63,750,000 | 60,562,500 | 95% |
| Quality and controlling (M&E) | 8,500,000 | 8,500,000 | 100% |
| Total | 212,500,000.00 | 202,145,000.00 | 95.13% |

2.3.2 Total Project Funding

| | Planned Budget for 2020 | Actual | % |
|---------------------------------|-------------------------|-----------------------|-------------|
| Total Income of the Project | 104,125,000 | 104,125,000 | 100% |
| Donor 1: Funds | 36,125,000 | 36,125,000 | 100% |
| Total external sources of funds | 63,750,000 | 63,750,000 | 100% |
| Local/In-kind contribution | 8,500,000 | 8,500,000 | 100% |
| Total | 212,500,000.00 | 212,500,000.00 | 100% |

2.3.3 Explanation for funding IR

The project activities were to a great extent implemented as planned. However, some activities were changed to enhance counteracting the COVID-19 pandemic. These changes plus the exchange rates of euro to Tanzanian shillings led to the expenditures of 95.13%.

Some of the initially planned activities including: Global Action Week on Education, School committees workshops, nutrition surveys, and out of school children study were not conducted; instead COVID-19 pandemic prevention interventions replaced them hence caused the variations in expense relative to the planned budgets.



CHAPTER THREE

3.0 BORESHA ELIMU MBOZI

3.1 Background and Introduction

The Tanzanian Education Sector Development Plan (ESDP) for 2016/17 to 2020/21 is guided by the National Education and Training Policy 2014 focusing on Universal basic education, expansion of technical and vocational education combined with greater enrolment in science and mathematics; and a consistent focus on quality teaching and learning.

In Tanzania, according to the reading, writing and mathematics assessment which was conducted by NECTA¹, a large percentage of children are able to read (almost 80% scored at least 78% on the reading test); however only 23% attained a satisfactory level of reading with comprehension. The national early grade mathematic assessment (2018) for Grade II students shows an alarming result of 36%.

Following the introduction of the national Big Result Now (BRN) campaign in 2013 there has been a steady improvement in Primary School Leaving Examination (PSLE) pass rates to 50.6% in 2013, 57.0% in 2014, 67.8% in 2015 and 70.4% in 2016. National Primary retention has gradually decreased, from a reported retention of 100% in 2009 to 85% in 2013 and just 56% in 2016. Dropout at national level rose by almost a third at primary between 2009 and 2016, to an average annual rate of 6.4%.

Before the start of Boresha Elimu Mbozi in 2019, results from 20 schools showed that the dropout average annually was at 3% (3% m and 2% f). Should this situation in terms of dropout and year-on-year promotion prevail in the future, just 64% of children commencing primary today would expect to finish the primary cycle (62% m and 67% f).

¹ URT, Education Sector Development Plan 2016/17 – 2020/21, by Ministry of Education, Science and Technology, Page 21.

Link - https://planipolis.iiep.unesco.org/sites/planipolis/files/ressources/tanzania-mainland_esp_2016-2021-.pdf



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Despite achievements recorded in the implementation of the policy like high enrolment of children in pre and primary schools, there were still challenges facing quality of primary education especially in rural areas such as Mbozi District. These include: Poor engagement of parents & community in the education process of their children, poor school attendance among girls and boys, poor teaching quality in target schools and low performance of the school management.

In-line with the major concern of society and the government regarding ensuring that education is improved and that its quality is maintained to enable learners acquire the intended learning outcomes, the BORESHA-ELIMU-MBOZI project is determined to improve access to quality education. The project focuses on improvement of parents' and community engagement in education process of the children; improvement of teaching quality; increasing of school attendance; and improving performance of school management in 20-Primary schools of Mbozi DC in the period 2019 to 2022.

Evenly, the Ministry of education introduced the School Information System (SIS). SIS is a school-oriented tool that provides school data collection, school data processing, and aggregated reporting at school. Daily records for attendance (students and teachers), evaluations and behaviour will be captured through this system.

Besides, during the outbreak of COVID-19 from March to June 2020, the government of Tanzania joins several African nations that have taken a wide range of strong actions to slow the spread of the disease, and during schools reopening, Tanzania schools urged to observe COVID-19 guidelines for reopening.

All school's management should put in place prevention and protective guidelines for COVID-19 issued by health authorities, including installing facilities for hand washing.

Significantly, the government of **Tanzania** conducted **National Election** on October, **28th** 2020. The ruling party won the seat and became in position to lead the country for next 5 years as per the National constitution. This effect will continue providing a persistent support on education improvement programmes basing on previous efforts made so far from 2015 to 2020 in Tanzania.



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3.2 Objectives:

3.2.1 General Objective

- To improve Access to Quality Education in 20 Primary Schools of Mbozi District Council

3.2.2 Specific objectives

- In order to achieve the project general objective, the following specific objectives are planned to be achieved in 20 primary schools within the project coverage in Mbozi DC.
- To improve parents' and community engagement in education process of the children from 800 to 833 parents by December, 2020;
- To increase school attendance among girls and boys from 80% to 84% by December, 2020;
- To improve teaching quality in target schools from 36 to 58 teachers started to apply competence-based skills according to the new curriculum by December, 2020; and
- To improve performance of school management from 0 to 7 schools by December, 2020.

3.3 Activities carried out during the year

3.3.1 Output: Improved parents' and community engagement in education process of the children.

- Training of Child Protection Committees in 5 centres for 3 days;

3.3.2 Increased school attendance among girls and boys.

- Training girls clubs, child rights clubs and health and environmental clubs in 20 schools about MHM, child rights/ protection and environmental/health issues in 20 partner schools. (*The trainings held in 5 centres for 2 days @ training*);
- Sensitization meetings: Running campaigns, in raising awareness among parents and citizens through appropriate media and communication channels about COVID;



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- Awareness meetings: continue raise community awareness of COVID-19 challenge and support parent around parenting and child protection within 19 villages' covered with PCF project for Boresha Elimu in Mbozi DC.
- Improve water facilities in 3 partner schools by construction of well with installation of electricity pumps, hand washing facility (with 8 hygienic water taps) and 1 water point to improve access of water for school WASH issues.

3.3.3 Improved teaching quality in target schools.

- Production and distribution of sanitizer packages including advanced local hand wash facilities and soap to 19 local village offices, 5 ward offices, 19 health centers, 20 primary schools, District education offices and to potential public gathering areas within the project scope;
- Conducted 5 days teachers' training on application of new curriculum, and 3Rs for 50 teachers (14 male and 36 female) from 20 schools;
- Conducted 5 days improvisation training for 50 teachers (14 male and 36 female) of lower levels in 20 primary schools;
- Conducted 5 days PTM, application of competences of curriculum training to 134 teachers (91 males, 43 female) from 20 primary schools.

3.3.4 Improved performance of the school management

- 20 School Management Committees (SMCs) are newly formed for 1 day and got trained for 3 days during July to Aug 2020 with reference to the new guideline provided from Ministry of Education (circular No.1 of 10th December, 2018).

3.4 Achievements of the project during the year

- In 20 project schools of Mbozi DC, the main achievements during 2020 are:
- STD VII pass rate increased from 66.5% of 2019 to 78% in 2020 (67% for boys and 89% for girls) compared to the expected target of 71% of 2020;
- STD IV 2020 in 20 project schools of Mbozi DC increased from 51% of 2019 to 78% (85% girls and 71% boys) in 2020. This is 116% of achievement with reference to expected 2020 target value of 67%;



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- The students’ attendance rates of STD I to VII of boys and girls in the 20 project Primary Schools, increased from 84% of 2019 to 91% of 2020 according to students’ attendance reports in 20 schools;
- The parents’ attendance in the quarterly school meetings increased from 800 of 2019 to 1579 of the last quarter of 2020 according to schools’ parents’ meeting reports. The target for 2020 was 833 but the number exceeded by 746 parents. In addition, 40 new classrooms blocks have been constructed up to the roofing stage in 20 schools due to parents’ contribution. Also, 13 out of 20 schools (thus 65%) started a school feeding programs through community/parents’ contributions. The achievements were more than expected, the target for 2020 was set at 20%;
- 3 out of 20 schools (30% or 6 schools was targeted for 2020), improved access to clean and safe water for school WASH issues due to construction of 3 water wells with electricity pump and hand wash structure in, Msense and Makua Primary School. 1,811(884 boys and 927 girls) Primary school children will benefit from this sanitary installation;
- The knowledge of Menstrual Hygiene Management among girls from STD III-VII increased from ‘0’ of 2019 to 280 in 2020;
- 76 teachers out of 58 targeted in 2020, and comparing with 36 of 2019, started to apply competence-based skills according to the new curriculum in 2020.

3.5 Constraints/Challenges faced and actions taken

| Constraints/Challenges | Action Taken |
|---|---|
| During the assessment of students' ability on UWEZO test conducted by SHIPO together with head of schools, it has also been observed that STD III and above students are doing poorly in English because it is in STD III when they start learning English as a new subject/language and are given difficult words and long stories while | The project determined this through thinking about it during the next future interventions (phase). |



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| <p>they have no subject/language base yet</p> | |
| <p>One of the barriers to achieve more involvement of the parents/community members' participation in school development activities is insufficient government support on the classrooms construction, as a result, 30 classrooms not completed.</p> | <p>The project will continue doing more effort on sensitizing community members and parents' engagement on education process for their children</p> |
| <p>The target was to construct 10² water wells with installed rope pump by the end of 2020. However, due to introduction of electricity in the project area, the District Water Engineer at Rural Water Supply Agency in Mbozi recommended to construct water wells with electricity pumps and to advance the technology by using electricity pump instead of rope-pump to supply water more effectively.</p> | <p>The price for electricity pump technology plus the hand wash structure is more than rope pump, and this made the available funds be adjusted to cover only three schools instead of 10 out of 20 schools at this phase of 2019-2022. The rest of schools will be considered in the next plans after approving the functionality of the constructed current structure.</p> |
| <p>Due to COVID-19 spread, the training for 40 teachers from 20 schools on guidance, counselling and child protection guidelines by PCF TAN was not successfully; and</p> <p>Output 2.3 Awareness raising meeting on Menstrual health management for girls, community and parents was changed to Campaign on COVID-19 by using public addressing system.</p> | <p>Instead, the funds were reallocated on supporting COVID-19 related interventions to support education process in 20 schools. Funds used for production, printing and distribution learning materials available for 3,337 (1970 boys and 1367 girls) of class IV and VII students, and be distributed to 20 primary schools of Mbozi DC.</p> |

² Name of the schools planned to be provided with a water well: Nansama, Lugwa, Mtunduru, Naulongo, Nsenga, Lyenga, Msense, Iwezi, Mwanda and Makua



3.6 Finance and Implementation rate (IR)

3.6.1 PCF Funding

| | Planned Budget 2020 | Budget Spent | IR |
|-----------------------------|-----------------------|-----------------------|--------------|
| Direct activities cost | 150,515,000.00 | 151,448,617.50. | 100.62 |
| Administrative costs | 23,511,530.00 | 23,511,530.00 | 100.00 |
| Human resources cost | 176,904,000.00 | 174,988,625.76 | 98.92 |
| Quality & controlling (M&E) | 8,460,000.00 | 8,380,000.00 | 99.05 |
| Total | 359,390,530.00 | 358,328,773.26 | 99.70 |

3.6.2 Total Project Funding

| | Planned Budget 2020 | Actuals | % |
|---------------------------------|---------------------|----------------|-------|
| Total income of the project | 359,390,530.00 | 358,388,204.00 | 99.72 |
| PCF funds | 359,390,530.00 | 358,388,204.00 | 99.72 |
| Total external sources of funds | 0.00 | 0.00 | 0.00 |
| Add lines if needed | | | |

3.6.3 Explanations for Implementation Rate

Bank charges associated to Direct activities costs were charged in the line of Direct activities cost, but originally it was not budgeted.

NHIF Contribution was budgeted based on Gross Salary, but actually it was



calculated based on basic salary. But this was corrected in the second semi-annual estimation, that is why actual income received is 99.72%

CHAPTER FOUR

4.0 SMART CENTRE

4.1 SKAT Project: Capacity building for local artisans

4.1.1 Introduction

In Tanzania, SMARTechs³ is applied by SHIPO⁴ in one of its units called SMART Centre. Each year entrepreneurs are trained about WASH sector. This technology centered on scaling up the access to water and sanitation by means of building supply chain of innovate, cost-effective, and market-based technologies and products.

SMART Centre Tanzania contributes effectively to sustainable improvement in the living standards of poor people in Tanzania through:

- Providing a range of 13 innovative low cost technologies so called SMARTechs.
- Training the local private sector in production, maintenance of SMARTechs and also in business skills.
- Doing long term follow up on quality of our technologies.
- Creating a “Profit based sustainability” as water points with SMARTechs are low cost, spares are available and the local private sector will continue their business after training.
- Reducing cost of communal water supply and increase options for Self-supply (for example private wells) and Self-supply results in increased family incomes and food security.

³ Simple_Market-based_Affordable_and_Repairable_Technologies

⁴ Southern_Highlands_Participatory_Organization



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More than 40 groups of entrepreneurs from Tanzania’s regions (Njombe, Iringa, Mbeya, Kilimanjaro, Tabora, Singida, Dodoma, Morogoro, Ruvuma and Arusha) were trained about the application of SMARTechs. This technology is likely on nature based solution for adaptation to climatic change basing on its use economically, socially and physically (health).

SHIPO has done the direct follow-up to all trained entrepreneurs to understand in what way they are applying acquired knowledge on the application of SMARTechs in different location within Tanzania for to provide the right solution for access to clean and safe water as well as promoting climatic change adaptation practices.

Through follow-ups and observations made by SHIPO, currently there are 15 operating groups involving more than 60 trained artisans in Tanzania. The results implies about 37% of trained artisan are practicing this technology. More jointly determinations are essential on promoting this technology application by all water stakeholders⁵ to have the successful adopted SMARTechs with the right solution for access to clean and safe water and adaptation to climatic change.

It is only 57 percent of Tanzania’s population of 57 million have access to an improved source of safe water, and only 30 percent of Tanzania’s population has access to improved sanitation. Under these circumstances people, particularly women and girls, spend a significant amount of time travelling some distance to collect water. The demand for both water and sanitation are high. The market for water products (storage tanks, pipes, rain harvesting facilities, etc.) and suppliers appears to be dynamic. And by taking advantage of the growing digital finance sector, there is a strong opportunity for our water credit solution in Tanzania⁶. The SMARTechs’ usage benefits on access to clean and safe water and adaptation to climatic change practices.

4.1.2 SKAT Project information

| | |
|-----------------|--|
| Project Name: | <i>Capacity building for local artisans (SKAT Project)</i> |
| Project Number: | TZNJ 93I |

⁵ All-entities-involved-on-water-issues/practices/uses-within-Tanzania-(i.e.-Ministry,-NGOs,-FBOs,-etc.)

⁶ <https://water.org/our-impact/tanzania/>, Tanzania’s Water Crisis (2019). [Accessed on 9th Feb 2020, 11:20am].



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| | | |
|---------------------|--|--------------------------|
| Project Duration: | From: January 2020 | To: December 2020 |
| Reporting period: | From: January 2020 | To: December 2020 |
| Donor | Drink and Donate through SKAT Foundation | |
| Planned budget: | Tsh: 130,000,200 | % 100 |
| Spent budget and %: | Tsh: 130,000,200 | % 100 |

4.1.3 SKAT Project summary report

Since 2012 Drink and Donate/ZH₂O through SKAT foundation has been supporting a training program organized by SHIPO SMART Centre in Njombe, at the Southern Highlands in Tanzania. The aim of the training is to provide technical skills to local entrepreneurs in the production and installation of rope pumps and different techniques of manual drilling and hand digging, business skills after technical training, quality assurance through monitoring and certification program as well as advocacy to the government (Collaboration with government Institutions in training, monitoring and certification program).

After 7 years in operation, the program has achieved successful results: 15 of the trained groups are still active, involving more than 60 artisans and around 37,249 people have benefited from the wells and pumps installed by the trained artisans, including schools and hospitals. These numbers are mostly based on the wells and pumps checked and got certified from 2016 to 2019 by SHIPO under certification program.

In 2020, the training focused on artisans inside the existing groups who have not been trained before as well as on previously trained artisans for updating their knowledge and skills on new related technologies. In addition, 2020 training targeted farmers for training on the productive use of SMARTechs i.e shallow wells, pumps and drip irrigation kits.

Project Scope



Ruvuma, Mbeya, NJombe and Iringa from January 2020 to December 2020

Training

Based on the feedback received from the participants it can be concluded that the training was successful. The participating entrepreneurs increased their knowledge and practical experience. Most of the trainees were motivated with the new topics introduced during 2020 training e.g Horticulture and aquaculture training, Fabrication of advanced hand washing facilities, experience sharing as well as sharing from different farmers as well as how the SHIPO demonstration plot was organized i.e show the productive use of shallow wells and pump in farming activities. The local entrepreneurs (wells and pump producers) are now expected to be able to provide quality services to the population in new areas where the SMARTechs have not reached yet. Another objective that was met was that the farmers managed to understand how to use shallow wells and drip irrigation system in productive ways and integrate them in their activities.

Wells and pumps monitoring

More than half of the trained farmers have tried to practice what they had been trained in the 2020 training.

The Certificate provided to trained drillers and pump producers became useful to them because one group managed to win a government tender in the competition with registered companies, so the group has successfully managed to install a water point in a government dispensary.

After long journey to make the government recognize the SMARTechs, finally during 2020 program SHIPO has managed to sign a MoU with the Water Institute.

4.1.4 Project Objectives

Overall objective: The project aims to improve the knowledge and skills of local technicians in manual drilling techniques and in manual pump production and installation as well as to promote the use of the SMARTechs in agriculture.



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| <p><u>Specific Objective 1:</u></p> | <p>A1.1:</p> | <p>To capacitate local entrepreneurs working in the water self-supply sector to provide better services to the population (their clients) and to increase the number of available competent drillers and rope pump producers as part of a strategy to consolidate the water self-supply market in the Southern Highlands of Tanzania.</p> |
| <p><u>Specific Objective 2:</u></p> | <p>A2.1:</p> | <p>To create awareness to the local farmers who are the customers of SMARTechs i.e Shallow wells, pumps and drip irrigation kits, on the productive use of these technologies.</p> |

4.1.5 Results per project outcome(s) and Outputs

| | |
|--|--|
| <p>Outcome 1:</p> | <p>Improved knowledge and skills of 60 local technicians in manual drilling techniques and in manual pump production and installation as well as to promote the use of the SMARTechs in agriculture.</p> |
| <p>Achievements:</p> <p>The trained entrepreneurs increased their knowledge and practical experience.</p> <p>Monitoring and Certification program helped in quality control from the trained entrepreneur</p> <p>After long journey to make the government recognize the SMARTechs, finally during 2020 program SHIPO has managed to sign a MoU with the Water Institute.</p> <p>Challenges/Setbacks:</p> <p>Due to COVID -19 issues some of the activities did were not achieved as</p> | |



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| <p>planned eg. Implementation of MOU between SHIPO and Water Institute.</p> | |
| <p>Output 1.1:</p> | <p>60 local entrepreneurs working in the water self-supply sector to provide better services to the population capacitated to increase the number of available competent drillers and rope pump producers as part of a strategy to consolidate the water self-supply market in the Southern Highlands of Tanzania.</p> |
| <p>Achievements:</p> <p>About 100 water points were reported; and 85 water points was visited and checked on quality.</p> <p>About 15 famers were visited and checked on quality.</p> <p>Challenges/Setbacks:</p> <p>Due to COVID-19 issues some of wells were not visited as well as famers and drillers did not manage to implement what they have been trained as it was planned.</p> | |
| <p>Output 1.2:</p> | <p>Increased number of available competent drillers and rope pump producers as part of a strategy to consolidate the water self-supply market in the Southern Highlands of Tanzania.</p> |
| <p>Achievements:</p> <ul style="list-style-type: none"> i. 20 artisans got certificate from WATER INSITUTE. ii. Managed to start making use of the existing resources on the demonstration plot (wells, pumps, tanks and drip irrigation kits) for horticulture activities (Productive use of SMARTechs) in collaboration | |



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with a local agricultural company.

- iii. Integrated the wells and rope pump training with new topics like Bio-sand filter training, installation of submersible pumps, Hydrum pumps etcetera.
- iv. 12 groups of the artisans have been trained and monitored during 2019 program, involving 121 wells and pumps installed.
- v. 20 artisans from the 12 monitored groups in 2019 attended the short course training on hydrogeology and water well drilling offered by Water Institute through the Ministry of Water and Irrigation were certified.

Note: *The Water Institute is the government Institute that is responsible for providing technical education and training, conducting research and providing consultancy services for integrated development and management of water resources in the country, East Africa and Africa as a whole.*

- vi. The quality of the products/services offered to the community through trained artisans increased.
- vii. 114 out of 121 visited water points were fully functional, but 7 of wells were functional and need to be deepened to increase water yield capacity.
- viii. Number of beneficiaries who use the water as a main point source (For all activities, during the day and night) were 2,243.
- ix. Numbers of beneficiaries who use the water point partially/only during the day/holidays/for specific activities were 4,420.

Challenges/Setbacks:

Not all trained artisans managed to practice what they have been trained during 2020 training.

Among 20 trainees who got Certificate from the WATER INSTITUTE OF TANZANIA; only one group make use of it.

Some of the trained artisans did not show up during wells and pumps monitoring visits



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| Output 1.3: | Increased awareness to the local farmers who are the customers of SMARTechs i.e Shallow wells, pumps and drip irrigation kits, on the productive use of these technologies. |
| <p>Achievements:</p> <p>About 32 farmers got training on horticulture aquaculture training and business training.</p> <p>5 groups of pump producers got training in fabrication of hand-washing facilities and rope pump production</p> <p>9 groups of drillers/diggers got training on drilling shallow wells</p> <p>Challenges/Setbacks:</p> <p>Only 15 farmers manage to practice what they have been trained I horticulture and none in fish farming.</p> <p>Participation of women in training were very poor</p> | |



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4.1.6 Funding: Finance and Implementation rate (IR)

| | Planned Budget for 2020 | Spent | IR |
|-------------------------------|--------------------------------|--------------------|-------------|
| Direct Activities Costs | 60,582,000 | 60,582,000 | 100% |
| Administrative Costs | 11,818,200 | 11,818,200 | 100% |
| Human Resources Costs | 57,600,000 | 57,600,000 | 100% |
| Quality and controlling (M&E) | ----- | ----- | |
| Total | 130,000,200 | 130,000,200 | 100% |

4.1.7 Total Project Funding

| | Planned Budget for 2020 | Actual | % |
|---------------------------------|--------------------------------|--------------------|-------------|
| Total Income of the Project | 130,000,200 | 130,000,200 | 100% |
| Donor 1: Funds | | | |
| Total external sources of funds | | | |
| Local/In-kind contribution | | | |
| Total | 130,000,200 | 130,000,200 | 100% |



4.2 Njombe beyond – plastic recycling project

4.2.1 Introduction and Project background

This project is about training entrepreneurs in plastic recycling on a small scale. The final objective of the project is: to reduce the plastic wasted in Njombe town and to raise awareness in the local community about the problems and opportunities around plastic.

The project strategy to achieve the main objective is through accomplishing the following specific objectives:

- To establish a sustainable value chain for plastic recycling locally and at small scale;
- To collaborate with the different stakeholders of the chain and ensure fair working conditions; and
- To involve the community, including schools, in Njombe Beyond to shed light on the problems and opportunities of plastic waste.

4.2.1.1 Background of the project

Njombe is a growing town, it has around 100,000 inhabitants who generate more than 35 tonnes of waste per day. 28 tonnes piled in the dump site, where it is a common practice to burn the waste due to lack of space. The rest of the waste is burnt in the pits in backyards or it simply ends up in the environment.

More than 10 % of the waste is plastic: 3500 kg per day and more than 1000 tonnes per year that are piled, burnt or disposed of in the environment.

Until the end of 2017, part of the plastic bottles were collected by companies in Tanzania and sent to China. However, since 2018 China has stopped importing plastic waste. Hard plastic is partly recycled in Dar es Salaam (the economic capital of Tanzania) but there is no market for the plastic bottles.



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In Njombe, there are informal pickers who collect and shred the plastic to transport it to Dar es Salaam. This city is 700 km far from Njombe, which makes this option non-sustainable.

The demographic growth in Njombe and the increase of 400% [1] of the imports of plastic and rubber since 2000, indicate that the plastic waste problems will not decrease.

Unfortunately, Njombe is not an exception on this: the situation in the rest of Tanzania and Sub-Saharan Africa follows the same trend: the population in Tanzania is expected to more than double by 2050 and consumption rates are increasing due to development. Consequently, waste generation rates are expected to be more than triple in the country by 2050 while only 48% of the waste is collected and there is lack of waste separation and treatment options [2]. This indicates us that actions need to be taken now, before this global problem gets worse.

The aim of Njombe Beyond is to reduce the plastic wasted in Njombe town through the development of a local plastic recycling network and through awareness raising among the local community about the problems related to plastic waste.

For that, we are developing a workshop to recycle plastic on a small scale by using the Precious Plastic machines. Following the effective approach of the SMART Centres, these machines will allow local entrepreneurs to experiment and learn how to build the machines and how to recycle with them. In addition, we will train and support them in their adventure of starting their business in plastic recycling in key topics like marketing and accounting.

Nowadays, informal pickers carry out plastic waste collection; we will collaborate with them to ensure a fair salary and safe working conditions.

We are collaborating with small companies and industries and the community to discover what to produce to satisfy local needs.

"In this way, plastic waste will no longer be a problem; instead, it will be valuable for the people in Njombe: by creating new jobs and by improving the current ones,



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manufacturing recycled products useful for the local community and by raising environmental awareness."

We conceive this project as a first step to make Njombe a circular town, to go "beyond": beyond the current situation, the increasing waste generation, the pollution and the linear economy.

We want the schools to be part of the project. Through different events like presentations, tournaments and visits to the workshop, we want the younger generations to discover the impact of plastic as well as its value and potential.

Success

Njombe Beyond project was started in 2019. First of all, the researched about the current waste management system in Njombe town was done through:

- Meetings with the Town Council;
- Meetings with entrepreneurs dealing with waste and waste characterization campaigns;
- Through a crowd funding campaign, SHIPO managed to get more than 9,000 euros to start the plastic recycling workshop with the machines from Precious Plastic;
- A local workshop fabricated the first machine, the injection machine;
- SHIPO's buying shredded plastic from a local person and producing some coasters/tiles while learning about the machine and designing the plastic recycling process (including collection, shredding, washing, sheaving, sorting, etc.);
- SHIPO conducted a market research in local kindergartens and schools and come-up with a list of teaching and learning materials that will be produced with the injection machine, and that are useful to them; and
- In September 2019, SHIPO also arranged the World Clean-Up Day for the first time in Njombe, where more than 200 people participated and 3,141kg of waste were collected (a full waste collection truck).

The main achievement of Njombe Beyond project during 2020 was to produce and market the first plastic recycled products, i.e. the washers for lampshades and the face shields. The latter were approved by TMDA (Tanzania Medicines and



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Medical Devices Authority) for medical use, which was also a big success for the project

Another achievement was that we managed to produce the compression machine by ourselves in our workshop.

4.2.2 Project Objectives

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| <u>Overall objective:</u> | | |
| To reduce the plastic wasted in Njombe town and to raise awareness in the local community about the problems and opportunities around plastic | | |
| <u>Specific Objective 1:</u> | A1.1: | To establish a sustainable value chain for plastic recycling locally and at small scale |
| <u>Specific Objective 2:</u> | A2.1: | To collaborate with the different stakeholders of the chain and ensure fair working conditions |
| <u>Specific Objective 3:</u> | A3.1: | To involve the community, including schools, in Njombe Beyond to shed light on the problems and opportunities of plastic waste |



4.2.3 Results per project outcome(s) and Outputs

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|---|---|
| Outcome 1: | Sustainable network for plastic recycling is developed locally |
| Output 1.1: | Plastic recycling workshop is operating with 4 small-scale machines: injection, compression, extrusion and shredder |
| <p>Achievements:</p> <ul style="list-style-type: none"> - Molds for 3 types of products were designed and produced manually and locally and proved to be successful in our injection machine - The compression machine was built at our workshop <p>Challenges/Setbacks:</p> <ul style="list-style-type: none"> - The lack of collaboration with other professionals who can complement the work of the designer and the mold producer delay the product development process | |
| Output 1.2: | Economic sustainability of plastic recycling on a small-scale is proved |
| <p>Achievements:</p> <ul style="list-style-type: none"> - 2 products were marketed: the washers for lampshades and the face shields <p>Challenges/Setbacks:</p> <ul style="list-style-type: none"> - Initial underestimation of the time needed for product development - Unpredictable changes in the COVID-19 response in Tanzania made us produce a lot of face shields that have not been sold yet - Lack of marketing skills | |
| Output 1.3: | Different actors for plastic collection, shredding, mold |



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| | production are involved in the plastic recycling process |
| <p>Achievements:</p> <ul style="list-style-type: none"> - 2 industries and 2 hotels collaborate in the plastic collection - Shredded plastic has been bought from 2 artisans shredding plastic in town <p>Challenges/Setbacks:</p> <ul style="list-style-type: none"> - Difficult to track the plastic waste and the different actors in Njombe | |
| Output 1.4: | 4 local entrepreneurs are trained on machine production, operation and maintenance, business skills, etc. so that they can start their business on plastic recycling |
| <p>Achievements:</p> <p><i>Waiting to prove the economic sustainability to offer these trainings</i></p> <ul style="list-style-type: none"> - Young laborer working in the workshop is getting trained by doing | |
| Outcome 2: | Awareness on the impacts of plastic waste increases among the local community |
| Output 2.1: | 6 classes from secondary schools in Njombe town visit the recycling workshop |
| <p>Achievements:</p> <ul style="list-style-type: none"> - 120 students from Form 3 and Form 4 from Mpechi secondary visited the workshop, tried the machines and had a discussion on environmental problems | |



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| <p>Challenges/Setbacks:</p> <ul style="list-style-type: none"> - Long procedure to get our invitation to the workshop accepted by the LGAs - Not enough coordination with the teachers to ensure small groups of students in the different stations of the visit | |
| Output 2.2: | 300 people participate in community clean-ups |
| <p>Achievements:</p> <ul style="list-style-type: none"> - 89 people participated in the clean-up organized in September as part of the World Clean-up Day campaign organized in collaboration with Njombe Town Council <p>Challenges/Setbacks:</p> <ul style="list-style-type: none"> - Difficult to find local volunteers who are willing to participate in a clean-up | |
| Output 2.3: | 2 environmental events are conducted in Njombe town |



4.2.4 Finance and Implementation rate (IR)

| | Planned Budget for 2020 | Spent | IR |
|-------------------------------|-------------------------|------------------|------------|
| Direct Activities Costs | 2,625,217 | 2,625,217 | 100 |
| Administrative Costs | 356,200 | 356,200 | 100 |
| Human Resources Costs | 1,753,000 | 1,753,000 | 100 |
| Quality and controlling (M&E) | 0 | 0 | --- |
| Total | 4,734,417 | 4,734,417 | 100 |

4.2.5 Total Project Funding

| | Planned Budget for 2020 | Actual | % |
|---------------------------------|-------------------------|------------------|------------|
| Total Income of the Project | 4,734,417 | 4,734,417 | 100 |
| Donor 1: Funds | --- | --- | --- |
| Total external sources of funds | --- | --- | --- |
| Local/In-kind contribution | --- | --- | --- |
| Total | 4,734,417 | 4,734,417 | 100 |

4.2.6 Explanation for funding IR

Njombe Beyond does not have an annual planned budget. The project had a budget of 21,291,526 Tshs in September 2019 when the project started. At the end of 2020, it still had 14,633,000 Tshs to continue developing the project activities.

4.2.7 Areas for improvement

- A continual improvement of funding strategies that will sufficiently covers the need to:



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- Invite the international trainers to have new SMARTecs updates during training; and
- Finalize the Rope pump curriculum in collaboration with Tanzania Vocational Education and Training Authority (VETA)
- Come up with ideas of what to produce with the recycled plastic, and to find local entrepreneurs who can produce the required molds with their techniques.