

## **Best Practice 2:**

### **CONTRIBUTION TO ENVIRONMENTAL SUSTAINABILITY**

#### **Aim**

To persevere for environmental sustainability that leads to good health and well-being with the future in mind that leads to a better tomorrow.

#### **Objectives**

- To improve quality of human life by providing a balanced eco-system.
- To strike a balance between consumerist human nature and the environment.
- To generate green energy through renewable sources.
- To decrease carbon foot print by increasing tree plantation.

#### **Context**

The need for energy and material is greater than ever before despite the fact that the planet has finite and diminishing resources. For this reason CARE has stepped up to balance this delicate equation by supporting the earth's ecosystem. In principle it means less wastage or to minimize unnecessary utilization of natural resources.

The key element to this is to have futuristic ideas that would reduce the impact on the environment. The crux of the issue revolves around how much energy, food and human made resources we use every day. In short, environment sustainability means the way we operate today ensures that the future generations will have enough natural resources at their disposal to have a good quality life. It also means that we as humans have to balance development with environmental protection. Striking this equilibrium has been the focus quite a while for predominant scientists, philosophers, politicians and policy makers for the past few decades.

No action now would mean that the health and well-being of the futuristic generation will be compromised. Greenhouse gas emissions would catalyze climate change which in turn leads to severe weather conditions culminating in droughts and social upheaval.

### **The Practice**

CARE's contribution to sustainable environment is evident in the fact that all of the 100 acre campus has been turned into a pollution free aesthetic green landscape. Proactive measures have been taken to have the campus built with green concepts. Special focus being rendered towards water conservation, use of alternate source of energy, waste management, organic farming and sustainable architectural building designs.

CARE campus is designed with greenery and plantation taking utmost priority as is evident when one takes a look at the diverse tree and plantation that have occupied strategic locations within the campus. Every student along with dignitaries are given the opportunity to plant a tree during various milestone occasions celebrated by CARE which in turn helps the students' partner in the endeavor towards sustainability.

CARE campus is a habitat for more than 2,000 trees which covers 11 acres and encompasses 11 forest areas. In addition to this, CARE has a separate 0.11 acres of medicinal herbs that conserves 200 indigenous plant species.

CARE as a foresighted initiative, has setup organic farming to promote sustainable development and to conserve the ecosystem. The chemical free harvest with high nutritive value is relished by students and staffs of CARE. Also, as an innovative solution, CARE has put in place mushroom beehives that help tilt the balance to save the imperiled honey bees.

The campus as such strictly prohibits vehicles of any sort within the campus instead commute for the students and staff are encouraged via bicycles, electric cars & scooters.

Solar power contributes towards a chunk of the power demands. During summer, solar power production goes up to ----- watts (on a sunny and

cloudless day) and on an average generates ----- watts peak on campus. Power needs are also met through energy generated from wind mills situated in southern Tamil Nadu. It contributes about 2,159 tons of equivalent annual CO<sub>2</sub> reduction. Statistically, CARE is receiving its 79% of electricity consumption from TANGEDCO and 21 % from the wind farm through wheeling.

CARE is a 100% Zero Discharge campus as the water requirement for gardening is met by recycling the water through sewage treatment plant. CARE also has rainwater harvesting in place and is done through collection of rain water from all available roof. The collected water is sent to rainwater trench which is located in 5 different strategic locations and the collected rainwater is sent into the pond for ground water recharging. Also the rain water is channelled and collected in the artificially constructed Lily pond which in turn is directed towards bore and open wells.

CARE has two sewage treatment plants of 600 kLD capacities for waste water treatment and the entire waste water generated in the hospital is treated and used back for cooling tower makeup and irrigation.

CARE as a prudent initiative, watering for the green landscape is done only during morning or evening hours to avoid evaporation losses. Moisture sensors are in place to avoid over watering and wood chips are used on top soil to conserve soil moisture.

CARE, as a self-sustainable, self-reliant and a zero wastage initiative, the garden waste is shredded in the composting area transported to the nearby villages after 45 days from the start of shredding. Food waste such as vegetable waste are collected and given for cow feeding. The raw material generated is recycled through installation of biogas facility which in turn is used for cooking purpose.

### **Problems encountered and resources required:**

- Difficulty in hiring candidates who have versatile knowledge in handling green energy.
- Green energy necessitates a completely new infrastructure.

- It is a well-known fact that establishing green energy comes at a higher cost when compared to fossil fuel.

### **Evidence of Success:**

- The entire campus is predominantly powered by solar electricity and LED lights.
- Has been designated a zero plastic, noise and pollution zone.
- The aesthetic green environment provides healthy and fresh air.
- Provides a serene environment for students to pursue their studies.
- Zero waste water discharge is accomplished by the waste water treatment plant.
- Recycled water used to replenish the green canopy of CARE.
- Organic farming has been made self-sufficient as it has been utilized by the staff and students.
- Herbal garden established to conserve indigenous plant species of medicinal value.

### **Resources:**

- Exclusive man power labour.
- Budget for maintenance and recovery.