



## MISSION SUNEHRA KAL

ஒளிமயமான எதிர்காலம்

WATER STEWARDSHIP PROGRAMME

ஒருங்கிணைந்த நீர் மேலாண்மை திட்டம்



பருவநிலைக்கேற்ற சாமர்த்திய விவசாயம் மற்றும்  
தேவை மேலாண்மை திட்டம்

காரமடை ஒன்றியம் கோவை மாவட்டம்

Climate Smart Agriculture and Demand Management  
Initiatives Upper Bhavani River Basin

## ANNUAL REPORT 2024 - 2025



*Programme Implemented & Presented by*



**Coodu**

**Community Organisation for Oppressed and  
Depressed Upliftment**

**Project Office:** 4/361, Anna Nagar, Dhayanur, Seeliyur PO, Karamadai Via, - 641 104

**Head Office:** 7-A, V C K Layout, Opp. St. Fancis Convent, Trichy Road, Coimbatore - 641 018,

Ph: 0422 - 2316178, Email: [cooduindia@gmail.com](mailto:cooduindia@gmail.com) / [coodu\\_cbe@yahoo.co.in](mailto:coodu_cbe@yahoo.co.in),

Website: [www.coodu.org](http://www.coodu.org)

SUPPORTED BY



# MISSION SUNEHRA KAL WATER STEWARDSHIP PROGRAMME

IMPLEMENTED BY



Annual Report 2024 – 2025

## Climate Smart Agriculture and Demand Management Initiatives

Upper Bhavani River Basin, Karamadai Block, Coimbatore District

### I. Introduction

As we reflect on the achievements and challenges of the past year, we are proud to present the Annual Report for 2024-2025, which encapsulates our commitment to sustainable development, community empowerment, and innovative solutions. This report highlights our ongoing efforts to create a positive impact in the communities we serve, particularly through our strategic partnerships and impactful initiatives.

In an era marked by rapid change and pressing environmental challenges, our focus remains steadfast on fostering resilience and promoting sustainable practices. Our collaborations with local organizations, government bodies, and community members have enabled us to implement effective programs that address critical issues such as water resource management, climate change adaptation, and agricultural sustainability. Throughout the year, we have witnessed remarkable progress in our initiatives, including the successful development of watersheds, the formation of Water User Groups, and the promotion of climate-smart agriculture. These efforts have not only improved agricultural productivity but have also strengthened community bonds and empowered individuals to take charge of their resources.

As we look ahead, we remain committed to our mission of driving sustainable change and enhancing the livelihoods of rural communities. We believe that by working together, we can create a brighter, more sustainable future for all. This report serves as a testament to our dedication, resilience, and the collective impact of our work over the past year. We invite you to explore the highlights and insights within these pages as we continue our journey towards a more sustainable and equitable world.

### II. Executive Summary

The 2024-2025 fiscal year has marked a pivotal chapter in advancing Climate Smart Agriculture (CSA) and Demand Management Initiatives within the Upper Bhavani River Basin, Karamadai Block, Coimbatore District. Supported by ITC and implemented by COODU, this project has aimed to enhance agricultural resilience, optimize resource use, and promote sustainable farming practices among local farmers.

#### 2.1 Key Achievements

- 1. Promotion of Climate Smart Practices:** The initiative has successfully introduced a range of climate smart agricultural practices tailored to the unique environmental and economic conditions of the region. These practices include crop diversification, soil health management, and efficient water use techniques, which have collectively contributed to increased agricultural productivity and resilience against climate change.

2. **Water Resource Management:** A significant focus has been placed on optimizing water usage through innovative demand management strategies. The implementation of rainwater harvesting systems, micro-irrigation techniques, and watershed management practices has empowered farmers to maximize water efficiency, reduce dependency on external water sources, and enhance crop yields.
3. **Capacity Building and Training:** Comprehensive training programs have been conducted for farmers to equip them with the knowledge and skills necessary for adopting climate smart practices. Workshops and field demonstrations have facilitated hands-on learning, fostering a deeper understanding of sustainable agriculture among the farming community.
4. **Student Internship Program:** A notable addition to our initiatives has been the Student Internship Program, which engaged students from various colleges and universities. This program provided students with practical experience in climate smart agriculture and demand management, allowing them to contribute to ongoing projects while enhancing their academic knowledge. Interns participated in field assessments, data collection, and community outreach, fostering a sense of responsibility and connection to sustainable practices. This collaboration not only enriched the learning experience for students but also brought fresh perspectives and innovative ideas to our initiatives.
5. **Community Engagement and Empowerment:** The initiative has actively engaged local communities through participatory approaches, ensuring that farmers are involved in decision-making processes. This has fostered a sense of ownership and commitment to sustainable practices, leading to stronger community ties and collaborative efforts in addressing agricultural challenges.
6. **Monitoring and Evaluation:** A robust monitoring and evaluation framework has been established to assess the impact of the initiatives on agricultural productivity, resource management, and farmer livelihoods. Data collected through this framework has provided valuable insights, enabling continuous improvement and adaptation of strategies to meet the evolving needs of the farming community.

## 2.2 Challenges and Areas for Improvement

While significant progress has been made, several challenges remain:

- **Climate Variability:** Unpredictable weather patterns continue to pose risks to agricultural productivity, necessitating ongoing adaptation strategies.
- **Financial Constraints:** Limited access to credit and financial resources has hindered some farmers from fully investing in climate smart technologies and practices.
- **Awareness and Adoption Rates:** While training programs have been effective, increasing awareness and adoption rates of climate smart practices among all farmers remains a priority.
- **Infrastructure Limitations:** Inadequate infrastructure in certain areas can impede the implementation of water management solutions and access to markets.

## 2.3 Future Directions

As we look ahead to the next fiscal year, our commitment to fostering Climate Smart Agriculture and effective demand management will remain steadfast. We will continue to focus on scaling up successful practices, enhancing community engagement, and addressing the financial and infrastructural challenges faced by farmers. The Student Internship Program will also be expanded to include more institutions, fostering a greater connection between academia and practical agricultural solutions. Collaborative partnerships with stakeholders, including ITC and local government bodies, will be vital in driving sustainable agricultural development in the Upper Bhavani River Basin.

### III. Supply Side Intervention

#### 3.1 Managed Aquifer Recharge (MAR) – Well Recharge Units

Managed Aquifer Recharge (MAR) is a vital initiative aimed at enhancing groundwater availability and sustainability in the Upper Bhavani River Basin. This activity focuses on the construction and implementation of Well Recharge Units to facilitate the efficient recharge of aquifers. Here's a detailed overview of this initiative:



##### 3.1.1 Overview of MAR Implementation

**Total MAR Units Constructed:** 200 Well Recharge Units

- **Purpose:** The primary objective of these Well Recharge Units is to capture and store excess rainfall and surface runoff, allowing it to percolate down into the aquifer. This process helps replenish groundwater levels, which are crucial for agricultural irrigation and drinking water supply in the region.

##### 3.1.2 Contributions

- **Local Contribution:** ₹2,90,712
  - **Description:** The local community played a significant role in the funding and support of the MAR initiative. This contribution reflects the commitment of local stakeholders to enhance water management practices and ensure sustainable access to groundwater resources.
- **ITC-MSK Contribution:** ₹29,07,122
  - **Description:** The generous support from ITC-MSK (Mission Sunehra Kal) significantly bolstered the implementation of the MAR initiative. This financial assistance enabled the construction of the Well Recharge Units, ensuring that the infrastructure is robust and effective in enhancing groundwater recharge.

##### 3.1.3 Impact of MAR

- **Groundwater Level Improvement:** The installation of 200 Well Recharge Units has led to a noticeable increase in groundwater levels in the surrounding areas. This improvement is vital for farmers, as it ensures a reliable water source for irrigation, especially during dry spells.
- **Sustainable Water Management:** By promoting the recharge of aquifers, the MAR initiative contributes to sustainable water management practices in the region. It helps mitigate the effects of water scarcity and supports the long-term viability of agricultural practices.
- **Community Engagement:** The involvement of local communities in the MAR initiative fosters a sense of ownership and responsibility towards water resources. This engagement is crucial for the success and sustainability of groundwater management efforts.

The Managed Aquifer Recharge (MAR) initiative, through the establishment of 200 Well Recharge Units, represents a significant advancement in water management within the Upper Bhavani River Basin. The collaborative contributions from both local stakeholders and ITC-MSK highlight the importance of community involvement and external support in achieving sustainable water solutions. This initiative not only addresses immediate water needs but also paves the way for long-term resilience against climate variability and water scarcity.

### 3.2 Construction and Renovation of Check Dams (Supply side Intervention)

The check dam initiative plays a crucial role in enhancing water conservation, improving irrigation facilities, and managing surface runoff in the Upper Bhavani River Basin. This section outlines the details of the check dams constructed and renovated in collaboration with local farmers and the support of ITC-MSK.

#### 3.2.1 Overview of Check Dam Activities

- **Total Amount Invested:** ₹51,45,077
- **Total ITC-MSK Contribution:** ₹48,89,726
- **Total Local Contribution:** ₹2,55,351

The following table summarizes the check dams constructed and renovated, including their locations, types, and financial contributions:

Sl No	Location (Nearby Farmer)	Panchayat / Watershed	Type	Total Amount	ITC – MSK Contribution	Local Contribution
1	Rangaraja Puram	Kemmarampalayam	New Construction	₹11,07,590	₹10,52,210	₹55,379
2	Annamalai	Kemmarampalayam	Renovation	₹2,42,392	₹2,30,272	₹12,120
3	Thirumoorthy	Kemmarampalayam	New Construction	₹18,13,806	₹17,23,115	₹90,690
4	CTC Palanisamy	Velliyangadu	Renovation	₹3,78,371	₹3,59,925	₹18,447
5	Manikkaraj	Tholampalayam	Renovation	₹4,65,544	₹4,42,741	₹22,802
6	Udhayakumar	Kemmarampalayam	Renovation	₹1,95,073	₹1,85,771	₹9,302
7	Babu	Kemmarampalayam	New Construction	₹9,42,302	₹8,95,692	₹46,611

The initiative focused on the construction of three new check dams and the renovation of four existing check dams to enhance water conservation and management in the region. This project aimed to increase the watershed command area, improve water storage capacity, and support sustainable agricultural practices.

#### 3.2.2 Objectives of the Check Dam Initiative:

1. **Enhance Water Conservation:** To increase water storage capacity and improve groundwater recharge through the construction and renovation of check dams.
2. **Increase Agricultural Productivity:** To expand the command area for irrigation, thereby supporting farmers and enhancing crop yields.
3. **Support Sustainable Resource Management:** To promote sustainable water management practices that benefit the local ecosystem and agricultural community.
4. **Mitigate Soil Erosion:** To reduce soil erosion and sedimentation in water bodies by slowing down water runoff and promoting infiltration.

### 3.2.3 Key Activities Undertaken:

#### 1. Construction of New Check Dams:

- **Number of New Check Dams Constructed: 3**
- These check dams were strategically located to maximize water retention and support the surrounding agricultural lands.

#### 2. Renovation of Existing Check Dams:

- **Number of Existing Check Dams Renovated: 4**
- Renovation efforts included repairing structural damages, enhancing spillways, and improving water storage efficiency.

#### 3. Expansion of Watershed Command Area:

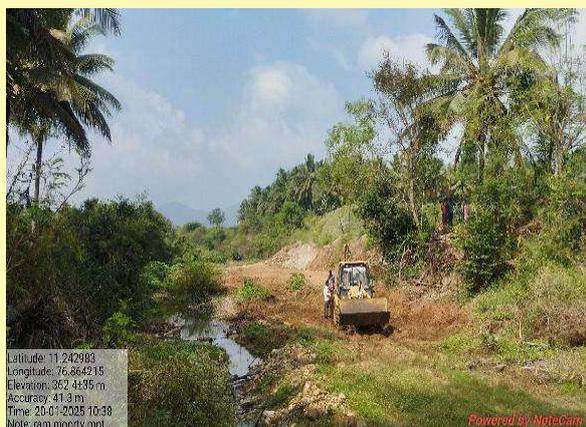
- **Total Area Increased: 418 hectares**

The newly constructed and renovated check dams significantly expanded the watershed command area, allowing for better irrigation coverage and water accessibility for local farmers.

#### 4. Creation of Water Storage Capacity:

- **Total Water Storage Capacity Created: 18,942 cubic meters**

This increased storage capacity plays a crucial role in ensuring a reliable water supply during dry periods, supporting agricultural activities and livestock.



#### Before



### 3.2.4 Outcomes of the Check Dam Initiative:

#### 1. **Improved Water Availability:**

The construction and renovation of check dams have enhanced the availability of water for irrigation, leading to increased agricultural productivity in the region.

#### 2. **Enhanced Groundwater Recharge:**

The check dams facilitate groundwater recharge, contributing to the sustainability of water resources and helping to maintain the hydrological balance.



#### 3. **Increased Agricultural Output:**

Farmers within the expanded command area have reported improved crop yields due to better access to water, resulting in enhanced food security and livelihoods.

#### 4. **Reduced Soil Erosion:**

The check dams have effectively reduced soil erosion in the watershed area, promoting healthier soil and reducing sedimentation in nearby water bodies.

#### 5. **Community Engagement and Awareness:**

The initiative has raised awareness among local communities about the importance of water conservation and sustainable resource management, fostering a sense of ownership and responsibility.

The construction of three new check dams and the renovation of four existing check dams have significantly contributed to water conservation and management in the region. By increasing the watershed command area by 418 hectares and creating a water storage capacity of 18,942 cubic meters, this initiative has enhanced agricultural productivity, supported sustainable practices, and improved the overall resilience of the community to climate variability. This project exemplifies our commitment to promoting sustainable water resource management and supporting the livelihoods of local farmers.

## VI. Demand Side Initiatives

### 4.1 Climate Smart Village (CSV)

The Climate Smart Village (CSV) initiative is a transformative program designed to promote sustainable agricultural practices that enhance resilience to climate change while improving productivity and livelihoods for farmers. In this initiative, we successfully covered an area of 8,507 hectares, engaging 3,373 farmers in the adoption of five climate-smart practices tailored specifically for key crops in the region, including coconut, banana, and curry leaf.

### 4.2 Objectives of the CSV Initiative:

1. **Enhance Climate Resilience:** To equip farmers with practices that increase their resilience to climate variability and extreme weather events.
2. **Promote Sustainable Agriculture:** To encourage environmentally friendly agricultural practices that improve soil health, conserve water, and reduce greenhouse gas emissions.
3. **Increase Productivity:** To improve crop yields and overall farm productivity through the adoption of innovative farming techniques.

4. **Empower Farmers:** To provide farmers with the knowledge and tools necessary to adapt to changing climatic conditions and improve their livelihoods.

#### 4.3 Key Activities Undertaken:

##### 1. **Coverage of Farmers and Land:**

- **Total Area Covered:** 8,507 hectares
- **Total Farmers Engaged:** 3,373 farmers
- The initiative focused on three primary crops:
  - **Coconut:** 4,214 hectares
  - **Banana:** 3,952 hectares
  - **Curry Leaf:** 340 hectares

##### 2. **Adoption of Climate-Smart Practices:** Farmers were trained in five specific climate-smart practices tailored to their crops, which included:

- **Integrated Pest Management (IPM):** Reducing chemical pesticide use by promoting natural pest control methods.
- **Soil Health Management:** Implementing practices such as cover cropping, composting, and reduced tillage to enhance soil fertility and structure.
- **Water Conservation Techniques:** Introducing rainwater harvesting and efficient irrigation practices to optimize water use.
- **Crop Diversification:** Encouraging the planting of diverse crop varieties to enhance resilience against pests, diseases, and climate extremes.
- **Agroforestry Practices:** Integrating trees with crops to improve biodiversity, soil health, and microclimate conditions.

##### 3. **Capacity Building and Training:** Workshops and training sessions were conducted to educate farmers about climate-smart practices, enabling them to make informed decisions regarding their agricultural activities.

##### 4. **Monitoring and Evaluation:** Continuous monitoring and evaluation of the practices adopted by farmers were carried out to assess their effectiveness and impact on productivity and resilience.

#### 4.4 Outcomes of the CSV Initiative:

1. **Increased Resilience to Climate Change:** Farmers reported improved resilience to climate variability, with many indicating a reduction in crop losses due to extreme weather events.
2. **Enhanced Crop Yields:** The adoption of climate-smart practices has led to increased productivity across the targeted crops, benefiting farmers' incomes and food security.
3. **Improved Soil and Water Management:** Farmers have implemented better soil and water management practices, leading to healthier soils and more efficient water use.
4. **Empowered Farming Communities:** The initiative has empowered farmers by providing them with the knowledge and resources needed to adapt to climate change, fostering a sense of community and collaboration.

5. **Sustainable Agricultural Practices:** The focus on sustainable practices has not only improved farm productivity but also contributed to environmental conservation, promoting biodiversity and reducing carbon footprints.

S.No	Village Name	Gram Panchayat Name	Total Area in Ha (Coconut & Banana)	Coconut in (Ha)	Banana in (Ha)
1	Chinnakallipatti	Chinnakallipatti	432.54	295.17	137.37
2	Muduthurai	Muduthurai	585.33	437.09	148.24
3	Irumborai	Irumborai	907.7	626.22	281.48
4	Illuppanatham	Illuppanatham	907.17	386.96	520.21
5	Bellapalayam	Bellapalayam	682.56	291.08	391.48
6	Jadayampalayam	Jadayampalayam	959.45	178.15	781.3
7	Chickadasampalayam	Chickadasampalayam	716.43	113.8	602.63
8	Odanthurai	Odanthurai	556.4	20.39	536.01
9	Nellithurai	Nellithurai	510.85	10.15	500.7
10	Thekkampatti	Thekkampatti	1026.8	208.2	818.6
11	Tholampalayam	Tholampalayam	1105.68	635.58	470.1
12	Velliangadu	Velliangadu	792.05	241.46	550.59
13	Kemmarampalayam	Kemmarampalayam	916.45	344.31	572.14
14	Kalampalayam	Kalampalayam	697.86	262.05	435.81
15	Marudur	Marudur	1102.08	152.08	950
16	Belladhi	Belladhi	632.37	607.87	24.5
17	Chikkarampalayam	Chikkarampalayam	572.39	318	254.39
		<b>Total</b>	<b>13104.11</b>	<b>5128.56</b>	<b>7975.55</b>

The Climate Smart Village initiative represents a significant advancement in promoting sustainable agriculture and enhancing resilience to climate change among local farmers. By engaging 3,373 farmers across 8,507 hectares and focusing on key crops such as coconut, banana, and curry leaf, we have successfully implemented climate-smart practices that improve productivity, empower communities, and contribute to environmental sustainability. This initiative exemplifies our commitment to fostering a resilient agricultural landscape that can withstand the challenges posed by climate change, ensuring food security and sustainable livelihoods for future generations.

### 5.1 Demo-Plots: Farmers Field School (FFS) Trainings

The Farmers Field School (FFS) initiative focuses on enhancing agricultural practices and knowledge among local farmers through hands-on training and demonstration plots. This section provides an overview of the training sessions conducted for various crops, including Coconut, Banana, and Curry Leaf.

#### 5.2 Overview of FFS Trainings

- **Total Number of Farmers Attended Training:** 2,551
- **Total Number of Persons Attended Training:** 2,971
- **Total Number of Trainings Conducted:** 208

#### 5.3 Participation Breakdown

- **Male Farmers:** 2,069
- **Female Farmers:** 482

The participation numbers highlight the engagement of both male and female farmers in the training sessions, reflecting the inclusive approach of the FFS initiative.

### 5.4 Training Focus

The FFS trainings covered essential topics related to the cultivation of the following crops:

#### 1. Coconut

- **Training Content:** Best practices for coconut cultivation, pest management, irrigation techniques, and post-harvest handling.
- **Objective:** To improve yield and quality of coconut production while ensuring sustainable farming practices.



#### 2. Banana

- **Training Content:** Techniques for banana planting, disease management, soil health improvement, and harvesting methods.
- **Objective:** To enhance banana production efficiency and increase farmers' income through better crop management.



#### 3. Curry Leaf

- **Training Content:** Cultivation practices for curry leaf, including soil preparation, fertilization, and pest control strategies.
- **Objective:** To promote the cultivation of curry leaf as a high-value crop, benefiting local farmers economically.



### 5.5 Impact of FFS Trainings

- **Knowledge Enhancement:** The training sessions provided farmers with valuable knowledge and skills to improve their agricultural practices, leading to increased productivity and sustainability.
- **Community Engagement:** The involvement of both male and female farmers fosters a sense of community and collaboration, encouraging shared learning and support among participants.
- **Economic Benefits:** By adopting the best practices learned during the trainings, farmers can expect to see an increase in crop yields and quality, ultimately leading to higher income levels.

The Farmers Field School (FFS) trainings represent a significant step towards empowering local farmers with the knowledge and skills needed to enhance their agricultural practices. With a total of 208 training sessions conducted and participation from over 2,500 farmers, this initiative is making a positive impact on the agricultural landscape in the region. By focusing on crops like Coconut, Banana, and Curry Leaf, the FFS aims to improve food security and economic stability for local farming communities.

### 6.1 Water User Group (WUG) – Agri Business Centre Savings

The Water User Group (WUG) initiative focuses on promoting sustainable water management and agricultural practices among farmers through collective savings and financial support. This section provides an overview of the financial aspects related to the Agri Business Centre (ABC) savings, including income, maintenance funds, and self-loan amounts.

### 6.2 Financial Overview

- **Total ABC Income:** ₹8,40,180
- **Total Maintenance Fund:** ₹3,35,183
- **Total WUG Self Loan Amount:** ₹5,18,000

### 6.3 Breakdown of Financial Components

#### 1. ABC Income (₹8,40,180)

- This represents the total income generated through the Agri Business Centre, which may include contributions from members, profits from agricultural activities, and other revenue sources. The income supports various initiatives and operational costs associated with the WUG.

#### 2. Maintenance Fund (₹3,35,183)

- The maintenance fund is set aside for the upkeep and management of water resources and infrastructure. This fund ensures that the facilities are well-maintained and can effectively support agricultural activities within the community.

#### 3. WUG Self Loan (₹5,18,000)

- The self-loan amount reflects the funds available for members of the Water User Group to borrow for agricultural investments, improvements, or emergencies. This financial support empowers farmers to enhance their productivity and manage risks associated with farming.

The Water User Group (WUG) initiative, through the Agri Business Centre, has established a robust financial framework that supports farmers in managing water resources and enhancing agricultural practices. With a total income of ₹8,40,180, a maintenance fund of ₹3,35,183, and a self-loan amount of ₹5,18,000, the WUG is well-positioned to foster sustainable agricultural development and improve the livelihoods of its members.

### 7.1 Agri Business Centre (ABC) – Mechanisation Promotion - Loan Details

The Agri Business Centre (ABC) initiative aims to promote mechanization in agriculture by providing financial support to Water User Groups (WUGs) for acquiring modern agricultural machinery. This section outlines the loan details for various WUGs, including contributions, loan amounts, repayment status, and the types of machines acquired.

### 7.2 Overview of Loan Details

- **Total WUG Contributions:** ₹13,33,000

- **Total Loan Amount:** ₹1,21,00,000
- **Total Repaid Amount:** ₹5,93,200
- **Total Outstanding Balance:** ₹6,16,800

### 7.3 Breakdown of Loans by WUG

S. No	Name of WUG	WUG Contribution	Loan Amount	Repaid	Balance	Machines
1	Aathimathaiyanur WUG		₹2,00,000	₹1,80,000	₹20,000	
2	Manalpudur WUG	₹47,000	₹18,500	₹28,500		
3	Thogamalai WUG	₹1,35,000	₹96,000	₹39,000		
4	Neelampathy Magalir WUG	₹1,00,000	₹1,00,000	₹0		
5	Kaliyappanur WUG		₹65,000	₹65,000		
6	Vannmparai WUG		₹65,000	₹27,700	₹37,300	
7	Sengaloor Malaival Makkal WUG	₹94,000	₹13,000	₹81,000		
8	Thogamalai WUG	₹8,000	₹70,000	₹50,000	₹20,000	Wood Chipper - 1
9	Velliyangadu WUG	₹2,400	₹47,000	₹9,600	₹37,400	Sprayer - 2, Chaff Cutter - 1, Weeder - Weeder - 1
10	Periya Thottam WUG	₹6,000	₹1,00,000	₹20,000	₹80,000	Weeder - 1 & Sprayer - 1
11	Sundakarai Mahalir WUG	₹2,200	₹67,000	₹13,400	₹53,600	Weeder - 1 & Sprayer - 1
12	Bairava WUG	₹10,700	₹1,20,000	₹0	₹1,20,000	Power Tiller - 1
13	Vaigai WUG	₹1,04,000	₹1,00,000	₹0	₹1,00,000	Rotavator - 1

### 7.4 Summary of Loan Performance

- **Repaid Loans:** The total amount repaid by WUGs amounts to ₹5,93,200, indicating a commitment to fulfilling their loan obligations.
- **Outstanding Balance:** The total outstanding balance of ₹6,16,800 reflects the loans that are yet to be repaid, highlighting the ongoing financial engagement of the WUGs.
- **Machinery Acquired:** The initiative has facilitated the acquisition of various agricultural machines, including:

- **Wood Chipper**
- **Sprayers**
- **Chaff Cutters**
- **Weeders**
- **Power Tillers**
- **Rotavators**



The Agri Business Centre's Mechanisation Promotion initiative has successfully provided financial support to Water User Groups for acquiring essential agricultural machinery. With a total loan amount of ₹1,21,00,000 and a focus on repayment, the program is making strides in enhancing agricultural productivity and sustainability. The diverse range of machinery acquired underscores the initiative's commitment to modernizing farming practices.

### 8.1 Formation & Strengthening of Water User Groups (WUG)

In an effort to enhance water management and promote sustainable agricultural practices, COODU initiated the formation and strengthening of Water User Groups (WUG) within the project area. This initiative aims to empower local communities to take an active role in the management and conservation of water resources, ensuring equitable access and sustainable use.

## 8.2 Objectives of the Initiative:

- **Empower Communities:** The formation of WUGs aims to empower local farmers and community members by providing them with a platform to voice their concerns, share knowledge, and collaborate on water management strategies.
- **Promote Sustainable Water Use:** By fostering a sense of ownership and responsibility among members, WUGs encourage the adoption of sustainable practices that optimize water use and enhance agricultural productivity.
- **Enhance Collaboration:** WUGs serve as a bridge between farmers and various stakeholders, including government agencies and NGOs, facilitating better communication and collaboration on water-related issues.



## 8.2 Key Activities Undertaken:

1. **Formation of Water User Groups:** COODU facilitated the establishment of WUGs across the project area, bringing together farmers and community members who rely on shared water resources. These groups were formed based on geographical proximity and common water management challenges.
2. **Capacity Building Workshops:** Training sessions and workshops were conducted to educate WUG members on water management practices, conflict resolution, and the importance of sustainable agricultural techniques. These sessions aimed to equip members with the skills and knowledge necessary to effectively manage their water resources.
3. **Development of Management Plans:** Each WUG was supported in developing tailored water management plans that addressed local needs and challenges. These plans outline strategies for water conservation, distribution, and conflict resolution, ensuring equitable access for all members.
4. **Monitoring and Evaluation:** COODU established a framework for monitoring the effectiveness of WUGs in managing water resources. Regular assessments and feedback mechanisms were implemented to evaluate progress and make necessary adjustments to management plans.
5. **Community Engagement:** WUGs actively engaged with the broader community, raising awareness about the importance of sustainable water use and the role of collective action in addressing water management challenges.

## 8.3 Outcomes of the Initiative:

- **Increased Awareness:** The formation of WUGs has led to heightened awareness among community members about the importance of water conservation and sustainable practices.
- **Improved Water Management:** WUGs have successfully implemented strategies that optimize water use, resulting in improved access to water for agricultural purposes and enhanced crop yields.
- **Strengthened Community Bonds:** The initiative has fostered a sense of community and collaboration, with members working together to address common challenges and share resources.

- **Empowerment of Farmers:** By giving farmers a platform to voice their concerns and participate in decision-making processes, WUGs have empowered them to take ownership of their water resources.

The formation and strengthening of Water User Groups represent a significant advancement in community-led water management initiatives within the project area. By empowering local farmers and fostering collaboration, COODU is contributing to the sustainable use of water resources, ultimately enhancing agricultural productivity and resilience in the face of climate change. This initiative not only supports the farming community but also promotes a culture of sustainability and collective responsibility for water management.

## 9.1 Plantation – On Farm

The plantation initiative aimed to enhance biodiversity, improve soil health, and provide economic benefits to local farmers through the cultivation of various tree species and fruit-bearing plants. The following saplings were planted during this activity:

### 8.2 Casuarina (*Casuarina equisetifolia*)

- **Quantity:** 34,000 saplings
- **Area Covered:** 60 hectares
- **Description:** Casuarina is a fast-growing tree known for its ability to thrive in coastal and dry regions. It is primarily planted for its timber, which is used in construction, and for its role in soil stabilization and erosion control. The extensive planting of Casuarina will help improve soil quality and provide shade for crops, enhancing overall farm productivity.



### 8.3 Mahogany (*Swietenia macrophylla*)

- **Quantity:** 8,250 saplings
- **Area Covered:** 14 hectares
- **Description:** Mahogany is a highly valued hardwood known for its durability and rich color. It is often used in furniture making and cabinetry. By planting Mahogany saplings, we aim to create a sustainable source of high-quality timber while also enriching the local ecosystem. These trees will contribute to carbon sequestration and provide habitats for various wildlife.



### 8.4 Lemon (*Citrus limon*)

- **Quantity:** 350 saplings
- **Area Covered:** 6 hectares
- **Description:** Lemon trees are not only economically beneficial due to their fruit but also play a role in enhancing soil health and providing shade. The cultivation of lemons will provide farmers with an additional source of income and improve dietary diversity in the community. The trees will also attract beneficial insects, aiding in pollination.

### 8.5 Mango/Sapota (*Mangifera indica*/*Manilkara zapota*)

- **Quantity:** 4,000 saplings
- **Area Covered:** 80 hectares
- **Description:** Mango and Sapota are popular fruit trees that can provide significant economic returns for farmers. Mangoes are beloved for their sweet fruit, while Sapota (also known as Chikoo) is valued for its unique flavor and nutritional benefits. Planting these trees will not only enhance local food security but also create opportunities for farmers to engage in value-added products such as jams and dried fruits.

### 8.6 Total Plantation

- **Total Quantity of Saplings Planted:** 46,600

This on-farm plantation activity is a crucial step towards promoting sustainable agriculture, enhancing biodiversity, and providing economic opportunities for local farmers. The diverse selection of saplings ensures that the ecological balance is maintained while also catering to the economic needs of the community.

### 8.7 Total Impact:

- **Total Saplings Planted:** 46,600
- **Total Area Covered:** 160 hectares

### 8.8 Outcomes of the Plantation Initiative:

1. **Biodiversity Enhancement:** The variety of saplings planted has significantly increased the biodiversity of the area, creating habitats for various species and promoting ecological balance.
2. **Soil Quality Improvement:** The deep-rooted species, particularly Mahogany and Wild Neem, have contributed to improved soil structure and fertility, enhancing the overall productivity of the land.
3. **Economic Opportunities:** The introduction of fruit-bearing trees such as lemon, mango, and sapota offers new income streams for farmers, promoting economic resilience in the community.
4. **Climate Mitigation:** The windbreaks created by Casuarina trees have helped mitigate the effects of strong winds, protecting crops and reducing soil erosion, thereby promoting sustainable agricultural practices.
5. **Community Engagement:** The plantation initiative has fostered community involvement, with local farmers actively participating in the planting and maintenance of the saplings, strengthening their connection to the land and each other.

The on-farm plantation initiative represents a significant step towards achieving sustainable agricultural practices and environmental conservation. By planting a diverse range of saplings, we are not only enhancing the ecological health of the area but also empowering local farmers with new economic opportunities. This initiative exemplifies our commitment to fostering a resilient agricultural landscape that benefits both the environment and the community, paving the way for a sustainable future.

## 9.1 Crop Residual Management Training

In a collaborative effort with the Krishi Vigyan Kendra (KVK) in Karamadai, we conducted a comprehensive training program focused on Crop Residual Management. This initiative aimed to educate local farmers on the effective management of crop waste, specifically targeting residues from banana and coconut cultivation.

### 9.2 Objectives of the Training:

- **Enhance Knowledge:** To provide farmers with practical knowledge and techniques for managing crop residues, thereby reducing waste and promoting sustainable agricultural practices.
  - **Promote Resource Efficiency:** To encourage the utilization of crop residues as valuable resources rather than waste, contributing to soil health and overall farm productivity.
  - **Support Sustainable Practices:** To foster the adoption of environmentally friendly practices that mitigate the negative impacts of crop waste on the ecosystem.
1. **Training Sessions:** The training sessions were designed to be interactive and informative, covering various aspects of crop residual management. Topics included the benefits of residue management, techniques for composting, and methods for integrating crop residues into soil health practices.
  2. **Demonstrations:** Practical demonstrations were conducted to showcase effective methods for managing banana and coconut residues. Farmers learned how to convert waste into compost and organic fertilizers, enhancing soil fertility and reducing dependency on chemical inputs.
  3. **Resource Materials:** Participants were provided with resource materials, including guides and best practice manuals, to reinforce their learning and encourage the implementation of techniques discussed during the training.
  4. **Q&A Sessions:** Open discussions and question-and-answer sessions allowed farmers to address specific challenges they face in managing crop residues, fostering a collaborative learning environment.



### 9.4 Outcomes of the Training:

- **Increased Awareness:** Approximately 150 farmers participated in the training, significantly increasing their awareness of the importance of crop residual management and its benefits for sustainable agriculture.
- **Adoption of Practices:** Many participants expressed their intent to implement the techniques learned during the training, contributing to improved soil health and reduced waste on their farms.

- **Community Engagement:** The training fostered a sense of community among farmers, encouraging them to share knowledge and experiences related to crop management and sustainability.

The Crop Residual Management Training, conducted in collaboration with KVK Karamadai, represents a significant step towards promoting sustainable agricultural practices among local farmers. By equipping them with the knowledge and skills to effectively manage crop waste, we are contributing to the overall health of the environment and the productivity of their farms. This initiative not only supports individual farmers but also strengthens the agricultural community as a whole, paving the way for a more sustainable future.

### 10.1 Pasu Saki (Veterinary Development Programme)

The Pasu Saki initiative is a comprehensive Veterinary Development Programme aimed at enhancing livestock health and productivity among local animal owners. In collaboration with the Veterinary College and Research Institute (VCRI) in Namakkal, we successfully trained 15 Community Resource Persons (CRPs) who played a pivotal role in disseminating knowledge and best practices related to animal care. This program has had a significant impact on the livestock community, covering a total of 858 animal owners.



### 10.2 Objectives of the Pasu Saki Programme:

1. **Enhance Livestock Health:** To improve the overall health and productivity of livestock through effective veterinary practices, including deworming and vaccination.
2. **Empower Local Communities:** To train CRPs who can serve as local experts, providing ongoing support and education to animal owners in their communities.
3. **Promote Sustainable Livestock Management:** To encourage best practices in animal husbandry that contribute to the sustainable development of the livestock sector.
4. **Increase Awareness:** To raise awareness among animal owners about the importance of regular veterinary care and preventive measures for their livestock.



### 10.3 Key Activities Undertaken:

1. **Training of Community Resource Persons (CRPs):** A total of 15 CRPs were trained in collaboration with VCRI Namakkal. These individuals were equipped with essential knowledge and skills related to livestock management, including animal health care, nutrition, and disease prevention.

2. **Veterinary Services Provided:** The programme facilitated essential veterinary services to local animal owners, including:
  - **Deworming:** Effective deworming practices were implemented to improve the health and productivity of livestock.
  - **Vaccination:** Vaccination drives were conducted to protect animals from common diseases, ensuring their health and longevity.
3. **Animal Care Support:** The programme covered a wide range of livestock, providing care and support for:
  - **Cattle:** 3,619 cattle were managed through health checks, vaccinations, and deworming.
  - **Poultry:** 2,952 poultry birds were provided with necessary vaccinations and health assessments.
  - **Sheep:** 2,515 sheep received care and health management support.
4. **Package of Practices for Livestock Development:** The programme included a comprehensive "Package of Practices" initiative focused on livestock development for both cattle and poultry. This involved practical demonstrations and workshops that showcased best practices in animal husbandry, feeding, and health care. Key components of the package included:
  - **Nutritional Guidelines:** Recommendations for balanced diets tailored to the specific needs of different livestock species.
  - **Health Monitoring:** Regular health assessments and monitoring protocols to ensure early detection and treatment of diseases.
  - **Hygiene and Sanitation Practices:** Guidelines for maintaining clean and safe living conditions for livestock to prevent disease outbreaks.
  - **Breeding Practices:** Information on selective breeding techniques to improve the genetic quality of livestock.

#### 10.4 Outcomes of the Pasu Saki Programme:

1. **Improved Animal Health:** The veterinary services provided through the programme have significantly improved the health of the livestock, resulting in increased productivity and lower mortality rates.
2. **Community Empowerment:** By training CRPs, we have empowered local communities to take charge of their livestock management, fostering a sense of ownership and responsibility among animal owners.
3. **Increased Awareness and Knowledge:** The programme has raised awareness about the importance of regular veterinary care, leading to a more informed community of animal owners who are better equipped to manage their livestock.
4. **Sustainable Livestock Practices:** The emphasis on best practices in livestock management has contributed to the sustainable development of the livestock sector, promoting practices that are environmentally friendly and economically viable.
5. **Strengthened Community Networks:** The initiative has fostered collaboration among animal owners, CRPs, and veterinary professionals, creating a supportive network that enhances the overall effectiveness of livestock management in the region.

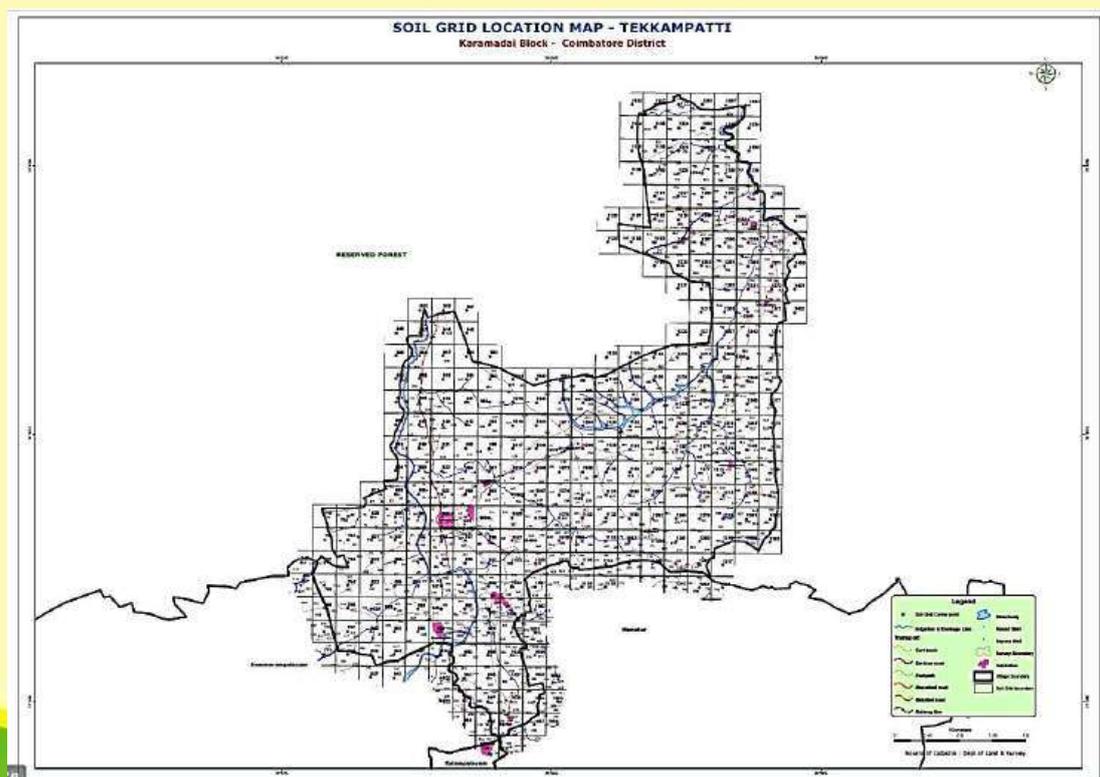
The Pasu Saki Veterinary Development Programme has made a significant impact on the health and productivity of livestock within the community. Through the training of CRPs and the provision of essential veterinary services, we have empowered local animal owners to adopt sustainable practices and improve the overall well-being of their livestock. This initiative exemplifies our commitment to enhancing agricultural livelihoods and promoting animal welfare, paving the way for a resilient and thriving livestock sector.

### 11.1 Soil Testing Based on the Grid Map

To promote sustainable farming practices and optimize nutrient management, COODU conducted extensive soil testing across the project area. This initiative aimed to provide farmers with valuable insights into soil health and fertility, enabling them to make informed decisions regarding their agricultural practices.

#### 11.2 Key Details of the Soil Testing Initiative:

- **Total Soil Samples Collected:** 1,500 A comprehensive approach was taken to ensure representative coverage of the entire region by collecting soil samples based on a meticulously designed grid map. This method allowed for systematic sampling, ensuring that the data gathered reflected the diverse soil conditions across the project area.
- **Parameters Analysed:** The collected soil samples were analysed for various critical parameters, including:
  - **pH Levels:** To assess soil acidity or alkalinity, which affects nutrient availability and crop growth.
  - **Organic Matter Content:** To evaluate soil fertility and its capacity to retain moisture and nutrients.
  - **Nutrient Levels:** Including essential macronutrients (nitrogen, phosphorus, potassium) and micronutrients necessary for optimal plant growth.
  - **Soil Texture:** To determine the proportion of sand, silt, and clay, which influences water retention, drainage, and nutrient availability.



### 11.3 Objectives of the Initiative:

The primary objectives of the soil testing initiative were to:

- **Enhance Soil Health:** By understanding the current state of soil health, farmers can implement targeted interventions to improve soil quality.
- **Optimize Nutrient Management:** The analysis results provide farmers with tailored recommendations for fertilizer application, ensuring that crops receive the necessary nutrients in the right amounts.
- **Promote Sustainable Farming Practices:** By adopting practices based on scientific data, farmers can enhance productivity while minimizing environmental impacts, contributing to long-term sustainability.

The soil testing initiative based on the grid map represents a significant step towards promoting sustainable agriculture in the project area. By equipping farmers with essential information about their soil, COODU is empowering them to make informed decisions that enhance productivity and sustainability. This initiative not only supports individual farmers but also contributes to the overall health of the agricultural ecosystem in the region.

### 12.1 Convergence with Government Departments & Agencies

The farmers covered under Climate Smart Agriculture and Demand Management Initiatives also benefit from various Government schemes, such as drip irrigation and agricultural inputs from Agriculture, Horticulture and Agriculture Engineering departments, services from the Veterinary department, seedlings/saplings from the Forest department, Sanitation and Housing from Rural Development department, desilted/enriched soil through Revenue department, training on modern agricultural practices by TNAU, KVK

Convergence with government departments and agencies is a strategic approach that aligns project initiatives with existing government programs and policies. This collaboration leverages the strengths and resources of both the project and governmental bodies to maximize impact and sustainability. By working together, the project can access funding, technical expertise, and support for agricultural development, water management, and rural livelihoods. Engaging with various government entities, such as agricultural departments, water resource management agencies, and local authorities, ensures that project activities are aligned with broader development goals and regulatory frameworks. This synergy not only enhances the effectiveness of interventions but also fosters community participation and ownership, as farmers can benefit from government schemes and policies designed to support their needs. Ultimately, this convergence strengthens the overall framework for sustainable development in the region.

### 12.2 Scheme Linkage: SWAM – Mobile Starter

The SWAM (Sustainable Water and Agricultural Management) initiative aims to support farmers in enhancing their agricultural productivity through financial assistance and resources. This section outlines the details of the scheme linkage for the Mobile Starter program, including government subsidies, project contributions, and the total costs incurred by farmers for various crops.



## 12.2 Overview of the SWAM Mobile Starter Scheme

- **Total Government Subsidy:** ₹24,200
- **Total Project Contribution by Farmers:** ₹30,800
- **Total Cost of the Projects:** ₹55,000

## 12.3 Farmer Participation and Details

The following table summarizes the participation of farmers in the SWAM Mobile Starter scheme, including their contributions, the crops they are cultivating, and details about water sources.

Farmer Name	Village	Govt	Project	Total	Crop	Well	Borewell
Sivakumar	Thekkamapati	₹4,400	₹6,600	₹11,000	Banana		650
Subbulakshmi	Kalampalayam	₹5,500	₹5,500	₹11,000	Coconut	40	
Dinesh	Kemmbarampalayam	₹4,400	₹6,600	₹11,000	Banana	80	600
Senthilkumar	Velliyangadu	₹4,400	₹6,600	₹11,000	Coconut	80	900
Palanisamy	Kemmarampalayam	₹5,500	₹5,500	₹11,000	Banana	50	570

## 12.4 Impact of the SWAM Mobile Starter Scheme

- **Financial Support:** The government subsidy and farmers' contributions have enabled them to invest in necessary resources for their crops, ensuring better agricultural practices and productivity.
- **Crop Diversity:** The participation of farmers in cultivating both Banana and Coconut demonstrates the scheme's support for diverse agricultural practices, catering to different market demands.
- **Water Resource Management:** The information regarding well and borewell depths indicates that farmers are utilizing available water resources effectively to support their crop cultivation.

The SWAM Mobile Starter scheme has successfully linked farmers with essential resources and financial assistance, promoting sustainable agricultural practices in the region. With a total investment of ₹55,000 across various farmers, the initiative is poised to enhance productivity and economic viability for local agricultural communities. By supporting crops like Banana and Coconut, the scheme contributes to both food security and farmers' livelihoods.

S.No	Department/ Agency	Type of Service	Benefits	Beneficiaries/Modalities
1	Rural Development & Panchayat Raj/ DRDA	MGNREGS	Plantations: Avenue, Block plantation Water body bunds Check Weirs/ Dams: Across the streams	100% of fund now borne by Government in selected areas. With dovetailing of a percent of funds for pitting, planting or maintenance, these plantations can be raised in our own watersheds. PD-DRDA or Collector is the authority. Seedlings/Saplings are responsibility of DRDA
2	Revenue	De-silting of ponds/tank by farmers	Excavation of top soil rich in nutrient to be applied to farmers field to enrich it	Individual farmers, excavating top soil & deposition on their own

3	Agriculture/ Horticulture	1. Micro-irrigation 2. Agriculture inputs such as Seeds, Bio-fertilizer, Sprayers, Seed planters, other implements	100% of the cost of micro-irrigation as subsidy to MF/SF and 75% to big farmers. Tie up with companies for installation included in total cost	MF/SF/BF Individual farmer has to apply to ADA, Agriculture and ADH, Horticulture
4	Environment & Forest	Supply of free seedlings & saplings	Supply of quality seedlings & saplings	Individual farmers & SHGs

### 13.1 Stakeholders Consultation Workshop

As part of the project, the 'Stakeholders Consultation Workshop – Sharing of ITC MSK Progress & Way Forward' was held with multiple organizations and government departments.

#### Proceedings

The event commenced at 10:00 AM with the *Tamil Thai Vazhthu* and the lighting of the *Kuthuvizhakku* by the chief guests.

**Dr. S. Kathiresan** (Secretary, COODU) delivered the welcome address, facilitating the workshop agenda and providing a brief overview of the water stewardship programme while honouring the dignitaries.

**Mr. Manish Kumar** (Programme Manager, ITC MSK Tamil Nadu) presented ITC's Social Investment program at the national level. He explained the ITC MSK approaches to community development, focusing on:

- **Horizon 1 (Immediate Goals):** Water Stewardship, Biodiversity Conservation, Climate Smart Agriculture, and Livelihood Diversification (On-farm: Social Forestry; Off-farm: Animal Husbandry).
- **Horizon 2 (Future Capabilities):** Women Empowerment, Public Health (Health & Nutrition, Sanitation & Waste Management), Support to Education, and Skilling for Youth.

He elaborated on ITC's Water Stewardship approach, including Need Assessment, Saturation Plan, Community Engagement, Supply Side Intervention (both Supply and Demand Side), Basin Saturation, and Monitoring. According to the Central Ground Water Board (CGWB), the Karamadai block's status was 'Over-Exploited' prior to our interventions but has since been reduced to a semi-critical zone. The demand has decreased to 26.5 million cubic meters (mcm), and our aim is to achieve a positive balance in the upcoming fiscal year. Additionally, water storage and runoff days have increased, indicating a rise in the groundwater table and a transformation of fallow land into cultivable land, resulting in a 40% increase in land cover. The organic carbon content in demonstration plots has risen to 0.7%, and the cost of cultivation has decreased by 40% due to the Agricultural Business Centre (ABC) and Water User Groups (WUG) providing interest-free loans through MSK. These achievements reflect our commitment to sustainable practices and environmental stewardship, creating a thriving ecosystem that benefits both our community and the environment.

**Er. S. Sivalingam** (Chief Engineer, Retd. & Senior Technocrat, PWD/WRD) discussed river systems, the Bhavani basin catchment area, and Check Dam constructions. He highlighted that Tamil Nadu has two perennial rivers: 1. Thamarai Bharani and 2. Bhavani. The Athikadavu-Avinashi Water Supply Project aims to divert 1.5 TMC (Thousand Million Cubic Feet) of surplus water from the Bhavani River to recharge groundwater and provide drinking water across Coimbatore, Tirupur, and Erode districts. This project benefits drought-prone and groundwater-depleted areas, enhancing irrigation for approximately 24,468 acres and improving drinking water availability. He concluded his valuable speech with the statement regarding the balance between Environment vs. Development, emphasizing that both can coexist through sustainable development.



**Mr. K. Kalidasan** (President, OSAI, Coimbatore) spoke on the topic of the "Gift of Nature – Western Ghats." He addressed the man-wildlife conflict in the Western Ghats, noting that deforestation, habitat loss, and human encroachment have led to frequent conflicts with animals like elephants, leopards, and bison. Conservation efforts focus on establishing wildlife corridors, early warning systems, and eco-sensitive development. He highlighted the importance of the Western Ghats, rich in biodiversity with over 7,400 plant species and many endemic animals. The region acts as a climatic barrier, influencing monsoons and preventing desertification, and serves as a lifeline for agriculture and water supply.



**Dr. Arun Venkatesh** (WWF, Coimbatore) discussed the biodiversity status and methods for improving flora and fauna in the Western Ghats and Upper Bhavani. He noted that freshwater ecosystems cover less than 1% of the Earth's surface and that wetlands are declining three times faster than forests. One-third of all freshwater species are at risk of extinction. The main objective of conserving biodiversity is to remove invasive species harmful to the ecosystem, which is crucial for maintaining the delicate balance of nature. He highlighted the importance of *Eriochrysis Rangacharii*, which plays a significant role in grassland ecosystems, supporting various plant and animal species.



**Thiru S. Sureshkumar** (Agronomist, KVK) explained soil conservation practices and the importance of crop residue management using waste from coconut and banana crops. This practice gradually increases organic carbon in the soil, improving soil health and porosity. Regular soil sample analysis contributes to increased crop yield, and multi-tier cropping helps retain soil fertility.

**Thirumathi S. Bakiyalakshmi** (AD Agriculture, Karamadai Block) shared her positive experiences with various schemes that boost farmers' livelihoods, including:

- **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN):** Provides financial assistance of ₹6,000 per year to small and marginal farmers in three instalments.
- **Atal Pension Yojana (APY):** Offers a guaranteed pension of ₹1,000 to ₹5,000 per month after the age of 60, depending on contributions.

- **Pradhan Mantri Krishi Sinchai Yojana (PMKSY):** Promotes efficient water use and increases crop productivity.
- **Pradhan Mantri Fasal Bima Yojana (PMFBY):** Provides crop insurance to farmers covering losses due to natural calamities, pests, and diseases.
- **Pradhan Mantri Kisan Maan-Dhan Yojana (PM-KMY):** A voluntary pension scheme for small and marginal farmers, offering a guaranteed monthly pension of ₹3,000 after the age of 60. *These schemes aim to improve farmers' livelihoods, increase their income, and provide financial security.*

**Thirumathi R. Suchindra** (AD Horticulture, Karamadai Block) addressed issues such as climate change, pest management, water scarcity, market access, and post-harvest losses. She highlighted government initiatives and policies, including new schemes, subsidies, and productivity improvements. She discussed advancements like precision farming, organic practices, and digital tools that enhance efficiency, as well as the importance of sustainability and climate resilience.

**Thirumathi Ramya** (Forest Ranger – Social Forestry, Mettupalayam) emphasized the importance of plantation activities in reducing greenhouse gases and supporting environmental sustainability. She mentioned the distribution of Casuarina, Mahogany, and Wild Neem plants, highlighting their benefits. Casuarina serves as a windbreak for banana crops, while Mahogany and Wild Neem provide long-term economic benefits as timber sources.

**Dr. Mohan Prasad** (Founder, Aeon Trust) emphasized the critical role of stakeholders in maintaining ecological balance and ensuring sustainable resource management. He noted that Tamil Nadu is a water-stressed state, making efficient water usage and conservation crucial for long-term sustainability. He expressed concerns regarding water usage in the Bhavani River Basin, stressing the need for wastewater regeneration and efficient water management strategies to prevent depletion and contamination. He discussed changes in the ecosystem over the last three decades, including increased industrial and urban demand for water, changes in rainfall patterns, reduction in forest cover, and over-extraction of groundwater affecting river flow and biodiversity. He concluded with recommendations for sustainable water and agricultural practices, urging all stakeholders—farmers, industries, policymakers, and local communities—to collaborate in preserving the Bhavani River's ecosystem and ensuring sustainable water availability for future generations.

**Mr. Gowrishankar** (Arulagam) highlighted the critical role of plantation and green cover in maintaining ecological balance, improving air quality, and mitigating climate change. He emphasized the need for large-scale afforestation and agroforestry initiatives, integrating tree planting with agriculture. He identified fast-growing tree species such as Casuarina, Mahogany, and Wild Neem as beneficial for environmental sustainability and economic returns. He also stressed the importance of increasing green cover in urban areas and encouraging community participation in afforestation programs.

### Farmers' Feedback

Farmers shared their positive experiences with project activities:

- **Mr. Kuppusamy (Kalampalayam):** Shared benefits regarding the well recharge structure implemented by the project, noting improved water levels and enhanced agricultural practices.
- **Mr. Sivalingam (Tholampalayam):** Discussed his experience with shelterbelt plantation techniques, which protected his banana crops from wind damage and prevented wild animal entry into the field.

- **Mr. Anbalagan (Tholampalayam):** Shared his thoughts on the benefits of intercrop support.
- **Mr. Moorthy (Kemmarampalayam):** Happily, shared his experience regarding the Check Dam project in the low-lying area of Kemmarampalayam village, which has benefited over 40 farmers in that region.

### 13.1 Water Mela 2025

On March 25, 2025, the 7th Water Mela was held at Bore Goudar Mahal, Dhayanur, in celebration of International Water Day. This significant event aimed to promote water stewardship and sustainable agricultural practices among the farming community. The participation of over 600 farmers underscored the importance of collective efforts in addressing water management challenges.

### 13.2 Event Highlights

- **Registration:** Attendees registered upon arrival, receiving informational materials that facilitated engaging discussions and interactions throughout the event.
- **Cultural Traditions:** The event commenced with the traditional lighting of the *Kuthuvizhakku* and the singing of *Thamilthai Vazhthu*, celebrating Tamil heritage and emphasizing the cultural significance of water in agriculture.
- **Welcome Address:** **Dr. S. Kathiresan, Secretary of COODU**, delivered the welcome address, highlighting the vital role of water conservation in agriculture and the challenges faced by farmers due to water scarcity.
- **Inaugural Insights:** **Thiru. N. Murali, Unit Head of ITC-PSPD, Karamadai**, provided inaugural insights, emphasizing ITC's commitment to sustainable practices and community welfare while reiterating the importance of collaborative efforts in water stewardship.
- **Community Support Initiatives:** **Thiru. Mahidhar Babu, Head of HR at ITC-PSPD**, discussed various community support initiatives, including drinking water supply, traffic management, and the implementation of CCTV systems to enhance safety and security in rural areas.
- **Informative Presentations:** **Thiru. Manish Kumar, Programme Manager for Tamil Nadu at ITC-MSK**, and **Thiru. Dinesh, Senior Programme Executive at ITC-MSK**, shared insights into the ITC MSK's Water Stewardship Programme, focusing on social investments aimed at promoting sustainable water use and improving farmer livelihoods.



- **Keynote Address:** Thirumathi Bakiyalakshmi, Assistant Director of Agriculture, Karamadai, delivered a keynote address on the significance of water management in agriculture, stressing the need for innovative practices and informing attendees about various subsidy schemes available through the agriculture department.



- **Technical Advancements:** Thirumathi Nivetha, Assistant Engineer from the Agriculture Engineering Department in Coimbatore, presented advancements in agricultural technology that aid in efficient water usage, explaining schemes designed to assist farmers in adopting these technologies.
- **Farmers' Perspectives:** Thiru. S. Sureshkumar, Agronomist from Avinashilingam KVK, Karamadai, shared valuable insights from local farmers regarding their experiences and challenges in water management, emphasizing the importance of community-led initiatives.
- **Agricultural Exhibition:** An exhibition showcased various agricultural practices and technologies related to water management, allowing farmers to explore innovative solutions that enhance agricultural productivity while conserving water.
- **Awards Ceremony:** The event culminated in an awards ceremony recognizing the efforts of women and tribal farmers in sustainable water management, encouraging and inspiring others in the community to adopt similar practices.

### 13.3 Community Benefits

During the event, farmers shared their positive experiences and benefits derived from project activities:

- Former Panchayat Presidents from Kemmarampalayam, Kalampalayam, Marudhur, Velliyangadu, and Tholanpalayam highlighted the benefits experienced by local farmers through tank renovation works, well recharge structures, and training provided by the programme.
- **Mr. Devaraj from Maruthur** expressed satisfaction with the well recharge structure implemented through the project, noting a significant improvement in the water level of his well, which has enabled better agricultural practices.
- **Mr. Palanisamy from Tholampalayam** shared his success with the shelterbelt plantation technique introduced by the project, noting that it has protected his banana crops from strong winds and prevented wild animals from entering his fields, effectively enhancing his farm's productivity.
- **Vote of Thanks:** Thiru. Yuvaraj, Programme In-charge for Climate Smart Agriculture and Demand Management Initiatives, concluded the event with a vote of thanks, expressing gratitude to all participants, speakers, and organizers for their contributions to the success of the Water Mela.

The Water Mela 2025 was a significant event that fostered collaboration and knowledge sharing among stakeholders in the agricultural sector. By bringing together farmers, experts, and community leaders, the event highlighted the importance of water stewardship and sustainable practices. Together, we can make a positive impact on water management for a better future.

## 14.1 Impacts

### 14.2 Empowering Farmers Through Sustainable Practices and Mechanization

In the past year, our initiatives under the Agri Business Centre (ABC) have made significant strides in transforming the agricultural landscape for our community. By focusing on sustainable water management, mechanization promotion, and financial support through the Water User Group (WUG) model, we have empowered farmers to enhance their productivity, ensure food security, and improve their livelihoods.

### 14.3 Sustainable Water Management

The Sustainable Water and Agricultural Management (SWAM) initiative has successfully linked farmers with essential resources and financial assistance. With a total investment of ₹55,000 across various farmers, the program has promoted better agricultural practices and increased productivity. The participation of farmers in cultivating diverse crops such as Banana and Coconut has not only catered to market demands but also contributed to food security in the region. By effectively utilizing available water resources, farmers have been able to support their crops and enhance their economic viability.

### 14.4 Impact on Water Resources Management through MAR and Check Dam Construction and Renovation

Our commitment to sustainable water management has been further strengthened through the implementation of Managed Aquifer Recharge (MAR) projects and the construction and renovation of check dams. These initiatives have significantly improved the availability and quality of water resources in our region.

#### 1. *Managed Aquifer Recharge (MAR):*

The MAR projects have facilitated the replenishment of groundwater levels, ensuring a sustainable supply of water for agricultural activities. By strategically capturing and directing rainwater into aquifers, we have enhanced the resilience of local water systems, particularly during dry spells. This has resulted in improved water availability for irrigation, thereby increasing crop yields and reducing dependency on external water sources.

#### 2. *Check Dam Construction and Renovation:*

The construction and renovation of check dams have played a crucial role in managing surface water runoff and preventing soil erosion. These structures have not only helped in retaining water during the rainy season but have also created small reservoirs that support irrigation throughout the year. The revitalization of existing check dams has further optimized their capacity, leading to better water management and increased agricultural productivity.

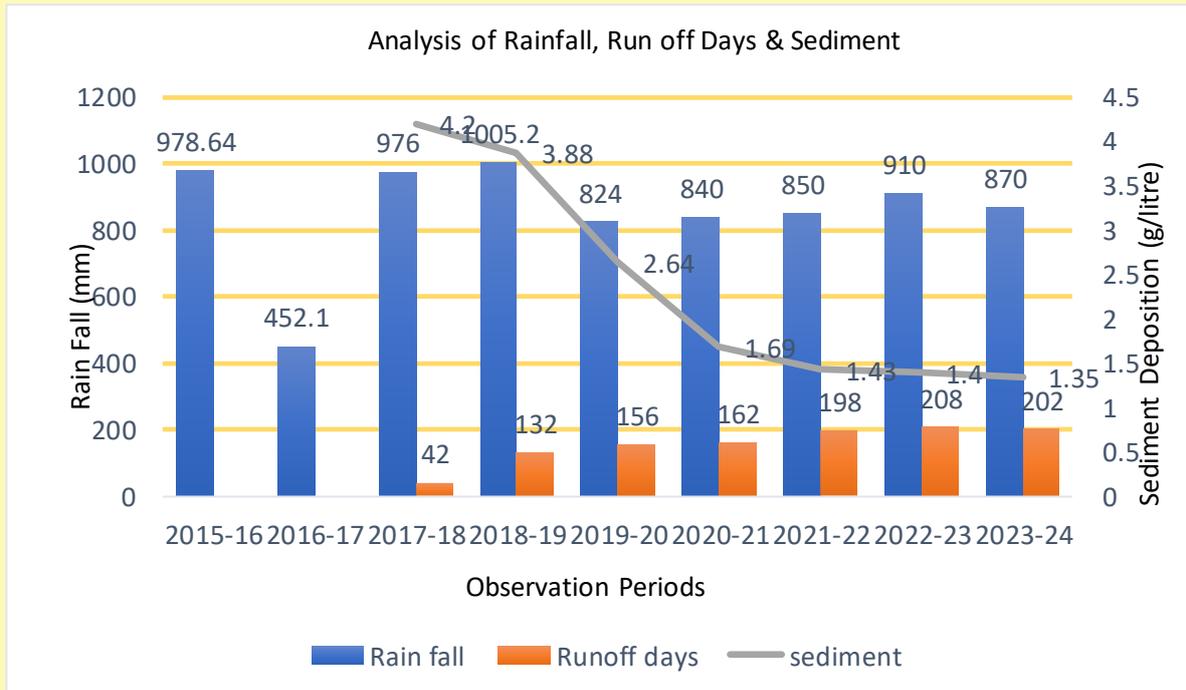
#### 3. *Mechanization Promotion*

Our Mechanization Promotion initiative has played a pivotal role in modernizing agricultural practices. Through the provision of loans to various Water User Groups, we have facilitated the acquisition of essential machinery, including wood chippers, sprayers, chaff cutters, and power tillers. The total loan amount disbursed was ₹1,21,00,000, with an impressive repayment rate of ₹5,93,200. This financial support has empowered farmers to adopt innovative practices, reduce labour costs, and increase efficiency in their operations.

#### 4. *Financial Empowerment through WUGs*

The Water User Group model has proven to be an effective mechanism for fostering collective action and financial empowerment among farmers. With contributions totalling ₹13,33,000 and a robust maintenance fund of ₹3,35,183, WUGs have demonstrated their commitment to sustainable agricultural practices. The self-loan amounts available to members have provided them with the necessary resources to invest in their farms, manage risks, and enhance productivity.

## PROJECT IMPACTS & OUTCOMES



### Inference:

- Water Flow is increased from 40 days to 202 Days.
- Silt is reduced from 4.2 g/l to 1.35 g/l

### Ground Water Status as per CGWB Classification

Year	Category
2016	Over Exploited
2022	Semi Critical
2023	Critical

### 15.1 Challenges Faced

While our initiatives have yielded significant positive outcomes, we have also encountered several challenges that need to be addressed:

#### 15.2 Climate Variability:

Unpredictable weather patterns, including erratic rainfall and prolonged droughts, have impacted agricultural productivity. Farmers have faced difficulties in planning their cropping cycles and managing water resources effectively.

#### 15.3 Financial Constraints:

Despite the support provided, some farmers continue to struggle with financial constraints, limiting their ability to invest in modern technologies and sustainable practices. Access to credit remains a challenge for many, particularly smallholder farmers.

#### 15.4 Awareness and Training:

There is a need for ongoing education and training programs to ensure that farmers are well-informed about the latest agricultural practices, water management techniques, and the benefits of mechanization. Bridging this knowledge gap is crucial for maximizing the impact of our initiatives.

### **15.5 Community Engagement:**

Engaging all members of the Water User Groups has sometimes proven challenging, as varying levels of participation can affect the overall success of collective initiatives. Ensuring that all voices are heard and that every member is actively involved is essential for fostering a sense of ownership and commitment.

### **15.6 Infrastructure Limitations:**

In some areas, inadequate infrastructure has hindered the effective implementation of water management and mechanization projects. Addressing these infrastructural gaps is vital for sustaining the progress we have made.

As we reflect on the past year, it is clear that our initiatives have had a profound impact on the agricultural community. By promoting sustainable practices, providing financial support, and facilitating mechanization, we have empowered farmers to thrive in an ever-evolving agricultural landscape. The advancements in water resource management through MAR and check dam initiatives have further solidified our commitment to sustainability and resilience.

## **16.1 Concluding Remarks**

The initiatives undertaken, including the construction and renovation of check dams and the development of Packages of Practices (PoP) for major crops, represent significant strides towards enhancing agricultural productivity, promoting sustainable water management, and supporting local farming communities.

### **16.2 Impact on Agricultural Productivity:**

The successful implementation of the check dam project has not only increased water storage capacity but also expanded the irrigable area, leading to improved crop yields. Farmers are now better equipped to manage their water resources, resulting in enhanced food security and livelihoods.

### **16.3 Sustainability and Environmental Stewardship:**

Both initiatives emphasize sustainable practices that protect the environment while supporting agricultural needs. The check dams play a crucial role in groundwater recharge and soil erosion control, fostering healthier ecosystems and promoting long-term resource sustainability.

### **16.4 Empowerment and Knowledge Sharing:**

The PoP initiative has empowered farmers with knowledge and practical skills necessary for effective crop management. By providing tailored practices and engaging communities through workshops and demonstrations, we have fostered a culture of learning and collaboration among farmers.

### **16.5 Community Engagement:**

The involvement of local communities in both initiatives has been pivotal. By raising awareness and encouraging active participation, we have cultivated a sense of ownership over these projects, ensuring their sustainability and effectiveness.

### **16.6 Future Outlook:**

Moving forward, it is essential to continue monitoring the outcomes of these initiatives and gather feedback from the farming community. This will allow for ongoing improvements and adaptations to meet the evolving needs of farmers and the challenges posed by climate change.

In conclusion, the combined efforts of constructing new check dams, renovating existing ones, and developing comprehensive agricultural practices have laid a strong foundation for resilient and sustainable farming in the region. These initiatives reflect our commitment to supporting farmers, conserving natural resources, and fostering a thriving agricultural ecosystem. Together, we can look forward to a more sustainable and prosperous future for our agricultural communities.

## Overall Performance

ITC MSK - COODU - Water Stewardship Programme								
Karamadai block, Coimbatore								
S.No	Activity Name	UNITS	2015 to 2019		2019 to 2025		TOTAL	
			No.	Project Amount	No.	Project Amount	No.	AMOUNT
1	TCB / Ring Bund	Ha	2499	8786508	1379	5058786	3878	13845294
2	Loose Boulders Check Dam (LBCD)	No	120	1394880	80	737949	200	2132829
3	Mini Percolation Tank	No	115	20373449	83	12061178	198	32434627
4	Farm Pond / Sunken Pond	No	202	3607442	121	2140184	323	5747626
5	Check Dam	No	79	3258311	17	5275156	96	8533467
6	Vermi / Nadep	No	148	1003108	0	0	148	1003108
7	Common Land Development	Ha	220	1150000	223	1085655	443	2235655
	Plantation	Ha	185	750000	450	232000	635	982000
8	Mechanization	No	34	1270000	75	2450000	109	3720000
9	Farmer Field School (FFS)	No	101	1364853	570	3280000	671	4644853
10	WUG Training	No	32	109000	48	349000	80	458000
11	Stake Holders Workshop	No	3	349896	6	340000	9	689896
12	Group Formation / Strengthening	No	38	60000	28	39000	66	99000
13	Soil / Water Analysis	No	650	105000	2425	195664	3075	300664
14	Artificial Well Recharge Structures (MAR)	No	30	1200000	659	11144358	689	12344358
ITC MSK Contribution			44782447		44388930		89171377	
<b>Farmers Contribution</b>			<b>4594186</b>		<b>3623188</b>		<b>8217374</b>	
Total Amount			49376633		48012118		97388751	