



Action Village India



Climate Adaptation Initiatives at Adhapadakki Micro Watershed in Kalayarkovil Block, Sivagangai District

(April 2025 to September 2025)



Partner Organisation

Association for Sarva
Seva Farms (ASSEFA)

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ABOUT

The project, called 'Resilient Livelihoods: From Poverty to Prosperity,' aims to help 500 farmers and their families in the dry Sivagangai District of Tamil Nadu, southern India. It combines ways to improve jobs, strengthen the community and protect the environment. The project uses local knowledge and works with local partners to solve different problems the community faces. It also teaches new skills and helps manage natural resources in a way that will last for the long term.

Now in its second year, this three-year project knows that strong, united communities are important for real and lasting change. The project builds water conservation structures and offers training to help people work together and feel like they are part of a group. It uses the community's knowledge and effort to build things everyone can use. The farmers are also giving money to the project which helps them feel responsible and proud of their work.

3-YEAR OBJECTIVES

- Implement effective water conservation and management interventions to increase cultivable land and agricultural production in the context of climate change.
- Undertake various initiatives to improve soil health practices by actively involving the farming community.
- Promote sustainable natural resource management (NRM) to maintain the ecosystem and support both agricultural and animal husbandry activities.
- Provide capacity-building support to the farming community to help them cope with climate-related risks.
- Create livelihood opportunities that improve the living standards of communities in watershed areas while mitigating climate change risks.

PARTNER ORGANISATION

The **Association for Sarva Seva Farms (ASSEFA)** is a well-known grassroots group in India. For **more than 50 years**, it has worked to improve life in rural areas.

ASSEFA helps small and marginalised farming families in Tamil Nadu through programs that support **sustainable farming, women's empowerment, education and community health**.

Because ASSEFA has long-standing relationships in the villages, it encourages people to **become self-reliant** and to **take part in planning their own development**. Their approach is holistic and closely connected to local needs and creates **long-term change** through community action, fairness and care for the environment.

OVERVIEW OF INITIATIVES

01 Water Conservation

This part of the project focuses on collecting and managing rainwater to reduce water shortages and help communities cope with irregular rainfall. The goal is to improve water storage and make irrigation more reliable. Planned activities include:

- Building a 500-metre field bund
- Constructing 2 farm ponds
- Deepening and desilting a 500-metre irrigation tank
- Repairing 3 water sluices
- Repairing a 100-metre water channel
- Installing a network of pipelines to improve irrigation
- Restoring a community well



Before



After

02 Soil Health Improvement

- Checking soil health for 50 farmers
- Providing silt from the cleaned irrigation tank to 50 farmers' fields
- Supporting 50 farmers to grow millets and pulses after the paddy harvest
- Teaching 50 farmers how to improve soil nutrition using organic farming methods

Helping 50 farmers grow green manure crops.





This drone is operated by a woman who is using it to distribute fertiliser, combining traditional farming with modern technology

INTERVENTIONS UNDERTAKEN

The following interventions were undertaken during the reporting period from April to September 2025:

1. Deepening of Kanmai/Oorani-
2. Soil Health improvement
3. Green Manure Cultivation
4. Reclamation work of Madai
5. Reclamation Work of Water Channel
6. Farm Ponds
7. Water Conservation
8. Sustainable Natural Resource Management – Backyard Fruit
9. Livelihood Security – Planting trees

Special Features of the Activity

- It is a farmer-friendly programme.
- The activities are led and managed by the farmers themselves.
- All materials used are available locally.
- The fertiliser used is completely organic.
- The compost made from animal waste keeps improving the soil for up to five years.
- After applying the compost, the land becomes easier to plough.
- It lowers the price of fertiliser by one third of what farmers used to spend.
- The compost naturally encourages earthworms to grow in the soil.

INITIATIVES AND ACTIVITIES



01 WATER CONSERVATION

Deepening of Kanmai/Tank

The village water tanks (Ooranis) in the project area had not been cleaned or de-silted for many years. They were filled with bushes and Prosopis Juliflora plants. During this year, three Ooranis were deepened:

1. **Veeramma Kaliyamman Kovil Oorani** in Karumanthagudi village
2. **Maruthupandi Oorani** in Adhappadakki village
3. **Ayyanar Kovil Oorani** in Kadiyaval village

The total project for the second-year cost ₹1,35,000 [£1,125].

Reclaiming Water Channels

This activity was carried out quickly before the rainy season in the project areas. For every step of the work, local community leaders were consulted because they understood the real problems and the best solutions.

The cost for this activity in the second year was ₹60,000 (£501.16), with the community contributing ₹15,000 (£125.29). The total grant for the activity was ₹90,000 (£751.75).

Two reclamation works were completed

1. Valayangulam at Karumanthagudi village
2. Central Madai at Madumarichan village



After the reclamation work on the madai, water leakage was stopped that prevented water waste. It is important to save water from these madais to protect paddy crops: 26 acres for 20 farmers in Valayankulam Madai and 45 acres for 30 farmers in Madumarichan village.

The reclamation work made the farmers very happy, and they greatly appreciated the support provided through this intervention.

During the second year, the water channel at Karumanthagudi Kanmai in Karumanthagudi village was cleaned and reclaimed on the North, South and Middle sides. The total estimated amount for this ongoing work is ₹45,000 (£375.97).

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Water channel at Karumanthagudi Kanmai:

- The main goal of this work is to remove sand and bushes from the channel so that rainwater can flow into the kanmai from different directions.
- This increases the water storage for paddy cultivation.
- It also helps reduce water shortages during critical crop stages and raises the water levels in nearby open wells and borewells.



Farm Pond Construction

In the second year, a total of ₹37,500 (£309.13) was provided to build two farm ponds, including contributions from the farmers

Details of the ponds:

1. Mr. P. Muthupandi, Navathavu village – 15 m long × 13 m wide × 1.5 m deep
2. Mr. K. Periyasamy, Ettiyandral village – 18 m long × 12 m wide × 1.5 m deep

Main Purpose

- The farm ponds collect extra rainwater during the rainy season
- Irrigating crops during dry periods
- Providing drinking water for cattle in droughts
- Conserving soil and moisture



Pipeline

Each farmer received 120 metres of PVC pipeline through this activity. A total of three farmers benefited:

1. Kalai S/o Subban – Madumarithan village
2. Kannathasan S/o Sankaran – Madumarithan village
3. Muthu S/o Arumugam – Karumanthagudi village

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The total grant for pipeline work in the second year was Rs. 56,250, excluding the farmers' own contribution.

Selection Criteria:

- Marginal farmers interested in farming
- Farmers who had a farm pond without electricity
- Availability of water in the farm pond

Work Done:

- Decided the path of the pipeline with stakeholders
- Dug trenches 2 metres deep using a JCB machine
- Unloaded PVC pipelines and fitting items
- Arranged plumber to install the PVC
- Closed the pipelines after the installation through JCB
- Connected the oil engine/motor to the PVC pipeline.



02 SOIL HEALTH IMPROVEMENT

Tank Silt Application

The application of tank silts is usually done before the monsoon to help it mix properly with the soil and decompose. For this project, we received permission by the district administration to take silt from Sudamani Tank/Kanmai at Karumanthagudi.

However, in the first week of September, heavy rain filled the tank.

Government officials visited and said silt could not be taken as per the rules. By then, farmers had already sown seeds after ploughing, so the activity could not be carried out despite our efforts.

Note: Taking tank silt involves a complicated process requiring approval from the Mines Department, Taluk Office and Block Development Office. We approached the district administration twice with the farmers, but we decided to replace tank silt applications with applying compost made from animal waste.

Manure Cultivation

The farming of Dhaincha (called Thakkai Poondu locally) is one of the best ways to improve soil health and support sustainable farming. After 50–60 days, the plants will grow to about 2 feet tall and will be ploughed back into the soil. This process provides many benefits, including improving soil structure, water retention, reducing soil erosion and weed control. All of these help make the soil healthier and increase crop production.

Soil Health Cards

- Soil samples were collected during the second year from farmers' fields in Kadiyaval and Ettianendral villages. Each sample cost ₹700 (£6.00), and each farmer contributed ₹ 175 (£1.46) towards the cost of the sample.

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- After collection, the samples were sent to the lab to check the macro and micro nutrients in the soil. Once the Soil Health Cards are received, the team will explain to each farmer what nutrients their soil has (high or low) and what crops or fertilisers are recommended.
- In the next reporting period, farmers who received Soil Health Cards will continue to get support through integrated nutrient management that is based on the specific nutrient needs of their fields.

03 SUSTAINABLE NATURAL RESOURCE MANAGEMET AND LIVELIHOOD SECURITY

Backyard Fruit

20 farmers have been given various backyard fruits, including Mango, Sappota, Lemon, Guava and Jackfruit at the project areas of Adhappadakki and Karumanthagudi.

Benefits of the Activity

- Families can enjoy fresh, tasty and nutritious fruits from their backyard garden.
- Extra fruits can be sold for income.
- Backyard gardening connects people with nature which can be relaxing and calming.
- Fruit trees provide food and shelter for birds, bees, butterflies and other helpful pollinators.
- Fallen leaves from the trees add nutrients to the soil to keep it healthy.

Afforestation

25 farmers have been given various tree plants, including Neem, Pungan, African Kaya, Eluppai (Mahua), Mahakani and May Flower at the project areas of common land and near at temples.



Benefits of Tree Plantation

- Planting trees cleans the air to help fight climate change, saves water and prevents soil erosion.
- Trees absorb carbon dioxide and release oxygen to help control the climate and reduce global warming.
- Trees provide a home and support for insects, fungi and other organisms which are important for a healthy ecosystem.



PROPOSED ACTION PLAN FOR THE NEXT REPORTING PERIOD

In the next reporting period, the following activities will be carried out in the project areas:

- Integrated Nutrition Management – improving soil health
- Vermi-Compost Demonstration Unit – promoting soil health
- Field Bund Construction – water conservation
- Remaining Reclamation Work of Water Channels – water conservation
- Application of Liquid Fertilizer Using Drones – supporting sustainable farming and livelihoods
- Goat Rearing – supporting sustainable farming and livelihoods
- Training Drone Use – building skills and reducing climate risks



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