GREEN AUDIT CERTIFICATE

This is to certify that Green Audit has been successfully completed by M/s. Saur Engineers & Consultants Pvt. Ltd. Empanelled Energy Auditor(CLASS-A) MEDA, Government of Maharashtra and an ISO 14001:2015 company and suggestions for improvements have been given. The Audit activity has been executed for beneficiary with following Details:-

SONOPANT DANDEKAR SHIKSHAN MANDALI Tahaşil & Diştrict Palghar, Maharaşhtra 401404

Date of Audit: 20/08/2023

Assessment Period: 2021-2023 Valid till: 19/08/2025



ANUP A. SAMANT TECHNICAL DIRECTOR



ASHUTOSH V. THAKUR MANAGING DIRECTOR

Saur Engineers & Consultants Pvt. Ltd.

Registration No: EA-28 MEDA/ECN/2023-24/Class-A/EA 28

Empanelled Energy Auditor-CLASS A, MEDA, Government of Maharashtra

The report is generated from data, information, answer to asked questions, standards and procedures defined by different and concerned authorities time to time, available site condition, weather condition, operational and availability conditions provided by beneficiary on the day of survey. If any changes on above said measures on any other parameters affecting these measures may lead to change, alter, in-corrections even falsifying calculations, results, recommendations and suggestions. The values, figures, amounts mentioned are indicative to the site situation and condition; it may not reflect each and every aspect of it. The report is generated restricted to given scope and available conditions and measures.



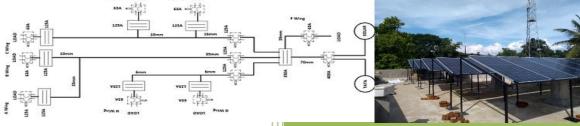
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- Liasoning
- Energy Audit
- Safety Audit
- Electrical Projects
- Solar Projects

Sonopant Dandekar Shikshan Mandali (SDSM) Tahl. & Dist. Palghar, Maharashtra





Report By

M/s. Saur Engineers & Consultants Pvt. Ltd., Mumbai.

- Registered Energy Auditor
- Power Consultant
- Channel Partner-MNRE, Govt. of India.
- Channel Partner-MEDA, Govt. of Maharashtra.
- Solar Grid Engineers, NISE, Govt. of India
- Licensed Electrical Contractor,



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Detailed Report

Green Audit
Project Beneficiary 2021-2023
Sonopant Dandekar Shikshan Mandali
Tahl. & Dist. Palghar Palghar Maharashtra 401404
Consultants & Auditor
SAUR Engineers & Consultants Pvt. Ltd. REGISTRATION NO.: EA-28
D-8, Plot No. 108, Akshay, Rsc-16, Gorai-1, Borivali (west), Mumbai-400092 MAHARASHTRA +919867499812/+919168402909



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Acknowledgement

This is to certify that Detailed Green Audit has been successfully completed by M/s. Saur Engineers & Consultants Pvt. Ltd. Empanelled Energy Auditor(CLASS-A) MEDA, Government of Maharashtra and an ISO 14001:2015 company.

This activity is jointly executed by auditor and beneficiary to account greenery conservation opportunity without sacrificing it's purpose. The main object was to assess the existing system for greenery diversity, High quality, professional and sustainable green management, Adopt best practices and Standard operating procedures.

Beneficiary premise is a leading educational service utility in semi-urban area. The college is run as per the norms and standards and having awareness and approach towards energy saving. The management and staff are keen on saving greenery on every opportunity available.

We sincerely acknowledge efforts of Management and staff members for smooth execution of audit process. We sincerely acknowledge the leaders and guides of the activity who helped to design and supported to the execution of the process

1) CA Mr. Sachin G. Kore : President

2) Mr. Dhanesh Vartak : Vice President

3) Mr. Pratap Varaiya : Vice President

4) Mr. Mangesh Pandit : Treasurer

5) Mr. Sudhir Kulkarni : Secretary
6) Mr. Anil Patil : Secretary

6) Mr. Anil Patil : Secretary
7) Dr. Kiran J. Save : Principal & Team Head

8) Dr. Payal Cholera : Principal – Law College

9) Prof. Mahesh Deshmukh : Vice Principal & IQAC Convener

10) Prof. (Dr.) Tanaji Pol : Vice Principal

11) Mr. Tejas Chaudhari : Assistant Professor

12) Mrs. Rupali More : Senior Clerk

13) Mr. Himanshu Patil : Accountant14) Mr. Prakash Chabke : Junior Clerk

14) Mr. Umesh More : Estate Manager

15) Mr. Prabhal Patil : Electrician

and all other technical, teaching, non-technical staff and students of college.



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Certificate

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Name of Beneficiary: Sonopant Dandekar Shikshan Mandali

Registration Number: F/24 PALGHAR

Address: Tahl. & Dist. Palghar, Maharashtra 401404

Contact Person: Prof. Mahesh Deshmukh

Contact Number: 02525252163 **Date of Audit:** 20/08/2023

The report is generated from data, information, answer to asked questions, standards and procedures defined by different and concerned authorities time to time, available site condition, weather condition, operational and availability conditions provided by beneficiary on the day of survey. If any changes on above said measures on any other parameters affecting these measures may lead to change, alter, in-corrections even falsifying calculations, results, recommendations and suggestions. The values, figures, amounts mentioned are indicative to the site situation and condition; it may not reflect each and every aspect of it. The report is generated restricted to given scope and available conditions and measures.



Sign & Seal
Saur Engineers & Consultants Pvt. Ltd.
Registration No: EA-28
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MEDA, Government of Maharashtra



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1. Introduction

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of natural diversity properties of institute. It aims to analyse within and surrounding the place concerned, in purview of relationship with natural diversity around. Green audit is a valuable means for an Institution related to educational area to determine how and what natural resources or diversity of nature they are surrounded with or they are living with. Green Audit report includes assessment of premises which refers to nature friendly environment with lesser carbon emission in terms of initiatives, implementation, best practices, working environment, capacity utilization based on all above parameters observed during green audit along with conditions and benchmarks as Air Quality, Water Quality, Noise Data, Weather Data, Tree Diversity, Faunal Diversity as well as biodiversity conditions. Understanding these conditions the institution can make plans for day to day working, future expansions as well as a nature-friendly view of life while making changes and planning for savings.

It can create consciousness and awareness about natural diversities around and helps to standardize practices for working with observation of nature friendly work style. It provides better understanding of green diversity available surrounding conditions to staff and students. As the vanishing diversity of nature is becoming an increasingly important issue for the nation as well as the world, the role of higher education institute is more vital and prevalent in relation with the issue.

The rapid urbanization and economic development at local, regional and global level has led to several greenery and ecological crisis. On this background it becomes essential to adopt the system of Green Campus for the institution which leads for sustainable development and at the same time persisting the quality of the same while travelling on the growth path. The National Assessment & Accreditation Council, New Delhi (NAAC) has made it mandatory to all Higher educational institutions should submit a Green Audit Report. Moreover, it is social responsibility of a Higher educational institution to ensure that they contribute towards the saving of Green areas and maintaining good levels of qualities for natural resources available such as Air, water, atmosphere, flora, faunal, Etc.



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1.1. Objective

The green audit of an institution has becoming the paramount important for self-assessment of the Institution which reflects in the role of the institution in mitigation to current problem of reducing greenery and natural resources depletion. The institution has been putting efforts to keep clean and green atmosphere since its inception. Therefore the purpose of present green audit is to identification, quantification, recording, reporting and analysis of components of natural diversity properties of institute framework of Green atmosphere sustainability. The main objectives to carrying out the green audit are:-

- To record and document Air quality data
- > To record and document Water quality data
- > To record and document Weather/Meteorology data
- > To record and document Noise Level data
- To record and document Tree Diversity data
- To record and document Faunal diversity data

1.2. Methodology

The purpose of Energy Audit of is to ensure that the practices followed in the campus are in accordance with the Energy Conservation Policy of the Country. The methodology includes: collection of data, physical inspection of the campus, observation and review of the documentation and data analysis.

The report is based on the documents obtained while on site, visual inspection and data collection carried out during the assessment period. All the measurements recorded on site are indicative loads and duties. All readings are collected for analysis and improvement planning. Cost estimates are indicative only as more detailed design and acceptance of suggestions will be required to improve the accuracy of these estimates.

The units are selected from SI (international standards) with meters, Celsius degrees, Etc.

1.3. Audit Statement

The building is adopting the "Energy Efficient Campus" system for Energy conservation and sustainability. There are main three pillars i.e. Energy saving by technology and Operation & Maintenance procedures, safe working on occupational health and performance and 100% inmates demonstrating energy efficiency literacy. The goal is to maintain safe working environment, reduce energy consumption, while creating an atmosphere where inmates can work and live healthy.



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2. Topography

2.1. Overview

SL No	Head	Details
1	Name of Applicant Institution	Sonopant Dandekar Shikshan Mandali
3	Address	Tal. Dist. Palghar 401404
4	Contact Number	02525252163
5	Registration Certificate Number	F/24 PALGHAR
6	Sector Type	Educational Institute
7	Senior Management Contact	Prof. Mahesh Deshmukh
8	Contact Number	7972547497
9	Status of Institution (Pvt./Public)	Private
10	Company Turnover (Rs. In Lakhs)	750
11	Number of Employees	235
12	Approximate Floor Area (ft2)	75000
13	Year of Establishment	1970
14	Plot Area (ft2)	800000
15	Constructed Area (ft2)	75000
16	Greenery Area (ft2)	700000
17	Roof Area (ft2)	24000
18	No of Buildings	6
19	Building Type	RCC Construction
20	Age of Building	30years
21	Leakages/Cracks on wall/roof	Minor wall leakages in rooms
22	No. of workers (Footfall)	250
23	No. of Customers (Footfall)	3000-4000
24	Day Vs Night activity in %	100% Day
25	Shifts per day	1
26	Hours per shift	12
27	DG Set installed	Yes
28	Inverter Installed	Yes
29	Renewable Energy System installed	Yes
30	(Solar/Wind/Biomass/Biofuel/Etc.)	Solar 80Kwp



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2.2. Location

SL No	Head	Details	Remark
1	Name of Institute	SDSM	
2	Category	College	Educational Institute
3	Address	Tahl. & Dist. Palghar Maharashtra	
4	State	Maharashtra	
	Nearest Railway	Palghar	Outstation
5	Station	Palghar	Local
	Nearest Bus	Palghar	Interstate
6	Station	Palghar	Intrastate
7	Nearest Airport	CSIA, Mumbai	
8	Longitude	19.42	
9	Latitude	72.45	

2.3. Layouts

Floor Map

- 1. Preserved in archives for each building.
- 2. For main building which is very old maps are not available, recommended to preserve sketches

Site Map

1. Preserved in archives.





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Google Map





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3. Premises and Utilization

Sonopant Dandekar Shikshan Mandali was founded in August 1968 by the lovers of education to commemorate Late Sonopant Dandekar, the scholar of higher degree, philosopher, strong protagonist of Varkari Samparadaya, the great narrator of "Jnaneshwari" and the son of this soil. He used to express his desire that a town like Palghar be bestowed with a model institution, which could cater the need of higher education of this economically, socially and culturally backward area of Maharashtra. This dream of Late Sonopant Dandekar was translated into reality by starting Sonopant Dandekar Arts and Vaman Shridhar Apte Commerce College in June 1970 with an initial strength of 150 students. Since its inception the Management is sensitive to the educational needs of this area and very kind to provide it to the students.

The Science College was started in 1984 and was greatly stabilized by the donation of Rupees 4 lakhs by Shri. M.H. Mehta. Many helping hands contributed to the development of and progress of the institution. At present 11000 students are taking quality education in the college that was started with only 150 students in 1970. The establishment of the institution in this region has solved the problem of women education. Due to non-availability of any institute of higher education in the region prior to the establishment of these institute girls students were deprived of higher education. Today more than 65% of students are girl students in the institute. Sonopant Dandekar Shikshan Mandali has fulfilled the need and greatly contributed to the educational and cultural development of this godforsaken territory.

Sonopant Dandekar Shikshan Mandali was founded in 1968 to fulfill the dream of Late Shri. Shankar Vaman alias Sonopant Dandekar. Few of the prominent amongst them are Late Padmshri Bhausaheb Vartak, Late Shri. Bhogilalseth Shah, Late Shri. J.P. Raut Popularly known as Janu Master, Late Shri. P.R. Dandekar, Late Shri. G.N. Purandare, Late Shri. DevideenTiwari, Ex. MLA and Present Trustee Shri.Navneethbhai Shah and Late Shri.Sadanand T. Kadam.































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4. Floral Diversity

SDSM, which was established in the year 1970, has eco-friendly environment since then. It has long legacy of healthy environmental practices periodic awareness, preservation and maintenance. Campus had developed own gardens, plantations, cultivation facility, awareness programs and actual planning and implementation to increase green percentage in and outside the premises.

Details of Trees

Year	No. of Trees
2020-21	25
2021-22	10
2022-23	105

The biodiversity of Sonopant Dandekar Campus comprises a 141 species fitting to 136 genera of 54 families. In addition to its, Mycoflora among which are Ganoderma (Wood rotting fungi), Daedalea (Bracket fungus), Mushrooms & Xylaria. Pteridophytes such as, Nephrolepis, Pteris Adiantum, Marsilea and Azolla, Bryophytes such as Riccia & Funaria & Gymnosperms such as Cycas & Thuja. Among the documented higher plants, dicots are dominating followed by monocots. Overall analysis revealed that herbs were dominating flora followed by monocots. Among the documented dicots Fabaceae is first documents family & followed by Poaceae, Caesalpiniaceae, Moraceae and Euphorbiaceae.

Objectives

- 1) To protect & conserve the plant species.
- 2) To restore degraded natural habitats & promote reforestation.
- 3) To increase the awareness of biodiversity and the need for its conservation.
- 4) To enhance scientific knowledge of flora and observe changes in ecosystems.

The primary goal of the green audit is to evaluate an organization's green attributes (Flora & Fauna variety) which have an impact on lowering pollution to the environment, preventing erosion of soil, conserving biodiversity and managing landscape.

Initiative in which an extensive variety of tree and shrub species have been planted collectively in order to offer an environmentally sound sustainable environment to stake holders. The presence of such plants in addition to birds on the green campus may possibly note down for the campus's diverse flora as well as fauna that are regarded as a value enhancement. The green audit found the campus is properly dispersed with additional oxygen releasing & CO2 assimilating plants for instance Money plants, Neem trees, Tamarind trees. The major grasses are Cynodon dactylon (Durva) and Cyperus rotundus (Nagarmotha). A large number of flowering, non-flowering invasive and economic important plants are observed in the campus (Table No.01).



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Sr. No.	Botanical Name	Family	Common Name	Habit
1.	Abrus precatorius	Fabaceae	Rosary Pea	Climber
2.	Acorus calamus	Areaceae	Vekhand	Herb
3.	Adhatoda vasica	Acanthaceae	Adulasa	Herb
4.	Areca catechu	Arecaceae	Supari	Tree
5.	Aloe vera	Liliaceae	Korphad	Herbs
6.	Alstonia scholaris	Apocyanaceae	Saptparni	Tree
7.	Asparagus racemosus	Liliaceae	Shatavari	Climber
8.	Averrhoa carambola	Oxilaceae	Star fruit	Tree
9.	Azadirachta indica	Meliaceae	Neem	Tree
10.	Bahunia accuminata	Caesalpiniaceae	Kachan	Tree
11.	Bougainvillea spectabilis	Nyctaginaceae	Paper Plant	Shrub
12.	Cassia fistula	Fabaceae	Bahava	Tree
13.	Caryota urens	Arecaceae	Fishtail palm	Tree
14.	Cinnamomum zelynica	Lauraceae	Dalchini	Shrub
15.	Delonix regia	Papilionaceae	Gulmohar	Tree
16.	Eucalyptus globulus	Myrtaceae	Nilgiri	Tree
17.	Haplanthodes verticillatus	Acanthaceae	Kateri jhanjkara	Herbs
18.	Helicteres isora	Sterculiaceae	Murud sheng	Tree
19.	Hibiscus rosa-sinensis	Malvaeae	Jaswand	Shrub
20.	Ixora coccinea	Rubiaceae	Ixor	Shrub
21.	Jasminum multiflorum	Oleaceae	Kunda	Shrub
22.	Jasminum sambac	Oleaceae	Mogra	Shrub
23.	Mangifera indica	Anacardiaceae	Amba	Tree
24.	Murraya koenigii	Rutaceae	Kadi patta	Tree
25.	Nerium oleander	Apocyanaceae	Kanher	Tree
26.	Nyctanthes arbortristis	Oleaceae	Parijatak	Tree
27.	Ocimum sanctum	Labitae	Tulsi	Herbs
28.	Opuntia elatior	Cactaceae	Naag phani	Herbs
29.	Phyllanthus emblica	Euphorbiaceae	Aawala	Tree
30.	Plumeria alba	Apocyanaceae	Chapha	Tree
31.	Polyalthia longiflia	Annonaceae	Khota ashok	Tree
32.	Peltopharum pterocarpum	Fabaceae	Copper pod	Tree
33.	Rauvolfia serpentina	Apocyanaceae	Sarpgandha	Herbs
34.	Roystonea regia	Aracaceae	Royal palm	Tree
35.	Saraca asoka	Fabaceae	Sita ashoka	Tree
36.	Sapindus trifoliatus	Sapinadaceae	Ritha	tree
37.	Senna alata	Caesalpiniaceae	Candle plant	Shrub
38.	Syzygium cumini	Myrtaceae	Black jamun	Tree
39.	Terminalia chebula	Combretaceae	Hirada	Tree
40.	Terminalia catappa	Combretaceae	Jangali Badam	Tree



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41. 42. 43. 44. 45. 46. 47.	Mimusops elengi Cocus nucifera Parkia biglandulosa Duranta plumerri	Sapotaceae Palmae Fabaceae	Bakul Nariyal	Tree Tree
43. 44. 45. 46.	Parkia biglandulosa		•	Tree
44. 45. 46.		Fabaceae		.
45. 46.	Duranta plumerri		Chanduphal	Tree
46.		Verbenaceae	Piwali Mendi	Shrub
-	Ludwigia parviflora	Onagraceae	Panlovang	Herbs
47.	Ficus elastica	Moraceae	Rubber plant	Shrub
	Ficus racemosa	Moraceae	Umber	Tree
48.	Ficus reliosa	Moraceae	Pimpal	Tree
49.	Ficus benghalensis	Moraceae	Vad	Tree
50.	Annona reticulate	Annonaceae	Ramphal	Tree
51.	Annona sqamosa	Annonaceae	Sitaphal	Tree
52.	Nymphaea rubra	Nymphaceae	Kamal	Herbs
53.	Grewia tilifolia	Tiliaceae	Dhaman	Tree
54.	Bridelia retusa	Euphorbiaceae	Asan	Tree
55.	Citrus lemon	Rutaceae	Lemon	Shrub
56.	Acacia farnesia	Caesalpniniaceae	Australian	Tree
			babul	
57.	Vitex negundo	Verbenaceae	Nirgudi	Shrub
58.	Spathodea campaniculata	Bignoniaceae	Akash shevga	Tree
59.	Musa paradicia	Musaceae	Keli	Tree
60.	Bhahunia acuminata	Caesalpniniaceae	Kanchan	Tree
61.	Bhahunia racemosa	Caesalpniniaceae	Aapta	Tree
62.	Moringa pubescens	Moringaceae	Shegava	Tree
63.	Tecoma grandias	Verbenaceae	Sag	Tree
64.	Azadirecta indica	Meliaceae	Nim	Tree
65.	Zyzyphus jujube	Rhamnaceae	Bor	Tree
66.	Zizyphus oenoplia	Rhamnaceae	Chanbor	Climber
67.	Carica papaya	Caricaceae	Papai	Tree
68.	Anacardium occidentale	Anacardiaceae	Kaju	Tree
69.	Samanea saman	Fabaceae	Rain tree	Tree
70.	Tamarindus indica	Fabaceae	Chinch	Tree
71. (Carica carandus	Apocyanaceae	Karavand	Shrub
72. (Caurouptia guianensis	Lecythidaceae	Shivlingi	Tree
73. (Quisqualis indica	Combretaceae	Madhumalati	Climber
74. <i>E</i>	Euphorbia hirta	Euphorbiacea	Dudhali	Herbs
75. <i>F</i>	Passiflora edulis	Passifloraceae	Krushana kamal	Climber
76. (Gardenia resinifera	Rubiaceae	Dikemali	shrubs
77.	Syndrella nudiflora	Compositae	Cyndrella weed	Herbs
78. (Cardiospermum helicacabum	Sapindaceae	Kapalphodi	Climber
79. <i>I</i>	Manilkara zapota	Sapotaceae	Chickoo	Tree
80. 7	Tridex procumbeans	Compositae	Ekdandi	Herbs
81. 7	Tabernamontana divaricate	Apocyanaceae	Tagar	Shrub



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	CLA33-A, 130 14001	.2015, Certified Solar Grid E	ingineers MISE-MINIC, G	Ovt. or maia.
82.	Calotropis gigantea	Asclepiadaceae	Rui	Shrub
83.	Tecoma stans	Bignoniaceae	Ghanti	Shrub
84.	Bacopa monnieri	Scrophulariaceae	Nir-bramhi	Herbs
85.	Centella asiatica	Umbelliferae	Bramhi	Herbs
86.	Gliricidia sepium	Fabaceae	Giripushp	Tree
87.	Mentha spictata	Lamiaceae	Mint	Herbs
88.	Wattakaka volubilis	Asclepidaceae	Hiranvel	Climber
89.	Jetropa carcus	Euphorbiaceae	Ratanjyot	Shrubs
90.	Alteranthera tridentra	Amaranthaceae	Bechkusal	Herbs
91.	Aratocarpus hetrophylla	Moraceae	Phanas	Tree
92.	Lantana camera	Verbenaceae	Ghaneri	Shrubs
93.	Stachytarpheta jamaicensis	Verbenaceae	Blue snake weed	Herbs
94.	Milillingtonia hortensis	Bignoniaceae	Indian cork tree	Tree
95.	Psidium guava	Myrtaceae	Peru	Tree
96.	Phyllanthus amarus	Euphorbiaceae	Bhuiavala	Herbs
97.	Sida acuta	Malvaceae	Bala	Herbs
98.	Sida cordifolia	Malvaceae	Bala	Herbs
99.	Butea monosperma	Fabaceae	Palas	Tree
100.	Corchorus aetuanas	Tiliaceae	Jute plant	Herbs
101.	Corchorus tiliflolius	Tiliaceae	Jute plant	Herbs
102.	Corchorus oleotorius	Tiliaceae	Jute plant	Herbs
103.	Gossypium hirsutum	Malvaceae	Kapus	Shrubs
104.	Cymbopogon citratus	Poaceae	Lemon grass	Herbs
105.	Rosa indica	Rosaceae	Gulab	Shrub
106.	Hibiscus schizopetalous	Malvaceae	Coral hibiscus	Shrubs
107.	Coleus blumei	Verbenaceae	Minemul	Herbs
108.	Catharanthus roseus	Apocyanaceae	Sadaphuli	Herbs
109.	Pilea microphylla	Euphorbiaceae	Sadhapilea	Herbs
110.	Celosia argentia.	Amaranthaceae	Karadu	Shrubs
111.	Acalypha hispida	Euphorbiaceae	Cat-tail	Herbs
112.	Hamelia patens	Rubiaceae	Hamelia	Shrubs
113.	Clerodendron inerme	Lamiaceae	Kadumenhdi	Shrub
114.	Michelia champaca	Magnoliaceae	Pivala chapha	Tree
115.	Hydrilla vertictillata	Hydrocharitaceae	-	Herbs
116.	Ipomea palmata	Convolvulaceae	Garvel	Climber
117.	Thephrosia populenea	Malvaceae	Ranbhendi	Tree
118.	Clitoria terneatea	Fabaceae	Gokarn	Climber
119.	Crotolaria juncea	Fabacaeae	Dhakti ghargi	Herbs
120.	Crotolaria retusa	Fabaceae	Khulkhula	Herbs
121.	Crotolaria pallida	Fabaceae	Jungli tag	Shrub
122.	Sesbania grandifolia	Fabaceae	Agasti	Shrub



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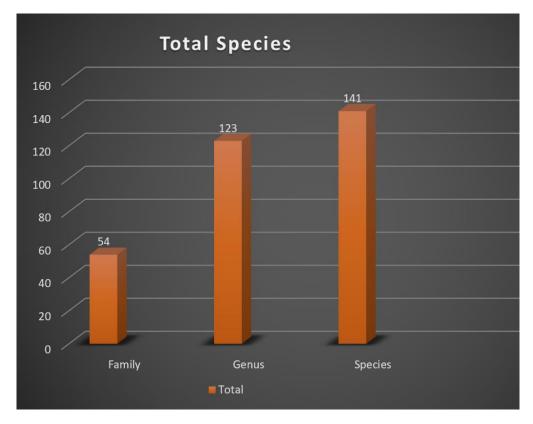
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123.	Caesalpinia bouducella	Caesalpiniaceae	Sagargota	Shrub
124.	Caesalpinia pulcherrima	Caesalpiniaceae	Shankasur	Shrub
125.	Mimosa pudica	Mimoaceae	Lajalu	Herbs
126.	Holarrhena pubescens	Apoacynacaeae	Kuda	Tree
127.	Pithecolobium dulce	Fabacaeae	Vilayati-chinch	Shrub
128.	Eclita alba	Asteraceae	Maka	Herb
129.	Vernonia cineraria	Asteraceae	Sahadevi	Herb
130.	Spilanthus acmella	Asteraceae	Akalkada	Herb
131.	Achyranthus aspera	Amaranthaceae	Agadha	Herbs
132.	Phoenix sylvestris	Arecaceae	Khajuri	Tree
133.	Caryota urens	Arecaceae	Fish-tail palm	Tree
134.	Cynadon dactylon	Poaceae	Poaceae	Herbs
135.	Utricularia caerulea	Utriculariaceae	Sitechi asva	Herbs
136.	Chloris barbata	Poaceae	Grass	Herbs
137.	Cyperus rotundus	Cyperaceae	Nagarmotha	Herbs
138.	Andropogon pumilis	Poaceae	Grass	Herbs
139.	Commelina benghalensis	Commelinaceae	Kena	Herbs
140.	Punica granatum	Punicaceae	Dalimb	Shrub

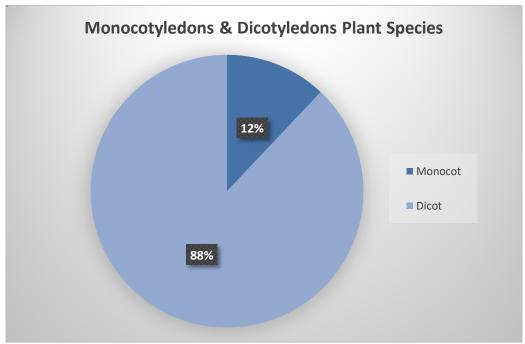
On campus, there are several trees, herbs, bushes, climbers, twinners & grasses. Every one of the plants are also found to be thriving, growing quickly & pest- & disease free.

The campus is rich in grass species like Andropogon pumilis, Apluda mutica, Cenchrus ciliaris, Asparagus racemosa & Commelina benghalensis. The majority of the species discovered are abundant on Campus. The majority of the plants found were Tamarindus indica, Azadirachta indica, & Cassia fistula that are prominent tree species distinctive of the campus environment. Nerium oleander, Punica granatum, Malikara zapota & Nerium indica Mill, are also a few of the shrub species that may be found on campus. It is demonstrated that several common weeds, such as Alteranthera tridentra, Sida acuta, Sida cordofolia, Chorchorus species, Cardiospermum helicacabum, Syndrella nudiflora, Cassia species etc.



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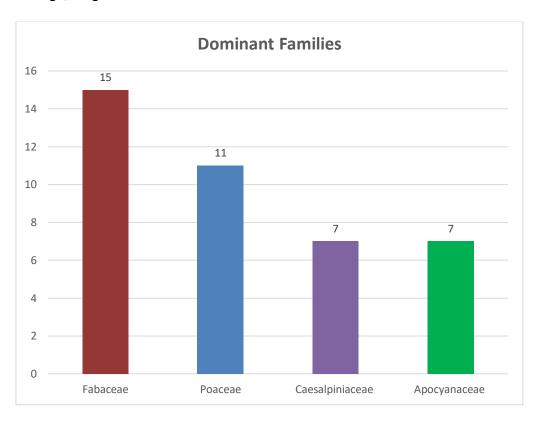


Number of Monocot Species: There are 17 species identified as monocots. Number of Dicot Species: There are 124 species identified as dicots.



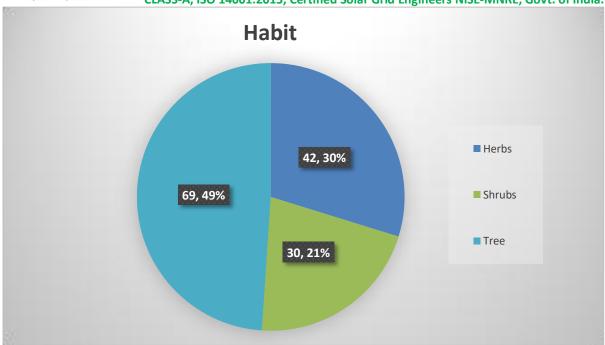
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Monocots and dicots represent two major groups within the angiosperms (flowering plants). Monocots include plants like grasses, lilies, orchids, and palms, while dicots encompass a wide range of plants including most trees, shrubs, vegetables, and many flowering garden plants. So, from the counts we can primarily analyses that that dicots are more numerous than monocots in the campus of Sonopant Dandekar College, Palghar.





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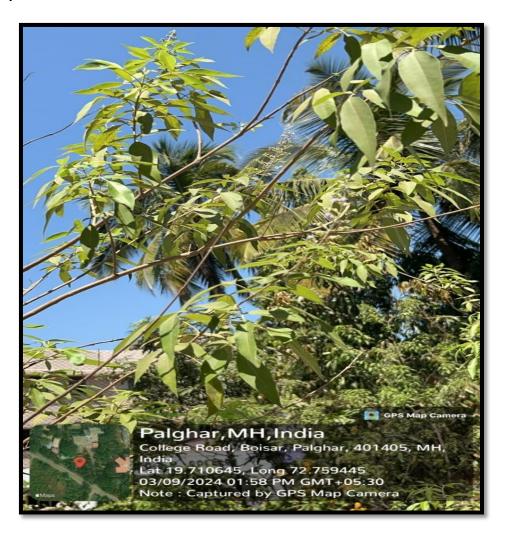
Conclusion:

We have achieved significant advances in learning research and consulting technological development and exchange, community service. Green audit has made significant efforts to keep the campus green in a significant manner. We have established Botanical garden in which medicinal plants have been planted collectively in order to offer an environmentally sound sustainable environment.



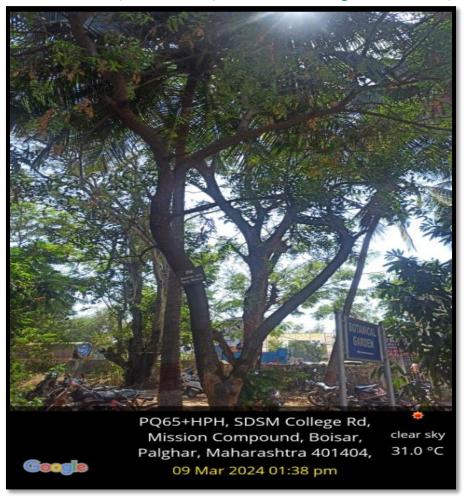
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Special Efforts:



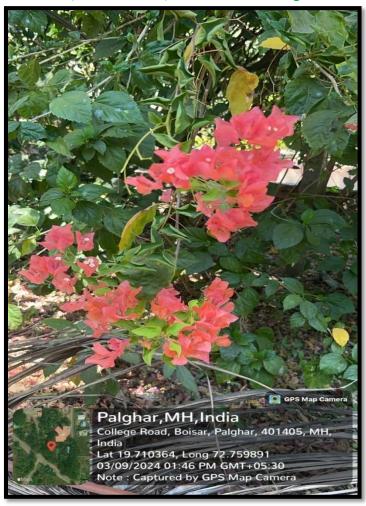
BOTANICAL NAME:	Vitex negundo L.
LOCAL NAME:	Nirgudi
FAMILY:	Verbenaceae
USES / IMPORTANCE	Medicinally important plant.
	Used in treatment of wounds and fever.
	Leaves and bark have antiviral and antibacterial properties.





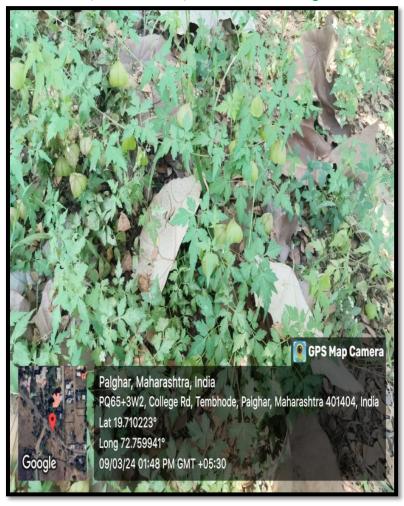
BOTANICAL NAME:	Azadirachta indica A.Juss
LOCAL NAME:	Neem or kadu neem
FAMILY:	Meliaceae
USES / IMPORTANCE	Medicinally important plant.
	Used in treatment of chicken pox.
	Used in treatment of hair (hair fall and dandruff) and skin related
	issues.
	Possess antiviral, antibacterial and antifungal properties.





BOTANICAL NAME:	Bougainvillea spectabilis Willd.
LOCAL NAME:	Kagadi Phool
FAMILY:	Nyctaginaceae
USES / IMPORTANCE	Plant is ornamentally important.





BOTANICAL NAME:	Cardiospermum helicacabum L.
LOCAL NAME:	Batua
FAMILY:	Sapindaceae
USES / IMPORTANCE	Roots have laxative and diuretic properties.
	Roots are used to treat rheumatism.
	Plant used in homeopathy.



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5. Faunal Diversity

Sr. No.	Scientific name	Common Name	Family	Order
1.	Saxicolodies fulicatus	Indian Robin	Muscicapidae	
2.	Copsychus saularis	Magpie Robin		
3.	Acridotheres tristis	Common Myna	Sturnidae	
4.	Nectarinia asiatica Latham	Purple Sun Bird	Nectariniidae	
5.	Pycnonotus cafer	Red Vented Bulbul	Pycnonotidae	
6.	Dicrurus macrocecur	Black Drongo	Dicruridae	
7.	Corvus splendens	House Crow	Corvidae	
8.	Terpsiphone paradisi	Asian Paradise Flycatcher	Monarchidae	Passeriformes
9.	Aegithina tiphia	Common Iora	Irenidae	
10.	Lonchura malacca	Spotted Munia	Ploceidae	
11.	Passer domesticus	House Sparrow		
12.	Oriolus oriolus	Golden Oriole	Oriolidae	
13.	Bubulcus ibis	Cattle Egret	Ardeidae	Ciconiiformes
14.	Milvus migrans	Pariah Kite	Accipitridae	Falconiformes
15.	Merops orientalis Latham	Green Bee Eater	Meropidae	Coraciiformes
16.	Columba livia	Blue rock Pigeonhen	Columbidae	Columbiformes
17.	Streptopelia chinensis	Spotted Dove		
18.	Psittacula krameri	Roseringed Parakeet	Psittacidae	Psittaciformes
19.	Megalaima haemacephala	Coppersmith barbet	Capitonidae	Piciformes



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Sample Photographs of ANIMALS/INSECTS/BUTTERFLIES



COMMON NAME	Spotted Munia
Scientific name	Lonchura malacca
Family	Ploceidae
Order	Passeriformes

The scaly-breasted munia or spotted munia (*Lonchura punctulata*), known in the pet trade as nutmeg mannikin or spice finch, is a <u>sparrow</u>-sized <u>estrildid finch</u> native to tropical Asia. A species of the genus <u>Lonchura</u>, it was formally <u>described</u> and named by <u>Carl Linnaeus</u> in 1758. Its name is based on the distinct scale-like feather markings on the breast and belly. The adult is brown above and has a dark conical bill. The species has 11 subspecies across its range, which differ slightly in size and color.

This <u>munia</u> eats mainly grass seeds apart from berries and small insects. They <u>forage</u> in flocks and communicate with soft <u>calls</u> and whistles. The species is highly <u>social</u> and may sometimes roost with other species of munias. This species is found in tropical <u>plains</u> and <u>grasslands</u>. Breeding pairs construct dome-shaped nests using grass or bamboo leaves.



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COMMON NAME	Red Vented Bulbul
Scientific name	Pycnonotus cafer
Family	Hirundinidae
Order	Passeriformes

The **red-vented bulbul** (*Pycnonotus cafer*) is a member of the <u>bulbul</u> family of <u>passerines</u>. It is a resident breeder across the <u>Indian subcontinent</u>, including Sri Lanka extending east to Burma and parts of Bhutan and Nepal. It has been introduced in many other parts of the world and has established itself in New Zealand, Argentina, Tonga and Fiji, as well as parts of Samoa, Australia, USA and Cook Islands. It is included in the list of the world's 100 worst invasive alien species.

The red-vented bulbul is easily identified by its short crest giving the head a squarish appearance. The body is dark brown with a scaly pattern while the head is darker or black. The rump is white while the vent is red. It is about 20 cm in length, with a long black tail, tipped in white. This is a bird of dry scrub, open forest, plains and cultivated lands.



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COMMON NAME:	Purple Sun Bird
Scientific name	Nectarinia asiatica Latham
Family	Nectariniidae
Order	Passeriformes

The **purple-rumped sunbird** (*Leptocoma zeylonica*) is a <u>sunbird</u> endemic to the Indian Subcontinent. Like other sunbirds, they are small in size, feeding mainly on <u>nectar</u> but sometimes take insects, particularly when feeding young. They can hover for short durations but usually perch to lap nectar from flowers. They build a hanging pouch nest made up of cobwebs, <u>lichens</u> and plant material. Males are contrastingly coloured but females are olive above and yellow to buff below. Males are easily distinguished from the <u>purple sunbird</u> by the light coloured underside while females can be told apart from males by their whitish throats.





SCIENTIFIC NAME:	Hasora chromus
COMMON NAME:	common banded awl
FAMILY:	<u>Hesperiidae</u>
Description	Wingspan 45–50 mm.
	 The male and female are dark vinaceous (colour of red wine) brown. The cilia is greyish brown while the head and thorax are greenish brown. The abdomen, third joint of palpi and the legs are also brown; the palpi and thorax beneath are dull yellow.
	 Below, the hindwing is dark brown with more of less of dull blue-greyish gloss. It has a narrow discal band, whitish in colour which is diffused on the outside margin. It has a black tornal patch. [6] This black spot is clearly visible only at the time of hatching for a few moments but is becomes hidden in the fold of the hindwing, a characteristic of this genus which develops very soon after.
	Male: Above, dark brown and unmarked. The upperside of the forewing with a brand from vein 1 to 4.
	Female: Above, the female has two yellowish-white discal spots, with a small spot near the apex





SCIENTIFIC NAME:	Chaetocneme beata
COMMON NAME:	common red-eye
FAMILY:	<u>Hesperiidae</u>
Description	The <u>wingspan</u> is about 50 mm.
	 The larvae feed on various trees, including <u>Annona</u>
	<u>reticulata, Croton insularis</u> , <u>Eupomatia</u>
	laurina, <u>Cinnamomum camphora</u> , <u>Hibiscus rosa-</u>
	<u>sinensis</u> and <u>Lophostemon confertus</u>
	 he caterpillar lives and feeds inside its rolled up leaf
	shelter, constructed at the tip of a leaflet. The caterpillars
	were very fragile and were left alone inside their leaf-
	shelters. After moulting, they moved out to construct
	another shelter.
	It is a small butterfly (about 20mm wingspan) with a dull
	brown upper wings and ochreous buff lower wings and a
	distinctive pair of red eyes. The adult is crepuscular.



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SCIENTIFIC NAME:	Ancistroides folus	
COMMON NAME:	grass demon	
FAMILY:	<u>Hesperiidae</u>	
Description	Male. Upperside black, the basal half of both wings covered with minute yellowish scales, markings pure white, semi-hyaline. Forewing with a large white spot filling up the end of the cell, two similar conjoined spots outwardly below it extending from beneath vein 4 to the sub-median vein, hardly separated from each other by vein 2; four conjugated sub-apical spots, the uppermost one minute, two similar spots below them nearer the outer margin, a small spot between these and the two large conjoined spots.	
	 Hindwing with a very large medial white patch with its margin sinuous all round; abdominal area covered with yellowish hairs. 	
	 Cilia blackish, alternated with white. Antennae black; palpi, head and body concolorous with the wings, whitish on the underside, legs brown above, whitish beneath. Female like the male, but the spots are larger. 	
	It is a small <u>butterfly</u> with a wingspan of about 4 to 4.8 cm. It is black with a large white spot on the upperside of the hindwing and several smaller whites spots on the forewing. The underside of its wings is mostly white with brown edges and spots.	



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6. Green Approach:

Plantation Drive by the Institute:









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Cleanliness of College Campus



Venue: Sonopant Dandekar Sr. College Campus

No. of Participants: 45

NSS & DLLE volunteers had done campus cleaning from 09:00 am to 11:00 am. They cleaned main building area, playground, parking area etc. Maintaining a clean college campus sets a good example to students. All other students will be inspired by this act. They will avoid littering in campus and will also share it with their friends.



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Swachh Bharat Abhiyan:

Under the Swachh Bharat Abhiyan initiative, 75 students took up the noble task of cleaning their college campus and its surrounding areas. With a sense of purpose and dedication, they diligently picked up litter, swept pathways, and disposed of waste responsibly. Their collective efforts not only transformed the physical appearance of the campus but also served as a powerful reminder of the importance of cleanliness and environmental stewardship. Through their actions, they set an inspiring example for their peers and the wider community, demonstrating that small acts of service can make a significant difference in creating a cleaner and healthier environment for all.





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Environmental Awareness:

As part of an environmental awareness program, ten students came together to perform a skit aimed at raising awareness about pressing environmental issues. Through their creative portrayal, they highlighted the consequences of pollution, deforestation, and unsustainable practices on our planet. With compelling storytelling and vivid characters, they engaged their audience and conveyed the urgent need for action to protect the environment. The skit not only informed but also inspired spectators to reflect on their own habits and consider adopting more eco-friendly lifestyles. By utilizing the power of drama and storytelling, these students effectively contributed to spreading awareness and fostering a deeper sense of responsibility towards the environment within their community.





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Disaster Management:

NSS (National Service Scheme) and DLLE (Directorate of Lifelong Learning and Extension) students found an informative lecture on disaster management led by renowned resource person Dr. Kundan Raut, a former major in the Indian Army. Dr. Raut's extensive knowledge and personal experience gave the seminar a special viewpoint that improved the students' comprehension of catastrophe preparedness and response tactics. He underscored the significance of taking proactive steps to lessen the effects of both natural and man-made disasters through captivating talks and lively debates. His advice on crisis management strategies, evacuation protocols, and coordination efforts struck a deep chord with the audience, giving them the knowledge and abilities they needed to participate wisely in an emergency. The training acted as a spark to promote a readiness culture.







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Cultivation:







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7. Suggestions:

- 7.1. It is observed that institute is working excellent in this Area. It is best expected to continue existing practices.
- 7.2. Arrange Exhibitions and identification programs for students and locals to understand medicinal plants.
- 7.3. Start a planting drive with students outside campus.
- 7.4. Gift small plants or seeds/seed-balls to students leaving or going to native place and encourage them to plant at their own premises.
- 7.5. Generate awareness among user about environment conservation.

8. Disclaimer

The report is generated from data, information, answer to asked questions, standards and procedures defined by different and concerned authorities time to time, available site condition, weather condition, operational and availability conditions provided by beneficiary on the day of survey. If any changes on above said measures on any other parameters affecting these measures may lead to change, alter, in-corrections even falsifying calculations, results, recommendations and suggestions. The values, figures, amounts mentioned are indicative to the site situation and condition; it may not reflect each and every aspect of it. The report is generated restricted to given scope and available conditions and measures.

9. Conclusion

We hereby conclude report for "Green Audit" of the institute has been done under scope of work for "Sonopant Dandekar Shikshan Mandli, Tahl. & Dist. Palghar Maharashtra 401404". Please study it thoroughly and implement recommendations and suggestions at earliest.