PRASANTA CHANDRA MAHALANOBIS MAHAVIDYALAYA

GREEN AUDIT REPORT 2021-22

GREEN AUDIT-2020-21

1.1 INTRODUCTION

Green or Environmental Audit is a process of systematic identification, quantification, recording, reporting analysis and documentation of components of environmental diversity of college. Green Auditing is a systematic assessment of day-to-day activity with reference to the utilization of resources and waste management It aims to analyse environmental practices within and outside of the concerned place; leading to an eco-friendly atmosphere. It is a medium for a college to determine how and where they are using the most energy or water or other resources; the college can then consider how to implement changes and make savings. It can create health consciousness and promote environmental awareness, values and ethics. It also provides staff and students better understanding of Green impact on campus. On this background it becomes essential to adopt the system of the Green Campus for the institutes which will lead for sustainable development.The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory that all Higher Educational Institutions should submit an annual Green Audit Report. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through carbon footprint reduction measures.

1.2 NEED FOR GREEN AUDIT

Green audit helps to keep a close contact with environment and human being. They are:

- To protect the environment and solve environmental problems.
- To find out methods for waste management.
- Suggests measures for future complications.
- Evaluate environmental standards.
- Helps in the sustainable development of the institution.

1.3 OBJECTIVES OF GREEN AUDIT

The main aims and objectives of this green audit is to assess the environmental quality and the management strategies being implemented in Prasanta Chandra Mahalanobis Mahavidyalaya. The specific objectives are:

1. To monitor the energy consumption pattern of the college
2. To quantify the liquid and solid waste generation and management plans in the campus.
3. To impart environment management plans to the college

4. Providing a database for corrective actions and future plans.
5. To assess whether extracurricular activities of the Institution support the collection, recovery, reuse and recycling of solid wastes.
6. To identify the gap areas and suggest recommendations to improve the Green Campus status of the College.

1.4 METHODOLOGY

The methodology adopted to conduct the Green Audit of the Institution had the following components.

On site Visit

Four day field visit was conducted by the Green Audit Team. The key focus of the visit was on assessing the status of the green cover of the Institution, their waste management practices and energy conservation strategies etc. The sample collection, preservation, and analysis were done in the scientific manner as prescribed by the standard procedures.

Focus Group Discussion

The Focus Group discussions were held with the nature club, bird club, ECO-Club members, staff members and the management focusing various aspects of Green Audit. The discussion was focused on identifying the attitudes and awareness towards environmental issues at the institutional and local level.

Energy and waste management Survey

With the help of teachers and students, the audit team has assessed the energy consumption pattern and waste generation, disposal and treatment facilities of the college. The monitoring was conducted with a detailed questionnaire survey method.

1.5 TARGET AREAS OF GREEN AUDITING

Green audit forms part of a resource management process. Although they are individualevents, the real value of green audit is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. Eco-campus concept mainly focuses on the efficient use of energy and water; minimize waste generation or pollution and also economic efficiency.

All these indicators are assessed in the process of "Green Auditing of this educational institute". Eco-campus focuses on the reduction of contribution to emissions, procure a cost effective and secure supply of energy, encourage and enhance energy use conservation, promotespersonal action, reduce the institute's energy andwater consumption, reduce wastes to landfill, and integrate environmental considerations into all contracts andservicesconsidered tohavesignificant environmental impacts. Target areas included in this green auditing are water, energy, waste and green campus.

Auditing for Water Management

Water is a natural resource; all living organismsdepend on water.Whilefreely availablein many natural environments, in human settlements potable (drinkable) water is less readilyavailable. Water auditing isconducted for the evaluation of facilities of raw water intake and determining the facilities forwater treatment and reuse.

Auditing for Energy Management

Energy conservation is an important aspect of campus sustainability which is also linked with carbon foot print of the campus. Energy auditing deals with the conservation and methods to reduce its consumption related to environmental degradation. It is therefore essential that any environmentally responsible institution examine its energy use practices.

Auditing for Waste Management

Human activities create waste, and it is the way these wastes are handled, stored, collected and disposed of, which can pose risks to the environment and to public health. Pollution from waste is aesthetically unpleasing and results in large amounts of litter in ourcommunities which can cause health problems. Solid waste can be divided into three categories:bio-degradable, non-biodegradable and hazardous waste. Bio-degradable wastes includes foodwastes, canteen waste, wastes from toilets etc. Non-biodegradable wastes include what is usuallythrown away in homes and schools such as plastic, tins and glass bottles etc. Hazardous waste iswaste that is likely to be a threat to health or the environment like cleaning chemicals, acids andpetrol. Unscientific management of these wastes such as dumping in pits or burning them maycause harmful discharge of contaminants into soil and water supplies, and produce green house gases contributing to global climate change respectively. Special attention should be given to the handling and management of hazardous waste generated in the college. Bio-degradable waste can be effectively utilized for energy

generation purposes through anaerobic digestion or can be converted to fertilizer by composting technology. Non-biodegradable waste can be utilized through recycling and reuse. Thus the minimization of solid waste is essential to a sustainable college. The auditor diagnoses the prevailing waste disposal policies and suggests the best way to combat the problems.

Auditing for Green Campus Management

Trees play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. The amount of oxygen released by the trees of the campus is good for the people in the campus. So while you are busy studying and working on earning those good grades, all the trees in campus a real so working hard to make the air cleaner for you.

GREEN AUDIT WORKING TEAM (2021-22)

SL NO	NAME OF THE MEMBERS
1.	DR. PARTHA SARATHI DUTTA (TEACHER IN CHARGE)
2.	DR. ALPANA RAY (IQAC-COORDINATOR)
3.	MS. SUDESHNA CHOWDHURY
4.	MR. SUDIP ROY
5.	DR. GUDDI TIWARI
6.	MR. CHANDAN CHAKRABORTY (NTS)
7.	MR. RANJAN DUTTA (NTS)
8.	MR. ASHIM NANDI (NTS)

Survey forms

1. Watermanagement

SLNO	PARAMETERS	Response	Remarks
1	Source of water	Municipality	
2	No of motors used	2	
3	Number of water tanks	3	
4	Capacity of tank	14000 litres	
5	Quantity of water pumped everyday	24,000 litres per day	
6	Any water wastage/why?	Nil	
7	Water usage for gardening	Yes , 650 litre per day	
8	No of water coolers	1	
9	Rain water harvest available?	Not yet	
10	No of units and amount of water harvested	Nil	
11	Any leaky taps	Na	
12	Amount of water lost per day	Nil	
13	Any water management plan used?	Nil	
14	Any water saving techniques followed?	Nil	

2. Energy audit

Room No./name/Floor	Electrical device/items	Number	Power (watt)	Power consumption overall (units)	usagetime(hr/day)
Ground floor	Tubelight	74	3080	93.66	10.00 am – 5.00 pm
	Fan	32	2560		
	Air conditioner	2	4000		
	LED	19	380		
	Wall fan	17	1360		
	Computer	10	2000		
1st floor	Tubelight	51	2040	107.94	10.00 am – 5.00 pm
	Fan	41	3280		
	LED	29	667		
	Wall fan	8	640		
	Computer	44	8800		
2nd floor	Tubelight	47	1880	35	10.00 am – 5.00 pm
	Fan	40	3200		
3rd floor	Tubelight	63	2520	56	10.00 am – 5.00 pm
	Fan	49	3920		
	Stand and exhaust	3	240		
	Computer	8	1600		
Ladies Hostel	Tubelight	33	924	23	5.00 pm – 10.30 am
	Fan	30	2400		
Annex Building	Tubelight (LED)	84	1680	28	10.00 am – 5.00 pm
	Fan	29	2320		
Solar power					

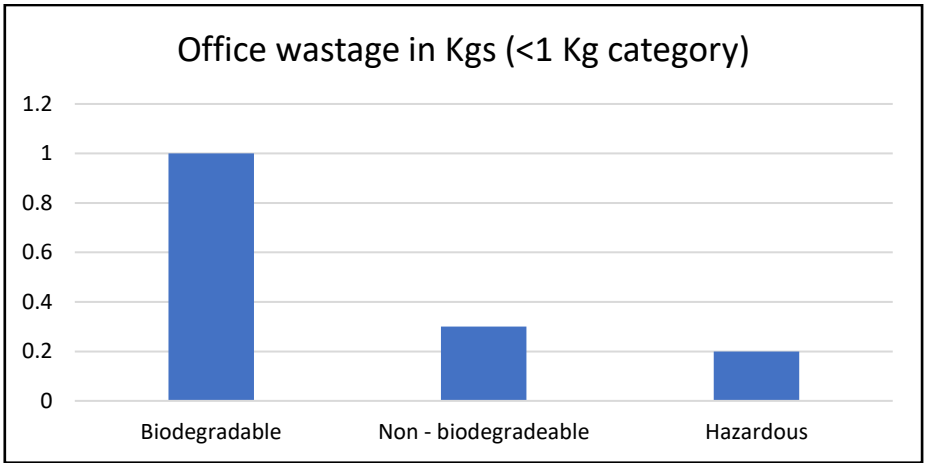
Item: Bulbs (CFL, incandescent, LED); A/c, fan, computer, instruments

3. Wastemanagement

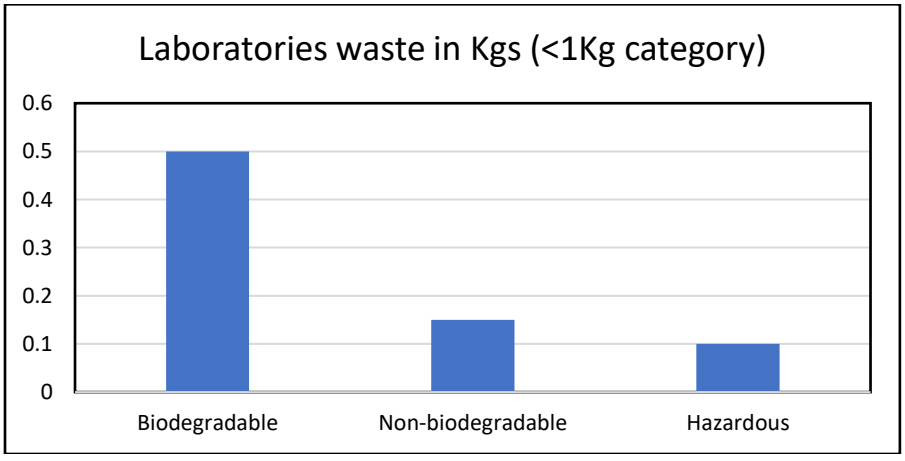
Approximatequantityofwastegeneratedperday(inkg)

Office				
	Biodegradable	Non - biodegradable	Hazardous	Others
<1Kg	1 kg.*	300 grams**	200 grams***	

[note : *= from laboratory of food and nutrition and tiffins residue of teachers and students in case having fruit peels.
= glass utensils and plastics used for carrying of items or water, discarded after use.
***= chemistry laboratory and phenyl used for cleaning of washrooms**



Laboratories				
Approx	Biodegradable	Non - biodegradable	Hazardous	Others
<1Kg	500 grams	150 grams	100 grams	



Vegetables/ fruits residues are used for garden fertilizers

Total strength of students, teachers, and Nonteaching staffs

No of Students		1445
No of Teachers		49
No of Nonteaching staffs		18
No of Boy Students		657
No of Girl Students		568
Total		1445

How the waste generated in the college is managed?

		Remark
A)Composting/ Vermicomposting	Yes	From the department of food and nutrition
B)Recycling	No	
C)Reusing	No	
D)Other ways	No	

Waste generated in the college?

E-waste		Kgs (approax) per annum
Hazardous waste	Yes	2 kg
Solid waste	Yes	19 kg
Dry leaves	Yes	2.3 kg
Canteen waste	NA	-
Liquid waste	Yes	150 litres
Glass	Yes	I Kg

Unused equipment	No	
Napkins		8 kg
Others(specify)	Na	

Do you use recycled paper in college?	No
Any waste management method used?	Yes (composting of peels of fruits and vegetables; bones of chicken and fish; scales)

GREEN AUDIT REPORT

Water Quality assessment

Water samples from four different locations were collected and analyzed for its quality parameters. The samples includes two well waterwhich are the main water source of the collegecampus and two tap water samples which is used for canteen and drinking water cum coolersystems.The samples were collected, preserved and transported to school of EnvironmentalSciences and analyzed for various physio-chemical parameters. The major parameters analyzedinclude dissolved oxygen, acidity, alkalinity, chloride, hardness, pH, conductivity, total dissolvedsolids and salinity. The results are presented in the Table 1 The results are comparable with the values of drinking water standards prescribed by different agencies.

Table1.Results of water quality

Parameters	Principals room 1.5.2022	1st Floor 2.5.2022	Girls Hostel 3.5.2022	Standard Value (BIS)
Dissolved Oxygen (mg/l)				6-8
Acidity(mg/l)				200
Alkalinity (mg/l)				200
Chloride (mg/l)				250
Hardness (Total)	176	140	172	200
Conductivity (µs)				
pH	7.96	7.94	7.86	6.5-8.5
Total Dissolved Solids (ppm)	250	250	250	500
Salinity (ppt)				
Total coliform	0	0	0	0
Fecal coliform	0	0	0	0

Water Management

The source of water used in the Collegearetwo wells present in the campus. These wells are

recharging with rainwater from the roof. A total of 18000L of water is pumped out from the well every day (Table 2). Wastage of water from the lab is reduced by adopting microscale analysis. An average of 3,60,000L of water is used by the College per month.

Table2.

SLNO	PARAMETERS	Response	Remarks
1	Sourceofwater	Municipality	
2	No of Wells		
3	No of motor sused	2	
4	Horsepower–Motor	1 hp	
5	Depth of well–Total		
6	Waterlevel		
7	Number of water tanks	3	
8	Capacity of tank	14000 lt	
9	Quantity of water pump every day	24000 lt	
10	Any water wastage/why?	Nil	
11	Water usage for gardening	650L/day	
12	Waste water sources	Lab,canteen	
13	Use of waste water	Nil	
14	Fate of waste water from labs		
15	Any waste water treatment for lab water		
16	Whether any green chemistry method practice in labs	“Microscale analysis“ is implemented for chemistry students	
17	Rain water harvest available?	no	

18	No of units and amount of water harvested	Nil	
19	Any leaky taps	NA	
20	Amount of water lost per day	NIL	
21	Any water management plan used?	NIL	
22	Any water saving techniques followed?	NIL	

EnergyAuditReport

Table4 showstheenergy consumptionpatternof thecollege fora month.The college hasconsumed an average of 9515.15 kW/hr electricity in a month and the one year electricity billamount was1,97,090/-.

Table4

Sl No	Electrical appliances /instruments	Number	Power (W)/ unit	Totalpower(W)	kW	Operation /day	kW /hr	No of days in month	Total consumption per month
1	CFL	63	14	882	0.882	4	3.528	25	88.2
2	TUBE	272	38	10336	10.336	4	41.344	25	1033.6
4	LEDBULB	97	9	873	0.873	4	3.492	25	87.3
5	LEDTUBE	42	20	840	0.84	4	3.36	15	50.4
6	PROJECTOR	10	280	2800	2.8	1	2.8	25	70
7	SPEAKERS	36	10	360	0.36	1	0.36	25	9
8	FAN	233	60	13980	13.98	4	55.92	20	1118.4
9	COMPUTER	140	250	35000	35	4	140	20	2800
10	LAPTOPS	10	50	500	0.5	4	2	20	40

11	PRINTERS	2	60	120	0.12	1	0.12	20	2.4
12	PHOTOSTAT MACHINE	6	650	3900	3.9	2	7.8	15	117
13	SCANNER	1	50	50	0.05	0.5	0.025	15	0.375
14	UPS	3	1000	3000	3	12	36	20	720
15	INDUCTION	1	2000	2000	2	0.25	0.5	15	7.5
16	A/C	2	7000	14000	14	1	14	15	210
17	REFRIGERATOR	7	150	1050	1.05	24	25.2	30	756
18	TABLEFAN	2	55	110	0.11	2	0.22	25	5.5
19	MIXERGRINDER	2	750	1500	1.5	2	3	15	45
20	OVEN	3	1500	4500	4.5	2	9	10	90
22	CENTRIFUGE	2	850	1700	1.7	0.25	0.425	8	3.4
23	AUTOCLAVE	1	1700	1700	1.7	1	1.7	4	6.8
24	ULTRASOUND	1	700	700	0.7	0.25	0.175	5	0.875
25	LAMINARFLOW	1	600	600	0.6	1	0.6	15	9
26	EXHAUSTFAN	1	32	32	0.032	4	0.128	25	3.2
27	IRONBOX	2	2000	4000	4	0.25	1	15	15
28	SEWINGMACHINE	6	100	600	0.6	4	2.4	25	60
29	COLOURBULB	13	60	780	0.78	1	0.78	5	3.9
30	INCUBATOR	2	40	80	0.08	4	0.32	25	8
31	DISTILLATIONUNIT	1	1000	1000	1	1	1	12	12
32	SANITARYNAPKIN INCINERATOR	6	1200	7200	7.2	1	7.2	25	180

Table 5

RoomNo./name/Floor	Electricaldevice/items	Number	Power (watt)	Power consumption overall (units)	usagetime(hr/day)
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Solar power					

Item:Bulbs(CFL,incandescent,LED);A/c,fan,computer,instruments

Solar energy installation: non renewable to renewable energy transformation

Electricity consumption, Backup power source, Environmental sustainability

Solar energy is now getting used in almost every sector like home, industry. Recently a well-built solar panel project for educational institution is getting lots of popularity. The Institute, Prasanta Chandra Mahalanobis Mahavidyalaya, successfully installed Grid Connected Rooftop Solar PV with the help of Govt. Of West Bengal and Govt of India Funded project, for reduce dependency on fossil fuel produced electricity, which

have deep impact on institutional financial and environmental manners. Such practices have positively enhances the institutional overall quality and upgrading knowledge of faculty members and students regarding renewable energy and environmental sustainability. Mentioned below are some of the objectives for solar panel project for the institution are…

- *To reduce institutional electricity consumption:*

By installing solar Photovoltaic power plant, dependence on fossil fuels produce electricity will be reduced. It will be eventually decrees the institution's total electricity consumption rate.

- *To ensure a backup power source:*

We depend on electricity, without power connections are lost, fan and lights go out and some time its hamper PowerPoint presentation during class. Through inverter connectivity establishment, it will be ensure the backup power source in emergency condition. It will be help to keep the lights on and they maximize renewable energy usage on cloudy days.

- *To protect the environment:*

Solar power production generates electricity with no environmental impact. It's good for us and for our planet. Through this positive way of transformation the college campus will be eco-friendly and pollution free.

The Prasanta Chandra Mahalanobis Mahavidyalaya believes that, this type of traditional renewable to non renewable energy consumption transformation is a motivated work as well also financial and environmental benefit, which can be a significant factor in institute's success. When staff and students are motivated through this work, is more effective at achieving its objectives and goals. For this reason, the institute has understood the power of this practise and successfully implemented Solar PV Power Plant with PV array Capacity of 10 kWp.

Renewable energy is energy derived from natural sources like Sunlight and wind, such sources that are constantly being replenished. Solar energy is the most abundant of all energy resources; through the photovoltaic (PV) effect Solar panels convert the sun's light (photons) to electricity (voltage) to provide electricity. Prasanta Chandra Mahalanobis Mahavidyalaya, Bonhooghly- 700108, has been installed Grid Connected Rooftop Solar PV Power Plant of PV array Capacity of 10 kWp by M/s Larsen & Toubro Limited on specifications BIS/MNRE with the help of Govt. Of West Bengal and Govt of India Funded

project.

Pic: 1 Array field at roof top of the Institute Pic:2 Inverter connectivity

The impact of the practice has been obvious. The significant benefits of getting a solar panel project for the institution are… With the help of Govt. of West Bengal and Government of India (MNRE) funded project the institution successfully implemented Grid Connected Roof top Solar PV Power Plant of PV array Capacity of 10 kWp. With this the Inverter (Serial No: 02457112019) has also setup in the institution. After successful implantation a drastically changed has been seen in electricity consumption rate, it becomes less. By using solar panels in school it can also help to reduce pollution and carbon footprint and makes the instituted independed electrify campus, which will be able to draw the attention of those who care about nature, carbon emission, pollution and the greenhouse effect. Students are also aware about the environment protection.

Waste management

Waste management is important for an ecofriendly campus. In a college different types of wastesare generated,its collection and managementare very challenging.The following data providethedetailsofthewastegeneratedandthedisposalmethodadoptedbythecollege.

Table5.Different types of waste generated in the college and their disposal

Typesofwaste	Particulars	Disposalmethod
E-Waste	Computers,electricalandelectronicparts	Directselling
Plastic waste	Pen,Refill,Plasticwaterbottlesandotherplasticcontainers,wrappersetc	Directselling
Solidwastes	Damaged furniture,paper waste,paperplates,foodwastes	Reuseaftermaintenanceenergyconversion
Chemical wastes	Laboratorywaste	Neutralise with water
Waste water	Washing,urinals,bathrooms	Soakpits
Glass waste	Broken glass wares from thelabs	Directselling
Sanitary Napkin	-	Napkin Incinerators

Waste management Practices adopted by the college

For the lastfewyears, college isfollowing zeroorganic waste protocolthroughout the campus.The food waste generated by the students and staffs are taken by them to their own home, so that,minimum waste is generated inside the campus. In addition, the organic waste generated in thecanteenisusedasfeedforbiogasplantandthebiogasisusedasfuelincollegecanteen.Vegetable waste and other leaf litters were used to fed in the vermi-compost pit and the resultingvermin-castisusedasmanureinthegarden.Thechemicalsfromthelaboratoriesaredisposedinasealedtankalongwithwater,sothatthechemicalsundergoneutralizationwiththewater.

GreenCampus

Total number of plant species identified

Total number of plants in the campus

Table6.List of FLORA AND FAUNAL GROUPS in the campus

SlNo	Common/local name	ScientificName
1	Bakul (Broad Leaf Privet)	Ligustrum Lucidum W.T. Aiton
2	Aam (Mango)	Mangifera indica
3	(Honey Locust)	Gleditsia tricanthos L
4		
5	Kadom (Cherimoya)	Annona Cherimola Mill
6	Kadom (Cherimoya)	Annona Cherimola Mill
7	Arjun (Arjun)	Terminalia Arjuna
8	Jam (Jambolan)	SyzygiumCumini (L.) Skeels
9	Bel (Bila)	Aegle Marmelos (L.) Correa
10	Neem (Neem)	Azadirachta Indica
11	Segun (Bankok Teak)	Tectona Grandis L.f.
12	Lambu tree (Longan)	Dimocarpus Longan Lour
13	Ashoke (Ashoka Tree)	Polyalthia Longifolia (Sonn) Thwaites
14	(Christmas – Bells)	Trichilia DregeanaSond
15	Mahua (Mahua)	Madhuca Indica
16	Neem (Neem)	Azadirachta Indica
17	Rakta Chandan (Rakta Chandan)	Pterocarpus Santalinus
18	Ritha (Ritha)	Sapindus Mukorossi
19	Bahera (Bahera)	Terminalia Bellirica
20	Haritaki (Haritaki)	Terminalia Chebula
21	Segun (Bankok Teak)	Tectona Grandis L.f.

22	Kathbadam (Tropical Almond)	Terminalia Catappa L
23	Kathbadam (Tropical Almond)	Terminalia Catappa L
24	Shal (Princess tree)	Paulownia tonentosaSteud
25	Neem (Neem)	Azadirachta Indica
26	Segun (Bankok Teak)	Tectona Grandis L.f.
27	(Weeping Fig)	Ficus Benjamina L
28	Sajne (Moringa)	Moringa Oleifera Lam
29	Aam (Mango)	Mangifera indica
30	Bakul (Broad Leaf Privet)	Ligustrum Lucidum W.T. Aiton
31	Neem (Neem)	Azadirachta Indica
32	Aam (Mango)	Mangifera indica
33	(Ironwood Cassia)	Senna Siamea (lam) H.S. Irwin &Barneley
34	Chatim (Ditabark)	AlstoniaScholaris (L.) R. Br.
35	Segun (Bankok Teak)	Tectona Grandis L.f.

LIST OF THE REPTILES AND ANIMALS		
Name of the animal/reptile	Scientific name	number
Mongoose	Herpestidae	8
Monocled cobra	Naja kaouthia	2
Rat snake	Pantherophis obsoletus	3
Squirrel of Bangladesh	Funambulus palmarum	10-15
Garden lizard	Calotes versicolor	8-10
Cat	Felis catus	4
Indian dog	Canis lupus familiaris	3

LIST OF THE BIRDS		
Name of the species	Scientific name	number
Pigeon	Columbidae	8-10
Crow	Corvus	20-25
Indian Myna	Acridotheres tristis	15-20
Kite	Milvus migrans	2-3
The Indian cormorant	Phalacrocorax fuscicollis	12-15
Grey backed shrike (migrated bird)	Lanius tephronotus	30-50
Sparrow	Passeridae	25-30
Jungle babbler	Turdoides striata	20-25
White-breasted waterhen	Amaurornis phoenicurus	5-7
Whooping Crane	Grus americana	30-35

qSUGGESTIONS AND RECOMMENDATIONS

1. Lab waste water quantity is not measured and drained to municipal drainage system.
2. More solar planes should be installed to make the path of sustainability.
3. Rain water Harvesting (RWH) is to be done technically.
4. Planning of chemical consumption and purchase to be ensured.
5. Composting of bio degradable waste to be scientifically done.
6. Septic tank sewage water analysis is to be done.
7. Plan for green belt development to be prepared.
8. Department wise electrical load consumption is to be done.
9. Energy used by each appliance is to be estimated.
10. List of equipment/instrument and their consumption of (energy/water) is to be estimated.
11. Awareness for energy and water conservation among students and staff by displaying boards.
12. Automatic leak detections in water flowing pipeline.
13. Water usage reduction techniques to be used.

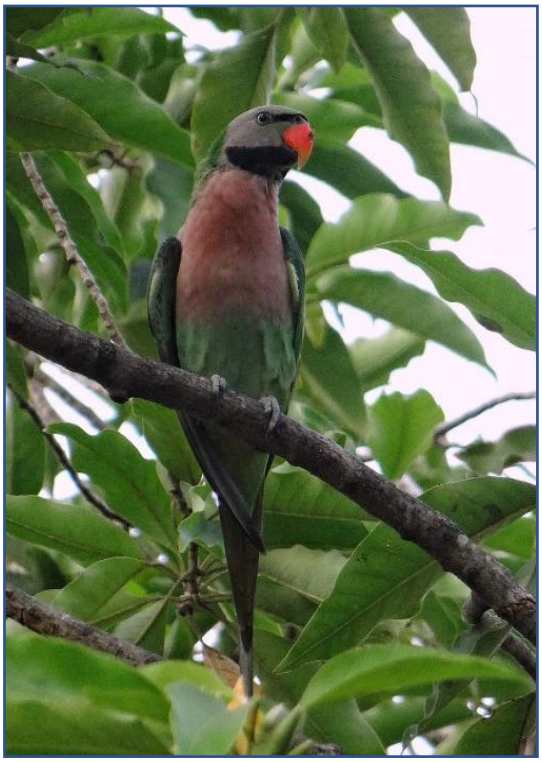
ARJUN TREE IN THE CAMPUS

SEGUN TREE

CHATIM TREE

BAKUL TREE

SEGUN TREE



GREEN PARROT

KODOM TREE

WATER COOLING MACHINE

AQUA GUARD MACHINE

GREEN BIN IN THE COLLEGE

NEEM TREE

KATHBADAM TREE

POSTERS MAKING FOR GREEN AND CLEAN CAMPUS BY THE STUDENTS

WATER RESERVOIR IN ROOF TOP OF THE COLLEGE

BLUE DUSTBIN IN COLLEGE

DRIVE FOR PLASTIC REMOVAL ON EARTH DAY 22/5/2022

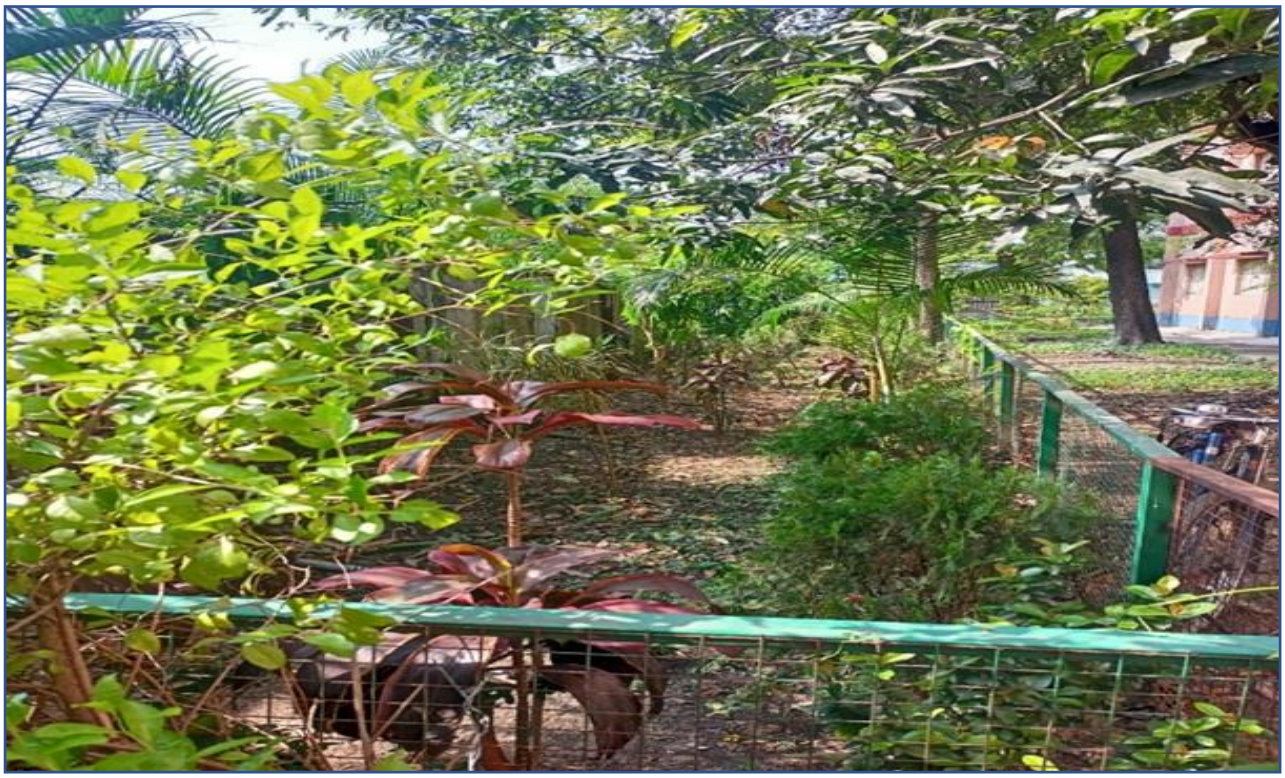
CLEANING THE CAMPUS BY THE STUDENTS

PLANTATION PROGRAMME BY THE FACULTIES

SOLAR PANEL INSTALLATION 2021-22

CAMPAIGN AGAINST USE OF PLASTICS IN SORROUNDING AREAS IN COLLEGE CAMPUS

PLANTATION PROGRAMME ON WORLD ENVIRONMENTAL DAY ON 5/06/2022



MEDICIAL PLANTA PLANTATION IN COLLEGE GARDEN

Sl. No:- G/MAY/22 61 **REPORT** **Date of print:** 15-Jun-2022

NATIONAL DRINKING WATER QUALITY TESTING MONITORING AND SURVEILLANCE PROGRAMME

Collaborative effort of Public Health Engineering Dte., Govt. of W.B., Panchayet & Rural Development Department of Govt.of W.B., Department of Health & Family Welfare, Govt. of W.B.

Implemented by :-

WATER TESTING LABORATORY

PASCHIM BANGA VIGYAN MANCHA

North 24 Parganas District Committee

SUB DISTRICT LABORATORY, GOVERNMENT of WEST BENGAL, LAB ID: 001700

N/37/5, Banamalipur Road, Binoy Dey, Sushanta Pal Sarani, Barasat

email : watertestinglab.pbvm@gmail.com

Name of the Owner :	**P.C.M.M COLLEGE**	**Date of Collection:**	**18.05.2022**
		Sample collected from	**Collected by Lab Personnel (1)**
Address of the Owner :	**Bonhooghly, 24 Parganas (N)**	**sample received on:**	**18.05.2022**
		Testing Start Date	**18.05.2022**
		Testing End Date	**20.05.2022**

Indian Standards for Drinking Water (IS-10500:2012) & Testing result of the water sample :-

A. Physical Parameters:

	Methodology	Desirable Limit	Permissible Limit	Test Result
Colour				NOT AVAILABLE
Odour				NOT AVAILABLE
Temperature (◦C)	Thermometry			**29.5**
pH	ELECTROMETRIC	6.50-8.50	No relaxation	**7.96**
Dissolved Solids, mg/l	**TDS Meter**	500	2000	**250**
Turbidity, NTU	**NEPHALOMETRIC**	1	5	**NOT TESTED**
B.General Parameters :				
IRON, (as Fe) mg/l	**PHOTOMETRY**	1	No relaxation	**0.3630**
Manganese, mg/L	**PHOTOMETRY**	0.1	0.3	**NOT TESTED**
Total Hardness. (as CaCO3)	**TITRIMETRIC**	300	600	**176**
C. Toxic Substances :				
TOTAL ARSENIC mg/L	**PHOTOMETRY**	0.01	No relaxation	**0.009**
D. Bacteriological Quality:				
TOTAL COLIFORM per 100 ml	**MFT**	0	No relaxation	**0**
FAECAL COLIFORM per 100 ml	**MFT**	0	No relaxation	**0**

Note : **Remark :**

PASCHIM BANGA VIGYAN MANCHA P.H.E. Dte., P & RDD, DH & FW Barasat, Kol - 124 Govt. of W.B. WATER TESTING LABORATORY

SAMIRAN SENGUPTA
(Chemist)

RIMPA GUIN
(Bacteriologist)

*The figures indicated under the column "Desirable Limit" are the limits up to which water is generally acceptable to the consumers.

*The figures indicated under the column "Permissible Limit" are may be tolerated in the absence of alternative and better sources.

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RSP Green Development and Laboratories Pvt. Ltd.
An ISO 9001 : 2015 & ISO 14001 : 2015 Certified Company
QCI-NABET ACCREDITED ENVIRONMENTAL CONSULTANT
CIN NO : U74999WB2017PTC219565
NABET / EIA / 1922 / IA0049

TO WHOM IT MAY CONCERN

The Green Audit Report (2021-2022) of Prasanta Chandra Mahalanobis Mahavidyala (PCMM) conducted by Green Audit Team of PCMM has been evaluated by RSP Green Development & Laboratories Pvt. Ltd. based on review of findings of internal green & environmental audits conducted by College, desktop review of documents/ records, virtual tour of the College campus and telephonic interviews of faculty, non-teaching staff & students.

The Green Audit Report also presents green initiatives followed and taken up by the College and provides suggestions and recommendations to improve environmental sustainability.

For **RSP GREEN DEVELOPMENT & LABORATORIES PVT. LTD.**

25/08/2022

(Pinaki Roy)

Managing Director

RSP GREEN DEVELOPMENT AND LABORATORIES PVT. LTD. HOWRAH

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