

Bhadrawati Shikshan Sanstha, Bhadrawati's



Nilkanthrao Shinde Science & Arts College

Bhadrawati, District: Chandrapur

INTERNAL GREEN & ENVIRONMENT AUDIT REPORT 2020 - 2021



Prepared by:

Internal Green & Environment Audit Committee
Nilkanthrao Shinde Science & Arts College, Bhadrawati

About the college:

Bhadrawati Shikshan Sanstha, Bhadrawati a renowned education society, runs various Higher Education & Technical Institutes in Bhadrawati region. The Seed of Bhadrawati Shikshan Sanstha Bhadrawati was planted in 1971 at the hands of revolutionary politician, educationist, socialist and former MLA of the region Honorable Shri Nilkanthrao Yeshwantrao Shinde.

The first establishment of the institution rooted in the form of Nilkanthrao Shinde College Of Science & Art at Bhadrawati itself in 1993 with science undergraduate faculty which later on turned and grown into post graduate faculty for various disciplines. The institution have become pioneer in providing paradigmatic excellence & quality education intertwining tradition with scientific research work & new inventions. The institution has been catering to the need of middle & lower class by providing latest facilities & amenities to all. Institution has been continuously exploring inter place with the world around us through the different activities among the students.

To identify & nurture the talent of each & every student, institute organize various events, workshops, seminars, conferences, social & educational meets, sports & many more activities. These painstaking efforts were acknowledged by NAAC (National Assessment & Accreditation Council, Bangalore) peer team appreciated the efforts by the institute for the development in the field of education & awarded 'B' grade. The reaccreditation of NAAC took place in the year 2010 with B grade and CGPA 2.03.


Today the college offers wide range of courses in the stream of science, Arts, and computer science. Co-operation & Co-ordination of the Management, its members, Principal & Faculty members, teaching & non-teaching staff have contributed to the success of every undertaking venture.

Nilkanthrao Shinde Science & Arts College is aware about its responsibility towards protecting environment and bio-diversity on the campus.




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N.S.Science & Arts College
Bhadrawati


Dr. L.S. Ladke
PRINCIPAL

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Bhadrawati, Dist-Chandrapur

Acknowledgement:

Internal Green and Environment Audit Committee would like to thank the management of Bhadrawati Shikshan Sanstha and Nilkanthrao Shinde Science and Arts College, teaching & non-teaching staff, students, parents and adjoining community for extending their co-operation and valuable inputs in collection of information and facts about environmental management. To conduct Internal Green and Environment Audit is a significant step taken by the college, a worth mentioning here. Internal Green and Environment Audit Committee also wish to thank EFEC for helping Internal Green and Environment Audit Committee in organizing 'Workshop on understanding Environment Management System and appreciate their cooperation for extending their knowledge through-out the process of Internal Green and Environment Audit program. Internal Green & Environment Audit Committee express gratitude towards valuable guidance & contribution made by various NGOs, and adjoining community for extending cooperation in preparation of this audit. Our special thanks to the Principal Dr. L. S. Lakde for giving a valuable guidance.



Nilkanthrao Shinde Science and Arts College Campus and the Botanical Garden

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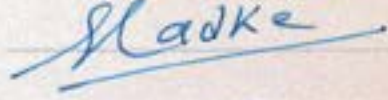
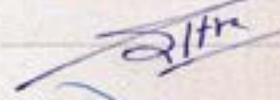

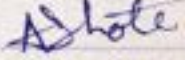

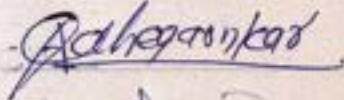
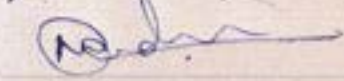


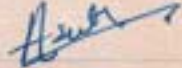
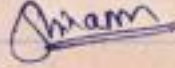
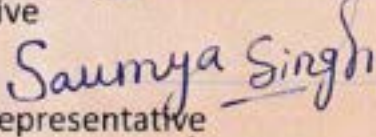
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Bhadrawati Shikshan Sanstha's


Nilkanthrao Shinde Science & Arts College

Bhadrawati, District: Chandrapur

IGEAC : Internal Green and Environment Audit Committee

Sr. No.	Name	Designation	Sign
01	Dr. L. S. Lakde	Principal / Chairman	
02	Dr. S. R. Sitre	IQAC, Co-ordinator	
03	Dr. N.V. Harney	Member, IGEAC	
04	Dr. A. B. Dhote	Member, IGEAC	
05	Dr. N. S. Wadhawe	Member, IGEAC	
06	Dr. A. D. Dahegaonkar	Member, IGEAC	
07	Dr. M. N. Qadri	Member, IGEAC	
08	Dr. V. N. Shinde	Member, IGEAC	
09	Mr. Uday Vaze	Member, EFEC	
10	Mr. Ajay Asutkar	Member, IGEAC Non-teaching staff Representative	
11	Mr. Shivam Saxena	Member, IGEAC Student Representative	
12	Ms. Soumya Singh	Member, IGEAC Students' Representative	

The Internal Green & Environment Audit Committee authenticate observations, records and recommendations in this report.


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Compilation document:

Internal Green and Environment Audit is a process of systematic identification, quantification, recording, reporting, and analysis of components of environmental factors of various establishments. It aims to analyze environmental practices within and outside of the concerned sites, which will have an impact on the ambience. Thus it is imperative that the college evaluate its own contributions towards a sustainable future.

As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to environmental sustainability is more prevalent. Internal Green and Environmental Audit is assigned to the Criteria 7 of NAAC, National Assessment and Accreditation Council. The Internal Green & Environment Audit Committee was formed. The committee decided to conduct Internal Green and Environmental Audit of the college in June, 2019. The motive of the internal audit was to make sure that the practices followed in the campus are environment friendly.

Internal Green and Environment Audit is a systematic assessment of day to day activity with special focus on how resources are utilized with minimum impact on environment. The questionnaire was obtained with the help of external member of the Internal Green & Environment Audit Committee. It was observed and evidence were brought together 'what degree to which the departments are in compliance with the applicable regulations, policies and standards and to ensure that the development of the college aims at sustainable development and at the same time keeping the college campus green and pollution free. The methodology was simple and started right from collecting data, insight inspection, evaluation, computation, conducting physical survey and review of the relevant documentation.



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Statement of assurance:

The Internal Green & Environment Audit Committee has adopted the audit procedure that meets the terms of International Standards of Internal Auditing Practices. The committee is cause to feel certain that adequate and relevant audit procedures were followed, concrete evidence were gathered and conclusion were drawn from facts. The Internal Green and Environment Audit committee believe that recommendations are for improving the effectiveness of environmental management efforts made by the college. The Internal Green and Environment Audit Committee decided that changes or additions in management practices should be systemic, must be done through series of small steps and every concerned individual must be well informed about changes and additions made in management practices. Recommendations are based on a evidence compiled in this report as they existed at the time of the audit.

Summary:

It was evident from the data collected in several visits to Nilkanthrao Shinde Science and Arts College Bhadrawati, that the teaching & non teaching staff, students of the college are aware about the importance of efforts to save and protect environment in the campus. The college staff follow best course of action such as plantation of important trees, reducing all types of waste, garden maintenance, follow composting practices, follow ways and means to reduce energy consumption, conduct review meetings, organize environmental educational activities for staff as well as for students. Although, it was also observed that, many of the practices followed by the college are in nascent stage and needs further action to improvise environment management system.



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Introduction:

The expeditious urbanization and economic development at local, national and international level has led to several environmental and ecological emergencies. To prevent damages due to site specific activities, practices, processes and procedures followed by various institutions, businesses, organizations or factories, it becomes essential to adopt methods, process and procedures for making green campus for the institutions, businesses, organizations or factories which will lead for sustainable development.

Nilkanthraon Shinde Science and Arts College, Bhadrawati made it clear from its environment policy that its a priority area to conserve environment and promote environmental education & awareness in academia and every possible way to keep campus green. The purpose of conducting the Internal Green and Environmental Audit is to understand and make continuous efforts to reduce adverse impact on environment. The college seeks advice from consultants and resource persons in environment education and protection. The methodology to conduct Internal Green Audit & Environmental Audit was designed with the help of consultants and NGOs with the teaching staff of the college. It includes draft of questionnaire, in-situ site inspection in the campus, scrutinize and evaluate documentation, monitor procedures, practices and processes carefully. The formation of Internal Green and Environment Audit Committee with involvement of external subject specialist has made report valuable. The Internal Green and Environment Audit Committee has made valuable recommendations. The committee proposed remedial procedures to reduce the carbon foot print of the college. It works for the betterment of environment in the college campus including air, water, noise, soil quality, waste management, care for flora & fauna in campus, promoting paperless working.

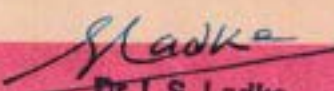
Internal green audit:

Internal Green Audit is a process of systematic verification of activities, identification of adverse impacts, evaluation of systems, documentation process, reporting and analysis of environmental diversity of various institutions, businesses, organizations or factories. It aims to analyze environmental practices and processes within and outside of the targeted institution, business, organization or factory, which will have an impact on the ecologically friendly environmentally-safe ambience.



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Internal Environment Audit:

An Internal Environment Audit proposed by Nilkanthrao Shinde Science & Arts College is an assessment performed to ensure that institutions, businesses, organizations or factories are complying with environmental regulations policies. It examines the amount of adverse impact on environment or risk of injury that may be posed by the assessed entity and determines the types of pollution being produced by looking at a broad range of site specific activities, practices, processes and procedures. The information compiled from these factors to determine what remedial procedures are required to be added for better good.

Scope:

Internal Green and Environment Audit proposed by Nilkanthrao Shinde Science & Arts College play a significant role in continuing operation of institutions, businesses, organizations or factories. It keeps institutions accountable by scrutinizing their site specific procedures and determining what remedial measures are required to be added or put in place to ensure institutions, businesses, organizations or factories are following the proper statute.

Objective:

The key objectives of an Internal Environment Audit proposed by Nilkanthrao Shinde Science & Arts College therefore are to: determine how well the environmental management systems and equipment are performing, verify compliance with the relevant national, local or other laws and regulations, minimize human exposure to risks from environmental, health and safety problems.

Methodology:

Internal Green & Environment Audit Committee by Nilkanthrao Shinde Science & Arts College was formed. In the first meeting of Internal Green and Environment Audit Committee an open discussion was made on how to conduct Internal Green & Environment Audit. The committee came to a conclusion that external party will look into overall infrastructure, procedures, practices and operation of the collage and will draft detail questionnaire. Questionnaires provide a relatively rapid and efficient way of obtaining large amounts of information from a large number of people. Answers obtained from open-ended questionnaire are analyzed using qualitative methods and they involve discussions and critical analysis without any difficulty. This was useful because the information lead to concrete conclusions. The methodology also included a physical inspection of the campus, observation, and review of the documentation, interviewing key persons and data analysis, measurements, and suggesting recommendations.

The efforts were taken to understand following focus areas and emphasis was given to know facts on the ground :

Overall area inspection to find out efforts taken by the Nilkantharao Shinde Science & Arts College to promote greenery in campus.

Management & performance of water distribution and its conservation by Nilkantharao Shinde Science & Arts College, be it a municipal supply or the water collected by rain water harvesting.

Drinking water and water consumption for other purposes such as construction, gardening etc and its management.

Use of electricity and other types of energy uses and management related to it.

Initiatives, projects and activities taken for conservation of flora, fauna and the measures taken to improve environment management systems in the college campus.

Environment policy:

Nilkantharao Shinde Science & Arts College, Bhadrawati is a leading college in the Chandrapur district and is well aware about it's responsibilities towards environment. It protects its own environment and efforts are taken to keep it free from pollution. Environment protection, conservation and education are key areas that are prioritized in academia of the college. The management, teaching & non teaching staff, students and community members of the college look after the environment carefully.

Important focus areas are:

- i. To create awareness regarding environmental policy of the Nilkantharao Shinde Science & Arts College to management, teaching & non teaching staff, students and community members.
- ii. To keep college campus of Nilkantharao Shinde Science & Arts College free from pollution by avoiding open fire, managing garbage, prohibition of consumption of tobacco in the campus. Caution poster in regard to health, hygiene and environment protection are displayed in the campus.
- iii. Segregate bio-degradable & non bio-degradable waste. Create composting facility for bio-degradable waste.
- iv. To provide safe drinking water to students and staff.
- v. To install and maintain 'Rain Water Harvesting' in the campus.
- vi. To place the dustbins and promote hygienic condition in the college campus.
- vii. To organize various activities with the help of NGOs and government agencies.
- viii. To evaluate the environmental performance of the college by conducting Internal Green and Environment Audit of Nilkantharao Shinde Science & Arts College annually.

Location of the college:

Nilkanthrao Shinde Science & Arts College is situated in Bhadrawati town of Chandrapur district.

Latitude: 20° 6'29.62"N

Longitude: 79° 6'54.40"E

Land use and land cover:

Total area of the college campus: Approx 50,000 Sq Ft

Area reserved for green cover: 17,000 Sq Ft Approx

Population:

Students : 496 Teaching Staff: 53 Non Teaching Staff: 10 Floating : 10

Audit questionnaire and audit forms:

Internal Green and Environment Audit Committee was given a questionnaire. The committee was well supported by teaching and non-teaching staff of the college to collect the data. The evidences were collected by referring questionnaire and field visits to the college.

Water quality:

Access to safe drinking-water is essential to health, a basic human right and a component of effective policy for health protection. Water is essential to sustain life, and a satisfactory (adequate, safe and accessible) supply must be available to all. Improving access to safe drinking-water can result in tangible benefits to health.



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Installations:

The installation of 'compost pits', compost pits and rainwater harvesting system are the initiatives taken by Nilkanthrao Shinde Science & Arts College.

Bio diversity in campus:

Nilkanthrao Shinde Science & Arts College has planted several trees in the campus and these trees became saviors of bio-diversity present on the campus.

Flora and fauna:

The green cover on the campus helps in creating favorable condition for many living organisms such as butterflies and other friendly insects such as lady bird beetles, spiders, birds and mammals.

Green initiatives:

Nilkanthrao Shinde Science & Arts College is aware about importance of educating students about environment and special efforts are taken by Environment Committee in initiating activities that reduces its adverse impacts on environment. Initiative such as tree plantations, de-weeding program, rain water harvesting, no vehicle day, installation of solar panels, plastic waste free campus, regular maintenance of electrical gadgets, awareness training workshops, paperless exams are organized by the college.

Recommendations:

Recommendations are given by Internal Green & Environment Audit Committee. The recommendations made by the committee will give insight to the administrative authority to improve the environment and will make positive impact on environment performance of the college.

Awards & recognition received by the college:

Nilkanthrao Shinde Science & Arts College has received many awards and recognition over the last few years.

Post Internal Green & Environment Audit commitments:

Review meeting was organized to discuss about recommendations made by committee after the Internal Green & Environment Audit process was completed.

Internal Green & Environment Audit document storage:

Documents related to Internal Audit are stored at IQAC chamber.

Bio-diversity in campus: Flora

Nilkanthrao Shinde Science & Arts College is well aware about benefits of trees for other living organisms. Trees act as carbon sinks and offset carbon from the environment. Wide variety of floral species can be seen thriving in the college campus and variety of life forms such as birds, mammals, butterflies can be seen at all periods of the day. Exhaustive list of species found in botanical garden on the campus are presented in following table.

Sr.No.	Botanical Name of Plant	Vernacular name of Plant	Family
1.	<i>Ocimum tenuifolium</i>	Tulsi	Lamiaceae
2.	<i>Bryophyllum Sp.</i>	Panphuti	Bryophyllaceae
3.	<i>Citrus reticulata</i>	Santra	Rutaceae
4.	<i>Aloe vera</i>	Korphad	Asphodelaceae
5.	<i>Mangifera indica</i>	Amba	Anacardiaceae
6.	<i>Psidium quajava</i>	Peru	Myrtaceae
7.	<i>Emblica officinalis</i>	Amla	Euphorbiaceae
8.	<i>Rheo discolor</i>	-	Commelinaceae
9.	<i>Carica papaya</i>	Papai	Caricaceae
10.	<i>Euphorbia pulcherima</i>	Wild Klotz	Euphorbiaceae
11.	<i>Azadirachta indica</i>	Kadunimb	Meliaceae
12.	<i>Murraya exotica</i>	Madhumalti	Rutaceae
13.	<i>Citrus indica</i>	Nimbu	Rutaceae
14.	<i>Zizyphus jujuba</i>	Bor	Rhamnaceae
15.	<i>Lantana camara</i>	Bhutganja	Verbanaceae
16.	<i>Euphorbia tithymaloides</i>	-	Euphorbiaceae
17.	<i>Cycas sp.</i>	Cycas	Cycadaceae
18.	<i>Opuntia</i>	Nagphana	Opuntiaceae
19.	<i>Canna indica</i>	Kardali	Cannaceae
20.	<i>Michelia champaca</i>	Chafa	Magnoliaceae
21.	<i>Tabernaemontana divaricata</i>	Swastik	Apocynaceae
22.	<i>Hibiscus rosa-sinensis</i>	Jaswand	Malvaceae
23.	<i>Ixora sp.</i>	Ixora	Rubiaceae
24.	<i>Vinca rosea</i>	Sadaphuli	Apocyanaceae
25.	<i>Pongamia pinnata</i>	Karanji	Fabaceae
26.	<i>Annona squamosa</i>	Sitaphal	Annonaceae
27.	<i>Callistemon citrinus</i>	Bottle brush	Myrtaceae
28.	<i>Coriandrum sativum</i>	Kothimbir	Umbelliferae
29.	<i>Rauwolfia serpentina</i>	Sarpagandha	Apocynaceae
30.	<i>Rosa indica</i>	Rose	Rosaceae
31.	<i>Adhatoda vesica</i>	Adulsa	Acanthaceae
32.	<i>Tradescantia sp.</i>	-	Commelinaceae
33.	<i>Euphorbia sp.</i>	-	Euphorbiaceae
34.	<i>Acalypha sp.</i>	-	Euphorbiaceae
35.	<i>Asparagus aspera</i>	Shatavari	Asparagaceae

36.	<i>Thuja arvensis</i>	Vidya	Conifereceae
37.	<i>Dracaena sp.</i>	Dracena	Asparagaceae
38.	<i>Fin Palm</i>	-	Palmaceae
39.	<i>Cymbopogon citratus</i>	Lemongrass	Poaceae
40.	<i>Carrisa carandus</i>	Karwand	Apocynaceae
41.	<i>Jasminum multiflorum</i>	Kunda	Oleaceae
42.	<i>Allium sativum</i>	Lahsun	Liliaceae
43.	<i>Allium cepa</i>	Onion	Liliaceae
44.	<i>Togetes erecta</i>	Marigold	Asteraceae
45.	<i>Calotropis procera</i>	Rui	Asclepiadeceae
46.	<i>Adenium</i>	-	Apocynaceae
47.	<i>Prunum amyldgus</i>	Badam	Rosaceae
48.	<i>Lantana indica</i>	Bhutganja	Verbenaceae
49.	<i>Agave americana</i>	American aloe	Agavaceae
50.	<i>Euphorbia mill</i>	-	Euphorbiaceae
51.	<i>Artocarpus heterophyllus</i>	fanas	Moraceae
52.	<i>Musa indica</i>	Banana	Musaceae
53.	<i>Alstonia scholaris</i>	Saptaparni	Apocynaceae
54.	<i>Delonix egia</i>	Gulmohar	Fabaceae
55.	<i>Archae Palm</i>	Archi palm	Palmaceae
56.	<i>Jasminum sambac</i>	Mogra	Oleaceae
57.	<i>Polyalthia longifolia</i>	Ashoka	Annonaceae
58.	<i>Saraka indica</i>	Sita ashok	Annonaceae
59.	<i>Cassia fistula</i>	Amaltas	Fabaceae
60.	<i>Roystonia regia</i>	Royal Palm	Arecaceae
61.	<i>Cynodon dactylon</i>	Durva	Poaceae
62.	<i>Cocos nucifera</i>	Naral	Arecaceae
63.	<i>Manilkara zapota</i>	Chiku	Sapotaceae
64.	<i>Aristolochia</i>	-	Aristolochiaceae
65.	<i>Bauhinia Purpurea</i>	Aapte	fabaceae
66.	<i>Nerium indicum</i>	Kanher	Apocynaceae
67.	<i>Sygygium cumini</i>	Godnimb	Myrtaceae
68.	<i>Mirabilis jalpa</i>	Four 'O 'clock plant	Nyctaginaceae
69.	<i>Bougainvillea</i>	-	Nyctaginaceae
70.	<i>Impatiens balsamina</i>	Chiwdi	Balsaminaceae
71.	<i>Mentha piperita</i>	Pudina	Lamiaceae
72.	<i>Mimosa pudica</i>	Touch me not (Lajalu)	Fabaceae
73.	<i>Araucaria araukana</i>	Christmas tree (Monkey Puzzle)	Araucariaceae
74.	<i>Tridax procumbens</i>	Kambarmodi	Asteraceae
75.	<i>Rosa indica</i>	Gulab	Rosaceae
76.	<i>Salvinia Sp.</i>	-	Salviniaceae
77.	<i>Pistia sp.</i>	-	Pistiaceae

78.	<i>Nelumbo nucifera</i>	<i>Lotus</i>	Nelumbonaceae
79.	<i>Trapa natans</i>	<i>Shingada (Water Chestnut)</i>	Trapaceae
80.	<i>Lemna</i>	-	Lemnaceae
81.	<i>Ocimum basilicum</i>	<i>Sabja</i>	Lamiaceae
82.	<i>Ficus religiosa</i>	<i>Peepal</i>	Moraceae
83.	<i>Ficus racemosa</i>	<i>Umber</i>	Moraceae

List of birds seen at various places in the campus:

English Name	Scientific Name	Marathi Name
Lesser Coucal	<i>Centropus bengalensis</i>	भारद्वाज
Alexandrine Parakeet	<i>Psittacula eupatria</i>	करण पोपट
Rose Ringed Parakeet	<i>Psittacula krameri</i>	लाल मान्या पोपट
Blue Rock Pigeon	<i>Columba livia</i>	राखी कबुतर
White Breasted Waterhen	<i>Amaurornis phoenicurus</i>	लाजरी पाणकोंबडी
House Crow	<i>Corvus splendens</i>	कावळा
Grey Shouldered Kite	<i>Elanus axillaris</i>	कपाशी
House Sparrow	<i>Passer domesticus</i>	भारतीय चिमणी
Purple Sunbird	<i>Cinnyris asiaticus</i>	शिंजीर
Coppersmith Barbet	<i>Megalaima haemacephala</i>	तांबट
Indian Roller	<i>Coracias benghalensis</i>	चाष
Little Green Bee Eater	<i>Merops orientalis</i>	वेडा राघू
Black Drongo	<i>Dicrurus macrocercus</i>	कोतवाल
Asian Koel	<i>Eudynamis scolopaceus</i>	भारतीय कोकीळ
Yellow Legged Green Pigeon	<i>Treron phoenicoptera</i>	हरीयल
Barn Owl	<i>Tyto alba</i>	पिंजरा घुबड
Shikra	<i>Accipiter badius</i>	शिक्रा
Common Iora	<i>Aegithina tiphia</i>	सुभग
Purple Sunbird	<i>Cinnyris asiaticus</i>	शिंजीर
House Sparrow	<i>Passer domesticus</i>	गावचिमणी
Golden Oriole	<i>Turdoides striatus</i>	हळद्या
Red Munia	<i>Amandava amandava</i>	लाल मुनिया
Yellow Footed Green Pigeon	<i>Treron phoenicoptera</i>	हरीयल
Black Drongo	<i>Dicrurus macrocercus</i>	कोतवाल
Jungle babbler	<i>Turdoides striatus</i>	सातभाई
Indian Roller	<i>Coracias benghalensis</i>	नीलकंठ

Green initiatives by the college:

College students are involved in many initiatives and activities such as NSS unit. NSS unit of Nilkanthrao Shinde Science and Arts College is an active unit and organize many events in regard to protect the environment and keep campus clean and green. Eating, chewing and spitting tobacco in Nilkanthrao Shinde Science and Arts College campus is prohibited. The campus of Nilkanthrao Shinde Science and Arts College made 'a single use disposable plastic free zone'. A rally was organized to sensitize community in and around about avoid use of single use disposable plastic. It was long distance rally with over 100 students involved and marched on the main road adjacent to college campus. The waste water is collected and harvested properly. The rain water is harvested and collected in pit as storage and for recharging it. To sensitize community about pollution due to petrol and diesel vehicles Nilkanthrao Shinde Science and Arts College took initiative to make one day in week as NO VEHICLE DAY. It is observed every Friday and is a popular initiative by Nilkanthrao Shinde Science and Arts College. No horns please signs are put outside campus on road adjacent to the campus of Nilkanthrao Shinde Science and Arts College. To maintain greenery in the collage campus the BOTANICAL GARDEN is well maintained and every year medicinal herbs and shrubs are planted and nurtured. The special care has been taken to keep it clean. The students of Nilkanthrao Shinde Science and Arts College are allowed to study in garden as and when required in the college. There is an exhaustive list of trees, shrubs, herbs and climbers planted and nurtured in college garden. A compost pit is installed at Botanical Garden in Nilkanthrao Shinde Science and Arts College to make manure from food waste.


Initiatives taken recently:

Green campus initiatives

- **Green campus initiatives**
- **Tree Plantation**
- **Restricted entry of automobiles**
- **Use of Bicycles/ Battery powered vehicles**
- **Pedestrian Friendly pathways**
- **Ban on use of Plastic**
- **Landscaping with trees and plants**
- **No Vehicle Day**
- **Slogan for green campus**


COORDINATOR-IOAG

N.S. Science & Arts College
Bhadrawati


Dr. L.S. Ladke
PRINCIPAL

N.S. Science & Arts College
Bhadrawati, Dist-Chandrapur



ACTIVITIES - Slogan In Campus



Soak Pit Construction in Campus – For Water Percolation in Groundwater



No Vehicle Day



College Building with Increased Aesthetics



Latitude: 20.108226
Longitude: 79.1151
Elevation: 213.41m
Accuracy: 3.2m
Time: 07-01-2020 08:24
Note: tree plantation

Dr. L. S. Ladke on the occasion of Tree Plantation 1st July 2020


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N.S. Science & Arts College
Bhadrawati


Dr. L.S. Ladke
PRINCIPAL
N.S. Science & Arts College
Bhadrawati, Dist-Chandrapur



Latitude: 20.108235
Longitude: 79.115155
Elevation: 209.39m
Accuracy: 9.6m
Time: 07-01-2020 08:25
Note: tree plantation

Dr.S. R. Sitare on the occasion of Tree Plantation 1st July 2020



Latitude: 20.108524
Longitude: 79.115166
Elevation: 216.65m
Accuracy: 12.9m
Time: 23-12-2020 13:48
Note: Restricted area

Restricted entry of automobiles to reduce pollution.



Latitude: 20.108526
Longitude: 79.115179
Elevation: 216.65m
Accuracy: 14.9m
Time: 23-12-2020 13:59
Note: bicycle stand.

Use of bicycles



Pedestrian friendly pathways in garden



Slogan On Ban of Plastic on 1st Floor





Latitude : 20.10856877°
Longitude : 79.11508231°
Altitude : 141.73383 meters
Date : 03/10/2021 11:02 am

Landscaping



जल संरक्षण जगते
वर्धित ही -ही जगता
जी है।
Conserve water.
Conserve life.

Latitude : 20.10850176°
Longitude : 79.11500716°
Altitude : 149.54517 meters
Date : 12/08/2020 01:40 pm

Slogan on water conservation



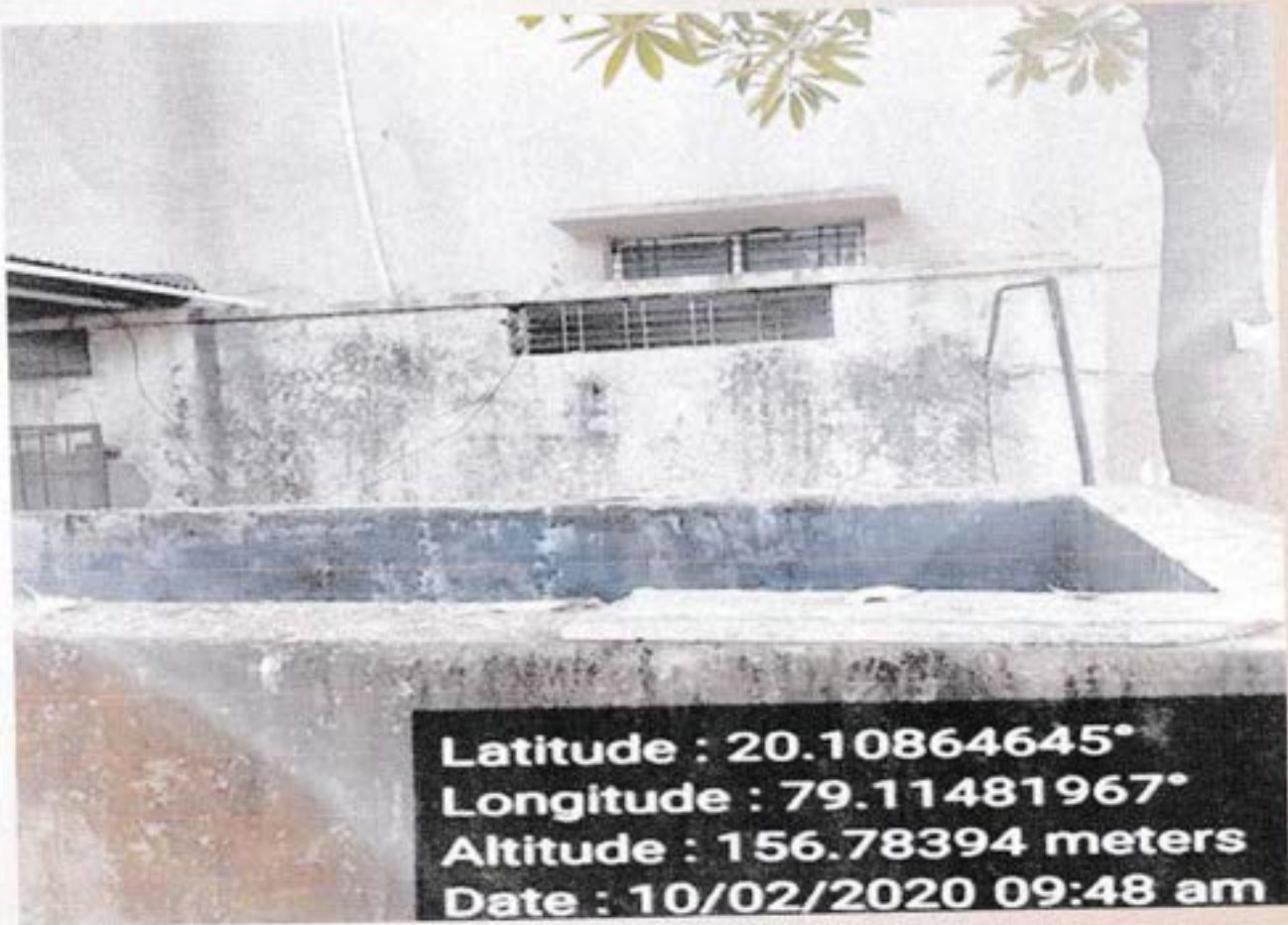
Think. Act. Save.

Saving electricity is our job, we must remember to turn electronics off!



Latitude : 20.10848653°
Longitude : 79.11505686°
Altitude : 153.42322 meters
Date : 12/08/2020 01:41 pm

Slogan On Save Electricity on Ground Floor



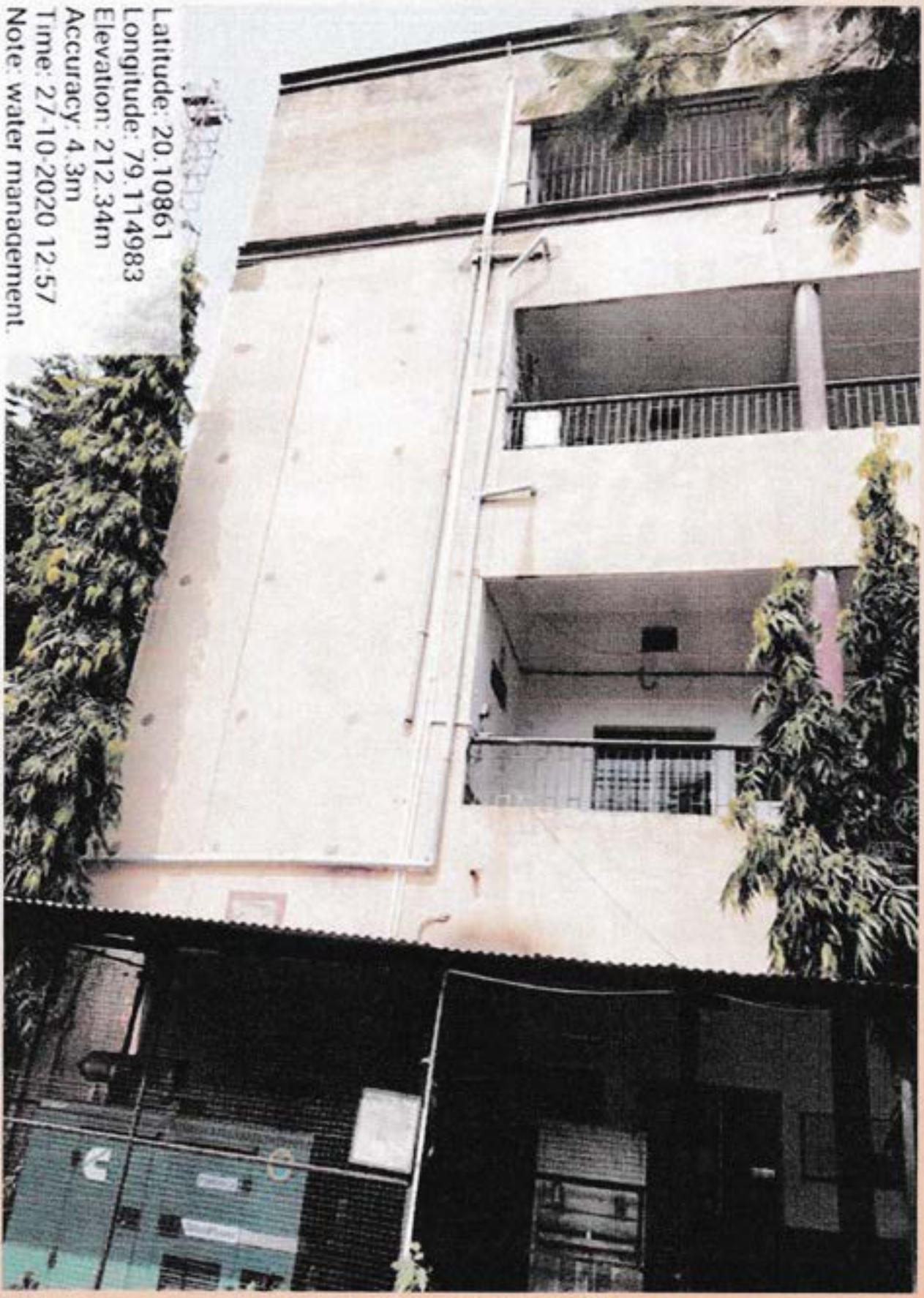
Latitude : 20.10864645°
Longitude : 79.11481967°
Altitude : 156.78394 meters
Date : 10/02/2020 09:48 am

Tank for rain water harvesting



Latitude: 20.108739
Longitude: 79.114902
Elevation: 208.22m
Accuracy: 3.2m
Time: 27-10-2020 12:57
Note: water management

Latitude: 20.10861
Longitude: 79.114983
Elevation: 212.34m
Accuracy: 4.3m
Time: 27-10-2020 12:57
Note: water management.



BUILDING WITH AMENITIES FOR RAIN WATER HARVESTING

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Bhadrawati

HARVESTING

Dr. L.S. Ladke
PRINCIPAL
N.S. Science & Arts College
Bhadrawati, Dist-Chandrapur

Bills for Rain water Harvesting, Bore Well Recharge

CONTRACTOR'S BILL

Voucher No. _____ Dated 19/03/2021
 Name of work Rectification of Rain Water Harvesting Tank in college premises at N.S. Science & Arts College, Bhadrawati, Dist-Chandrapur.
 Name of the Contractor R. G. Consultancy, Bhadrawati
 Estimated Cost _____
 Reference to Agreement _____

Sr.No.	Name of Work	Quantity	Rate	Amount
1	Removal of mud below excavation near Rain Water Harvesting Tank	1.00 Lump-Sum	1000.00 Per Lump-Sum	1000.00
2	Providing & fixing in position timbered and polyethylene chloride (PVC) ultra violet rays resistant 110mm outer dia meter, 20mm thick 20kg pipe cover weight to 1.5 GSB & 1.5 DMSI including heavy lifting... etc. Completed.	25.30 Mts.	295.00 Per Mtr.	7,370.00
3	Providing and filling with the foundation and plastering with approved quality including safety, construction... etc. Completed.	1.00 Cu.m	530.00 Per Cu.m	530.00
Rectification of Rain Water Harvesting Tank				9,500.00
TOTAL AMOUNT				9,500.00
1	Contractor's Tax			
2	Total value of work			9,500.00
3	Default previous payments and other deduction if any, as per detailed below			-
4	Net value of work			9,500.00
5	Deductions			
a.				
b.				
c.				
d.				
6	Contractor's Balance Amount (In Words)			

Paid & Cancelled

Ladke
Principal
27/3/21

[Signature]
COORDINATOR-IQAC

N.S. Science & Arts College
Bhadrawati

Ladke
Dr. L.S. Ladke
PRINCIPAL

N.S. Science & Arts College
Bhadrawati, Dist-Chandrapur

Bills for Rain water Harvesting, Bore Well Recharge

CONTRACTOR'S BILL

Voucher No. _____ Dated 19/03/2021
 Name of work Rectification of Waste Water Conservation in Bore Well of College premises Nilkanthrao Shinde Science & Arts College, Bhadrawati, Tal. - Bhadrawati, Dist. - Chandrapur.
 Name of the Contractor B. S. Consultancy, Bhadrawati
 Estimated Cost _____
 Reference to Agreement _____

Sr.No.	Name of Work	Quantity	Rate	Amount
1	Providing mud, debris & excavator's mess Name: Waste Conservation Cooper	1.00 Lump Sum	300.00 Per Lump-Sum	300.00
2	Providing & fixing UPVC SILLMENT/ Waste Water Pipe of diameter 100mm from 1.5 to 1.5, 1.5 to 1.5, 1.5 to 1.5 and 1.5 to 1.5 internal hydraulic pressure of 100kg/cm ² with necessary fittings, manholes, etc. as per drawing, single function etc. completed @ 110000 per 100m	10.200 Mtr	458.00 Per Mtr	4,672.00
3	Providing and getting in the foundation and plinth with sand of approved quality including watering, compaction etc. com- pleted.	1.00 Cum	528.00 Per Cum	528.00
Rectification of Waste Water Conservation in Bore Well				5,500.00
TOTAL AMOUNT				5,500.00
1	Contract Value			
2	Total value of work			5,500.00
3	Deduct previous payments and other deduction if any, as per detailed below			-
4	Net value of work			5,500.00
5	Deductions			-
a.				-
b.				-
c.				-
d.				-
6	Contractor's Balance Amount (In Words)			

① Rectification of Rain Water Harvesting Tank : 3,500.00
 ② Rectification of Waste Water Conservation in Bore Well : 5,500.00
 Total Amount Paid & Cancelled : 15,000.00.

Bills for Rain water Harvesting, Bore Well Recharge

CERTIFICATE

1. The above contractors bill have been recorded in the bill form & I agree to the amount Rs 15,000/- toward the work be paid.

(Fifteen Thousand Only)

B.G. Consultancy


Proprietor

Signature Contractor

2. The payment for the above work Rs. 15,000/- (Fifteen Thousand Only).
Cheque No. CAFL Dated 27/03/2024 towards the contractor
B.G. Consultancy, Bhadrawati has been handed Over.

Signature

RECEIPT

3. Received Cheque No. CAFL Dated 27/03/2024 of the amount Rs. 15,000/- as per above bill on amount of this Work.

(Fifteen Thousand Only)

Paid & Cancelled


Principal

B.G. Consultancy


Proprietor

Signature Contractor

Recommendations / Analysis

Internal Green & Environment Audit Committee surveyed and scrutinized the overall environmental performance of Nilkanthrao Shinde Science and Arts College and recommendations are made as per the following:

- i) Review trees planted in the college campus, designate each and every tree with numbers. Assign scientific and vernacular names to the trees.
- ii) Provide sufficient, accessible and well-displayed dustbins at mostly seen areas in the college campus for collection of recyclable waste.
- iii) Automated sensors must be installed to prevent the overflow from water tanks. Install a water meter and assign a specific person to record water consumption in the college campus.
- iv) The Internal Green and Environment Audit Committee appreciate the way Garden and trees are maintained, but the committee recommends to add more trees, shrubs in pots at every possible place in the campus.
- v) Safe disposal of chemicals, liquid waste and e-waste is mandatory and special care to be taken to maintain it. The NOC to stock and use certain chemicals is necessary if not acquired opt it ASAP.
- vi) College should take initiative in reducing its dependance on MSED power distribution network and support renewable and carbon-neutral electricity generation options such as generation of electricity by solar energy.
- vii) Old fans that makes clicking, grinding, rattling, and ticking noise, must be repaired immediately or be replaced with new one. The disturbing sound from old fans create noise pollution and it is not advisable in the classroom. The students may loose important study lessons due to lack of concentration in the studies.
- viii) Occurrence of dense weed growth is noticeable and measures are to be taken for its eradication.
- ix) Waste water management still needs to be practiced and important measures such as repair leaking taps and avoid excess of watering trees.
- x) Sensors for lights in classrooms and in washrooms are necessary to reduce use of electricity on the campus of Nilkanthrao Shinde Science and Arts College.

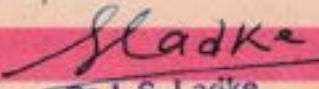
Saving our planet,
lifting people out of poverty,
advancing economic growth
these are one and the same fight.
We must connect the dots
between climate change,
water scarcity, energy shortages,
global health, food security and
women's empowerment.
Solutions to one problem
must be solutions for all.

– Ban Ki-moon

Thank
you!

Prepared by:
Internal Green & Environment Audit Committee
Nilkanthrao Shinde Science and Arts College
Bhadrawati, District Chandrapur


COORDINATOR-IQAC
N.S.Science & Arts College
Bhadrawati


Dr. L.S. Ladke
PRINCIPAL
N.S. Science & Arts College
Bhadrawati, Dist-Chandrapur

GREEN & ENVIRONMENT AUDIT CERTIFICATE

2020 - 2022


This is to certify that

Bhadrawati Shikshan Sanstha, Bhadrawati's

N.S.Science and Arts College,
Bhadrawati District Chandrapur, has successfully
established eco friendly practices and
management systems for conservation of
environment at all levels. The environmental
awareness initiatives are substantial. This will
surely boost the new generation to take care of
environment and propagate these views
for many generations to come.

(Term of validity)

April 1st 2021 - March 31st 2022


Uday Vaze

Environment & Forest Education Center
Ramdas Peth, Akola, Maharashtra



EFEC Environment & Forest Education Center

Shop No.1 Akola Mahila Sahakari Bhandar, Ramdas Peth, Akola 444005

email: efecin2017@gmail.com