

## **BEST PRACTICE OF THE INSTITUTION**

### **Green-Clean Campus with Sustainability Development Initiatives**

#### **Best Practices – 1**

##### **1. Title of the Practice: Green-Clean Campus with Sustainability Development Initiatives**

##### **2. Objectives of the Practice:**

The campus of the Institute is termed Green-Clean campus with innovative practices. The objective of these initiatives is to create awareness and cherish habit among stakeholders about protecting environment in an eco-friendly manner through the conservation and effective use of natural resources. The outcomes are to practicing the methods to maintain and create additional natural resources, to motivate stakeholders to adopt them personally and get benefited, optimise the use of non-renewable natural resources, to inculcate the care for the sustainability and eco-friendly development to reduce-reuse without wasting. These objectives are based on the concepts of sustainable development.

##### **3. Context of the Green-Clean Campus with Sustainability Development Initiatives**

The modern world is denoted by consumerism where lot of wastage occur daily. Modernisation of social living, increase in single use products, less knowledge and awareness on natural resources, unlimited usage of easily available natural resources, less importance on the usage of the renewable energy, etc has created a threat to the nearing emptiness of the available natural resources. An integrated waste management system along with green initiatives are the solution to these issues. The institutions in the same Trust (VJIM and VJEC) collaborates with to optimise these operations with the support of its stake holders. Along with this effective waste management systems, the staff and students trained to internalise these to reduce the waste production and are empowered as the ambassadors of the systems. Use of renewable energy for the campus activities and use of digital models to reduce the use of natural resources are the other concerns.

##### **4. Practice**

The sustainability development practices are essentially made possible with the collaboration of the two-sister educational concern under the MESHAR trust to achieve the maximum efficiency in operations. The ‘Green-Clean Campus Initiatives’ include the use of solar energy from on-grid electricity powerplants, use of solar-water heaters, bio-waste disposal and cooking gas generation with bio-gas plants, aerobic waste water treatment system with irrigation system for

gardening and cattle feed cultivation, maintaining livestock for milk, manure and vegetable waste management, maintaining multiple distributed ponds for stabilizing the environmental factors and for pisciculture, maintaining distributed rainwater harvesting systems and in campus Dam for optimising the water usage, devoted maintenance staff with multiple waste collection bins with Green -Clean Campus awareness, staff and students as the ambassadors of these initiatives are the main unique practices.

The water management system in the both institutions are integrated as per the decision of the TRUST. We have 78 lakhs of litre of interconnected Rain water Harvesting (RWH) systems in campus and Solar plants provide 52kW power supply. The 50kW solar plant is on grid to reduce the battery emissions. Solar water heaters are used in hostels to reduce the electricity use and the LED lighting systems also contribute to reduce the power use considerably. Bio-gas plant uses waste from kitchen and mess halls as fuel. The waste management ecosystem of the campus is integrated with cattle-goat farms. The cattle farm not only provide in campus self-sufficiency in milk production for the mess but it also serves as the excellent waste disposal of the vegetable debris of the kitchen that convert it as the manure with cow dung and organic composts. This organic manure and composts are used for the vegetable garden, decorative gardens, and for other plants of the campus. The plant leaves collected as the part of the cleaning process from the campus are left for natural decomposition and it help for covering the soil to keep the humidity of the soil which is essential for plants. The non-degradable and non-reusable wastes are sold out as plastic scraps, metal scraps e-waste scraps to the scrap dealers as per the contract.

More than 77% of the land at our campus is devoted for Green coverage and maintained with trees, gardens, ancillary cultivations, ponds etc. The trees paved shaded internal roads, contour terracing mode for preventing soil erosion, the planned drainage systems, bio-manure creation for the organic cultivation are notable initiatives. Healthy habits are observed as walking culture is encouraged in the campus, multigym and multiple indoor-outdoor courts for keeping a fitness, morning and eve jogging and adopting bicycle for healthy commutation (very few). The carbon footprint is reduced considerably with ban of plastic and single use items in the campus, reduce-reuse campaign, digitalization of the administration and day today process, ban of student's vehicle beyond the parking lots, speed restriction for commutation, if any etc.

## **5. Evidence of Success-**

The campus could create an eco-sustainable system which considerably reduced waste creation. Sharing of the resources effectively between the institutions can be rated as flowless. The mini check dam is used as the source of water normally till the end of every February. The RW stored under the covered systems serve as a reserve source for a month in extreme summer. Solar energy fed to the KSEB grid as per the agreement. Bio gas is used for cooking purpose. The treated waste water is used for gardening and cattle feed cultivation. Milk is sufficient for the campus and organic manure used in the campus. Soil erosion is controlled fully and well recharging is effective. Campus grown organic vegetables are used in the mess/canteen. The wastes are disposed-off without affecting the environment. Centralized water management systems in association with sister concern (Vimal Jyothi Engineering College) to optimize the resource utilization. The service of the committed, efficient group of maintenance staff is made available for the Green -Clean Campus. The rather cool and healthy atmosphere is maintained in the campus. Staff and students fully cooperate with this sustainable eco-system. Green audit and other audit support these results.

(Pictures attached )

## 6. Problems Encountered and Resources Required

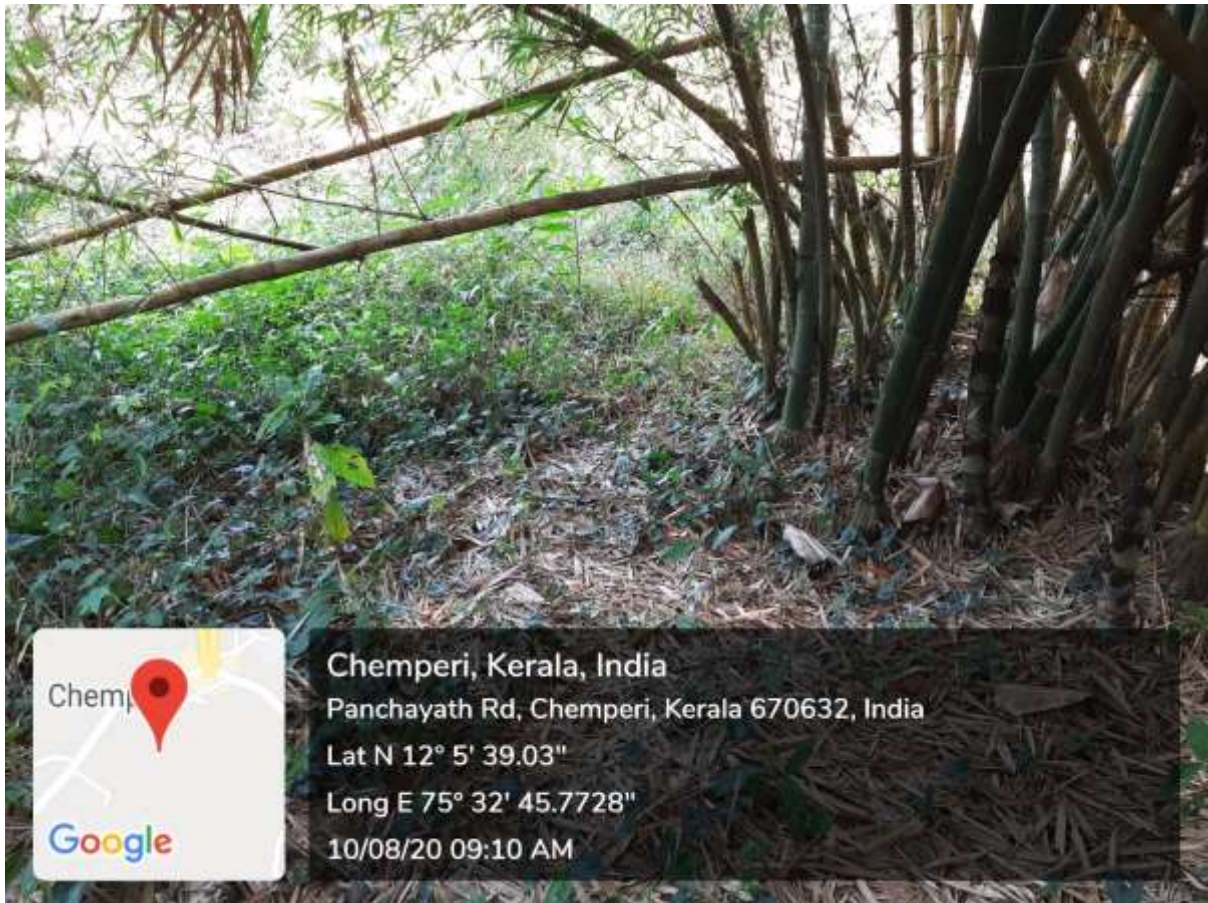
Green-Clean campus initiatives require more financial resources. Frequent maintenance needed for the RW storing tanks and periodical cleaning of solar panel surfaces for better efficiency. Sunlight limitation due to monsoon seasons reduce the solar power production. Dedicated team needed to maintain greenery in campus. Rooftop solar projects cannot be adopted as the roofs of the buildings are slanted with metallic roofing. The cattle farm and the waste water recycling process-based irrigation systems are labour intense projects. The plastic wrappers for chocolates, e-commerce packing materials, and other branded items are permitted by market norms, which actually cannot be controlled with plastic ban. The biggest challenge is the lack of funding for self-financial institutions from government/agencies for the development of the sustainability projects.

## 7. Notes (Optional)

The best practice of Green-Clean Campus initiatives of Vimal Jyothi Institution is outstanding one and to be adopted in all other institutions. Ours is built in an integrated system with collaboration with the sister institute for better efficacy. Our staff and students are the backbone and ambassadors of the sustainability of these systems. The role of our cattle farm became critical success factor of the campus, as it not only converts waste but produces the organic fertilisers for the development of the greenery of the campus.

**The snapshots of these are included in this document**







**Chemperi, Kerala, India**

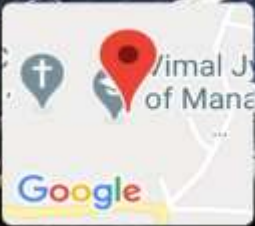
Chemperi - Valiyaparamba Rd, Jyothinagar, Chemperi, Kerala

670632, India

Lat N 12° 5' 56.0184"

Long E 75° 33' 45.3888"

13/12/20 09:31 AM

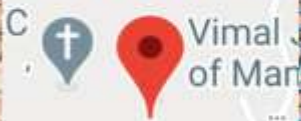


Chemperi, Kerala, India  
Chelimpambam Bus Stop, SH59, Chemperi, Kerala 670632, India  
Lat N 12° 5' 53.2248"  
Long E 75° 33' 44.334"  
13/12/20 09:37 AM



Chemperi, Kerala, India  
Chemperi - Valiyapambam Rd, Jyothinagar, Chemperi, Kerala 670632, India  
Lat N 12° 5' 53.2176"  
Long E 75° 33' 44.0208"  
13/12/20 09:38 AM

**GREEN-CLEAN CAMPUS  
NSS, VIMAL JYOTHI**



Vimal  
of Mar

**Chemperi, Kerala, India**

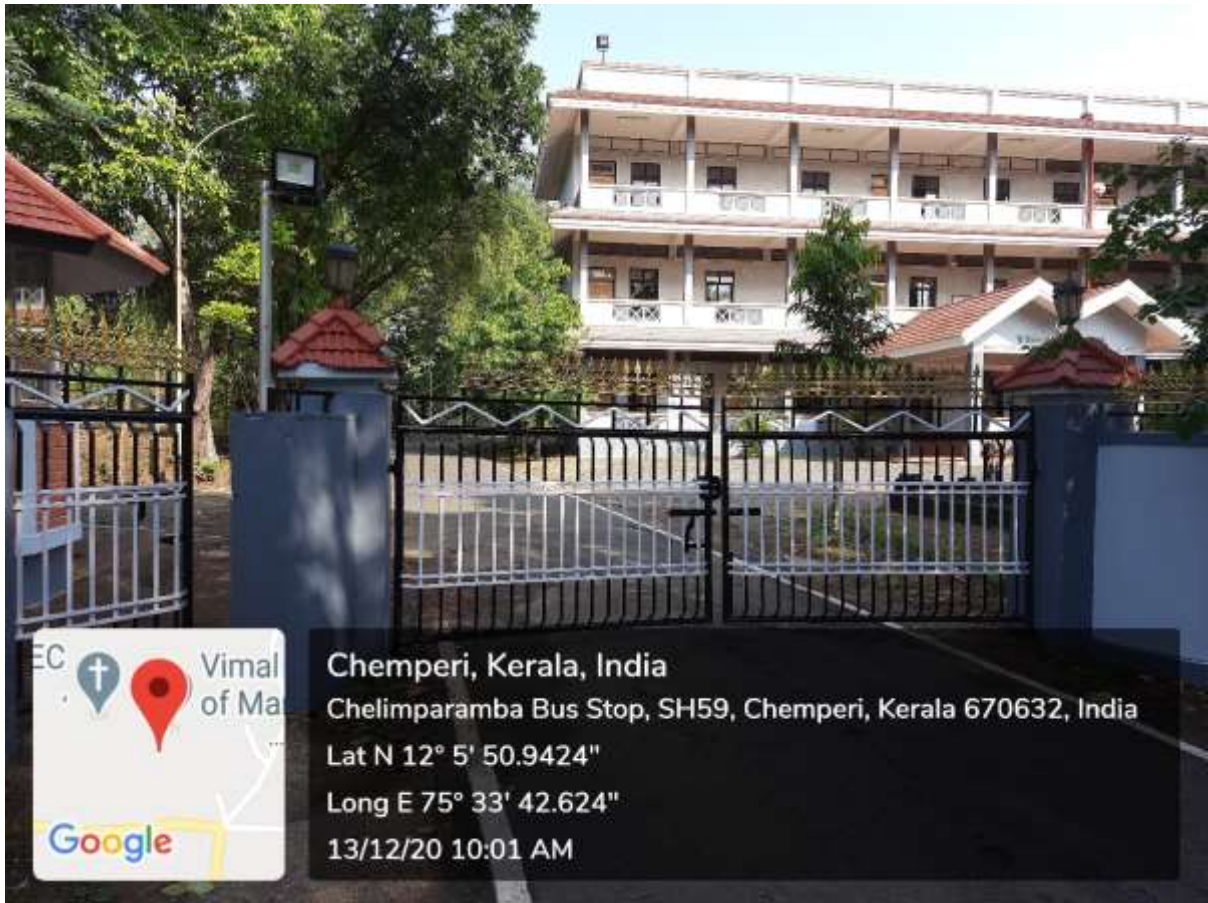
Chelimpamba Bus Stop, SH59, Chemperi, Kerala 670632, India

Lat N 12° 5' 51.4752"

Long E 75° 33' 43.2576"

13/12/20 09:43 AM

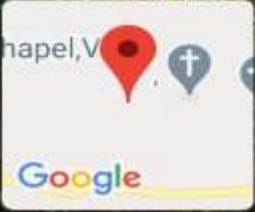
Google



Institution entrance and Campus



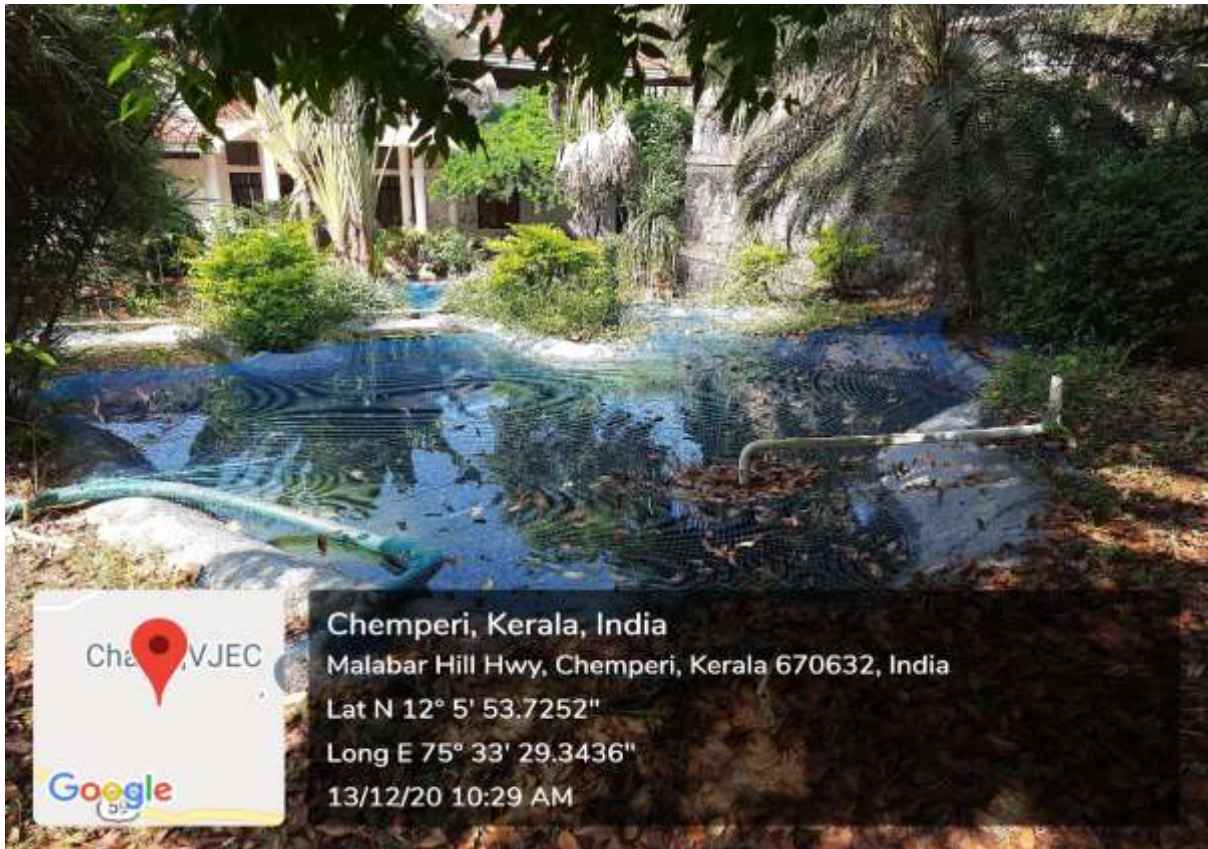




Chemperi, Kerala, India  
 Malabar Hill Hwy, Chemperi, Kerala 670632, India  
 Lat N 12° 5' 52.908"  
 Long E 75° 33' 34.3944"  
 13/12/20 10:17 AM



Chemperi, Kerala, India  
 Malabar Hill Hwy, Chemperi, Kerala 670632, India  
 Lat N 12° 5' 54.5928"  
 Long E 75° 33' 31.3668"  
 13/12/20 10:20 AM

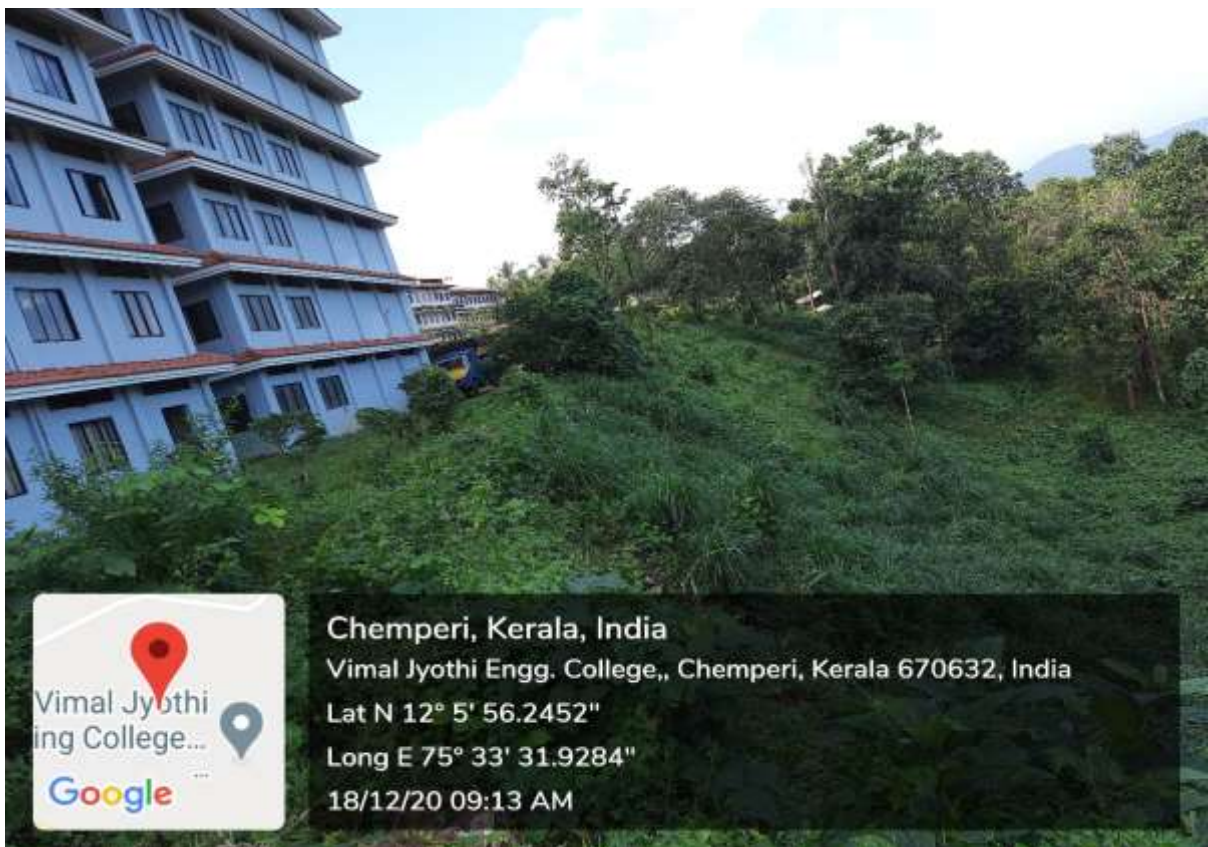


Sustainable ecosystem development of the campus: Ponds and cattle field farm



**Chemperi, Kerala, India**  
Panchayath Rd, Chemperi, Kerala 670632, India  
Lat N 12° 5' 39.03"  
Long E 75° 32' 45.7728"  
18/12/20 09:08 AM

Dam and contour based cultivations.



**Chemperi, Kerala, India**  
Vimal Jyothi Engg. College,, Chemperi, Kerala 670632, India  
Lat N 12° 5' 56.2452"  
Long E 75° 33' 31.9284"  
18/12/20 09:13 AM



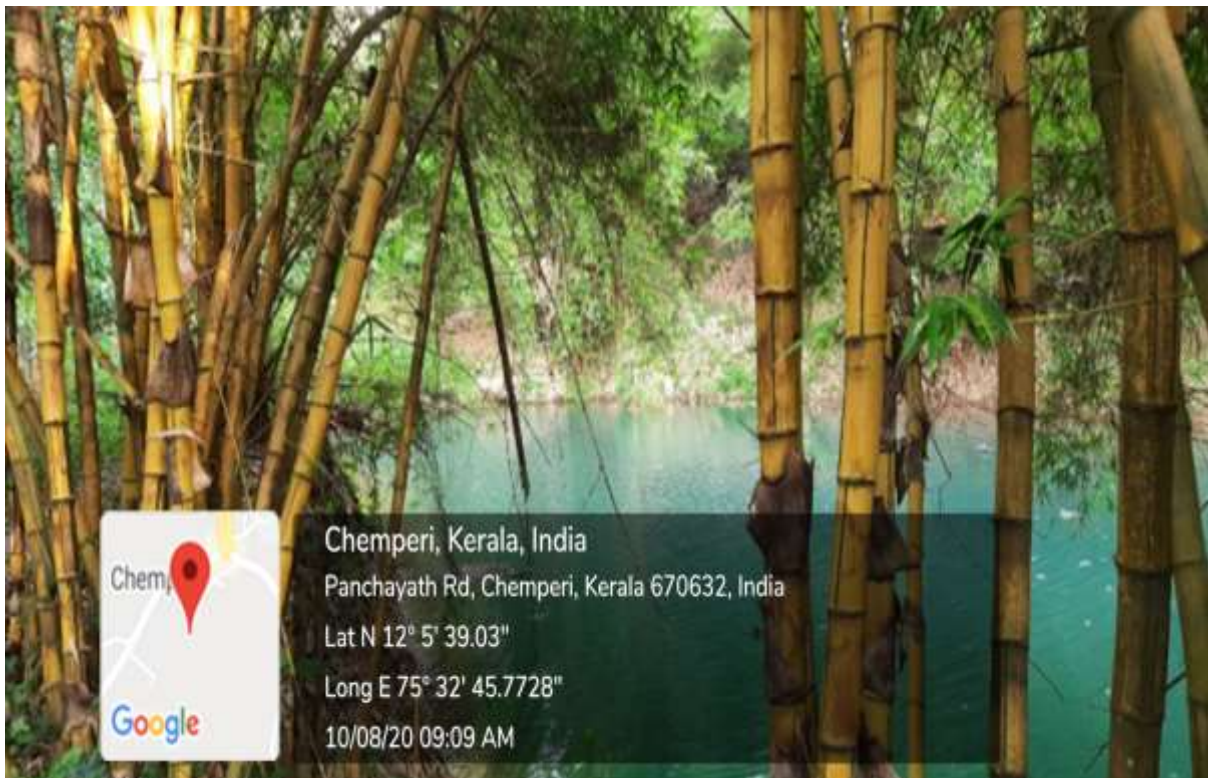
Cooking using Bio Gas from biodegradable wastes



Yam cultivation near MBA institution plot

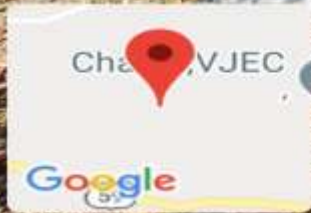


Harvested products YAM cultivation

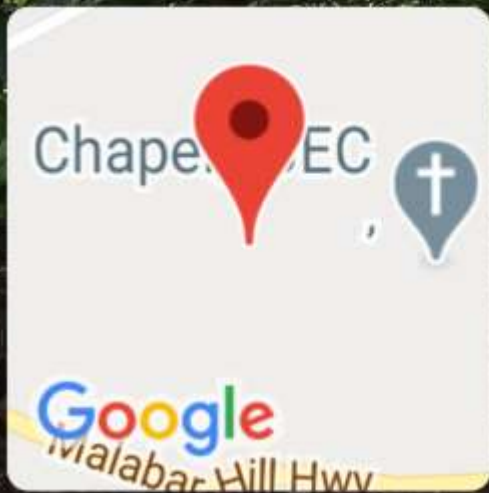




Chemperi, Kerala, India  
Chelimpambamba Bus Stop, SH59, Chemperi, Kerala 670632, India  
Lat N 12° 5' 52.44"  
Long E 75° 33' 44.7588"  
18/12/20 08:58 AM



Chemperi, Kerala, India  
Malabar Hill Hwy, Chemperi, Kerala 670632, India  
Lat N 12° 5' 53.7252"  
Long E 75° 33' 29.3436"  
13/12/20 10:29 AM



Chemperi, Kerala, India

Malabar Hill Hwy, Chemperi, Ker

Lat N 12° 5' 54.024"

Long E 75° 33' 32.0004"

13/12/20 10:18 AM



Chemperi, Kerala, India

Chelimpamba Bus Stop, SH59

Lat N 12° 5' 52.134"

Long E 75° 33' 42.2064"

13/12/20 10:04 AM



