

### ONDA THANA MAHAVIDYALAYA

Affiliated to Bankura University Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website: -www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	Date:

### **Environmental Policy**

Onda Thana Mahavidyalaya is dedicated to delivering high-quality education while ensuring a safe and healthy environment for its students and staff and minimizing its environmental impact. The institution will comply with all relevant environmental laws, make efforts to prevent pollution and adhere to environmental best practices in all of its activities.

The Environmental Policy of the institution is to:

- 1. We will consider environmental concerns and impacts in all decision-making and activities.
- 2. we aim to minimize waste and promote the reuse or recycling of materials. Non-recyclable and non-biodegradable waste will be collected and disposed of in an environmentally safe manner.
- 3. We are committed to reducing energy and water use within our buildings and processes to conserve supplies and minimize the consumption of natural resources.
- 4. We will work to minimize the emission or production of pollutants from any activity or process taking place within our institution.
- 5. We will seek to increase the use of renewable energy sources wherever feasible.
- 6. We are dedicated to promoting and protecting biodiversity in and around our campus.
- 7. We will prioritize the purchase of products and services that have the least environmental impact.
- 8. We will educate and inform students and employees about environmental issues that may affect their work and encourage them to work in an environmentally responsible manner.
- 9. We will communicate our environmental commitment to the public and society at large and encourage their support.

ankura



yalaya



### ONDA THANA MAHAVIDYALAYA

Affiliated to Bankura University
Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website: -www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

- •	
Ref No	Date :
	2000

10. If a process within the campus presents a significant risk to health, safety, or the environment, we will create and implement effective emergency response plans following current environmental legislation.

Principal

Onda Thana Mahavidyalaya

Principal
Onda Thana Mahavidyalaya
P.O.-Murakata, Dist.-Bankura

Binsendu Mondal

Environment Management Committee

Jourav Kumur Hag IQAC Coordinator

Onda Thana Mahavidyalaya

The Co-ordinator, IQAC
Onda Thana Mahavidyalaya





Affiliated to Bankura University Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	Date:

### **Biodiversity And Environmental Management Policy**

At Onda Thana Mahavidyalaya, we deeply understand the importance of conserving biodiversity and preserving healthy ecosystems to effectively manage the environment around our academic institution. Our commitment is to reduce the impact of our activities on the environment and decrease our carbon footprint. Therefore, we are dedicated to integrating biodiversity management and conservation at every stage of our operations.

The biodiversity management policy of our institution encompasses the following key principles:

- 1. The college is committed to the protection and conservation of ecological systems and resources within the campus.
- 2. Biodiversity will be systematically integrated into the decision-making processes of the institution, as well as in the analysis, management, and reporting of college campus-related infrastructural activities. The principle of mitigation hierarchy (avoid, minimize, restore, and compensate as a last resort) will be rigorously applied in all phases of infrastructure projects.
- 3. There is a targeted goal to increase the plantation cover inside the campus area by 50% within the next five years.
- 4. Landscaping featuring indigenous decorative trees and shrubs is slated to be completed within the next five years.
- 5. Management plans will be developed to address invasive species that present a risk to ecosystems.
- 6. A deliberate effort will be made to plant more medicinal plant species to enhance species diversity.
- 7. In the event of large trees being uprooted during natural calamities or infrastructural work, a commitment has been made to plant five new trees as a replacement for each uprooted tree.
- 8. All faunal life within the college campus will be safeguarded. Stringent measures will be implemented during any infrastructural construction activity to minimize the impact on faunal life forms.





### ONDA THANA MAHAVIDYALAYA

Affiliated to Bankura University Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website: -www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	Date :

- 9. Stringent noise pollution regulations aim to limit levels to 40 dB during college working hours. Signage and placards will be prominently displayed in and around the institution to communicate this requirement.
- 10. Efforts to promote biodiversity awareness and training for all stakeholders will be undertaken, with the involvement of the eco club in this initiative.

Principal Principal

Onda Thana Mahavidyalaya

Principal
Onda Thesa Mahavidyalaya
O.-Murakata, Dist.-Bankura

Binnerde Mondal
Convenor

**Environment Management Committee** 

IQAC Coordinator

Onda Thana Mahavidyalaya

The Co-ordinator, IQAC
Onda Thana Mahavidyalaya





### ONDA THANA MAHAVIDYALAYA

Affiliated to Bankura University
Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	Date:

### **Waste Management Policy**

The waste management subcommittee of Onda Thana Mahavidyalaya has established sustainable and comprehensive waste management strategies to maintain a safe and healthy work environment for teachers, non-teaching staff, students, and visitors. The college is dedicated to ensuring that all campus waste is segregated and disposed of in compliance with the guidelines set forth by the Central Pollution Control Board, Ministry of Environment and Forest, Government of India.

The waste management Policy of the institution are as follows.

Certainly, here's the revised text in a professional tone suitable for a business or academic setting:

- 1. Ensure compliance with waste legislative requirements, including the duty of care, and proactively plan for future legislative changes to mitigate their impact on waste management.
- 2. Implement strategies to minimize waste generation at the source and prioritize repair, reuse, and recycling over conventional disposal methods in a cost-effective manner.
- 3. Assign clearly defined roles and responsibilities to all stakeholders and effectively coordinate waste management activities.
- 4. Promote the reduction of hazardous chemical usage and advocate for alternative methods within the science departments.
- 5. Encourage students to minimize paper usage and emphasize the importance of reuse whenever feasible.
- 6. Segregate biodegradable and non-biodegradable waste, utilizing biodegradable waste to produce manure in a vermicompost unit.





Affiliated to Bankura University
Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	Date :

- 7. Invest in expanding recycling opportunities on campus, transforming waste into value-added products such as handcrafts made from paper, plastic, and glass waste to reduce non-biodegradable waste.
- 8. Raise awareness among stakeholders regarding the proper use of dustbins for waste disposal to maintain a clean campus environment.
- 9. Compile annual reports outlining comprehensive waste management strategies.
- 10. Adhere to suggestions or recommendations from the internal review committee, implementing new strategies to address any identified inefficiencies in waste management.
- 11. Target a 25% reduction in solid waste generation over the next five years.
- 12. Aim to reduce paper waste generation in the institution to approximately 200 kg annually within the next five years.
- 13. Target a reduction in plastic waste generation to around 30 kg annually within the next five years.
- 14. Seek to decrease electronic waste generation to approximately 60 kg annually within the next five years.
- 15. Strive to reduce biodegradable waste generation to around 200 kg annually within the next five years.

Principal

Onda Thana Mahavidyalaya

Principal
Onda Thana Mahavidyalaya
2.O.-Murakata, Dist.-Bankura

Biswendy Mondal Convenor

**Environment Management Committee** 

JONEN KUMMWAJ.
IQAC Coordinator

Onda Thana Mahavidyalaya

The Co-ordinator, IQAC Onda Thana Mahavidyalaya



Affiliated to Bankura University
Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	Date :

### Water Conservation and Management Policy

The policy on water conservation and management seeks to elucidate the interconnectedness between environmental and social factors and the academic requisites for executing water conservation measures. This framework will facilitate college administrative entities in the adoption of water efficiency protocols within the institution's water supply infrastructure, thereby fortifying its sustainability.

The water management Policy of the institution are as follows.

- 1. Maximize water usage efficiency and minimize wastage.
- 2. Ensure that the institution's water quality meets Central Pollution Control Board (CPCB) norms\* through bi-monthly maintenance of overhead tanks.
- 3. Organize awareness and training programs on water management and the cost-effectiveness of water conservation projects for all stakeholders in the institution.
- 4. Monitor water consumption and prevent wastage through weekly surveillance of taps, pipelines, and water tanks by the Water Management subcommittee.
- 5. Encourage investment in water management infrastructure to monitor consumption and minimize wastage in the college.
- 6. Sustainably use groundwater by reducing inorganic fertilizer usage in the college garden to 50 kg annually and increasing bio-fertilizer from a vermicomposting unit to 500 kg annually over the next five years.





# ONDA THANA MAHAVIDYALAYA

Affiliated to Bankura University
Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	Date:

- 7. Maintain the college's drainage system through weekly surveillance to prevent clogging of wastewater and the spread of diseases.
- 8. Install an effluent treatment plant on the college premises to treat wastewater before releasing it into the municipal sewage system.
- 9. Minimize groundwater extraction by implementing a rainwater harvesting system in the institution as soon as possible.
- 10. Establish recycling centers to increase water conservation and functionalize the groundwater recharging system and RO purifier drainage water reuse.

rincipal

Onda Thana Mahavidyalaya

Principal
Onda Thana Mahavidyalaya
P.O.-Murakata, Dist.-Bankura

Binwende Mondol Convenor

**Environment Management Committee** 

IQAC Coordinator

Onda Thana Mahavidyalaya

The Co-ordinator, IQAC Onda Thana Mahavidyalaya



## ONDA THANA MAHAVIDYALAYA

Affiliated to Bankura University Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

	_
Ref No	Date:

### **Energy Management Policy**

The contemporary focus on energy and its consumption has made it a pressing issue. Misuse of energy, stemming mainly from fossil fuels and other natural resources, has far-reaching implications for global balance. Controlled and sustainable energy use is paramount for overall development and the conservation of non-renewable resources. As a Higher Education Institution (HEI), we bear responsibility in managing our energy consumption. Having a well-defined energy management policy is instrumental for HEIs to curtail energy use and safeguard non-renewable resources.

- 1. The establishment of a committee to oversee the utilization of energy resources within the Institute is imperative.
- 2. An annual report on energy consumption and generation will be compiled after each academic year. Subsequently, an internal review will be conducted to provide recommendations and suggestions for the efficient use and conservation of energy resources.
- 3. A comprehensive initiative will be undertaken to replace conventional devices and outdated electrical wiring with energy-efficient alternatives within the next two years.
- 4. Extensive efforts will be made to raise awareness among all stakeholders within the Institute regarding the appropriate use of energy resources.
- 5. The Institute is committed to the installation of additional renewable energy harnessing equipment, with a target of increasing the share of renewable energy to 50% of the total consumption within the next five years.
- 6. Regular scrutiny of electricity and fuel bills will be carried out to monitor energy usage and to devise strategies to achieve an annual 5% reduction in energy consumption over the next five years.





### DA THANA MAHAVIDY

Affiliated to Bankura University Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	Date :
20) 310	

7. Quarterly expert seminars on energy conservation will be organized for all stakeholders to impart essential knowledge and foster a culture of energy consciousness.

Onda Thana Mahavidyalaya

Principal
Onda Thasa Mahavidyalaya
P.O.-Murakata, Dist.-Bankurs

**Environment Management Committee** 

**IOAC Coordinator** 

Onda Thana Mahavidyalaya

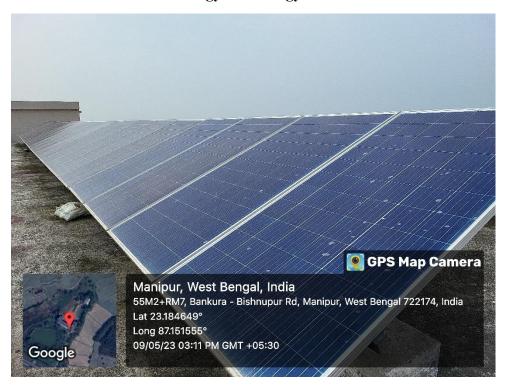
The Co-ordinator, IQAC Onda Thana Mahavidyalaya



P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

### 7.1.2: Geo-tagged photographs/videos of the facilities.

### 1. Alternate sources of energy and energy conservation measures



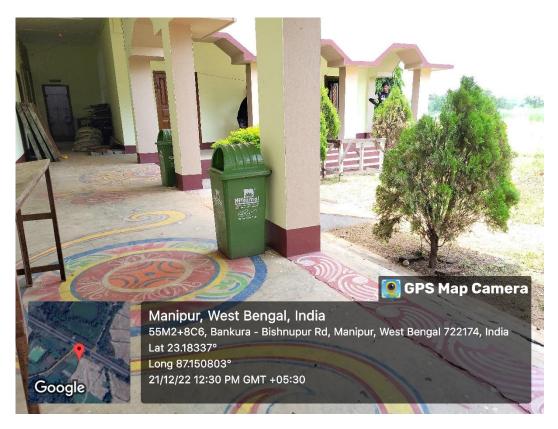




P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

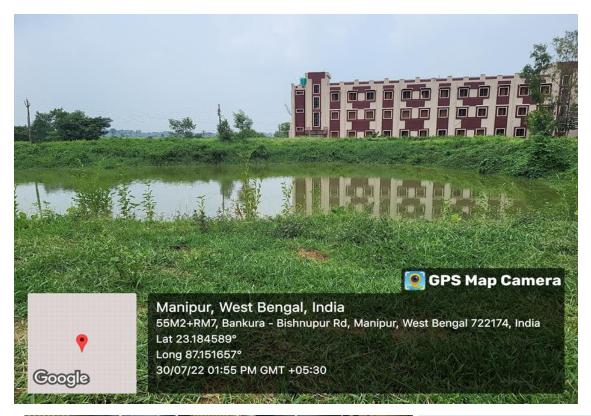
### 2. Management of the various types of degradable and nondegradable waste





P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

#### 3. Water conservation









P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

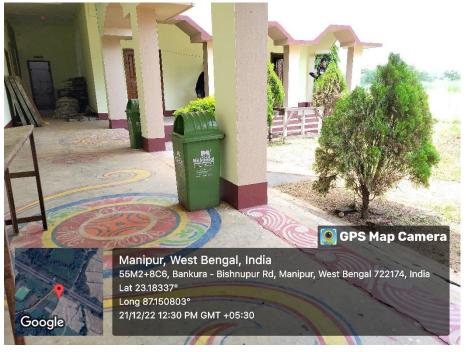




P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

### 4. Green campus initiatives







P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

#### 4. Disabled-friendly, barrier free environment









# ONDA THANA MAHAVID'

Affiliated to Bankura University Govt. Aided college recognised under section 2 (f) I, 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Email:-otm.principal@gmail.com Website:-www.ondathanamahavidyalaya.in

Ref No	Date :
Ket No	

### ENERGY MANAGEMENT POLICY Date: 25.09.2019

#### Preamble:

The current issues surrounding energy and consumption have become increasingly prominent and concerning. The misuse of energy, especially non-renewable sources such as fossil fuels, has a significant impact on global environmental balance. To promote sustainable development, it is crucial to control the use of energy and save resources. Higher Education Institutions (HEIs) like ours also have a responsibility to reduce energy consumption and costs.

Implementing an effective energy management policy at HEIs is essential for reducing energy consumption and conserving dwindling non-renewable energy resources.

### Purpose:

The Energy Management Policy serves the following purposes -

### Responsibility:

### Policy:

1. Formation of a committee for monitoring the usage of energy resources in the Institute.

- 2. Preparation of report on energy consumption and generation after each academic year and conducting Internal Review on it once a year for recommendations and suggestions regarding efficient energy use and conservation.
- 3. Implementation of energy-efficient devices as much as possible. 100% Replacement of conventional devices and old electrical wiring with energy-efficient devices and wiring within the next two years. 4. Creating awareness among the stakeholders of the Institute about the misuse of energy.
- 5. Installation of more renewable energy harnessing equipment, and increase the share of renewable energy to 50% of total consumption of HEI in the next five years.
- 6. Regular review of electricity and other fuel bills to monitor the use of energy and formulate steps to reduce energy use (e.g., electricity, oil, coal, gas) by 5% per year for the next five years.
- 7. Expert seminars on energy conservation for all stakeholders are conducted quarterly.

25.09, 2019

John Must am oly

The Co-ordinator, IQAC Onda Thana Mahavidyalaya



anavidyalava P.O.-Murakata, Dist.-Bankura



Affiliated to Bankura University

Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	<i>1</i> 3	Date :
Kef No		

### **Divyangjan Policy**

Right of Persons with Disabilities Act, 2016 prohibits discrimination against individuals with physical and mental disabilities. Onda Thana Mahavidyalaya is against all kinds of discrimination on any grounds including disability. Onda Thana Mahavidyalaya intend to advance a comprehensive and inclusive teaching and learning environment in which incapacitated students and employees. Are not distraught or treated unfavourably. The institute aims to design its programs, administrations, and activities accessible to the students. All the authorities of the institute are striving in order to extending a helping hand towards the differently abled so as to make sure about the benefits of grounds programs, administrations, and activities. These guidelines apply to all the Institute Faculty, staff and Students.

### OBJECTIVES OF THE POLICY

To create Inclusive Culture to avoid discrimination, exploitation and exclusion of disabled Students and Staff from all spheres of work and education.

To create suitable regulatory mechanism for effective delivery of services to disabled Students and Staff of the institute to ensure implementation of all legislations with respect to persons with disabilities.

> To provide accessible and inclusive education at the institute.

To ensure full participation of persons with disabilities and to provide them the equal opportunities for development.



The Co-ordinator, IQAC
Onda Thana Mahavidyalaya

Onda Thade Mahavidyalaya



Affiliated to Bankura University Govt. Aided coffege recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	Date :

#### WASTE MANAGEMENT POLICY

Date: 25.09.2019

The waste management subcommittee of Onda Thana Mahavidyalaya has implemented sustainable and holistic waste management strategies to provide a safe and healthy work environment for teachers, non-teaching staff, students, and visitors. The college is committed to ensuring that all campus waste is collected in a segregated manner and properly disposed of in accordance with the guidelines of the Central Pollution Control Board, Ministry of Environment, and Forest, Government of India.

The waste management policy of the institution is as follows:

- 1. To ensure that waste management is performed in accordance with all waste legislative requirements, including the duty of care, and to plan for future legislative changes and to mitigate their effects.
- 2. To minimize waste generation at the source and facilitate repair, reuse, and recycle over the disposal of wastes in a cost-efficient manner.
- 3. To provide clearly defined roles and responsibilities to all stakeholders and to identify and co-ordinate each activity of waste management.
- 4. To minimize the use of hazardous chemicals and to use alternative methods in the science departments.
  - 5. To motivate students to minimize the use of paper and reuse it if possible.
- 6. To segregate biodegradable and non-biodegradable waste and utilize biodegradable waste to produce manure in a vermicompost unit.
- 7. To invest in the expansion of recycling opportunities on the college campus and transform waste into value-added products like making handicrafts using paper, plastic, and glass waste to reduce non-biodegradable waste.
- 8. To make all stakeholders aware to use of dustbins for waste disposal to keep our campus clean.
  - 9. To prepare yearly reports on the overall waste management strategies.



Affiliated to Bankura University

Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

	Date :
Ref No	

- 10. To follow the suggestions or recommendations from the internal review committee and implement new strategies to overcome the loopholes and manage waste more efficiently.
  - 11. To reduce the amount of solid waste by 25% in the next five years.
- 12. To reduce paper waste generation in the institution to around 200 kg annually in the next five years.
- 13. To reduce plastic waste generation in the institution to around 30 kg annually in the next five years.
- 14. To reduce electronic waste generation in the institution to around 60 kg annually in the next five years.
- 15. To reduce biodegradable waste generation in the institution to around 200 kg annually in the next five years.
- 16. To reduce hazardous chemical waste generation from laboratories in the institution to around 15 litres annually in the next five years.



The Co-ordinator, IQAC
Onda Thana Mahavidyalaya

Principal
Onda Thema Mahavidyalaya
P.O.-Murakata, Dist.-Bankura



Affiliated to Bankura University Govt. Aided coffege recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	O-t-
2(E) JVO	Date:

### BIODIVERSITY AND ENVIRONMENT MANAGEMENT POLICY

Date: 25.09.2019

Onda Thana Mahavidyalaya acknowledges the importance of conserving biodiversity and preserving healthy ecosystems for managing the environment around our academic institution. We are committed to minimizing the impact of our activities on the environment and reducing our carbon footprint by integrating biodiversity management and conservation at all stages of our operations.

The biodiversity management Policy of the institution are as follows.

Here is the revised text:

- 1. To protect and conserve ecological systems and resources within the campus.
- 2. Integrate biodiversity in decision-making processes of the institution, as well as in the analysis, management, and reporting of college campus-related infrastructural activity. Apply the principle of mitigation hierarchy (avoid, minimize, restore, and compensate as a last resort) in all phases of infrastructure projects.
- 3. Increase plantation cover inside the campus area by 50% within the next five years.
- 4. Landscaping with indigenous decorative trees and shrubs to be done within the next five years.
- 5. Identify and establish management plans for invasive species that pose a risk to ecosystems.
- 6. Plant more medicinal plant species to increase species diversity.
- 7. For every large tree uprooted during natural calamities or infrastructural work, plant five new trees as a replacement.
- 8. Protect all faunal life in the college campus. Special care needs to be taken during any infrastructural construction activity to minimize the damage to faunal life forms.
- 9. Restrict noise pollution level to 40 dB during college working hours. Signage and placards to be displayed in and around the institution in this regard.



### ONDA THANA MAHAVIDYALAYA

Affiliated to Bankura University Govt. Aided college recognised under section 2 (f) L 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	Date :

10. Promote biodiversity awareness and training for all stakeholders; the eco club to be involved in this endeavour.



The Co-ordinator, IQAC
Onda Thana Mahavidyalaya

Principal
Onda These Mahavidyalaya
P.O.-Murakata, Dist.-Bankura



Affiliated to Bankura University

Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.), INDIA Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

Ref No	Date :
KEI JVO	

### WATER CONSERVATION AND MANAGEMENT POLICY

The Water conservation and management policy helps to understand relationships between environmental and social factors and academic provision for water conservation measures that can help college administrative authority to implement conservation and efficiency measures in the water supply system of the institute and thereby making it sustainable.

The water management Policy of the institution are as follows.

- 1. To maximize water usage efficiency and minimize wastage of water.
- 2. To ensure water quality supplied in the institution as per Central Pollution Control Board (CPCB) norms\*, maintenance of the overhead tanks to be done bi-monthly.
- 3. To arrange awareness and training programs on water management system and cost-effectiveness of water conservation projects in the institution among all stakeholders.
- 4. To monitor consumption of water and water wastage regular surveillance of taps, pipe lines and water tanks to done weekly by Water Management subcommittee
- 5. To promote investment in water management infrastructure for monitoring water consumption and minimizing wastage of water in the college.
- 6. To maintain sustainable use of groundwater, inorganic fertilizer usage in college garden to be minimized to 50 kg annually and bio-fertilizer from vermicomposting unit to be enhanced to 500 kg annually in the next five years.
- 7. To maintain the drainage system in the college weekly surveillance to be done to avoid clogging of wastewater and spreading of diseases from it.
- 8. To install an effluent treatment plant in the college premises to treat the waste water releasing it in the municipal sewage system.
- 9. To minimize ground water extraction implementation of a rain water harvesting system in the institution to be done as soon as possible.
- 10. To establish recycling centers to increase water conservation, ground water recharging system and RO purifier drainage water reuse to be made functional.

The Co-ordinator, IQAC Onda Thana Mahavidyalaya



Onda Thana Mehavidyalaya F.O.-Murakata, Dist.-Bankurc

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

### 7.1.2: Geo-tagged photographs/videos of the facilities.

### 1. Alternate sources of energy and energy conservation measures







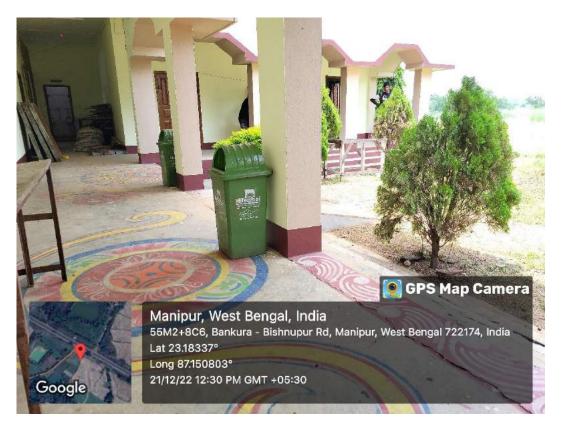
P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)

Website:-www.ondathanamahavidyalaya.in

Email:-otm.principal@gmail.com

### 2. Management of the various types of degradable and nondegradable waste





P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

#### 3. Water conservation









P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com





P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

### 4. Green campus initiatives





P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathanamahavidyalaya.in Email:-otm.principal@gmail.com

#### 4. Disabled-friendly, barrier free environment







# Green Audit, Environment Audit, Energy Audit Report FY 2018-19

# Onda Thana Mahavidyalaya, P.O. – Murakata, Dist. – Bankura, PIN -722144



Techno Consultant

Office:- Globsyn Crystals, Tower-I, C/o Awfis Space Solutions Pvt Ltd, XI - 11 & 12, 1st Floor, Block - EP, Sector V, Salt Lake Electronics Complex, Kolkata – 700091

www.technoconsultant.online



### **Table of Contents**

ACKNOWLEDGEMENT	3
DISCLAIMER	3
ABOUT ONDA THANA MAHAVIDYALAYA	3
Physical Structure	5
List Of Departments	5
Course Offered	5
SCOPE OF AUDIT	6
NAME OF AUDITEE	6
GREEN AUDIT & ITS OBJECTIVES:	6
Methodology	7
IMPROVEMENT AREAS:	7
OBSERVATIONS AND RECOMMENDATIONS:	7
Water Conservation	7
Waste Minimization & Recycling	9
Energy management	10
AMBIENT AIR MANAGEMENT	11
Green Area Management	12
List of Trees in college campus:	12
Sustainable practices followed in the institute:	13
Emergency Preparedness	13
Some photographs	14
Conclusions	15
References:	15

### **ACKNOWLEDGEMENT**

TECHNO CONSULTANT thanks the management of Onda Thana Mahavidyalaya for assigning work of Green Audit. We appreciate the co-operation extended to us for completion of the green audit. Our special thanks are extended to:

Principal – Dr. Bijay Kant Dubey IQAC Co-Ordinator– Dr. Sourav Kumar Nag

Also our sincere thanks to teaching & supporting Staff of College for giving us necessary inputs to carry out this very vital exercise of Green Audit. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

#### **DISCLAIMER**

TECHNO CONSULTANT Green Audit Team has prepared this report for Onda Thana Mahavidyalaya based on input data submitted by the representatives of college complemented with the best judgment capacity of the audit team. It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report. If you wish to distribute copies of this report external to your Institute, then all pages must be included. TECHNO CONSULTANT, its staff and auditors shall keep this report confidential and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies. TECHNO CONSULTANT also confirms that during this audit, no environmental monitoring was done with the help of instruments. On site visit conducted on 25<sup>th</sup> & 26<sup>th</sup> march 2019.

The entire report is compiled by Mr. Dev Deepta Nandy, Lead Auditor-ISO 14001:2015 (Environment Management System) IRCA Certificate No. 11606 dated 13<sup>th</sup> November 2006.

#### ABOUT ONDA THANA MAHAVIDYALAYA

In terms of G.O. No. 510-Edn (C.S.) dated 28.05.2007, approval was accorded to the establishment of Onda Thana Mahavidyalaya, P.O.-Murakata, Dist Bankura from the session 2007-08 with creation 5 posts of lecturers in five subjects (Pol. Science, History, English, Bengali, Philosophy) and the post of Principal and other N.T.S. posts. Affiliation was also given from the University of Burdwan (vide Ref. No. IC/Affen. /P/ 141/941 dated 06/06/2007), From the session 2008-09, affiliation has been given for introducing Bengali (Hons.), History (Hons.) Sanskrit (General), and Geography (General), from the session 2009-10 affiliation has been given for introducing English (Hons), from the session 2010-11 affiliation has been given for introducing Physical Education and from the session 2011-12 affiliation has been given for introducing Sanskrit (Hons), from the session 2013-14 affiliation has been given for introducing Education (General) also. At present the college has a sanctioned strength of 13 teaching posts and 1288 student for the session 2016-17. The College is happy to announce that very recently in 2017 it has been recognized under section 2F & 12B of UGC.





Campus and Surrounding Area of Onda Thana Mahavidyalaya, Bankura

### The student and faculty strength of the college is listed below:

Number of students	1542
Number of teachers (Full-Time)	10
Number of teachers (Part Time/SACT)	10



### **Physical Structure**

Actual Area: 8 Acre (Bounded by a proper Boundary)

Nominal Area: 4.46 Acre (Written on papers and later received through Donations)

Classrooms	10
Library	1
Study Room	1
Office	1
Lab	2
Toilet	11
Canteen	1
Union Room	1
Playground	1
Open Stage	1
Cycle Stand	1
Indoor Stadium	1
Multi Gym	1
Pump Room	1
Guard Room	1
Girl's Common Room	1
Boy's Common Room	1
Staff Room	1
Xerox Room	1
IQAC Room	1
Principal Room	1
Generator Room	1
Seminar Hall	1

### **List Of Departments**

- ✓ Bengali
- ✓ English
- ✓ Political Science
- ✓ History
- ✓ Philosophy
- ✓ Education
- ✓ Sanskrit
- ✓ Geography
- ✓ Physical Education
- ✓ Environmental Science

#### **Course Offered**

### **Subjects offered by the Faculty of Arts:**

Honours & General Degree Courses in Bengali, English, Sanskrit, History, Political Science, Philosophy, Geography, Physical Education, Environmental Science and Education.



#### **SCOPE OF AUDIT**

- To identify opportunities to sustainable development practices
- Assessment of environmental aspects within the facility
- ❖ To assess the Environment Management system within the facility with focus on below:
- Material management, savings and alternatives,
- Energy management and savings,
- Water management and economy of use,
- Waste generation, management, and disposal,
- Noise reduction, evaluation, and control,
- Air emissions and indoor air quality,
- Environmental emergency prevention and preparedness.

#### NAME OF AUDITEE

SI. No.	Name of Auditee	Position/Department	
1	Dr. Bijay Kant Dubey	Principal	
2	Dr. Sourav Kumar Nag	IQAC coordinator	
3	Mr. Radharanjan Saha	Assistant Professor	
4	Smt. Bulti Chakraborty	SACT	

### **GREEN AUDIT & ITS OBJECTIVES:**

A Green audit is an audit, in which one assesses campus performance in complying with applicable environmental laws and improving environment management system through awareness & systematic approach. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance. The main objective of the green audit is to promote the Environment Management and Conservation in the College Campus. The purpose of the audit is to identify, quantify, describe, and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards. The main objectives of carrying out Green Audit are:

- To introduce and create awareness among stakeholders to the real concerns of environment and its Sustainability.
- To secure the environment and cut down the threats posed to human health by analysing the pattern and extent of resource use of the campus.
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requiring high cost.
- To bring out a status report on environmental compliance.

This audit report contains observations and recommendations for improvement of environmental consciousness.



#### Methodology

To perform green audit, the methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation, and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following areas to summarise the present status of environment management in the campus:

- Water Management
- Waste Management (solid, liquid & e-waste)
- Energy Management
- Green area management

#### **IMPROVEMENT AREAS:**

- Environment Policy to be adopted by the College Campus.
- Environment policy may be documented & displayed at all strategic locations
- Stack height of DG set should be as per WBPCB rules.
- Internal inspection system should be developed to improve the environment aspects of the college.
- Display of environment awareness posters should be there in the prominent areas of campus.
- College should improve the overall water management System.

#### **OBSERVATIONS AND RECOMMENDATIONS:**

#### **Water Conservation**

Water is a valuable natural resource for all living organisms. All of us depend on freshwater, which comprises only 2.6% of the water on the Earth. Most of the freshwater is in the frozen state, so only a small fraction of freshwater is readily available. Therefore, it is important for us to manage our water resources carefully as well as conserve them. In this article, we will study in detail different ways of water management and conservation. Water auditing is conducted for the evaluation of facilities of raw water intake and determining the facilities for water treatment and reuse.

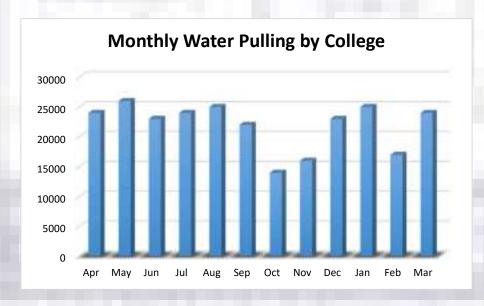
SI.	Questionnaires	Response
No		
1.	List uses area of water in your institute and consumption per month.	Basic usage of water in campus are Drinking, Gardening, Kitchen & Toilets, and total consumption is 04.39 KL/day (approximately).
2.	How does your institute store water? Are	4 nos. of water tank installed at rooftop & 3
	there any water saving techniques followed	no. of pumps.
	in your institute?	
3.	If there is water wastage, specify why and	Flushing for urinal purpose, for gardening.
	How can the wastage be prevented /	Planning to change new cistern for flushing &
	stopped?	Sprinkler System for gardening.
4.	Write down few ways that could reduce the	By Following ways:
	amount of water used in your institute	1. Notice for close the taps after usage,



		<ol> <li>Maintenance and monitoring of taps, pipe lines &amp; valves to avoid leakage.</li> <li>Give Water Conservation awareness to staffs &amp; students.</li> </ol>
5.	Record of water consumption from the institute water uses (record at the same time of each day). At the end of the period, compile a table to show how many litres of water have been used.	Calculation based on Water usage is shown below.
6.	Does your institute harvest rainwater?	No, College has no rain water harvesting system.
7.	Is there any water recycling System?	No. College has no system of water recycling.

# Table showed the Water Pulling details of last year

Sl. No.	Month	Water Pulling by pump
1	Apr	24000
2	May	26000
3	Jun	23000
4	Jul	24000
5	Aug	25000
6	Sep	22000
7	Oct	14000
8	Nov	16000
9	Dec	23000
10	Jan	25000
11	Feb	17000
12	Mar	24000



#### Recommendations

- Spread Water saving awareness between the staffs & students.
- Monitoring of taps & pipelines to avoid leakage.
- Notice for "Close Taps after use" in front of all taps.
- Drinking water analysis need to be done from NABL approved lab and shall be done as per IS 10500
- Rain water Harvesting (RWH) need to be started technically for college building.
- Alarm or auto cut power for water tank filling need to be installed.

#### Waste Minimization & Recycling

Waste disposal leads to direct and in direct environmental impacts, such as land occupation, resource depletion, amplification of global warming due to methane and other greenhouse gas emissions, waters intoxication due landfilling, as well as acidification and toxic effects from emissions to air in the case of incineration. Direct impacts of waste represent a significant but comparatively small share of climate change, while resource depletion among similar effects is linked to indirect environmental impacts.

SI. No	Questionnaires	Response
1.	Does your institute generate any waste? If so, what are they?	Yes, Solid waste, Canteen waste, paper waste, plastic waste, Glass waste, wooden waste, E- waste etc.
2.	What is the approximate amount of waste generated per day? (in Kilograms / month) (approx.)	Institute disposed wastes by direct selling. Amount of wastes are not recorded by college.
3.	Do you use reused or recycle paper in institute?	No, there is no system of Reuse of papers.
4.	How would you spread the message of recycling to others in the community?	By forming a community who carried out numerous activities on Paper re-use campaigns, Anti-plastic campaigns, Swachh-Bharat campaigns.
5.	Can you achieve zero garbage in your institute? If yes, how?	No.

#### Recommendation

- College should placed dustbins in different areas of college to keep the environment clean.
- Vermi Composting of biodegradable waste need to be started.
- Planning for reduction & reuse of wood waste & paper waste is required.



# Energy management

# **Energy Use and Conservation**

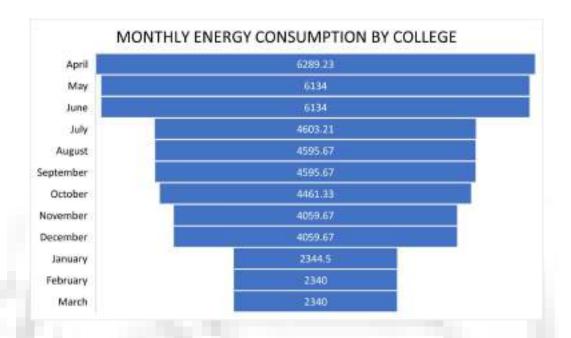
Energy conservation is an important aspect of campus sustainability which is also linked with carbon footprint of the campus. Energy auditing deals with the conservation and methods to reduce its consumption related to environmental degradation.

SI. No	Questioners		Response	
1.	List out few ways that you use energy in your institute.	College used ener 1. Electricity 2. LPG 3. Petrol 4. Disel	gy by following way	/s:
2.	Provide details of equipment or	2-Wheeler	4-wheeler	Oven
	motor vehicle which run by fuel	9	5	8
3.	Are there any energy saving methods implemented by your institute? If yes, please specify. If no, suggest some	No, there is no energy saving.	system implemen	ted by college for
4.	Are any alternative energy sources employed/ installed in your institute?	Yes, at rooftop, alternative source		solar panel as an
5.	Are your computers and other equipment's put on power-saving mode?	Yes, In Practice		

# Power Consumption details of last year

SI. No	Month	Electricity
		Consumption
		(Unit)
1	April	6289.23
2	May	6134
3	June	6134
4	July	4603.21
5	August	4595.67
6	September	4595.67
7	October	4461.33
8	November	4059.67
9	December	4059.67
10	January	2344.5
11	February	2340
12	March	2340
	Total	51956.95





#### Recommendation

- Replacement of non-LED lights & bulbs to LEDs & replacement of defected fans to BLDC motor Fans for saving energy cost.
- Energy used by each appliance need to be monitored.
- Arrange campaign for energy conservation.
- ❖ Awareness among students and staff by displaying boards, notice at appropriate places.
- List of equipment/instrument and their consumption of (energy/water) need to be estimated.
- Awareness for energy conservation among students and staff by displaying boards, notice at appropriate places.

#### AMBIENT AIR MANAGEMENT

SI. No	Questioners	Response
1.	Are the Rooms in campus are Well Ventilated?	Yes, very well natural ventilation is observed.
5.	Air Quality Monitoring Program (If Any)	No, College did not monitor the quality of air.
6.	Noise level average. One known person of college staff has noise level meter.	College did not monitor the level of daily noise.



#### **RECOMMENDATIONS**

- . D. G. stack monitoring / Exhaust gas analysis to be done.
- ❖ Ambient air monitoring needs to be started by NABL approved lab.
- Plan for green belt development to be prepared.
- College should start monitoring the noise level at college premises.
- ❖ Motivation required for reducing use of two-wheeler. Use cycle/public transport/pool car to reduce the use of petrol & diesel.

#### Green Area Management

Sl. No	Questioners	Response
1.	Is there a garden in your institute? Any play ground? Any water bodies? Describe.	Yes, garden is available at college premises. One pond is also available.
2.	Number of Staff working in garden.	Garden is maintained by College NSS team & staffs.
3.	Number of Tree Plantation Drives organized by College per annum. (If Any)	Yes, 1 or 2 Tree Plantation Drives are Organized Annually by the college. 70+ trees and shrubs planted in this financial year.
4.	Number of Trees Planted in Last FY. Survival Rate	60% survived
5.	Maintenance of Green Area	Daily watering by NSS Students. In garden sprinkler water system is available.

# List of Trees in college campus:

- Plum
- Sishu
- Neem
- Babla
- Eucalyptus
- Guava
- Mango
- Siris
- ❖ Segun
- White berry
- Siakul
- Banyan
- Akondo
- Albizia lebbeck
- **❖** Jhau
- **❖** Kadam
- Dhutra
- **❖** Bel
- Calendula
- Lemon



Various Seasonal Flower plant

#### **RECOMMENDATIONS**

- Need to take more tree plantation drive to maintain biodiversity.
- Advised to increased the number of tree plantation. (More than 100 in one program)
- Focus to be given to increase the survival rate of the plantations.

#### Sustainable practices followed in the institute:

- There are some rules like e banned single use plastic. Their Environmental Policy includes awareness and environmental conservation.
- Swatch Bharat movement is being practiced.
- Periodic pollution reduction, plantation, energy conservation awareness campaigns carried out by institute.

#### **Emergency Preparedness**

There was no emergency preparedness procedure in the college, neither any emergency numbers displayed at prominent locations. The institute can adopt various possibilities of environmental emergencies and start doing mock drills with expert organizations to overcome possible environmental disaster in future. Also, emergency numbers (like nearest police station, nearest hospital, nearest fire brigade, etc.) can be displayed at various strategic locations in the institute.



# Some photographs







Cleanliness Drive



Solar Panel Installed at Rooftop

# Conclusions

As part of green audit of campus, we carried out the environmental audit of campus. This is a green campus & students get fresh air inside the college campus. Overall Illumination and Ventilation of the classroom is very well.

# References:

- ❖ The Environment [Protection] Act 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- ❖ ISO 14001:2015 standard.

\*\*\*\*END OF REPORT\*\*\*



# Green Audit, Environment Audit, Energy Audit Report FY 2019-20



# Onda Thana Mahavidyalaya, P.O. – Murakata, Dist. – Bankura, PIN -722144



#### Techno Consultant

Office:- Globsyn Crystals, Tower-I, C/o Awfis Space Solutions Pvt Ltd, XI - 11 & 12, 1st Floor, Block - EP, Sector V, Salt Lake Electronics Complex,

Kolkata - 700091

www.technoconsultant.online



# **Table of Contents**

ACKNOWLEDGEMENT	2
DISCLAIMER	3
ABOUT ONDA THANA MAHAVIDYALAYA	3
Physical Structure	5
List Of Departments	5
Course Offered	6
SCOPE OF AUDIT	6
NAME OF AUDITEE	6
GREEN AUDIT & ITS OBJECTIVES:	6
Methodology	7
OBSERVATIONS AND RECOMMENDATIONS	7
Water Conservation	7
Waste Management (Waste Generation and Disposal)	8
Energy management	10
AMBIENT AIR MANAGEMENT	11
Green Area Management	12
Emergency Preparedness	12
Some photographs	13
Conclusions	14
References:	14

# **ACKNOWLEDGEMENT**

TECHNO CONSULTANT thanks the management of Onda Thana Mahavidyalaya for assigning work of Green Audit. We appreciate the co-operation extended to us for completion of the green audit. Our special thanks are extended to:



Principal – Dr. Bijay Kant Dubey IQAC Co-Ordinator – Dr. Sourav Kumar Nag

Also our sincere thanks to teaching & supporting Staff of College for giving us necessary inputs to carry out this very vital exercise of Green Audit. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

#### **DISCLAIMER**

TECHNO CONSULTANT Green Audit Team has prepared this report for Onda Thana Mahavidyalaya based on input data submitted by the representatives of college complemented with the best judgment capacity of the audit team. It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report. If you wish to distribute copies of this report external to your Institute, then all pages must be included. TECHNO CONSULTANT, its staff and auditors shall keep this report confidential and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies. TECHNO CONSULTANT also confirms that during this audit, no environmental monitoring was done with the help of instruments.

The entire report is compiled by Mr. Dev Deepta Nandy, Lead Auditor-ISO 14001:2015 (Environment Management System) IRCA Certificate No. 11606 dated 13<sup>th</sup> November 2006.

& Team Member: Mr. Partha Sarathi Maulik, M.Sc. in Environmental Science, Certificate in Environmental Science (IGNOU, Kolkata in 2007) & Completed NEBOSH – IGC in 2015. On Site audit was conducted on 26<sup>th</sup> & 27<sup>th</sup> March 2020.

#### ABOUT ONDA THANA MAHAVIDYALAYA

In terms of G.O. No. 510-Edn (C.S.) dated 28.05.2007, approval was accorded to the establishment of Onda Thana Mahavidyalaya, P.O.-Murakata, Dist Bankura from the session 2007-08 with creation 5 posts of lecturers in five subjects (Pol. Science, History, English, Bengali, Philosophy) and the post of Principal and other N.T.S. posts. Affiliation was also given from the University of Burdwan (vide Ref. No. IC/Affen. /P/ 141/941 dated 06/06/2007), From the session 2008-09, affiliation has been given for introducing Bengali (Hons.), History (Hons.) Sanskrit (General), and Geography (General), from the session 2009-10 affiliation has been given for introducing English (Hons), from the session 2010-11 affiliation has been given for introducing Physical Education and from the session 2011-12 affiliation has been given for introducing Sanskrit (Hons), from the session 2013-14 affiliation has been given for introducing Education (General) also. At present the college has a sanctioned strength of 13 teaching posts and 1288 student for the session 2016-17. The College is happy to announce that very recently in 2017 it has been recognized under section 2F & 12B of UGC.





**Campus and Surrounding Area of Onda Thana Mahavidyalaya** 

# The student and faculty strength of the college is listed below:

Number of students	1566
Number of teachers (Full-Time)	12
Number of teachers (Part Time/SACT)	10



# **Physical Structure**

**Actual Area:** 8 Acre (Bounded by a proper Boundary)

Nominal Area: 4.46 Acre (Written on papers and later received through Donations)

Classrooms	10
Library	1
Study Room	1
Office	1
Lab	2
Toilet	11
Canteen	1
Union Room	1
Playground	1
Open Stage	1
Cycle Stand	1
Indoor Stadium	1
Multi Gym	1
Pump Room	1
Guard Room	1
Girl's Common Room	1
Boy's Common Room	1
Staff Room	1
Xerox Room	1
IQAC Room	1
Principal Room	1
Generator Room	1
Seminar Hall	1

# **List Of Departments**

- ✓ Bengali
- ✓ English
- ✓ Political Science
- ✓ History
- ✓ Philosophy
- ✓ Education
- ✓ Sanskrit
- ✓ Geography
- ✓ Physical Education
- ✓ Environmental Science



#### **Course Offered**

#### Subjects offered by the Faculty of Arts:

✓ Honours & General Degree Courses in Bengali, English, Sanskrit, History, Political Science, Philosophy, Geography, Physical Education, Environmental Science and Education.

#### SCOPE OF AUDIT

- ✓ To identify opportunities to sustainable development practices
- ✓ Assessment of environmental aspects within the facility
- √ To assess the Environment Management system within the facility with focus on below:
- ✓ Material management, savings and alternatives,
- ✓ Energy management and savings,
- ✓ Water management and economy of use,
- ✓ Waste generation, management, and disposal,
- ✓ Noise reduction, evaluation, and control,
- ✓ Air emissions and indoor air quality,
- ✓ Environmental emergency prevention and preparedness.

#### NAME OF AUDITEE

SI. No.	Name of Auditee	Position/Department
1	Dr. Bijay Kant Dubey	Principal
2	Dr. Sourav Kumar Nag	IQAC Coordinator
3	Mr. Radharanjan Saha	Assistant Professor
4	Smt. Bulti Chakraborty	SACT

#### **GREEN AUDIT & ITS OBJECTIVES:**

A Green audit is an audit, in which one assesses campus performance in complying with applicable environmental laws and improving environment management system through awareness & systematic approach. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance. The main objective of the green audit is to promote the Environment Management and Conservation in the College Campus. The purpose of the audit is to identify, quantify, describe, and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards. The main objectives of carrying out Green Audit are:

- ✓ To introduce and create awareness among stakeholders to the real concerns of environment and its Sustainability.
- ✓ To secure the environment and cut down the threats posed to human health by analysing the pattern and extent of resource use of the campus.



- ✓ To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requiring high cost.
- ✓ To bring out a status report on environmental compliance.

This audit report contains observations and recommendations for improvement of environmental consciousness.

#### Methodology

To perform green audit, the methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation, and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following areas to summarise the present status of environment management in the campus:

- ✓ Water Management
- ✓ Waste Management (solid, liquid & e-waste)
- ✓ Energy Management
- ✓ Management on Carbon Foot-print
- ✓ Green area management

#### **OBSERVATIONS AND RECOMMENDATIONS**

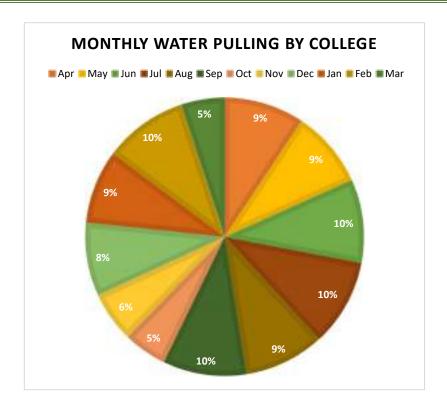
#### Water Conservation

**Water sources:** 2 nos Water tank with 1000 litre capacity & 2 nos of water tank with 2000 litre capacity installed on roof for storage of water.

#### Yearly water pulling at college:

Sl. No.	Month	Water Pulling by pump
1	Apr	28800
2	May	27600
3	Jun	30000
4	Jul	31200
5	Aug	28800
6	Sep	30000
7	Oct	15600
8	Nov	18000
9	Dec	26400
10	Jan	26400
11	Feb	30000
12	Mar	15600





#### Water management Practices adopted by college

✓ College adopts sprinkler system at garden for watering.

#### Recommendations

- ✓ Appoint one non-teaching staff or peons in the concerned section should take responsibility of monitoring the overflow of water tanks & monitoring the Water taps & pipelines.
- ✓ Advised to build rain water harvesting system.
- ✓ Canteen waste water can be reuse and recycle by watering plants.
- ✓ Ensure that water purifiers are used for drinking purpose are regularly serviced.

#### Waste Management (Waste Generation and Disposal)

Waste management is important for an eco-friendly campus. In a college, different types of wastes are generated, its collection and management are very challenging.

#### Category wise solid waste generation at college

Category of Waste	Quantity (kg)
Paper Waste	
Plastic Waste	
E waste	Data Not Available
Wood Waste	
Kitchen Waste	



#### Type of waste particulars and disposal method in college:

Types of waste	Particulars	Disposal method
E-Waste	Computers, electrical and electronic parts	Direct selling
Plastic waste	Pen, Refill, Plastic water bottles and other plastic containers, wrappers etc	Direct selling
Solid wastes	Damaged furniture, paper waste, paper plates	Direct Selling
Waste water	Washing, urinals, bathrooms	Septic tank then outside drain.
Kitchen waste	Peels of Vegetables, waste foods etc.	Vermicomposting

#### Waste management Practices adopted by the college:

- ✓ Dust bins are placed at several points in the college to collect wastes & garbage.
- ✓ College is announced as "plastic free zone".
- ✓ College NSS team organized cleanliness drive to keep the college environment clean.
- ✓ College build vermicomposting area behind the canteen.

#### Recommendation

- ✓ Advise to start both sides printing policy to minimize the paper waste.
- ✓ Segregate the bins for biodegradable & non-biodegradable wastes.
- ✓ Minimize the usage of Paper cups & plates in canteen.
- ✓ Contract with an agency who collects e-wastes.



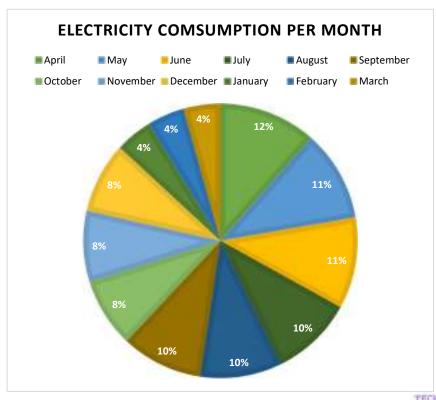
# Energy management

#### **Source of Power**

Power is supplied by WBSEDCL.

## **Electricity Consumption details:**

SI. No	Month	Electricity Consumption (Unit)	
1	April	4443.21	
2	May	4153.46	
3	June	4153.46	
4	July	3759.97	
5	August	3709.97	
6	September	3709.97	
7	October	3160.37	
8	November	3230.31	
9	December	3230.31	
10	January	1683.78	
11	February	1686.83	
12	March	1686.83	
Total		38608.47	



#### **Fossil Fuel Power**

Number of major Fuel consuming Machines in college campus.

Sr. no	Equipments	Number
1	LPG for canteen	8 cylinders
2	Two-wheeler	13
3	Four-wheeler	5

#### Table showed the LPG Consumption details of last year in college

Sl. No	Month	LPG consumption
1	April	
2	May	
3	June	Yearly 8 LPG cylinder
4	July	is consumed in
5	August	canteen.
6	September	i.e 14 kg X 8 = 112
7	October	Kg.
8	November	
9	December	
10	January	
11	February	
12	March	

Petrol is used only in two-wheeler of individual person & students.

#### **Energy Management System adopted by the College**

✓ College installed solar panel at rooftop for saving electricity.

#### Recommendation

- ✓ Energy saving awareness shall be done by displaying the boards at appropriate place
- ✓ Gradual replacement of existing non-LED based lights to LEDs can further bring down costs for lighting.
- ✓ Replacement of existing electric fans with BLDC fans can significantly reduce power consumption and help in a good reduction in electricity charges.

## AMBIENT AIR MANAGEMENT

No ambient air monitoring is done. It is advised to start monitoring the quality of college air.



#### Green Area Management

#### Practices adopted by college

- ✓ Onda Thana Mahavidyalaya declared as Green Campus.
- ✓ In campus there are various flower plants, medicinal plants, oxygen given plants, big trees etc.
- ✓ Annually 2 Tree plantation programs are being organized by teachers & students at college campus and surrounding through NSS unit. This program helps in encouraging eco-friendly environment which provides pure oxygen within the institute.

#### Recommendations

- ✓ Advise to increase 1 or 2 more plantation program yearly.
- ✓ Reuse of the water shall be done instead of use of fresh water.
- ✓ Review periodically the list of trees planted in the garden, allot numbers to the trees and keep records.
- ✓ Promote environmental awareness programs.
- ✓ Ensure that an internal audit is conducted annually, and action is taken on the basis of audit report, recommendation and findings.
- ✓ Green library may be established.

#### **Emergency Preparedness**

- ✓ There was no emergency preparedness procedure, neither any emergency numbers displayed at prominent locations.
- ✓ Emergency numbers (like nearest police station, nearest hospital, nearest fire brigade, etc.) can be displayed at various strategic locations in the institute.
- ✓ Institute can start doing mock drills with expert organizations to overcome possible environmental disaster in future



# Some photographs





Greenery of College





Cleanliness Drive





Plantation Drive

Pond View

Solar Panel





# Conclusions

As part of green audit of campus, we carried out the environmental audit of campus including Illumination and Ventilation of the classroom. It was observed that Illumination and Ventilation is adequate considering natural light. Report compiled & prepared by Mr. Partha Sarathi Maulik.

# References:

- ❖ The Environment [Protection] Act 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- ❖ ISO 14001:2015 standard.

\*\*\*\*END OF REPORT\*\*\*\*



# Green Audit, Environment Audit, Energy Audit Report FY 2020-21



ONDA THANA MAHAVIDYALAYA, P.O. – Murakata, Dist. – Bankura, PIN -722144



Techno Consultant
Office: - 26/1 Babupara South, PO-Kora Chadigarh,
Dist-24 Parganas North, West Bengal, India, PIN-700130

www.technoconsultant.online



# **Table of Contents**

ACKNOWLEDGEMENT	3
DISCLAIMER	3
ABOUT ONDA THANA MAHAVIDYALAYA	3
Physical Structure	5
LIST OF DEPARTMENTS	5
Course Offered	6
SCOPE OF AUDIT	6
NAME OF AUDITEE	6
OBJECTIVES OF GREEN AUDIT	6
BENEFITS OF GREEN AUDIT	7
EXECUTIVE SUMMARY	7
Water Management	8
WASTE MANAGEMENT	8
ENERGY MANAGEMENT	9
AMBIENT AIR & NOISE MANAGEMENT	10
SUSTAINABLE PRACTICES FOLLOWED IN THE INSTITUTE:	10
EMERGENCY PREPAREDNESS	10
GREEN AREA MANAGEMENT	
CARBON FOOT PRINT ANALYSIS	10
REFERENCES:	11



#### **ACKNOWLEDGEMENT**

TECHNO CONSULTANT, Green Audit Team thanks the management of Onda Thana Mahavidyalaya for assigning work of Green Audit. We appreciate the co-operation to our team for completion of study. Our special thanks to:

Principal – Dr. Bijay Kumar Dubey IQAC Co-Ordinator– Dr. Sourav Kumar Nag

Teaching & Supporting Staff of College for giving us necessary inputs to carry out this very vital exercise of Green Audit. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

#### DISCLAIMER

TECHNO CONSULTANT Green Audit Team has prepared this report for Onda Thana Mahavidyalaya based on input data submitted by the representatives of college complemented with the best judgment capacity of the audit team. It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report. If you wish to distribute copies of this report external to your Institute, then all pages must be included. TECHNO CONSULTANT, its staff and auditors shall keep this report confidential and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies. TECHNO CONSULTANT also confirms that during this audit, no environmental monitoring was done with the help of instruments.

The entire report is compiled by Mr. Dev Deepta Nandy, Lead Auditor-ISO 14001:2015 (Environment Management System) IRCA Certificate No. 11606 dated 13th November 2006.

& Team Member: Mr. Partha Sarathi Maulik, M.Sc. in Environmental Science, Certificate in Environmental Science (IGNOU, Kolkata in 2007) & Completed NEBOSH – IGC in 2015.

On Site audit was conducted on 24<sup>th</sup> & 25<sup>th</sup> March 2021.

#### ABOUT ONDA THANA MAHAVIDYALAYA

In terms of G.O. No. 510-Edn (C.S.) dated 28.05.2007, approval was accorded to the establishment of Onda Thana Mahavidyalaya, P.O.-Murakata, Dist Bankura from the session 2007-08 with creation 5 posts of lecturers in five subjects (Pol. Science, History, English, Bengali, Philosophy) and the post of Principal and other N.T.S. posts. Affiliation was also given from the University of Burdwan (vide Ref. No. IC/Affen. /P/ 141/941 dated 06/06/2007), From the session 2008-09, affiliation has been given for introducing Bengali (Hons.), History (Hons.) Sanskrit (General), and Geography (General), from the session 2009-10 affiliation has been given for introducing English (Hons), from the session 2010-11 affiliation has been given for introducing Physical Education and from the session 2011-12 affiliation has been given for introducing Sanskrit (Hons), from the session 2013-14 affiliation has been given for introducing Education (General) also. At present the college has a sanctioned strength of 13 teaching posts and 1288 student for the session 2016-17. The College is happy to announce that very recently in 2017 it has been recognized under section 2F & 12B of UGC.





Campus and Surrounding Area of Onda Thana Mahavidyalaya

# The student and faculty strength of the college is listed below:

Number of students	1556
Number of teachers (Full-Time)	12
Number of teachers (Part Time/SACT)	26



# **Physical Structure**

**Actual Area:** 8 Acre (Bounded by a proper Boundary)

Nominal Area: 4.46 Acre (Written on papers and later received through Donations)

Classrooms	10
Library	1
Study Room	1
Office	1
Lab	2
Toilet	11
Canteen	1
Union Room	1
Playground	1
Open Stage	1
Cycle Stand	1
Indoor Stadium	1
Multi Gym	1
Pump Room	1
Guard Room	1
Girl's Common Room	1
Boy's Common Room	1
Staff Room	1
Xerox Room	1
IQAC Room	1
Principal Room	1
Generator Room	1
Seminar Hall	1

# **List Of Departments**

- Bengali
- English
- Political Science
- History
- Philosophy
- Education
- Sanskrit
- Geography
- Physical Education
- Environmental Science



#### Course Offered

#### Subjects offered by the Faculty of Arts:

 Honours & General Degree Courses in Bengali, English, Sanskrit, History, Political Science, Philosophy, Geography, Physical Education, Environmental Science and Education.

#### SCOPE OF AUDIT

- To identify opportunities to sustainable development practices
- Assessment of environmental aspects within the facility
- To assess the Environment Management system within the facility with focus on below:
- Material management, savings and alternatives,
- Energy management and savings,
- Water management and economy of use,
- Waste generation, management, and disposal,
- Noise reduction, evaluation, and control,
- Air emissions and indoor air quality,
- Environmental emergency prevention and preparedness.

#### NAME OF AUDITEE

SI. No.	Name of Auditee	Position/Department
1	Dr. Bijay Kant Dubey	Principal
2	Dr. Sourav Kumar Nag	IQAC coordinator
3	Mr. Radharanjan Saha	Assistant Professor
4	Smt. Bulti Chakraborty	SACT

#### **OBJECTIVES OF GREEN AUDIT**

The main aim objective of this green audit is to assess the environmental compliances and the management strategies being implemented in Onda Thana Mahavidyalaya. The specific objectives are:

- To monitor the energy consumption pattern of the college
- To quantify the liquid and solid waste generation and management plans in the campus.
- To assess the carbon foot print of the college
- To secure the environment and cut down the threats posed to human health.
- To impart environment management plans to the college.
- To identify the gap areas and suggest recommendations to improve the Green Campus status of the College.
- To suggest the best protocols for adding to sustainable development.
- To provide systematic corrective actions and future plans.
- To assess whether extracurricular activities of the Institution support the collection, recovery, reuse and recycling of solid wastes.
- To make sure that rules and regulations are complied with.



#### **BENEFITS OF GREEN AUDIT**

- Would help to prepare plan to project the environment.
- Recognize the cost saving methods through waste minimization and management.
- Point out the prevailing and fourth coming impacts on environment.
- Ensures conformity with the applicable laws.
- Empower the institute to frame a better environmental performance.
- It portrays a good image of an institution which helps building better relationships with the group of interested parties.
- Promotes the alertness for environmental guidelines and duties.

#### **EXECUTIVE SUMMARY**

Due to Covid-19, College was closed in this Year (2020 -2021) from March 2020 to March 2021. Some office staff used to come to do office job and some maintenance work. During this time canteen was also closed. Hence water, electricity, diesel, petrol & LPG consumption was very low during this time. This audit report contains observations and recommendations for physical part of the college mainly.

#### **GOOD POINTS OBSERVED**

- College installed Solar Panel at rooftop.
- College adopts sprinkler system at garden.
- Vermicomposting area behind the canteen.
- College declared "Plastic Free Zone Campas"
- Annually they planned cleanliness drive.
- College organized 1 or 2 plantation programs yearly.

#### MAJOR RECOMMENDATIONS

- Drinking water analysis to be done as per IS 10500 through recognised lab.
- Rain water Harvesting (RWH) is to be done technically for all the building.
- Awareness for energy and water conservation among students and staff to be increased by displaying boards/posters/banners.
- Automatic leak detections in water flowing pipeline may be installed.
- Water re-usage techniques to be adopted.
- Tree plantation shall be done to maintain biodiversity as well as artificial nesting shall be installed.
- D. G. stack monitoring/Exhaust gas analysis, ambient air monitoring to be done from recognised labs.
- Awareness among students and staff about green environment shall be done use tools like display boards.
- Emergency preparedness plan and mock drill to be conducted at regular intervals to cope with natural disasters.
- Display of emergency contact numbers to be done at strategic locations in institute.



# Water Management

This includes source & consumption of Raw Water, Drinking Water and its conservation.

	SOURCE OF WATER			
SI no	Parameters	Response	Remarks	
1	No of Tube-well	3	_	
2	No of motors used	2	_	
3	Number of water tanks on top	4 no tanks	_	
4	Capacity of tank	1000 ltr * 2= 2000 ltr 2000 ltr * 2= 4000 ltr	_	
5	Rainwater harvest available?	No	Suggest to implement the rain water harvesting system	

#### Water consumption in the University:

Due to Covid-19 college was closed in this year hence very low consumption for occasional cleaning of toilets or urinals.

Sr. No.	Sector	Total yearly use (kl)
1	Toilet	
2	Drinking	Approximately 700 litre
3	Garden	in this year
6	Washing	

## Waste Management

#### Quantity of waste generated

Due to Lockdown very minimal amount of waste generated. Quantity of waste is not recorded.

Types of waste	Particulars	Disposal method
E-Waste	Computers, electrical and electronic parts	Direct selling
Plastic waste	Pen, Refill, Plastic water bottles and other plastic containers, wrappers etc	Direct selling
Solid wastes	Damaged furniture, paper waste, paper plates	Direct selling
Wastewater	Washing, urinals, bathrooms	Septic tank then drain
Kitchen Waste	Peel of vegetables, Food waste	Vermicomposting

#### **Solid Waste Management**

There was no solid waste in this year.

#### Status of E-waste generation on university campus:

There was no E-waste in this year



#### **Wastewater Management:**

- Wastewater is mainly generated from washing, toilet flushing, canteen kitchen and laboratories.
- Sanitary wastewater generated from washrooms is discharged into septic tank.
- The food waste generated from college canteens and staff own food bringing from home can be converted into composite fertiliser.

#### **Biomedical waste management:**

There was no biomedical waste in this year.

#### **Energy Management**

Following Energy Sources are used in the college. Although there was very low amount of energy used in this year due to Covid-19.

- Electrical
- Diesel
- Petrol
- LPG

#### **Electric Power**

Power is supplied by WBSEDCL.

#### Table showed the Electricity Consumption details of last year

SI. No	Month	Electric power consumption
1	April	
2	May	
3	June	
4	July	
5	August	
6	September	Data not Available
7	October	
8	November	
9	December	
10	January	
11	February	
12	March	

#### Recommendation

- To use Common or public Vehicle instead of individual vehicle to conserve fossil fuel.
- Energy saving awareness shall be done by displaying the boards at appropriate place
- Gradual replacement of existing non-LED based lights to LEDs can further bring down costs for lighting.
- Replacement of existing electric fans with BLDC fans can significantly reduce power consumption and help in a good reduction in electricity charges



#### AMBIENT AIR & NOISE MANAGEMENT

No ambient air monitoring & noise monitoring done. It is advised to start monitoring the quality of college air.

#### Sustainable practices followed in the institute:

- There are some rules like e banned single use plastic.
- Solar Panel installed at rooftop.

#### **Emergency Preparedness**

- There was no emergency preparedness procedure, neither any emergency numbers displayed at prominent locations.
- The institute can adopt various possibilities of environmental emergencies and start doing mock drills with expert organizations to overcome possible environmental disaster in future.
- Emergency numbers (like nearest police station, nearest hospital, nearest fire brigade, etc.) can be displayed at various strategic locations in the institute.

#### Green Area Management

#### **Observations**

- College planed 1 or 2 tree plantation programs annually (But due to lockdown this year plantation program could not be done).
- They planted various oxygen giving plant & medicinal plant.
- College reserved 60% area for greenery

#### Recommendations

The Management of College may consider on top priority that

- Watering schedule to be planned according to the season
- Reuse of the water to be done instead of using of fresh water
- Special Tree Plantation shall be celebrated every year on environment day and also competitions for bird species identification and knowing the tree values in terms of medicinal and environment conservation
- Maintain a record of planted tress & survived tress.

#### **Carbon Foot Print Analysis**

Due to Covid-19 everything was closed hence there was no result reflected.

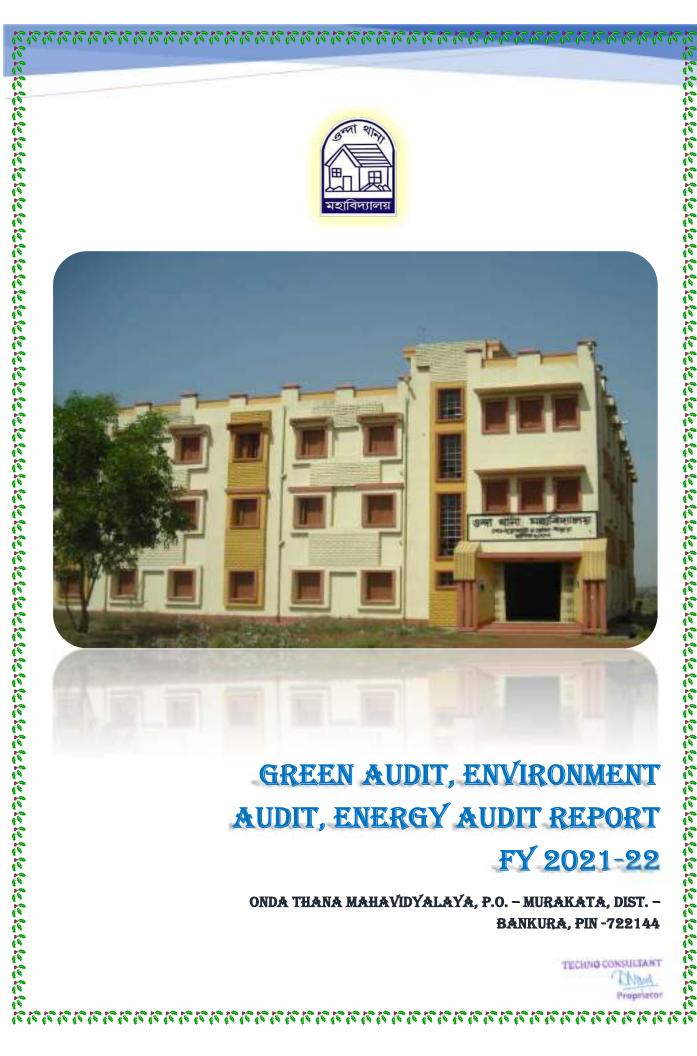
#### **RECOMMENDATIONS**

DG exhausts to be examined regularly in the collage as per West Bengal Pollution Control Board.



****END OF REPORT****	*	The Environment [Protection] Act – 1986 (Amended 1991) & Rules-1986 (Amended 2010) ISO 14001:2015 standard
		****END OF REPORT****
		TECHNO CONSER







# **Table of Contents**

1 ACKNOWLEDGEMENT	2
2 DISCLAIMER	2
3 ABOUT ONDA THANA MAHAVIDYALAYA	2
3.3 The student and faculty strength of the college	3
3.4 Physical Structure	4
3.5 List Of Departments	4
3.6 Course Offered	4
4 SCOPE OF AUDIT	5
5 NAME OF AUDITEE	5
6 GREEN AUDIT & ITS OBJECTIVES	5
7 METHODOLOGY	6
8 OBSERVATIONS & RECOMMENDATIONS	6
8.1 Water Conservation	6
8.2 Waste Management (Waste Generation and Disposal)	7
8.3 Energy management	8
8.4 Ambient Air Management & Noise Monitoring	10
8.5 Green Area Management	10
11 EMERGENCY PREPAREDENESS	10
12 SOME PHOTOGRAPHS	11
13 CONCLUSIONS	12
14 RFFFRENCES:	12

# 1 ACKNOWLEDGEMENT

TECHNO CONSULTANT thanks the management of Onda Thana Mahavidyalaya for assigning work of Green, Environment, Energy Audit. We appreciate the co-operation extended to us for completion of the green audit. Our special thanks are extended to:

Principal- Dr. Bijay Kant Dubey IQAC Co-Ordinator— Dr. Sourav Kumar Nag

Also, our sincere thanks to teaching & supporting Staff of College for giving us necessary inputs to carry out this very vital exercise of Green Audit. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

# 2 DISCLAIMER

TECHNO CONSULTANT Green Audit Team has prepared this report for Onda Thana Mahavidyalaya based on input data submitted by the representatives of college complemented with the best judgment capacity of the audit team. It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report. If you wish to distribute copies of this report external to your Institute, then all pages must be included. TECHNO CONSULTANT, its staff and auditors shall keep this report confidential and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies. TECHNO CONSULTANT also confirms that during this audit, no environmental monitoring was done with the help of instruments.

The entire report is compiled by Mr. Dev Deepta Nandy, Lead Auditor-ISO 14001:2015 (Environment Management System) IRCA Certificate No. 11606 dated 13<sup>th</sup> November 2006 & Team Member. On Site audit was conducted on 18<sup>th</sup> & 19<sup>th</sup> March 2022.

# 3 ABOUT ONDA THANA MAHAVIDYALAYA

In terms of G.O. No. 510-Edn (C.S.) dated 28.05.2007, approval was accorded to the establishment of Onda Thana Mahavidyalaya, P.O.-Murakata, Dist Bankura from the session 2007-08 with creation 5 posts of lecturers in five subjects (Pol. Science, History, English, Bengali, Philosophy) and the post of Principal and other N.T.S. posts. Affiliation was also given from the University of Burdwan (vide Ref. No. IC/Affen. /P/ 141/941 dated 06/06/2007), From the session 2008-09, affiliation has been given for introducing Bengali (Hons.), History (Hons.) Sanskrit (General), and Geography (General), from the session 2009-10 affiliation has been given for introducing English (Hons), from the session 2010-11 affiliation has been given for introducing Physical Education and from the session 2011-12 affiliation has been given for introducing Sanskrit (Hons), from the session 2013-14 affiliation has been given for introducing Education (General) also. At present the college has a sanctioned strength of 13 teaching posts and 1288 student for the session 2016-17. The College is happy to announce that very recently in 2017 it has been recognized under section 2F & 12B of UGC.



Satellite View of Onda Thana Mahavidyalaya

# 3.3 The student and faculty strength of the college

Number of students	1749
Number of teachers (Full-Time)	12
Number of teachers (Part Time/SACT)	25



# 3.4 Physical Structure

Actual Area: 8 Acre (Bounded by a proper Boundary)

Nominal Area: 4.46 Acre (Written on papers and later received through Donations)

Classrooms	10
Library	1
Study Room	1
Office	1
Lab	2
Toilet	11
Canteen	1
Union Room	1
Playground	1
Open Stage	1
Cycle Stand	1
Indoor Stadium	1
Multi Gym	1
Pump Room	1
Guard Room	1
Girl's Common Room	1
Boy's Common Room	1
Staff Room	1
Xerox Room	1
IQAC Room	1
Principal Room	1
Generator Room	1
Seminar Hall	1

# 3.5 List Of Departments

- Bengali
- English
- Political Science
- History
- Philosophy
- Education
- Sanskrit
- Geography
- Physical Education
- Environmental Science

#### 3.6 Course Offered

# **Subjects offered by the Faculty of Arts:**

• Honours & General Degree Courses in Bengali, English, Sanskrit, History, Political Science, Philosophy, Geography, Physical Education, Environmental Science and Education.

TECHNO CONSULTANT

## 4 SCOPE OF AUDIT

- To identify opportunities to sustainable development practices
- · Assessment of environmental aspects within the facility
- To assess the Environment Management system within the facility with focus on below:
- · Material management, savings and alternatives,
- Energy management and savings,
- Water management and economy of use,
- · Waste generation, management, and disposal,
- Noise reduction, evaluation, and control,
- Air emissions and indoor air quality,
- Environmental emergency prevention and preparedness.

# **5 NAME OF AUDITEE**

SI. No.	Name of Auditee	Position/Department
1	Dr. Bijay Kant Dubey	Principal
2	Dr. Sourav Kumar Nag	IQAC Coordinator
3	Mr. Radharanjan Saha	Assistant Professor
4	Smt. Bulti Chakraborty	SACT

# **6 GREEN AUDIT & ITS OBJECTIVES**

The green audits are tools that organizations use to identify their environmental impacts and assess their compliance with applicable laws and regulations, as well as with the expectations of their various stakeholders. It also serves as a means to identify opportunities to save money, enhance work quality, improves employee health, safety and morale, reduce liabilities and achieve other form of business values.

Green audit is a way to show that what type of carbon footprint are leaving on the planet by the organization, while also giving them ways to reduce it. Green audit involves the inspection of a organization to assess the total environmental impact of its activities, or of a particular product or a process. The main objectives of carrying out Green Audit are:

- To ensure development along with safeguarding the environment.
- To reduce energy consumption to foster environment.
- To ensure compliance with present legislations of the State and other legal requirements.
- To physically ensure installation of devices that reduce pollution and authentication of such devices by competent authority.
- To ensure optimum utilization of resources.
- To see whether provisions are made for liabilities arising out of unintentional pollution related damages and their compliance in cases so arose.
- To ensure that sufficient precaution has been taken by the organization to protect the employees of the organization from pollution resulting from it.
- To suggest improvement in the system to promote safe and clean environment.

This audit report contains observations and recommendations for improvement of environmental consciousness.



# 7 METHODOLOGY

To perform green audit, the methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation, and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following areas to summarise the present status of environment management in the campus:

- Water Management
- Waste Management (solid, liquid & e-waste)
- Energy Management
- Management on Carbon Foot-print
- Ambient Air & Noise Monitoring
- Green area management

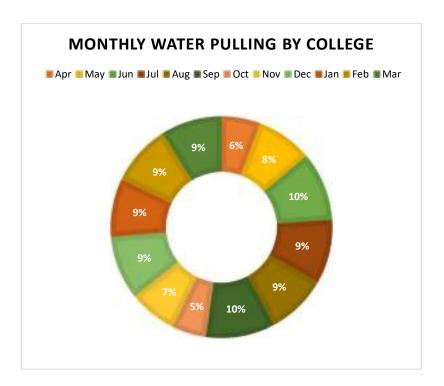
# 8 OBSERVATIONS & RECOMMENDATIONS

# 8.1 Water Conservation

**Water sources:** 3 no hand pump, 2 no of motors are installed, 2 no Water tank with 1000 ltr. & 2 no water tank with 2000 ltr. capacity installed on rooftop for storage of water.

#### Monthly water pulling at college:

Sl. No.	Month	Water Pulling by pump (Ltr.)
1	Apr	26400
2	May	37800
3	Jun	46800
4	Jul	43200
5	Aug	41400
6	Sep	46800
7	Oct	23400
8	Nov	32400
9	Dec	43200
10	Jan	39600
11	Feb	41400
12	Mar	41400



# Water Management Practices Adopted by the College:

- College adopts sprinkler water system at garden.
- College installed water purifier for drinking water.
- College reuse the wastewater generated from canteen for watering plants.

### Recommendations

- Minimize wastage of water and use of electricity during water filtration process, if used, such as RO filtration process and ensure that the equipment is used for such usage are regularly serviced.
- Half Yearly 1 camp/Program should be done to spread awareness for water conservation.
- Drinking water should tested from recognized laboratory.

# 8.2 Waste Management (Waste Generation and Disposal)

### Waste management Practices Adopted by the College

- College placed dustbins at various places.
- College announced as "Plastic free Zone"
- College adopts Vermicomposting process.



# Type of waste particulars and disposal method in college:

Types of waste	Particulars	Disposal method
E-Waste	Computers, electrical and electronic	Direct selling
	parts	
Plastic waste	Pen, Refill, Plastic water bottles and	Direct selling
	other plastic containers, wrappers etc	
Solid wastes	Damaged furniture, paper waste, paper	Direct Selling
	plates	
Waste water	Washing, urinals, bathrooms	Septic tank then outside drain.
Kitchen waste	Peels of Vegetables, waste foods etc.	Vermicomposting

#### Recommendation

- Reduce the absolute amount of waste that is produced from college staff offices.
- · Advised to record of quantity of waste.

# 8.3 Energy management

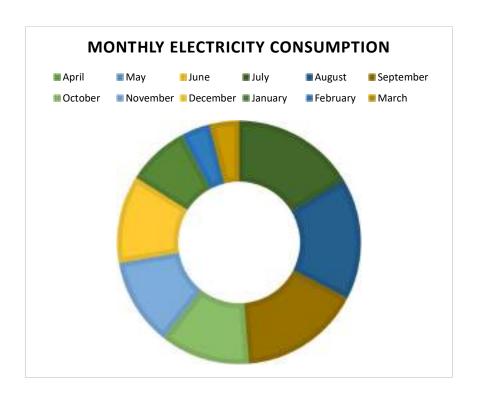
#### **Source of Power**

Power at institute is supplied by WBSEDCL (West Bengal State Electricity Distribution Company Limited).

# **Electricity Consumption details**

SI. No	Month	Electricity Consumption (Unit)
1	April	0
2	May	0
3	June	0
4	July	4978.058511
5	August	4887.765957
6	September	4887.765957
7	October	3606.515957
8	November	3534.308511
9	December	3534.308511
10	January	2484.840426
11	February	1184.707447
12	March	1184.707447
	Total	30282.97872





#### **Fossil Fuel Power**

## Details of major Fuel consuming Machines in college campus

Sl. no	Equipment	Number
1	LPG for canteen	7/year
2	Two-wheeler	18/day
3	Four-wheeler	6/day
4	DG set	1

# **Energy Management Practices Adopted by the College:**

• College installed Solar panel at rooftop to save electricity.

#### Recommendation

- Energy saving awareness spread among the students & staffs by displaying boards at appropriate place.
- Gradual replacement of existing non-LED based lights to LEDs can further bring down costs for lighting.
- Replacement of existing electric fans with BLDC fans can significantly reduce power consumption and help in a good reduction in electricity charges.
- 5-star rated Air Conditioners, Fans and CFLs should be used.



# 8.4 Ambient Air Management & Noise Monitoring

- No ambient air monitoring done by college. It is advised to start monitoring the quality of college air.
- Noise level also not monitored by college.
- It is advised to check daily noise level & test the air quality twice in a year.

#### 8.5 Green Area Management

Campus is located in the vicinity of different types of flora, fauna, medicinal plants & seasonal plants. Various tree plantation programs are being organized yearly at college campus and surrounding villages through teachers & students. This program helps in encouraging eco-friendly environment which provides pure oxygen within the institute and awareness among villagers. Trees such as Neem, White berry Tree, Flame Tree, Mango, Teak, Guava, Banyan, Snake plant, Tulsi, Babla, Tamarind, Kadam, Lemon, Various seasonal flowering plant & oxygen giving plant.

#### **Green Management Practices Adopted by the College:**

- College has 60% area reserved for plantation.
- College arranged camp through NSS team for plantation in every year.
- Green area is maintained by college NSS team & teachers.

#### Recommendations

- Review periodically the list of trees planted in the garden, allot numbers to the trees and keep records. Assign scientific names to the trees.
- Create awareness of environmental sustainability and take actions to ensure environmental sustainability.
- Establish a College Environmental Committee that will hold responsibility for the enactment, enforcement, and review of the Environmental Policy.
- Create an Environment Policy.
- College should conduct annual internal audit to review & action is taken on the basis of recommendation mentioned in audit report.

# 11 EMERGENCY PREPAREDENESS

- There was no emergency preparedness procedure, neither any emergency numbers displayed at prominent locations.
- College can start doing mock drills with expert organizations to overcome possible environmental disaster in future
- Emergency numbers, like nearest police station, nearest hospital, ambulance, nearest fire brigade can be displayed at various strategic locations in the institute.



# 12 SOME PHOTOGRAPHS





**Campus Cleaning** 

College Pond





**Tree Plantation** 





**Solar Panel** 

Greenary

# 13 CONCLUSIONS

This audit involved extensive consultation with all the teams, interactions with key personnel. Overall 60% of the campus is for landscaping. The audit has identified a few observations & some recommendations for making the campus premise more environment friendly. Few things that are important to initiate for better improvement. Overall, the College Campus is well-maintained from the environmental perspective. Report compiled & prepared by Mr. Devdeepta Nandy.

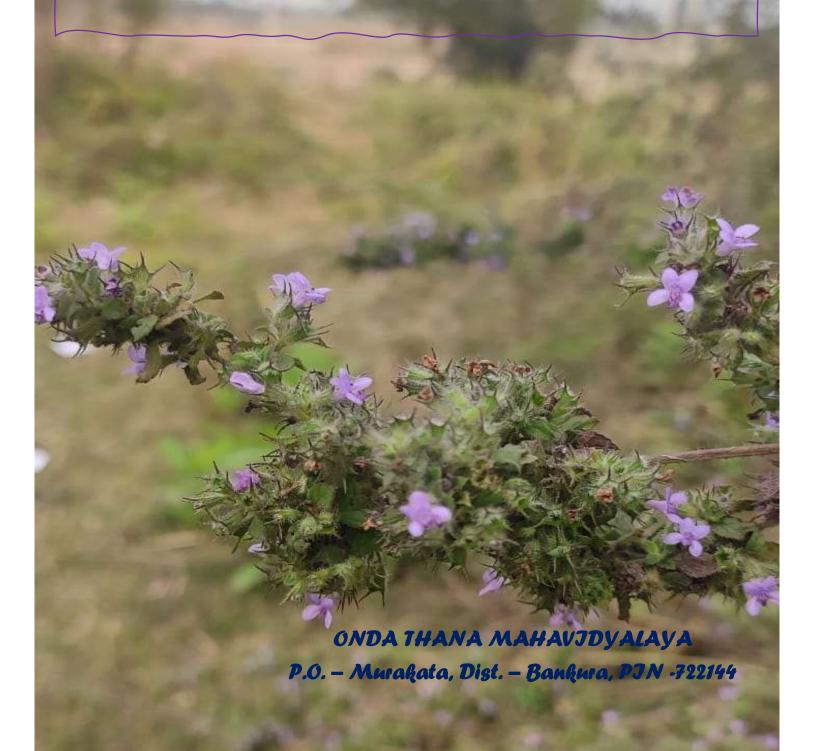
# 14 REFERENCES:

- The Environment [Protection] Act 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- ❖ ISO 14001:2015 standard.

\*\*\*\*END OF REPORT\*\*\*\*

TECHNO CONSULTANT





# **Table of Contents**

1 ACKNOWLEDGEMENT	2
2 DISCLAIMER	2
3 ABOUT ONDA THANA MAHAVIDYALAYA	2
3.3 The student and faculty strength of the college	4
3.4 Physical Structure	4
3.5 List Of Departments	5
3.6 Course Offered	5
4 SCOPE OF AUDIT	5
5 NAME OF AUDITEE	5
6 GREEN AUDIT & ITS OBJECTIVES	6
7 METHODOLOGY	6
8 OBSERVATIONS & RECOMMENDATIONS	
8.1 Water Conservation	7
8.2 Waste Management (Waste Generation and Disposal)	9
8.3 Energy management	11
8.4 Analysis of carbon footprint	13
8.5 Ambient Air Management & Noise Monitoring	14
8.6 Green Area Management	15
11 EMERGENCY PREPAREDENESS	17
12 SOME PHOTOGRAPHS	18
13 CONCLUSIONS	20
14 REFERENCES:	20

# 1 ACKNOWLEDGEMENT

TECHNO CONSULTANT thanks the management of Onda Thana Mahavidyalaya for assigning work of Green, Environment, Energy Audit. We appreciate the co-operation extended to us for completion of the green audit. Our special thanks are extended to:

Principal- Dr. Bijay Kant Dubey IQAC Co-Ordinator Dr. Sourav Kumar nag

Also, our sincere thanks to teaching & supporting Staff of College for giving us necessary inputs to carry out this very vital exercise of Green Audit. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

# 2 DISCLAIMER

TECHNO CONSULTANT Green Audit Team has prepared this report for Onda Thana Mahavidyalaya based on input data submitted by the representatives of college complemented with the best judgment capacity of the audit team. It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report. If you wish to distribute copies of this report external to your Institute, then all pages must be included. TECHNO CONSULTANT, its staff and auditors shall keep this report confidential and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies. TECHNO CONSULTANT also confirms that during this audit, no environmental monitoring was done with the help of instruments.

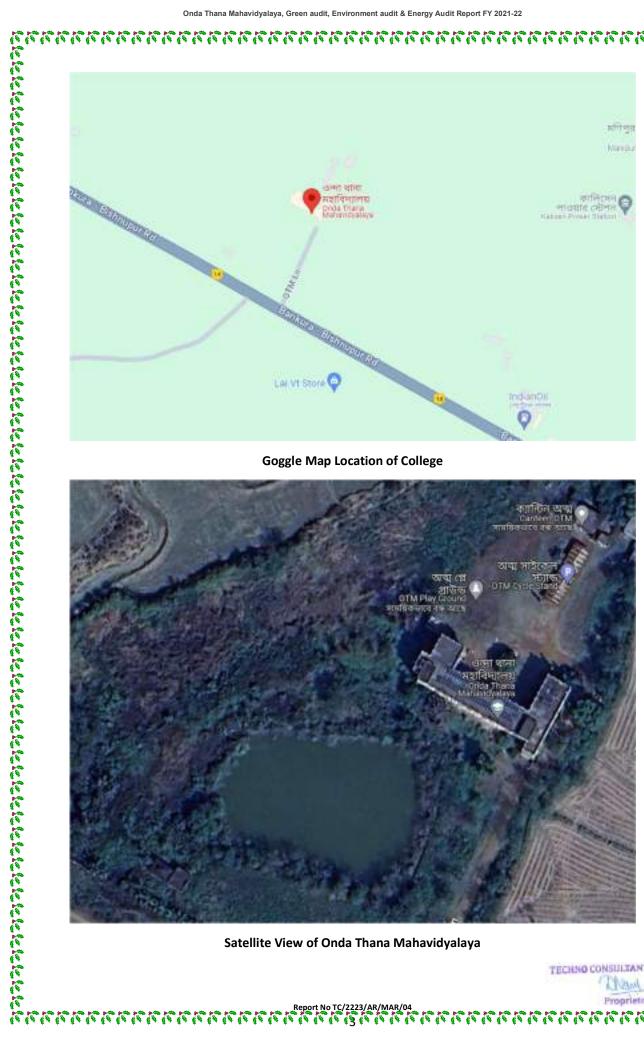
The entire report is compiled by Mr. Dev Deepta Nandy, Lead Auditor-ISO 14001:2015 (Environment Management System) IRCA Certificate No. 11606 dated 13<sup>th</sup> November 2006 & Team Member. On Site audit was conducted on 27<sup>th</sup> & 28<sup>th</sup> March 2023.

# 3 ABOUT ONDA THANA MAHAVIDYALAYA

In terms of G.O. No. 510-Edn (C.S.) dated 28.05.2007, approval was accorded to the establishment of Onda Thana Mahavidyalaya, P.O.-Murakata, Dist Bankura from the session 2007-08 with creation 5 posts of lecturers in five subjects (Pol. Science, History, English, Bengali, Philosophy) and the post of Principal and other N.T.S. posts. Affiliation was also given from the University of Burdwan (vide Ref. No. IC/Affen. /P/ 141/941 dated 06/06/2007), From the session 2008-09, affiliation has been given for introducing Bengali (Hons.), History (Hons.) Sanskrit (General), and Geography (General), from the session 2009-10 affiliation has been given for introducing English (Hons), from the session 2010-11 affiliation has been given for introducing Physical Education and from the session 2011-12 affiliation has been given for introducing Sanskrit (Hons), from the session 2013-14 affiliation has been given for introducing Education (General) also. At present the college has a sanctioned strength of 13 teaching posts and 1288 student for the session 2016-17. The College is happy to announce that very recently in 2017 it has been recognized under section 2F & 12B of UGC.



**Goggle Map Location of College** 



Satellite View of Onda Thana Mahavidyalaya



# 3.3 The student and faculty strength of the college

Number of students	1664
Number of teachers (Full-Time)	11
Number of teachers (Part Time/SACT)	25

# 3.4 Physical Structure

Actual Area: 8 Acre (Bounded by a proper Boundary)

Nominal Area: 4.46 Acre (Written on papers and later received through Donations)

Classrooms	10
Library	1
Study Room	1
Office	1
Lab	2
Toilet	11
Canteen	1
Union Room	1
Playground	1
Open Stage	1
Cycle Stand	1
Indoor Stadium	1
Multi Gym	1
Pump Room	1
Guard Room	1
Girl's Common Room	1
Boy's Common Room	1
Staff Room	1
Xerox Room	1
IQAC Room	1
Principal Room	1
Generator Room	1
Seminar Hall	1

# 3.5 List Of Departments

- 🖶 Bengali
- English
- Political Science
- History
- Philosophy
- Education
- Sanskrit
- Geography
- Physical Education
- Environmental Science

#### 3.6 Course Offered

# **Subjects offered by the Faculty of Arts**

Honours & General Degree Courses in Bengali, English, Sanskrit, History, Political Science, Philosophy, Geography, Physical Education, Environmental Science and Education.

# 4 SCOPE OF AUDIT

- **★** To identify opportunities to sustainable development practices
- Assessment of environmental aspects within the facility
- ♣ To assess the Environment Management system within the facility with focus on below:
- Material management, savings and alternatives,
- Energy management and savings,
- Water management and economy of use,
- Waste generation, management, and disposal,
- Noise reduction, evaluation, and control,
- Air emissions and indoor air quality,
- Environmental emergency prevention and preparedness.

# **5 NAME OF AUDITEE**

SI. No.	Name of Auditee	Position/Department
1	Dr. Bijay Kant Dubey	Principal
2	Dr. Sourav Kumar Nag	IQAC Coordinator
3	Mr. Radharanjan Saha	Assistant Professor
4	Smt. Bulti Chakraborty	SACT
5	Dr. Somenath Kar	Assistant Professor
6	Mr. Arijit Mal	SACT
7	MS. Manasi Chattaraj	Casul



# 6 GREEN AUDIT & ITS OBJECTIVES

The green audits are tools that organizations use to identify their environmental impacts and assess their compliance with applicable laws and regulations, as well as with the expectations of their various stakeholders. It also serves as a means to identify opportunities to save money, enhance work quality, improves employee health, safety and morale, reduce liabilities and achieve other form of business values.

Green audit is a way to show that what type of carbon footprint are leaving on the planet by the organization, while also giving them ways to reduce it. Green audit involves the inspection of a organization to assess the total environmental impact of its activities, or of a particular product or a process. The main objectives of carrying out Green Audit are:

- To ensure development along with safeguarding the environment.
- To reduce energy consumption to foster environment.
- To ensure compliance with present legislations of the State and other legal requirements.
- To physically ensure installation of devices that reduce pollution and authentication of such devices by competent authority.
- To ensure optimum utilization of resources.
- To see whether provisions are made for liabilities arising out of unintentional pollution related damages and their compliance in cases so arose.
- To ensure that sufficient precaution has been taken by the organization to protect the employees of the organization from pollution resulting from it.
- ♣ To suggest improvement in the system to promote safe and clean environment.

This audit report contains observations and recommendations for improvement of environmental consciousness.

# 7 METHODOLOGY

To perform green audit, the methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation, and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following areas to summarise the present status of environment management in the campus:

- Water Management
- Waste Management (solid, liquid & e-waste)
- Energy Management
- Management on Carbon Foot-print
- Ambient Air & Noise Monitoring
- Green area management

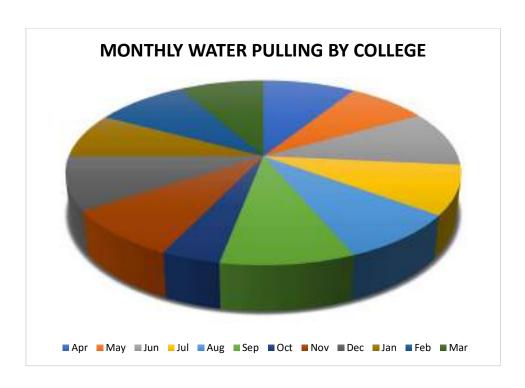
# **8 OBSERVATIONS & RECOMMENDATIONS**

#### 8.1 Water Conservation

**Water sources:** 3 no hand pump, 2 no of motors are installed, 2 no Water tank with 1000 ltr. & 2 no water tank with 2000 ltr. capacity installed on rooftop for storage of water.

# Monthly water pulling at college:

SI. No.	Month	Water Pulling by pump (Ltr.)
1	Apr	43200
2	May	37800
3	Jun	46800
4	Jul	41400
5	Aug	41400
6	Sep	45000
7	Oct	19800
8	Nov	41400
9	Dec	45000
10	Jan	37800
11	Feb	43200
12	Mar	39600
T	otal	482400





### Water Management Practices Adopted by the College:

- College adopts sprinkler water system at garden.
- ← College reuses the Grey Water which is being generated by Kitchen Sinks are being used in watering the plants in the garden area.
- College installed water purifier for drinking water.
- Rain water excreted in the college pond & that water is used for watering the plants & irrigation purpose.

#### **Precautionary Measures**

College should consider following precautionary measures for improving campus environment.

- ♣ One or Two Non-teaching staff/peons in the concerned section should take responsibility of monitoring the overflow of water tanks.
- ♣ Plumbing system should be checked monthly to reduce leakages and wastages of water.
- Encourage Water Conservation among students and Staffs.

#### Recommendations

- Ensure that the water purifiers that is used for drinking purpose are annually serviced.
- ➡ Half Yearly 1 camp/Program should be done to spread awareness for water conservation.
- ♣ Drinking water analysis need to be done from NABL approved lab and shall be done as per IS 10500
- ♣ Buil Soak Pit so that water overflowed by tank can be excreted by pipe.
- "Close tap after use" poster need to be implemented on every water point.



Hand Tube well for drinking Water



**College Installed Water Purifier** 



# 8.2 Waste Management (Waste Generation and Disposal)

Waste management is important for an eco-friendly & healthy campus. Regular basis waste collection makes the institute clean and safe. In an institute, different types of wastes are generated. Like- Paper Waste, Food Waste, Wood Waste, Plastic Waste, E-Waste, Bio Medical Waste, Chemical Waste which collection and management are very difficult.

#### Category wise solid waste generation at college (kg/year)

Category of waste	Quantity (Kg)
Paper Waste	
Plastics Waste	
E-Waste	
Cloth Waste	Data Not Available
Glass Waste	
Wood Waste	
Kitchen Waste	

#### Type of waste particulars and disposal method in college:

Types of waste	Particulars	Disposal method
E-Waste	Computers, electrical and electronic	Direct selling
	parts	
Plastic waste	Pen, Refill, Plastic water bottles and	Direct selling
	other plastic containers, wrappers etc	
Wood wastes	Damaged furniture	Direct Selling
Paper Waste	Banners, examination papers, paper	Direct Selling
	plates, useless official papers	
Food Waste	Rotten Vegetables, Vegetables Peel,	Vermicomposting in college
	Rotten food, fruits	premises
Wastewater	Washing, urinals, bathrooms	Septic tank then outside drain.
Glass waste	Broken glass wares from the labs	Direct selling
Sanitary Waste	Sanitary Napkins	Sanitary Napkin Incinerator

### Waste Management Practices Adopted by the College:

- Waste bins are placed at several points in the college to collect waste.
- College is announced as "plastic free zone" yet if any plastic waste items found are regularly collected by NSS volunteers and deposited to waste collecting points.
- College adopted vermicomposting system in college premises.
- College installed Sanitary Napkin Incinerator by which all sanitary napkins converted into ash which is eco-friendly.
- College organized "Cleanliness Drive" through NSS team at College campus & surrounding which helps to made a eco-friendly environment.

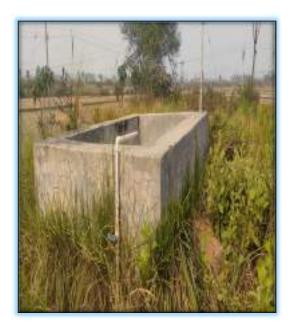


#### Recommendation

- ♣ Reduce the absolute amount of waste that is produced from college staff offices.
- ♣ Advised to signed with an agency which collect E- wastes & recycle by proper way.
- ♣ Maintain record of quantity of wastes generated by college.



College Announced "Plastic Free Zone"



**Vermicomposting Area Behind Canteen** 



"Cleanliness Drive" by NSS Team



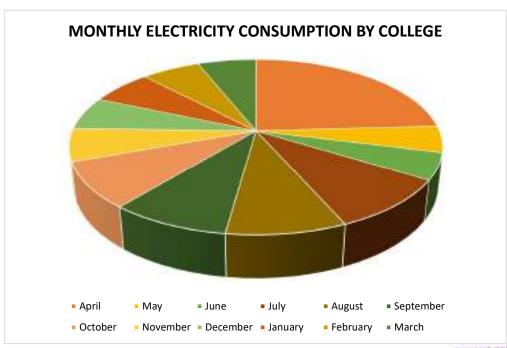
# 8.3 Energy management

#### **Source of Power**

Power at institute is supplied by WBSEDCL (West Bengal State Electricity Distribution Company Limited).

# **Electricity Consumption details**

Sl. No	Month	Electricity Consumption (Unit)
1	April	6132.446809
2	May	1246.675532
3	June	1246.675532
4	July	2432.44
5	August	2232.34
6	September	2232.34
7	October	2151.99
8	November	1544.69
9	December	1544.69
10	January	1634.76
11	February	1535.98
12	March	1535.98
	Total	25471.00787



TECHNO CONSULTANT

Report No TC/2223/AR/MAR/04

#### **Fossil Fuel Power**

#### Details of major Fuel consuming Machines in college campus

Sr. no	Equipment	Number	Consumption/year
1	LPG for canteen	9 cylinders/year	127.8 Kg
2	Four-wheeler	6 no/day	1008 litres
3	Two-wheeler	19 no/day	1016.5 litres
4	DG set	1 no	218

#### **Energy Management Practices Adopted by the College:**

- **♣** College installed Solar panel at rooftop to save electricity.
- College starts replacing the damaged non-LED lights to LED lights to saving the consume of energy
- ♣ Clay over is used in College Canteen to reduce the consumption of LPG.

#### Recommendation

- One or Two Non-teaching staff/peons in the concerned section should take responsibility of monitoring where electrical things are unnecessarily on.
- ♣ Energy saving awareness spread among the students & staffs by displaying boards at appropriate place.
- ♣ Replacement of existing electric fans with BLDC fans can significantly reduce power consumption and help in a good reduction in electricity charges.
- **♣** 5-star rated Air Conditioners, Fans and CFLs should be used.



College Used Clay Oven to reduce the Consumption of LPG

TECHNO CONSULTANT



**Solar Panel Installed at Rooftop** 

# 8.4 Analysis of carbon footprint

A carbon footprint is the total greenhouse gas (GHG) emissions caused by an individual, event, organization, service, place or product, expressed as carbon dioxide equivalent. It includes direct emissions, such as those that result from fossil-fuel combustion in manufacturing, heating, and transportation, as well as emissions required to produce the electricity associated with goods and services consumed. In addition, the carbon footprint concept also often includes the emissions of other greenhouse gases, such as methane, nitrous oxide, or chlorofluorocarbons (CFCs).

Release of carbon dioxide gas into the Earth's atmosphere through human activities is commonly known as carbon footprint. An understanding about the same of any institute where large number of anthropogenic activities are happening is important to assess the contribution of emission of gases that are responsible for Green House Effect. Auditing for carbon footprint of this College Campus was done using a detailed questionnaire, so that the impact of the community on global environment can be assessed.

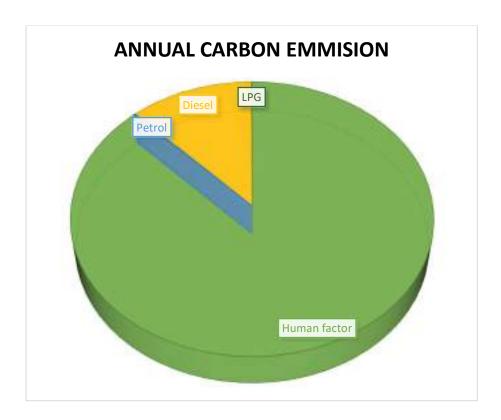
#### Data required for carbon footprint

• No. of working days= 210

- College working time= 8 hours
- Total number of people per day (approx.) = 1650
- No. of two wheelers used= 19
- No. of four wheelers used= 6
- No. of LPG cylinders used in canteen= 6



Emission factor	Emission CO <sub>2</sub>	Annual emission CO₂ (kg)
Human factor	1.043 kg/day	361399.5
Petrol	2.3 kg / litr	386.4
Diesel	2.6/litr	49556
LPG	2.98 kg/litr	380.844
1	otal	411722.744



#### Recommendation

- Used Pool Car/Public transport instead of private transport.
- Generator should be operated by Solar System to reduce the consumption of diesel.
- It is advised to start monitoring the carbon emission from generator stack.

# 8.5 Ambient Air Management & Noise Monitoring

- No ambient air monitoring done by college. It is advised to start monitoring the quality of college air.
- ♣ Noise level is not monitored by college. It is advised to start monitored the noise level at campus area.



# 8.6 Green Area Management

Campus is located in the vicinity of different types of flora, fauna, medicinal plants & seasonal plants. Various tree plantation programs are being organized yearly at college campus and surrounding villages through NSS team. This program helps in encouraging eco-friendly environment which provides pure oxygen within the institute and awareness among villagers. Trees such as Neem, Indian Blackberry Tree, Flame Tree, Mango, Jack Fruit, Teak, Guava, Almond, Cashew, Exotic Flora, Asoka and Spanish cherry Plant are planted. Total Number of plants in college campus is 364.

### List of Trees in college campus:

Bengali Name	English Name
Jhau Plant	ThujaJhau Plant
KagajFul Tree	Lesser Bougainvillea
Sishu Tree	Shisham Tree
Sirish Tree	Albizia Lebbeck
Joba Plant	Hibiscus Plant
<b>Bottle Palm Tree</b>	Bottle Palm Tree
Neem Tree	Neem Tree
Akashmoni Tree	Acacia auriculiformis
Babla Tree	Indian Gum Arabic Tree
Eucaluptus Tree	Eucaluptus Tree
Peara Plant	Guava Plant
Kul Tree	Indian Plum Tree
Segun Tree	Teak Tree
Aam tree	Mango Tree
Tetul Tree	Tamarind Tree
Kodom Tree	Burflower Tree
Debdaru Tree	Cemetery Tree
Kosoi Tree	White Berry Tree
Acha Tree	Indian Blackwood Tree
Siakul Tree	Jackal Jujube Tree
Bokul Tree	Spanish Cherry Tree
Bot Tree	Banayan Tree
Akondo Plant	Crown Flower Plant
Golap Plant	Rose Tree
Tulsi Plant	Holy Basil Plant
Cycas Plant	Sago Palm Plant
Snake Plant	Snake Plant
Tree	Java Apple Tree
Rabar Tree	Hevea Brasiliensis Tree
Laalcheeta Plant	Red plumbago
Kaalocheeta Plant	Black plumbago
Chatim Plant	Chatim Plant

Bel Tree	Stone Apple Tree
Dhutra Plant	Thornapples Trees
Calendula Plant	Pot Marigold Plant
Lebu Plant	Lemon Plant
Seasonal Flower	Seasonal Flower
Others	

# **Green Management Practices Adopted by the College:**

- College has 60% area reserved for plantation.
- College arranged 1 or 2 plantation drive annually through NSS team.
- College garden is maintained by NSS Team & teachers.

#### Recommendations

- Appoint one gardener to watering the plants regular basis.
- Review periodically the list of trees planted in the garden, allot numbers to the trees and keep records. Assign scientific names to the trees.
- Segregate a place for medicinal plants.
- Gift plants to the guests instead of readymade gifts.
- Increase the number of plantation drive annually.
- Create awareness of environmental sustainability and take actions to ensure environmental sustainability.
- **Establish a College Environmental Committee that will hold responsibility for the enactment, enforcement, and review of the Environmental Policy.**
- ♣ College should conduct annual internal audit to review & action is taken on the basis of recommendation mentioned in audit report.
- Green library may be established.



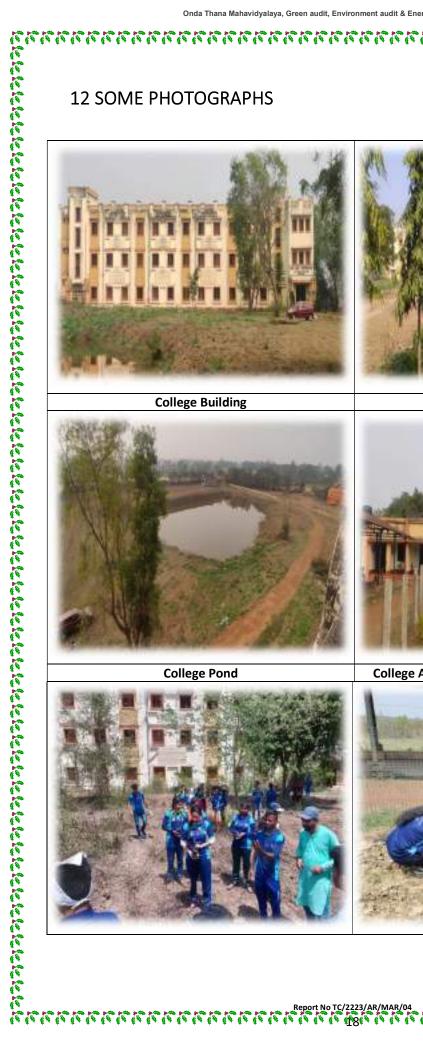
**Tree Plantation Drive through NSS Team** 



# 11 EMERGENCY PREPAREDENESS

- ♣ There was no emergency preparedness procedure, neither any emergency numbers displayed at prominent locations.
- ♣ College can start doing mock drills with expert organizations to overcome possible environmental disaster in future
- ♣ Emergency numbers, like nearest police station, nearest hospital, ambulance, nearest fire brigade can be displayed at various strategic locations in the institute.

TECHNO CONSULTANT







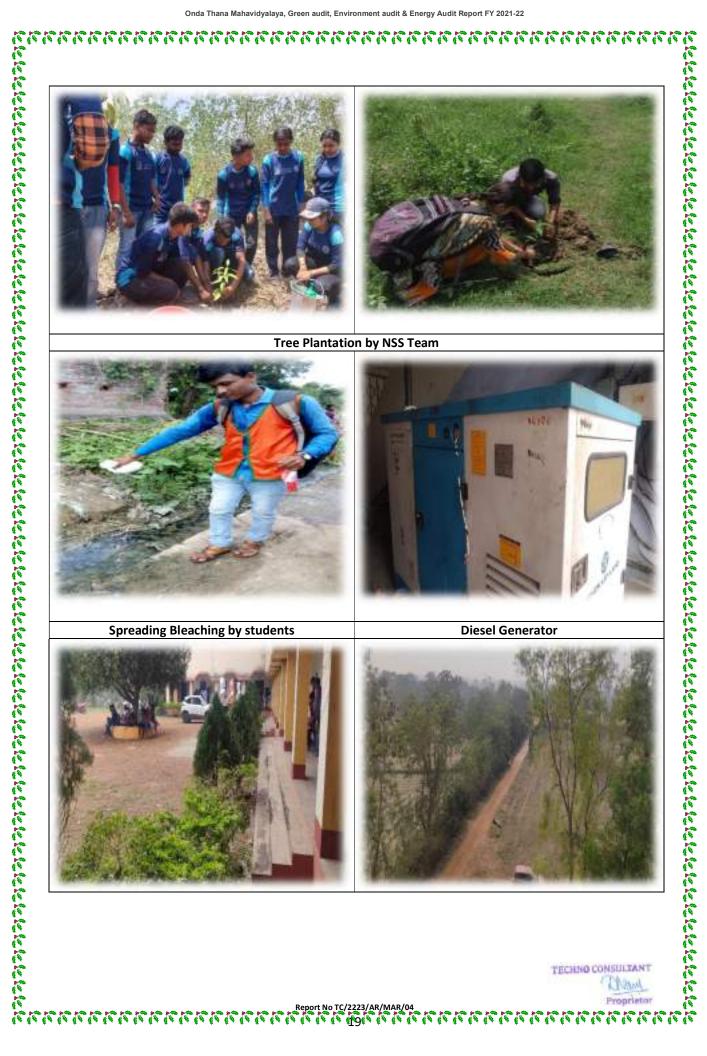




**College Adopted Sprinkler System for Watering** 





















**College Campus** 

# 13 CONCLUSIONS

This audit involved extensive consultation with all the teams, interactions with key personnel. Overall 60% of the campus is for landscaping. The audit has identified a few observations & some recommendations for making the campus premise more environment friendly. Few things that are important to initiate for better improvement. Overall, the College Campus is well-maintained from the environmental perspective. Report compiled & prepared by Mr. Devdeepta Nandy.

# 14 REFERENCES:

- ❖ The Environment [Protection] Act 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- ❖ ISO 14001:2015 standard.



\*\*\*\*END OF REPORT\*\*\*\*

# Techno Consultant

Letter of Conformity

Awarded To

# ONDA THANA MAHAVIDYALAYA

P.O. - Murakata, Dist. - Bankura, PIN -722144

This letter is to attest that on 25<sup>TH</sup> & 26<sup>TH</sup> March 2019

# ONDA THANA MAHAVIDYALAYA

Has been audited by TECHNO CONSULTANT
For
GREEN AUDIT, ENVIRONMENT AUDIT & ENERGY AUDIT

Details of which is available in audit report (Report No TC/1819/AR/MAR/03) issued by TECHNO CONSULTANT.

**Certificate Date: 29.03.2019** 

Valid Till: 28.03.2020

Signed: —

**Dev Deepta Nandy** 

**Auditor** 

(IRCA Certificate No. 11606 dated 13th November 2006)

Certificate Number: GA/MARCH-19/42

Certificate Issued on Behalf of Techno Consultant, www.technoconsultant.online

# Techno Consultant

Letter of Conformity

Awarded To

# ONDA THANA MAHAVIDYALAYA

P.O. - Murakata, Dist. - Bankura, PIN -722144

This letter is to attest that on 26<sup>TH</sup> & 27<sup>TH</sup> March 2020

# ONDA THANA MAHAVIDYALAYA

Has been audited by TECHNO CONSULTANT

For

GREEN AUDIT, ENVIRONMENT AUDIT & ENERGY AUDIT

Details of which is available in audit report (Report No TC/1920/AR/MAR/04) issued by TECHNO CONSULTANT.

Certificate Date: 31.03.2020

Valid Till: 30.03.2021

Signed: —

**Dev Deepta Nandy** 

**Auditor** 

(IRCA Certificate No. 11606 dated 13th November 2006)

Certificate Number: GA/MARCH-19/40

Certificate Issued on Behalf of Techno Consultant, www.technoconsultant.online

# Techno Consultant

Letter of Conformity

Awarded To

# ONDA THANA MAHAVIDYALAYA

P.O. - Murakata, Dist. - Bankura, PIN -722144

This letter is to attest that on 24<sup>TH</sup> & 25<sup>TH</sup> March 2021

# ONDA THANA MAHAVIDYALAYA

Has been audited by TECHNO CONSULTANT

For

GREEN AUDIT, ENVIRONMENT AUDIT & ENERGY AUDIT

Details of which is available in audit report (Report No TC/2021/AR/MAR/05) issued by TECHNO CONSULTANT.

**Certificate Date: 29.03.2021** 

Valid Till: 30.03.2022

Signed: —

**Dev Deepta Nandy** 

**Auditor** 

(IRCA Certificate No. 11606 dated 13th November 2006)

Certificate Number: GA/MARCH-19/36

Certificate Issued on Behalf of Techno Consultant, www.technoconsultant.online

# Techno Consultant

Letter of Conformity

Awarded To

## ONDA THANA MAHAVIDYALAYA

P.O. - Murakata, Dist. - Bankura, PIN -722144

This letter is to attest that on 18<sup>TH</sup> & 19<sup>TH</sup> March 2022

## ONDA THANA MAHAVIDYALAYA

Has been audited by TECHNO CONSULTANT

For

GREEN AUDIT, ENVIRONMENT AUDIT & ENERGY AUDIT

Details of which is available in audit report (Report No TC/2122/AR/MAR/04) issued by TECHNO CONSULTANT.

**Certificate Date: 25.03.2022** 

Valid Till: 24.03.2023

Signed: —

**Dev Deepta Nandy** 

**Auditor** 

(IRCA Certificate No. 11606 dated 13th November 2006)

Certificate Number: GA/MARCH-19/37

Certificate Issued on Behalf of Techno Consultant, www.technoconsultant.online

# Techno Consultant

Letter of Conformity

Awarded To

# ONDA THANA MAHAVIDYALAYA

P.O. - Murakata, Dist. - Bankura, PIN -722144

This letter is to attest that on 27<sup>TH</sup> & 28<sup>TH</sup> March 2023

## ONDA THANA MAHAVIDYALAYA

Has been audited by TECHNO CONSULTANT
For
GREEN AUDIT, ENVIRONMENT AUDIT & ENERGY AUDIT

Details of which is available in audit report (Report No TC/2223/AR/MAR/04) issued by TECHNO CONSULTANT.

**Certificate Date: 31.03.2023** 

Valid Till: 30.03.2024

Signed: —

**Dev Deepta Nandy** 

**Auditor** 

(IRCA Certificate No. 11606 dated 13th November 2006)

Certificate Number: GA/MARCH-19/09

Certificate Issued on Behalf of Techno Consultant, www.technoconsultant.online



Affiliated to Bankura University Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathanamahavidyataya.in Email:-otm.principal@gmail.com

# 7.1.3. Report on Environmental Promotional activities conducted beyond the campus with geo-tagged photographs with caption and date





# ONDA THANA MAHAVIDYALAYA

Affiliated to Bankura University

Govt. Aided college recognised under section 2 (f) & 12 (B) of the UGC

P.O.-MURAKATA, P.S.-ONDA, DIST.-BANKURA PIN-722144 (W.B.)
Website:-www.ondathenamahavidyataya.in Email:-otm.principal@gmail.com







# ONDA THANA MAHAVIDYALAYA

P.O- MURAKATA, P.S.- ONDA, DIST: - BANKURA PIN-722144 WEST BENGAL, INDIA

has been independently assessed by QRO and is compliant with the requirement of:

ISO 9001:2015

# **Quality Management System**

For the following scope of activities:

#### PROVIDING THE COURSES AT THE LEVEL OF UNDER GRADUATE.

Date of Certification: 16th March 2024 2<sup>nd</sup> Surveillance Audit Due: 15th March 2026

1<sup>st</sup> Surveillance Audit Due: 15th March 2025 Certificate Expiry: 15th March 2027

Certificate Number: 305024031618Q





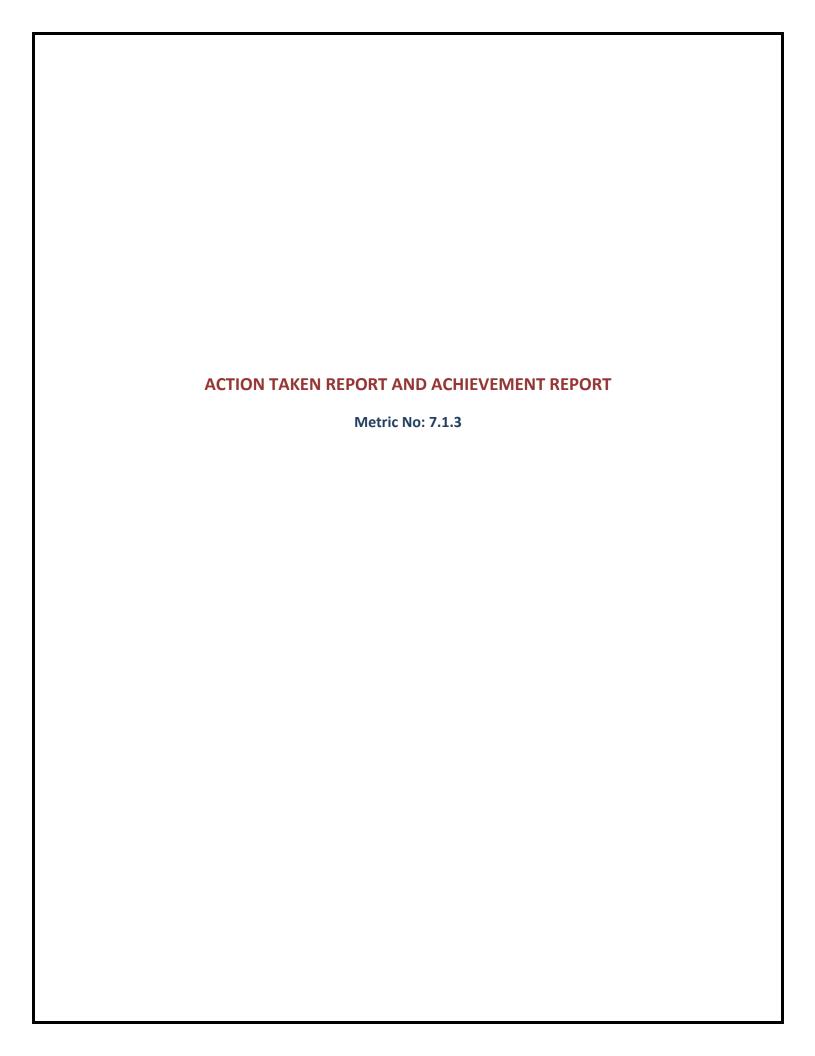




Validity of this certificate is subject to annual surveillance audits to be done successfully on or before 365 days from date of the audit. (In case surveillance audit is not allowed to be conducted; this certificate shall be suspended / withdrawn).

The Validity of this certificate can be verified at www.qrocert.org

This certificate of registration remains the property of QRO Certification LLP, and shall be returned immediately upon request.



#### **Academic Session 2018-19**

Title of the Programme: Celebration of Plantation Day

Date of the Programme: 07.07.2018

Place of activity: College campus

Funding Agency: Onda Thana Mahavidyalaya

**Number of Participants: 1. Number of staff- 8** 

2. Number of NSS Volunteers-20

3. Number of others students-00

**Aims & Objectives**: To make Students aware of global warming, forest degradation, soil erosion etc. and importance of planting saplings.

Activities: Plantation of mango, sal, debdaru etc saplings.













**Title of the Programme: Observation of NSS Day** 

Date of the Programme: 24.09.2018

Place of activity: College campus

Funding agency: Onda Thana Mahavidyalaya

Number of Participants: 1. Number of staff- 25

2. Number of NSS Volunteers-60

3. Number of others students-10

**Aims & Objectives:** 1. To honour the organization's establishment.

- 2. To recognize contribution of NSS in nation building process.
- 3. To recognize the efforts of NSS volunteers in well beign of community.

**Activities:** The event started with hoisting of NSS flag by our Principal Dr. Bijay Kant Dubey . Then special motivational lecture delivered by the pricipal. Programme officers of the units and

other teachers and staff delivered motivational and awareness lecture on various topic, i.e. example of youth selfless activities, environmental issues, social issues etc. At the end of the programme Voluteers partipated in campus cleaning.





Title of the Programme: Anti Tobacco campaign

Date of the Programme: 25.03.2019

Place of activity: College campus

**Funding Agency: Central Govt (through District Tobacco Control Cell)** 

**Number of Participants: 1. Number of staff- 25** 

2. Number of NSS Volunteers-87

#### 3. Number of others students-13

**Aims & Objectives:** 1. To increase awareness on harmfull effects of tobacco among college students.

- 2. To raise awareness about harmfull effects of tobacco on passive smoker.
- 3. To raise awareness on the importance of lung health in acieving overall health and well being.

**Activities:** Principal of our college inaugurated this special programme on 25<sup>th</sup> march, 2019. Officers of District Tobacco Control Cell (Biswajit Charan, Sourav Samanta, Sadananda Mukherjee) discussed on Health hazards and ill effects of Tobacco users. Our NSS volunteers performed in a 'natak'- "Sukher Thikana" related to effects of smoking and domestic violence.





NSS Unit 1		NSS Unit 2	
Date	Activities	Date	Activities
Inauguration Programme, Speech & Campus cleaning	Innaauguration & Anti Tabocco Campaign by Anti Tabocco Cell,Bankura	25.03.2019	Innaauguration & Anti Tabocco Campaign by Anti Tabocco Cell,Bankura
26.03.2019	Campus Cleaning & Speech on Environmental Issue, Women Empoerment NSS.	26.03.2019	Campus Cleaning & Speech on Environmental Issue, Women Empoerment NSS.
27.03.2019	Environmental Crisis and Alternative Thinking ( Organic Cultivation) by Dr. Anupam Pal, Assistant Director, Fulia Agriculture Research Centre; Santanu Maitra (Canada), Expert on Glyphosate, Rabin Banerjee , Activist(organic cultivation)	27.03.2019	Environmental Crisis and Alternative Thinking ( Organic Cultivation) by Dr. Anupam Pal, Assistant Director, Fulia Agriculture Research Centre; Santanu Maitra (Canada), Expert on Glyphosate, Rabin Banerjee, Activist(organic cultivation)
28.03.2019	Field work at adopted village (Dhabani)	28.03.2019	Field work at adopted village (Bheduasole)
29.03.2019	Workshop on Thalassemia and blood donation, Boold donation Camp by VBDS and Sammilani Medical College	29.03.2019	Workshop on Thalassemia and blood donation, Boold donation Camp by VBDS and Sammilani Medical College
30.03.2019	Awareness programme on Local heritage sites and Indigenous knowledge and culture.	30.03.2019	Awareness programme on Local heritage sites and Indigenous knowledge and culture.
31.03.2019	Cultural Programme and Distribution of Certificate and Validictory Session	31.03.2019	Cultural Programme and Distribution of Certificate and Validictory Session











Title of the Programme: Observation of Anti Tobacco Day

Date of the Programme: 31.05.2019

Place of activity: College campus

Funding Agency: Onda Thana Mahavidyalaya

Number of Participants: 1. Number of staff- 25

2. Number of NSS Volunteers-58

3. Number of others students-05

**Aims & Objectives:** 1. To increase awareness on harmfull effects of tobacco among college students.

- 2. To raise awareness about harmfull effects of tobacco on passive smoker.
- 3. To raise awareness on the importance of lung health in acieving overall health and well being .

**Activities:** Principal of our college inaugurated this special programme on 31<sup>st</sup> May, 2019. Officers of District Tobacco Control Cell (Biswajit Charan, Sourav Samanta, Sadananda Mukherjee) discussed on Health hazards and ill effects of Tobacco users.



Title of the Programme: Celebration of World's Environment Day

Date of the Programme: 05.06.2019

Place of activity: College campus

Funding Agency: Onda Thana Mahavidyalaya

Number of Participants: 1. Number of staff- 8

2. Number of NSS Volunteers-40

3. Number of others students-10

**Aims & Objectives:** 1. to raise awareness to proper utilization of natural resources among students.

- 2. To raise awareness of environmental issues.
- 3. To make positive and caring attitude towards environment to save our planet.
- 4. To encourage tree plantation.

**Activities**: 1. Students got knowledge on value of natural resources through lecrture by the teachers.

2. From discussion they were able to understand various environmental issues.

3. It has been possible to develop a positive and caring attitude towards environment among students.

4. plantation pragramme was organised.



Title of the Programme: Celebration of International Yoga Day

Date of the Programme: 21.06.2019

Place of activity: College campus

Funding agnecy: Onda Thana Mahavidyalaya

Number of Participants: 1. Number of staff- 02

2. Number of NSS Volunteers-20

#### 3. Number of others students-00

**Aims & Objectives:** 1. to spread awareness about the importance and effect of yoga practice among the students.

2. Making students and others people aware of physical and mental illnesses and providing solutions through yoga.

**Activties:** First, the teachers discussed on the importance yoga in our daily life. Then Volunteers practised yoga on under leadership of one trained volunteers.

#### **Academic Session 2019-20**

Title of the Programme: Celebration of Plantation Day

Date of the Programme: 07.07.2019

Place of activity: College campus

Funding Agency: Onda Thana MAhavidyalaya

Number of Participants: 1. Number of staff- 05

2. Number of NSS Volunteers-20

3. Number of others students-2

**Aims & Objectives:** To make Students aware of global warming, forest degradation, soil erosion etc. and importance of planting sampling.

**Activities:** Plantation of various saplings, i.e. mango, sal, debdaru, litchi etc.











#### **Academic Session 2020-21**

Title of the Programme: Celebration of Independence Day

Date of the Programme: 15.08.2020

Place of activity: College campus

Funding Agency: Onda Thana Mahavidyalaya

Number of Participants: 1. Number of staff- 10

2. Number of NSS Volunteers-20

3. Number of others students-10

**Aims & Objectives:** India got freedom on this day by the sacrifice of our brave patriots. So we want to remind the young generation that freedom does not come for free and to make them aware about the moral value of Independence Day of India.

**Activities:** They can know the contribution of freedom fighter in freedom movement and they are able to realize the moral value of Independence Day of India through various speech by Teachers and staff. Cultural proramme also organised and NSS volunteers participated in the prgogramme spontenously.



Title of the Programme: Celebration of Birthday of Netaji

Date of the Programme: 23.01.2021

Place of activity: College campus

Funding Agency: Onda Thana Mahavidyalaya

Number of Participants: 1. Number of staff- 12

2. Number of NSS Volunteers-25

3. Number of others students-20

**Aims & Objectives: :** 1. To celebrate the birthday of our great patriotic and freedom fighter Netaji.

- 2. To honour the contribution and bravery of our freedom fighter in achieving independence.
- 3. to inspire the youth to follow his ideals of courage and sacrifice.

**Activities:** Due to odd semester examination, the presence of volunteers at college campus was low. The programme was organised at college campus. At first, National flag is hoisted and then teachers and staff inspire the youth by focusing on self-secrificing and bravery of Netaji for motherland.

#### **Academic Session 2021-22**



**Title of the Programme: Covid Awareness Initiatives** 

Date of the Programme: 08.11.2021

Place of activity: College campus

Funding Agency: Regular fund from central government and Onda Thana Mahavidyalaya

**Number of Participants: 1. Number of staff- 4** 

2. Number of NSS Volunteers-10

3. Number of other students: 02

Aims & Objectives: To spread awareness against coronavirus among students and people.

**Activities:** Awareness messages on dos and don'ts to avoid coronavirus were disseminated.







NSS Unit 1		NSS Unit 2	
Date	Activities	Date	Activities
23.03.2022	Inauguration Programme, Speech & Campus cleaning	23.03.2022	Inauguration Programme, Speech & Campus cleaning
24.03.2022	<b>Blood Donation Camp</b>	24.03.2022	<b>Blood Donation Camp</b>
25.03.2022	Blood Donation Camp by Bankura Blood Donors` Society	25.03.2022	Health awareness programme by Bankura Sammilani Medical College
26.03.2022	Motivational Speech by the recource persons	26.03.2022	Motivational Speech by the Resource persons
27.03.2022	Awareness programme and Yoga programme	27.03.2022	Awareness programme and Yoga programme
28.03.2022	Campus Cleaning and Plantation programme	28.03.2022	Campus cleaning and tree plantation programme
29.03.2022	Cultural programme & Camp fire	29.03.2022	Cultural Programme and Camp fire

























































Title of the Programme: Block Level quiz Compettition

Date of the Programme: 11.05.2022

Place of activity: Block Development Office, Onda

Funding Agency: Regular fund under central government

Number of Participants: 1. Number of staff- 03

2. Number of NSS Volunteers-10

3. Number of others students-10

**Aims & Objectives:** 1. To expand their knowledge and improve cognitives abilities.

2. To help in building personality.

**Activities:** Volunteers participated the quiz competition organized by the Block Development Office, Onda and enjoyed the whole programme.









Title of the Programme: Observation of World No Tobacco Day

Date of the Programme: 31.05.2022

Place of activity: Bankura Christain College

Funding Agency: Regular fund under central government

Number of Participants: 1. Number of staff- 01

2. Number of NSS Volunteers-10

#### 3. Number of others students-00

**Aims & Objectives:** 1. To increase awareness on harmfull effects of tobacco among college students.

- 2. To raise awareness about harmfull effects of tobacco on passive smoker.
- 3. To raise awareness on the importance of lung health in acieving overall health and well being .

**Activities:** Volunteers from different school and colleges participated in this programme. Our volunteers presented the harmful effects of tobacco through a play.





Title of the Programme: Observation of NSS Day

Date of the Programme: 24.09.2022

Place of activity: College campus

Funding Agency: Regular fund under central government

#### Number of Participants: 1. Number of staff- 10

- 2. Number of NSS Volunteers-40
- 3. Number of others students-10

**Aims & Objectives:** 1. To honour the organization's establishment.

- 2. To recognize contribution of NSS in nation building process.
- 3. To recognize the efforts of NSS volunteers in well beign of community.

**Activities:** The event started with hoisting of NSS flag by our Principal Dr. Bijay Kant Dubey . Then special motivational lecture delivered by the pricipal. Programme officers of the units and other teachers and staff delivered motivational and awareness lecture on various topic, i.e. example of youth selfless activities, environmental issues, social issues etc. At the end of the programme Voluteers partipated in campus cleaning.



**Title of the Programme: Campus Cleaning** 

Date of the Programme: 30.11.2022

Place of activity: College campus

Funding Agency: Regular fund under central government

**Number of Participants: 1. Number of staff- 2** 

2. Number of NSS Volunteers-10

3. Number of others students-00

**Aims & Objectives:** To make aware volunteers about importance of cleanliness and to give opportunity to work together.

Activities: volunteers clean the college campus together.





Title of the Programme: Celebration of Birthday of Netaji

Date of the Programme: 23.01.2023

Place of activity: College campus

Funding Agency: Regular fund from central Government

Number of Participants: 1. Number of staff- 10

2. Number of NSS Volunteers-20

3. Number of others students-10

**Aims & Objectives:** 1. To celebrate the birthday of our great patriotic and freedom fighter Netaji.

- 2. To honour the contribution and bravery of our freedom fighter in achieving independence.
- 3. to inspire the youth to follow his ideals of courage and sacrifice.

**Activities:** Due to odd semester examination, the presence of volunteers at college campus was low. The programme was organised at college campus. At first, National flag is hoisted and then teachers and staff inspire the youth by focusing on self-secrificing and bravery of Netaji for motherland.





Title of the Programme: Anti Tobacco Campaign

Date of the Programme: 24.04.2023

**Place of activity: College Campus** 

Funding Agency: Central assistance through District Tobacco control Cell

Number of Participants: 1. Number of staff- 10

2. Number of NSS Volunteers-38

3. Number of others students-00

**Aims & Objectives:** 1. To increase awareness on harmfull effects of tobacco among college students.

- 2. To raise awareness about harmfull effects of tobacco on passive smoker.
- 3. To raise awareness on the importance of lung health in acieving overall health and well being.

**Activities:** Principal of our college inaugurated this special programme on 24<sup>th</sup> april, 2023. Officers of District Tobacco Control Cell (Biswajit Charan, Sourav Samanta, Sadananda Mukherjee) discussed on Health hazards and ill effects of Tobacco users..

#### **Programme outcomes**

