

BEST PRACTICES – I

1. Title of the Practice: Rainwater Harvesting Unit

2. **Objectives of the Practice:** The main motto of this practice is to store, save and use rainwater for the maintenance of a green campus and achieve the goal eco-friendly.

The main objectives are listed below:

- To collect rainwater from the roof of college buildings.
- To meet the increasing water demand.
- To reduce the run-off of water from the college campus.
- To avoid the flooding of soil with rainwater from the college campus.
- To avoid water scarcity on college campuses.
- To avoid water shortage to the plants in the summer season on the college campus.
- Use the stored rainwater for the maintenance of the green campus.
- To raise underground water in the college campus for further use.
- To use the stored rainwater in the botanical garden and for use in a laboratory.

3. The Context:

The Nandgaon Tehsil belongs to the dry area of the Nashik District, Maharashtra. There are more water scarcity problems due to the low rainfall in this area. Water scarcity problems also affect college campus areas such as there is a big problem without water the maintenance of campus plants and botanical gardens. This rainwater harvesting is best for the collection of rainwater and storage for the further use of water for the supplement to the college campus green plants and water also use for maintenance of the botanical garden as a green campus area. The stored rainwater is also used for laboratory work. The rainwater helps to maintain the green campus area in the institute.

4. The Practice:

Rainwater is a good source of water on the college campus. This rainwater is helpful for the maintenance of greenery on the college campus during the summer season. The rainwater harvesting system is used for the collection of rainwater from the roof of the buildings rather than runoff from the college campus and stored in the

rechargeable well located behind the college campus. At the ACS College Nandgaon, the rainwater is collected from the rooftop of the main building of the college by the outlets of rainwater. The runoff water from the terrace of the college main building is channelized into one recharge well located behind the college. All the main building rooftop rainwater outlets into the well, except the two rooms, these two-room runoff water outlets onto the rainwater harvesting tank. The rainwater harvesting tank is stored near about 5000/6000 liter of water, this water is used for science practicals as distilled water. The main building rooftop rainwater is recharging the well. The water used for the irrigation of the plant

5. Evidence of Success:

These best practices have been successfully run in college. These practices not only help to maintain the botanical Garden but also develop a green campus. This practice has helped in awareness about saving water. It has helped in improving the quality and quantity of water.

6. Problems Encountered and Resources Required:

The roof should not be painted. Roofs or terraces used for water harvesting should be clean. During the rainy season, the whole system (building roof, pipes, tank, etc.) should be checked and cleaned properly. Additional pipes and the construction of a large tank are required to store water.

BEST PRACTICES –II

1. Title of the Practices - Green Campus Development

2. Objectives of the Practice:

To maintain the green campus area in College.

- To protect and conserve ecological systems within the college campus.
- To promote the green campus in a plastic-free manner in the college.
- To promote the green campus protocol among students and all the faculties of teaching and non-teaching.
- To promote the practice of a pollution-free campus and environmentally friendly manner in the college.
- To increase the number of plantation on the college campus.

- To maintain the botanical garden in the college campus area.
- To establish effective and efficient ways of solid, water, and chemical management.
- To prevent unhealthy, unwanted, and wasteful use of resources on the college campus.

3. The Context:

Environmental and ecological pollution is one of the important challenges facing the globe. The college has situated in water scarcity, very low rainfall, and a highly rural area of the Nandgaon tehsil, Tal. Nandgaon, Dist., Nashik. The college campus faces challenges in water management resources, solid waste management, conservation of the diversity of plants, eco-friendly environment campus, reducing the temperature, preventing plastic pollution, etc. The college introduced a green campus campaign to promote sustainable and eco-friendly practices in the college campus and to make the area inhabitable for living beings. Green campus development is result oriented practice for the fruitfulness of the future generation in the college campus and society. Overall, a green campus development practice can help a college campus to become more environmentally sustainable, reduce costs, and improve the health and well-being of its students, faculty members, and staff.

4. The Practice:

The students, staff, and teachers of educational institutions play an eminent role in solving environmental challenges. The college arranged various programs and activities for green campus development. The activities organized under this practice are:

Plastic-free campus: It is a program organized by NSS on the campus that aims to reduce plastic pollution in the college campus with a special focus on the reduction and elimination of plastic bottles, plastic bags, and plastic food packaging. The college organized various programs such as a plastic-free campus campaign and awareness programs on world environment day, biodiversity day, world ozone day, etc.

Solid Waste Management: The College has collected all solid waste material from the college campus with the help of a dustbin and transferred it into the

Vermicomposting unit for decomposition. Separate dust bins were provided on the campus to collect degradable and non-degradable waste materials.

Water usage for green campus: The College has established rainwater harvesting facilities for the effective management of water for the botanical garden and the survival of trees on the campus.

Energy management: Energy conservation and management is essential to save energy for every institution. Solar panels were installed on the roof of the college to reduce the consumption of electricity. Instead of CFL lamps LED lamps and tubes were used in classrooms, laboratories, and on campus.

Green Campus: Regular botanical garden and college campus tree maintenance was done by the non-teaching staff.

Green auditing: The green auditing cell has examined the green audit, environmental audit, and energy audit at the end of every academic year. The college has conducted programs of tree plantation every academic year on the college campus with help of the NSS of the college.

5. Evidence of Success:

The data for the green audit, environmental audit, and energy audit was collected by the green audit cell committee and the Botany and Physics department. Though the college campus represents good plant diversity, there are plant more trees like *Pongamia piñata*, *Ficus religiosa*, *Azadirachta indica*, *Bambusa vulgaris*, *Butea monosperma*, *Hardwickia binata*, etc., particularly along the fence line of the main road where high to very high traffic was noticed. The solid waste disposal management taken by the college is yielding very good results produced annually by vermicomposting. Also, the solar energy generated by the installed solar panels on college campuses directly can play an important role as a renewable energy source and college saves on their monthly electricity bill.

6. Problems Encountered and Resources Required:

There were many barriers to executing a green campus development campaign in the college campus area. It was a tedious task in maintaining the plants due to the low rainfall and water scarcity in the Nandgaon tehsil and college campus area. It was also a difficult task to ban plastic completely in the college campus area because the

attitude of some faculties and students towards changing the campus into a plastic-free campus was not fully positive. On the college campus, there is the recycling of non-degradable waste material is a very expensive and time-consuming process. In the college campus area, a climatic conditions highly affected the survival of planted trees by the students and faculties of the college.
