



Green &
Environment
Audit with
Certificate



Deccan Education Society's

**Brijlal Jindal College of Physiotherapy,
Pune**

ENVIRONMENT AUDIT REPORT

2022-2023

ENVIRONMENTAL POLICY

DE Society's Brijlal Jindal College of Physiotherapy is very keen to protect environment and any of the activities practiced in the institution are not causing any harm to its stakeholders or to the society in general. Specific action would be taken to prevent that. The primary goal of environmental policy is to protect natural systems. It is, therefore, a core value of the institute to preserve and protect the environment. As we advance, scientific understanding regarding the fundamental interrelationship between human health and the environment, we will proactively demonstrate our commitment to environmental stewardship and sustainable development.

Through implementation of this policy, DE Society's Brijlal Jindal College of Physiotherapy, will serve as a leader by advancing environmental conservation commitment within our own programs and facilities, and in the broader community.

AIMS AND OBJECTIVES

- i. Develop and maintain environmental management programs with objectives and targets to minimize adverse environmental impacts.
- ii. Comply with all applicable environmental, health, and safety laws, regulations, and other requirements.
- iii. Implement effective pollution prevention and waste minimization programs to reduce, reuse, and recycle materials.
- iv. Ensure that energy and water are used responsibly and conserved through innovative practices and procedures.
- v. Provide all institute staff with the knowledge and tools needed to meet the goals of this policy and to actively participate in efforts to prevent negative environmental impacts.

Accordingly, it is resolved that the DE Society's Brijlal Jindal College of Physiotherapy will adopt the following policies:

POLICIES FOR IMPLEMENTATION OF GREEN CAMPUS INITIATIVES:

1. **Creating facilities for the management of the following types of degradable and non-degradable wastes:**

- Solid waste management
- Liquid waste management
- E-waste management
- Waste recycling system
- Hazardous chemicals and radioactive waste management.

2. Providing Water Management and Water conservation facilities like:

- Rain water harvesting
- Bore well /Open well recharge
- Construction of tanks and bunds
- Waste water recycling
- Maintenance of water bodies and distribution system in the campus

3. Implementation of Green Campus Initiatives:

a) Green Initiatives:

- Restricted entry of automobiles
- Use of Bicycles/ Battery powered vehicles
- Pedestrian Friendly pathways
- Ban on use of Plastic
- Landscaping with trees and plants

b) Carbon Management Strategies:

- Implementation of carbon management strategy, including the efficient use of energy.
- Reduction of greenhouse gas emissions in the college campus.
- To ensure the uptake of low carbon technologies in buildings and equipment.

POLICIES FOR ENERGY USAGES

Providing facilities for alternate sources of energy and energy conservation measures like:

- Solar energy
- Biogas plant
- Use of LED bulbs/ power efficient equipment etc.

CONDUCTION OF QUALITY AUDITS ON ENVIRONMENT AND ENERGY

- Green audit
- Energy audit

- Environment audit
- Clean and green campus recognitions/awards
- Beyond the campus environmental promotional activities

AWARENESS AND TRAINING TO STAKEHOLDERS

- To communicate internally and externally, the college's environmental objectives and performance.
- To provide appropriate environmental educational programmers for staff and students and raise their awareness about the college environmental impact, activities, performance and good practices.
- To undertake a regular review of environmental management procedures and activities to ensure suitability, adequacy and effectiveness.

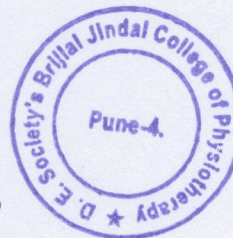
RESPONSIBILITIES:

- The main responsibility for implementation of this policy lies with the Students, Teaching and non-teaching staff and Principal of College.
- The Heads of departments are responsible for ensuring compliance with Environment Policy within their area of control.
- The Green Campus committee of the institution will actively monitor implementation of these policies in order to achieve the aims and objectives of this Policy.



Principal

Dr. Snehal Joshi



Stamp

Date: 13/7/23.

Acknowledgement

Deccan Education Society's Brijlal Jindal College of Physiotherapy has been working at the front line since its beginning by initiating environmental awareness programs, workshops and other conservatory activities to bring about social change for sustainable development.

We are aware the needs of the Environment and Green audit for the potential improvement of the institute. To chase the excellence, DE Society's Brijlal Jindal College of Physiotherapy is committed to get better environment and uphold the clean ecosystem for sustainability of campus.

We are taking first step forward by conducting green audit and documenting our efforts to protect and conserve the environment. This report reflects our endeavor towards protection, conservation and economic use of each possible natural resource in campus not only for current students and residents, but for future perspective as well. By conducting the Green Audit, we had tried to recognize the existing and up- coming environmental issues and also to understand, assess, monitor and resolve its impact. This aids us to understand and implement the superlative mitigation to resolve the issue.

DES Brijlal Jindal College of Physiotherapy Pune, vision to adopt a policy and will work at every possible level to prevent environmental devastation by underneath the Sustainable Development Goals set by UNEP. Consequently, we are taking efforts to incessantly supervise and examine the potential suitability of the educational progression by comprising Green Audit Committee. This team includes expert from relevant faculties functioning in this field to gather preliminary database of the ecological factors in the college campus. This will facilitate to solve all the green conflicts within the college campus itself.

This report is a result of efforts of every member of DE Society's Brijlal Jindal College of Physiotherapy Green and Environment Audit Committee who commenced this green audit to collect data on each parameters of the environment, processed the data to identify the instant and severe intimidation in the campus so that chances can be investigated to bring about unbroken enhancement in our environmental concert. The standard reference material has been considered while data interpretation.

We believe that this effort will be recognized adequately by all the stake holders for tracking a baseline approach in which we positioned to face future challenges. The administrative support of all

committee members and staff of audit team has made it possible to successfully conduct the environment and green audit of the campus. I on behalf of the Green Audit Committee express my heartfelt gratitude to Hon'ble President of DE Society for his guidance and kind support for our team. A special thanks to Dr. Harshada Sonawane, Dr. Shreya Dhake, faculty and non teaching staff for their untiring efforts in compiling the report.

I truly believe that our efforts will manifest sustainable future for DES Brijlal Jindal College of Physiotherapy and I hope that this proposed management plan suggested in the report will be a paradigm environmental protection.

Dr. Snehal Joshi
Principal

Date: 13/07/23

Stamp

Green Audit Committee

Sr. No.	Name	Designation	Committee Designation
1.	Dr. Snehal Joshi	Principal	President
2.	Dr Harshada Sonawane	Associate Professor	Member
3.	Dr Shreya Dhake	Associate Professor	Member

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Introduction

Deccan Education Society's Brijlal Jindal College of Physiotherapy Pune, has established in 2007 and has been engaged in its pursuit of academic excellence of the institute. The campus was established in the erstwhile green Build Up Area (in Sq. ft. :20000 sq ft, urban setting in Fergusson College Campus (18.52N□, 73.83S□), at Pune city. It is Non-autonomous and affiliated to MUHS (Maharashtra University of health sciences,Nashik). DES Brijlal Jindal College of Physiotherapy Pune has developed considerably and efforts were taken to strengthen the infrastructural facilities in the academic field vis-à-vis the overall development of the Campus.

More than 197 students are enrolled in the campus during the academic year. The College also supported cutting edge research experiences in the field of physiotherapy disciplines. The College has 6 class rooms with laboratories, OPD, seminar room, conference room, 24-hours internet connectivity, computer centre, library, playgrounds, health centre, bank, Cafeteria, post office, food court, hostels, guest house etc. The teaching faculties are dynamic, caring and friendly. Academic & curricular sessions are regularly complemented with sports and other socio-cultural activities like film screening, musical performances, art festivals, debates, intra-college fetes, sports tournaments, walkathons etc.

DES Brijlal Jindal College of Physiotherapy Pune offers a lively campus life and one of the safest and most protected academic environments in the Pune city. The Campus has a vast scenic landscape Play ground/Sports/games Area (in Sq. ft.): 1125.78 with Gymnasium offering a serene and tranquil backdrop. The groves of trees, fragrance of flora, calls of flocks of birds, swarm of butterflies, reptiles etc. ease away the grind of academics, thereby soothing and rejuvenating a student's mind.

Deccan Education Society's
Brijlal Jindal College of Physiotherapy
Pune
(Environment Audit Report 2022-2023)

Auditing for Water Management

Water is a natural resource; all living organisms depend on water. While freely available in many natural environments, in human settlements potable (drinkable) water is less readily available. Groundwater depletion and water contamination are taking place at an alarming rate. Hence it is essential to examine the quality and usage of water in the college. Water auditing is conducted for the evaluation of facilities of raw water intake and determining the facilities for water treatment and reuse. The concerned auditor investigates the relevant method that can be adopted and implemented to balance the demand and supply of water.

Auditing for Energy Management

Energy conservation is an important aspect of campus sustainability which is also linked with carbon foot print of the campus. Energy auditing deals with the conservation and methods to reduce its consumption related to environmental degradation. It is therefore essential that any environmentally responsible institution examine its energy use practices.

Auditing for Waste Management

Human activities create waste, and it is the way these wastes are handled, stored, collected and disposed of, which can pose risks to the environment and to public health. Pollution from waste is aesthetically unpleasing and results in large amounts of litter in our communities which can cause health problems. Solid waste can be divided into three categories: bio-degradable, non-biodegradable and hazardous waste. Bio-degradable wastes include food wastes, canteen waste, wastes from toilets etc. Non-biodegradable wastes include what is usually thrown away in homes and schools such as plastic, tins and glass bottles etc. Hazardous waste is waste that is likely to be a threat to health or the environment like cleaning chemicals, acids and petrol. Unscientific management of these wastes such as dumping in pits or burning them may cause harmful discharge of contaminants into soil and water supplies, and produce greenhouse gases contributing to global climate change respectively. Special attention should be given to the handling and management of hazardous waste generated in the college. Bio-degradable waste can be effectively utilized for energy generation purposes through anaerobic digestion or can be converted to fertilizer by composting technology. Non-biodegradable waste can be utilized through recycling and reuse. Thus the minimization of solid waste is essential to a sustainable college. The auditor diagnoses the prevailing waste disposal policies and suggests the best way to combat the problems.

Auditing for Green Campus Management

Trees play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. The amount of oxygen released by the trees of the campus is good for the people in the campus. So while you are busy studying and working on earning those good grades, all the trees in campus are also working hard to make the air cleaner for you.

Auditing for Carbon Footprint

Burning of fossil fuels (such as petrol) has an impact on the environment through the emission of greenhouse gases into the atmosphere. The most common greenhouse gases are carbon dioxide, water vapor, methane, nitrous oxide and ozone. Of all the greenhouse gases, carbon dioxide is the most prominent greenhouse gas, comprising 402 ppm of the Earth's atmosphere. The release of carbon dioxide gas into the Earth's atmosphere through human activities is commonly known as carbon emissions. Vehicular emission is the main source of carbon emission in the campus, hence to assess the method of transportation that is practiced in the college is important.

Methodology Adopted

The methodology adopted to conduct the Environment Audit of DES Brijlal Jindal College of Physiotherapy will have the following components:

1. Enquiries were conducted amongst different stakeholders to know about the various components in connection with water use, energy consumption and waste disposal, etc.
2. The water quality analysis was done using standard protocols.
3. GIS tools were used to prepare the map of the campus for LULC survey.
4. Different standard protocols were followed to document and estimate the floral and faunal account.

1. Onsite Visit

Four day field visit was conducted by the Environment Audit Team. The key focus of the visit was on assessing the status of the green cover of the Institution, their waste management practices and energy conservation strategies etc. The sample collection (water, soil) was carried out during the visits. The water samples from two open wells and two tap water sources were taken and soil samples from three different places of the campus was collected. The sample collection, preservation, and analysis were done in the scientific manner as prescribed by the standard procedures.

2. Focus Group Discussion

The Focus Group discussions were held with the nature club, bird staff members and the management focusing various aspects of Environment audit. The discussion was focused on identifying the attitudes and awareness towards environmental issues at the institutional and local level.

Audit Stage

DES Brijlal Jindal College of Physiotherapy College Pune has started its Environment audit by assessing the green cover followed by looking into all the aspects which have been a part of the Environment audit viz. recording the land use and land cover (LULC), water availability and usage, waste generate and their management practices, recording of the environmental parameters, energy

consumption and conservation strategies, etc. The members of the audit team recorded the different facilities at the campus, determined different types of appliances and utilities (Water cooler, taps, toilets, lights, fan etc.) as well as measured the usage per item (Watts indicated on the appliance or measuring water from a tap) and identified the relevant consumption patterns (such as how often an appliance is being used) and their impacts. The staffs, students and other stakeholders were interviewed through structured questionnaires to get details of usage, frequency or general characteristics of different appliances. Data collection was done by onsite visit and also through questionnaires in different sectors such as water, energy, waste, biodiversity status. The ambient quality of the campus was recorded to monitor the environmental status within the College campus using standard protocols. The data obtained were collated and analyzed to prepare this audit report of DES Brijlal Jindal College of Physiotherapy Pune.

Post Audit Stage

Land use and Land cover

The topography of DES Brijlal Jindal College of Physiotherapy Pune campus is surging with a lush green flora towards the centre. The land is nourished and has water almost throughout the year. The whole campus is intermingled with scattered trees at few places thus, making it a picturesque landscape suitable for a wide spectrum of flora and fauna. The Academic Departments and hostels have come up over the area with balanced terrain landscape.

The present study revealed that the DES Brijlal Jindal College of Physiotherapy, campus has a total of 22400.00 Sq. Ft of built up land as a part Total 54 Acre area of the Play ground/Sports/games Area (Fig 1). The DES Brijlal Jindal College of Physiotherapy campus occupy an area of organized plantations in the campus are mainly along the OPD, internal roads, around hostel, and in the Botanical garden and Forest Park (Fig 2).



Fig 1: The Map of DES Brijlal Jindal College of Physiotherapy Pune

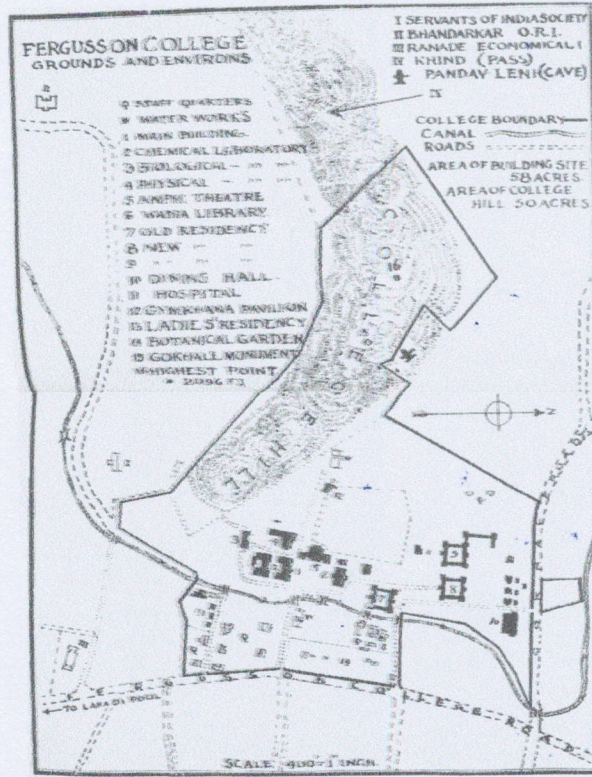


Fig 2: The Map of Fergusson College of campus, Pune

Table 1: LULC pattern of DES Brijlal Jindal College of Physiotherapy

Sr. No.	Land Use Category
1.	Botanical Garden
2.	Play ground
3.	Road
4.	Foot Path
5.	Pump Station
6.	Protection Wall
7.	Drain
8.	Retaining Wall
9.	Culvert
10	Overhead Tank
11	Car Parking
13	Building
14	Transformer
15	Generator
16	Security House
17	Water Pump
18	Toilet
19	Garden
20	OPD

It is found that a total of about 22,400 Sq. Ft (college and OPD) area under the built-up category, of hostels, academic departments and administrative units form a significant part.

1. Water audit

Water is an important natural resource and is available naturally depending on the climate and topographic features. All organisms are dependent on water for their living. Although water is available in nature, portable water is not available freely for human consumption. There have been many practices to conserve water so that it can be readily available for human use. It has been noticed that due to unsustainable use of water resources there is contamination and depletion of the ground water and also water which is available in various reservoirs like lakes, ponds, streams etc which is becoming more alarming.

Therefore it becomes increasingly important to conserve protect and manage the water resources availability and usage so that it is sustainably used within the College campus. Water auditing is conducted to evaluate the quality, availability and usage of water; the facilities available and methods adopted to revitalize and use it so that the resources are intact without leading to deterioration.

Uses and management

Table 2: Source and uses of water in the DES Brijlal Jindal College of Physiotherapy campus

Source of water		
Sl. No	Parameters	Information
1	No of Wells	1
2	No of the motors used	1
3	Horsepower- motor	7.5 HP
4	Depth of well- Total	8 ft
5	Capacity of Tank(Total)	50000 L
water used in different sections of the Campus		
6	Sections	
7	Hostel	
8	Resident quarter	
9	Administrative block	
10	OPD	
11	Canteen	
12	Urinals and Toilets	

13	Departments	
14	Gardens	
15	Laboratories	
16	Drinking	
17	Leakage	
18	Main purposes of water use in the campus	Drinking and cooking purpose, Toilets and wash areas, Laboratory, Gardening
19	Nos. of water tap	50
20	Water cooler and drinking water filtration facility	1
21	Nos. of urinal and toilets	20
22	Nos. of waterless /bio-toilets	Nil
23	Any water wastage/why?	No
24	Water usage for gardening	1000 apx ltr
25	Wastewater sources	Very frequent leakage from pipes and tanks, Overflowing of tanks from toilets, laboratories, hostels
26	Use of wastewater	Nil
27	The fate of wastewater from labs	Nil
28	Any wastewater treatment for lab water	No
29	Whether any green chemistry method practiced in Labs	No
30	Rainwater harvesting	Implemented

Observations

1. Water distribution system for different practices such as drinking and domestic use, have been efficiently installed. No leakage in the distribution system has been observed.
2. Bore well, dug well, storage tanks are maintained at hygienic condition, as no solid waste dumping is observed in open spaces.
3. All the drinking water units, taps and coolers are clean and well maintained, no leakage was recorded.
4. Water usage from dug wells and bore wells is monitored properly though there is no water meter installed.
5. DES Brijlal Jindal College of Physiotherapy does not have a reusable water treatment facility for wastewater generated from academic buildings, OPD, Administrative buildings, library, hostels, laboratories, canteen, etc.

Suggestions and Recommendations

1. Water Meter should be installed at institute for monitoring of water consumption for landscape.
2. Automated taps could be used so that usage of water can be reduced.
3. A water conservation drives should be initiated by involving all the stake holders.
4. Ground water soak pit could be constructed to facilitate ground water recharge.

2. Waste disposal audit

Pollution from waste is aesthetically unpleasing and results in large amounts of litter in our communities which can cause health problems. Human activities create waste, and it is the way these wastes are handled, stored, collected and disposed of, which can pose risks to the environment and public health.

Solid waste can be categorized into three types: biodegradable, non-biodegradable and hazardous waste. Bio-degradable wastes include food wastes, canteen waste, wastes from toilets etc. Non-biodegradable wastes include what is usually thrown away in homes and schools such as plastic, tins and glass bottles etc. Hazardous waste is waste that is likely to be a threat to health or the environment like cleaning chemicals, acids and petrol.

Unscientific management of these wastes such as dumping in pits or burning them may cause the harmful discharge of contaminants into soil and water supplies, and produce greenhouse gases contributing to global climate change respectively. Special attention should be given to the handling and management of hazardous waste generated in the campus.

Bio-degradable waste can be effectively utilized for energy generation purposes through anaerobic digestion or can be converted to fertilizer by composting technology. Non-biodegradable waste can be utilized through recycling and reuse. Thus the minimization of solid waste is essential to a sustainable College. The auditor diagnoses the prevailing waste disposal policies and suggests the best way to combat the problems.

Status of Solid Waste Generation in the campus

Each and every department of DES Brijlal Jindal College of Physiotherapy as well as administrative offices creates some waste and dumped in small waste bins located in the department. Each building several dust bins are placed from where housekeeping staffs take the wastes. From the small bin wastes are dumped in big bin by the housekeeping staffs regularly. From the big waste bins the vehicle from local governmental bodies took the solid wastes. As

tabulated below, on an average, the hostels and teacher flats/quarters account for the highest amount of solid waste generated on the campus. On average, various stakeholders generate approximate 5 – 10 kg of different types of solid waste per week.

Table 3 : Area Occupied by stake holder

Area	Number
Garden Area	02
Garbage Dump Area	01
Play Ground Area	01
Laboratory	2
Toilets	9
Parking Area	1
Class Room	6
Office Rooms	03
Canteen	01
OPD	01



Table 4: Percentage of waste generated in DES Brijlal Jindal College of Physiotherapy Pune

Sl. No.	Stakeholders	Types of solid waste	% of waste
1	ACADEMIC DEPARTMENT	Paper waste	9.22
2		Plastic waste	2.76
3		Organic Waste	8.06
4		E-waste	0.23
5	ADMINISTRATIVE OFFICE	Paper waste	4.61
6		Plastic waste	1.15
7		Organic Waste	2.30
8		E-waste	0.23
9	HOSTELS/GUESTHOUSE	Paper waste	13.82
10		Plastic waste	6.91
11		Organic Waste	46.08
12		E-waste	0.23
13	CANTEENS	Paper waste	0.69
14		Plastic waste	0.23
15		Organic Waste	3.46
16		E-waste	0
TOTAL			100



Fig 3. Waste generation in DES Brijlal Jindal College of Physiotherapy Pune (2022-2023)

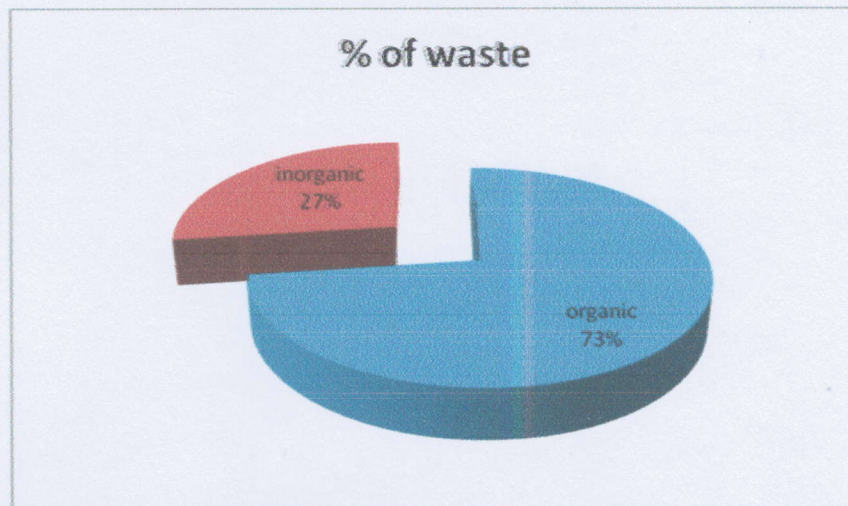


Fig 4. Types of waste generated in DES Brijlal Jindal College of Physiotherapy Pune (2022-2023)

There is a waste treatment system operating in the college. Bio degradable waste material is collected in containers of approximate size 3mts by 3mts. It is generally decomposed with the help of microbes and decomposed waste material is reused as a bio fertilizer.

Recommendations for Organic waste utilization:

Vermicomposting is the technology where with the use of locally available appropriate species of composting earthworms, huge amount of plant biomass produced in the campus can be reduced into available plant nutrient rich organic manure within a short time span.

Following collection of wastes from in and around the College Campus, the waste resources can be dumped near the Vermicomposting unit. The organic wastes to be processed by earthworms can be chemically analyzed to know their nutrient values. All the different types of wastes are mixed thoroughly and can be precomposted for 2-3 weeks. After precomposting, substrates can load in the cemented Vermicomposting tanks. Locally available earthworms are recommended to introduce in the composting tanks.

Following inoculation, the earthworms through their feeding, burrowing and casting activities convert the organic wastes into manure called Vermicomposting within 45 days.

Liquid waste management:

Liquid waste is generated from Laboratories, Hostels and canteen. Liquid wastes generated by the College are of two types:

1. Sewage waste
2. Canteen effluent.

College does not have any sewage treatment plant yet.

Biomedical waste management:

In DES Brijlal Jindal College of Physiotherapy has only few amount of Biomedical waste is generated their research purpose from where some. Rest of the biomedical waste generated in dispensary is segregated and transported separately by local authorities.

E-waste management

DES Brijlal Jindal College of Physiotherapy has very efficient mechanism to dispose E wastes generated from various sources. E-wastes are generated from computer laboratories, electronic labs, Academic and Administrative Offices.

The e-waste includes out of order equipments or obsolete items like lab instruments, circuits, desktops, laptops and accessories, printer, charging and network cables, Wi-Fi devices, cartridges, sound systems, display units, UPS, Biometric Machine, scientific instruments etc. All these wastes are put to optimal use. All such equipment's which cannot be reused or recycled is being disposed off through authorized vendors. Instead of a new procurement Buy- Back option is preferred for technology up gradation.

Hazardous Waste

In India, the Ministry of Environment, Forest and Climate Change, Government of India; is the agency to promulgate the Hazardous Waste (Management and Handling) Rules, 1989, under the provision of the Environment Protection Act, 1986. These rules were amended and new rules entitled "Hazardous waste (Management, Handling, and Trans-boundary Movement) Rules, 2008" were promulgated, which was further amended in the years 2009 & 2020 for proper management and handling of hazardous waste in the country (CPCB, 2010-2011). These regulations sometimes require detailed knowledge of the constituents and properties of waste streams so they can be managed properly.

DES Brijlal Jindal College of Physiotherapy College, like other entities that generate and manage hazardous wastes, is faced with a range of problems. The following features create hazardous waste management problems unique to the College:

1. Most departments do not generate large quantities of hazardous waste and can be classified as conditionally exempt small quantity generators (generators of less than 50 grams of hazardous waste per month)
2. Stakeholders are not adequately aware of the regulations that may apply to them, or they may have chosen to ignore the regulations, believing they do not have to comply.

During the study it was noticed among the faculty members of DES Brijlal Jindal College of Physiotherapy Pune by the Environment audit Committee, that majority of the stakeholders (> 90%) were confident about their understanding of hazardous waste and their obligation in disposing of materials.

Ideally, Handling, collection, and transportation and proper handling of chemicals begin with understanding the potential hazards related to their use. All stakeholders, especially from Academic Departments and laboratories should be responsible for disseminating information on hazardous materials being used in the facility. The dissemination of information can involve discussions on reactivity and possible health effects.

Observations

1. A Vermicomposting practice can be effectively extended and used to generate bio-fertilizer.
2. Waste collection and segregation is done as per the concerned rule.
3. Liquid waste handling needs more attention therefore STP plan can be proposed in future for waste water management in the campus.
4. E waste management has verified as per E waste management and handling rule.
5. College has adopted online and virtual learning practices leads to reduce overall paper usage.
6. Use of recycled paper is prevailing for most of the purpose.

Suggestions and Recommendation

1. The DES Brijlal Jindal College of Physiotherapy campus is to be declared as a plastic-free campus.
2. The practice of using biodegradable materials should be encouraged as alternatives.
3. A small incinerator can be installed in the campus.
4. Internal inspection system should be developed for various aspects of environment available in campus

3. Energy audit

According to Energy Conservation Act, 2001, Energy Audit is the verification, monitoring, and analysis of the use of energy including submission of a technical report containing recommendations for improving energy efficiency with cost-benefit analysis and an action plan to reduce energy consumption.

The Energy and electricity audit aimed to cover the aggregate consumption of Electrical and Natural gas energy within the DES Brijlal Jindal College of Physiotherapy Pune campus including academic and administrative blocks. Electric stove, kettle, microwave, LPG, Petrol, diesel are commonly used energy resources. LPG cylinders are primarily used for cooking purposes and the number of uses was also counted. Domestic LPG connections were not included in the present study. Within the campus, no other fossil fuel like coal-fire or firewood, etc based energy is used. 58 fans and 104 LED Tubes are in use (20 watts each). Total energy consumption per year is 10400 kWh.

All the buildings of the College are designed and constructed in such a way that during day time no electricity is consumed for lighting of tube lights and other electric lights. Proper day light and ventilation facilities are available for every building.

Moreover, DES Brijlal Jindal College of Physiotherapy Pune will be taking its initiative to utilize renewable energy has installed roof top solar panels in buildings to compensate for the necessity of electrical energy within the campus, which will result in tremendous curtailment in the electricity consumption. DES Brijlal Jindal College of Physiotherapy has spend a substantial amount Rs. 171109/- for the period of almost year. In addition to that, all the High Pressure Sodium Vapour lamps (HP-SV) and High Pressure Metal Halide (HP-MH) street lights have been replaced by the energy efficient LED street lights are installed to reduce the consumption of the electricity under the green initiatives schemes.

Observations

1. Lighting in the rooms and the premises are predominately LEDs and energy saving bulbs.
2. Separate Electricity meters were not found in the Academic, and Administrative blocks.
3. Building architecture and plan facilitates bright sunlight and ventilation in classrooms, laboratories and administrative buildings which reduces ultimate the requirement of electricity.

Suggestions and Recommendations

1. The public lights within the campus may be run with solar panels and the replacement of existing lights should be done with LED lamps.
2. Consider adopting and implementing a sustainable procurement policy which takes into account the whole life cycle of a product, and make sure environmental issues are written into tenders when contracting out.

Summery

Environment audit 2022-2023 aimed to protect the environment by spreading awareness to save energy, water, reducing use of disposable plastics, promoting reusable materials, planting saplings, etc. With believe that better world is not only within reach, but is being built today. Audit team has observed and documented green initiatives taken by DES Brijlal Jindal College of Physiotherapy Pune. All the stake holders in the campus conducted environment friendly events which are not only intellectual, but also interactive and fun to attend. These include workshops, tree plantation drives, rallies, and online awareness campaigns, competitions such as Slam Poetry, Poster Making- online and offline and so on. The College has also taken pride in being eco-friendly in every little way possible, starting from our paper free, online awareness lectures of environmental expertise for students and staff. DES Brijlal Jindal College of Physiotherapy Pune currently has over 300 students under its wing.

College focuses on utilizing the power of social media platforms for spreading awareness regarding environment conservation and protection. It has an active social media account on which all the events of the society and environment related posts are uploaded time to time. Approximately thousands of people are creating awareness amongst a larger community in society.

DES Brijlal Jindal College of Physiotherapy does not have a reusable water treatment facility for wastewater generated from Academic buildings, Administrative buildings, library, hostels, laboratories, canteen, etc. and thus require attention. The stake holders are suggested to use the re-use grey water which is obtained from the various domestic activities for gardening. Also water recycling is done as per the direction of the competent authority in broader scale as and when required. DES Brijlal Jindal College of Physiotherapy College is blessed with a natural large water body measuring inside its premises. Naturally, the roof top area serves the main purpose of rain water harvesting. Rainwater harvesting systems could be improved so that there is a facility available in every building for reusing of water.

The waste collection and disposal were reviewed and the best way to combat the problems was suggested. While the centralized system of solid-waste management involves timely and periodic

lifting of the disposed of wastes by the local authority, it is laudable that proper waste management including composting initiatives has been adopted. The organic wastes filled in the pits are subjected to composting which forms a best practice in the campus.

During the audit it was noticed among the faculty members of DES Brijlal Jindal College of Physiotherapy by the Environment audit Committee, that majority of the stakeholders (> 90%) were confident about their understanding of waste and their obligation in disposing of materials. It is evident that hazardous waste which though is generated in very small quantity requires transportation off the College property, to an approved treatment facility. College does not have any sewage treatment plant yet. DES Brijlal Jindal College of Physiotherapy has very efficient mechanism to dispose E wastes generated from various sources. All these wastes are put to optimal use. All such equipment's which cannot be reused or recycled is being disposed off through authorized vendors. Instead of a new procurement Buy-Back option is preferred for technology up gradation.

Environmental audit report 2022-2023 addresses a wide range of items for environmental management, providing practical tools for organizations and companies looking to identify and control their environmental impact and future sustainability.

Annexure

Photographs



Bore well and rain water harvesting system

bore well



Canteen; Biogas plant

Litter collection



GRFR+625, Shivajinagar, Pune, Maharashtra 411004, India

Latitude 18.5228249° Longitude 73.8402522°

Local 03:46:43 PM Altitude 0 meters
GMT 10:16:43 AM Friday, 03-12-2021



119/B, Shivaji Nagar, Shivajinagar, Pune, Maharashtra 411005, India

Latitude 18.5242726° Longitude 73.8413191°

Local 03:51:11 PM Altitude 494.7 meters
GMT 10:21:11 AM Friday, 03-12-2021

Water bodies 1

Water bodies 2



Millenium Tower Shop No. 6 Bhandarkar Road Besides Cosmos Bank ATM, Deccan Gymkhana, Pune, Maharashtra 411004, India

Latitude 18.5181199° Longitude 73.8379488°

Local 03:45:29 PM Altitude 495.4 meters
GMT 10:15:29 AM Friday, 03-12-2021



DES NAVALMAL FIRODIA LAW COLLEGE, DES BRIJLAL JINDAL COLLEGE OF PHYSIOTHERAPY, शिवाजी नगर, पुणे, महाराष्ट्र 411004, India

Latitude 18.525395° Longitude 73.8396687°

Local 03:34:27 PM Altitude 498.3 meters
GMT 10:04:27 AM Friday, 03-12-2021

Water bodies 3

Water bodies 4

REFERENCE

1. The Environment [Protection] Act – 1986 (Amended 1991) & Rules-1986 (Amended 2010)
2. The Petroleum Act: 1934 – The Petroleum Rules: 2002
3. The Central Motor Vehicle Act: 1988 (Amended 2011) and The Central Motor Vehicle
4. Rules:1989 (Amended in 2005)
5. Energy Conservation Act 2010.
6. The Water [Prevention & Control Of Pollution] Act – 1974 (Amended 1988) & the Water
7. (Prevention & Control of Pollution) Rules – 1975
8. The Air [Prevention & Control Of Pollution] Act – 1981 (Amended 1987) The Air
9. (Prevention & Control of Pollution) Rules – 1982
10. The Gas Cylinders Rules – 2016 (Replaces the Gas Cylinder Rules – 1981
11. E-waste management rules 2016
12. Electrical Act 2003 (Amended 2001) / Rules 1956 (Amended 2006)
13. The Hazardous Waste (Management and Handling and Trans-boundary Movement) Rules,
14. 2008 (Amended 2016)
15. The Noise Pollution Regulation & Control rules, 2000 (Amended 2010)
16. The Batteries (Management and Handling) rules, 2001 (Amended 2010)
17. Environment (Protection) 115 Amendment Rules, 2021
18. Environment (Protection) Third Amendment Rules, 2021
19. Relevant Indian Standard Code practices
20. Internal Records of the Campus



Deccan Education Society's

**Brijlal Jindal College of Physiotherapy,
Pune**

GREEN AUDIT REPORT

2022-2023

ENVIRONMENTAL POLICY

DE Society's Brijlal Jindal College of Physiotherapy is very keen to protect environment and any of the activities practiced in the institution are not causing any harm to its stakeholders or to the society in general. Specific action would be taken to prevent that. The primary goal of environmental policy is to protect natural systems. It is, therefore, a core value of the institute to preserve and protect the environment. As we advance, scientific understanding regarding the fundamental interrelationship between human health and the environment, we will proactively demonstrate our commitment to environmental stewardship and sustainable development.

Through implementation of this policy, DE Society's Brijlal Jindal College of Physiotherapy, will serve as a leader by advancing environmental conservation commitment within our own programs and facilities, and in the broader community.

AIMS AND OBJECTIVES

- i. Develop and maintain environmental management programs with objectives and targets to minimize adverse environmental impacts.
- ii. Comply with all applicable environmental, health, and safety laws, regulations, and other requirements.
- iii. Implement effective pollution prevention and waste minimization programs to reduce, reuse, and recycle materials.
- iv. Ensure that energy and water are used responsibly and conserved through innovative practices and procedures.
- v. Provide all institute staff with the knowledge and tools needed to meet the goals of this policy and to actively participate in efforts to prevent negative environmental impacts.

Accordingly, it is resolved that the DE Society's Brijlal Jindal College of Physiotherapy will adopt the

ENVIPRA consultants

following policies:

POLICIES FOR IMPLEMENTATION OF GREEN CAMPUS INITIATIVES:

1. Creating facilities for the management of the following types of degradable and non-degradable wastes:

- Solid waste management
- Liquid waste management
- E-waste management
- Waste recycling system
- Hazardous chemicals and radioactive waste management.

2. Providing Water Management and Water conservation facilities like:

- Rain water harvesting
- Bore well /Open well recharge
- Construction of tanks and bunds
- Waste water recycling
- Maintenance of water bodies and distribution system in the campus

3. Implementation of Green Campus Initiatives:

a) Green Initiatives:

- Restricted entry of automobiles
- Use of Bicycles/ Battery powered vehicles
- Pedestrian Friendly pathways
- Ban on use of Plastic
- Landscaping with trees and plants

b) Carbon Management Strategies:

- Implementation of carbon management strategy, including the efficient use of energy.
- Reduction of greenhouse gas emissions in the college campus.
- To ensure the uptake of low carbon technologies in buildings and equipment.

Providing facilities for alternate sources of energy and energy conservation measures like:

- Solar energy
- Biogas plant
- Use of LED bulbs/ power efficient equipment etc.

CONDUCTION OF QUALITY AUDITS ON ENVIRONMENT AND ENERGY

- Green audit
- Energy audit
- Environment audit
- Clean and green campus recognitions/awards
- Beyond the campus environmental promotional activities

AWARENESS AND TRAINING TO STAKEHOLDERS

- To communicate internally and externally, the college's environmental objectives and performance.
- To provide appropriate environmental educational programmes for staff and students and raise their awareness about the college environmental impact, activities, performance and good practices.
- To undertake a regular review of environmental management procedures and activities to ensure suitability, adequacy and effectiveness.

RESPONSIBILITIES:

- The main responsibility for implementation of this policy lies with the Students, Teaching and non-teaching staff and Principal of College.
- The Heads of departments are responsible for ensuring compliance with Environment Policy within their area of control.
- The Green Campus committee of the institution will actively monitor implementation of these policies in order to achieve the aims and objectives of this Policy.



Principal

Dr. Snehal Joshi

Stamp



Date: 13/10/23

Acknowledgement

ENVIPRA consultants

DE Society's Brijlal Jindal College of Physiotherapy has been working at the front line since its beginning by initiating environmental awareness programs, workshops and other conservatory activities to achieve sustainable development goals. We are aware the needs of the Environment and Green audit for the potential improvement of the institute. To chase the excellence, DE Society's Brijlal Jindal College of Physiotherapy is committed to get better environment and uphold the clean ecosystem for sustainability of campus.

We are taking first step forward by conducting green audit and documenting our efforts to protect and conserve the environment. This report reflects our endeavor towards protection, conservation and economic use of each possible natural resource in campus not only for current students and residents, but for future perspective as well. By conducting the Green Audit, we had tried to recognize the existing and up-coming environmental issues and also to understand, assess, monitor and resolve its impact. This aids us to understand and implement the superlative mitigation to resolve the issue.

DES Brijlal Jindal College of Physiotherapy Pune, vision to adopt a policy and will work at every possible level to prevent environmental devastation by underneath the Sustainable Development Goals set by UNEP. Consequently, we are taking efforts to incessantly supervise and examine the potential suitability of the educational progression by comprising Green Audit Committee. This team includes expert from relevant faculties functioning in this field to gather preliminary database of the ecological factors in the college campus. This will facilitate to solve all the green conflicts within the college campus itself.

This report is a result of efforts of every member of DE Society's Brijlal Jindal College of Physiotherapy Green and Environment Audit Committee who commenced this green audit to collect data on each parameters of the environment, processed the data to identify the instant and severe intimidation in the campus so that chances can be investigated to bring about unbroken enhancement in our environmental concert. The standard reference material has been considered while data interpretation.

We belief that this effort will be recognized adequately by all the stake holders for tracking a baseline approach in which we positioned to face future challenges. The administrative support of all committee members and staff of audit team has made it possible to successfully conduct the environment and green audit of the campus. I on behalf of the Green Audit Committee express my heartfelt gratitude to Hon'ble

President of DE Society for his guidance and kind support for our team. A special thanks to Dr. Harshada Sonawane, Dr. Shreya Dhake, faculty and non teaching staff for their untiring efforts in compiling the report.

I truly believe that our efforts will manifest sustainable future for DES Brijlal Jindal College of Physiotherapy and I hope that this proposed management plan suggested in the report will be a paradigm environmental protection.

Dr. Snehal Joshi

Principal

Date:

Green Audit Committee

Sr. No.	Name	Designation	Committee Designation
1.	Dr. Snehal Joshi	Principal	President
2.	Dr Harshada Sonawane	Associate Professor	Member
3.	Dr Shreya Dhake	Associate Professor	Member

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Introduction

Deccan Education Society's Brijlal Jindal College of Physiotherapy Pune, has established in 2007 and has been engaged in its pursuit of academic excellence of the institute. The campus was established in the erstwhile green Build Up Area (Sq. ft. 22400 sq ft in total 54.95 Acres, urban setting in Fergusson College Campus (18.52N°, 73.83S°), at Pune city. It is Non-autonomous and affiliated to MUHS (Maharashtra University of health sciences, Nashik). DES Brijlal Jindal College of Physiotherapy Pune has developed considerably and efforts were taken to strengthen the infrastructural facilities in the academic field vis-à-vis the overall development of the Campus.

More than 197 students are enrolled in the campus during the academic year. The College also supported cutting edge research experiences in the field of physiotherapy disciplines. The College has 6 class rooms along with department has laboratories, 24-hours internet connectivity, computer centre, library, playgrounds, health centre, bank, Cafeteria, post office, food court, hostels, guest house etc. The teaching faculties are dynamic, caring and friendly. Academic & curricular sessions are regularly complemented with sports and other socio-cultural activities like film screening, musical performances, art festivals, debates, intra-College fetes, sports tournaments, walkathons etc.

DES Brijlal Jindal College of Physiotherapy Pune offers a lively campus life and one of the safest and most protected academic environments in the Pune city. The Campus has a vast scenic landscape Play ground/Sports/games Area (in 54 Acre) with Gymnasium offering a serene and tranquil backdrop. The *groves of trees, fragrance of flora, calls of flocks of birds, swarm of butterflies, reptiles etc. ease away the grind of academics, thereby soothing and rejuvenating a student's mind.*

Deccan Education Society's
Brijlal Jindal College of Physiotherapy
Pune
(Green Audit Report 2022-2023)

Purpose of Green Audit for Institute

The policy of the Government of India under the leadership of our Honorable PM Shri Narendra Modi Ji has also been in this direction, by declaring the mission of 'Swachh Bharat Abhiyan', whose voice resonates with the message of "Green Campus, Clean Campus" mission launched by the College Grants Commission for all higher educational institutes. The National Assessment and Accreditation Council (NAAC), which is an autonomous body funded by the College Grants Commission of Government of India, has made 'Environmental Consciousness' mandatory criterion (Criterion VII) for grading educational institutes. In 2006, Government of India has declared the National Environment Policy 2006 and made green audit mandatory to each industry. According to the policy it is a response to India's national commitment to a clean environment, mandated in the Constitution in Articles 48 A and 51 A (g), (DPSP) strengthened by judicial interpretation of Article 21 (National Environmental Policy 2006). It is recognized that the maintenance of the healthy environment is not the responsibility of the state alone. It is the responsibility of every citizen and thus a spirit of partnership is to be realized through the environment management of the country. The process of environmental audit was formalized by Supreme Audit

Institution (SAI) according to the guidelines given in Manual of Standard Orders (MSO) issued by Authority of the Controller and Auditor General of India 2002. The Supreme Audit Institution of India is the highest national Institution of auditing in the country. By realizing the need of responsibility towards environment, NAAC, an autonomous body under UGC has added the concept of environmental audit in accreditation methodologies of universities and colleges.

Green auditing is the process of identifying and determining whether the practices taken up at DES Brijlal Jindal College of Physiotherapy Pune, are eco-friendly and sustainable. It is an effective ecological tool that helps to create a culture of sustainability by implementing it through regular identification, quantification, documenting, reporting and monitoring of environmentally important components. Green auditing will thus help in preserving the rich floral and faunal diversity in and around the campus; garnering interest and creating awareness among the stakeholders in future.

We are committed to responsible stewardship of resources and to demonstrate leadership in sustainable academic practices. Our campus supports the climate neutrality goals as outlined by the Government of India and thus will monitor the sustainability of the research and education mission through the Green Audit Committee.

The policy goals of our Green Audit are:

- Identification and documentation of the strengths and areas of improvement within sustainable operations of administrative, academic and research laboratories via gap analysis, and outlining actions that can be implemented to further targets.
- Increase environmental awareness throughout campus and motivate all stakeholders for optimized sustainable use of available resources.
- The importance of the program is to collect baseline data of environmental parameters and resolve the environmental issue before they become a problem.

To achieve the aforementioned goals, DES Brijlal Jindal College of Physiotherapy Pune Green Audit Committee endeavors' towards the following objectives:

- To identify current and emerging environmental issues.
- To monitor environmental management practices.
- To examine the current practices that can impact the environment.
- To create awareness among the various stakeholders of the College.
- To prepare a Green Audit Report on green practices followed by different Departments, support services and administration.

Methodology Adopted

The methodology adopted to conduct the Green Audit of DES Brijlal Jindal College of Physiotherapy will have the following components:

1. Enquiries were conducted amongst different stakeholders to know about the various components in connection with water use, energy consumption and waste disposal, etc.
2. The water quality analysis was done using standard protocols.
3. GIS tools were used to prepare the map of the campus for LULC survey.
4. Different standard protocols were followed to document and estimate the floral and faunal account.

1. Onsite Visit

Four day field visit was conducted by the Green Audit Team. The key focus of the visit was on assessing the status of the green cover of the Institution, their waste management practices and energy conservation strategies etc. The sample collection (water, soil) was carried out during the visits. The water samples from two open wells and two tap water sources were taken and soil samples from three different places of the campus was collected. The sample collection, preservation, and analysis were done in the scientific manner as prescribed by the standard procedures.

2. Focus Group Discussion

The Focus Group discussions were held with the teaching faculty, staff members and the management focusing various aspects of Green Audit. The discussion was focused on identifying the attitudes and awareness towards environmental issues at the institutional and local level.

3. Energy, waste management and Carbon foot print analysis Survey

With the help of teachers and students, the audit team has assessed the energy consumption pattern and waste generation, disposal and treatment facilities of the college. The monitoring was conducted with a detailed questionnaire survey method.

Audit Stage

DES Brijlal Jindal College of Physiotherapy Pune has started its green audit by assessing the green cover followed by looking into all the aspects which have been a part of the green audit viz. recording the land use and land cover (LULC), water availability and usage, waste generate and their management practices, recording of the environmental parameters, energy consumption and conservation strategies, etc. The members of the audit team recorded the different facilities at the campus, determined different types of appliances and utilities (Water cooler, taps, toilets, lights, fan) as well as measured the usage per item (Watts indicated on the appliance or measuring water from a tap) and identified the relevant consumption patterns (such as how often an appliance is being used) and their impacts. The staffs, students and other stakeholders were interviewed through structured questionnaires to get details of usage, frequency or general characteristics of different appliances. Data

collection was done by onsite visit and also through questionnaires in different sectors such as water, energy, waste, biodiversity status. The ambient quality of the campus was recorded to monitor the *environmental status within the College campus using standard protocols. The data obtained were collated and analyzed to prepare this audit report of DES Brijlal Jindal College of Physiotherapy Pune.*

Post Audit Stage

Land use and Land cover

The topography of DES Brijlal Jindal College of Physiotherapy Pune campus is surging with a lush green flora towards the centre. The land is nourished and has water almost throughout the year. The whole campus is intermingled with scattered trees at few places thus, making it a picturesque landscape suitable for a wide-spectrum of flora and fauna. The Academic Departments has come up over the area with balanced terrain landscape.

The present study revealed that the DES Brijlal Jindal College of Physiotherapy campus has a total of 22400.00 Sq. Ft of built up land. The DES Brijlal Jindal College of Physiotherapy campus occupy an area of Organized plantations in the campus are mainly along the internal roads, around parking area and the OPD near main gate of Fergusson College in the similar campus.

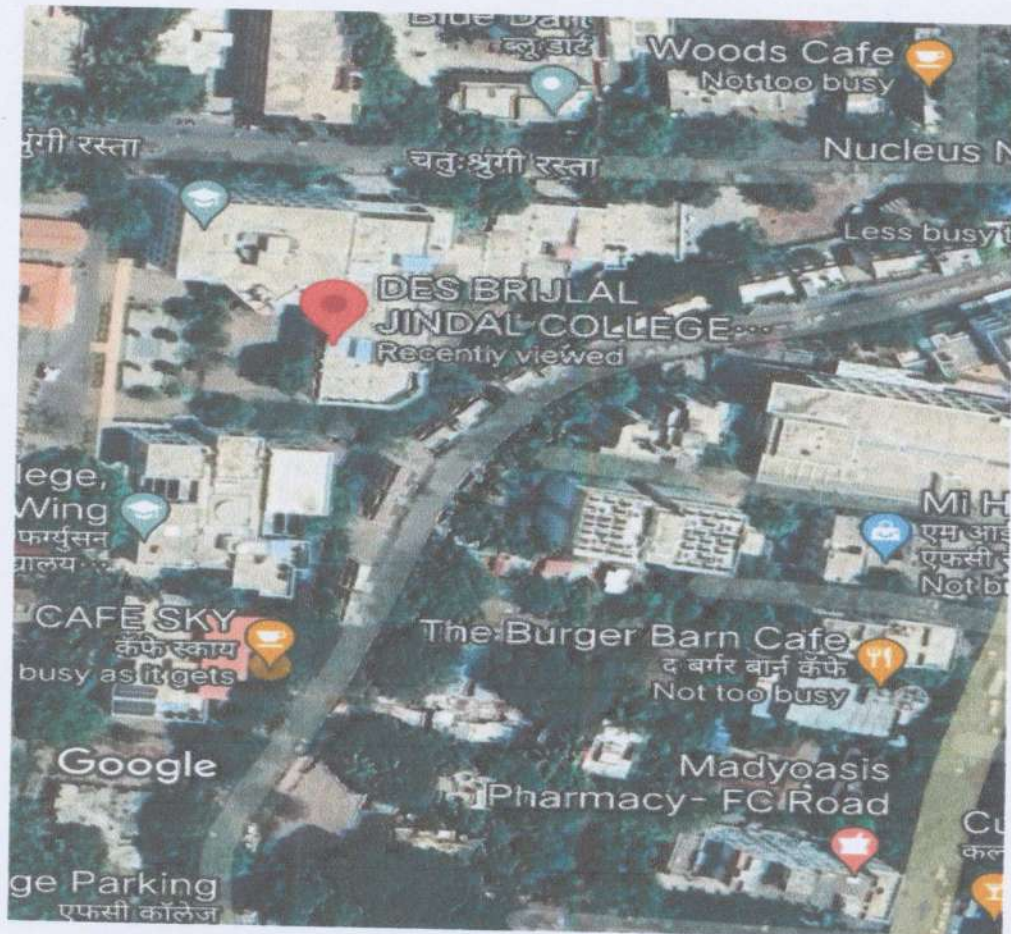


Fig 1: The Map of DES Brijlal Jindal College of Physiotherapy, Pune

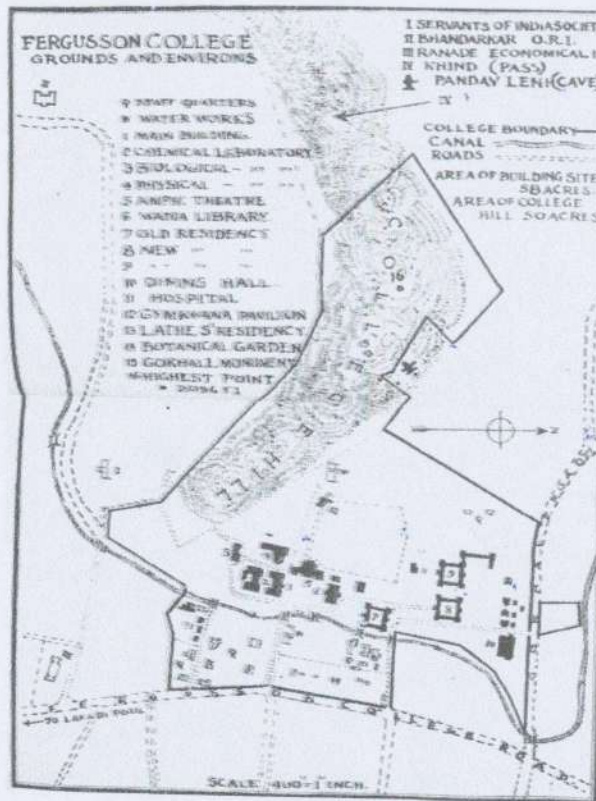


Fig 2: The Map of Fergusson College of campus, Pune

Table 1: LULC pattern of DES Brijlal Jindal College of Physiotherapy

Sr. No.	Land Use Category
1.	Botanical Garden
2.	Play ground
3.	Road
4.	Foot Path
5.	Pump Station
6.	Protection Wall
7.	Drain
8.	Retaining Wall
9.	Culvert
10	Overhead Tank
11	Car Parking
13	Building
14	Transformer
15	Generator
16	Security House
17	Water Pump
18	Toilet
19	Garden
20	OPD

It is found that a total of about 22400 Sq. Ft. is under the built-up category, of which college and OPD units form a significant part. The buildings which are multistoried as a part of the DES Brijlal Jindal College of Physiotherapy administration.

Biodiversity Audit

Biodiversity audit of DES Brijlal Jindal College of Physiotherapy, Pune is a continuous process and efforts of the faculty members, researchers, and the students to assess its conservation have been going on for many years. Regularly many conservation practices are taken up by the college so that anthropogenic impact on the biodiversity components and ecosystems are minimized. The scientific information and existing database are based on various studies as well as research work done by DE society. Despite various limitations, data have been compiled to prepare authentic documentation that provides an insight into the status of the biodiversity and natural ecosystem in the campus. Different conservation practices also have been applied for a better and sustainable campus ecosystem.

The main objective of biodiversity audit is to provide documentation of biodiversity components within the institutional area, to observe ecosystem structures and functions along with regular biodiversity monitoring of the different components of biodiversity.

A green belt is located within the campus and maintained by College to enrich the beauty of the campus. Earlier the number of plants was fewer amounts, which was later extended based on systematic study of indigenous and exotic species of plants and trees suitable for the land use. Many birds are often observed and some butterfly's are available during the rainy seasons.

Flora:

A total of 812 species belonging to 542 genera fewer than 124 families in total have been recorded in the past as well as present. Out of these, 534 species (belonging to 397 genera and 99 families) are currently present in the campus as revealed in the 2011–2014 survey. The species which were cited maximally (Fig.5) belonged to either two categories—ones which were/are locally rare such as *Parmentiera cereifera* Seem., *Sterculia guttata* Roxb., *Elaeocarpus ganitrus* Roxb. ex G.Don, *Encephalartos* sp., and those which are relatively common introduced exotics like *Albizia saman* (Jacq.) Merr., *Sterculia foetida* L., *Ceiba pentandra*(L.) Gaertn. and *Swietenia mahagoni* (L.) Jacq. The 210 species which are newly recorded as additions to the old flora are predominantly exotic ornamentals, whereas the 278 species reported as extirpated consist of ornamentals as well as several rare exotics and endangered indigenous species. Even if the decade from 2001–2010 shows the maximum publications mentioning species records from the campus,

most of them either deal with species cultivated for experimental purposes or indirect records; whereas publications from the period 1951–1970 deal more directly with the floristics of the campus. The present compilation should not be considered as a complete enumeration of the campus flora (Nerlikar *et. al.* 2016).

Botanical gardens are of tremendous research importance as they help conserve rare, endemic plants (Fay 1992), contribute to supplying live material for biosystematic studies, preparation of local floras, monographs (Naik 2000) and even climate change research (Primack & Miller-Rushing 2009). FCBG was once a well-known garden in western Maharashtra complete with a rich assemblage of rare species (Vartak 1958a; 1964; Wagh 1996), but underwent great destruction after the Panshet flood (1961) and the drought which followed (Vartak 1964; Wagh 1996). Apart from some efforts in the form of infrastructure development (grants during 1998 by the Pune-Bremen Association and during 1999 by the Department of Environment and Forests, Govt. of India) and in 2003 during the garden's centenary year (Anonymous 2003), it has seen great degradation recently (Anonymous 2002; Satam 2011) and needs to be urgently maintained. The loss of rare and well grown plants from the garden including *Encephalartos* sp., *Garcinia livingstonei* T. Anderson, *Elaeocarpus ganitrus*, *Dillenia indica* L., *Coccoloba uvifera* (L.) L., *Chloroxylon swietenia* DC., *Eulophia pratensis* Lindl. and *Saccopetalum tomentosum* Hook.f. & Thomson is indeed significant. It still has some important heritage trees (for Pune City) at present for example *Acacia greggii*, *Araucaria cunninghamii* Mudie, *Parmentiera cereifera*, *Terminalia bellirica* (Gaertn.) Roxb., *Pterygota alata* (Roxb.) R.Br., *Cedrela toona* Roxb.ex Rottler, *Dendrocalamus giganteus* Munro and *Gardenia latifolia* Aiton which need to be conserved.

Observations

1. Solar energy harvesting installations units are in progress. Terrace of each building will be utilized to produce electricity from solar modules.
2. The Green computing or E- work is helping the organization to reduce footprint very effectively.
3. The awareness among the faculty, students and other employees regarding Clean Development Mechanism (CDM) has observed to reduce the consumption of electricity and natural resources.
4. An environmental sustainability and awareness program initiated by department of DES

Brijlal Jindal College of Physiotherapy has helped in implementation of environmental policy in campus.

Suggestions and Recommendations

1. No vehicle day can be planned once or twice a month.
2. The solar energy based street lamps on campus will reduce carbon footprint.
3. Medicinal plants can be planted in botanical garden in future.
4. More green space (indigenous plant species can be generated near OPD space).

Carbon Footprint Audit

Carbon footprint is the measure of the impact of our activities on the environment, and in particular climate change. It relates to the amount of greenhouse gases (GHGs) produced in our day to day lives through burning of fossil fuels for electricity, heating and transportation, etc. It is a measurement of all GHGs we individually produce and has units of tones (or kilogram) of CO₂ equivalent. A Carbon footprint is made of the sum of two parts: the Primary footprint and the Secondary footprint.

- The Primary footprint is a measure of our direct emissions of CO₂ from the burning of fossil fuels including domestic energy consumption and transportation. We have direct control of these emissions.
- The Secondary footprint is the measure of the indirect CO₂ emissions from the whole lifecycle of products we use- those associated with their manufacture and eventual breakdown.

A Carbon footprint is the total set of greenhouse gases caused by an organization, event, product or person through transport, land clearance, production and consumption of food, goods, materials, wood, buildings and services. In a nutshell, the more we buy, the more emissions will be caused on our behalf. The concept name of the Carbon footprint originates from Ecological footprint discussion. A Carbon footprint is a subset of the Ecological footprint and of the more comprehensive Life Cycle Assessment (LCA).

Table 2: Total number of stakeholders in DES Brijlal Jindal College of Physiotherapy

Stakeholders	Gents	Ladies	Total
Students	17	160	177
Teaching staff	0	14	14
Non-Teaching staff	5	4	9
Visitors(per day)	4	5	9

Activities	Number of activities / year	Total number of participants (other than college staff or college students)
Conferences	-	-
Workshop	4-5	10-12 people from out of college. Most of the workshop, seminars are for college students, each college conducts them, so outsiders are less
Parent-Teacher Meets	8	25-30 members per meeting
Seminar	With in college we conduct for our students	-
Any Other	Admission time and enquiry during that which goes on for 8week -10 weeks	80-100 people

Table 3: The number of vehicles used by the stakeholders of the college

Stakeholders using	Average number	Average distance travelled / day
Cycles	-----	-----
Two Wheelers	98	Approx. 10 km, vehicle pooling is done while going for hospitals
Cars	1-2	Approx 10 km
Taxi/Auto	20-30	Up to 10 kms, auto sharing while going to hospitals

Public Transportation	20-25	Approx 10 km
College Conveyance	NA	-
Any Other	NA	-

Table 4: Average fuel consumption by stakeholders

Fuel	Using for/in	Number	Amount of fuel used /day	Average amount spent / day
LPG	Cylinder	1 per year as its used for making tea	-	1100/ year
Diesel	Generator	1	-	-
Kerosene	NA	-	-	-
Alcohol	NA	-	-	-
Any Other	NA	-	-	-

Observation and analysis of Carbon foot print of DES Brijlal Jindal College of Physiotherapy

Table 7: Estimated carbon emission of DES Brijlal Jindal College of Physiotherapy for the year 2022-2023

Sr. No.	Activity	Carbon Emission (kg/yr) Approximate
1.	Human	52780
2.	Transport	83122
3.	Solid waste	NA
4.	Diesel for laboratory	NA
5.	LPG	5538
6.	TOTAL	1,41,440

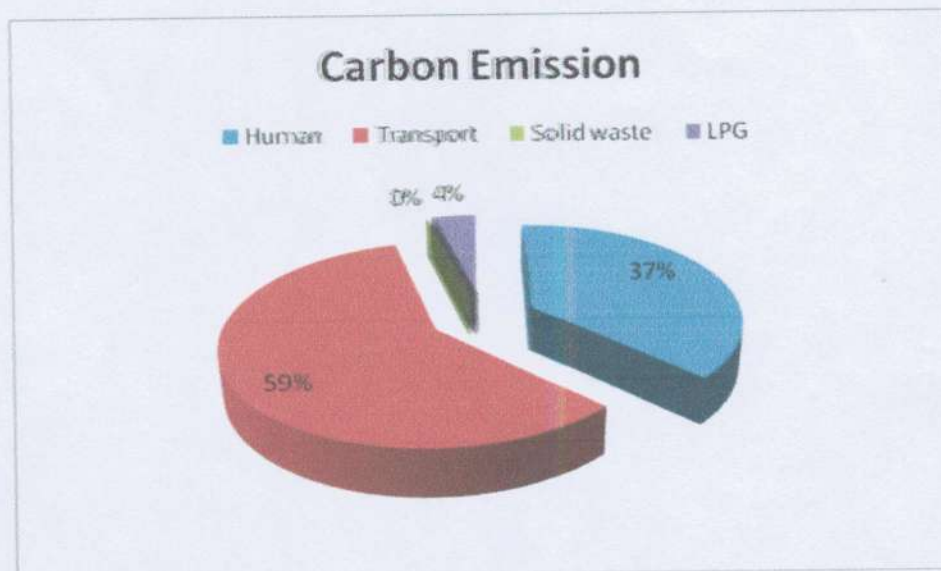


Fig 2: Contribution of activities in Carbon emission of DES Brijlal Jindal College of Physiotherapy

Suggestions

1. Set both net zero and absolute zero emissions commitments. It includes target dates and work towards eventually covering emissions from all three scopes (direct, purchased and indirect), especially transport and fuel consumption.
2. Bring together students, staff and academics to identify and test potential carbon neutral solutions. Embed this activity into teaching programmes and staff workloads to ensure that it is recognized and valued.
3. Prioritize the source needs to minimize the use and track the progress.

Summary

Dense vegetation of the campus helps to purify the air since green plants are able to manufacture their own food through the process of photosynthesis which yields oxygen. In the process of photosynthesis, carbon dioxide which is a greenhouse gas is absorbed by the plants and for this reason, plants act as carbon sinks hence purify the air. The campus has been constantly improving the performance to reduce carbon emission since last three years. Environmental awareness campaigns, tree plantation program, involvement of all stake holders in protection and improvement of Pune campus have improved the status of natural resources. Significant reduction in use of LPG has been recorded. Overall consumption of fuel, water and electricity has been reduced due to pandemic. The ultimate impact of energy and natural resources conservation has improved the confidence and performance of stake holders.

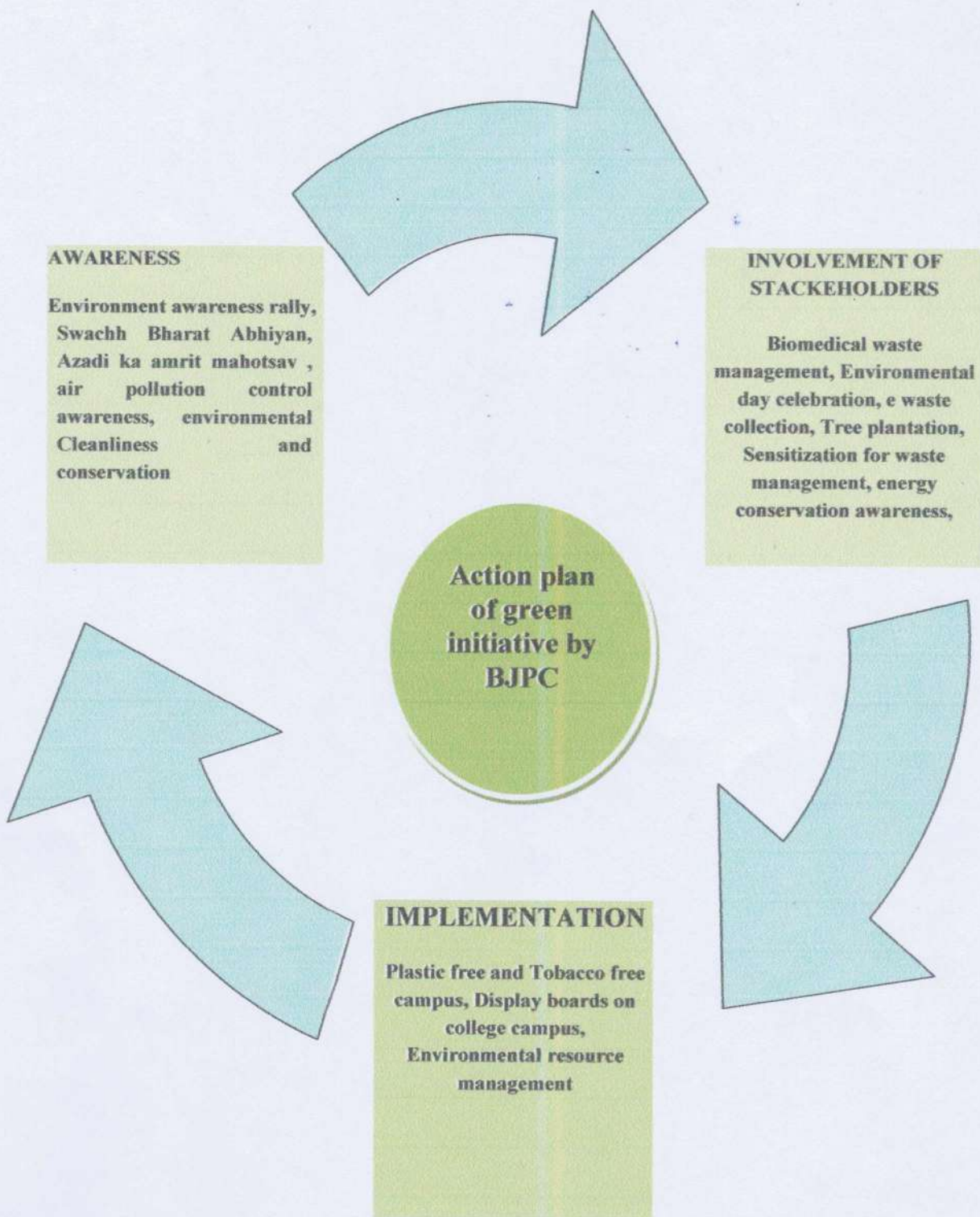
Signature landscapes of the campus such as exotic, invasive garden and flowering plants have transformed into built environments, the lives of the biodiversity in them are interfered with. Modifications on land due to campus establishment have apparently enhanced the existence of different organisms in the area.

Green auditing began with the assessment of the status of vegetative cover, waste management practices, water use and efficiency and energy conservation strategies etc. The audit team monitored different facilities at the campus, determined different types of appliances and utilities (Water cooler, taps, toilets, lights, fan etc.) as well as measuring the usage per item (Watts indicated on the appliance or measuring water from a tap) and identifying the relevant consumption patterns (such as how often an appliance is being used) and their impacts. The staff and learners were enquired to get details of usage, frequency, of general characteristics of different appliances. Data collection was done by onsite visit and by direct accounting in different sectors such as water, energy, waste, biodiversity status. The environmental monitoring in the College campus to ascertain the status of the ambient quality of the campus was done through standard protocols. The data were collated and analyzed to prepare this audit report of DES Brijlal Jindal College of Physiotherapy.

Analysis of the Carbon footprint is basically a fair evaluation of the Carbon dioxide potency in the region under study. This gave us an idea as to how contaminated our environment is. It also provided us with the details regarding the amount up to which the inventories affect emission

levels, helping us to know how and up to what extend each of our actions effect changes in the environment. This study is a sure shot that would help us realize and look back at each of our activities, and how exactly it have changed the very world we inhabit. The scope of such a study is very much relevant in the current scenario of rising CO2 levels in our very own ecosystem.

The Green Audit Report-2022-2023 focuses mainly on major reduction in fuel consumption and significant cut off in carbon emission. The successful implementation of previous management action plan has improved the resource management. Active involvement of students in green initiative has strengthened the policy implementation and natural resource conservation of DES Jindal College of Physiotherapy.



List of various conducted in the academic year 2022-2023

AZADI KA AMRUT MAHOTSAV- Planned Activities by D.E.Society's Brijlal Jindal College of Physiotherapy, Pune. for 75 Weeks	
Months	Number of Programs @ College Level
	Activity:-
	1) Swachh Amrit Mahotsav "Cleanathons"
	2) Plantation Drives
	3) Set of activities that University/College will undertake to reach to College in 100 th year of Independence
Actions @ 75	
Jan-22	Waste Management awareness for auxiliary workers.
Feb-22	Plastic free Campus- Cleanliness drive
Mar-22	Global Recycling Day- Paper Recycling- Demonstration
Apr-22	Medical waste segregation & disposal- live Demonstration
May-22	Menstrual Hygiene Day-Awareness Campaign at Anganwadi
Jun-22	Environmental Day - Tree Plantation drive
Jul-22	World Bicycle Day- Cycle to work
Aug-22	Renewable sources of energy – Akshay Urja Diwas- Poster Competition
Sep-22	World Clean up day- Cleanathon @ D.E.S Brijlal Jindal College of Physiotherapy, Pune
Oct-22	E-waste day- E-waste collection drive
Nov-22	कच-यातून कला - Best out of waste
Dec-22	Pollution control Day- Air pollution awareness drive @ traffic signals in Pune
Jan-23	Walking in trails -Tekdi Bachao-Cleanliness drive
Feb-23	Campus Cleaning drive
Mar-23	Global Recycling day- Plastic Recycling unit visit
Apr-23	Menstrual Hygiene day/ Sanitary Disposal awareness in different institutes
May-23	Water body cleaning & Maintenance
Jun-23	Vasundhara Diwas- Tree plantation drive
Jul-23	Pledge for zero plastic use- Plastic Bag free day
Aug-23	Solar energy drive - Janajagruiti



[Signature]

PRINCIPAL
D. E. Society's Brijlal Jindal
College of Physiotherapy
Pune - 4

"Swachh Abhiyaan"

Activity- "Environment Day"

Month: - June 2022

Students of D.E.Society's DES Jindal College of Physiotherapy, Pune, celebrated Environment Day on 10th June 2022 by planting trees in the campus. Slogan of Environment Day was "Save the Earth, Save yourselves". Think green Be green Stop polluting.

To serve the above purpose tree plantation drive was organized, total 25 trees were planted.

Students were given responsibility of taking care of the trees planted by them, So they thrive well. Trees were planted with vision of giving fresh air, decreasing pollution and in future providing shelter to various birds. It was a small step taken towards climate change.





Activity- "Tree Plantation"

Month: - **July 2022**

Students of D.E.Society's Brijlal Jindal College of Physiotherapy, Pune. carried out Tree plantation drive on 7th July 2022. 50 trees were planted in college campus near the hostel wing. Smt. Madhuri Sahasrabudhe madam was invited for a talk about waste disposal. She spoke on sustainable living and use of objects which will avoid pollution. Avoid single use plastic.





Activity:- “E-waste Collection Drive”

Month:- August 2022

College conducted E-waste collection drive on 20th August 2022 to the objective of this drive was to provide awareness about the dangers of E-waste, facilitate collection of non bulk E-waste and its safe disposal.

All the college students collected their personal E-waste and E-waste from college. Like old mobile phones, chargers, batteries, keyboards, CPU etc. collected E-waste was later handed over “V Collect” team of PMC.



Activity:- **“Campus Cleanathon”**

Month – **September 2022**

First year B.P.Th Students of D.E.Society’s Brijlal Jindal College of Physiotherapy, Pune. Carried out Cleanathon in college campus on 18th September 2022. Students collected plastic waste’s, used

ENVIPRA consultants

paper cups, small tetra packs, of juice and other waste. Students were divided in groups and were asked to clean areas under the observation staff also actively participated in the program objective behind this program was to have cleaner & greener & hygienic environment in the campus.



GRGQ+MV9, Model Colony, Shivajinagar, Pune, Maharashtra
411016, India

Latitude	Longitude
18.52663390338421°	73.83989268913865°
Local 09:40:24 AM	Altitude 13.82 meters
GMT 04:10:24 AM	Friday, 21.10.2022



GRGQ+MV9, Model Colony, Shivajinagar, Pune, Maharashtra
411016, India

Latitude	Longitude
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Local 09:40:18 AM	Altitude 13.82 meters
GMT 04:10:18 AM	Friday, 21.10.2022

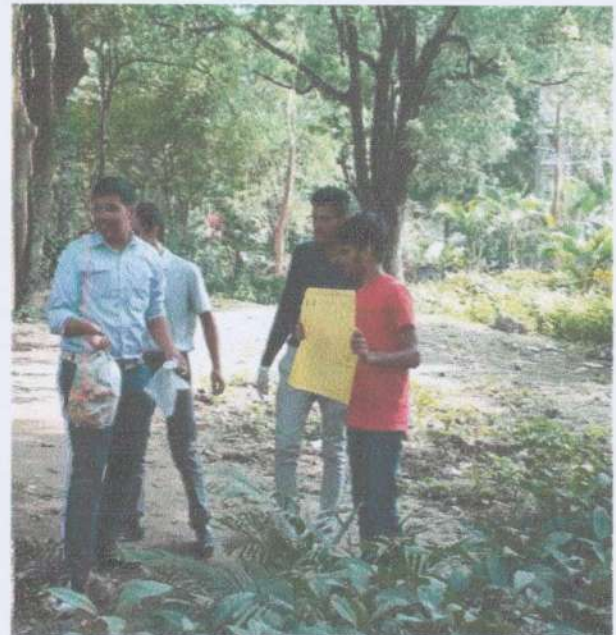
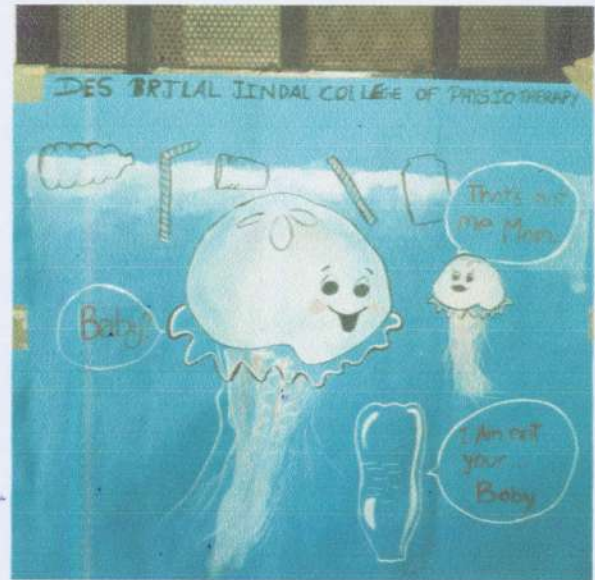


Plantation program in the campus





Cleanliness Drive



Cleanliness awareness drive

ANNEXURE

No.	Name of Document
1.	Site Plan
2.	Rain water harvesting plan
3.	Water testing report
4.	Fire audit report
5.	Waste management report

Bowling
plan with area

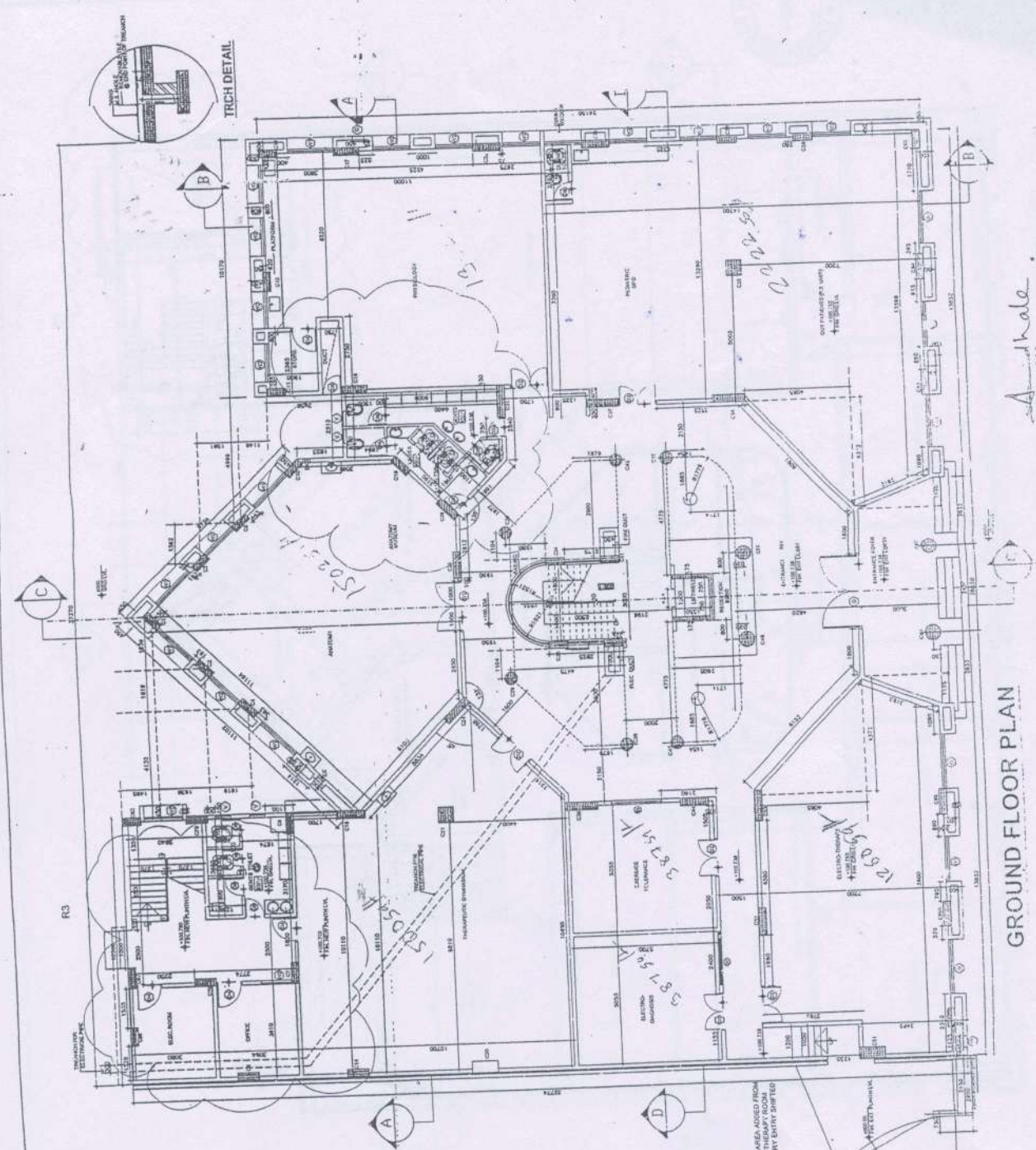
PROJECT KEY PLAN	
NO.	REVISION
1	ISSUE
2	ISSUE
3	ISSUE
4	ISSUE
5	ISSUE
6	ISSUE
7	ISSUE
8	ISSUE
9	ISSUE
10	ISSUE
11	ISSUE
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46	ISSUE
47	ISSUE
48	ISSUE
49	ISSUE
50	ISSUE

NOTE: ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND STANDARDS OF THE ARCHITECTURAL PROFESSION AND THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING STRUCTURES AND UTILITIES IN GOOD WORKING ORDER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING STRUCTURES AND UTILITIES IN GOOD WORKING ORDER.

DESIGNED BY: ARCHITECTS
DRAWN BY: ARCHITECTS
CHECKED BY: ARCHITECTS
DATE: 12/12/2012

PROJECT: NURSING COLLEGE
PUNE
FLOOR PLAN
GROUND FLOOR PLAN

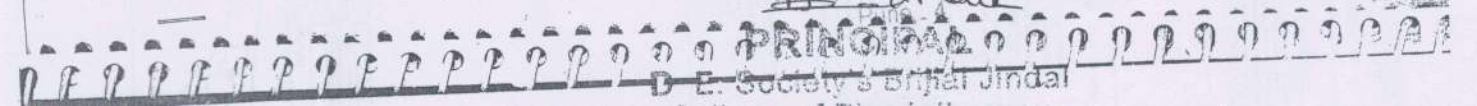
DESIGNED BY: ARCHITECTS
DRAWN BY: ARCHITECTS
CHECKED BY: ARCHITECTS
DATE: 12/12/2012



A. Shale
PRINCIPAL
D.E. Society's College of Physiotherapy, Pune.

GROUND FLOOR PLAN

Shale
PRINCIPAL
D.E. Society's Brijal Jindal
College of Physiotherapy
Pune

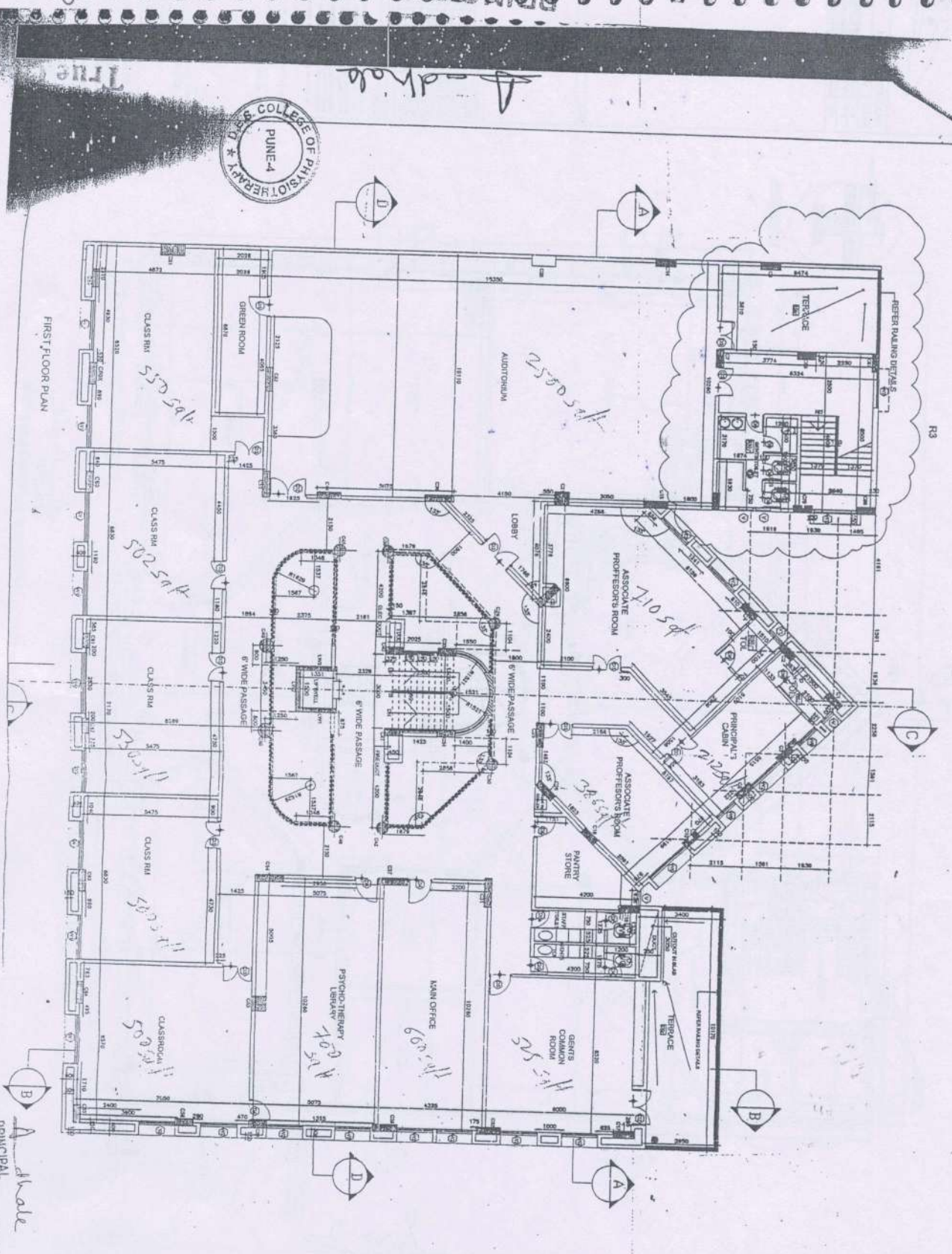




PRINCIPAL
 D. E. Society's Brijal Jindal
 College of Physiotherapy
 Pune-4

PRINCIPAL
 D. E. Society's Brijal Jindal
 College of Physiotherapy
 Pune-4

Tree...
Shree



FIRST FLOOR PLAN

PRINCIPAL
 D. E. Society's Brijal Jindal
 College of Physiotherapy, Pune

PROJECT KEY PLAN	
NO. 1	PROJECT KEY PLAN
NO. 2	FIRST FLOOR PLAN
NO. 3	SECOND FLOOR PLAN

FINISHES	
1	FLOORING
2	WALLS
3	CEILING
4	ROOFING
5	PAINTS
6	GLAZING
7	MECHANICAL
8	ELECTRICAL
9	PLUMBING
10	ACCOMMODATION

NOTES
 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND STANDARDS OF THE BUREAU OF INDIAN STANDARDS (BIS).
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY APPROVALS FROM THE LOCAL AUTHORITY.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY APPROVALS FROM THE LOCAL AUTHORITY.
 4. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED.

NO.	DESCRIPTION	UNIT	QUANTITY	REMARKS
1
2
3

PROJECT
D. E. SOCIETY'S COLLEGE OF PHYSIOTHERAPY, PUNE

DESIGNED BY
DR. D. B. JOSHI

DATE
...

SAVE WATER CONSULTANT

Shahu Colony, Lane No. 11, Chinmay Colony, Karve Nagar, Pune – 411 052.

Mob No : 7588250593 / 9011288146

RAIN WATER HARVESTING METHOD / SYSTEM

Date :20/09/2016

RAIN WATER HARVESTING

Secretary Deccan Education Society Completed Rain water harvesting filter system has installed on their DES College of Nursing and Physiotherapy, S No 118/1, Final Plot No 306, Ferguson College Campus, Shivajinagar, Pune

This will recharge under in ground water aqueous duct and will help to improve ground water table in area.

- | | | |
|-------------------------------|---|--|
| 1) Type of terrace | : | R.C.C Slab |
| 2) Type of pipes | : | PVC 4 " |
| 3) Bore-well size | : | 150mm-1Nos. |
| 4) Bore-well depth | : | 150 ft |
| 5) Bore-well chamber size | : | 3'x2'x5'.5"-01 No. |
| 6) Bore well Filter Media bed | : | Boulders, Charcoal,
Sand, Brickbats, Big Salt |

Encl : Drawing for ref.



Yours Faithfully
Signature Authorized
KHOLE B.V.

Jays
PRINCIPAL

D. E. Society's Brijlal Jindal
College of Physiotherapy
Pune-4.



ANVIKSH

TESTING LABORATORY

Mobile
9623451032
8830762218
AN ISO 9001 : 2015

TESTING FOR WATER, FOOD & SOIL

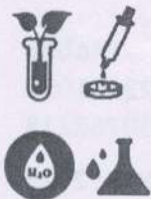
Lab Add.: Dinkar Bungalow, Plot No. 7, Kharewadi, Near Pragati Vidyalaya, Behind Santosh Hall, Sinhagad Road, Pune - 411051.
GSTIN 27AGDPJ8525A1ZP | Email : info@anvikshlabs.com, mahesh.joshi@anvikshlabs.com

Test Report

Name of Client	DES Brijlal Jindal College of Physiotherapy, Ferguson College, FC. Road Pune-41104		
Sample Code	4576	Sample Collection Date	16/06/2023
Report Date	19/06/2023	Date of Analysis	16-19/06/2023
Sample details	Borewell Water	Sample Received	1000 ml
Report No.	ATL/MBCH/4576/23-24	Sample Collected By	Customer

Result Table

Sr. N	Parameters	Observed Values	Desirable Limits	Permissible Limits
Microbiological Test				
1	<i>E. coli</i>	Absent	Absent in 100 ml	Absent in 100 ml
2	<i>Coliforms</i>	Absent	Absent in 100 ml	Absent in 100 ml
3	Total Plate Count	40	500 cfu/ml	500 cfu/ml
Chemical Test				
1	pH	7.85	6.5-8.5	6.5-8.5
2	Total Dissolved Solids	160	500 mg/lit	2000 mg/lit
3	Alkalinity	25	200 mg/lit	600 mg/lit
4	Total Hardness	140.11	300 mg/lit	600 mg/lit
5	Chlorides	5.32	250 mg/lit	1000 mg/lit
6	Calcium	24.04	75 mg/lit	200 mg/lit
7	Magnesium	19.44	30 mg/lit	100 mg/lit
8	Turbidity	Nil	1NTU	5 NTU
9	Electrical Conductivity	305	µS/cm	µS/cm
10	Sulphate	0.88	200 (mg/l, Max)	400 (mg/l, Max)
11	Nitrate	0.048	45 (mg/l, Max)	No relaxation
12	Phosphate	Nil	-	-



ANVIKSH TESTING LABORATORY

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TESTING FOR WATER, FOOD & SOIL

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GSTIN 27AGDPJ8525A1ZP | Email : info@anvikshlabs.com, mahesh.joshi@anvikshlabs.com

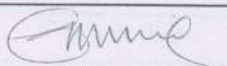
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Sample Code	4576	Sample Collection Date	16/06/2023
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Abbreviation: cfu stands for colony forming unit.

Reference:

- 1) Testing Method: United States Environmental Protection Agency (EPA) Method 1604: Total Coliforms and *Escherichia coli* in Water by Membrane Filtration Using a Simultaneous Detection Technique (MI Medium)
- 2) IS 1622:1987 Methods of Sampling and Microbiological Examination of Water.
- 3) IS 3025 (Part 11,16,13,21,32,40)
- 4) Limit as per IS 10500: 2012 Drinking Water Specifications

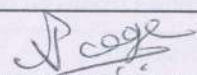
Remark: Result of collected Water Sample was **Found to be within safety limit** as prescribed by Drinking Water Specification IS 10500 for the tests conducted above.



Prepared By,

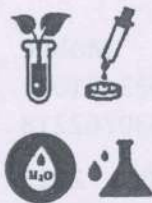
-----End of Report-----




Authorized Signatory

Terms and Conditions

1. The above results pertain only to the sample tested.
2. Sample is retained by us only for 7 days from the date of receipt.
3. Test Report shall not be reproduced, except in full, without written permission of Anviksh Testing Laboratories.
4. Any correction to this report invalidates the report.



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TESTING FOR WATER, FOOD & SOIL

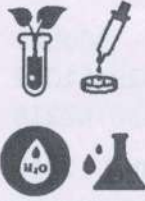
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GSTIN 27AGDPJ8525A1ZP | Email : info@anvikshlabs.com, mahesh.joshi@anvikshlabs.com

Test Report

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Report Date	19/06/2023	Date of Analysis	16-19/06/2023
Sample details	Corporation Water	Sample Received	1000 ml
Report No.	ATL/MBCH/4577/23-24	Sample Collected By	Customer

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3	Alkalinity	12.5	200 mg/lit	600 mg/lit
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5	Chlorides	1.77	250 mg/lit	1000 mg/lit
6	Calcium	8.01	75 mg/lit	200 mg/lit
7	Magnesium	9.72	30 mg/lit	100 mg/lit
8	Turbidity	Nil	INTU	5 NTU
9	Electrical Conductivity	50.00	μ S/cm	μ S/cm
10	Sulphate	Nil	200 (mg/l, Max)	400 (mg/l, Max)
11	Nitrate	Nil	45 (mg/l, Max)	No relaxation
12	Phosphate	Nil	-	-



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9623451032
8830762218
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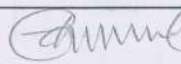
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- 4) Limit as per IS 10500: 2012 Drinking Water Specifications

Remark: Result of collected Water Sample was **Found to be within safety limit** as prescribed by Drinking Water Specification IS 10500 for the tests conducted above.


Prepared By,

-----End of Report-----




Authorized Signatory

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2. Sample is retained by us only for 7 days from the date of receipt.
3. Test Report shall not be reproduced, except in full, without written permission of Anviksh Testing Laboratories.
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FORM B

[See Section 3(3), and rule 4(2)]

Six monthly certificates to be given in every January and July by the owner or the occupier for compliance of the Fire Prevention and Life Safety Measures.

CERTIFICATE

Certified that I / We have carried out inspection of the Fire Prevention and Life Safety Measures installed in the following building or premises, namely* :-

Deccan Education Society.,
Fergusson College Campus, Fergusson Road,
Shivajinagar, Pune 411004

Location: Nursing & Physiotherapy College Building., Pune.

I/ We further certify that these installation in the above mentioned buildings are maintained in good repair and efficient conditions during the period = JULY 2022 to DECEMBER 2022, as required under the provisions of the Maharashtra Fire Prevention and Life Safety Measures Act, 2006 (Mah. III of 2007).

Place : Pune

Date : 22/02/2023.



RAPID CITY SALES & SERVICES'

RAPID FIRE & SAFETY ENGINEERS PVT. LTD.

** 2, Defence R & D Co-op Society, Alandi road, Vishrantwadi-kalas, Pune - 411015.

MFS LIC NO: MFS / LA / RF-112 / RD-109

ISO CERTIFIED ** CREDIT RATED ** LICENSED AGENCY**

PRINCIPAL

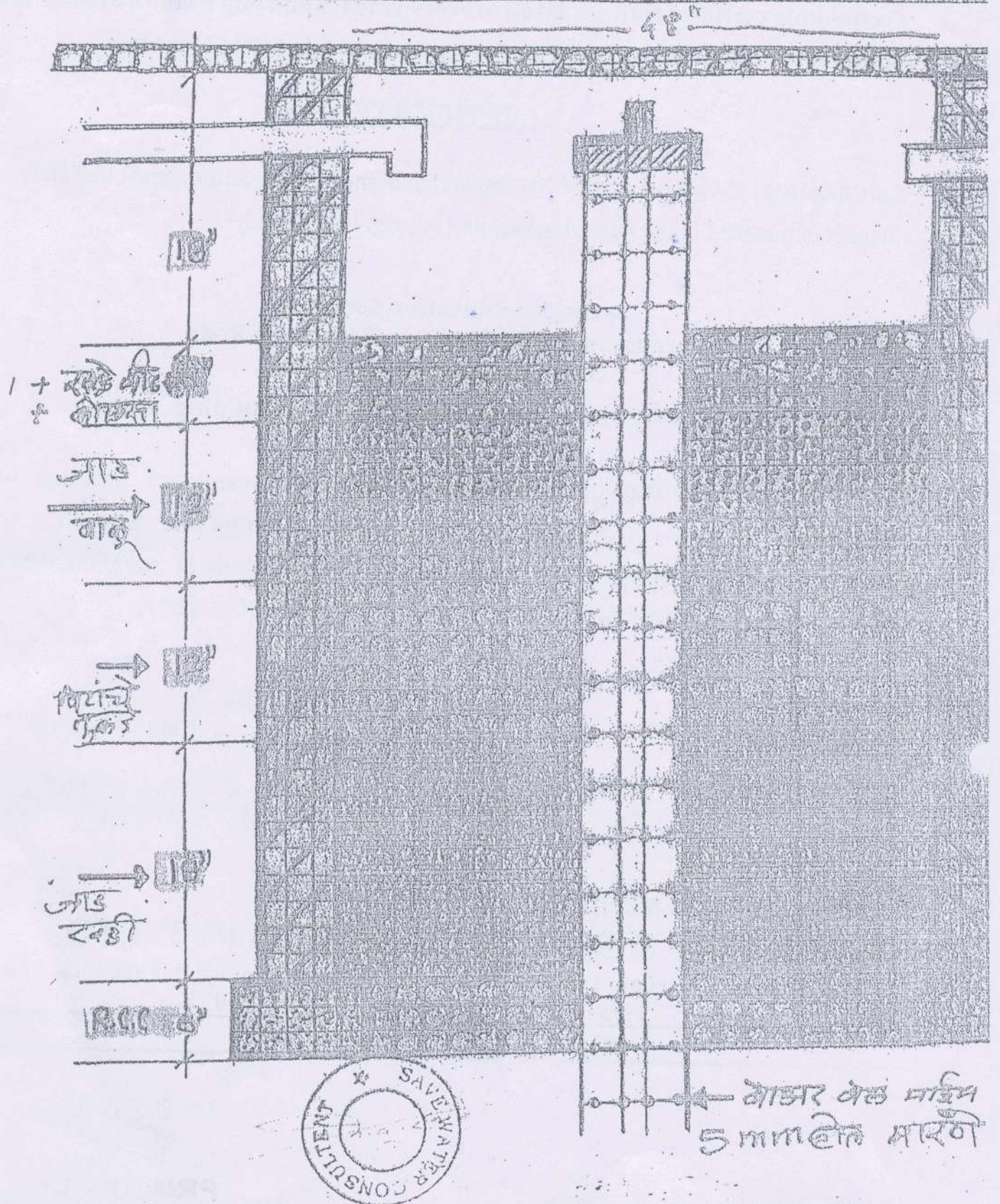
D. E. Society's Brijlal Jindal
College of Physiotherapy
Pune-4.

SAVE WATER CONSULTANT

Shahu Colony, Lane No. 11, Chinmay Colony, Karve Nagar, Pune - 411

Mob No. 7588250593 / 9011288146

RAIN WATER HARVESTING METHOD / SYSTEM



RAIN WATER HARVESTING

"Swachh Abhiyaan"

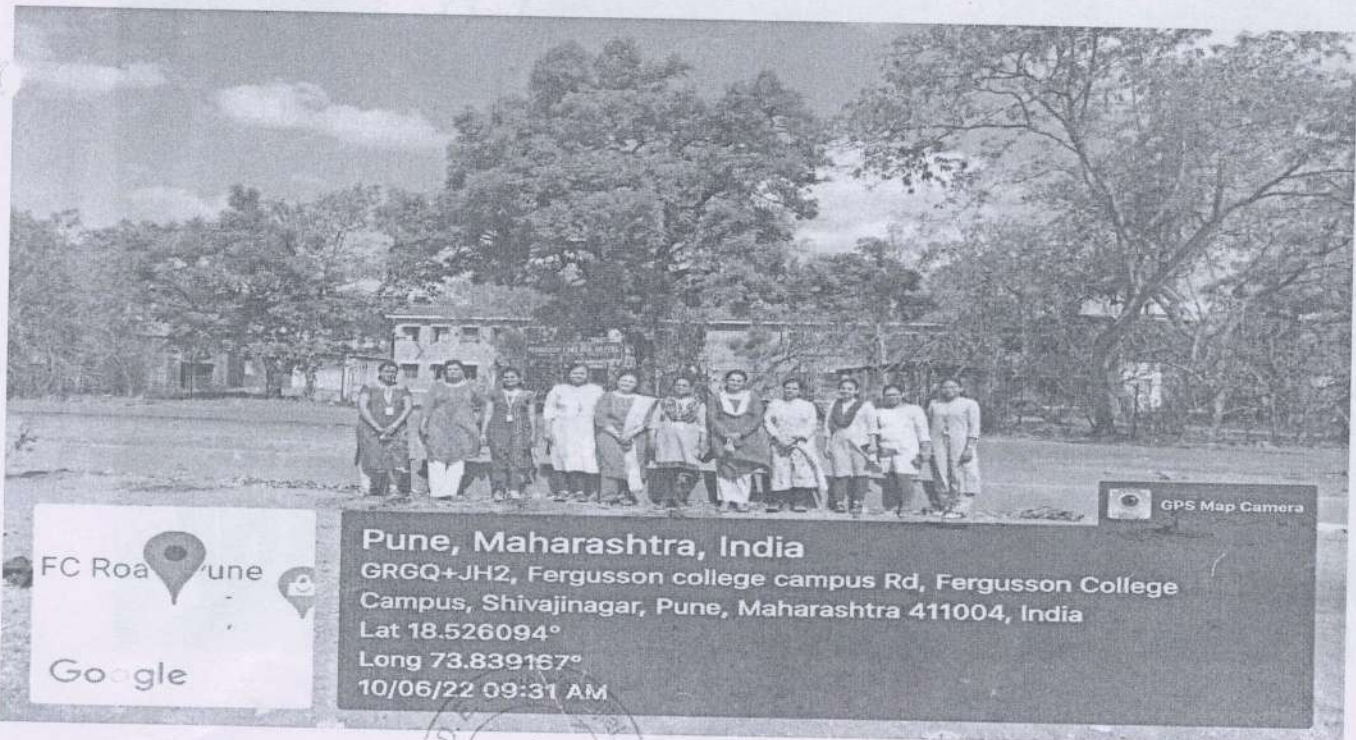
Activity- "Environment Day"

Month: - June 2022

Students of D.E.Society's Brijlal Jindal College of Physiotherapy, Pune Celebrated Environment Day on 10th June 2022 by planting trees in the campus. Slogan of Environment Day was "Save the Earth, Save yourselves". Think green Be green Stop polluting.

To serve the above purpose tree plantation drive was organized, total 25 trees were planted.

Students were given responsibility of taking care of the trees planted by them, So they thrive well .Trees were planted with vision of giving fresh air, decreasing pollution and in future providing shelter to various birds. It was a small step taken towards climate charge. -



Activity- "Tree Plantation"

Month: - July 2022

Students of D.E.Society's Brijlal Jindal College of Physiotherapy, Pune. carried out Tree plantation drive on 7th July 2022. 50 trees were planted in college campus near the hostel wing. Smt. Madhuri Sahasrabudhe madam was invited for a talk about waste disposal. She spoke on sustainable living and use of objects which will avoid pollution. Avoid single use plastic.

*Sany*

7.1.4

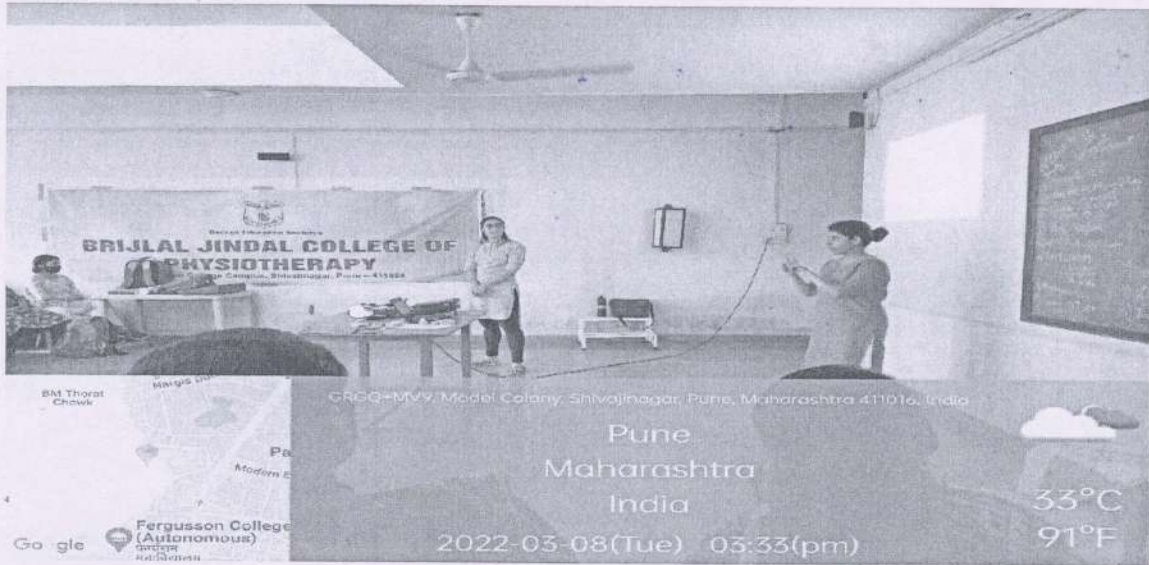
Date: 08-03-2022

Activity Report: "Use Of Menstrual Cup and menstrual hygiene"

A session by Interns Shreya Athawale and Rujuta Bhawe was conducted on Pros and Cons of use of Menstrual Cup.

3rd, 4th BPTH students and 1st and 2nd year MPT students were made aware for the use of Menstrual cup and practical demonstration and how to select the cup.

MPT students presented small roleplay about the duties of women and awareness of women in the field of finance.



hany



7.1.4

Date: 26-04-2022

Activity Report: Medical Waste Management

Interactive awareness session on the topic of Medical Waste Management was conducted on 26-04-2022 from 3pm to 4pm. at DES Brijlal Jindal College of Physiotherapy, Pune.

This session was conducted by 2nd year MPT students, Manasi Bagul and Bijal Pasad for 3rd, 4th BPTH and 1st and 2nd year MPT students.

They made audience aware about the practical aspects of medical waste disposal which is required for these students during their practical/ clinical sessions.



Manasi Bagul



GRGQ+MV9, Model Colony, Shivajinagar, Pune, Maharashtra 411016, India

Pune
Maharashtra
India

2022-04-26(Tue) 03:23(pm)

39°C
102°F



Date: 07-05-2022

Activity Report: Paper Recycling Awareness Program

Awareness session on Paper Recycling was conducted for 2nd, 3rd, 4th B.P.Th. and 1st and 2nd year MPT students and teaching staff, on Saturday 7th may 2022 at DES Brijlal Jindal College of Physiotherapy, Pune from 3pm to 4.30 pm.

Interactive quiz session was conducted by Tanvi Satte in order to understand the awareness of students about paper recycling.

Poem on the same subject was presented by Rushabh Khandawala followed by Street play by all 4th year students.

Session was concluded by Stand up session by Dinkar Thakare, which made the audience aware, about the need for recycling of papers.

This session also included fun activities and small workshop to show how we can reuse and recycle the paper.



PRINCIPAL
D. E. Society's Brijlal Jindal
College of Physiotherapy



GRCC+MV9, Model Colony, Shivajinagar, Pune, Maharashtra 411016, India

Pune
Maharashtra
India

2022-05-07(Sat) 04:13(pm)

38°C
100°F



D.E.S.'s Brijlal Jindal College of Physiotherapy, Pune

Name of Activity: "REJUVENATE" Best out of Waste

Name of Coordinator: Dr. Harshada Sonawane (PT)

Department: IQAC

Date & Time: 17th October 2022, 3.30 pm

Online/Offline: Offline (Physiology Lab)

Outline of Activity:


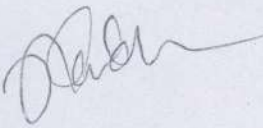
Objectives: Sensitize students about refurbish and reuse of different products.

Outcome:

A fun quiz was held for students through which they were made aware about various ways they can rejuvenate and reuse different things.

Participants: UG and PG students

Signature of Coordinator:



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Pune-4



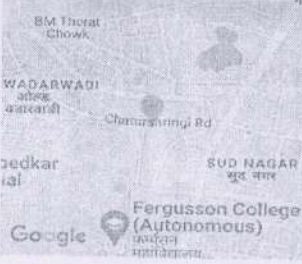
Chaturshringi Rd, Shivajinagar, Pune, Maharashtra, India

Pune
Maharashtra
India

2022-10-17(Mon) 03:56(pm)



28°C
82°F



GRGR+P28, Chaturshringi Rd, Shivajinagar, Pune, Maharashtra, 411004, India

Pune
Maharashtra
India

2022-10-17(Mon) 03:54(pm)



28°C
82°F



D.E.S.'s Brijlal Jindal College of Physiotherapy, Pune

Name of Activity: Community Awareness for "Renewable Energies"

Name of Coordinator: Dr. Harshada Sonawane (PT)

Department: IQAC

Date & Time: Diwali Vacation (23 October 2022 to 02 November 2022)

Online/Offline: Offline (Community activity at their hometown)

Outline of Activity:

Objectives: Sensitize the general population for the different sources for renewable energies which can be used in replacement with the traditional sources of energies.

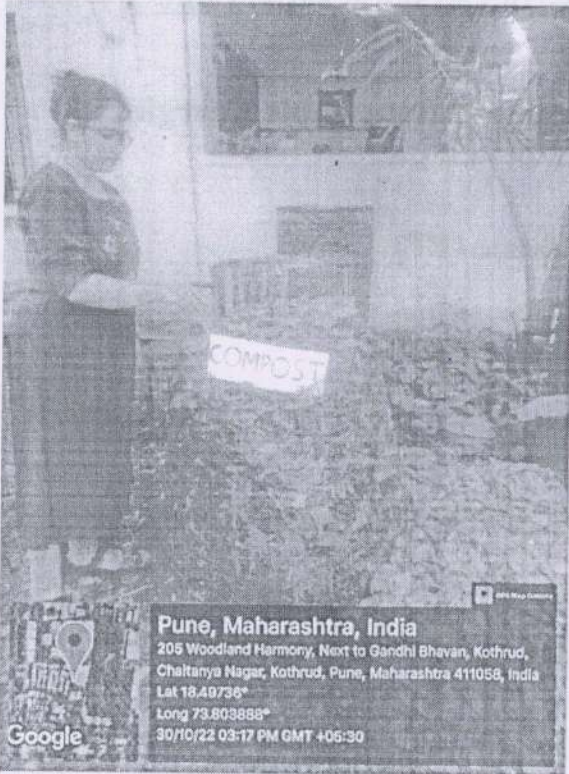
Outcome: Our UG and PG students have used different creative ways and actual community sessions at their hometown during their Diwali vacation for making people in and around their societies aware about different sources for renewable energies which can be used in replacement with the traditional sources of energies for environmental betterment.

Participants: UG and PG Students

Signature of Coordinator:



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College of Physiotherapy
Pune-4



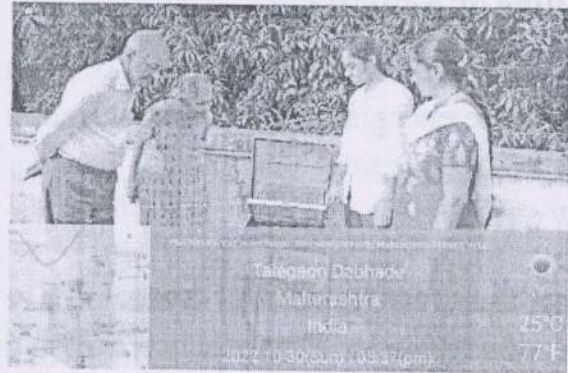
Pune, Maharashtra, India
 205 Woodland Harmony, Next to Gandhi Bhavan, Kothrud,
 Chaitanya Nagar, Kothrud, Pune, Maharashtra 411058, India
 Lat 18.49736°
 Long 73.803888°
 30/10/22 03:17 PM GMT +05:30



Brahmanathwadi, Maharashtra, India
 Unnamed Road, Brahmanathwadi,
 Maharashtra 431514, India
 Lat 19.02804°
 Long 76.675873°
 26/11/22 04:58 PM GMT +05:30



Solapur, Maharashtra, India
 MW39-393, Jawahar Housing Society, Solapur,
 Maharashtra 413003, India
 Lat 17.652476°
 Long 75.918103°
 30/10/22 09:05 PM GMT +05:30



Talgaon Dabhade
 Maharashtra
 India
 25°C
 107° 10' 30" east, 03.37 (min)



Pune, Maharashtra, India
 404-405, Parmesh Plaza, 1213, Sadashiv Peth, Near Hatti Ganapati,
 Pantancho Gate, Sadashiv Peth, Pune, Maharashtra 411030, India
 Lat 18.510836°
 Long 73.846646°
 30/10/22 12:09 PM GMT +05:30



Activity:- "E-waste Collection Drive"

Month:- August 2022

College conducted E-waste collection drive on 20th August 2022 to the objective of this drive was to provide awareness about the dangers of E-waste, facilitate collection of non bulk E-waste and its safe disposal.

All the college students collected their personal E-waste and E-waste from college. Like old mobile phones, chargers, batteries, keyboards, CPU etc. collected E-waste was later handed over "V Collect" team of PMC. For further processing.



GRGR+M3X, Shivajinagar, Pune, Maharashtra 411004, India
 Pune
 Maharashtra
 India
 28°C
 82°F
 2022-10-20(Thu) 02:34(pm)



GRGR+M3X, Shivajinagar, Pune, Maharashtra 411004, India
 Pune
 Maharashtra
 India
 28°C
 82°F
 2022-10-20(Thu) 02:34(pm)

[Handwritten Signature]

PRINCIPAL

Activity:- "Campus Cleanathon"

Month – September 2022

First year B.P.Th Students of D.E.Society's Brijlal Jindal College of Physiotherapy, Pune. Carried out Cleanathon in college campus on 18th September 2022. Students collected plastic waste's, used paper cups, small tetrapacks, of juice and other waste. Students were divided in groups and were asked to clean areas under the observation staff also actively participated in the program objective behind this program was to have cleaner & greener & hygienic environment in the campus.



GRGQ+MV9, Model Colony, Shivajinagar, Pune, Maharashtra
411016, India

Latitude 18.52663390338421° Longitude 73.83989268913865°
Local 09:40:24 AM Altitude 13.82 meters
GMT 04:10:24 AM Friday, 21.10.2022



GRGQ+MV9, Model Colony, Shivajinagar, Pune, Maharashtra
411016, India

Latitude 18.52672484703362° Longitude 73.83980392478406°
Local 09:40:18 AM Altitude 13.82 meters
GMT 04:10:18 AM Friday, 21.10.2022

Dr. Harshada Sonawane (PT)
Co.ordinator

Dr. Snehal Joshi (PT)
Principal
PRINCIPAL
D E Society's Brijlal Jindal
College of Physiotherapy
Pune - 4



D.E.S.'s Brijlal Jindal College of Physiotherapy, Pune

Name of Activity: E waste collection drive

Activity carried out: E waste collection drive carried out at DESBJCOP, Pune

Name of Coordinator: Dr Snehal Joshi

Date & Time: 28-3-2023, 9-10 am, DESBJCOP

Online/Offline: Offline

Outline of Activity:

Objectives:

1. To initiate a safe disposal of e waste waste so that it can be recycled
2. To prevent pollution & reduce landfills caused by e waste

Method: Students had brought all the e waste from their home and it was deposited to e waste collecting people.

Participants: All BPTH and MPT students



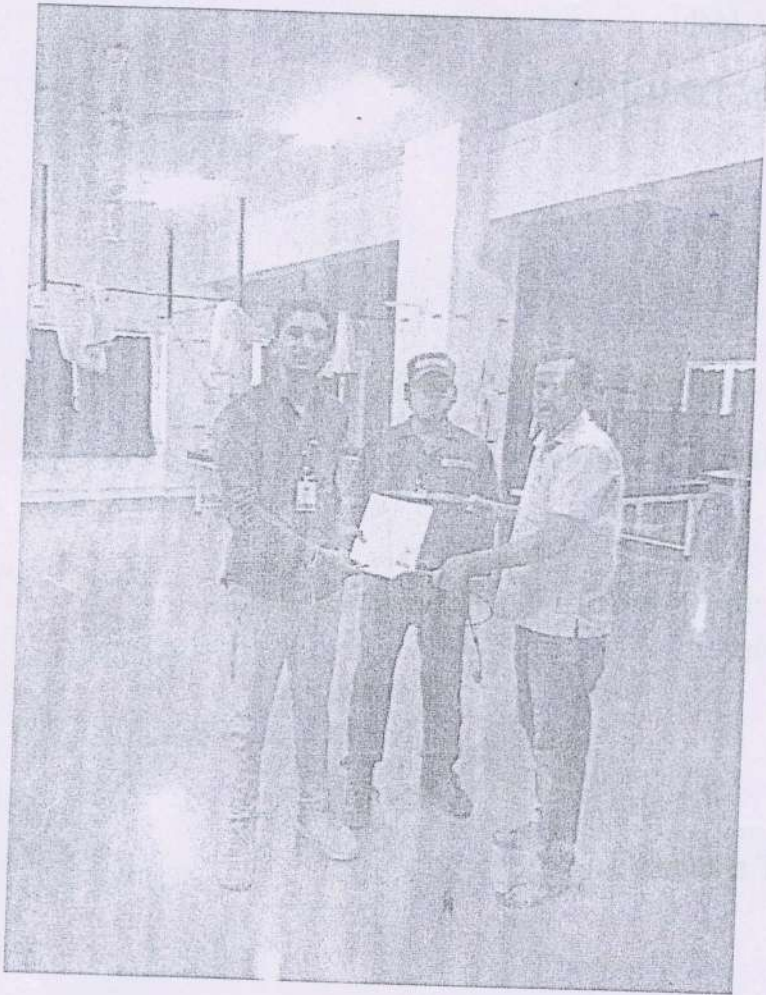
Sign of Coordinator



Sign of Principal



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College of Physiotherapy
Pune - 4





प्रकृति: न कदापि खंडितः

ENVIPRA

Environmental Services

Date: 13th July 2023

CERTIFICATE

This is to certify that the ENVIPRA Environmental Services, Pune has conducted detailed “**Green Audit**” and “**Environment Audit**” of **Deccan Education Society’s Brijlal Jindal College of Physiotherapy, Pune** during the academic year 2022-2023.

The Audit procedure was conducted in accordance with International Standard of Organization (ISO), National Assessment and Accreditation council (NAAC), Central Pollution Control Board and Ministry of Environment, Forest and Climate Change, New Delhi.

The audit involves green inventory, water, energy, waste, etc. which the College can follow to minimize impact on institutional working framework.

In an opinion and to the best of our information after frequent visits to the campus for validation of the data given to us, Green Audit and Environment Audit gives a true and fair view in conformity with environmental auditing principles accepted in India.

V. P. Raul

Ms. Vidula Raul

Auditor

ISO: 121971713/167771813

CII/GCRF/021/2022

ENVIPRA Environmental Services

997, Budhwar Peti,
Pune - 411002



Green Campus Activities

**ACTIVITIES CARRIED OUT UNDER
GREEN CAMPUS INITIATIVE**



D.E.S.'s Brijlal Jindal College of Physiotherapy, Pune


Activity- Tree Plantation Drive

Month: - July 2022

Students at D. E. Society's Brijlal Jindal College of Physiotherapy, Pune. carried out Tree plantation drive on 7th July 2022. 50 trees were planted in college campus near the hostel wing. Smt. Madhuri Sahasrabudhe madam was invited for a talk about waste disposal. She spoke on sustainable living and use of objects which will avoid pollution. Avoid single use plastic.





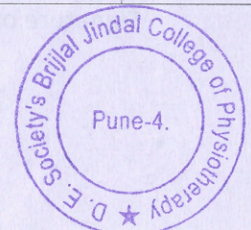

PRINCIPAL
D. E. Society's Brijlal Jindal
College of Physiotherapy
Pune . 4

By
Tree Plantation Drive

On July 2022

Attendance

Sr. No	Student's Name	Signature	Sr. No	Student's Name	Signature
	Ist B.P.Th.				
1.	Sukhi Gaikwad	Sukhi Shriya.A	33.	Dhruvi Karediga	D.K
2.	Shriya Ambeti	Shriya.A			
3.	Samreen Patel	Samreen			
4.	Sanika Suryawanshi	Sanika			
5.	Nidhi Borole	Nidhi			
6.	Pournima S.	Pournima			
7.	Adwait Bhurke	Adwait			
8.	Bhargav	Bhargav			
9.	Atharva Kulkarni	Atharva			
10.	Archika Shirde	Archika			
11.	Nupur	Nupur			
12.	Shatashi Jha	Shatashi			
13.	Esha Shepal	Esha			
14.	Sona Malkhare	Sona			
15.	Sanika Deshmukh	Sanika			
16.	Paidhi Jalan	Paidhi			
17.	Aditi Kulkarni	Aditi			
18.	Yugeshwari	Yugeshwari			
19.	Mugdha Joshi	Mugdha			
20.	Aarti Telang	Aarti			
21.	Nikita Jatal	Nikita			
22.	Amruta Dhruvi	Dhruvi.K			
23.	Megha Kamble	Megha			
24.	Sai Neurgaonkar	Sai			
25.	Tanmayee Bhuvad	Tanmayee			
26.	Taniya Ubhe	Taniya			
27.	Mohini Kagane	Mohini			
28.	Samudhi	Samudhi			
29.	Harshita Zambre	Harshita			
30.	Grade Amruta	Amruta			
31.	Avanti Tare	Avanti			
32.	Gauri Bande	Gauri			





D.E.S.'s Brijlal Jindal College of Physiotherapy, Pune

Name of Activity: Air pollution control drive

Activity carried out: Awareness campaign at traffic signals near college

Name of Coordinator: Dr Harshada Sonawane and Dr Shreya Dhake

Date & Time: 3-4 pm

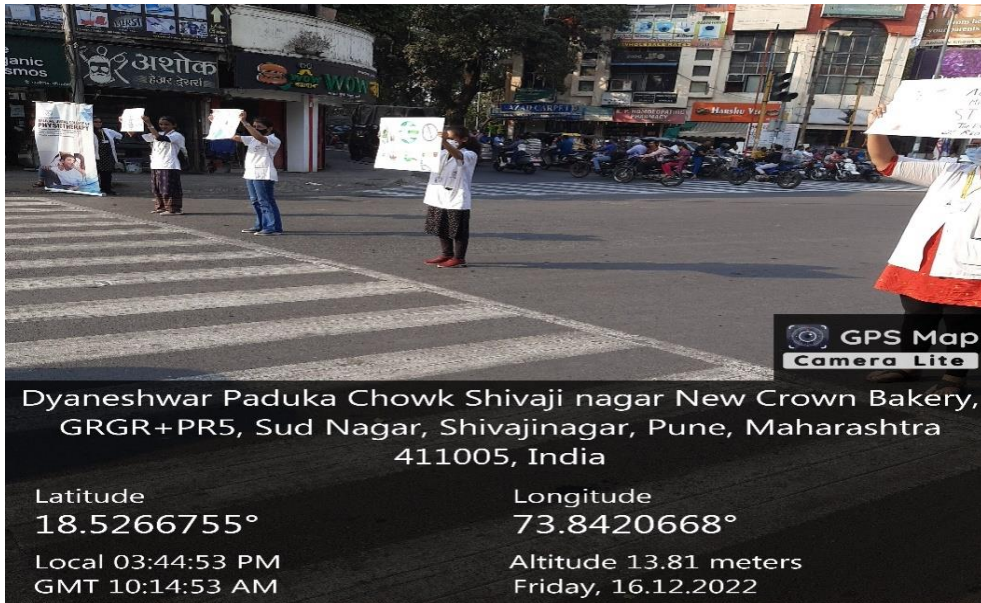
Objectives:

1. To raise awareness about raising levels of air pollution caused by use of different automobiles among public
2. Implementation of simple techniques to reduce air pollution
3. Increase use of alternate energy like battery operated, CNG, LPG for vehicles

Method: Students took posters and stood at signals, educating people about switching off engine at signals, less use of horns, regular servicing of vehicles etc

Participants: 1st BPTH and MPT students





GPS Map
Camera Lite

Dyaneshwar Paduka Chowk Shivaji nagar New Crown Bakery,
GRGR+PR5, Sud Nagar, Shivajinagar, Pune, Maharashtra
411005, India

Latitude	Longitude
18.5266755°	73.8420668°
Local 03:44:53 PM	Altitude 13.81 meters
GMT 10:14:53 AM	Friday, 16.12.2022



GPS Map
Camera Lite

GRGV+96W, Sud Nagar, Shivajinagar, Pune, Maharashtra
411005, India

Latitude	Longitude
18.5268679°	73.8403429°
Local 04:07:02 PM	Altitude 13.82 meters
GMT 10:37:02 AM	Friday, 16.12.2022



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D. E. Society's Brijlal Jindal
College of Physiotherapy
Pune . 4

D.E. Society's Brijlal Jindal College of Physiotherapy

Organizes

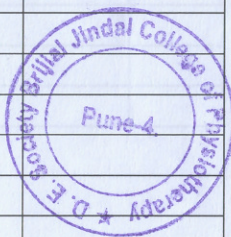
Activity Talk on
Pollution Control

By

On 16.12.22

Attendance

Sr. No	Student's Name	Signature	Sr. No	Student's Name	Signature
1.	Akita Kolhe	<i>(Signature)</i>			
2.	Alfay Tambali	<i>(Signature)</i>			
3.	Pravish Chauhan	<i>(Signature)</i>			
4.	Sneha waydant	<i>(Signature)</i>			
5.	Divya agarwal	<i>(Signature)</i>			
6.	Nayan Kotair	<i>(Signature)</i>			
7.	Sachin Kajale	<i>(Signature)</i>			
8.	Jaya Tathale	<i>(Signature)</i>			
9.	Poonam Sonani	<i>(Signature)</i>			
10.	Purvi Charban				
11.	Anjali Bais	<i>(Signature)</i>			
12.	Riya Patel	<i>(Signature)</i>			
13.	Shraddha Ghadge	<i>(Signature)</i>			
14.	Palak Darda	<i>(Signature)</i>			
15.	Vaishnavi Daptare	<i>(Signature)</i>			
16.	Rani Rodge	<i>(Signature)</i>			
17.	Lynn Fernandes	<i>(Signature)</i>			
18.	Anyu Phalras	<i>(Signature)</i>			



Signature of Guest Speaker

(Signature)

PRINCIPAL
D.E. Society's Brijlal Jindal
College of Physiotherapy

(Signature)

Signature of coordinator



D.E.S.'s Brijlal Jindal College of Physiotherapy, Pune

Activity- **“Environment Day”**


Month: - **June 2022**

Students at D. E. Society's Brijlal Jindal College of Physiotherapy, Pune. Celebrated Environment Day on 10th June 2022 by planting trees in the campus. Slogan of Environment Day was “Save the Earth, Save yourselves”. Think green Be green Stop polluting.

To serve the above purpose tree plantation drive was organized, total 25 trees were planted.

Students were given responsibility of taking care of the trees planted by them, So they thrive well. Trees were planted with vision of giving fresh air, decreasing pollution and in future providing shelter to various birds. It was a small step taken towards climate change.




PRINCIPAL
D. E. Society's Brijlal Jindal
College of Physiotherapy
Pune . 4

By
Tree PlantationOn June 2022

Attendance

Sr. No	Student's Name	Signature	Sr. No	Student's Name	Signature
1.	Riya patel	R Patel			
2.	Anyali Bais	A Bais			
3.	Vaishnavi Daptore	V Daptore			
4.	Nayan Kotian	N Kotian			
5.	Poonam Sonani	P Sonani			
6.	Divya Agawal.	D Agawal.			
7.	Sneha Woydonde	S Woydonde			
8.	Nikita K. Kolku	N Kolku			
9.	Pravin Chauhan	P Chauhan			
10.	Jaya Pathak	J Pathak			
11.	Komal Valesho	K Valesho			
12.	Uma Sharmo	U Sharmo			
13.	Kastiki Bhilare	K Bhilare			
14.	Riya Jain	R Jain			
15.	Anurde Bajantoni	A Bajantoni			
16.	Siddhi Desai	S Desai			
17.	Manasi Bagel	M Bagel			
18.	Janhavi Menjrekar	J Menjrekar			
19.	Bijal Pasad	B Pasad			
20.	Aiye Kunte	A Kunte			
21.	Ventatesh Mane	V Mane			
22.	Ajun Muralgut	A Muralgut			
23.	Apurva Jadhav	A Jadhav			
24.	Sanika Suryawanshi	S Suryawanshi			
25.	Neelha Kumbhe	N Kumbhe			
26.	A				

D.E. Society's

BRIJLAL JINDAL COLLEGE OF PHYSIOTHERAPY

Fergusson College Campus, Pune - 411 004 •Phone : (020) 67656471,67656467

•Fax : (91) (020) 67656494, 67656120 • E-mail : descoppune@gmail.com

•Web-site :www.desphysiotherapycollege.com , www.despune.org

Approved by Govt. of Maharashtra, Maharashtra State Council of OT/ PT, Indian Association of Physiotherapist & affiliated to Maharashtra University of Health Sciences, Nashik

Name of Activity: GREEN WINDOW INITIATIVE

Name of Coordinator: Dr. Aditi Berry(PT)

Date: 13/2/2020

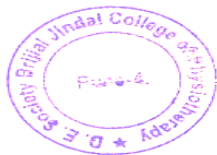
Outline of Activity:

GREEN WINDOW initiative was planned and organized for all the undergraduate and postgraduate students, in order to emphasize the importance of tree plantation and reducing the usage of plastic and related products .The students were asked to decorate their class windows by planting shrubs/ saplings and so on in order to increase the greenery in and around their classrooms. They were instructed to use only biodegradable products from the same. They were given a weeks time to arrange for the same and were evaluated on 13/2/2020. In order to encourage them to participate the best class out of all the other classes was chosen and the “ BEST GREEN WINDOW” the students appreciated this activity a lot.

Objectives: To promote greenery indoor plant plantation and also reduce the hazardous use of plastic and related non biodegradable products.

Outcome: All the students participated actively in the initiative and incorporated the use of biodegradable products to beautify and decorate their class windows.

Participants: All the under and post graduate students.



A. Dhale
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D E. Society's Brijlal Jindal
College of Physiotherapy
Pune-4.