

# SUSTAINABLE AGRICULTURE TANZANIA (SAT)

# TRANSFORMING FARMING SYSTEMS IN TANZANIA

2025

# OUR VISION

The majority of farmers using acknowledged agroecological

methods to improve their livelihoods, conserve the environment,

and reduce pressure on natural resources.



# THE PILLARS OF OUR WORK



#### Research

SAT collaborates with farmers and universities in order to create demand-driven research to improve agroecological farming methods.

#### Networking

SAT shares its agroecological experience and knowledge on national and international level with stakeholders and policy makers.

#### Application and Marketing

SAT engages in the whole value chain of agroecological food production (production, processing, backaging and marketing). SAT also raises awareness among consumers about organic food.

### Dissemination of Knowledge

SAT uses an efficient hands-on approach for disseminating knowledge: with farmer groups directly in their villages, through courses at the Farmer Training Center and through the monthly farming magazine MkM.

# +60% women FARMERS RECEIVED TRAINING DIRECTLY FROM SAT

Over



#### PARTICIPATION



Ensure animal health and

welfare.

organic matter and by enhancing soil

biological activity.



# RECYCLING

Preferentially use local renewable resources and close as far as possible resource cycles of nutrients and biomass.

Promotion of establishment of backyard/kitchen gardens that make use of recycled materials like water bottles for irrigation drip system; reuse sacks, tyres, and bags as seedbeds; kitchen wastes, farm yard manure, crop residues and mulch used for preparation of compost that will be used to nourish soil fertility; reuse of water bottles in constructing relatively bigger water tanks

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# **INPUT REDUCTION**

Reduce or eliminate dependency on purchased inputs.

Promotion and application of pest population control techniques like intercropping, use of trap crops, crop rotation, farm hygiene and weed control.

Promotion of conserving natural enemies to pests on biological insect pest control. In soil health and fertility, practice of agroforestry, compost making and green manure has been promoted to ensure soil fertility is improved.



### SOIL HEALTH

Secure and enhance soil health and functioning for improved plant growth, particularly by managing organic matter and by enhancing soil biological activity.

Use of leguminous plants, shrubs and trees as companion crops and agroforestry component, respectively. Composting, green manuring, cover crops and animal manure use are being promoted. Recycling of nutrients, soil water conservation



#### **ANIMAL HEALTH**

• Ensure animal health and welfare.

• Management of grazing and range lands, pasture establishment, management and conservation; enhanced use of botanicals in managing animal diseases, promoting practicing semi-intensive and free-range animal keeping systems, practicing natural mating.

### BIODIVERSITY

Maintain and enhance diversity of species, functional diversity and genetic resources and maintain biodiversity in the agroecosystem over time and space at field, farm and landscape scales.

Collecting, preserving and multiplying traditional seeds for preventing their distinction and promoting use of farmermanaged seeds, establishment of beneficial hedges as source of natural botanical extracts and home for beneficial insects, promoting use of organic inputs to improve soil biology, planting companion crops to repels pests



# SYNERGY

Enhance positive ecological interaction, synergy, integration, and complementarity amongst the elements of agroecosystems (plants, animals, trees, soil, water)





#### **ECONOMIC DIVERSIFICATION**

Diversify on-farm incomes by ensuring small-scale farmers have greater financial independence and value addition opportunities while enabling them to respond to demand from consumers.

# **CO-CREATION OF KNOWLEDGE**

Enhance co-creation and horizontal sharing of knowledge including local and scientific innovation, especially through farmer-tofarmer exchange.

Farmer centred research Participatory methods, PMR





#### **SOCIAL VALUES AND DIETS**

Build food systems based on the culture, identity, tradition, social and gender equity of local communities that provide healthy, diversified, seasonally and culturally appropriate diets.

Farmer managed seed systems, improving management of pastoral local herds of cattle, goats and sheep while maintaining its genetic purity





## **FAIRNESS**

Support dignified and robust livelihoods for all actors engaged in food systems, especially small-scale food producers, based on fair trade, fair employment and fair treatment of intellectual property rights.



### CONNECTIVITY

Ensure proximity and confidence between producers and consumers through promotion of fair and short distribution networks and by re-embedding food systems into local economies.

Facilitate peer-to-peer exchanges and networks

Local farmers markets

Participatory guarantee systems







Recognise and support the needs and interests of family farmers, smallholders and peasant food producers as sustainable managers and guardians of natural and genetic resources.

Recognized customary ownership of land by indigenous people

Recognize forest guardians

Communal or common land











#### PARTICIPATION

Encourage social organization and greater participation in decisionmaking by food producers and consumers to support decentralised governance and local adaptive management of agricultural and food systems



### **Overall goal**

Enhancing sustainable livelihoods of farmers and pastoralists through agroecological practices in Tanzania creating a solution where both parties can create local circular economies, where everyone benefits, and conflicts are drastically reduced.

### **Overall project objectives**

- Enhancing sustainable livelihoods of farmers and pastoralists through agroecological practices
- A strengthened local circular economy where farmers and pastoralists benefit from each other and conflicts between farmers and pastoralists are drastically reduced

The Impact assessment was conducted by an external consulting firm in May 2023 in the four districts involving 496 respondents (256 beneficiaries and 240 non-beneficiaries). Aim of the study was to document the intended and unintended impact of the project based on outcomes and lessons learnt. A mixed approach combining quantitative and qualitative research methods was used.



#### Key results

**Increase in diversity of crops grown** by farmers by an average of 3.86 crops from 3.14 crops. (maize, sunflower, paddy, cowpeas, pigeon peas, etc)

**Increase in crop yields** - productivity per acre: maize (was from an average of 774kg/acre to 1,324kg/acre), Paddy (was from an average of 319kg/acre to 820kg/acre) and sunflower (from 328kg/acre to 918kg/acre)

"Previously one acre could produce 7 to 8 sacks of maize, but currently, there is an increase in harvest due to the use of agroecological practices, whereas one acre can produce 15 to 16 sacks of maize. The increase in income is mainly the result of the decrease in the cost of production due to the use of homemade fertilizers and use of natural fertilizers" **Minaeli Dawii, FGD Participant,** 



**Use of botanical extracts**: 76.8% of farmers used botanical extracts from local available materials, whereas 4% of non-beneficiary reported using botanical extracts.

**Soil health improvement**: 42.7% of farmers do intercropping and crop rotation

**Use of manure and compost**: 90.6% of beneficiaries use manure while 83.2% use compost for plant protection

**Use of crossbred livestock** breeds (cattle and goats) by pastoralists: 49% use Mpwapwa and Malya breeds compared to 22% among non-project beneficiaries. Income: 142% increase in income for beneficiaries as a result of project intervention

Nutrition and food security: there was a remarkable increase in beneficiaries consuming 3 meals per day from 35% to 82% and having dietary diversity such as cereals and tubers, pulses, milk and dairy, vegetables, oils, and fruits.

Genderrelations:promotionofgenderinclusivitywithinagroecologicalpracticestheprojectwhere(56.8%)arewomenand(43.2%)aremen.





**Pasture establishment and management**: development of pasture plots (256.75 acres) and conservation of natural grass (7785) with hay bales (50,000) available for storage.

**Eradicated slash and burn practices** among farmers' beneficiaries and there is a promotion of tree planting in dryland areas (54,697 trees planted in 2022 with 70% survival rate)

• The interventions have led farmers and pastoralists to recognize the importance of environmental conservation, and many have taken the initiative to plant more trees. They understand that this practice will enhance soil fertility and biodiversity. There is a clear behavioral shift among many of them towards agroecological practices, and the habit of burning bushes has largely been eliminated." VEO Kimambila village.



been have collaborating with neighborhood farmers in the exchange of manure from my cows and they, in return, provide me with maize residue, significantly contributing to the feeding of my cows and goats." Kimorwai Sekemi, pastoralist of Tupendane group in Mingo.



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This project taught us a lot. We now know how to keep our animals well, store grass for feeding them later, take care of the new breeds of cows, and protect our animals from pests. Before, we used to do things the old way. But this project has opened our eyes to better ways of looking after our livestock. Because of it, we're getting more benefits now. Like, we get more milk from our cows and goats than we used to get." Rehema Tangono, FGD Participant, District **Mvomero** 





**Circular economy**: The project promoted a circular economy within the communities of farmers and pastoralists that revolves around the reuse and recycling of resources, aiming to create a closed-loop system that minimizes waste and maximizes the value of by-products. The promotion of the exchange of farm byproducts is a great mechanism through which both parties are able to see the direct benefits of cooperating and coexisting peacefully.





**Conflict reduction:** 

Land conflict cases reported at the village level dropped by more than 75% in the project villages and this is mostly attributed by the circular economy approach.

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# Challenges

- Increasing regulations New EU Organic Regulation
- Compliance challenges
- High certification costs for third party organic certification
- Contamination
- Logistics and transportation



# THANK YOU ASANTE DANKE MERCI ASHE

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