

**SNDT College of Home Science, Karve Road,
Pune, 411038**

Criterion- VII

7.1.2: The Institution has facilities and initiatives for

- 1. Alternate sources of energy**
- 2. Environment**
- 3. Waste Management**

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Environment Rally:

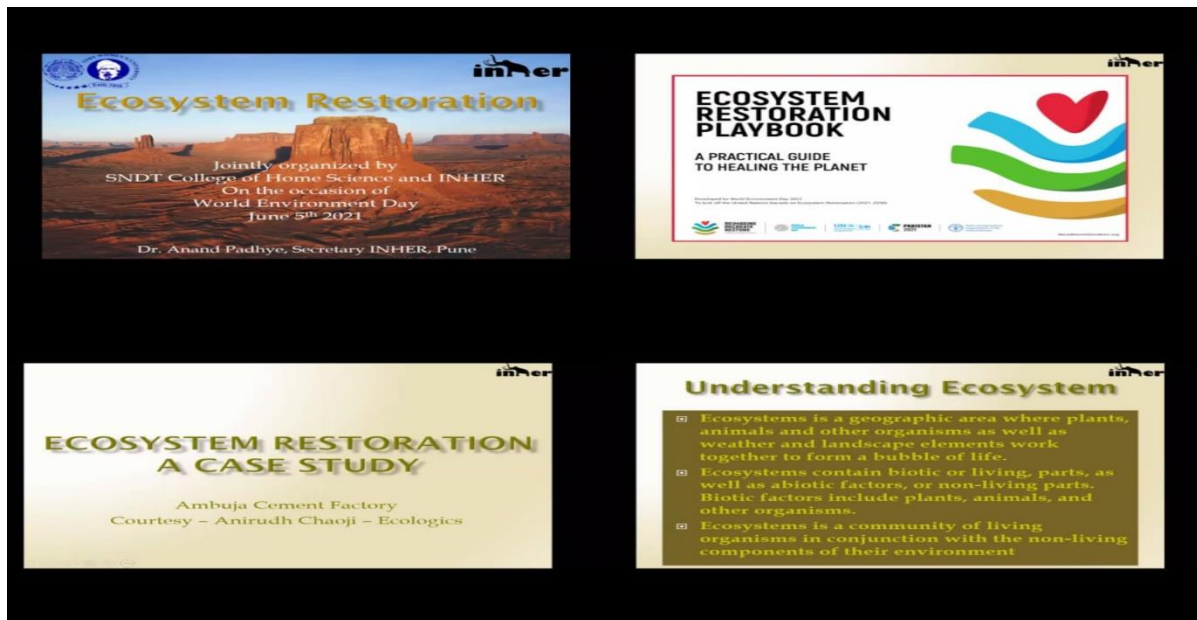
Green Day was celebrated on 21st December, 2022 at 11 am to 1 pm, all the teachers and students actively participated in this event. Saplings were planted. Environment rally where program was marked by creative, informative and environment safety awareness posters made by students. Also a skit play was performed by students to create awareness amongst people about impact of overusing plastic on wildlife and altogether on the entire Earth and urged to minimise the use of plastic.





World Environment Day

SNDT College of Home Science, Pune along with INHER Foundation had organised a virtual program on the occasion of World Environment Day on 5th June, 2021. Various environment related issues were discussed during this program on online zoom platform during 4pm to 6pm. Dr. Anand Padhye, Secretary INHER, Pune was the Chief Guest: 256 students (F.Y, S.Y, T.Y and PG) attended the program.



Alternate Sources of Energy

The solar plant has also been installed in SNTWU Pune campus in in Hostel Building. Based on a study by the Indian Institute of Science, Bengaluru, this project is estimated to mitigate 15,375 tonnes of carbon dioxide emissions during its lifetime, which is equivalent to planting 24,600 teak trees. Solar energy is a free source of renewable energy which does not cause pollution and reduces carbon emissions from burning coal, gas and oil for electricity generation. With 1,540 panels, the setup will generate an average of 1,917 kilowatt-hour (kWh) units per day and 7,00,000 kilowatt-hour (kWh) units in a year.

Use of LED bulbs/ power efficient equipment: LED Lights are energy efficient and they have long life span. They offer improved environment performance. They work at low voltages. LED provides instant light and they can withstand frequent switching. College has replaced the old tube lights with LED lights at various places.

Executive Summary of Environment Audit

Environmental Audit Report: SNTD Women's University, Mumbai: 2020-21

EXECUTIVE SUMMARY

1. SNTD Women's University, Mumbai has three campuses, namely at Churchgate, Juhu, in Mumbai and at Pune. The major form of Energy is the Electrical Energy, used for various equipment in the campuses.

2. Present Energy Usage & CO₂ Emissions:

| No | Parameter/ Value | Energy Consumed, kWh | CO ₂ Emissions, MT |
|----|------------------|----------------------|-------------------------------|
| 1 | Total | 302748 | 272.47 |
| 2 | Maximum | 51902 | 46.71 |
| 3 | Minimum | 19456 | 17.51 |
| 4 | Average | 25229 | 22.71 |

3. Pollution caused by Day to Day Operation:

- **Air pollution:** Mainly CO₂ on account of Electricity & LPG Consumption
- **Solid Waste:** Bio degradable Waste, Garden Waste, Recyclable Waste and Human Waste
- **Liquid Waste:** Human liquid waste

4. Usage of Renewable Energy & CO₂ Emission Reduction:

- The University has installed 500 kWp Roof Top Solar PV Plant and 16000 LPD Solar Thermal Water Heating System at the Hostel Blocks.
- Annual Alternate Energy Usage is 600000 kWh.
- The reduction in CO₂ Emission due to usage of Alternate Energy is 540 MT.

5. Indoor Air Quality Parameters:

| No | Campus | Parameter/ Value | AQI | PM-2.5 | PM-10 |
|----|------------|------------------|-----|--------|-------|
| 1 | Churchgate | Maximum | 120 | 115 | 130 |
| | | Minimum | 46 | 4.5 | 5.6 |
| 2 | Juhu | Maximum | 240 | 102 | 111 |
| | | Minimum | 100 | 60 | 68 |
| 3 | Pune | Maximum | 106 | 68 | 84 |
| | | Minimum | 56 | 37 | 39 |



6. Indoor Comfort Condition Parameters:

| No | Location | Parameter/ Value | Temperature, °C | Humidity, % | Lux Level, Lumen | Noise Level, dB |
|----|------------|---------------------|--------------------|-------------|---------------------|--------------------|
| 1 | Churchgate | Maximum | 27.6 | 92 | 275 | 80 |
| | | Minimum | 23 | 65 | 50 | 54 |
| 2 | Juhu | Maximum | 28.5 | 84 | 945 | 72 |
| | | Minimum | 25.5 | 53 | 30 | 45 |
| 3 | Pune | Maximum | 29 | 99 | 72 | 324 |
| | | Minimum | 22.5 | 77 | 42 | 27 |

5. Waste Management:

5.1 Solid Waste Management:

The Waste is segregated at source and is further disposed of through Government Authorities.

5.2 E- Waste Management:

It is recommended to dispose of the E-Waste through Authorized vendors.

6. Rain Water Harvesting:

The University has implemented Rain Water Harvesting Project at Churchgate campus. The water collected is used to recharge the ring well.

7. Environment Friendly Initiatives:

- The University has made provision for Sanitary Waste Incinerator.

8. Notes & Assumptions:

1. 1 kWh of Electrical Energy releases 0.9 Kg of CO₂ into atmosphere.
2. 1 kWp Roof Top Solar PV Plant generates 4 kWh of Electrical Energy /Day
3. Annual Energy Generation Days: For Solar PV Plant: 300 Nos

9. References:

1. For Computation of CO₂ Emissions: www.tatapower.com
2. For Indoor Air Quality: www.cpcb.com
3. For Indoor Comfort Parameters: www.ishrae.com
4. For Energy Generated by Solar PV Plant: www.solarroftop.gov.in



Table No 12: Indoor Air Quality Parameters: Pune Campus:

| No | Location | AQI | PM2.5 | PM10 |
|----|-------------------------------|-----|-------|------|
| 1 | Campus Admin Office | 96 | 60 | 75 |
| 2 | Main Entrance-library | 93 | 55 | 68 |
| 3 | Arts College-Principal Office | 56 | 37 | 39 |
| 4 | Computer Lab | 75 | 45 | 56 |
| 5 | Seminar Hall | 85 | 54 | 63 |
| 6 | Room 40 | 85 | 52 | 62 |
| 7 | Home Science | 106 | 68 | 84 |
| 8 | R & M Dept | 96 | 57 | 68 |
| 9 | Tarapore Hall | 83 | 50 | 62 |
| 10 | MBA College | 103 | 61 | 74 |
| 11 | MBA -2nd Floor | 96 | 58 | 73 |
| 12 | Media College | 80 | 49 | 69 |
| 13 | Media College-2nd Floor | 80 | 43 | 62 |
| 14 | Education College | 81 | 45 | 55 |
| 15 | Education College-1st Floor | 80 | 46 | 58 |
| 16 | Education College-2ndFloor | 71 | 44 | 45 |
| 17 | PGSR-Ground Floor | 83 | 51 | 75 |
| 18 | PGSR-1st Floor | 85 | 50 | 62 |
| 19 | PGSR-2nd Floor | 86 | 51 | 62 |
| 20 | PGSR-3rd Floor | 86 | 52 | 64 |
| | | | | |
| 21 | Maximum | 106 | 68 | 84 |
| 22 | Minimum | 56 | 37 | 39 |





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Waste Management Policy

Edible Landscape is an initiative started by SNDT College of Home Science, Pune. It is supported and conceptualized by Eco Factory Foundation, Pravin Masalewale, Pune.

Aim is to-

1. Create wealth from waste.
2. Develop waste free campus.
3. Promote organic farming.
4. Motivate students and develop interest regarding environmental safety.

Objectives-

1. Identifying waste and utilization of dry and wet waste generated in the campus.
2. Reusing or recycling of waste by implementation of drum and pit composting.
3. Manage the waste disposal process by following good practices like segregation of waste generated on campus.
4. Formation of “Green Club“ for training of courses with cafeteria approach and creating awareness about waste management practices amongst the students and community.
5. Improve student skill based knowledge regarding waste mangement at home and campus.

IMPLEMENTATION OF POLICY

➤ Standardized Bins and Commodity Collection

College campus should be equipped with three standardized color-coded bins to collect the following commodities:

- Dry waste
- Wet waste

The intent of the standardization is to make it easy for faculty, staff, students, and visitors to participate in achieving our vision.

Bins provided by Eco Factory Foundation must be coded and placed in premises of Home Science College.

It is important that the correct waste goes into the appropriate bins to ensure all recyclables are segregated. Colour codes for standard bins are as follows:

- Green: Biodegradable waste
- Red: Paper, cardboard, cartons, food wrappers
- Blue: Plastic, glass bottles, cups, cans

Standardized educational signs should be posted on the walls or over the bins, to aid in sorting materials.

Several buildings already have segregation bins, and those bins may remain in place, although they may be altered with new labels, placed in new positions, or otherwise modified as necessary to meet these standards.

AV room and Tarapore Hall, may have standard bins located within the hall, if not they will be conveniently located outside the rooms. Signage should be placed to direct occupants to the bin's location.

Classrooms must have signage directing occupants to designated collection area where the standard bins are located.

Plastic bottles must be collected and handover to Rudra Environmental Solution (Tadpatrikar) weekly on every Tuesday.

➤ **Recycling of waste**

Wet waste like vegetable and fruit peels, stems and stalks must be collected on daily basis from hostel mess and cooking laboratories and to be used for drum and pit composting. Compost generated should be utilized for organic farming.

Jeevamrut and *Dashparni aark* provided by Eco Factory Foundation to be used for farming as organic fertilizer and insecticide.

For composting, IVEM solution and Compost culture should be procured from INORA.

Dried tree leaves should be used for mulching of soil.

ORGANIZATION AND MANAGEMENT

The responsibilities and organizational arrangements for this Policy are defined below:

- **Green team (core) members** responsible for:
 1. Formation of Green club and identifying interested group of students.
 2. Ensuring that this Policy is disseminated within their area of responsibility. Waste Management procedures to be included in induction programmes, student counseling and training programmes.

3. Ensuring that members are equipped to implement this Policy, including identifying training needs, and ensuring training appropriate to each individual's responsibility is available and attained.
4. Ensuring that Waste Management practices and procedures within the premises are audited/monitored regularly and that any changes that may be required as a result of these reviews are carried into effect.
5. Encouraging staff, students, and visitors to co-operate with associated campaigns, projects, and initiatives.
6. Maintaining a list of all Service providers/ responsible person appointed to carry out Waste related activities.
7. Keeping up to date this Policy or any daily waste management plans. Designing of Garden calendar for plantation of various plants and trees.
8. Preparation of checklist or questionnaire for weekly or monthly inspection of waste management policy.

- **Staff / Students** responsible for:

1. Reusing, recycling and/or disposing of wastes responsibly, through the appropriate stream, in accordance with policy and procedures.
2. Reporting any problems with Waste collection to core team.
3. Attending appropriate training programmes.