



# UPDATES

Vol. 05 | Issue 03

March 2026



**TOWARDS A  
PLASTIC-FREE  
COASTLINE**

**SWAP SHOPS | CLEANUPS  
COMMUNITY ACTIONS**

**2026**





February brought together new beginnings and continued field work across Thanal's initiatives. The launch of the Plastic Free Coastline Programme marked an important step in addressing plastic pollution in coastal ecosystems, while ongoing efforts across projects continued to support soil health, community resilience, and sustainable livelihoods.

Across villages, schools, and farming communities, teams worked closely with local institutions and community members to strengthen ecological practices and climate awareness. From protecting farms affected by wildlife intrusion to supporting farmer learning and documenting agroecological harvests, the month reflected steady progress rooted in collaboration and observation.

These efforts remind us that environmental change often grows through consistent local action. Each initiative, whether along the coastline or within agricultural landscapes, contributes to building systems that are more resilient, equitable, and grounded in ecological balance.

## Zero Waste & Clean Air

### Launching the Plastic Free Coastline Programme

Launching the Plastic Free Coastline Programme

In February, Thanal initiated the Plastic Free Coastline Programme to address the growing impact of plastic waste on coastal ecosystems, marine life, and fishing-dependent communities.

The programme emerged from field observations, community interactions, and Thanal's long-standing work on decentralised waste systems and plastic pollution. Coastal regions face distinct waste challenges, including marine litter, single-use plastics, limited segregation systems, and the movement of land-based plastic waste into the sea.

Plastic pollution directly affects biodiversity, public health, and the livelihoods of coastal communities. Through this initiative, Thanal



aims to strengthen awareness, encourage responsible consumption, and promote practical solutions for reducing plastic waste along Kerala's coastline.

The programme combines community engagement, environmental education, and on-ground action to address plastic pollution while supporting healthier coastal ecosystems.

## Swap Shop and Single-Use Plastic Alternatives Exhibition



As part of the programme's launch activities, a Swap Shop and Single-Use Plastic Alternatives Exhibition was organised on 11 February at the Fr. Stan Swamy Auditorium, St. Xavier's College, Thumba, with the support of volunteers from Allianz Technology India

Branch.

The Swap Shop encouraged reuse and mindful consumption by allowing participants to exchange items that were still in good condition. Clothes, bags, books, kitchen utensils, jewellery, wall hangings, and ceramic

plant pots found new homes during the event. A total of 50 items were exchanged by 35 participants, extending the lifecycle of useful products and reducing demand for new materials. Alongside the Swap Shop, a poster exhibition and displays of alternatives to single-

use plastics encouraged discussions on waste reduction and sustainable consumption.

The event highlighted how simple community-led actions can promote reuse, reduce waste generation, and support climate-friendly choices.

## Coastal Cleanup and Plastic Waste Segregation Drive



A coastal cleanup and plastic waste segregation drive was conducted at Golden Beach, Pallithura, engaging volunteers, community members, and staff from Allianz Technology India Branch.

A total of 164 participants joined the activity and worked along the shoreline collecting plastic waste, glass, and other legacy waste

materials. Through this collective effort, 315.05 kilograms of waste was collected and carefully segregated to ensure responsible handling after the cleanup.

The activity emphasised not only cleaning the beach but also ensuring that collected waste was properly managed to prevent plastic from re-entering the marine environment.

By bringing together volunteers, local communities, and organisations, the cleanup demonstrated how collaborative action can contribute to protecting coastal ecosystems and maintaining healthier shared coastal spaces.

Building on this initial phase, the Plastic Free Coastline Programme will move toward expanded implementation in 2026, focusing on community engagement, waste reduction, and sustainable coastal waste management practices.

## Carbon Neutral Meenangadi

### Building Climate Awareness in Schools



During February, the Carbon Neutral Meenangadi initiative continued its outreach to schools through a series of climate awareness sessions conducted across the Panchayat. Programmes were organised at GHSS Meenangadi, Mylambadi School, GUPS Kolagappara, and NAAUPS Manikavu, reaching a total of 436 students from upper primary and high school classes.

The sessions introduced students to the basic concepts of climate change, carbon emissions, and carbon neutrality. Through discussions, visual presentations, and interactive activities, students explored how everyday practices such as reducing waste, conserving electricity, planting trees, and avoiding single-use plastics contribute to climate action. The sessions were designed to translate global environmental concerns into practical actions that students can understand and apply in their daily lives.

Students participated actively by sharing their observations about environmental changes and discussing sustainable habits already practiced at home and in school. At GHSS Meenangadi, the District Educational Officer visited during the session and addressed the students, encouraging them to take an active role in protecting their environment.

These engagements form an important part of the Carbon Neutral Meenangadi initiative's effort to strengthen climate literacy and nurture environmentally conscious behaviour among young learners.

### Integrating Climate Priorities into Panchayat Planning



During February, the Carbon Neutral Meenangadi initiative also engaged with local governance processes as part of the preparation of the 2026–27 Panchayat Annual Plan. Members of the Thanal team participated in the Biodiversity, Environment and Disaster Management Working Group of Meenangadi Grama Panchayat, where discussions focused on strengthening environmental priorities within the Panchayat's development framework.

The deliberations addressed issues such as biodiversity conservation, climate resilience planning, and the expansion of carbon neutral initiatives within community programmes. These discussions were further carried forward during the Development Seminar organised by the Panchayat for the formulation of the annual plan.

Participation in these processes helps integrate climate action and ecological restoration within local development planning, strengthening collaboration between community institutions and environmental initiatives.

## ITDP Kulathupuzha

### Protecting Farms from Wildlife Intrusion in Peruvazhikala

At Peruvazhikala Hamlet, a KIMS Health CSR-supported initiative addressing the long-standing issue of human–wildlife conflict has now been successfully completed. The hamlet lies close to forest areas and farmers have historically faced frequent crop damage caused by elephants, deer, bears, monkeys, and squirrels entering agricultural fields in search of food and water.

Earlier attempts to prevent these incursions provided only limited protection. In response,



the project introduced an integrated system combining natural barriers and deterrent technologies designed to reduce wildlife intrusion while remaining ecologically sensitive.

Bio-fencing using lemon saplings was established along field boundaries, while bee fencing using honey bee boxes was installed to discourage elephant movement. Additional deterrent devices such as animal sound systems and monkey repellents were also introduced to protect cultivated areas.

With the completion of these measures, farmers now have improved protection for their fields and greater confidence in continuing agricultural activities. The intervention demonstrates how locally adapted, nature-based approaches can help address human–wildlife conflict in forest-edge communities.

### Strengthening Agricultural Water Resources

Water resource development continued across several hamlets through pond renovation works designed to improve irrigation support for agriculture. Out of the eighteen ponds identified under the project, fourteen have

already been renovated and are now functional. The renovation works included strengthening pond structures through concrete rings, masonry walls, and reinforced boundaries to improve durability and water retention. Motor pumping systems have also been installed, allowing farmers to access water for irrigation during the current dry season.

These improvements are already supporting agricultural activities and helping strengthen water management systems across the hamlets.

## Livelihood Training and Resource Support



Skill development and livelihood support activities continued across the hamlets during February as part of the Integrated Tribal Development Programme. Training sessions were organised to strengthen farmers' knowledge in poultry rearing, apiculture, and organic intercrop cultivation. These sessions were conducted with technical guidance from agricultural and veterinary experts, enabling participants to understand scientific management practices and sustainable farming methods.

Farmers received practical training on poultry

health care, disease prevention, and improved rearing practices that help maintain flock productivity. Apiculture sessions focused on hive management, colony health, and hygienic honey extraction, while also encouraging knowledge sharing between new beneficiaries and experienced farmers already practicing beekeeping.

Training on organic intercrop cultivation introduced farmers to the use of bio-inputs such as Trichoderma, VAM, and pseudomonas to improve soil health and crop resilience. Farmers were guided on integrating these inputs with intercrops like turmeric, ginger, and banana in order to strengthen sustainable cultivation practices.

Following these trainings, livelihood resources were distributed to trained beneficiaries. The fourth phase of goat distribution provided twenty-seven Malabari breed goatlings to nine beneficiaries. All animals underwent veterinary health checks prior to distribution and were insured and tagged for monitoring. The programme ensures that beneficiaries receive both resources and continued technical guidance to support long-term livelihood development.

## Financial Literacy Programme

A financial literacy programme was conducted at Kadamankodu Hamlet with the support of NABARD, the Reserve Bank of India, and Kerala Gramin Bank. The session aimed to strengthen financial awareness and improve access to banking services among members of the tribal community.

The programme introduced participants to practical aspects of financial management, including savings practices, banking



facilities, loan procedures, and agricultural insurance schemes. Resource persons from NABARD, banking institutions, and financial literacy services guided the discussions and responded to participants' questions regarding financial planning and government support programmes.

The interaction encouraged community members to make informed use of available financial services and highlighted the importance of financial inclusion in strengthening livelihood resilience.

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## Agroecology Demonstration at Panavally



The Thanal Agro Ecology Centre at Panavally recorded a successful harvest from its Cool Season Vegetable Block during February, demonstrating the strength of diversified agroecological farming systems.

The block produced a range of vegetables including Chinese cabbage, cabbage, broccoli, cauliflower, radish, and potato. In total, the harvest included 36 kilograms of Chinese cabbage, 53 kilograms of cabbage, 6 kilograms of broccoli, approximately 1 to 2 kilograms of cauliflower, 7.2 kilograms of radish, and 4 kilograms of potato. Potato cultivation was introduced to the block for the first time and

adapted successfully to the local conditions.

The crops were grown using ecological inputs prepared on the farm, including jeevamrith, garlic–turmeric botanical extracts, and biological agents such as *Trichoderma* and *Beauveria*. These practices strengthened soil microbial activity, improved plant resilience, and reduced dependence on external inputs.

The vegetable block continues to serve as a demonstration site for agroecological farming, showing how diversified vegetable production can strengthen soil health, local nutrition, and climate-resilient agriculture.

### Christ College Students Visit the Carbon Neutral Accelerator Lab



Students and faculty members from Christ College, Bengaluru, visited the Carbon Neutral Accelerator Lab during February to learn about the Carbon Neutral Meenangadi initiative. The interaction introduced the participants to the project's approach to achieving carbon neutrality at the Panchayat level and highlighted key environmental initiatives implemented across Meenangadi.

The visit also included a field interaction at Manikavu Temple where the Punyavanam conservation initiative was explained. The programme provided students with an opportunity to observe how environmental initiatives are implemented at the community level through collaboration between local governance institutions and civil society organisations.

### Visit by Dr. K. T. Arasu

Dr. K. T. Arasu, Director of Alternative for India Development in Chennai, visited the Carbon Neutral Accelerator Lab to understand the Carbon Neutral Meenangadi initiative and its community-based implementation framework.

The interaction focused on the project's approach to grassroots climate action,

environmental education, and sustainable development initiatives carried out in partnership with the Panchayat and local communities.



### Academic Interaction with Loyola College Research Scholar

An academic interaction was conducted with Mariya, a doctoral researcher in Social Work from Loyola College, Chennai, who visited to study the Carbon Neutral Meenangadi initiative as part of her research.

The discussion focused on the project's participatory approach, the role of community engagement in climate action, and the integration of environmental initiatives within local governance systems.

### Webinar on Natural Farming and Panchayat Governance

Thanal representatives participated in an online webinar organised by the National Coalition for Natural Farming on the theme of empowering Gram Panchayats through natural farming initiatives and financial planning mechanisms under the Sixteenth Finance Commission.

The session explored how decentralised governance systems can support sustainable agriculture and climate-resilient development at the village level.

## RETHINKING WASTE IN A CIRCULAR ECONOMY

**Ajin K. Shyjil,**

Project Coordinator, Thanal

During a recent visit to Kottayam in Kerala, I met a small citrus grower whose orchard offered a quiet but powerful lesson in sustainability. The lemon trees looked incredibly fresh and vibrant. Their leaves were deep green, shining with health. As someone from an agriculture background, I could immediately sense the visible vitality that spoke of balanced nutrition and healthy soil.

While walking through the orchard, I casually asked him about his nutrient management practices. I was expecting the usual answer. Instead, he smiled and said something I did not expect at all. "I use hair," he said.

I must admit, I was surprised. Seeing my reaction, he laughed gently and explained. He collects discarded hair from nearby barbershops and, just before the monsoon

(June-July), buries about one kilogram around each tree in shallow trenches along the drip line. The hair is covered with soil and left to decompose naturally—no processing, no machinery, no external inputs. Just patience and trust in the soil. At first glance, this may sound unconventional.

But from an environmental perspective, it is a compelling example of circular resource use.

### Reframing Waste as a Resource

Citrus crops such as lemon and orange are perennial trees with year-round nutrient demands. Among all essential nutrients, nitrogen plays a central role in leaf development, chlorophyll formation, shoot growth, and overall yield. When nitrogen is deficient, trees exhibit yellowing leaves, stunted



**Thomas Varghese**

Changanassery, Kottayam

growth, and reduced productivity.

However, excessive use of chemical fertilizers presents its own challenges. Rising input costs, nutrient leaching, declining soil health, and environmental concerns are pushing farmers to search for sustainable alternatives. In this context, an unconventional yet

scientifically supported practice is gaining attention: the use of human hair as a slow-release nitrogen source. That is where this simple practice becomes interesting.

### **The Science Behind the Practice**

Scientifically speaking, human hair contains about 14–17 percent nitrogen (Robbins, 2012). This nitrogen is locked inside keratin – a strong structural protein that breaks down slowly. Research studies (Rahman et al., 2016; Zheljazkov, 2005, 2008) have shown that hair can act as a slow-release nitrogen source. Slow nutrient release, as discussed by Volkmar et al. (1998), reduces leaching losses and supports steady plant growth.

However, decomposition is not immediate. Because keratin is tough and resistant, hair may take around 1 to 1.5 years to fully decompose, depending on climate, soil moisture, microbial activity, and temperature. In humid tropical conditions like Kerala's, monsoon moisture and active soil microbiology gradually break down the material over 12–18 months.

If faster decomposition is desired, hair can also be added to vermicompost systems. When mixed with organic wastes and processed by earthworms, the physical breakdown and microbial activity can accelerate decomposition and nutrient release. In this way, hair becomes part of a more readily available organic nutrient source.

But beyond all the scientific explanations, the

strongest evidence was right there in front of me – the trees themselves.

The farmer reported that after adopting this method, the foliage appeared darker and greener, shoots were stronger, and overall vigor improved. The soil retained moisture for longer periods and weed growth was comparatively less. Most importantly, he reduced his dependency on expensive synthetic fertilizers.

What many consider waste from barbershops became a valuable agricultural input. This transformation reflects the principles of circular agriculture where waste materials are integrated into production systems, minimizing loss and maximizing resource efficiency.

### **A Lesson in Sustainable Innovation**

This experience highlights an important truth: agricultural innovation does not always originate in laboratories. Often, it begins in farmer's fields through observation, experimentation, and a deep understanding of the land. Farmers often discover solutions that science later explains. Using human hair in citrus cultivation may not completely replace other nutrient sources, but it clearly shows the potential of locally available organic materials in integrated nutrient management. At a time when input costs are increasing and sustainability is no longer optional, such practices deserve attention. They teach us that improving soil health is not always about adding more – sometimes it is about using what we already have, more wisely.

Turning barbershop waste into citrus wealth is more than a clever idea. It is a reminder that sustainable agriculture begins with respect – respect for resources, for ecological balance, and for the soil that ultimately sustains us all.





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