



MAHILA VIKAS SANSTHA, WARDHA

**INDRAPRASTHA NEW ARTS, COMMERCE AND SCIENCE
COLLEGE WARDHA DIST 442001(M.S)**

(Affiliated to RTM Nagpur University)

www.nacscwardha.org

**NATIONAL ASSESSMENT AND ACCREDITATION
CYCLE III**

CRITERIA VII

INSTITUTIONAL VALUES AND BEST PRACTICES

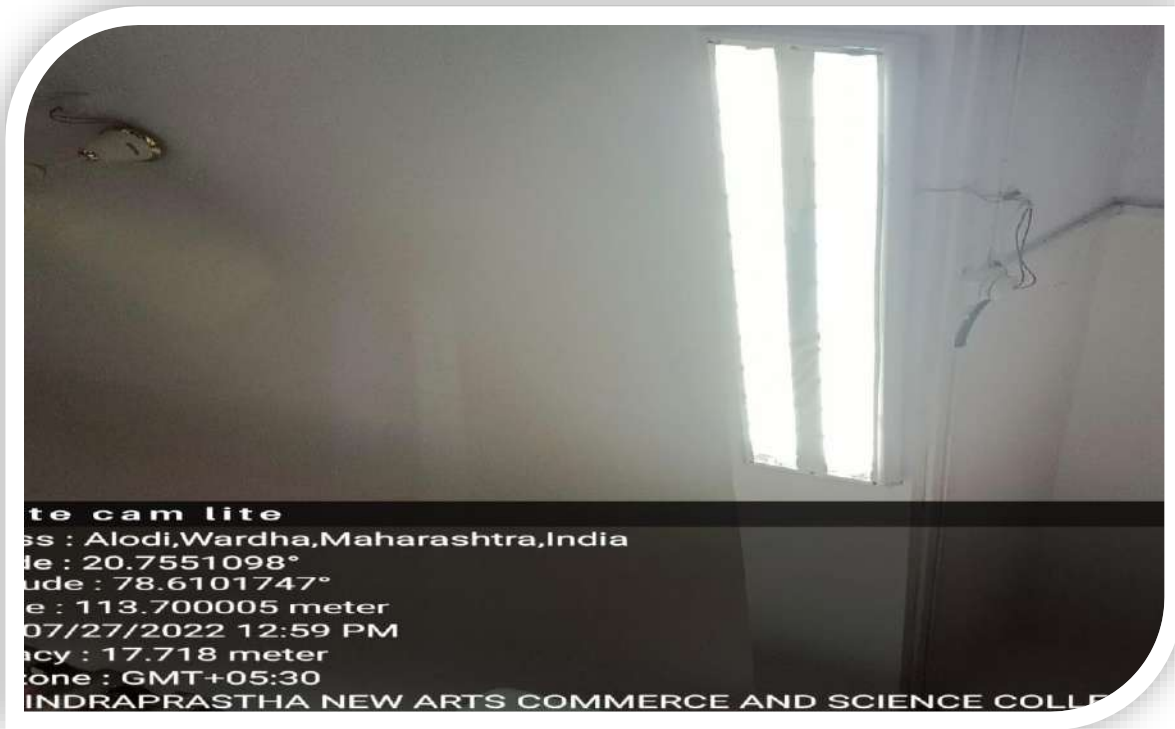
7.3

INSTITUTIONAL DISTITIVENESS

Institutional Distinctiveness



The Institution has facilities for alternate sources of energy and energy conservation measures
: Installation of Solar Panels



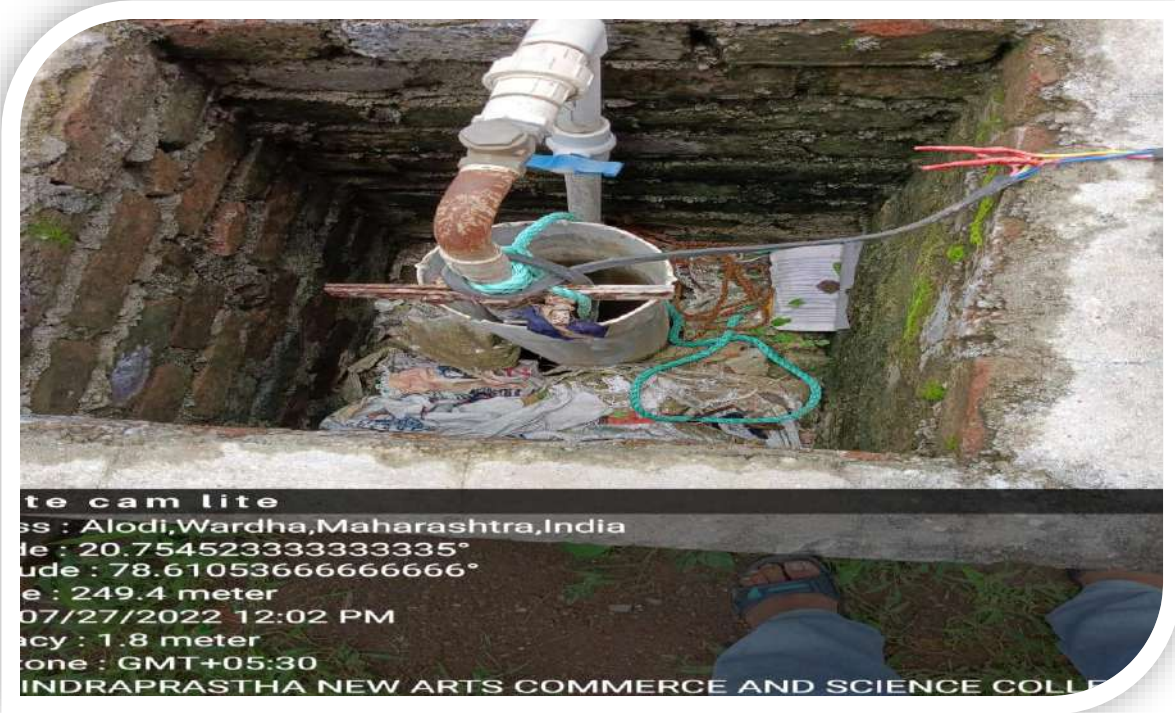
Use of Energy Efficient Appliances



Note cam lite
Address : Alodi,Wardha,Maharashtra,India
Latitude : 20.75635°
Longitude : 78.61044333333332°
Altitude : 235.2 meter
Date : 07/27/2022 12:18 PM
Accuracy : 3.5 meter
Time zone : GMT+05:30
Note : INDRAPRASTHA NEW ARTS COMMERCE AND SCIENCE COLLEGE



Note cam lite
Address : Alodi,Wardha,Maharashtra,India
Latitude : 20.755443333333336°
Longitude : 78.61030333333333°
Altitude : 214.2 meter
Date : 07/27/2022 12:22 PM
Accuracy : 4.6 meter
Time zone : GMT+05:30
Note : INDRAPRASTHA NEW ARTS COMMERCE AND SCIENCE COLLEGE



Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus



ote cam lite

Address : Alodi,Wardha,Maharashtra,India

Latitude : 20.754916666666666°

Longitude : 78.61048833333332°

Altitude : 225.3 meter

Date : 07/27/2022 12:46 PM

Accuracy : 1.7 meter

Time zone : GMT+05:30

Location : INDRAPRASTHA NEW ARTS COMMERCE AND SCIENCE COLLEGE



ote cam lite

Address : Alodi,Wardha,Maharashtra,India

Latitude : 20.754616666666667°

Longitude : 78.61048000000001°

Altitude : 239.3 meter

Date : 07/27/2022 12:02 PM

Accuracy : 1.6 meter

Time zone : GMT+05:30

Location : INDRAPRASTHA NEW ARTS COMMERCE AND SCIENCE COLLEGE



note cam lite

Address : Alodi,Wardha,Maharashtra,India

Latitude : 20.755441666666666°

Longitude : 78.61036666666668°

Altitude : 233.3 meter

Time : 07/27/2022 12:05 PM

Accuracy : 1.6 meter

Time zone : GMT+05:30

Location : INDRAPRASTHA NEW ARTS COMMERCE AND SCIENCE COLLEGE



note cam lite

Address : Alodi,Wardha,Maharashtra,India

Latitude : 20.756375°

Longitude : 78.61041166666668°

Altitude : 218.3 meter

Time : 07/27/2022 12:25 PM

Accuracy : 3.1 meter

Time zone : GMT+05:30

Location : INDRAPRASTHA NEW ARTS COMMERCE AND SCIENCE COLLEGE



**The institutional initiatives for greening the campus are as follows:
Restricted entry of automobiles, Use of bicycles/ Battery-powered vehicles,
Pedestrian-friendly pathways, Ban on use of plastic, Landscaping**



Water Purification Camps





Awareness program on Organic farming





Promoting Importance of Cleanliness and Hygiene in society



Promoting Importance of Water Conservation





Understanding Nature by Visiting Natural Habitat





Taking Environment Protection Oath



Celebrating World River Day





Mahila Vikas Sanstha's

**INDRAPRASTHA NEW ARTS
COMMERCE & SCIENCE
COLLEGE,** AT POST NALWADI, DIST. WARDHA (M.S.)

Accredited 'B' by NAAC

Approved by government
of Maharashtra

Affiliated to Rashtrasant Tukadoji
Maharaj Nagpur University, Nagpur

Recognised by U.G.C New Delhi
under section 2 (f) & 12 (b) of
UGC act 1956

GREEN CAMPUS/PLASTIC-FREE CAMPUS POLICY

Introduction

This policy document establishes the commitment of Indraprastha New Arts Commerce and Science College Nalwadi, Wardha to fostering a sustainable environment by implementing a Green Campus/Plastic-Free initiative. The initiative is aimed at minimizing the environmental impact of campus operations and promoting sustainability among students, faculty, staff, and the community.

Objective

The primary objective of this policy is to transition Indraprastha New Arts Commerce and Science College Nalwadi, Wardha towards a more sustainable and environmentally friendly campus by:

- Reducing and eventually eliminating the use of single-use plastics on campus.
- Enhancing environmental awareness and education within the college community.
- Implementing sustainable practices in all aspects of campus operations.

Scope

This policy applies to all individuals on campus, including students, faculty, staff, contractors, and visitors.

Policy Details

☞ Plastic Reduction Strategies

- **Ban on Single-Use Plastics:** The sale and use of single-use plastic items (e.g., water bottles, straws, cutlery, and bags) are prohibited on campus premises. Alternatives made from biodegradable materials will be provided.
- **Sustainable Procurement:** All procurement processes will prioritize products and services that adhere to environmental sustainability standards, including packaging requirements that minimize plastic use.

☞ Waste Management

- **Recycling Programs:** Implement comprehensive recycling programs to manage waste effectively. This includes designated recycling bins for plastic, paper, metal, and glass.
- **Composting:** Facilitate organic waste composting programs for food waste generated from campus cafeterias and events.

☞ Energy and Water Conservation

- **Energy Efficiency:** Promote the use of energy-efficient appliances and lighting. Encourage initiatives such as the use of solar panels.

- **Water Conservation:** Implement measures to reduce water wastage, including the installation of low-flow fixtures and the maintenance of landscaping that requires minimal water use.

☞ **Education and Awareness**

- **Workshops and Seminars:** Regular workshops, seminars, and campaigns will be held to educate the campus community about sustainability practices and the importance of reducing plastic use.
- **Integration into Curriculum:** Environmental sustainability topics will be integrated into relevant courses to educate students about the impact and management of plastic waste.

☞ **Monitoring and Compliance**

- **Sustainability Committee:** Establish a Sustainability Committee responsible for implementing, monitoring, and reviewing the policy's effectiveness. This committee will consist of members from the administration, faculty, and student body.
- **Regular Audits:** Conduct annual audits to assess compliance with the policy and its impact on reducing plastic usage on campus.
- **Feedback and Improvement:** Encourage feedback from the college community to continually improve sustainability initiatives.

🔑 Conclusion

Through the implementation of this Green Campus/Plastic-Free Campus policy, Indraprastha New Arts Commerce and Science College , Nalwadi Wardha aims to demonstrate leadership in environmental stewardship and foster a sustainable future, aligning with global environmental standards and commitments.



S. S. Petare
Coordinator
Internal Quality Assurance Cell
Indraprastha New Arts Commerce
and Science College, Wardha



[Signature]
PRINCIPAL
Indraprastha New Arts, Commerce
& Science College, WARDHA.



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**



**ENVIRONMENT AUDIT REPORT
CONSULTATION REPORT**



**Indraprastha New Arts, Commerce and Science
College, Nalwadi, Wardha (M.H) 442001**

PREPARED BY

EMPIRICAL EXERGY PRIVATE LIMITED

Flat No. 201, Om Apartment, 214 Indrapuri Colony,
Bhawarkuwa, Indore – 452 001 (M. P.), India

0731-4948831, 7869327256

Email ID: eempirical18@gmail.com

www.eeplgroups.com

(2021-22)



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**



CONTENT

Sr. No.	Items	Page No
I	ACKNOWLEDGEMENT	3
II	EXECUTIVE SUMMARY	4
Chapter-1	Introduction	6
1.1	About College	6
1.2	About College Campus	9
1.3	Environmental Monitoring Committee	11
1.4	The Audit Team	11
1.5	About Water Auditing	12
1.6	Objective of water Audit	12
1.7	Target area of water audit	12
1.8	Methodology Followed for conducting water Audit	13
Chapter- 2	Water Consumption and waste water sources	14
2.1	Details of source fresh water and uses area	14
2.2	Water Accounting and metering system	14
2.3	Water Storage Capacity in College campus	15
2.4	Water uses area in College Campus	16
2.5	Fresh Water uses for Gardening	16
2.6	Waste water generation sources of college campus	17
Chapter- 3	Rain Water Harvesting System	18
3.1	About rain water harvesting	18
3.2	Estimated Rain water harvesting Potential of the College	19



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**



ACKNOWLEDGEMENT

Empirical Exergy Private Limited (EEPL), Indore takes this opportunity to appreciate & thank the management of **Indraprastha New Arts, Commerce and Science College, Nalwada, Wardha (M.H).** for giving us an opportunity to conduct Environment audit for the college.

We are indeed touched by the helpful attitude and co-operation of all faculties and technical staff, who rendered their valuable assistance and co-operation the course of study.



Rajesh Kumar Singadiya
(Director)

M.Tech (Energy Management), PhD (Research Scholar)
Accredited Energy Auditor [AEA-0284]
Certified Energy Auditor [CEA-7271]
(BEE, Ministry of Power, Govt. of India)
Empanelled Energy Auditor with MPUVN, Bhopal M.P.
Lead Auditor ISO50001:2011 [EnMS] from FICCI, Delhi
Certified Water Auditor (NPC, Govt of India)
Chartered Engineer [M-1699118], The Institution of Engineers (India)
Member of ISHRAE [58150]



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**



EXECUTIVE SUMMARY

The executive summary of the water audit report furnished in this section briefly gives the identified water conservation measures, that can be implemented in a phased manner to water conservation and increase the productivity of the college.

AREAS FOR IMPROVEMENT AND RECOMMENDATION

FRESH WATER MONITORING SYSTEM:

- ✚ Installation of “**Cloud based (IoT based) ground water extraction monitoring system**” for Borewell to quantify fresh water consumption per day in the College.
- ✚ Install water flow meters (Mechanical or Electronics) in distribution network, like college building, main line and gardening line for quantity per day water consumption and waste water generation in the College campus.

WASTE WATER TREATMENT PLANT

- ✚ Waste water generated from various departments and canteen should be collect in separate waste water collection tank. It should be treated in proposed STP and ETP plants after that treated water reuse activity like gardening, toilet and wash room etc.

RAIN WATER HARVESTING SYSTEM

- ✚ Install rain water harvesting system in college. It was observed that there is good potential for rain water harvesting systems.
- ✚ The calculated rainwater harvesting potential is about 1404.48 m³/year. Based on total build up area of the college.



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**



OTHER SUGGESTIONS.

Some of the very important suggestions are: -

- ✚ Prepare the water management policy, and work towards creating and implementing a strategy to reduce the water consumption.
- ✚ Conduct awareness programs for water conservation and sustainable development.
- ✚ Establish institutional ecology policy and set an example of environmental responsibility and practices of resource conservation, recycling, waste management.
- ✚ Involve all stakeholders and encourage involvement of government, foundations, and industry in supporting interdisciplinary research, education, policy formation, and information exchange in water conservation and sustainable development.
- ✚ Collaborate for interdisciplinary approaches to develop curricula, research initiatives, operations, and outreach activities that support an environmentally sustainable future.
- ✚ Promote 3R education policy (reduces, reuse, and recycle) in campus.
- ✚ Arrange training programmes on water management system and nature conservation.
- ✚ Ensure participation of students and teachers in local water issues.
- ✚ Conduct seminars, workshops and exhibitions on water and environmental education.



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**



**CHAPTER-1
INTRODUCTION**

1.1 About College

Over the last three decades Dr R.G Bhoyar's Group of Institutions has set an exalted example in the field of education, reaching beyond borders of knowledge. New Arts, Commerce and Science College, Wardha is one among many in this group. Founded by Dr Rajesh Bhoyar, an eminent intellect and philanthropist, in the year 1990, New Arts, Commerce and Science College has inspired students across India. He has established this College at Wardha making the ideals of Mahatma Gandhi as holistic foundation to it. Here the system of teaching is more of learners' oriented. A practical approach to the methods of teaching is being followed to prepare the students, face the challenges of life boldly.

This group strongly believes in imparting and propagating knowledge & live skills in core and frontier areas of all major fields of Science, Arts, Commerce and Management through innovative educational programs. The students are developed into a new group of professionals with an exceptional competence and a deep sense of values for life and commitment towards their responsibilities both for profession and nation as well. Here the students are not just taught but mentored, they are not just forced after the academics but guided to achieve success.

The major asset of NACSC is its staff members who are well qualified and hardworking. They are well committed in discharging their responsibilities. The faculty members are not just teachers but they are mentors. They guide their students in every possible aspect of their academics and help them to move on successfully.

Being a visionary scholar the Chairman Dr.R.G Bhoyar believed that educational institutions are the epicentres of knowledge. They should transform the unpolished and uncut stones into sparkling gems. He initiated variant number of educational programs like, Diploma, Bachelors and Master Levels in Humanities, Commerce, Science, Biotechnology, Computer Science/IT, Management, Social Work, Pharmacy and Vocational Education at NACSC.



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**



With distinct uniqueness Dr.R.G Bhoyar Group of Institutions stands like an example among all educational Institutions in Vidarbha region.

Vision:

Our vision is to generate and propagate education through harmonious fusion of practical knowledge with values of life. We aim to develop our institution into an outstanding centre to provide quality education by effective Teaching and Learning programs. We are also committed to cater to the needs of rural as well as urban students with our progressive endeavor to enhance their skills and capabilities to face global market.

Mission:

To cater to the needs of rural, socially & economically backward students and make them self-reliant in all aspects of life

- To propagate, provide and preserve knowledge
- To cater to the needs of rural, socially & economically backward students and make them self-reliant in all aspects of life
- To acquire excellence in teaching methods
- To empower girl students in exalted way so that they can be self determined to achieve goals of life and create their identity in the society
- To meet regional needs, community development programs are conducted regularly through various extension activities
- To cultivate & incorporate values and develop a responsible and productive citizen of nation
- To expand developmental opportunities available to all students and faculty as well
- To build alliances from academicians of various universities to enhance and upgrade the knowledge of students & faculty as well
- To provide practical and skill-based training for self-employment
- To promote and develop use of ICT learning by considering global challenges
- To develop exciting research environment



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**



- To undertake multiple extension activities to reflect aims and objectives of our Institution

Objectives:

- The basic motto of the college is "Nothing is sacred as knowledge in this world" and with this motive, the college has set following Objectives-
- To establish centre of higher education offering undergraduate and post graduate courses to serve rural society.
- Community development through various extension activities.
- To provide practice and skill-based knowledge to students for creating self-employment and employment opportunities in private and public sectors.
- To promote the use of ict in teaching, learning, research and evaluation.
- To undertake continuous assessment of students.
- To develop research attitude among students and teachers to cater to the local and global needs.
- To create environmental awareness to save and conserve nature
- To develop scientific temperament among students and teachers.
- To promote nationalistic ideals and values among students and teachers.



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**



1.2 About College Campus:

Name of Teaching Department

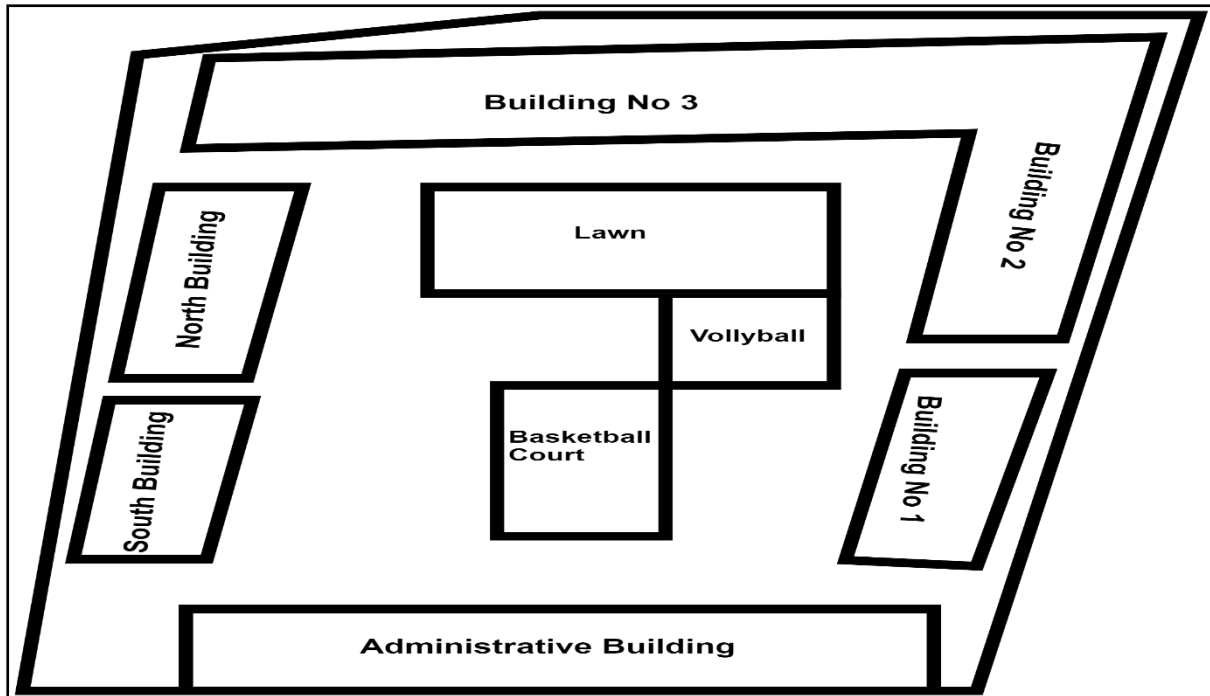
- Department of Languages
- Department of Humanities
- Department of Sociology
- Department of Political Science
- Department of Home Economics
- Department Of Commerce and Management
- Department Of Biotechnology
- Department Of Computer Science
- Department Of Chemistry
- Department Of Physics
- Department Of Mathematics
- Department Of Social Work



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**



College Building Layout: -



Satellite image of college



1.3 Energy Monitoring Committee.

Sr.No	Name of Member	Designation	Designation
1	Mr. Sandip S. Petare	Assistant Professor	Coordinator & Botanist
2	Prof. Vaibhavi Ughade	Assistant Professor	Member
3	Shri. Sagar Bansod	RFO, Wardha (M.S)	Member
4	Dr. C.M Wadatkar	Botanist	Member
5	Dr. Madan Ingle	Director Physical Education	Member
6	Mr. Pramod Tadas	Librarian	Member
7	Dr. Suraj Deshmukh	Assistant Professor	Member
8	Mr. Pankaj Denge	Student	Member
9	Miss. Gauri Mule	Student	Member

1. 4 Energy Audit Team

The study team constituted of the following senior technical executives from **Empirical Exergy Private Limited,**

- ✚ **Mr. Rakesh Pathak,** [Director]
- ✚ **Dr. Suresh Soni** [Reviewer]
- ✚ **Mrs. Laxmi Raikwar Singadiya,** [Energy Engineer]
- ✚ **Mr. Sachin Kumawat** [Project Engineer]
- ✚ **Mr. Ajay Nahra,** [Site Engineer]



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**





1.5 About Environment Auditing

Water audits can be a highly valuable tool for institute in a wide range of ways to improve their energy, environment and economic performance. while reducing wastages and operating costs. Water audits provide a basis for calculating the economic benefits of water conservation projects by establishing the current rates of water use and their associated cost.

1.6 Objectives of Environment audit

The general objective of water audit is to prepare a baseline report on water conservation measures to mitigate consumption, improve quality and sustainable practices.

The specific objectives are:

-  To monitor the water consumption and water conservation practices.
-  To assess the quantity of water, usage, quantity of waste water generation and their reduction within the college.

1.7 Target Areas of Environment audit

This indicator addresses water sources, water consumption, irrigation, storm water, appliances and fixtures aquifer depletion and water contamination are taking place at unprecedented rates. It is therefore essential that any environmentally responsible institution should examine its water use practices.



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**



1.8 Methodology followed for conducting Environment audit

Step 1: Walk through survey

- ✚ Understanding of existing water sourcing, storage and distribution facility.
- ✚ Assessing the water demand and water consumption areas/processes.
- ✚ Preparation of detailed water circuit diagram.

Step 2: Secondary Data Collection

- ✚ Analyse historic water use and wastewater generation
- ✚ Field measurements for estimating current water use
- ✚ Metered & unmetered supplies.
- ✚ Understanding of “base” flow and usage trend at site
- ✚ Past water bills
- ✚ Wastewater treatment scheme & costs etc.

Step 3: Site Water Audit Planning (based on site operations and practices)

- ✚ Preparation of water flow diagram to quantify water use at various locations
- ✚ Wastewater flow measurement and sampling plan

Step 4: Conduction of Detailed Water Audit & Measurements

- ✚ Conduction of field measurements to quantify water/wastewater streams
- ✚ Power measurement of pumps/motors
- ✚ Preparation of water balance diagram
- ✚ Establishing water consumption pattern
- ✚ Detection of potential leaks & water losses in the system
- ✚ Assessment of productive and unproductive usage of water
- ✚ Determine key opportunities for water consumption reduction, reuse & recycle.

Step 5: Preparation of Water Audit Report

- ✚ Documentation of collected & analysed water balancing and measurement details
- ✚ Projects and procedures to maximize water savings and minimize water losses.
- ✚ Opportunities for water conservation based on reduce/ recycle/ reuse and recharge options

CHAPTER- 2 WATER CONSUMPTION AND WASTE WATER SOURCES

2.1 Details of Source of Fresh Water and Use Areas:

The main source of freshwater is Borewell for the college. The freshwater is mainly used for drinking, housekeeping, gardening, domestic activity and new construction project. Details of the pumps are given in table.

Sr. No	Source of Water Fresh Water	Location	Depth (ft/m)	Type of Pumps	Rated (HP)	Running Hr per day
1	Borewell	Main Gate	Approximately 100	Submersible	1.5	4-6
2	Borewell	Near Library	Approximately 100	Submersible	1.5	2-4
3	Borewell	Near Chemistry Lab	Approximately 100	Submersible	1.5	4-6

2.2 Water Accounting & Metering system:

There is requirement of water flow meters on Borewell line to quantify per day ground water extraction from Borewell.



Figure 2.1: - fresh water supply for college campus

2.3 Water Storage Capacity in College Campus: -

There is different type of tank available in college for water storage like Underground RCC tank, Overhead RCC tank etc.

Table 2.2: - Water Storage tank in college campus

Type of Tank	Location	Storage Capacity (m ³)	Dimensions (Feet)	Remark
Over Head Tank	Top of Main Building	10	5 x 12 X 5	RCC Tank
Over Head Tank	Top of Wing A	8.45	4 x 12 X 5	RCC Tank
Over Head Tank	Top of Wing 6	8.45	4 x 12 X 5	RCC Tank

Photographs of water storage tanks.



Figure 2.2: - Water Storage Tank and capacity of College Campus

2.4 Water use areas in College Campus: -

Water is preliminary used for drinking, domestic, gardening and activity. Audit team visited various departments and buildings to determine appliances. The details of washroom, toilet and taps are given in table.

Sr. No	Name of Building	No. of taps Drinking Water	No. of taps Service Water
1	Admin Building	04	42
2	Wing A	04	58
3	Wing B	04	24
	Total	12	124

2.5 Fresh Water uses for Gardening:

College has installed water sprinkler system for gardening **It is appreciable.** The one of major contribution from fresh water consumption is watering for plants and garden in college campus. College has a good potential installation of “Automatic Watering 360 adjustable misting nozzle irrigation Dripper’s system” for plants. adjustable drip irrigation tools to provide different amounts of water depending on the water requirements of different plants. The drip speed can be set as for indoor and outdoor plants.



Figure: - Technology for Sprinkler system for gardening area.

2.6 Waste Water Generation sources: -

At present waste water generated from various departments like Admin building, Wing -A and Wing-B clinical activity like washrooms, handwash and RO rejected etc is discharge into drain line.it should be collect is separate tank and treat in proposed STP and ETP plants. After that treated water reuse activity like gardening, toilet and wash room etc.

Sr. No	Key Water Usage Section	Type of water used (raw, treated etc.)	Water Consuming activities
1	Admin Building	Fresh Water	Drinking and other uses
2	Wing- A	Fresh Water	Drinking and other uses
3	Wing- B	Fresh Water	Drinking and other uses

detail of Toilet and urinal in Campus

Sr. No	Name of Building	Hand Wash	Urinals	Toilets
1	Admin Building	28	15	07
2	Wing A	58	11	05
3	Wing B	20	10	04
	Total	106	36	16



Figure: - Waste Water Generation sources

CHAPTER- 3 RAIN WATER HARVESTING SYSTEM

3.1. Rain water Harvesting systems

There is good potential for develop rain water harvesting system in college. The rainwater harvesting is a technique to capture the rainwater when it precipitates, store that water for direct use or charge the groundwater and use it later.

There are typically four components in a rainwater harvesting system:

- ✚ Roof Catchment.
- ✚ Collection.
- ✚ Transport.
- ✚ Infiltration or storage tank and use.

If rainwater is not harvested and channelized its runoffs quickly and flow out through storm-water drains. For storm-water management the recharge pits, percolation pits and porous trenches are constructed to allow storm water to infiltrate inside the soil.

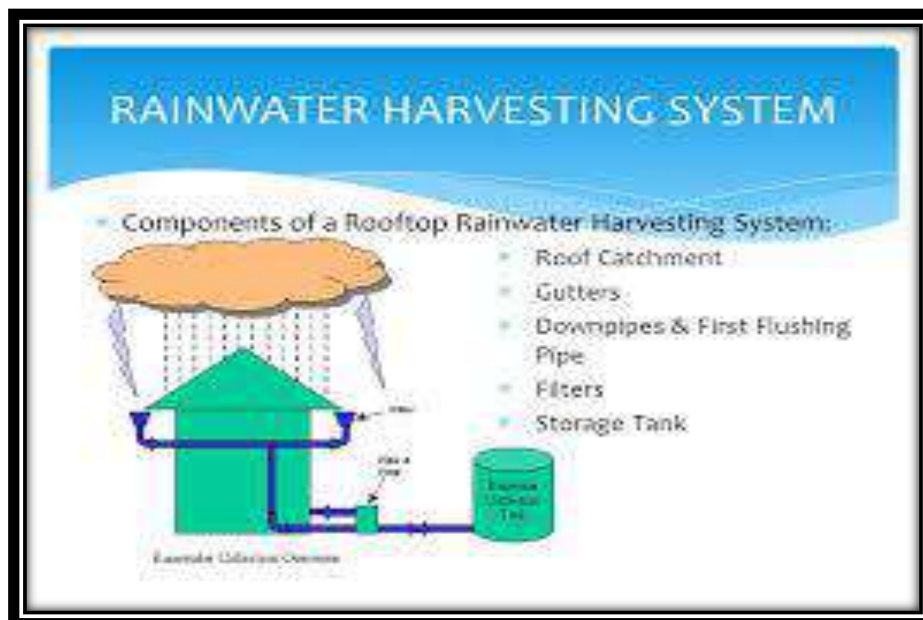


Figure: - Components of a rooftop rainwater harvesting system

3.2 Rainwater Harvesting Potential of the College

The college has total build-up area is approx. 1500 m². The average annual rainfall 1.064 m and runoff coefficient 0.88 are considered for commercial building. Accordingly, above figures and consideration, estimated rainwater harvesting potential for the college is about 1404.48 m³/year. The following Mathematical Equation is used for the calculation.

$$\text{RWH Potential} = \text{Rainfall (m)} \times \text{Area of catchment (m}^2\text{)} \times \text{Runoff coefficient}$$

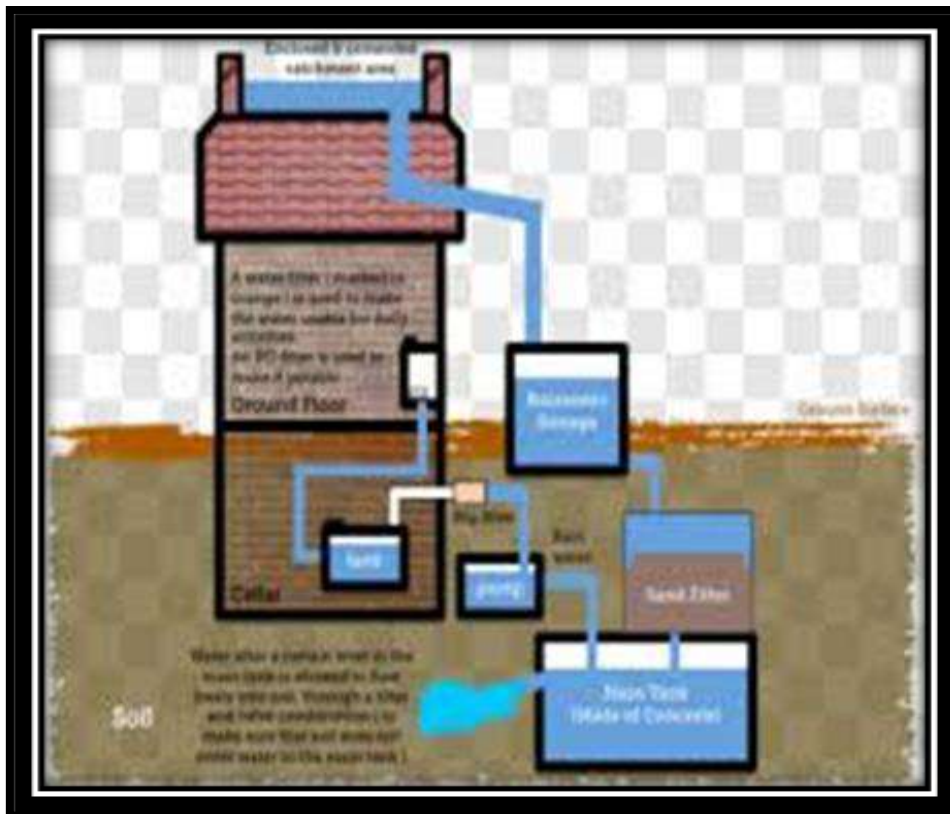


Figure: - Proposed Rain water harvesting system



**Environment Audit Report of
Indraprastha New Arts Commerce and Science
College, Nalwadi, Wardha (M.H)
Year 2021-22**



**END OF THE
REPORT**



Empirical Exergy Private Limited

Registered Office: 18-E, Sudama Nagar, Indore -452009

Office (Indore): Flat No. 201, Om Apartment, 214 Indrapuri, Indore (M.P.),

Contact: +91-731-4948831, Mobile: +91-78693-27256, 88713-68108

www.eeplgroups.com, email: -empirical18@gmail.com

CIN No: U74999MP2018PTC045751

Ref No: EEPL/2022-23/C183

Date: - 02-05-2023

ENVIRONMENTAL AUDIT CERTIFICATE

This is certified that Empirical Exergy Private Limited (EEPL) Indore M.P. has conducted Environmental audit at **Indraprastha New Arts Commerce and Science College, Nalwadi, Wardha (M.H)** for the academic Year 2022-23 and audit report has been submitted.

We avail this opportunity to express our deep and sincere gratitude to the management for their wholehearted support and co-operations during the environment audit.

This certificate is being issued on the basis of the Environmental Audit conducted by EEPL.

For- **Empirical Exergy Private Limited**



Rajesh Kumar Singadiya (Director)

M.Tech (Energy Management), PhD (Research Scholar)

Accredited Energy Auditor [AEA-0284]

Certified Energy Auditor [CEA-7271]

(BEE, Ministry of Power, Govt. of India)

Empanelled Energy Auditor with MPUVN, Bhopal M.P.

Lead Auditor ISO50001:2011 [EnMS) from FICCI, Delhi

Certified Water Auditor (NPC, Govt of India)

Chartered Engineer [M-1699118], The Institution of Engineers (India)

Member of ISHRAE [58150]



Empirical Exergy Private Limited

Registered Office: 18-E, Sudama Nagar, Indore -452009
Office (Indore): Flat No. 201, Om Apartment, 214 Indrapuri, Indore (M.P.),
Contact: +91-731-4948831, Mobile: +91-78693-27256, 88713-68108
www.eeplgroups.com, email: -eempirical18@gmail.com
CIN No: U74999MP2018PTC045751

Ref No: EEPL/2022-23/C182

Date: - 02-05-2023

GREEN AUDIT CERTIFICATE

This is certified that Empirical Exergy Private Limited (EEPL) Indore M.P. has conducted green audit at **Indraprastha New Arts Commerce and Science College, Nalwadi, Wardha (M.H)** for the academic Year 2022-23 and audit report has been submitted.

We avail this opportunity to express our deep and sincere gratitude to the management for their wholehearted support and co-operations during the green audit.

This certificate is being issued on the basis of the Green Audit conducted by EEPL.

For- **Empirical Exergy Private Limited**



Rajesh Kumar Singadiya (Director)

M.Tech (Energy Management), PhD (Research Scholar)
Accredited Energy Auditor [AEA-0284]
Certified Energy Auditor [CEA-7271]
(BEE, Ministry of Power, Govt. of India)
Empanelled Energy Auditor with MPUVN, Bhopal M.P.
Lead Auditor ISO50001:2011 [EnMS) from FICCI, Delhi
Certified Water Auditor (NPC, Govt of India)
Chartered Engineer [M-1699118], The Institution of Engineers (India)
Member of ISHRAE [58150]



Empirical Exergy Private Limited

Registered Office: 18-E, Sudama Nagar, Indore -452009

Office (Indore): Flat No. 201, Om Apartment, 214 Indrapuri, Indore (M.P.),

Contact: +91-731-4948831, Mobile: +91-78693-27256, 88713-68108

www.eeplgroups.com, email: -eempirical18@gmail.com

CIN No: U74999MP2018PTC045751

Ref No: EEPL/2021-22/C91

Date: - 02-05-2022

ENERGY AUDIT CERTIFICATE

This is certified that Empirical Exergy Private Limited (EEPL) Indore M.P. has conducted Energy audit at **Indraprastha New Arts Commerce and Science College, Nalwadi, Wardha (M.H)** for the academic Year 2021-22 and audit report has been submitted.

We avail this opportunity to express our deep and sincere gratitude to the management for their wholehearted support and co-operations during the energy audit.

This certificate is being issued on the basis of the Energy Audit conducted by EEPL.

For- **Empirical Exergy Private Limited**



Rajesh Kumar Singadiya (Director)

M.Tech (Energy Management), PhD (Research Scholar)

Accredited Energy Auditor [AEA-0284]

Certified Energy Auditor [CEA-7271]

(BEE, Ministry of Power, Govt. of India)

Empanelled Energy Auditor with MPUVN, Bhopal M.P.

Lead Auditor ISO50001:2011 [EnMS) from FICCI, Delhi

Certified Water Auditor (NPC, Govt of India)

Chartered Engineer [M-1699118], The Institution of Engineers (India)

Member of ISHRAE [58150]

Ref No: EEPL/2021-22/C92

Date: - 02-05-2022

ENVIRONMENTAL AUDIT CERTIFICATE

This is certified that Empirical Exergy Private Limited (EEPL) Indore M.P. has conducted Environmental audit at **New Arts, Commerce and Science College Wardha (M.H)** for the academic Year 2021-22 and audit report has been submitted.

We avail this opportunity to express our deep and sincere gratitude to the management for their wholehearted support and co-operations during the environment audit.

This certificate is being issued on the basis of the Environmental Audit conducted by EEPL..

For- Empirical Exergy Private Limited



Rajesh Kumar Singadiya (Director)

M.Tech (Energy Management), PhD (Research Scholar)
Accredited Energy Auditor [AEA-0284]
Certified Energy Auditor [CEA-7271]
(BEE, Ministry of Power, Govt. of India)
Empanelled Energy Auditor with MPUVN, Bhopal M.P.
Lead Auditor ISO50001:2011 [EnMS] from FICCI, Delhi
Certified Water Auditor (NPC, Govt of India)
Chartered Engineer [M-1699118], The Institution of Engineers (India)
Member of ISHRAE [58150]



Empirical Exergy Private Limited

Registered Office: 18-E, Sudama Nagar, Indore -452009

Office (Indore): Flat No. 201, Om Apartment, 214 Indrapuri, Indore (M.P.),

Contact: +91-731-4948831, Mobile: +91-78693-27256, 88713-68108

www.eeplgroups.com, email: -eempirical18@gmail.com

CIN No: U74999MP2018PTC045751

Ref No: EEPL/2021-22/C93

Date: - 02-05-2022

GREEN AUDIT CERTIFICATE

This is certified that Empirical Exergy Private Limited (EEPL) Indore M.P. has conducted green audit at **Indraprastha New Arts Commerce and Science College, Nalwadi, Wardha (M.H)** for the academic Year 2021-22 and audit report has been submitted.

We avail this opportunity to express our deep and sincere gratitude to the management for their wholehearted support and co-operations during the green audit.

This certificate is being issued on the basis of the Green Audit conducted by EEPL.

For- **Empirical Exergy Private Limited**



Rajesh Kumar Singadiya (Director)

M.Tech (Energy Management), PhD (Research Scholar)

Accredited Energy Auditor [AEA-0284]

Certified Energy Auditor [CEA-7271]

(BEE, Ministry of Power, Govt. of India)

Empanelled Energy Auditor with MPUVN, Bhopal M.P.

Lead Auditor ISO50001:2011 [EnMS) from FICCI, Delhi

Certified Water Auditor (NPC, Govt of India)

Chartered Engineer [M-1699118], The Institution of Engineers (India)

Member of ISHRAE [58150]



Empirical Exergy Private Limited

Registered Office: 18-E, Sudama Nagar, Indore -452009

Office (Indore): Flat No. 201, Om Apartment, 214 Indrapuri, Indore (M.P.),

Contact: +91-731-4948831, Mobile: +91-78693-27256, 88713-68108

www.eeplgroups.com, email: -empirical18@gmail.com

CIN No: U74999MP2018PTC045751

Ref No: EEPL/2018-19/C19

Date: - 02-06-2019

ENVIRONMENTAL AUDIT CERTIFICATE

This is certified that Empirical Exergy Private Limited (EEPL) Indore M.P. has conducted Environmental audit at **New Arts Commerce and Science College, Nalwadi, Wardha (M.H)** for the academic Year 2018-19 and audit report has been submitted.

We avail this opportunity to express our deep and sincere gratitude to the management for their wholehearted support and co-operations during the environment audit.

This certificate is being issued on the basis of the Environmental Audit conducted by EEPL.

For- **Empirical Exergy Private Limited**



Rajesh Kumar Singadiya (Director)

M.Tech (Energy Management), PhD (Research Scholar)

Accredited Energy Auditor [AEA-0284]

Certified Energy Auditor [CEA-7271]

(BEE, Ministry of Power, Govt. of India)

Empanelled Energy Auditor with MPUVN, Bhopal M.P.

Lead Auditor ISO50001:2011 [EnMS) from FICCI, Delhi

Certified Water Auditor (NPC, Govt of India)

Chartered Engineer [M-1699118], The Institution of Engineers (India)

Member of ISHRAE [58150]



Empirical Exergy Private Limited

Registered Office: 18-E, Sudama Nagar, Indore -452009

Office (Indore): Flat No. 201, Om Apartment, 214 Indrapuri, Indore (M.P.),

Contact: +91-731-4948831, Mobile: +91-78693-27256, 88713-68108

www.eeplgroups.com, email: -eempirical18@gmail.com

CIN No: U74999MP2018PTC045751

Ref No: EEPL/2018-19/C18

Date: - 02-06-2019

GREEN AUDIT CERTIFICATE

This is certified that Empirical Exergy Private Limited (EEPL) Indore M.P. has conducted green audit at **New Arts Commerce and Science College, Nalwadi, Wardha (M.H)** for the academic Year 2018-19 and audit report has been submitted.

We avail this opportunity to express our deep and sincere gratitude to the management for their wholehearted support and co-operations during the green audit.

This certificate is being issued on the basis of the Green Audit conducted by EEPL.

For- **Empirical Exergy Private Limited**



Rajesh Kumar Singadiya (Director)

M.Tech (Energy Management), PhD (Research Scholar)

Accredited Energy Auditor [AEA-0284]

Certified Energy Auditor [CEA-7271]

(BEE, Ministry of Power, Govt. of India)

Empanelled Energy Auditor with MPUVN, Bhopal M.P.

Lead Auditor ISO50001:2011 [EnMS) from FICCI, Delhi

Certified Water Auditor (NPC, Govt of India)

Chartered Engineer [M-1699118], The Institution of Engineers (India)

Member of ISHRAE [58150]



सत्यमेव जयते

Certificate



Where there is Rural Wellbeing
There is Universal Prosperity

*This is to certify that **New Arts Commerce and Science College, Wardha** is now a **Recognized Social Entrepreneurship, Swachhta & Rural Engagement Cell (SES REC) Institution**. The Institution has successfully framed the SES REC Action Plan and constituted ten working groups for improving facilities in the Campus and the Community/Adopted Villages in the areas of **Sanitation & Hygiene, Waste Management, Water Management, Energy Conservation and Greenery** post COVID-19, along with the observation of three environment, entrepreneurship and community engagement related days to inculcate in faculty, students and community, the practices of **Mentoring, Social Responsibility, Swachhta and Care for Environment and Resources**.*

Date of Issue: 29 Aug. 2020

gm
Dr. W G Prasanna Kumar
Chairman

Mahatma Gandhi National Council of Rural Education
Department of Higher Education, Ministry of Education
Government of India

Certificate No.: Mo/SES REC/MHGP2/29



S.P. S.S. Petare
Coordinator
Internal Quality Assurance Cell
Indraprastha New Arts Commerce
and Science College, Wardha



[Signature]
PRINCIPAL
Indraprastha New Arts, Commerce
& Science College, WARDHA.