# Resilient Livelihoods: From Poverty to Prosperity

Regenerative Farming and Climate Resilience with Marginalised Farmers in Tamil Nadu


Submitted by
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Partner Organisation
**Association for Sarva Seva Farms (ASSEFA)**

# Project Context

In Sivagangai, 72% of the population belongs to indigenous and marginalised communities who rely on rain-fed farming. Erratic rainfall, rising temperatures, and poor soil health have made agriculture increasingly unviable. Farmers often purchase water at high costs, leading to debt cycles. Some have migrated to cities, where limited education confines them to low-paid work. This project supports farmers with climate-resilient practices, improved soil and water management, and alternative livelihoods to strengthen local self-reliance and reduce vulnerability.

# Programme Participants

The project works with **500 marginalised farmers and their families** in the semi-arid **Andapadakki region of Sivagangai district, Tamil Nadu**. Most belong to **indigenous and socio-economically excluded** communities, facing barriers to land access and reliable income. Women farmers are key participants in activities like goat rearing, while all farmers contribute labour, local knowledge, and partial funding, ensuring strong ownership and community-led implementation of sustainable solutions.

# Objectives

The project takes a comprehensive and inclusive approach, addressing the interconnected challenges of climate vulnerability, soil degradation, water scarcity, and income insecurity. Its objectives are designed not only to improve farming practices and resource management, but also to strengthen local institutions and diversify livelihoods. By engaging farmers, women, local leaders, and grassroots institutions, the project ensures that each intervention is rooted in community ownership and contributes to long-term resilience.

- Improve **soil health** through crop rotation, organic inputs and testing
- Promote **sustainable water management** and farm infrastructure
- **Diversify income sources** through goat rearing and allied livelihoods
- Strengthen **community awareness of climate risks** and responses
- Foster **collective planning** through grassroots institutions

# Key Initiatives

### Soil Health & Sustainable Farming

- Promoted pulse-based crop rotation after paddy harvest on **100 farms** to enrich soil nitrogen and improve yields.
- Issued **Soil Health Cards** to **47 farmers** to guide nutrient management.
- Conducted soil sample collection training, linked with Southern Petrochemical Industries Corporation Ltd. (SPIC) for testing.
- Silt application to improve soil fertility post-de-silting.

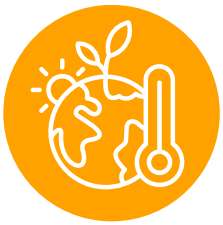
### Water Conservation & Irrigation

- Reclaimed **186m of water channels** to direct rainwater efficiently to tanks (kanmais).
- Constructed **field bunds (500m)** to retain soil moisture and reduce erosion.
- Built **a check dam** that will benefit **120 farmers**.
- Constructed **six gully plugs, 1 farm pond and deepened another farm pond.**
- Installed **PVC irrigation pipelines** for marginal farmers to irrigate distant or elevated plots.

### Livelihood Diversification

- Supported **25 women** in launching or strengthening goat-rearing enterprises with shared cost contributions.
- Goat-rearing was selected to provide supplemental income and buffer families in distress periods.
- Crop residue from black gram also served as fodder, integrating farm and livestock systems.

### Climate Risk Awareness & Local Action



- Installed a **display board** on climate adaptation techniques in Karumanthagudi village in local language with visuals.
- **Raised awareness** of changing rainfall, extreme heat, and coping strategies (e.g. crop variety selection, early sowing).
- **Shared water-saving techniques** and promoted organic farming for soil and climate resilience.

### Community Participation & Ownership

- Farmers involved in prioritising activities, site selection, and co-financing infrastructure.
- All physical interventions (check dams, bunds, pipelines) were co-constructed with community labour.
- Village institutions (Gram Panchayats) were involved throughout the process, building shared responsibility.

# Key Impact

- **100 farmers adopted soil-building crop rotation** using black gram to improve nitrogen content and land productivity
- **25 women strengthened income security** through goat-rearing as a climate-resilient livelihood option
- **47 farmers** received Soil Health Cards; testing for the remaining 53 is underway
- Multiple water conservation structures constructed: **1 check dam, 6 gully plugs, 500m of field bunds**, and 1**86m of reclaimed water channels**
- **PVC pipelines installed to support irrigation** in distant and elevated plots
- Farmers began applying **climate-adaptive practices**, including early sowing, soil testing, and efficient water use
- **Community members actively contributed labour, funds, and materials,** ensuring ownership and long-term maintenance of shared resources

## Reflections: Digging into the 'How' of Implementation

- **Participatory Approach:** Farmers were involved at every stage—from planning to implementation—bringing in their traditional knowledge and decision-making power.
- **Facilitating Interactions:** ASSEFA created space for farmers and experts to engage. Soil testing results were shared and discussed, bridging science and local practice.
- **Community-led Infrastructure Development:** Farmers helped build check dams, bunds, and ponds by contributing time and resources, fostering ownership and collective responsibility.
- **Financial Transparency:** Budgets were discussed openly in meetings. With farmers also contributing financially, trust and accountability were strengthened.
- **Community-owned Resources:** All infrastructure and assets are treated as shared community resources, ensuring continued care and sustainability.
- **Capacity Building:** Training sessions deepened farmers' understanding of sustainable practices, increasing participation and long-term engagement.
- **Advanced Planning for Seasonal Interventions:** Activities were timed to align with the cropping cycle. For instance, farmers were guided to harvest with sickles to preserve soil nitrogen.
- **Vernacular Medium of Knowledge Sharing:** Training and materials were shared in the local dialect using simple language and visuals, ensuring farmers could engage and contribute fully.

## Glossary of Key Interventions

**Check Dam**
Meaning: A small dam built across a drainage ditch or stream
Purpose: Slows down water flow, reduces soil erosion, and allows sediment to settle. Helps recharge groundwater and retain soil moisture in nearby areas.

**Gully Plug**
Meaning: A low stone wall constructed across eroded gullies
Purpose: Reduces runoff speed, allows soil to settle, and increases soil moisture and shallow groundwater. Supports nearby crop growth and prevents further gully formation.

**Field Bund**
Meaning: Low earthen or stone ridges along field boundaries
Purpose: Holds rainwater within fields, reduces erosion, improves water retention, and preserves fertile topsoil. Ideal for rain-fed farming systems.

**Farm Pond**
Meaning: A dug-out water storage tank at the lowest point of a farm
Purpose: Captures surface runoff and stores water for later irrigation. Provides vital backup during dry spells and helps ensure crop survival.

**Kanmai (Irrigation Tank)**
Meaning: A traditional Tamil surface water tank (also called a “tank” in English)
Purpose: Stores large volumes of water for irrigation and animal use. Water is distributed to fields through sluices and channels, especially for paddy cultivation.

**Madai (Sluice)**
Meaning: A sluice gate system (called "Madhagu" in Tamil)
Purpose: Controls water flow from tanks into fields, ensuring efficient and timely irrigation without wastage.