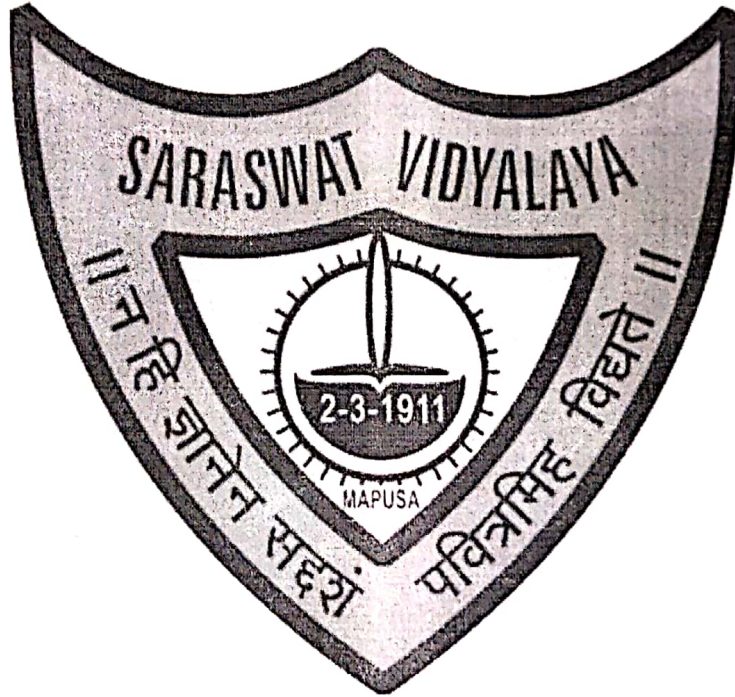


GREEN AUDIT REPORT (2018-2019)

SARASWAT VIDYALAYA'S SRIDORA CACULO COLLEGE OF COMMERCE AND MANAGEMENT STUDIES

Talang Nagar, Khorlim, Mapusa Goa 403507



Prepared By

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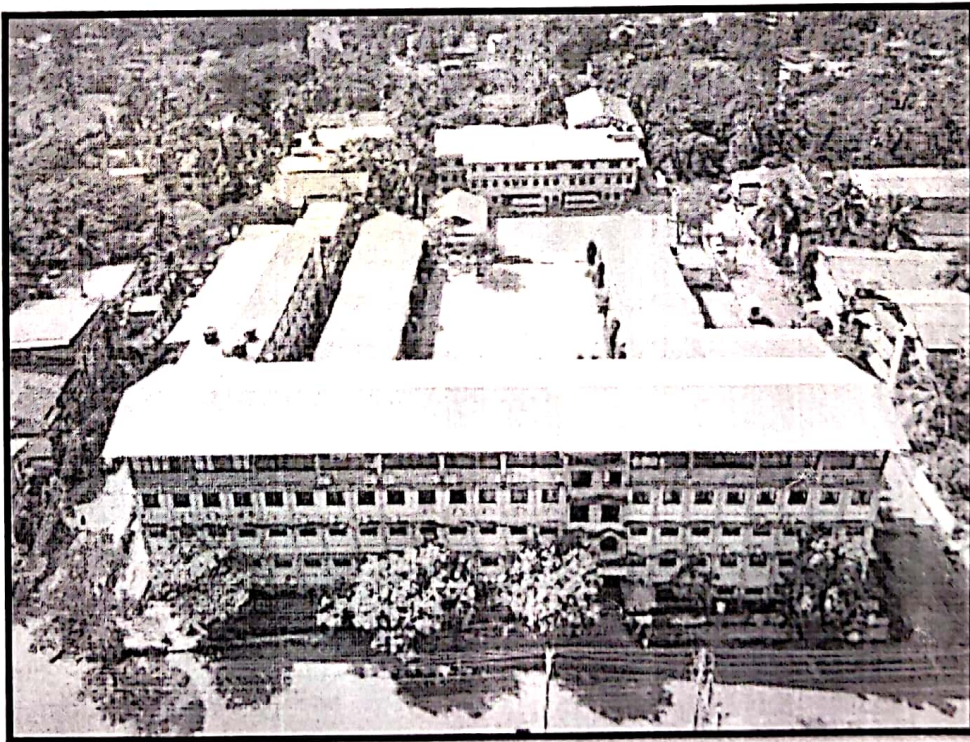
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Acknowledgement

The Green Audit Assessment Team wishes to thank the Sridora Caculo College of Commerce & Management Studies for assigning us with this very significant task of carrying out the Green Audit. We appreciate the cooperation extended to our team during the entire process.

Our special thanks are due to College Principal Dr. Santosh Patkar and his staff for giving us necessary inputs to carry out this very vital exercise of Green Audit.

We are also thankful to Ms. Sterol Godinho (IQAC Co-ordinator), Ms. Lynn Lobo (Incharge OS), Mr. Satyajit Hirve (NSS Programme Officer), Dr. Shobha Karekar (Librarian) and Prof. Sahil Sawkar who were actively involved while collecting the data and conducting field measurements.



The Campus



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Executive Summary

The rapid urbanization and economic development at local, regional and global level has led to severe environmental and ecological crises. While on one hand, resource depletion continues to occur at an alarming rate, on the other waste generation has also increased considerably leading to serious concerns. Keeping this in mind, it becomes essential to adopt Green Campus practices not just to reduce the ecological footprint of the college but to also be an example to students enrolled at the institution.

Sridora Caculo College of Commerce & Management Studies, Mapusa, Goa is deeply concerned and unconditionally believes that there is an urgent need to address these fundamental problems and reverse the existing trends. The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The methodology included, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, random interaction with students, measurements where required and recommendations. It works on the several facets of 'Green Campus' including Water Conservation, Tree Plantation, Waste Management, Paperless Work, Alternative Energy, Mapping of Biodiversity, eco-friendly practices and policy interventions.

With this in mind, the specific objectives of the audit was to evaluate the adequacy of the management control framework of environment sustainability as well as the degree to which the Departments are in compliance with the applicable regulations and standards. It can make a tremendous impact on student health and learning, college operational costs and the environment.



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1. Introduction

Green Audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The 'Green Audit' aims to analyse environmental practices within and outside the college campus, which will have an impact on the eco-friendly ambience. It was initiated with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment.

Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Audit.

Green audit is assigned to the criteria 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India which declares the institutions as Grade A, B or C according to the scores assigned during the accreditation.

1.1 About the College

Sridora Caculo College of Commerce & Management Studies, one of the pioneering private institutions of higher education in commerce and management education, was established in 1991 by Saraswat Education Society. Born out of a passion to empower society and provide opportunities to youth of all sections of society, today the Society has singularly contributed significantly to the development of education and empowerment of young minds in Bardez and North Goa since 1911.

Sridora Caculo College of Commerce & Management Studies was founded under the leadership of Shri. V.B.Prabhu Verlekar, a noted Chartered Accountant, with the stated objective of meeting the needs and demands of higher education, by providing quality education and excellent infrastructure, to all, but more so to the disadvantaged sections of the community. The management realized that due to lack of adequate educational facilities many good students had to drop out of the higher educational system and decided to ensure that they do not drop out of the educational system.

The core values of the college are highlighted through the emblem of the society "Na hi nanens adrush pavitrasinh vidhate" which means that there is nothing more pure than knowledge. The objectives, mission and vision of the college are clearly defined and stated and made known to students. The college strives constantly to live by these ideals to achieve its mission and vision.



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The Management, Faculty and the Staff of Saraswat have contributed to the building of an organisational culture marked by confidence, mutual respect, and concern for others' needs, hard work, sound values, personal maturity and integrity. We cherish these values and traits in our college.

VISION: To be a model institution, providing for a holistic development of individuals with an aim of promoting a healthy and progressive society.

MISSION: To impart value added education, to nurture the creative abilities of our youth, to develop professional competence with a focus on opportunities for individual excellence and the collective wellbeing of the community.

2. Objectives of the Study

The main objective of the green audit is to promote the Environment Management and Conservation in the College Campus. The purpose of the audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards.

The main objectives of carrying out Green Audit are:


- ❖ To introduce and aware students to real concerns of environment and its Sustainability.
- ❖ To secure the environment and cut down the threats posed to human health by analysing the pattern and extent of resource use of the campus.
- ❖ To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requiring high cost.
- ❖ To bring out a status report on environmental compliance.

3. Methodology

The methodology to perform the green audit included different tools such physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following areas to summarise the present status of environment management campus:

- ✓ Waste management
- ✓ Energy Conservation
- ✓ Water management
- ✓ Biodiversity and Green Areas




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- ✓ Sustainable Transportation
- ✓ Green Procurement and Development
- ✓ Eco-friendly practices
- ✓ Environmental Awareness

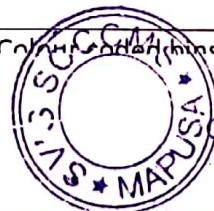



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4. Observations and Recommendations

Control objective	Control(s)	Audit Observation	Recommendations
Maximize the proportion of waste that is recycled & minimize the quantity of non-recyclable refuse	Reduce the absolute amount of waste that it produces from college staff offices.	1. Waste paper is collected separately and sent for recycling 2. Notice mails are sent to various committee members instead of letters 3. Appeal to take assignments online as far as possible	Single side printed papers can be used for unofficial purposes such as notices
	Make full use of all recycling facilities provided by City Municipality and private suppliers, including glass, cans, white, coloured and brown paper, plastic bottles, batteries, print cartridges, cardboard and furniture.	1. 5 Different coloured bins for segregated waste are provided by the Goa Waste Management Corporation placed alongside the road 2. Segregation of waste not practiced within premises and waste is mixed even at the point of final storage	1. Segregation of waste into dry and wet fractions should be practiced within the premises 2. bins provided by GWMC should be put to better use 3. Canteen staff should be made aware of this arrangement
	Compost, or cause to be composted, all organic waste, green waste and un-recycled cardboard produced in or collected from kitchens, gardens, offices and rooms.	1. Canteen waste is segregated but disposed off in the common waste bin. 2. Classrooms are provided with just 1 bin	1. Provide 2 bins for dry and wet segregation in classrooms 2. Consider setting up of a small composting /vermicomposting unit in the premises
	Recycle or safely dispose off E-waste such as computers and electrical appliances.	1. College has a tie up with CPCB authorized PRO Karo Sambhav for collection of e-waste 2. Collection drive undertaken by the college in 2018	-
Provide sufficient	1. Collection drive		 PRINCIPAL



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	well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated	for segregation	
	Make specific arrangements for events, such as cultural Events, internal and external seminars and conferences, where significant recyclable waste is likely to be produced, in order to both minimize the waste produced and maximize what is recycled/reused	<ol style="list-style-type: none"> 1. Potted plants are provided to guests rather than bouquets 2. 20 lit Bisleri cans used instead of water bottles 3. In case of meals, the caterer is asked to bring his own utensils which are then reused by them 4. Arrangements are made for waste by providing 2 bins 	-
	Promote reuse of items and waste recycling among staff, students and conference guests through training, posters and incentives	No awareness posters on segregation and recycling seen within the campus	<ol style="list-style-type: none"> 1. Better awareness on waste management and segregation through posters or sketches in common areas 2. Poster making competition could be conducted on the topic
Reduce energy consumption, especially of energy derived from fossil fuels	Look in to the possibility of on-site generation of renewable energy	Application made to GEDA regarding laying of solar panels on the roof of the new floor	Solar panels should be maximized on south facing, unshaded roof area
	Give preference to the most energy efficient and environmentally sound appliances available, this includes only using energy-saving light bulbs	Phase-out in place for mercury containing lamps such as CFL's and Tubeights	Storage and disposal of these fixtures should be done as per the e-WASTE Rules of 2016 due to their toxic nature
	Encourage staff, students and	Reminder posters in all classrooms to switch off	Class representatives should be held



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	conference guests to save energy through visible reminders, incentives and information to increase awareness.	electronic devices	accountable in case failure to abide by instructions
	Ensure that all electronic and electrical equipment's, such as computers, are switched off when not in use, and is generally configured in power saving mode when such option is available	1. BBA lab has an auto shut down software in case of over 20 minute idling. 2. Other labs have screen off mode after 5 minutes of idling and students are instructed to put off computers after use 3. All office computers/laptops in power saving mode	
Minimize consumption of water	Repair sources of water leakage, such as dripping taps and showers as quickly as possible.	No system in place to repair dripping taps	1. Students council representatives can be given responsibility to report leakages and follow up with repairs 2. Register could be maintained
	Install appliances which reduce water consumption	College is in the process of installing Neoperl Flow Retarders for all their taps with a flow rate of 3 LPM.	
	Encourage a decrease in water usage among staff, students and conference guests	1. Dual flush WC's installed in common rooms 2. No water saving signages or posters seen in common rooms	Stickers increasing awareness on water conservation can be placed/stuck in common rooms
	Conduct testing of potable water to make sure that drinking water standards are adhered to.	No testing of drinking water parameters conducted	Drinking water testing must be carried out by NABL accredited laboratory
	Install Water	A proposal and quote	Ground water



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	recycling mechanism, such as rain water harvesting system	for RWH has been obtained and scrutinized by the management committee for further action	recharge can be explored through bore wells which can not only be used by the college but also increase ground water levels
Biodiversity and Green Areas	Establish a Garden in the campus to improve biodiversity in the campus	College has a garden with a combination of flowering and fruit bearing plants.	1. There is still space available for greening along the compound wall and the existing garden 2. Medicinal plants and those attracting birds and butterflies should be given priority
	Encourage the faculty and students to plant trees in the garden.	Tree plantation drives undertaken by NSS students annually on earth day or environment day	Tree plantation along the adjacent hill can be planned on the onset of the next monsoon
Minimize the use of unsustainable transport	Make available information about bicycle and pedestrian routes, public transport services and car share schemes to staff and students.	No such information available to students	Bus timings for routes surrounding Mapusa should be made available on the notice board, especially during morning hours
	Promote car sharing / car pool among the students and faculty members	1.No fuel day practiced once annually 2. No initiative to promote carpooling	1. A system should be put in place to allow single drivers to offer carpooling along their routes 2. Special parking or other incentives could be provided
Ensure that improvements, purchases and developments	Seek and act upon professional advice in order to minimize the adverse environmental impact of any new developments and exceed government	Indian Green Building Council (IGBC) accredited professional is part of the environmental committee of the College	-




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are environmentally sound	regulatory requirements		
	Purchase efficient and environmentally sound appliances and consider replacing old stock with 'greener', more efficient alternatives.	1.All obsolete lighting fixtures are now being replaced by LED's. 2. AC's are largely 2 or 3 star which could be improved to at least 4 star in the futur	Apart from LED's, 4 or 5 star rated appliances such as AC's, fridges, TV's etc. must be given priority
Minimize the use of chemical pollutants	Ensure that all cleaning products used by college staff have a minimal detrimental impact on the environment, i.e. are biodegradable and non-toxic	Eco-friendly floor swabbing liquid 'homey' is made of natural oils and is also biodegradable	Preference must be given to eco-friendly cleaning agents
	Minimize the use of fertilizers and pesticides in college grounds, opting for the use of compost produced on site wherever possible	No chemical fertilizers or pesticides are used within the campus.	Leaves and twigs collected can be used as a mulch in summers to improve moisture and reduce weeds, apart from being a manure.
	Reduce the practice of burning plastic and other material that emit harmful gas on burning is prevented in the campus.	No burning is undertaken in or around the college campus by maintenance staff	
Ensure that environmental awareness is	Conduct environmental awareness workshops as a part of the program.	Swacchh Bharat paper presentation, ecture on Environmental Impact Assessment, ISO 14001, E-waste Management, population explosion, opportunities in environment science hosted/undertaken by the college	Seminars, debates, essays or paper presentation on current environment affairs such as mining ban, river nationalization, CRZ notification, road widening etc. may be conducted to improve awareness.



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created	Conduct events such as plant trees to spread environmental awareness among the students	Tree plantation drives, clean up drives, paper and cloth bag making and distribution to local vendors, e waste and milk bag collections were organized on various occasions	-
	Promote environmental awareness as a part of course work in various curricular areas, independent research projects, and community service	BCA and B. Com have a course in environmental studies in the 1 st year. B.Com and BBA have courses in environmental ethics and environment management in the second year.	Projects or internships with environmental consultancy firms or government organizations such as the GSPCB or GWMC could be explored
Ensure that the Environmental Policy is enacted, enforced and reviewed	Establish a College Environmental Committee that will hold responsibility for the framing, enactment, enforcement and review of the Environmental Policy.	College does not currently have an environmental committee or an environmental policy	Committee to be formed within a month of commencement of classes of the new academic year
	Ensure that on the Environmental Committee there will be the Green Officer from an external agency who is engaged in the profession of providing guidance on environmental impact	Green Officer has already been appointed for the same	
	Ensure that the Environmental Policy is enforced and clearly visible in common areas of the College	The environmental policy for the college shall be developed within a month of submission of the audit report	The environmental policy once finalized should be placed in all common areas
	Ensure that an audit	Suggestions not	Suggestions to be



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	is conducted annually and action is taken on the basis of audit report, recommendation and findings	requiring investment or college management permission shall be implemented within a month of submission of audit report	implemented within a month
	Require that every staff and student member recognizes their responsibility to ensure that the commitments in the Environmental Policy are properly put into practice	The audit report will be circulated to all departments and the college student committee shall be given a detailed run-through of the same	



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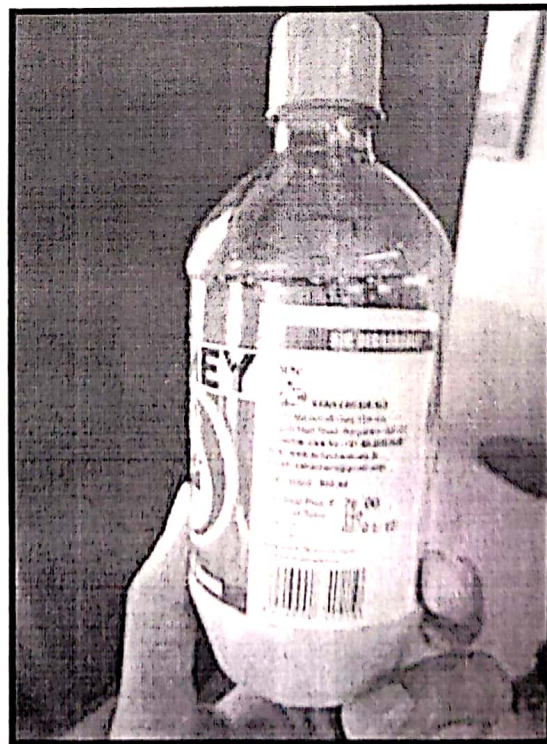
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5. Pictures



Bins for Waste Segregation

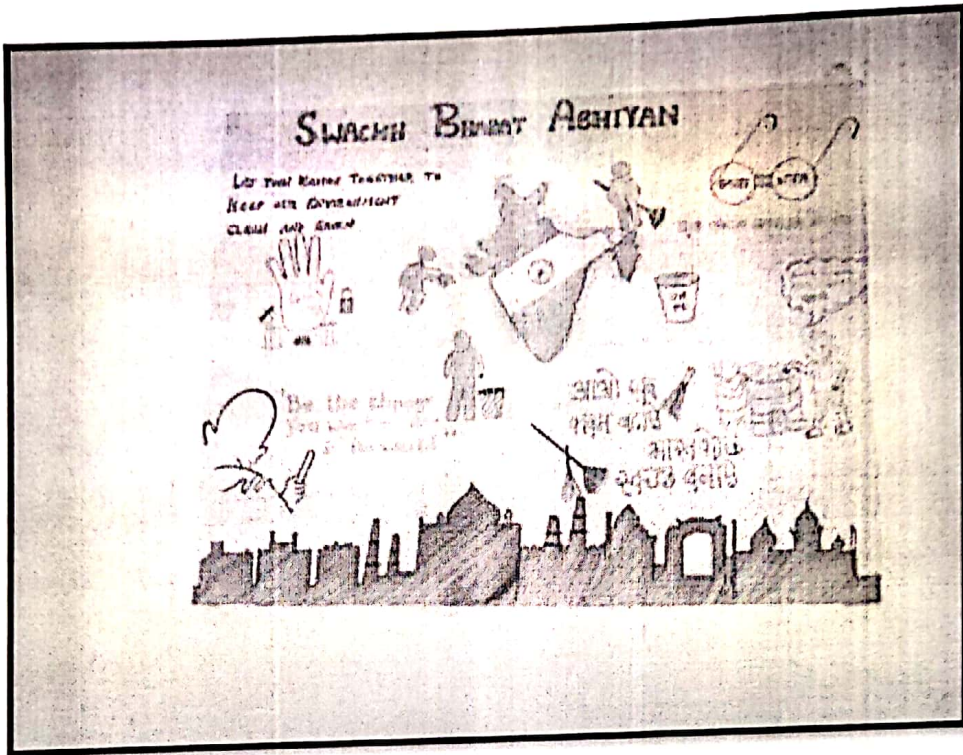


Biodegradable Floor Cleaner

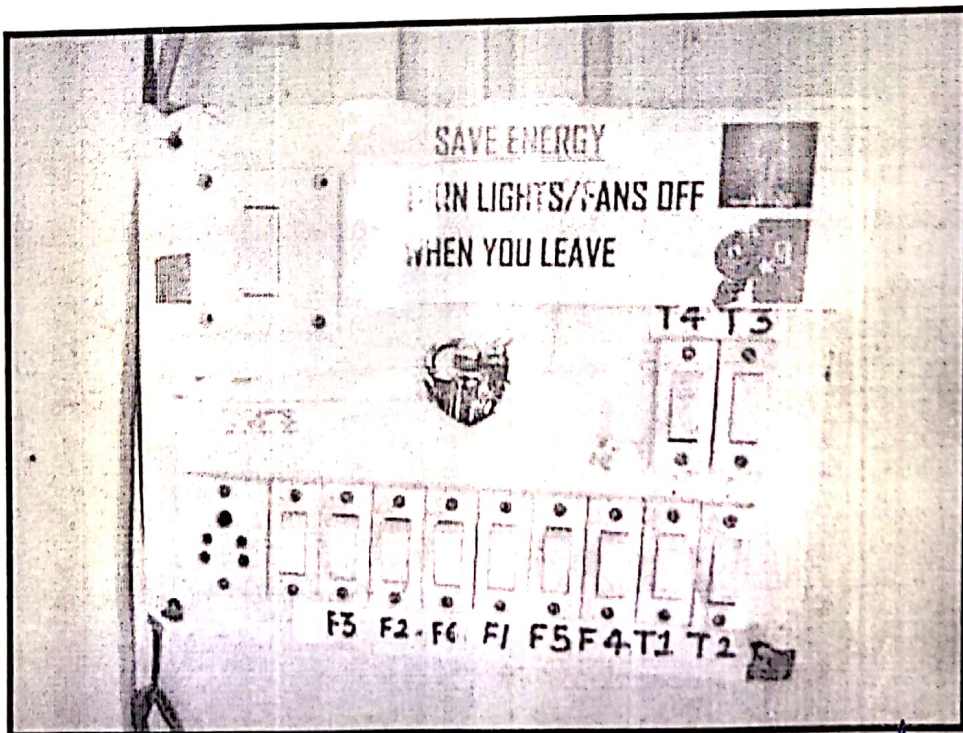



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Awareness Poster On Swacchh Bharat



Energy Saving Instructions



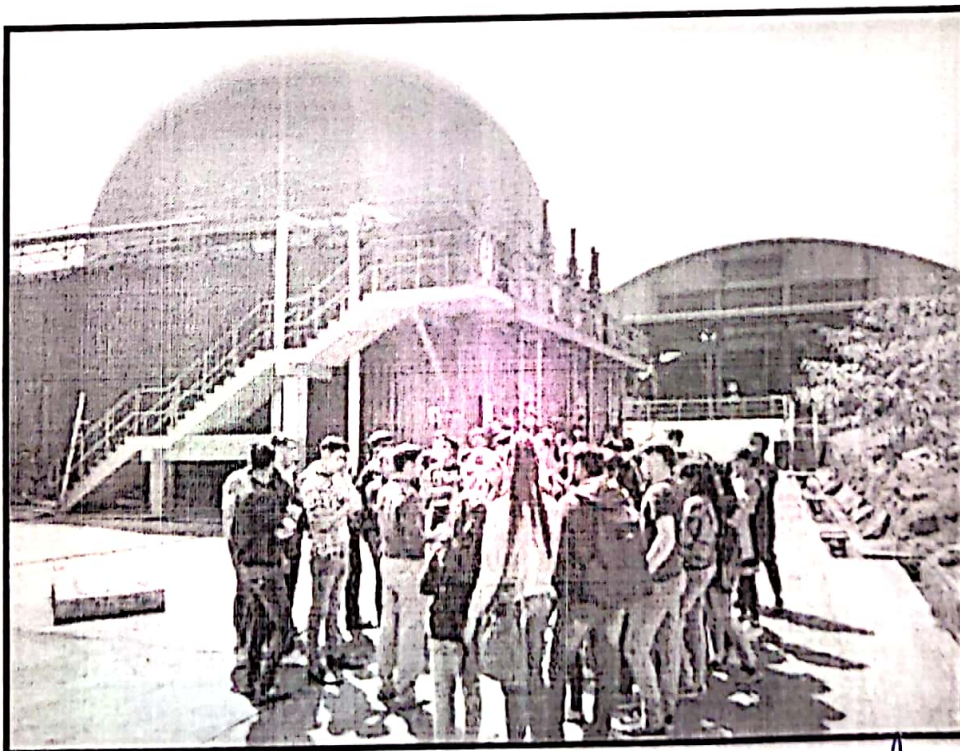
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Visit to ICAR Agro-Ecotourism Unit, Old Goa

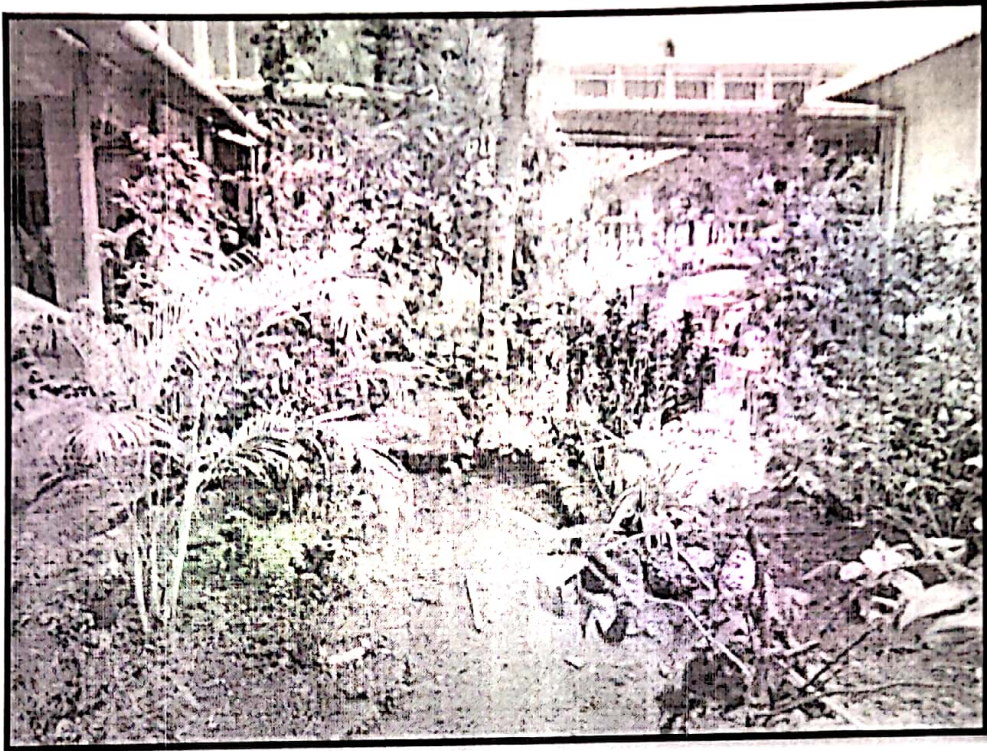


Visit to Hindustan Waste Treatment Facility, Saligao

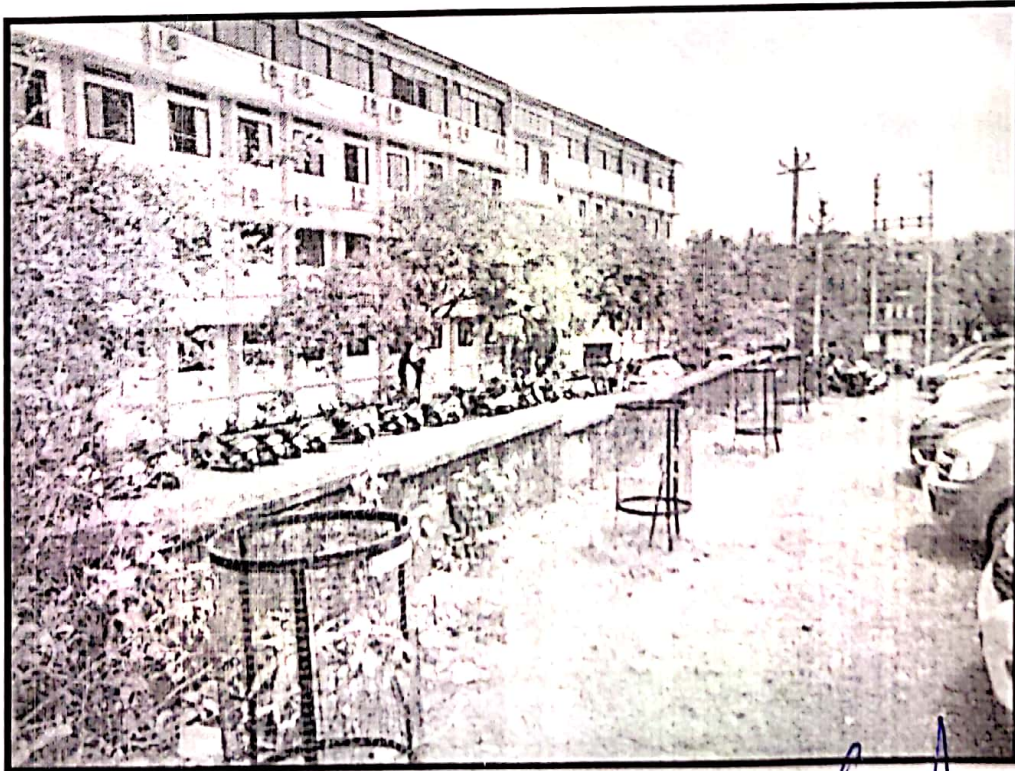



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College Garden Area

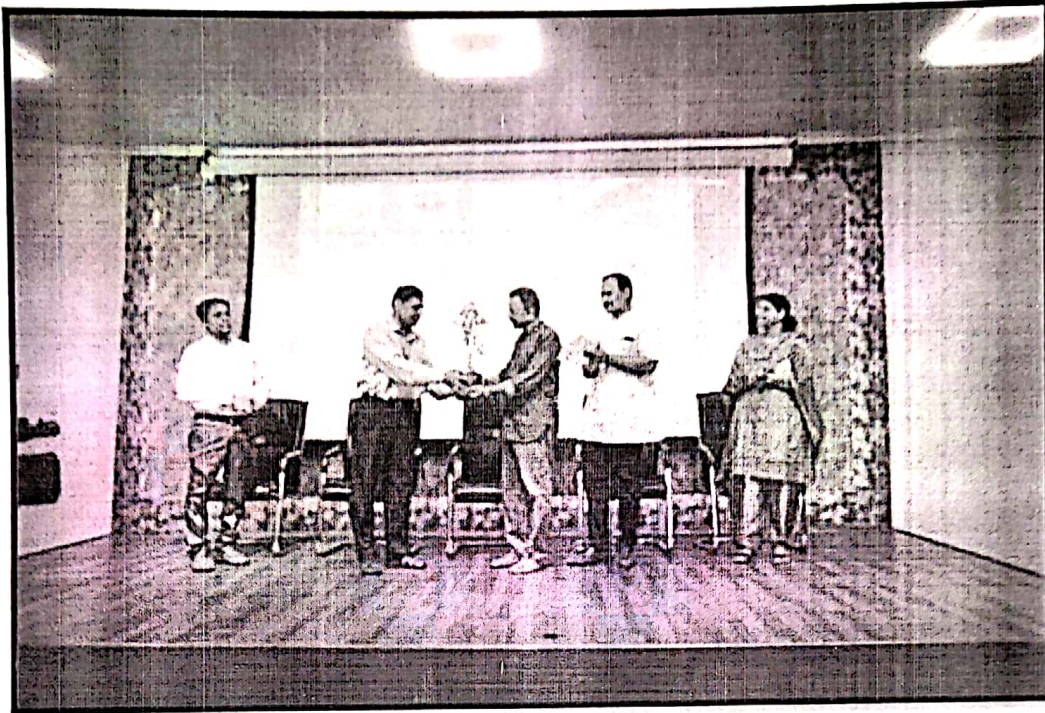


Tree Plantation at the College Parking Lot



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Presentation of Potted Plant at Functions

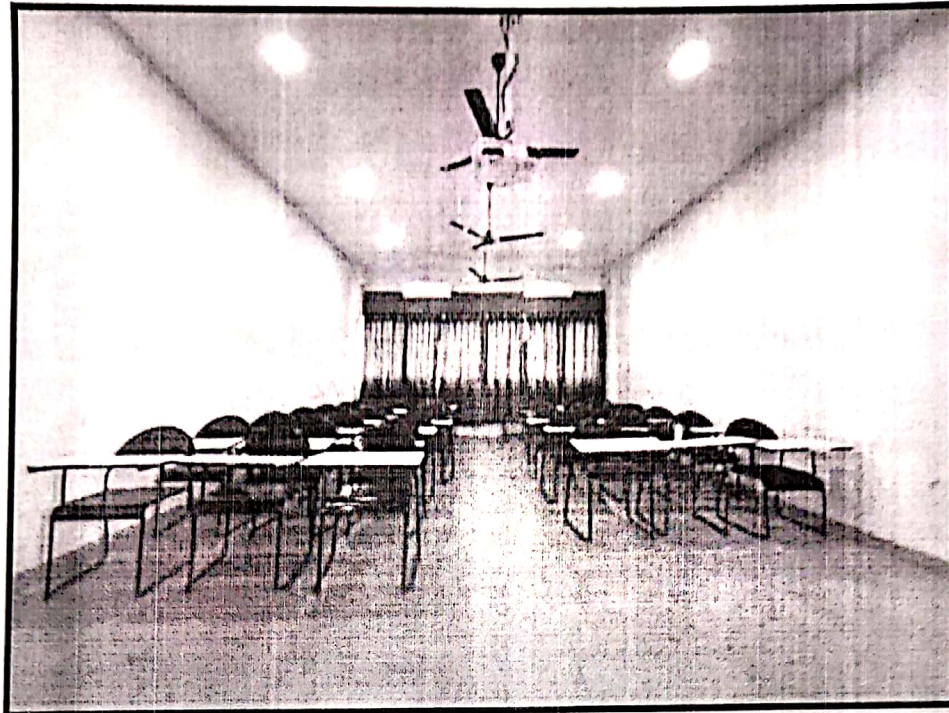


Van Mahotsav Organized by NSS Unit

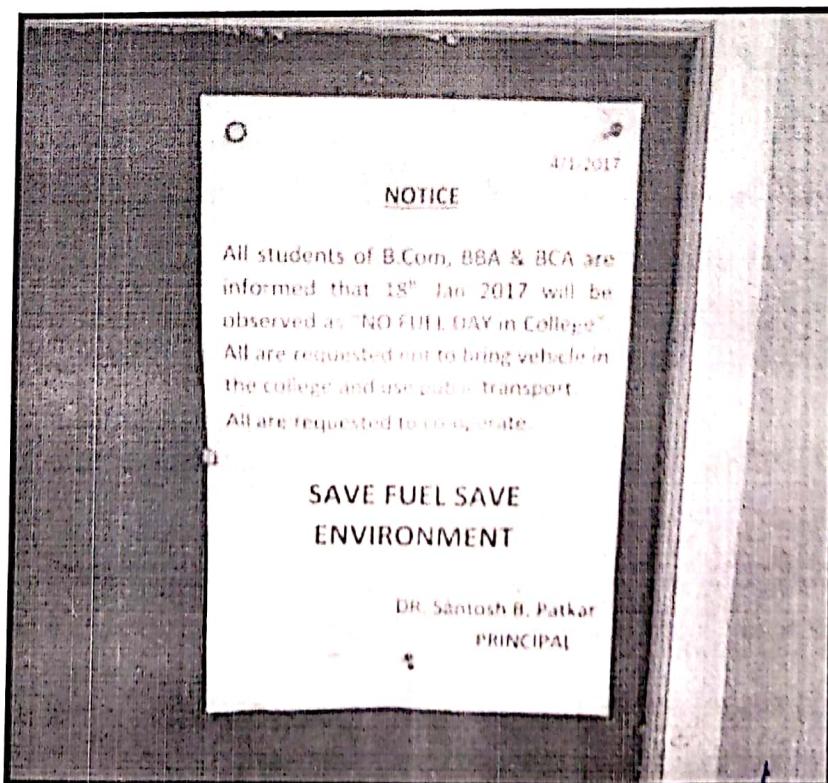


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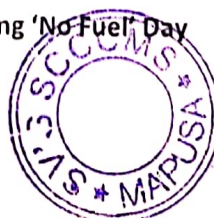
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Classroom with LED Lighting



Notice regarding 'No Fuel' Day




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