

Project Title: Regenerative agriculture through sustainable farming methods to enable food security and environment conservation in target regions of Kenya.

Introduction:

The agricultural sector is the backbone of the economy, contributing approximately 33 percent of Kenya's Gross Domestic Product (GDP). The agriculture sector employs more than 40 percent of the total population and 70 percent of the rural population. Agriculture provides the livelihood employment, income, and food security needs for more than 80 per cent of the Kenyan population and contributes to improving nutrition through production of safe, diverse and nutrient dense foods.

The dynamics of poverty within Kenya are changing and directly influence the country's agricultural sector. Currently 46 per cent of the population live on less than 1 USD a day, 36.5 per cent are food insecure and 35 per cent of children under five are stunted (chronically malnourished) in Kenya. Farmers, who are used to rain-fed farming systems, are being pushed into dryer, more marginal areas where they become increasingly vulnerable to drought and the unpredictability of weather patterns resulting from climate change.

Sr. Josephine Kwenga, a sister of St. Joseph in Kenya is passionate about Empowering local farmers and enabling them to learn and practice Permaculture method of farming for food security and Environment conservation. She learnt and practiced the method with Women groups across the 25 Dioceses of Kenya through the Association of Sisterhoods of Kenya – Justice and Peace Commission (AOSK – JPC) program for over 6 years. She has also successfully practiced the method during the Covid -19 pandemic when many people especially the low-income earning families were struggling to put food at table. The initiative served as a means to livelihood especially for local poor communities who were faced with challenges of food security and economic instability. In the process Sr. Josephine came across other interested partners in this sustainable development initiative and published an Article with the Global Sisters Report (GSR) flat form.

To create more awareness about regenerative Agriculture, and address the increasing challenge of food security, Sr. Josephine has formed a team of 12 others interested farming partners, the team is currently working on a project proposal to seek support as a consortium in order to implement an Agriculture project with other farmers in the respective villages in Kenya, within a period of 3 years between 2024 and 2026.

Problem Statement

Abject poverty of farmers at Bottom of Pyramid (BoP); Global Warming and Climate Change on one side; and paucity of food materials; increasing cost of imports and unutilized cultivable wasteland on the other. Approximately 2.5 billion people involved in full- or part-time smallholder agriculture, managing an estimated 500 million small farms and provide over 80 per cent of the food consumed in a large part of the developing world. One billion of them still live in extreme poverty in sub-Saharan Africa and Southern Asia, earning less than US\$1.25 a day (UN2011, IFAD 2011); about 350 million of them are indigenous people.

Majority of the people in Kenya are pastoralists, while they are also faced with lots of conflicts caused by cattle rustling and retrogressive cultural practices. 70 % of the Agriculture region is ASAL, characterized by Low productivity together with lack of access to improved technology, finance, support services and assured market are the main causes of poverty among these people. The small farmers are more directly dependent on ecosystem services and have less capacity to adapt to changing contexts. *Banks and financial institutions banks often don't want to lend to them, due to their lack of collateral, uncertain earning potential and long repayment periods. People also don't want to take loans due to high interest rates.*

Poverty contributes to lack of food/cash, indebtedness, and malnutrition leading to low immune response to infections, high morbidity and mortality, and inability to reach or pay for health services. Inability to pay for cost of education, lack of assets to meet contingencies and lack of inputs to improve income results in low agricultural productivity. The low agricultural productivity and poor health and nutritional status coupled with other factors ultimately leads to very low socio-economic condition of population.

The influence of these three interrelated causes contribute to a vicious cycle of deprivation, which the local community can only break with external catalytic support addressing the above root causes of the problem.

Project Objective

The project aims to generate and provide food, nutrition, and income security to 500 families in 12 Communities of Kenya by 2026 through proper utilization of their natural resource base.

PROPOSED INTERVENTION

The initiative intends to bring in the expertise of Sustainable Agro Initiative (SAI), a social enterprise registered in India and in USA is working since 2013 with small and marginal tribal farmers to convert their unproductive barren land into sustainable agroforestry systems, incorporating high value plantations paired with traditional food crops. SAI has piloted and scaled up this model in ASIA and other African countries with **almost two thousand farmers**, while successfully reviving over 1500 hectares of degraded land by **planting over two million trees** till date. In addition to **quadrupling farmers' incomes**, the revived lands have sequestered approximately 125,000 tonnes of carbon till date.

SAI provides end to end solutions by building the farmers' capacities; procuring and providing quality inputs as per their need together with technical support with direct access to market. With **low-cost one-acre agroforestry model**, not only do the farmers gain income, food, and nutritional security from the produce, but they become valuable business partners in the corporate value chain by supplying agro-industries with crucial raw materials.

SAI model is validated by a donor platform (*SEED Uno*) at international level as a proven business model with potential to be adopted in **African market** for its relevance to achieve economic, social and environmental impacts. SAI won the BRICS Solution Awards, 2021 under SDG-2 (Zero

Hunger) category. SAI has been working with African social enterprises in South Africa and Uganda since 2017 to replicate the agro-forestry model. They are cultivating passion fruit (Granadilla) with chilli in South Africa (Limpopo province); and avocados with millets in Uganda (Toro region)

PROJECT COMPONENT

i. Establishment/strengthening of Women Self Help Groups (WSHGs)

WSHGs will be core thrust area of the project and through capacity building and empowerment, the WSHGs would be encouraged to take charge of project activities. The WSHGs will be established through self-selection processes to assure women's ownership, and group's sustainability. The group fund which will consist of women members' saving and will be used for lending to WSHG members for their choice of feasible and economically viable activities, which may include agro forestry with fruit plantation together with seasonal crops, nutrition garden, vermi compost, small livestock, poultry, local food processing and value addition, and wide range of micro- enterprise. One WSHG will be established and strengthened in each congregation. As such 12 WSHGs will be established.

ii. Promotion on 1 Acre Agroforestry Model

The project will promote agroforestry model with 120 families. The agroforestry model will include fruit trees like Avocado and citrus with seasonal crops (maize, millet, pulses) which will ensure food, nutrition, and income security to each family.

iii. Promotion of Nutrition Garden

The homestead/Kitchen Garden has often small but vital source of income for family. estimated that 500 sq. ft. of land with water will yield 3-5 KGs of vegetables, equals to two days of the family's requirements. The vegetables and fruits produced in excess of family requirements marketed either as raw or processed form, augmenting their income. To enhance the productivity of homestead lands, the would enhance such interventions as i) soil



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improvement by green manuring, mulching and vermi composting; ii) bund and border planting of fuel and fodder crop iii) hedge cropping of legumes iv) and improved inter-cropping & crop rotation practices. It is proposed to establish five nutrition gardens per congregation as demonstration. As such, 120 nutrition gardens will be developed.

iv. Vermi Compost Production

The production of vermi-compost has added advantage. The compost from cattle dung is prepared in 40 days using improved techniques. This vermi compost will be applied in the nutrition garden and in farmland. The excess can be marketed through WSHGs. It is proposed to establish one vermi compost unit in each congregation.

v. Small Livestock and Poultry Development

Goat and pig rearing at backyard is followed by almost all families which they can sell during difficult times to manage their families. The project will conduct training and capacity building in small livestock development and provide seed money to purchase at least two small livestock and four poultry for 120 families each.

vi. Local Food Processing

Processing of products would be promoted to increase storage life of perishable products, increase marketability, and add value. This will also save time, energy and effort of rural women, which can be used for other productive purposes. The initial focus would be on simple methods such as grading, sorting, and packaging and upgrading of on-going processing activities in the project areas such as sun-drying, pickling and condiment-making. WSHGs will also be assisted in identifying new processing potentials with traditional and new products. Improved methods of marketing will also be explored to ensure guaranteed uptake of products and stable pricing.

PROJECT IMPLEMENTATION STRATEGIES

SAI will provide technical and monitoring support to local staff of the Member Congregations participants and other partners who will form the implementation consortium. The Archbishop of Mombasa Most. Rev. Martin Kivuva Musonde will host the Consortium on our behalf and offer managerial services along with Sr. Josephine Kwenga- Sisters of St. Josephs of Terbes and Sr. Magdalene Kanini – Incarnate Word Sisters.

For smooth operations of this Network under the MOU signed between the Catholic Archdiocese of Mombasa and SAI (CAM-SAI Kenya) on our behalf, the following guidelines are hereby decided upon by the consortium members:

1. The Consortium will be made up of the Catholic Archdiocese of Mombasa (CAM) – Most. Rev. Martin Kivuva Musonde, Sisters of St. Joseph’s of Terbes- Sr. Josephine Kwenga and Incarnate Word Sisters- Sr. Magdalene Kanini Mutua.
2. The Name of the Consortium will be “Catholic Archdiocese of Mombasa/ SAI Kenya Partners (CAM SAI Kenya) and the Management of the Consortium will be under the Host,

while the other 9 members including 2 more Sisters will directly be involved in the implementation activities.

NB: Any decision for future changes will be upon agreement by the management and the consortium partners.

PARTNERSHIP AND COLLABORATION

The consortium has drawn an agreement between SAI and Sisters of St Joseph of Tarbes (SJT) to collaborate in piloting and scaling-up the model in its farms in Kenya, which will have potential to be replicated with other regions and farmers. This low cost, one-acre Agro-forestry model would generate sustained income to manage missionaries' work. Besides, the model would will improve natural ecosystem to combat global warming. The choice of plantation and field crops will be made after considering the market demand/linkage; soil & climatic conditions; and availability of the quality seeds/saplings. However, upon preliminary research, various crops and Tropical fruits including Haas Avacado with Millet and other indigenous crops, fruits and vegetable may be the potential agroforestry combination which can be promoted.

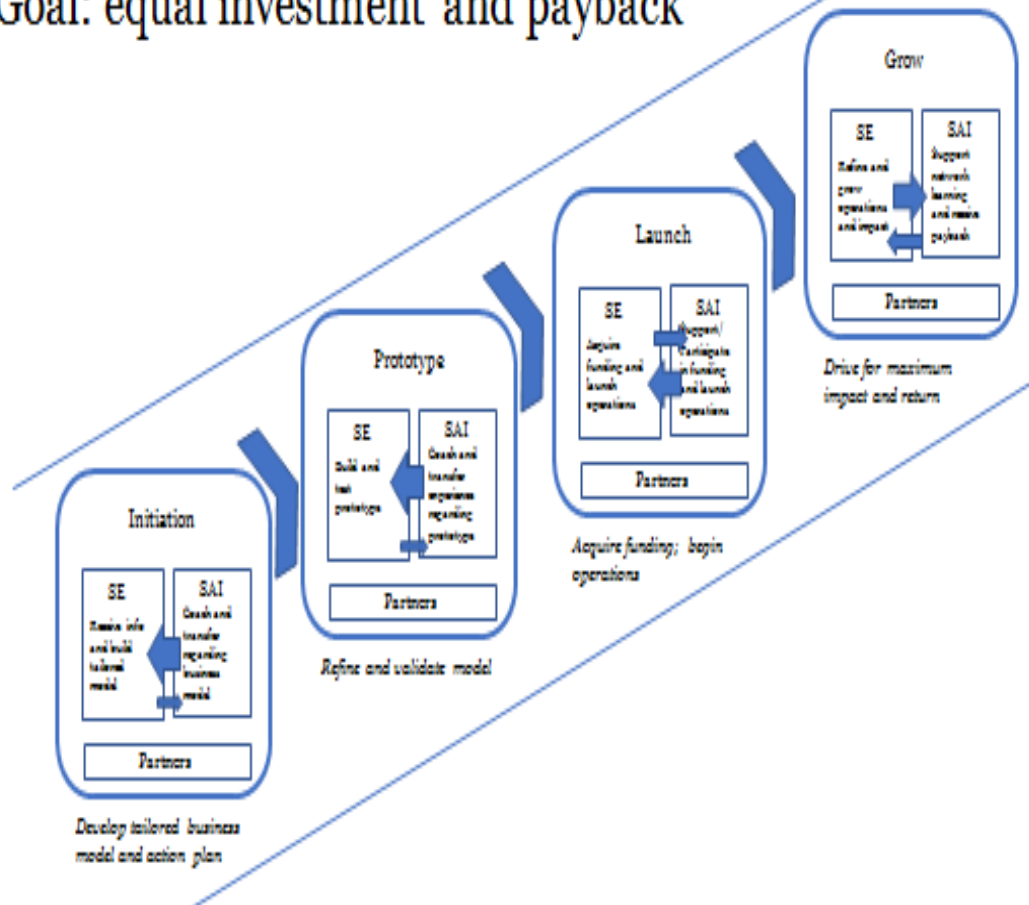
Nutritionally speaking, these crops and fruits like avocado are good source of Protein, Vitamins A, C and E, and the B Vitamins thiamine, riboflavin and niacin and the mineral magnesium and other trace minerals. The Avacado is also high in potassium, and contain no cholesterol with low sodium, making this plant a good choice for people on low sodium and low cholesterol diets. Millet is rich in carbohydrates, protein, fat, the B Vitamins: thiamine, riboflavin, and minerals. Millet also contains all of the essential amino acids. Moreover, because of its ability to increase in volume during cooking, millet is a great old grain to have around the kitchen. Both are grown in most parts of Kenya

Phases of Partnership and Growth

There will be 4 phases of partnerships and growth – initiation; prototype, launch and grow with varying degree of SAI's involvements. SAI involvement will be very high initially which will subsequently reduce as SJT get capacitated and able to manage the operations independently. These efforts will propel SJT to develop their models, establish prototype and consequently scale the models.

Partnership of Trust and Growth

Goal: equal investment and payback



Planning Phase:

In this phase, SAI team will build the concept; finalize the model in consultation with SJT; design financial plans and projections; assist SJT members to develop grant/project proposals to be submitted to a possible donor who would be willing to support the sisters in this initiative.

SJT will further build the concept in collaboration with SAI; conduct market identification and scoping on the selected crops and trees; develop business and financial models under the guidance of SAI team; project proposals, submit the proposal, and do the necessary follow-ups with prospective donors.

Piloting phase:

During this phase, SAI will develop and finalize capacity building strategies; assist SJT to negotiate and finalize buy-back arrangement with local/regional markets; develop marketing

linkage and supply chain management; identify and train rural youth as Community Resource Persons (CRPs); training management staff and CRPs on SAI's Agro-forestry model; develop marketing plan and strategy; and conduct periodic field visits and provide on-site technical support.

SJT members will work with SAI team to gain knowledge and skills in project cycle management; build capacities of its members and CRPs on SAI's Agro-forestry model; and develop capacity building strategies.

Launching phase:

SAI team will provide on-field and backstopping support in developing Standard Operating Procedures (SOPs); human resources strategy; scaling up strategy; and promotion of cross-learning and exposures to SAI's partners in different countries.

During this phase, SJT members will work with SAI to finalize agreements service providers (inputs dealers, transporters etc.); and negotiate and finalize buy-back arrangement with local/regional markets. They will also work together to develop & implement supply chain, marketing plan and fund-raising strategy.

Growth phase:

SAI team will provide on-field and backstopping support in building capacities for regional/international marketing – branding, packaging, standard practices, quality management; and expanding geography and scale of operation.

The partner will be willing to share knowledge and skills and provide capacity building support to SAI partners in other geographical areas, as and when needed.

PROJECT DURATION

The Project plan includes a six-month start-up phase and three years project cycle. The activities which will take place during start-up phase include the development of a detailed operational plan, recruitment and orientation of staff, identification and orientation of families and establishment of women self-help groups (WSHGs). Training material will be field-tested and finalized.

The project cycle will begin with establishment and strengthening of WSHGs, and full-fledged initiation of project activities.

Theory of change

Expected Outcomes

Sustainable livelihood security

Immediate outputs

Alleviation of poverty Increased Household Food Security
Improved Nutrition & Health

Program interventions

Saving & Credit / Vermi compost / Nutrition Garden
 / Food Processing
Small Livestock Agroforestry

Program Thrust

Women Self-help Groups

MONITORING & EVALUATION

The project will undertake a baseline survey relating to the project intervention and as per the evaluation design. The same evaluation design, used for the baseline, will be used for the final evaluation as well.

To assure that the project's input, processes, and output are in line with the project goal, a strong monitoring system sharply focusing on Theory of Change as depicted below, will be established and operationalized. The data generated through the monitoring system will be analyzed and used for giving feedback to functionaries and community members for their improved action towards achieving project goals.

CONCLUSION:

The main purpose of this partnership is to work together to empower ourselves and the local community to lift themselves out of poverty in sustainable manner through Agriculture. Our model is social enterprise model as we believe that charity may be able to provide short-term support but the poor must stand on their feet to come out of poverty. Therefore, we use grant model to build their capacity and invest the amount wisely in social enterprises which they can manage themselves without depending on external funding support in future.

Project concept designed and written by Sr. Josephine Kwenga



SISTERS OF ST. JOSEPH OF TARBES
PROVINCE OF KENYA
P. O. Box 21022-00505, NAIROBI
Email: sjtarbesnbi@yahoo.com
sjtarbesnbi@gmail.com

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