

# SAFE-World Project/Initiative Summary

**Country:** Tanzania

**Project/Initiative Title:** Same Agricultural Improvement Program (SAIPRO) - Kilimanjaro Region

Nos. farmers: 200

Hectares: 1000

Agro-Ecological Zone: III

Improvement types

1x	2	3x	4x	5	6x	7	8	9
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Success and Limits to spread

Success	Limits
1b, 1c, 3e	2a, 3a, 5a, 5b

## A. Key Impacts

### A1 – Productivity

	Before/Without	After/With	% change
Maize rainfed	1100 kg/ha	1450 kg/ha	32
Maize irrigated	1900 kg/ha	3500 kg/ha	84
vegetables	5000 kg/ha	15300 kg/ha	206

### A2 – Impacts on natural capital

Pesticide/fertilizer application rates:

?? Before the project started: Application rate was nil under rainfall areas and low in the irrigated areas (for vegetables).

?? After starting of the project: The application rate increased especially in integrated fields.

?? Farmers are combining inorganic fertilizers with organic fertilizers e.g. farm yard manure.

?? Few farmers have tried the use of plant derived pesticides e.g. Tephrosia vogelli. This is one of the achievements of Agriculture extension training given to farmers.

?? Changes that have been realized in relation to soil erosion, soil nutrients and soil fertility in the project area:

?? Soil erosion control: About 50 farmers have started making contourbunds and terrace in their fields after attending a seminar on Soil and Water Conservation organized by project.

?? Improvement of soil fertility: About 80% of farmers intercrop their maize with leguminous plants e.g. Doliches Lablab. 20% still use FYM.

?? The proportion of land now cropped: intercropped is 1:4.

### A3 – Impacts on local community (social capital)

?? About 21 local people have been trained and supported in using and training others in new land management skills. These were mainly trained on Soil and Water Conservation

techniques like:

- ?? Use of A-Frame in laying down. Contour bunds.
- ?? Use of Line Level in making terraces.
- ?? The relationship between forests, vegetation cover and availability of water to crops.

#### **A4 – Impacts on households and individuals (human capital)**

- ?? Farmers are replacing their long cycle local maize varieties with the introduced short cycle, drought resistant varieties that cope well with conditions of Hedara (the project area).
- ?? Most farmers are now able to increase their crop yields by combining FYM and inorganic fertilizers thus reducing the costs of relying entirely on artificial fertilizers (e.g. Incorporation of FYM and artificial fertilizers increased onion yields by more than 26% according to trials done in 1993).
- ?? The impact of terraces and contour bunds in reducing soil erosion, maintaining soil fertility and increasing yield has become evident to farmers who have practiced these techniques

Extents to which positive impacts have been felt by vulnerable groups:

- ?? Most people are able to buy improved maize seeds (composites), vegetable seeds and fertilizer/pesticide (e.g. 5kg maize seeds + fertilizer = 2.5-5 US \$ approx.).
- ?? Ability to pay primary school fees around 3 US \$.
- ?? Ability to buy supplementary food during time of food shortage.

#### **A5 – Key changes in farm / regional system**

- ?? Increase in yields about 4 years after start of the project.
- ?? Estimates of farms that have adopted Sustainable Agriculture.
- ?? Green manuring/FYM - 20% of area under irrigation.
- ?? Multiple cropping (intercropping) - 80% of area under cultivation.
- ?? Integrated Pest Management - negligible.
- ?? Soil and water conservation - 7% of area under cultivation.
- ?? Estimate of area under Sustainable Agriculture.
- ?? Green manuring/FYM - 75.6 ha.
- ?? Integrated Pest Management - 2 ha.
- ?? Multiple cropping (intercropping) - 1008 ha.
- ?? Soil and Water Conservation - 88.2 ha.
- ?? About 800 people are benefiting from the positive impacts.
- ?? The approach adopted in the target area was copied by farmers in neighbouring area to an extent of about 3%.

### **B. Types of Sustainable Agriculture Improvements**

Type 1: Better use of available renewable natural capital

Type 2: Intensification of single sub-component of farm system

Type 3: Diversify by adding new productive natural capital and regenerative components

Type 4: Better use of non-renewable inputs and technologies

Type 5: Social and participatory processes leading to group action for making better use of natural capital

Type 6: Human capital building through training-learning programmes

Type 7: Access to Finance

Type 8: Add value by processing to reduce losses and increase returns

Type 9: Add value by direct or organised marketing of produce to consumers

	Yes/No	Narrative
Type 1	x	?? Use of animal manure. ?? Contour farming and use of terraces. ?? Water harvesting and conservation. ?? Multiple cropping and intercropping. ?? Use of animal drought power for early ploughing. ?? Choice of short cycle and drought resistant maize varieties which are locally available. ?? Adopting a relatively high plant population density for maize in rainfed areas
Type 2		
Type 3	x	Conservation tillage.
Type 4	x	
Type 5		
Type 6	x	?? Participatory approach. ?? Farmers participation in various stages of work. ?? Innovative communication methods.
Type 7		
Type 8		
Type 9		

### C. Key Lessons: Success, Spread and Constraints

#### ***C2 – Aspects of local/national context contributing to success***

- ?? Internal organizational structures, procedures and linkages.
- ?? Project organizational structure (clear definitions of roles of different actors).
- ?? Project planning for a phase (Using log frame) which includes: Date of planning, Overall objective, Project purpose, Results Indicators, source of verifications, Reporter and Assumptions and Prior Conditions.
- ?? Detailed operational plan of activities and budget.
- ?? Tools of Monitoring and Evaluation of progress reports (monthly) and fortnightly team meetings.
- ?? External ways of working.
- ?? Networking.
- ?? Disseminating information widely about the project works.
- ?? Exchange visits to other Projects/Institutions and attending Seminars/Workshops.

#### ***C3 – Limitations preventing spread***

- ?? Currency devaluation/unfavourable exchange rates - Sometimes it becomes difficult for farmers to cope with frequent increases in prices of important inputs.
- ?? Unfavourable/unstable market prices - Farmers discouraged to produce more since market prices are not stable.
- ?? Distorting subsidies/support mechanisms - Some farmers were used to support mechanisms from the Government that would not last forever. To introduce element of self-reliance is difficult.
- ?? Lack of support for Sustainable Agriculture.

- ?? Narrow agricultural research focus.
- ?? Inequitable/inappropriate land tenure.
- ?? Inappropriate development priorities.
- ?? Poor transportation networks.
- ?? Narrow organizational structure and modes of working.
- ?? Lack of human/financial resources.
- ?? Inadequate involvement of farmers.

**D. Contact Point for Project/Initiative**

SAIPRO PO Box 1 Hedaru Kilimanjaro Region Tanzania
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