Note: this report presents Zeze village pilot maize production scheme outcome as at the farming season of 2016/2017.

IMPROVED SMALL SCALE FARMING SCHEME REPORT

IMPLEMENTATION DUE PERIOD: OCTOBER 2016 – SEPTEMBER 2017

THE CASE OF MAIZE FARMING

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1.0. ABSTRACT

Mboni ya Vijana launched Improved Small Scale Farming Scheme at Zeze in 2015 aims to improve agricultural production per acre. The scheme focuses on supporting the community (small farmers) improve production methods, increase yields per acre and ensure they are safe to income and food security. The scheme facilitates beneficiaries’ access to sustainable farming education, start up capital (loan), water for irrigation and market. The scheme supports small farmers be aware with climate change and adaptation hence they are able to store food and not causing environmental hostility through shifting and traditional farming systems.

In 2016, Mboni ya Vijana effectively commenced implementing the scheme after it has investigated agriculture and community demands and challenges. In the starting phase, Mboni ya Vijana trained youth on borehole drilling and rope hand pump manufacturing to ensure it can provide water services to small farmers, mobilized and assessed economic status of the beneficiaries from Zeze, trained them best farming practices, supported them with farming implements in terms of loan and helped them to farms monitoring and maintenances up to last end.

Therefore, this report presents the technical procedures used, outcomes derived from the first phase and the future of the scheme. This report in mainly enumerate progresses made on maize production and its related results to the community, however, the future of the scheme encompasses on the general activities to implement for the farming season of 2017/2018 starting in November 2017 and lasting October 2018.

2.0. PRIMARY SCHEME INFORMATION

2.1. Maize Production Before

Zeze community characterize small scale traditional peasantry which restricts lives improvement than keep on environmental deteriorations through traditional shifting farming. According to the study before establishment of improved small scale farming scheme, peasants/families harvested between 0 and 3 sacks of maize per acre which are not enough to feed their families therefore made them to concentrate enough to farm three to five acres using hand hoe to get between 5 and 15 maize sacks for enough food for the families. The implications of this situation, people live hardly to survive extremely poverty.

2.2. Scheme Launching

Launching of the ISSF scheme associated with the area experience and studies conducted. The experience and studies conducted, revealed that Zeze community like other rural Tanzanians are living in extremely poverty so they are illiterate in farming best methods, haven’t capital to inject in agriculture, big families (average of 8 persons in a family depending on 2 – 5 acres), Reliance on maize as the main food crop, and operates agriculture during rainy season only (dry season no production than consumptions only).

Traditional farming has been running in an affiliation with wildfire burning, no waste decomposition practice, shifting farming, no fertilization of the soil and mixing crops on a farm. These practices reduce quickly the quality of the soil hence causing low maize and other crops yields on an area. The evidence shows that, most of the Zeze farmers/peasants have no food between December and February each year.

To overcome agricultural production challenges and ensure the community is self sufficient with food and income, Mboni ya Vijana launched Improved Small Scale Farming where has shown plausible outcome to 35 families participated in the scheme in the farming season of 2017/18.

2.3. Scheme modality

Most schemes in Tanzania are not sustainable because of financial issues especially reliant on memberships and donors. Also the communities when they are getting free services are paying less attention to its sustainability. Therefore, farming scheme is done in philanthropy loan modality to make it sustainable and benefit many clients even in the absence of further donors or other sources of funds. In this context its funds shall be in revolving form with a very fare conditions.
3.0. IMPROVED SMALL SCALE FARMING SCHEME IMPLEMENTATION ACTIVITIES

3.1. Trained youth about borehole drilling and rope hand pump manufacturing

This work aimed at enabling youth to support the community access to water for domestic and agricultural purposes. It went together with establishment of welding and carpentry workshop which all are working well and heading to impact agriculture.

3.2. Participants identification, assessment and selection

Under this activity, persons were identified according to their merits they have in the community. Basically persons who are single women family headed household (single mothers), haven't income generating activity, ready to work on the procedures required, have students and other heavily dependants in the households, were the primary beneficiaries given the priority.


3.3. Farming best practice training to small farmers

In October 2016 total 54 farmers were trained about best methods to run the scheme successfully. The training involved organic making and industrial fertilizers farming, effects and costs.

Plate 3: Small farmer on practical best farming methods training at Zeze village in October 2016. Field picture by Benedicto 2016
3.4. Provision of farming implements

In November 2016 Mboni ya Vijana provided agricultural implements in loans to 35 small farmers who were selected according to resources organized and extent of vulnerability. The implements provided included 8 kilograms of improved maize seeds, two bags of fertilizers, and insecticides to each participant.

Plate 4: Small farmers receiving improved maize seeds and fertilizers ready for planting. Field photos by Benedicto 2016

3.5. Provision of supervision and monitoring support to small farmers

Mboni ya Vijana continued with field support to enable the small farmers with proper planting, weeding, treating and harvesting maize to the good quality and high yields. These activities were field based and for large extent proved efficiency in making farmers harvest encouraging results.

Plate 5: Farms maintenance follow-up by Mboni ya Vijana done periodic to ensure farmers are successfully. Field photos 2016/2017

3.6. Project evaluation and review

Finally Mboni ya Vijana made a review in September 2017 to identify improved farming achievement, challenges and lay forward the activities to be implemented in the next phase of agriculture season of 2017/18. Evaluation findings are more explained in the outcomes and future plan sections.

Plate 6: Maize harvested ready for plucking. Field photo May 2017
4.0. REGISTERED OUTCOMES

Agriculture is the only business that can easily lift rural people from extremely poverty and improve lives of those who lost living hope. The small scale pilot maize farming scheme Mboni ya Vijana implemented in the farming season of 2016/17, has proved this truth through the following outcomes registered;

4.1. Increased maize yield per acre

Poorly farming methods practiced by Zeze community, have been restricting high production of maize and other crops of being unable to access to best farming skills, implements, and field advice. One acre were producing between 0 and maize sacks but the 2016/17 results have registered the harvest of 30 maize sacks each sack containing 5 buckets. The community itself it has declared it as the farm miracle because they did not have such harvest on an acre in the past 4 decades since the village formation in 1974. The table below presents the relationship between time and bags/sacks harvested in regards to farming improvement and traditional;

**Table 1: Change in maize harvesting (sacks) by period and number of clients who involved in Improved farming scheme**

<table>
<thead>
<tr>
<th>Period</th>
<th>35 clients maize harvesting comparison per acre before and after the scheme start at Zeze</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 – 5 sacks</td>
</tr>
<tr>
<td>Before the scheme</td>
<td>35</td>
</tr>
<tr>
<td>After the scheme</td>
<td>0</td>
</tr>
</tbody>
</table>

Plate 7: Christopher and his wife happily plucking maize after witnessing record maize production and maize in the storage. Field photo 2017

4.2. Increased income and food security to the families

The families those were involved in the scheme were those proved to be very week in terms of income and food security. People lived in grasses thatched, ate once or twice in a day and they have no maize balance between December and February. Their participation in improved farming scheme, they have improved their houses (means income has grown), by October 2017 they had enough stock to sustain their families to between May and July 2018. For us these are plausible results which have made by a single crop (maize) production, the results which have not witnessed 4 decades of traditional mixed farming at Zeze.

Plate 8: Reserved maize stock for family food in a farmer's house enough for six months. Field picture by Adrophina Sep. 2017
4.3. Reduced encroachment and shown a way for vegetation regeneration

The criteria for participating in the scheme includes prohibition of shifting farming which has been the great threat to natural resources like forest reserves. Farmers fleeing exhausted land and clear virgin land for the purposes of increasing productivities. The 35 beneficiaries involved, have stopped shifting farming to qualify for the farming support we provide. This fact implies that there are 35 acres which have served from encroachment and regeneration of vegetation is taking place.

Plate 9: A small farmer (Zeze) adapting improved farming practice after receiving MVG support. Field photo by Benedicto - Nov. 2017

4.4. Brought families wellbeing and unit

Family members have not been working together because each family member worked to sustain his or her demands which made loss of cooperation among family members. Unit and settlement in families have narrated following food and income sufficient made from improved farming. There are 9 families which revealed how they have been divided by poverty and current they are substantiating the return of love and unit because the families are now sufficient in food.

4.5. Motivated Zeze community to adapt improved farming

During project launching, only 54 farmers involved in improved farming training despite that 35 of them were supported. The families which have reached Mboni ya Vijana requesting to participate in the scheme for farming season of 2017/18, have reached 312 as at November 2017. There is the difference of 258 families from the last season, which it is good indicator of project acceptance and adaptable.

Plate 10: inspired Zeze community attending farmers meeting held at Mboni ya Vijana in May 2017. Field photo by Mashaka 2017
5.0. FUTURE PLAN (2017-2018)

During the September 2017 project evaluation and review meeting, Mboni ya Vijana revealed achievements and challenges those it should work on. For improving the scheme for the farming season of 2017/18, the meeting objected to implement the following activities to achieve long lasting outcomes;

5.1. To reaching at least 120 small farmers to participate in the scheme

The number of beneficiaries involved in Improved Small Scale Farming (ISSF) scheme in the first phase (2016/17), been small (35) while the demand is great. Up to September, more than 273 had reached Mboni ya Vijana asking farming implement support for 2017/18. The demand is big than the resources available however, it is agreed to looking for more support to reach the goal. These small farmers are interested in maize but very interested in other crops and irrigation as well.

5.2. Supporting small farmers with irrigation facilities

Small farmers in Zeze village relay much on seasonal farming which cannot empower them for real economic development. It has agreed that Mboni ya Vijana to support small farmers with water boreholes which will enable them run agriculture throughout the year. It has observed that one borehole can produce 10,200 litres per day which can serve 30 farmers. We need to supply small farmers with irrigation facilities and training to make farming scheme is impacting their lives sustainably. For the year 2017/18, Mboni ya Vijana aim at drilling 3 boreholes to the farmers sites in the modality of loan that will be repaid slowly.

5.3. Improve markets for agricultural goods

Agricultural goods from Zeze are sold at very low price and the major reasons are poor transportation infrastructures, lack of processing factories and lack of market information. Mboni ya Vijana is building its efficiency to access and disseminate market information to farmers, building agricultural processing factories and consulting businessmen to trade with Zeze farmers. This section requires integrated activities to make sure the goal is reached by 2027.

5.4. Training and capacity building to farmers

Small farmers especially in rural areas are associated with lack of knowledge and skills of production, manufacturing and marketing the field in which Mboni ya Vijana is working for to ensure the community itself has ability to produce goods of the quality that is acceptable at local and international markets. Successfully of this objective will provide best practices in improving farming and marketing the produces.

6.0. RESOURCES REQUIREMENTS

Mboni ya Vijana like Grassroot organizations, lacks proper access to resources however, we have already built the development base and we solicit grand and loans from partners and donors to achieve the objectives. The most resources available and require improvements include;

- Welding and carpentry workshop which is developing its capacity of building crops processing machines, water drilling equipment, and other industrial works has established at Zeze. This factory is helping the development of agriculture sector as in the future it will be producing agricultural equipment.
- Agricultural storage facility; Mboni ya Vijana constructed storage facility that is used for storing agricultural products. The storage built at Zeze improves agricultural storing and marketing despite that the storage requires expansion as the farmers are getting rapid increasingly.
- Human resource; Zeze community is the real example of Kasulu rural adapting community. No doubt with the readiness of the community to support and make the project viable as it is ready to participating in every stage of progress. The Government has identified that Zeze through Mboni ya Vijana is the village that is useful for real success example which assures the viability of the scheme.
- Financial resources; this is the biggest challenge that Mboni ya Vijana faces in implementation of its program especially agriculture. The demand in the community is very high compared to the capacity that the organization can deliver hence makes Mboni ya Vijana heavily depending on grants, loan and small amount generated from its own sources like microcredit, soap, welding and carpentry, and boreholes drilling. The table below presents the budget for the scheme 2017/18.

Table 2: Activities and financial plan for farming improvement 2017/2018

<table>
<thead>
<tr>
<th>Activity</th>
<th>Qty</th>
<th>Explanation</th>
<th>Target Population</th>
<th>Total Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Farming Community Support.</td>
<td>120</td>
<td>Households to be supported and it is equal to the number of acres to be used.</td>
<td>Zeze village community especially Youth and women.</td>
<td>22,320,000 TZS</td>
</tr>
<tr>
<td>Water drilling and rope pumps installation.</td>
<td>48</td>
<td>The water points to be drilled and installed with rope hand pumps.</td>
<td>Applicants (24) and support to communities with water challenges (12 points selected).</td>
<td>172,800,000 TZS</td>
</tr>
</tbody>
</table>
CONCLUSION

Improved Small Scale Farming (ISSF) scheme provided distinguished lesson to majority of Zeze village and increased the number of persons who are interested to participate in the scheme. However, Mboni ya Vijana Group (MVG) still a small organization that cannot meet the demands and enthusiastic shown by the community to adapting to modern and improved development strategies. Regarding to Sustainable Development Goals (SDGs) ratified by the United Nations in 2015, emphasis on poverty reduction and no hunger to 2030, Mboni ya Vijana seeks for partnership and collaboration with other development stakeholders to bringing economic and social wellbeing to rural Tanzania starting with Zeze society; a pilot village.