GOVT. VICTORIA COLLEGE, PALAKKAD

GO GREEN MOVEMENT

WASTE MANAGEMENT

Introduction

Wastes are unavoidable in any growing organization. Government Victoria College, situated at the heart of the Palakkad district with its ever increasing student population, also produces a large number of waste elements. But, the college stands unique by adhering to the strict Victorian Green Protocol, emphasizing the reduction and prevention of waste and its disposal to the maximum extent at its source. Waste management is an urgent, essential and unavoidable concern of any large scale institution. Unscientific and improperly structured disposal methods of waste management produce serious economic, social, environmental and health issues. Therefore, the institution has adopted the strict green protocol and minimum waste policy. Accordingly, we stick on to the three 'R' elements of waste management viz. Reduce, Reuse and Recycle. A number of unique and long-lasting programmes were implemented to achieve these goals. The active members of NCC, NSS, Bhoomithrasena and Nature Club members periodically ensures the cleanliness of the campus and actively engage in waste management efforts.

Methodology

- Formation of a team of faculty
- Periodical physical inspection of the campus
- Active interaction with students, non-teaching and teaching staff
- Interaction with resource persons and clarification of doubts regarding existing systems
- Preparation of questionnaires
- Structured interviews
- Review of data collected
- Documentation of the results

Solid Waste Management

The major organic wastes inside the campus come from 2 major sources. The huge amount of organic wastes owes to the leaf litter in the campus and the rest of the small part is contributed by the food waste from students and teachers. The waste management approaches towards the generated waste and the method employed depends primarily on the nature of the wastes.

The Bhoomithrasena Club of the College has achieved success in implementing several food waste management systems inside the college campus. The major waste management systems employed are

- Bio-compositor Pot
- Vermi -composting system
- Aerobic Composting Bin
- Bio-digester pot
- Bio-digester bin
- Pipe compost
- Open Pits


PIPE COMPOST

Various Types of Food Waste Management Systems inside the college campus

The leaf litter in the campus is a major source of wastes in the campus. The construction of large pits is practically possible but obtaining the compost from the pits becomes difficult over time. Therefore the college employs a more natural and cost efficient method to overcome this task. Inside the college campus, we have three individual gardens – The Botanical Garden, The Medicinal Garden and the 'Gardenia' Garden. The institution follows a system, where the leaf litter in the campus is brought to these gardens and the floor of these gardens are completely covered with these litter. This ensures that the nutrients and minerals leached from the soil through plant growth are returned back to the soil without wastage and the peculiar dry nature of the Palakkad climate is combated to a large scale. The leaves form a covering over the soil and reduce the amount of water evaporated from the soil and also act as a sponge during the rainy season. This creates a feel of forest floor in these gardens, ensuring the survival of lower organisms and invertebrates also. During the rainy season, temporary pits for water conservation are dug randomly in the campus. Later, following the change of season, these pits are covered with leaf litter. This also ensures

the adding up of nutrients back to various parts of the campus soils randomly every year. Occasionally fresh plants during weeding are also added to the garden floors or pits to enrich the humus. The combined effects helps in creating a mulch of leaves that finally changes to mineral rich leaf compost. This facilitates the healthy growth of plants and numerous microorganisms. Occasionally, some leaf litters are burnt and also added to the floors to enrich the soil with Potash.

Mazhakuzhi being filled with leaf litter

The garden floors being covered by Leaf litter to maintain a Forest appearance

Liquid Waste Management

- The institution maintains a well-structured drainage system and soak pits to manage liquid waste.
- The plants are watered either manually or with sprinklers ensuring minimal wastage of water. Waste waters from washing areas are also channeled to adjacent plant bushes.
- Toilets are properly connected to the sewage system which gets rid of waste through drainage pipes to separate underground tanks which are regularly cleared and maintained.
- Special care is taken to ensure that there are no leaks in the pipes or accumulation of contaminated water in the premises.
- Chemical solvents from laboratories are distilled and reused as far as possible.
- The departments using chemicals ensure that they are treated and made harmless before disposing them.
- Ground water is recharged using water recharge system. The large pond inside the college campus proves to be the most contributing factor towards groundwater recharging.

Sanitation Pits for chemically polluted water

E-waste Management

- E-waste generation is minimized by purchasing and installing the best quality equipment.
- The individual departments create and instill a sense of awareness among students about dangers of E-waste and against discarding defunct electronic devices along with food garbage.
- The college sees to it that only required number of e-materials is purchased to keep e - waste in check.
- Maximum efforts are taken to utilize the existing hardware by regular servicing and employing AMC to reduce e-waste.
- Unavoidable e-wastes like printer cartridges and laptop batteries are returned to the company personnel.
- Reusable parts are separated and used in other systems.
- For e-waste management, State government has introduced a few guidelines for the E-waste management in government sector. According to that guideline, our institution has a committee to prepare a report on the proper functioning of all electronic devices and give a detailed report of irreparable electronic equipment with details of purchase and the present condition. This report is to be submitted through proper channel to the PWD. On the basis of the report, action will be taken by the PWD for the proper disposal of E-Waste.