

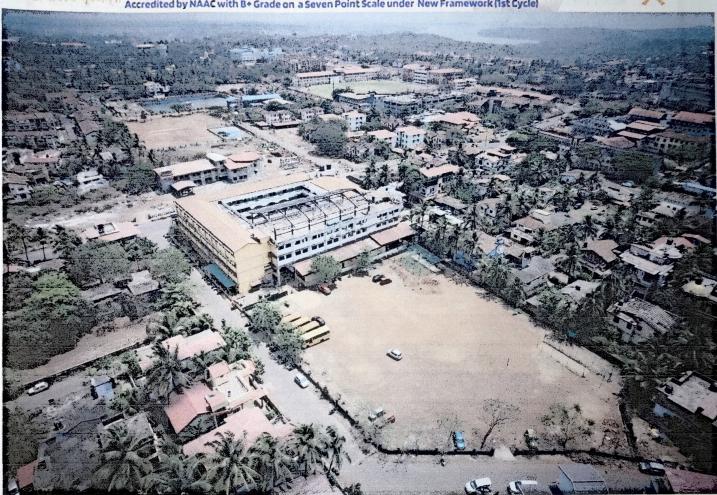
PRABODHAN EDUCATION SOCIETY'S

# VIDYA PRABODHINI COLLEGE OF COMMERCE, EDUCATION, COMPUTER & MANAGEMENT (Recognised by Govt of Goa. UGC under Section 2(f) and 12 (B) of the UGC Act 1956 & Affiliated to

Goa University) and Approved by NCTE

Accredited by NAAC with B+ Grade on a Seven Point Scale under New Framework (1st Cycle)





**Green Audit Report of VPCCECM** 2021 - 2022



## **Contents**

BACKGROUND	1
RELEVANCE OF A GREEN AUDIT	1
ABOUT THE INSTITUTION	2
OBJECTIVE OF THE GREEN AUDIT	4
APPROACH	4
GREEN COVER	
WASTE MANAGEMENT	8
WATER MANAGEMENT	
ENERGY MANAGEMENT	8
INFRASTRUCTURAL MANAGEMENT	99
SUSTAINABLE INITIATIVES	10
RECOMMENDATIONS	12
CERTIFICATION	12

## BACKGROUND

Green Auditing is usually defined as a systematic evaluation of performance by an establishment, institution, or an enterprise pertaining to factors of compliance with Environment and its management as a step towards achieving sustainability.

The rapid urbanization and economic development at local, regional, and global level has led to several environmental and ecological crisis. On this background it becomes essential to adopt the system of the Green Campus for the institutes which will lead for sustainable development and at the same time reduce a sizable amount of atmospheric carbon dioxide from the environment. Moreover, it is a part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through Carbon Footprint reduction measures.

In recent time, the Green Audit of an institution has been becoming important for self-assessment of the institution which reflects the role of the institution in mitigating the present environmental problems. Many institutions undertake lot of good measures to resolve these problems but are not documented due to lack of awareness.

The processes involved in a typical Green Audit comprises of:

- 1. Waste Management
- 2. Water Management
- 3. Energy Management
- 4. Infrastructural Management

The Green Cover of the college was taken into consideration for a better understanding of the college's connect with nature.



Also, other sustainable initiative(s) undertaken by the college across various departments with the help of the faculty and the students can certainly be highlighted as a "collective effort" in achieving the greater good.

#### Relevance of a Green Audit

- It gives an opportunity for the development of ownership, personal and social responsibility for the students and teachers.
- It aims to analyze environmental practices within and outside of the concerned sites, which will have an impact on the overall eco-friendly ambience of the college.
- Green auditing promotes financial savings through reduction of resource use.

# ABOUT THE INSTITUTION

Founded in June 1988, the Prabodhan Education Society firmly cherishes a vision to develop an educational philosophy in consonance with *Bharatiya* Culture and *Bharatiya* life-ideals, so that it may inspire workers dedicated to the noble cause of National Regeneration and help them to march with full self-confidence in the competitive world.



The Society also introduced National core curriculum including moral and spiritual Education, Yoga Education, Physical Sanskrit and Music Education, promoting National Integration and Cultural Development. The Society also caters to the public need of the surrounding area through various extension services cells such as Adult Education Centre for Women, Prabodhini. Kreeda Prabodhini (Sports), Lokakala Prabodhini (Folk Art),

Nritya Prabodhini (Dance), Natya Prabodhini (Dramatics), Sangeet Prabodhini (Music), Sahitya Prabodhini (Literature), Vidnyan Prabodhini (Science), Darshan Prabodhini (Philosophy), Sanskrit Prabodhini, Saunskar Prabodhini (Value Education), Anusandhan Prabodhini (Research), Vyavasaya Margadarshan Prabodhini (Vocational Guidance), Bal-Vikas Prabodhini (Child's allround Development), Gramvikas Prabodhini (Rural Development), and the Research and Consultancy Cell. The firm, determined and objective oriented journey of Prabodhan Education Society has gradually flourished into the following institutions, cherishing within its fold, a large family of educational institutions in a short span of 25 years:

- 1. Vidya Prabodhini College of Commerce, Education, Computer and Management
- 2. Vidya Prabodhini Higher Secondary School of Arts, Science & Commerce
- 3. L.D. Samant Memorial High School
- 4. Prabodhan Poorva Prathamik Vidyalaya, Porvorim
- 5. Prabodhan Prathamik Vidyalaya, Porvorim
- 6. Prabodhan Poorva Prathamik Vidyalaya, Pomburpha
- 7. Prabodhan Prathamik Vidyalaya, Pomburpha
- 8. Jan-Shikshan Saunsthan, Porvorim (Sponsored by Central Government)
- 9. Smt. Sunandabai Bandodkar High School, Salvador-De-Mundo
- 10. Smt. Sunandabai Bandodkar Poorva Prathamik, Salvador-De-Mundo
- 11. Smt. Sunandabai Bandodkar Prathamik, Salvador-De-Mundo

Vidya Prabodhini College of Commerce, Education, Computer and Management started in the year 2012 affiliated to Goa University, Recognized by Govt. of Goa and approved by NCTE, offering a three-year B.Com. and Four-Year Integrated B.A. B.Ed. programs. The College takes the credit for having started a unique program i.e., a Four-Year integrated B.A. B.Ed. from the Academic Year 2015-16. The college has been assessed and accredited by



NAAC with B+ Grade on a Seven Points Scale under New Framework (1st Cycle). The NAAC Peer Team visited the college on 3rd and 4th September, 2018. This college takes the credit of being the first college in the State of Goa which is accredited by the NAAC under the new guidelines effective from July, 2017. The college is also recognized by UGC under section 2(f) and 12(B) of the UGC Act 1956. The College is situated in a spacious area at Vidyanagar, Porvorim-Goa and has its own building with a 7,904 sq.mts. built up area. Besides a 4000 sq. mts. playground, the College offers excellent infrastructure facilities and a conducive learning environment. The College is also in the process of designing and developing different skill based short-term courses with an objective of enhancing the employability skills of our students. The College is also working actively to develop the Institution-Industry Network for placement opportunities for our students. To bring a continuous improvement in the overall functioning of the college, the College has already setup Internal Quality Assurance Cell (IQAC), and this Cell is working in that direction. The key objective of the College is to impart a balanced holistic education to all its students and thereby develop young men and women who will be intellectually able, broad minded and disciplined citizens to serve the Nation in different capacities in various fields of life that they later choose for themselves.

#### The Institutional Core Values are as follows:

- Providing Sanskarmai Shikshan through the development of Value and Culturebased education
- Promoting Creativity and Innovation
- Providing a Quality Learning Environment
- Ensuring a Holistic Education
- Having Quest for Excellence
- Commitment and Dedication
- Imbibing National Values and Philosophy
- Ensuring Welfare of the Society
- Creating Responsible Citizenship

- Upholding Work Ethics and Professionalism
- > Inculcating basic values in students
- > Fostering global competition among the students
- Promoting research culture and a spirit of inquiry
- Promoting use of technology
- Collaborating with other societal stakeholders
- > Inculcating a Scientific Temper and Spirit of Inquiry and Reform Build on the cornerstone that imparting accessible education to all is service to society and nation

### Objective of the Green Audit

The main objective of the audit is to self-assess the college in a systematic way and to identify, quantify, record the components of the environment of the institution. This exercise will also investigate the measures taken by the college in an optimum utilization of resources available in the campus by following the practices in accordance with the green policy of the nation.

## **APPROACH**

The methodology followed for completing the green audit was simple. The observations were made for the existing green cover, the waste management, the water management, the energy management, the infrastructural management, and a glimpse of sustainable initiatives along with proposed activities of the educational institution. A complete scenario of the present ecosystem in the college shall be revealed whereby any concerns faced can be dealt with suitable solutions/recommendations.

All the Teachers along with students, non-teaching staff, PTA members, local Biodiversity Management Committee (BMC), and ex-alumni were involved in the audit process giving their contribution in the best possible manner.

#### **Green Cover**

The institution is situated in Penha De Franca Panchayat, Vidya Nagar, Alto-Porvorim, North Goa District of the state. However, being in a peri-urban ecosystem, one could locate quite a few native florae (plants and trees) and fauna thriving in and around the institution. The college actively with the help of its students and faculties conducts plantation drives in the surrounding community thus standing true to its motto, "College to Village and Campus to Community."

A compilation of the biodiversity noted within a radial range of 2kms of the institution is included after a preliminary survey and an interaction with the college students, faculties, as well as neighboring community.











#### Some of the flora observed in and around the campus are as follows:

Sr. No.	Common Name/Local Name	Scientific Name
1.	Crown Flower/Rui	Calotropis gigantea
2.	Lemongrass/Ganjan	Cymbopogon
3.	Chirata/Kirayte	Swertia
4.	Turmeric/Halad	Curcuma longa
5.	Holy Basil/Tulsi	Ocimum tenuiflorum
6.	Jasmine/Juhi	Jasminum auriculatum
7.	Golden Trumpet	Allamanda cathartica
8.	Mango/Aamo	Mangifera indica
9.	Common Jasmine/Jai	Jasminum officinale
10.	Sapodilla/Chickoo	Manilkara zapota
11.	Jackfruit/Panas	Artocarpus heterophyllus
12.	Tamarind/Chinch	Tamarindus indica
13.	Coconut/Nall	Cocos nucifera
14.	Rubber Tree	Ficus elastica
15.	Banyan Tree/Vad	Ficus benghalensis
16.	Cluster Fig/Rumad	Ficus racemosa
17.	Guava/Peru	Psidium guajava
18.	Cashew/Kaju	Anacardium occidentale
19.	Indian jujube/Bor	Ziziphus mauritiana
20.	Chandada/Chanado	Macaranga peltata
21.	Indian Almond/Badam	Terminalia catappa
22.	Common Leea/Jino	Leea indica
23.	Sacred Tree/Palas	Butea monosperma
24.	Earleaf Acacia	Acacia auriculiformis
25.	Blackboard Tree/Saton	Alstonia scholaris
26.	Monkey Pod Tree/Raintree	Samanea saman
27.	Show-flower Plant/Dasan	Hibiscus rosa-sinensis
28,	Bermuda Grass/Durva	Cynodon dactylon
29.	Okra/Lady's Finger/Bheno	Abelmoschus esculentus
30.	Amaranth/Tamdi Bhaaji	Amaranthus
31.	Aloe/Kate-kavar	Aloe vera
32.	Pinwheel Flower/Ananta	Tabernaemontana divaricata
33.	West Indian Lantana/Ghanyari	Lantana camara
34	Neem/Kodu-limb	Azadirachta indica

### Commonly observed birds in and around the college campus are as follows:

Sr. No.	Common Name	Scientific Name
1.	Common Tailorbird	Orthotomus sutorius
2.	White-throated Kingfisher	Halcyon smyrnensis
3.	House Crow	Corvus splendens
4.	Purple-rumped Sunbird	Leptocoma zeylonica

5.	Oriental magpie-robin	Copsychus saularis
6.	Common Myna	Acridotheres tristis
7.	Rock Dove/Blue Rock Pigeon	Columba livia
8.	Red-whiskered Bulbul	Pycnonotus jocosus
9.	Indian Golden Oriole	Oriolus kundoo
10.	Black Kite	Milvus migrans

#### Commonly observed insects in and around the college campus are as follows:

Sr. No.	Common Name	Scientific Name
1.	Common Crow Butterfly	Euploea core
2.	Tawny Coster Butterfly	Acraea terpsicore
3.	Indian Luna Moth	Actias selene
4.	Asian Carpenter Bee	Xylocopa latipes
5.	Lynx Spider	Oxyopes shweta

#### Commonly observed reptiles in and around the college campus are as follows:

Sr. No.	Common Name	Scientific Name
1.	Oriental Garden Lizard	Calotes versicolor
2.	Bengal Monitor	Varanus bengalensis
3. <b>4</b> .	Keeled Indian Mabuya	Eutropis carinata
4.	Sri Lankan Green Vine Snake	Ahaetulla nasuta
5.	Common Bronzeback Tree Snake	Dendrelaphis tristis
6.	Indian Rat Snake	Ptyas mucosa

#### Commonly observed mammals in and around the college campus are as follows:

Sr. No.	Common Name	Scientific Name
1.	Indian Palm Squirrel	Funambulus palmarum
2.	Indian Flying Fox	Pteropus giganteus
2. 3.	Indian Grey Mongoose	Herpestes edwardsii
4.	Asian Palm Civet	Paradoxurus hermaphroditus
5.	Black-footed Gray Langur	Semnopithecus hypoleucos

### Waste Management



The institution considers waste segregation at source as an utmost priority. Two dustbins (A Green for Wet Waste and A Black for Dry Waste) with trash bags have been kept outside each of the classrooms for students and faculties to dump the trash accordingly.

Later, the Multi-Tasking Staff (MTS) collects all the dry waste trash bags daily while the local Panchayat picks up the collected waste on a weekly basis from the institution.

To cater to the disposal of the wet waste, a Biogas plant has been setup to fuel the College Canteen Gas stoves using the CSR funds provided by the Rotary International. This plant also provides organic compost as a final by-

product which is added to the plants and trees present in the college campus.

### Water Management

There are two overhead water tanks with 10000 Ltrs. And 5000 Ltrs. of capacities respectively, part of which are utilised by VPCCECM infrastructure apart from the Pre-Primary & Primary School, High School, and the Higher Secondary School.

The college also considerably derives its water needs from the rainwater harvesting system installed in the college infrastructure under the CSR funds allotted by Provident Housing Ltd., Bangalore. The rainwater is naturally collected through the pipelines placed on the walls and is collected in an underground recharge well (10m deep) which is later used in watering the plants and trees in the campus.

### **Energy Management**

The initiatives that the institute has taken in the Energy Conservation need to be duly appreciated. The campus gets its supply of electricity from the Goa Electricity Department (GED). Additionally, the college has installed Solar Panels on the rooftops with the help of CSR funds from Rotary International.

\*Kindly refer the detailed Energy Audit Report of the college for additional information.

### Infrastructural Management

Overall, a Pre-Primary & Primary School, a High School, a Higher Secondary School, and VPCCECM operate from the institutional infrastructure present in the campus. VPCCECM utilizes half of the second floor and the entire third floor.



An overview of VPCCECM establishments along with important stats in the present infrastructure is given below:

Academic Year: 2021 - 2022

Classrooms - 18; Labs - 01 (IT) & 01 (Geography)

Staffroom - 01; Washrooms - 02 (Boys) & 02 (Girls)

Total No. of Students - 751; Male Female Ratio - 2.73:1

Total No. of Faculties - 52; Regular - 30 & Contractual/Lecture Basis - 22

Total No. of Non-teaching Staff - 19



Indoor potted plants line up the passages of VPCCECM thus improving the aesthetics of the infrastructure.

The classrooms are quite spacious with all essential amenities required for teaching and learning effectively.



The washrooms for both boys and girls are well maintained and hygienic. The taps and faucets are in good working condition. All the washrooms have proper ventilation due to presence of exhaust fans. Girls' washrooms have been provided with Sanitary Napkins dispenser.



\*Kindly refer the detailed Structural Audit Report of the college for additional information pertaining to the construction technology and green building measures.

## SUSTAINABLE INITIATIVES

VPCCECM has been on frontline in terms of spread of awareness on various socioenvironmental concerns. Numerous activities and programs have been held from past years through collaborations with the Goa Forest Department, Goa State Biodiversity Board, Goa State Pollution Control Board, local BMCs, and other state bodies likewise.





The institution since its inception in 2012 has been adhering with the theme, "Moving towards Sustainability" which is evident through the initiatives/campaigns/activities conducted or participated in by the institution over the years.

Students make use of old newspapers and discarded packaging materials to create decorative items during annual "Srujanutsav", a college cultural fest.

The Non-teaching staff had prepared bird nests from old wooden materials and placed them in different

locations in the campus to encourage nesting by resident birds and showcasing "Co-existence".

The College has been instrumental in propagating a sense of responsibility amongst public towards environment conservation by adopting steps such as switching to Electric Vehicles (EVs) from fossil fuel-based vehicles by some of the faculties thereby reducing the carbon footprint significantly.

Selling of newspapers and paper waste to scrap-dealers for reuse or recycling.

Students are encouraged to inculcate eco-friendly habits such as switching off lights, fans etc. when not in use and using water sparingly.



Some of the glimpses from such activities involved are displayed below:











# RECOMMENDATIONS

- Multiple color-coded dustbins can be placed on the floors of operation to further improve the waste segregation at source.
- 2. The potted as well as planted flora in the campus can be QR coded to make it a "Smart Garden" and provide information about the said plant/tree to the person scanning it.
- 3. For outside plantations within the neighbouring community, dew farming can be implemented thereby solving the problem of regular watering and maintenance.
- 4. A small sized plant nursery can be developed within the campus to encourage students, faculties, and parents for planting more trees.
- 5. All the existing taps and faucets in the infrastructure can be replaced with sensor-based ones for minimalistic usage of water.

## CERTIFICATION

This is to certify that the following educational institution has undergone a Green Audit.

Name: Vidya Prabodhini College of Commerce, Education, Computer & Management, Porvorim-Goa.

Date: 19/07/2022

Green Audit Inspected, Verified, and Endorsed by:

Mr. Laxmikant Desai; M.Sc. (Environment Science & Technology)

Co-founder & Secretary

Environment Conservation and Research Organisation (ECRO)