7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste

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AAACET has a strong waste management system. The paper wastes, plastic wastes, food wastes, wastes from canteen, hostel kitchen etc., are segregated into biodegradable and non-biodegradable wastes.

Solid wastes are processed through vermicomposting process and used as manure for the plants and trees in the campus. The recyclable wastes such as examination papers are collected and periodically sent for recycling. One sided papers are re-used by the faculty/staff for documentation. Non-biodegradable waste such as metals and other scraps are comparatively less in our campus.

The RO plant installed in the campus caters the drinking water needs. Sewage water treatment plant in the campus has a capacity to process 20,000 liters/day. The treatment Process is designed on the principle of activated sludge process with Ultra filtration. Treated waste water is used for gardening and other activities and sludge collected is used as manure for plants and trees.

Bio-medical wastes such as sanitary napkins are disposed through eco-friendly napkin incinerators. Usage of hazardous chemicals and radio-active materials are restricted inside the institute. The UPS batteries are exchanged for new batteries and old batteries are recycled. Till to date there is no e-wastes generated in the campus.

Solid waste management

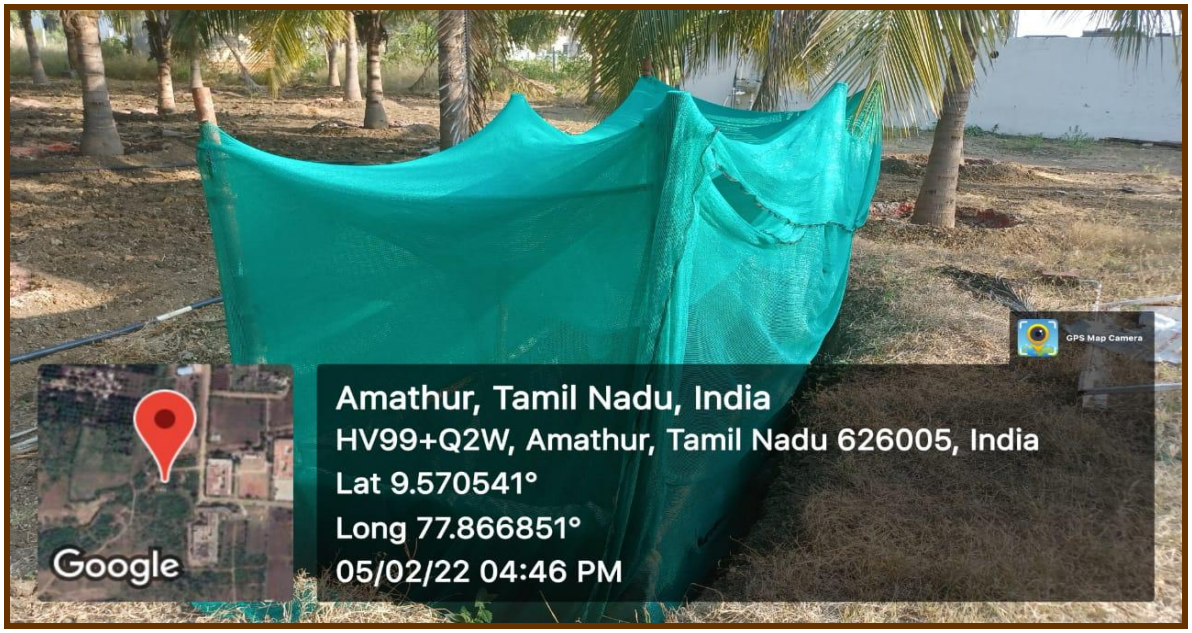
Our college has a well-functioning waste management system where the paper wastes, plastic wastes, food wastes and many other wastes are segregated into bio-degradable and non-biodegradable wastes. We also collect the waste from the canteen, kitchen and other places and segregate it and use them for the vermicomposting pit where manure is produced which is used for the plants and trees in the campus.

Vermi Composting Unit

Bio waste from the campus including weeds, shredded plant leaves are collected along with food waste and dumped into the composting yard. The cow dung is then added where the earthworms feed on the biomass and excrete in digested form (vermicasts). This is termed as vermiculture or “worm – forming”. The vermicasts are rich in nitrates and minerals such as potassium, phosphorus, magnesium, and calcium. The vermi composting unit functions with “Pit method.” Procedure of Vermicomposting inside the campus:

1. A Pit of size 10’x10’x7’ was dug.
2. Walls made of paver blocks were cast around the pit.

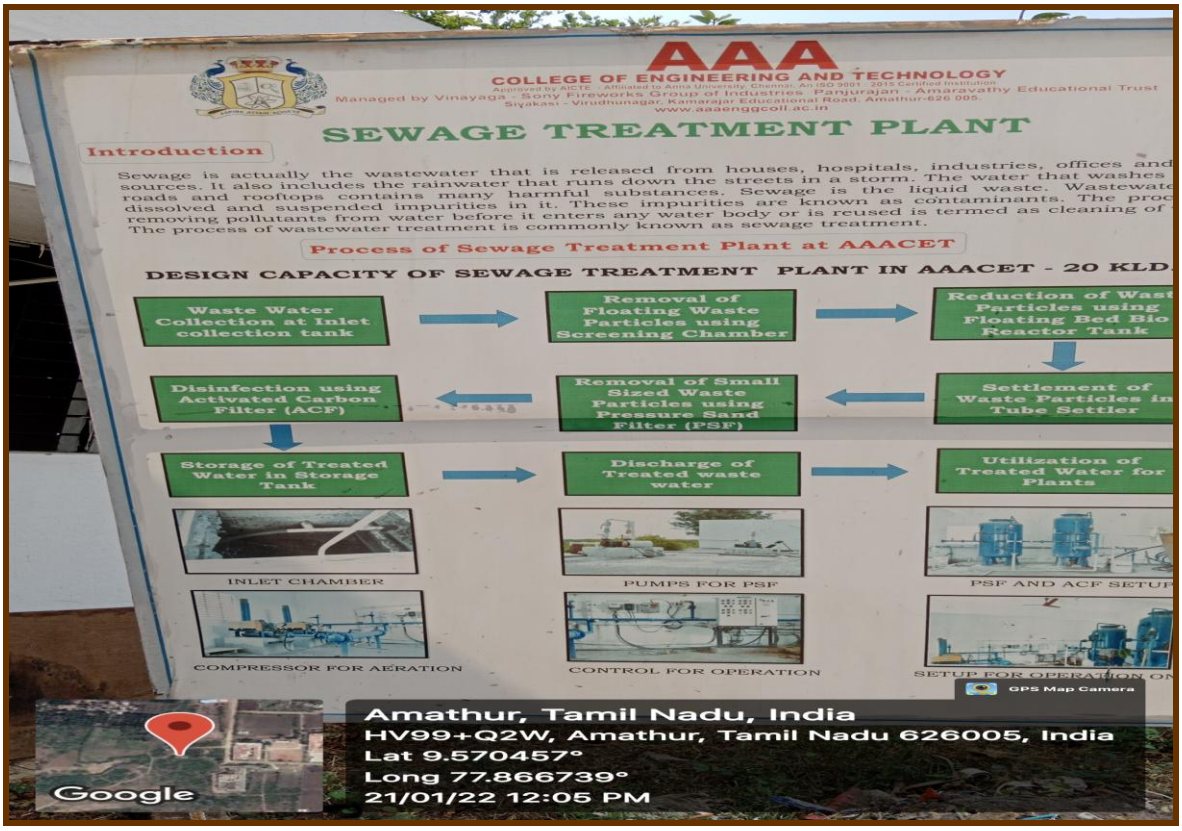
3. Bio mass was collected from the campus.
4. Fine Bed was prepared by adding decomposed cow dung, dried leaves and other biodegradable waste collected from the kitchen of all the hostels.
5. Bio waste was continually added along with partially decomposed cow dung up to ½ ft.
6. Earthworm species were released over the mixture with dry straw.
7. Water was sprinkled thrice a day to maintain moisture content.
8. The compost was checked frequently for overheating and moisture was maintained.
9. Lose soil –like material was obtained after 3 to 4 weeks.
10. Thus obtained material was dried in sun.
11. Thus dried vermicasts serve as manure.



Liquid waste management

The sewage system is in practice to protect our environment from hazardous waste water. We convey the liquid waste to the waste water treatment plant to ensure the environment to be free from health-related hazards. The capacity of the treatment plant is 20,000 litres/ day.

Sewage treatment plant is installed to collect all waste water generated in the college. I \t also ensures that the treated water is used for gardening and other activities. The treatment Process / system is designed on the principle of Activated Sludge process with Ultra filtration which ensures the aerobic decomposition of organic matter in presence of active microbial growth in the aeration tank.



RO Treatment Plant:

Reverse Osmosis Plant installed in the college campus caters to the drinking water needs of students, faculty, supporting staff and the visitors. The raw water with an average Total Dissolved Solids [TDS] of 750-1000 ppm is treated to reduce TDS content to less than 100 ppm.

Biomedical waste management

The Institution has eco-friendly napkin incinerators which are used for the disposal of bio-medical wastes such as sanitary napkins.

E-waste management

Since the college was started in 2013, no major disposal of electronic waste had been reported.

Waste recycling system

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Solid wastes are processed through vermicomposting process and used as manure for the plants and trees in the campus. The recyclable wastes such as examination papers are collected and periodically sent for recycling. One sided papers are re-used by the faculty/staff for documentation. Non-biodegradable waste such as metals and other scraps are comparatively less in our campus.

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