

# Best Practices

## Best Practice 1

### Title : Utilization of Public Waste Water for Gardening

#### Objectives of the practice:

1. To utilize the public waste water for gardening and watering trees in the campus.
2. To avoid dirty and muddy surrounding resulting from water waste on road
3. To prevent water from the public tank that was going waste.
4. To stop stench through silage water.
5. To take precautionary measures of protection from mosquitoes and bees.

#### The context:

Marathwada Region consists of eight districts. Latur district comes under Marathwada Region and Killari village is in Latur district. Whole Latur district is drought prone area. Killari village and surrounding 52 villages comes under draught prone and earthquake zone. There is constantly scarcity of water. Average rainfall is nearly 750 mm in this area. Drinking water supply to this village is from Makani Dam (Lower Terana Project) which is situated 26 kms away from Killari village. Due to non-availability of sufficient electricity supply of dam, water supply tank always remain empty. Hence less water supply to tap. Some bore wells are dug in village but many of bore wells are dry. In front of our college Gate there is a water tank which supplies drinking water to this area.

Waste water from this tank was spreading on road. This caused dirty smell and mud on road. To overcome this difficulty and to make green environment in college surrounding, we decided to build a small tank for storage of waste water.

#### The Practice:

Firstly underground 2 ½ pipe line brought from waste water tank to college small tank. Waste water is stored in this tank and after a limit this water is drainage automatically up to trees and plants due to slope area. After some limit rest of water is lifted through an electric motor of ½ HP drip tap line is spread throughout surrounding with trees and Plants are planted.

#### Evidence of Success:

This practice helped the college in maintaining the cleanliness public road. This small act could contribute to 'Swach Bharat Abiyan'. Due to utilization of waste water for conservation of trees in college premises and surrounding. We could maintain healthy and beautiful atmosphere in college. We utilize this water free of cost in best possible

way. With this activity, we are succeeded to overcome the poverty of water in such draught prone area.

1. It has helped to keep the campus green throughout the year contributing to the conservation of the environment.
2. It helped the campus captivating
3. It helped to create clean and tidy surrounding.
4. The oxygen level in the area is maintained
5. It helped to reduced contamination of the area.
6. It helped to create pleasurable atmosphere with flowers and greenery in the campus.

### **Problems encountered and Resources required :**

#### **Problems encountered:**

1. When the level of accumulated water goes down we have to use electric motor to fetch the water.
2. Prolonged power cuts reduces the flow of water from the tank.
3. For some period derangement occurs in the public water tank, resulting in shutdown in water flow due to technical issues on part of Grampanchayat.
4. Nuisance created from outside forces (People) For example : Damaging the pipeline and small pitch of waste water.
5. Hostile behaviour from pig herdsman and pigs.

#### **Resources Required:**

1. An electric motor for fetching the water from tank.
2. PVC pipeline and rubber taps.
3. Shovel mattock and other equipment.
4. Human resources.

## **Best Practice 2**

### **Title : Solar Energy Power Plant**

Solar Energy is a need of hour. To cope up Energy need Solar energy plays an important role. Today Among essential needs energy/power is one of the most important needs of human being. Natural resources which are creating electricity are decreasing day by day like coal. But demand of electricity is increasing. Solar energy is an alternative of power. Due to invention in solar energy number. of people are using solar energy. Government is also giving subsidy for erection of solar panel project. As earlier stated Killari is an earthquake and rural area. In crop season need of power increases for watering to the crops. In this season we are facing the problem of power cut. Due to this many college tasks hangs. To overcome this difficulty our college decided to erect solar energy project. This solar energy power plant is established in the college on 10/02/2015. It generates 5KWH power. Our college is now tension free of the problem of lack of electricity during power cuts.

#### **Objective of the Practice :**

1. To save considerable amount of power of Mahavitaran (MSEB) company.
2. To contribute to national interest to save energy.
3. To create eco-friendly environment by utilising natural resources.
4. To sale additional amount of energy to Mahavitaran (MSEB).
5. To create pollution free campus.
6. Save money spent on power requirement utilising solar energy.

#### **The Context :**

Due to erection of solar energy project, we are not facing the problem of power cut. Mahavitaran company is not supplying sufficient amount of power to public. In order to self reliance solar energy is must. Due to establishment of solar energy Power Plant College is contributing a lot to National scheme of save energy. Our solar energy Power Plant is saving electric power. This project has created eco-friendly atmosphere and we could able to utilise of natural energy.

#### **The Practice :**

Solar energy project is erected on the second flower surface of the college building and second energy project is also erected on the second flower of Comred Ahilyatai Rangnekar Ladies Hostel Building. The first Project erected on college building is used to supply electricity to college office and Departments. Second project is water heater system is use for the ladies hostel.

The first solar energy power plant is of 5 KVA/ 192 V one line UPS system with MPPT solar charge controller. The cost of project is Rs. 499850/-. This project consists of 16 panels and 16 batteries. The length and width of panel is 5'×3.5'

The Solar water heater system used for hot water for Ladies students. This costs Rs. 2,40,000/-. It consists of 25 tubes. The length and width of water heater project is 7'×1½' .

**Evidence of Success:**

1. The college saved considerable amount of money through the use of solar energy
2. It saved large amount of Mahavitaran (MSEB) energy so far.
3. We achieved our objectives to create eco-friendly ambience.
4. The college enjoy smooth functioning even during regular power cuts from Mahavitaran (MSEB).

**Problems Encountered:**

1. Maintenance cost
2. Low energy production during monsoon and winter season.
3. No production during nights.
4. Requires separate space.
5. A huge cost is incurred in the beginning to install the solar plant.

**Resources Required:**

1. Open space for sunrays to come through panel.
2. Clean weather.
3. Regular maintenance and care.
4. Panel bar, batteries, equipments for installation of the plant and wire, panel board, distil water, separate room for batteries and storages.