

## **SUSTAINABLE DEVELOPMENT GOALS**

### **2. ZERO HUNGER**



## SDG 2 – Zero Hunger

### Institutional Initiatives:

Mid-day meal assistance for staff/contract workers, collaboration with NGOs for food distribution drives.

Mid-day meal assistance for 40–50 staff/contract workers daily

### Campus Operations and Waste Management:

- Food Waste Composting: Converting daily leftover hostel and mess food into organic manure using dedicated compost pits.
- Campus Gardens: Growing vegetables and medicinal plants via terrace and vertical gardening setups on campus.
- Waste Tracking: Monitoring daily organic waste weight to optimize kitchen supplies and reduce loss.

### 2.1: Food Waste

National Engineering College (NEC), K.R. Nagar, Kovilpatti, recognizes that reducing food waste is an essential component of sustainable development and food security. The institution actively promotes responsible food consumption practices among students, faculty, and staff through awareness campaigns, orientation programmes, NSS activities, and environmental sustainability initiatives.



The college canteen and hostel mess adopt systematic meal planning based on student attendance and consumption patterns to minimize excess food preparation while ensuring adequate nutritional standards. Students are encouraged to serve only the quantity of food they can consume under the "Take Only What You Need" initiative, thereby significantly reducing plate waste. Regular monitoring of food preparation, menu planning, and feedback from students helps optimize food production and reduce wastage. Wherever feasible, surplus edible food is responsibly redistributed through approved channels, while unavoidable food waste is managed using environmentally friendly disposal methods such as composting or organic waste management.



#### DEVELOPMENT OF A DEGRADING MACHINE TO DISPOSE THE NON-DEGRADABLE PLASTIC WASTE

Non degradable plastics are not reduced by natural degrading process. For which we're providing a state of art "Degrading Machine" which is capable of destroying the plastic waste without releasing any gases to the atmosphere. By this it can ensures that there will be sustainable environment.



SEMI-AUTOMATIC SOLID WASTE COLLECTING SYSTEM FOR OPEN SEWAGE..

The proposed product is aimed to remove the solid particles settled over the open sewages and ensure human safety during cleaning process. The automated product is designed to suit open sewages in Kovilpatti area.



TABLE-TOP POUNDER FOR BROWN RICE MAKING

## 2.2: Sustainable Food Choices

National Engineering College promotes sustainable food choices by encouraging healthy, balanced, and environmentally responsible dietary practices throughout the campus. The college canteen

and hostel mess prioritize the preparation of nutritious meals using fresh vegetables, locally sourced ingredients, and seasonal food products whenever possible.

### **2.3: Healthy and Affordable Food Choices**

National Engineering College ensures the availability of hygienic, nutritious, and affordable food for all students, faculty, and staff within the campus. The college canteen and hostel mess maintain high standards of food quality, hygiene, and safety by following prescribed food handling practices and periodic inspections. The menu is carefully planned to provide balanced meals containing essential nutrients while keeping food prices affordable for students from diverse socio-economic backgrounds. Drinking water facilities, clean dining areas, and continuous monitoring of food quality contribute to maintaining a healthy campus environment. The institution also organizes nutrition awareness programmes, medical camps, and health education sessions to encourage healthy eating habits and lifestyle choices. By providing accessible and affordable nutritious food, NEC supports student health, academic performance, and overall well-being.

### **2.4: Sustainable Agriculture to Local Farmers**

National Engineering College contributes to sustainable agricultural development by extending technical knowledge and engineering solutions to local farming communities. Through extension programmes, rural outreach activities, village adoption initiatives, and collaborations with government agencies and agricultural organizations, the institution promotes sustainable agricultural practices that improve productivity while conserving natural resources.



Faculty members and students participate in awareness programmes covering efficient irrigation techniques, renewable energy applications in agriculture, water conservation, and soil health management. Engineering innovations developed within the institution are encouraged for rural applications that support sustainable farming. These initiatives strengthen the relationship between academia and local farming communities while contributing to rural development and food security.

## **2.5: Knowledge Transfer to Farmers**

Knowledge dissemination is an important extension activity at National Engineering College. The institution organizes technical awareness programmes, farmer interaction sessions, workshops, seminars, and demonstration programmes to transfer scientific and technological knowledge to local farmers. Faculty experts and students share information on modern agricultural machinery, efficient irrigation systems, renewable energy technologies, soil and water conservation, agricultural waste management, digital technologies for farming, and climate-smart agricultural practices. Through NSS camps, and community outreach programmes, students actively engage with rural communities and assist farmers in understanding innovative agricultural solutions. This continuous transfer of knowledge empowers farmers to adopt improved agricultural practices, enhance productivity, and improve their livelihoods.

### **PATENTS Contributing in SDG 2:**

| <b>Sl. No</b> | <b>Application Number</b> | <b>Topics</b>                                                   |
|---------------|---------------------------|-----------------------------------------------------------------|
| 1             | 201641021350              | An Improved Hydraulically operated single step coconut dehusker |
| 2             | 201641024055              | Tender coconut both side taper trimming                         |
| 3             | 201741024655              | Coconut partial dehusker                                        |
| 4             | 201741044490              | Tree Climber Apparatus                                          |
| 5             | 201841037695              | Coconut Grading-Machine                                         |
| 6             | 202041006564              | Automatic waste segregating bin                                 |
| 7             | 202041007418              | Solar dryer for agriculture products                            |
| 8             | 202041007420              | Smart waste collecting bin                                      |
| 9             | 202041007310              | A candy making machine                                          |

|    |              |                                 |
|----|--------------|---------------------------------|
| 10 | 202141060653 | Seed Injecting Machine          |
| 11 | 202141060654 | Open Sewage Cleaning Machine    |
| 12 | 202141060656 | Palm Jaggery Production Machine |

## 2.6: Sustainable Farming Practices

National Engineering College promotes sustainable farming practices through education, research, innovation, and community engagement activities. Faculty members undertake research projects addressing sustainable agricultural engineering solutions and resource-efficient farming technologies. The institution also promotes responsible utilization of natural resources through conservation initiatives that benefit both agriculture and the environment. These efforts contribute towards improving agricultural sustainability while protecting ecosystems for future generations.



SDG Member



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