



बहुजन हिताय बहुजन सुखाय

WalwaTaluka Education Society

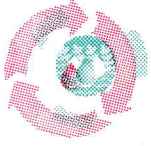


**MALATI VASANTDADA PATIL KANYA MAHAVIDYALAYA, ISLAMPUR**

# Green Audit

**(2019-2020)**





# Natural Solution

## Environmental Services

### Supplier

Aerobic/ Anaerobic Biological culture • Chemical Industrial & Domestic RO & Materials.  
Air Blower & Diffuser • DM Plant/Softner/ Sand filter/ Carbon filtre & Media.

- Turnkey project for ETP/STP/WTP ■ Up gradation modification of ETP/STP ■ Consulting enviro engineers & designers.
- Stack & Ambient Air Quality Monitoring ■ Rain Water harvesting.

GSTIN:-27ABYPI4809G1Z8

UAM No.MH29D0037743

## CERTIFICATE

This is to certify that Malati Vasandada Patil Kanya Mahavidlaya,UranIslampur has undergone detailed Environmental Audit,Green Audit,Energy Audit of their campus and submitted necessary data and credentials for scrutiny. The activities and measures carried out by the college have been verified based on the report submitted and wasfound to be satisfactory. This green audit is also aimed to assess impact of green initiatives for Maintenance of the campus eco- friendly.

Place :- UranIslampur

Date :- 25/03/2020

For, Natural Solution

*Prashant Ingale*

Prashant Ingale.

Environmental Engineer



## Introduction

### **a. Green Audit for Environmental Protection:**

- Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of various establishments. It aims to analyze environmental practices within and outside of the concerned sites, which will have an impact on the eco-friendly ambience. The purpose of Green auditing is to assess periodically the compliance of completed or on-going activities with the requirements of legislation, measures proposed in environmental policies, environmental management systems and environmental schemes or the provisions of standards and contracts.

### **b. Benefits of Green Audit:**

- Ensuring legislative compliance.
- Reducing environmental impacts.
- Reducing waste, water and energy costs.
- To safeguard the environment and natural resources.
- Empower the organization to frame a better environmental performance.
- It portrays good image of institution through its clean and green campus.
- Finally, it will help to built positive impression for the upcoming NAAC visit.

### **c. NAAC criteria VII Environmental Consciousness:**

Green Audit is assigned to the criterion VII of NAAC. National Assessment and Accreditation Council which is a self-governing organization that declares the institutions as Grade A, Grade B or Grade C according to the scores assigned at the time of accreditation of the institution. The intention of green audit is to upgrade the environmental condition in and around the institution. It is performed by considering some environmental parameters like water and wastewater management, energy conservation, waste management, air monitoring, etc. for making the institution more eco-friendly.

Students are the major strength of any academic institution. Practicing green actions in any educational institution will inculcate the good habit of caring nature in students. Many environmental activities like plantation and nurturing saplings and trees, cleanliness drives, bird watching camp, no vehicle day, rain water harvesting visits to ecologically important places through green clubs will make the student a good citizen of country.



**d. Profile of walwa Taluka Education Socity:**



**Walwa Taluka Education Socity.**

The Walwa Taluka Education Society (WTES) was founded in 1945 by Late Shri. S. D. Patil and his co-activists for educational uplift and welfare of the society. Late Shri. S. D. Patil was very active in social and political activities in the Southern Maharashtra. He was a well-known politician and timely elected as a President of Zillah Parishad from Sangli district, Member of Legislative Assembly (M. L. A.) and also as a Member of Parliament (M.P.).

He was interested in spreading education to the door of the masses. He believed that education can improve the life of the common and backward classes in rural Maharashtra. So he founded 'Walwa Taluka Education Society' in 1945 and started different educational institutions under this society. Today, the management runs 25 different educational institutions under prudent guidance of Adv. B. S. Patil (Anna), Honorary Secretary and Adv. Dhairyasheel Patil (Baba), Joint Secretary of 'Walwa Taluka Education Society'.



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### COLLEGE PROFILE IN BRIEF

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NAME OF THE COLLEGE : Malati Vasantdada Patil Mahavidyalaya,

ESTABLISHMENT : 1989

PIONEERS : Late Shri S.D. Patil.



Malati Vasantdada Patil Kanaya Mahavidyalaya, consist of 01 big building, is situated in heart of the city with necessary infrastructure for the departments of all the faculties. A proper care is taken to provide basic amenities for the students & the staff members. The facilities are as follows..



- **Classroom:** 20 spacious classrooms with necessary furniture & blackboards in 2 buildings of the college.
- **Library:** The library of the college is fully automated and with internet facility. It has more than 19 thousand books & 01 study room..
- **Laboratory:** 04 laboratories with Computers with Battery backup.
- **Administrative Office:** The LAN computerized administrative office with modern technology & with necessary facilities.
- **Toilet:** 02 Toilets for gents & 03 toilets for ladies.
- **Open Air Theatre:** An open air theatre & stage is used for the big functions.
- **Seminar Hall:** Independent seminar hall with necessary facilities for different activities of the departments.
- **Hostel:** Girls' hostel with facility of rooms with beds, canteen, T.V., Study Room with newspapers. Capacity of 100 girl students.



## Methodology

The college has conducted Green Audit in the year 2019-2020, on a yearly basis. The audit was carried out in three phases.

### a. Questionnaire survey:

It includes administrative issues associated with the planning of audit, selecting the personnel for the audit team, preparing the audit protocol used by organization, obtaining background information, etc. The scope of the audit was defined at this step. It was decided that the information related to Water and Wastewater management, Energy conservation, Green belt, Carbon inventory, Solid waste management, Hazardous waste management, Air and noise quality status, activities of nature club, etc. should be gathered for the audit purpose. For collecting data related to these different areas, specific questionnaires were prepared.

### b. Onsite visit and observations:

The data related to above mentioned areas was collected by visiting each and every facility of college campus. The questionnaires were filled up according to the present situation. Photographic documentation was also done with the help of sophisticated camera.

### c. Data analysis:

After collection of secondary data, the reviews related to each environmental factor were taken by the green audit team. The data was tabulated, analyzed and graphs were prepared using computer. Depending upon the observations and data collected, interpretations were made. The lacunas and good practices were documented. The Environmental Management Plan (EMP) was prepared for the next academic year in order to have better environmental sensitization. Finally, all the information was compiled in the form of Green Audit Report.



## Environmental Auditing Process

Planning



Choosing Audit Team



Collection of Data



Analyzing Results of Audit



Evaluating Audit



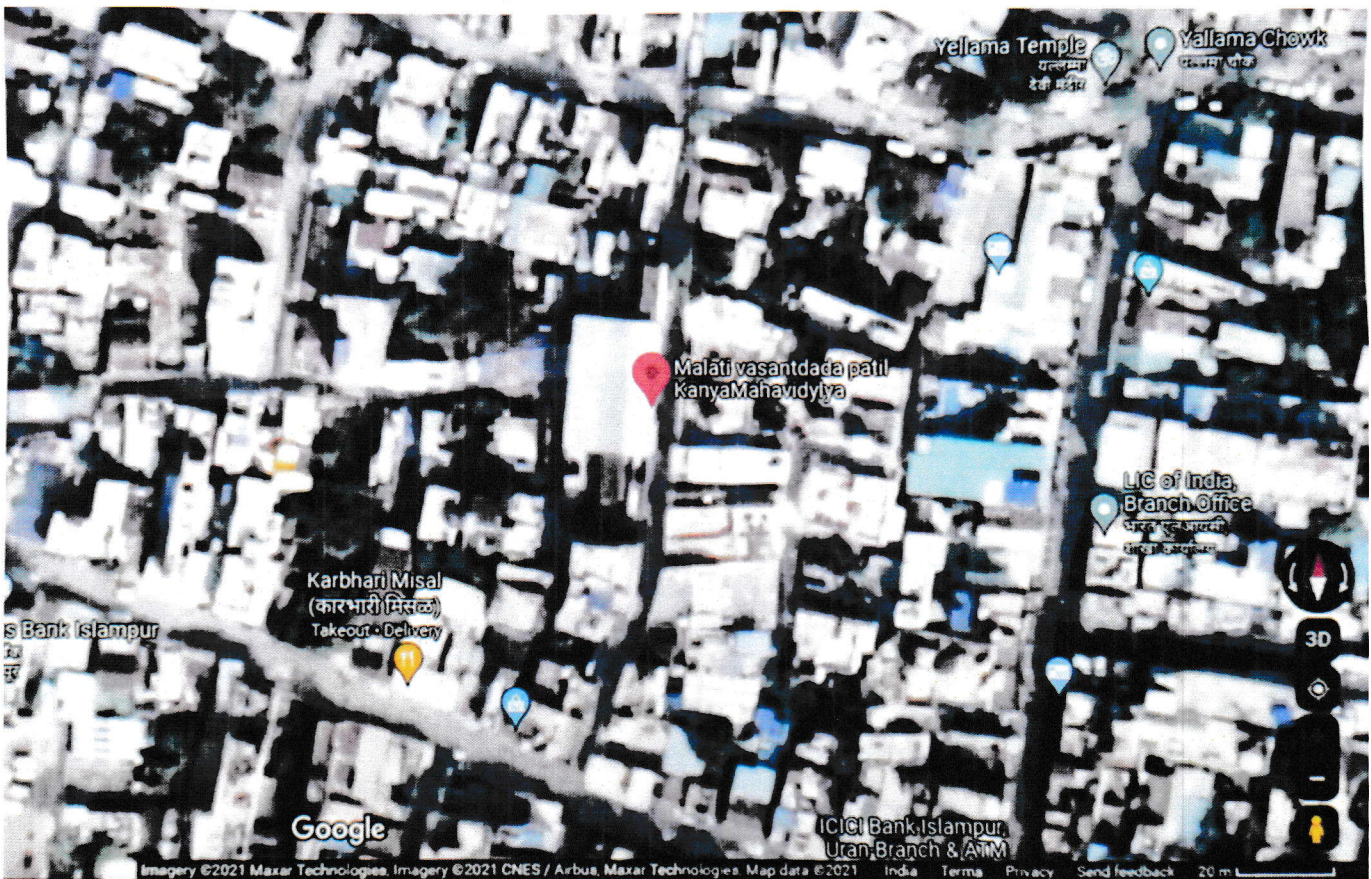


## Overview of Green Audit

### a. Profile of Malati Vasantdada Patil Kanya Mahavidyalaya, Islampur:

Malati Vasantdada Patil kanya Mahavidyalaya Islampur is situated in Maharashtra at  $17^{\circ}05'21''\text{N}$ .and  $74^{\circ}27'\text{E}$ , in the Sangli District and it is at altitude of 525 fts above mean sea level.

### Satellite image of Malati Vasantdada Patil Kanya Mahavidyalaya Campus



Source: Google Earth



Sr.	Particular	Content		
1.	Name of the project	"MALATI VASANTDADA PATIL KANYA MAHAVIDYALAYA ,ISLAMPUR"		
2.	Name, contact number & address of Proponent	Name	Malati Vasantdada Patil Kanya Mahavidyalaya, Islampur.	
		Address	At/p:- Islampur Dist.:- Sangli 415409	
		Telephone	02342223062	
		Email ID	malati2010@rediffmail.com	
3.	Name, contact number & address of Consultant	Name	Natural Solution Environmental Services	
		Address	Islampur Dist.:- Sangli	
		Registration No.	MH29D0037743	
		GSTIN	27ABYPI4809G1Z8	
		Mobile	09860437123	
		Email ID	<a href="mailto:naturalsolution3@gmail.com">naturalsolution3@gmail.com</a>	
4.	Type of project:	Educational		
5.	Location of the project	Lal Chowk Islampur.		
6.	Whether in Corporation/ Municipal / other area	Municipal		
7.	Total Plot Area (sq.m.)	Sr. No. 1062	832	Sq. m
		Sr. No. 1061	245	Sq. m
		Total	1077	Sq. m
8.	Height of the building	12 to 15 meter		



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## **b. Water and Waste water Audit:**

Water audit can be defined as a qualitative and quantitative analysis of water consumption to identify means of reducing, reusing and recycling of water. Water Audit is nothing but an effective measure for minimizing losses, optimizing various uses and thus enabling considerable conservation of water in irrigation sector, domestic, power and industrial as well. A water audit is a technique or method which makes possible to identify ways of conserving water by determining any inefficiencies in the system of water distribution. The measurement of water losses due to different uses in the system or any utility is essential to implement water conservation measures in such an establishment.

Water accounting is the process of communicating water resources related information and the services generated from consumptive use in a geographical domain, such as a river basin, a country or a land use class; to users such as policy makers, water authorities, managers, etc.

### **Importance of Water Audit:**

- Water audit improves the knowledge and documentation of the distribution system.
- Identifies the problem and risk areas and a better understanding of what is happening to the water after it leaves the source point.
- Leads to reduced water losses.
- Improved financial performance.
- Improved reliability of supply system.
- Efficient use of existing supplies.
- Better safeguard to public health and property and reduced legal liability.
- Reduced disruption, thereby improving level of service to customers.
- Large potential cost savings that can be achieved by water harvesting, through the recycling of water and the use of rainwater.

It is observed that a number of factors like climate, culture, food habits, work and working conditions, level and type of development, and physiology determine the requirement of water. The community which has a population between 20,000 to 100,000 requires 100 to 150 liters per person (capita) per day. The communities with a population can consume over 100,000 — 150 to 200 liters person (capita) per day. As per the standards provided by WHO Regional office for South East Asia Schools requires 2 liters per student; 10-15 liters per student if water-flushed toilets, Staff accommodation requires 30 liters per person per day and for sanitation purposes it depends on technology.



**c) Water Audit:**

Water usage can be defined as water used for all activities which are carried out on campus from different water sources. This includes usage in all residential halls, academic buildings, on campus and on grounds. Wastewater is referred as the water which is transported off the campus. The wastewater includes sewerage, residence, hall waters used in cooking, showering, clothes washing as well as wastewater from chemical and biological laboratories which ultimately going down in sink or drainage system.

**Water Audit Process:**



**d ) Overall water consumption in Malati Vasantdada Patil Kanya Mahavidyalaya:**

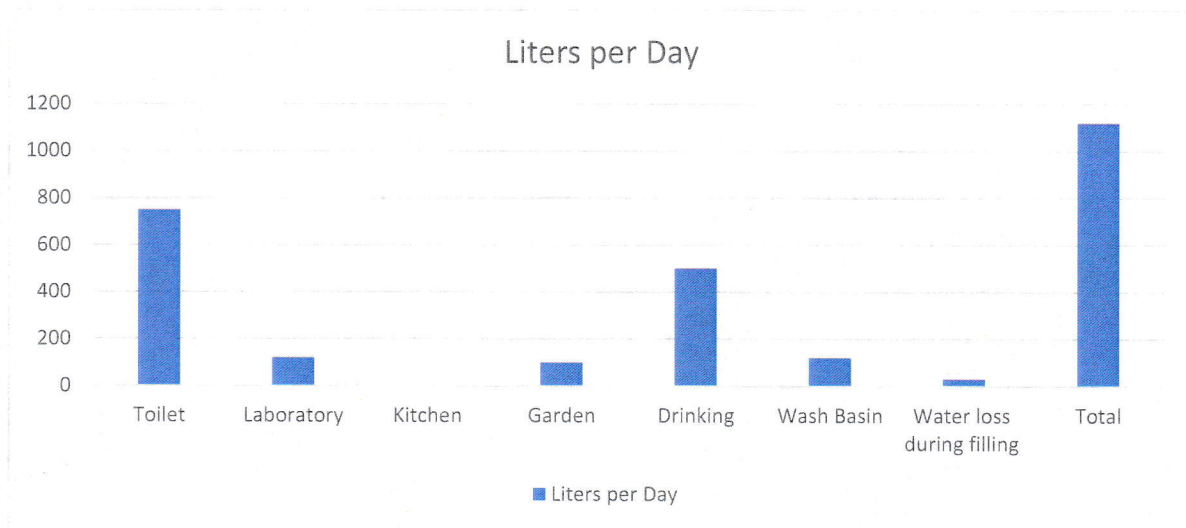
From the data collected for water audit of Malati Vasantdada Patil Kanya Mahavidyalaya, Islampur, the water distribution and water consumption pattern is noticed as follow. The college is having main building for administrative work as well for teaching work. For the water audit purpose we categorized the college campus area into three buildings namely as wing 1 (Main Building and office), wing 2, wing 3, Library, Garden.

In water audit study the daily water consumption by all Buildings is found to be as follows.

Graph No. 3.0 Daily water consumption by Main Buildings

Daily water consumption by Main Building								
Site	Toilet	Laboratory	Kitchen	Garden	Drinking	Wash Basin	Water loss during Filling	Total
Total use of Water (liter/day)	750	120	0	100	500	120	30	1120
Percentage	66.96	10.71	0	8.92	44.64	10.71	2.67	100

Total use of Water (liter /day)

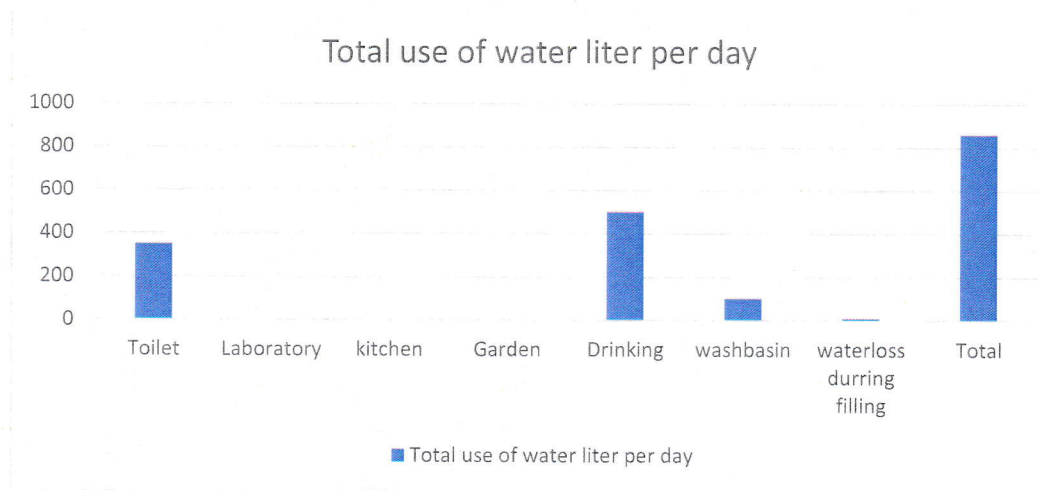


**Graph No. 3.1 Daily water consumption by New Building**

The total water consumption per day for new buildings is found to be lit/day.

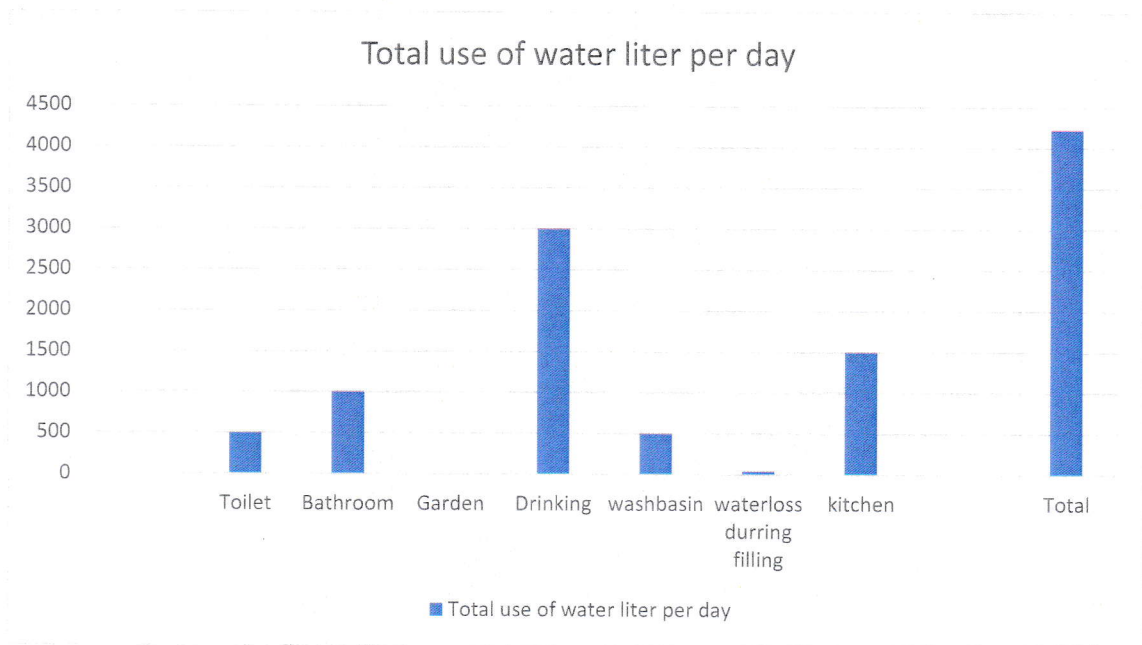
Daily water consumption by New Building

Daily water consumption by New Building								
Site	Toilet	Laboratory	Kitchen	Garden	Drinking	Wash Basin	Water loss during Filling	Total
Total use of Water (litrer/day)	350	0	0	0	500	100	10	860
Percentage	40.7	3.87	6.45	51.61	46.52	11.63	1.15	100



Graph No. 3.2 Daily water consumption by Hostel Buildings

Daily water consumption by Hostel Building								
Site	Toilet	Bathroom	Kitchen	Garden	Drinking	Wash Basin	Water loss during Filling	Total
Total use of Water (litrer/day)	500	1000	1500	0	700	500	40	4220
Percentage	11.84	23.69	35.54	0	16.58	11.84	0.94	100



**e) Total Electric Energy Audit:**

An electricity audit is simply an audit or calculation of how much electricity you are using in your home and of where that electricity is going.

An energy audit is an analysis of a facility, indicating how and where that facility can reduce energy consumption and save energy costs. Its insight to energy efficiency and conservation can lead to significant savings on the company's utility.

**Importance of Electric energy Audit:**

- The audit will not only inform you of opportunities but provide you with financial analysis. This will enable prioritization based on financial benefit and return on investment.
- Provide you with solid, easy to understand technical information regarding the proposed energy conservation measures.
- A good quality audit will analyze your historical energy use and find potential issues using statistical methods.
- Provide you with emissions analysis to help you understand the benefits of your decisions from an environmental stand point.
- Understand where energy is used and which areas are worth focusing on the most (energy).
- Provide you with benchmark information to help you understand your energy use performance compared to others in your field and area.

Main Building												
Class Number	LED		Regular Light			Fan	Exhaust fan	Motor			Fridge	Computer
	9 Watt	18 Watt	22 Watt	36 Watt	40 Watt	60 Watt	120 watt	1HP 746 w	1.5 HP 1119w	3 HP	200 W	60 W
3	2	3	-	--	-	3	-	-	-	-	-	-
4	-	6	-	--	4	3	-	-	-	-	-	-
5	-	3	-	-	-	1	-	-	-	-	-	-
8	-	4	-	--	-	2	-	-	-	-	-	-
19	-	2	-	-	-	1	-	-	-	-	-	-
20	-	2	-	--	-	1	-	-	-	-	-	-
21	-	2	-	--	-	1	-	-	-	-	-	-
22	-	--	-	-	-	2	-	-	-	-	-	-
23	-	-	-	-	-	1	-	-	-	-	-	-
24	-	4	-	--	-	2	-	-	-	-	-	-
STAFF - ROOM	-	-	-	-	-	-	-	-	-	-	-	-
Total Watts	18	468	0	0	160	1020	0	0	1119	0	0	0
Total Units	LED Unit = 486W						Regular Light Unit = 2299					

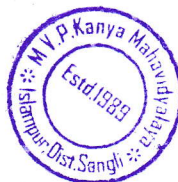




Green Audit 2019-2020

Class Number	2 Wing								
	LED		Regular Light			Fan	Computer	Exhaust fan	AC
	9 Watt	18 Watt	22 Watt	36 Watt	40 Watt	60 Watt	60 watt		4180 W
25	-	2	-	-	-	1	-	--	-
26	-	2	-	-	-	1	-	-	-
27	-	2	-	-	-	1	-	-	-
28	-	1	-	-	-	1	-	-	-
29	-	4	-	-	-	-	-	-	-
30	-	1	-	-	-	1	-	--	-
31		1							
32	-	1	-	-	-	-	-	-	-
hall	-	-	-	-	-	4	-	-	-
	-	-	-	-	-	-	-	-	-
Total Watts	0	252	0	0	0	540	0	0	0
Total Units	LED Unit = 252W			Regular Light Unit = 540W					

Class Number	New Building 3 wing								
	LED		Regular Light			Fan	Computer	Exhaust fan	AC
	9 Watt	18 Watt	22 Watt	36 Watt	40 Watt	60 Watt	60 watt		4180 W
Library	--	5	-	-	-	2	-	-	-
Reading room	-	2	-	-	-	2	-	-	-
Seminar hall	-	3	-	-	-	3	-	-	-
Language Lab	-	2	-	-	-	1	-	-	-
Placement cell	-	2	-	-	-	1	-	-	-
Commerce lab	-	-	-	-	-	1	--	-	-
Total Computer	-	-	-	-	-	-	45	-	-
Office	-	1	-	-	-	1	-	-	-
	-	-	-	-	-	-	-	--	-
	-	-	-	-	-	-	-	-	-
Total Watts	0	270	0	0	0	660	2700	0	0
Total Units	LED Unit = 270 W			Regular Light Unit = 3360W					



Green Audit 2019-2020

Hostel									
Class Number	LED		Regular Light			Fan	Motor	Motor	Fridge
	9 Watt	22 Watt	22 Watt	36 Watt	40 Watt	60 Watt	746 watt	1119watt	200W
Total Room							1	1	
39		39							
1 <sup>st</sup> floor passage	1			1					
2 <sup>st</sup> floor passage	1			1					
3 <sup>st</sup> floor passage	1			1					
Office	1			1					1
Rector room	4				2	1			
Medical Room	1				1	1			
Total Watts	81	858		144	120	120	746	1119	200
Total Units	LED Unit = 939W		Regular Light Unit = 2449W						



Other Electric Equipment's		
Names	Quantity	Total
Printer 40 W	4	160
Projector 210 W	5	1050
Machine	0	0
Xerox 300 W	1	300
Heater 1000 W	0	0
Electronics Circuits	-	-
12 W	0	0
9 W	0	0
5 W	0	0
<b>Total wattage</b>		<b>1510</b>

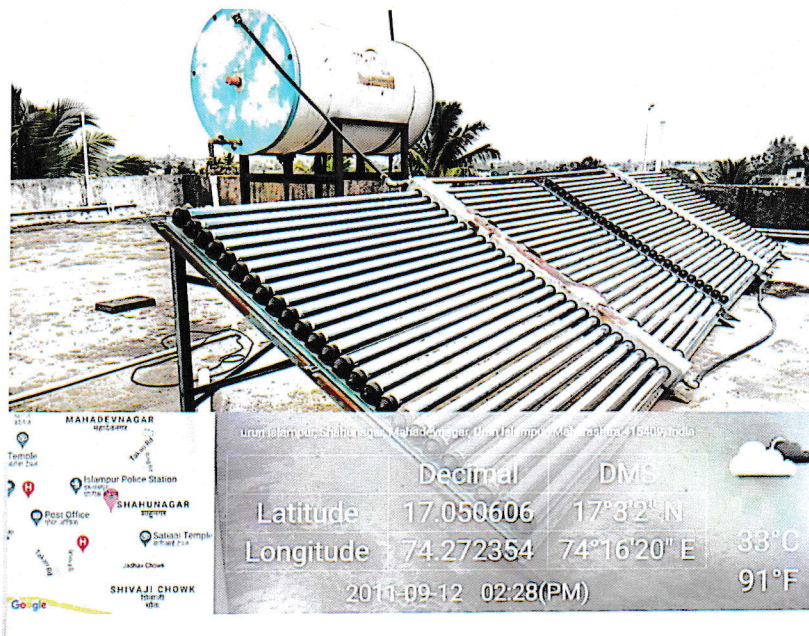
Total wings and other		
	Wattage LED	Regular Light
Main Building wing 1	486	2299
Main Building wing 2	252	540
New Building wing 3	270	3360
Hostel	939	2449
Other Electric Equipments	-	1510
<b>Total wattage</b>	<b>1947</b>	<b>10158</b>



**Solar System for water Heater:**

Solar heater is pollution free and causes no greenhouse gases to be emitted after installation. Reduced dependence on foreign oil and fossil fuels. Renewable clean power that is available every day of the year, even cloudy days produce some power.

**The solar is installed on Hostel building with capacity of 1000litr.**



**Solar Heater**



**d. Solid waste audit:**

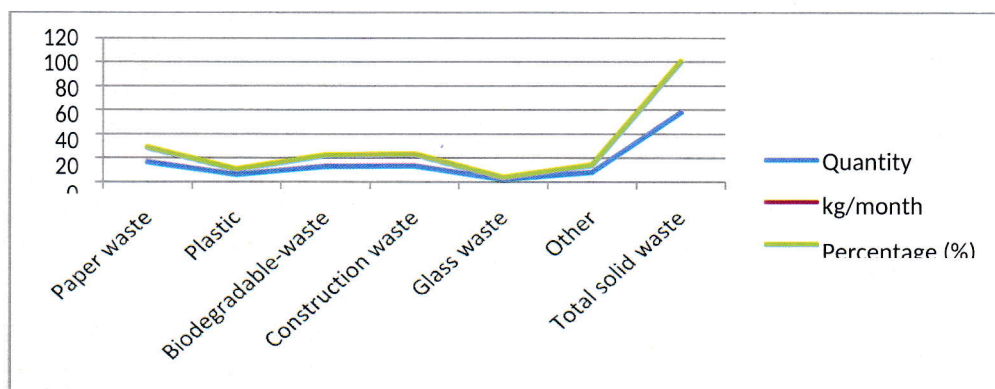
Solid waste management is becoming a major public health and environmental concern world over. Improper solid waste disposal leads to substantial negative environmental impacts e.g., pollution of air, soil, water and generation of greenhouse gases from landfills. Many insect borne diseases are spread through garbage. Therefore, it is necessary to manage the solid waste appropriately to reduce the load on waste management system. The intention of this inventory is to find out the quantity, volume, type and current management practice of solid waste generation in The New College, Kolhapur.

This survey related to solid waste generation would be helpful for making the college more environments friendly.

- **Generation of solid waste in Malati Vasantdada Patil Kanya Mahavidyalaya Islampur:**

**Category wise solid waste generation at Malati Vasantdada Patil Kanya Mahavidyalaya Islampur (kg/month)**

Category of waste	Paper waste	Plastic	Biodegradable-waste	Construction waste	Glass waste	Other	Total solid waste
Quantity kg/month	5.00	0.250	10	---	---	---	15.25
Percentage (%)	32.78	1.63	65.57				100



**Category wise solid waste generation at Malati Vasantdada Patil Kanya Mahavidyalaya Islampur.**



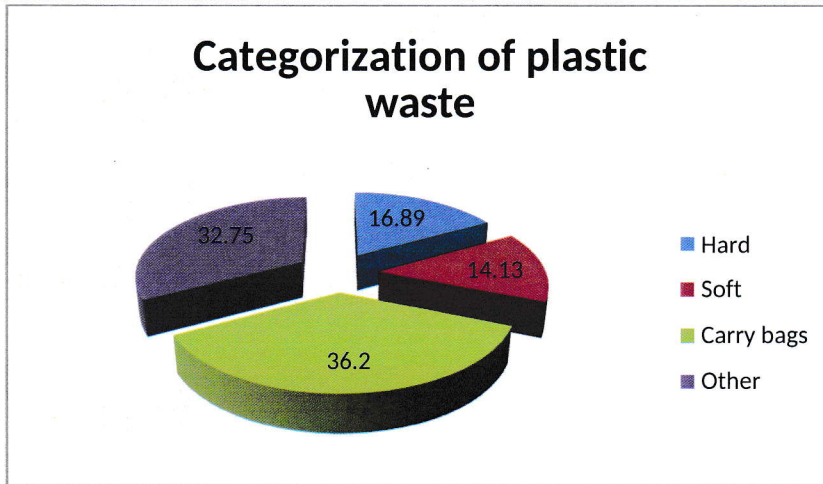
The average amount of solid waste generated per month in Malati Vasantdada Patil Kanya Mahavidyalaya Islampur was 57.8 kg/month. On the basis of observations the highest quantity of solid waste generated is paper waste which is about 16.3 kg/month and construction waste is about 12.6 kg/month respectively. The examination department generated paper waste in large quantity in the college. The glass waste is produced in minimum quantity i.e. 1.9 kg/month. Besides, the above mentioned wastes, plastic waste is generated in the form of plastic wrappers of food items, old broken chairs, old broken water tank, etc.

- **Plastic waste generation and its distribution in college campus**

Category	Plastic kg/ month				Total
	Hard	Soft	Carry bags	Other	
Quantity	200	50	---	----	250 Gm
Percentage	80	20	----	----	100

**Categorization of plastic waste at Malati Vasantdada PatilKanya Mahavidyalaya Islampur(kg/month):**





The graph shows that the hard plastic and carry bag waste is generated in higher amount which is 36.2% and 32.75% respectively. The soft plastic and other plastic waste also generated in the college is 14.13% and 16.89% respectively.



**e. Hazardous waste audit:**

Malati Vasantdada Patil Kanya Mahavidyalaya Islampur is one of the well known educational institutes having 539 student strength. This college caters the facility for Arts and Commerce faculty's students in their campus.



**f. E-waste:**

Generation of e-waste is found on every educational institute. It is observed that the E-waste generated at Malati Vasantdada Patil Kanya Mahavidyalya is of Schedule II category. Computers, Printers, Laptops, Scanners, Internet Routers and Xerox machines are used for administrative work. The wire required for the connectivity also gets included in the E waste. The college has its own computer laboratory of 45 computers. The library uses some electronic scanners which after its use can become E-waste. Presently, the college is dispatching the e waste to Walwa Taluka Education Society House main office where the waste is collected centrally and it is given to authorized e waste collector.

**Key Observations:**

- The average waste generated in the college is. 57.8Kg/month
- Highest quantity of solid waste is of paper waste 16.3Kg/month
- Biodegradable waste is 12.6Kg/month.
- Plastic waste is about 5.8 % to the total solid waste on the college campus.
- Some of the classrooms were found without solid wastebaskets.
- There is need of some improvements into the collection of solid waste.



- Solid waste is to be segregated at the source.





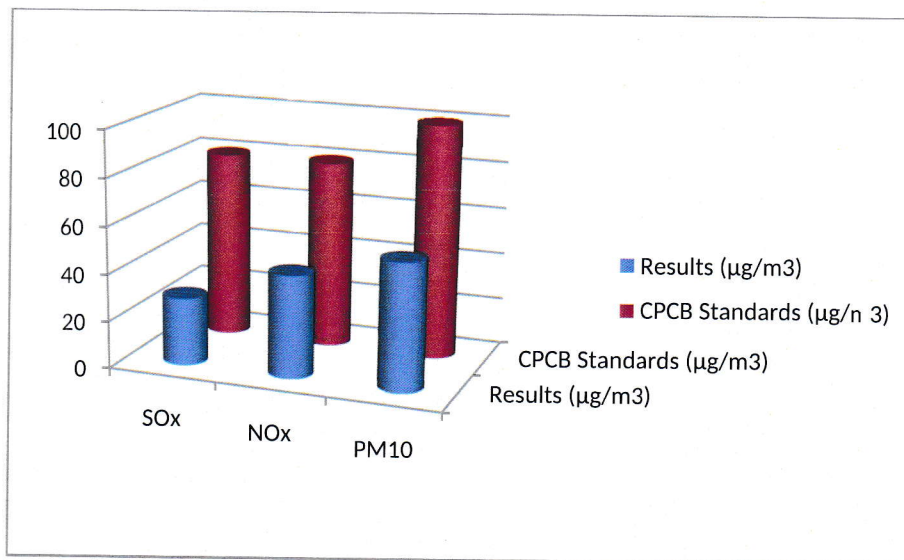
**g. Ambient air quality status:**

Ambient air sampling is import an part of environmental monitoring. Particulate matter and trace gases sampling were carried out on the college campus. The sampling was carried out using Calibrated Handy Dust Sampler APM 821 with flow rate 1 lit/min equipped with glass fibre filter paper (size 25 mm). The sampling period was 2 hrs. Sulphur dioxide (SO<sub>2</sub>) and Oxides of Nitrogen (NO<sub>x</sub>) in the air were estimated with West and Gaeke method and Jacob and Hochheiser modified method respectively. Particulate matter (PM<sub>10</sub>) was measured gravimetrically. The samples were collected and analyzed in the approved laboratory. The details of air quality status in the college are given as bellow:

**Ambient air quality status of Malati Vasantdada Patil Kanya Mahavidyalaya Islampur.**

Sr. No.	Parameters	Results (µg/m <sup>3</sup> )	CPCB Standards (µg/m <sup>3</sup> )
1	SO <sub>x</sub>	38.57	80
2	NO <sub>x</sub>	43.33	80
3	PM <sub>10</sub>	53.61	100

It was observed that all the air quality parameters analyzed were within the Ambient Air Quality Standards of Central Pollution Control Board, India. The air quality is good in the college campus as well as surrounding.



**Ambient air quality status of Malati Vasantdada Patil Kanya Mahavidyalaya Islampur.**



**h. Ambient noise monitoring status:-**

Ambient noise monitoring was carried out in different areas of college campus like at college campus entry, college gate, and corridor, floor and ladies hostel. The sampling was carried out using calibrated Sound Level Meter (AZ 8921) by logarithmic scale in Decibels (dB). The noise readings were collected in the college campus and calculated. The details of noise status in college campus are given as below:

**Ambient Noise levels in Malati Vasantdada Patil Kanya Mahavidyalaya Islampur**

Sr. No.	Site Name	Results dB (A) Leq	Standards (Day Time) dB (A) Leq
1	College Campus Entry	66.21	50
2	College Gate	62.04	50
3	Corridor	60.82	50
4	Floor	56.27	50
5	Hostel	48.54	50
6	Canteen	58.39	50
7	Library	36.17	50

Note: - 1. All parameters expressed in dB (A) Leq.

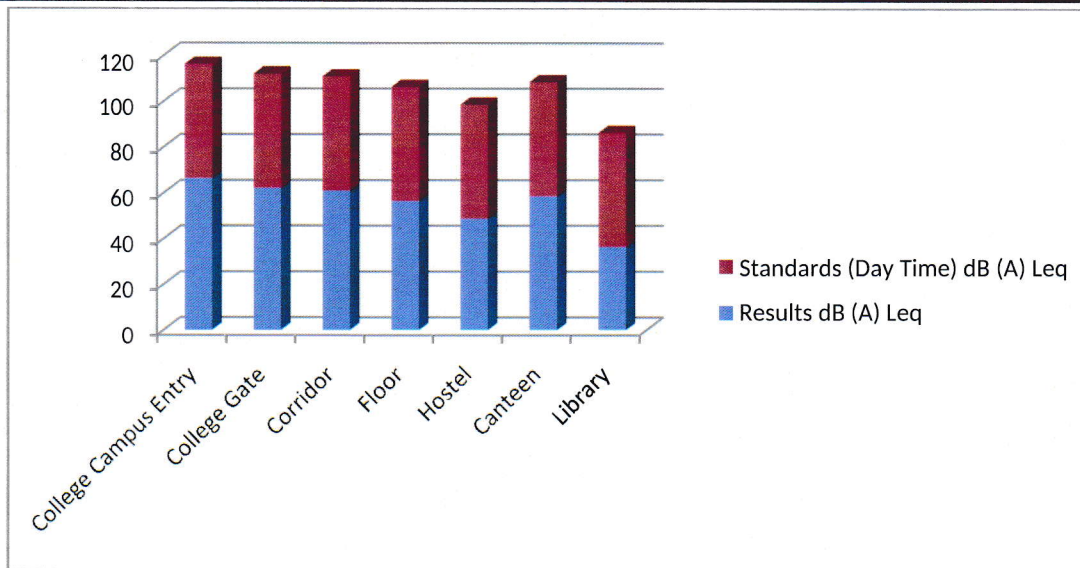
2. Monitoring is carried during daytime.

3. Day time is from 6.00 a.m. to 10.00p.m.

It is observed from the table that the Ambient Noise levels overall in college is on higher side except ladies hostel as compared to the standards of Central Pollution Control Board for the day time.

Since the college is located adjacent of main roads and therefore, the major source of noise is automobile noise, rolling noise. The human communication and transportation are causing high level sound. It is advisable to increase the green cover in the surrounding to avoid noise.





**Ambient Noise levels in Malati Vasantdada Patil Kanya Mahavidyalaya Islampur.**

**Parking and traffic management:**

Traffic generated from this project will confluent on 15 m wide road to college.

Parking statement:

Total parking area	100. m2
Area per car	2 m2 for two wheeler

(Width of all internal roads (m) : Width of drive ways is 2.5 m )



**Environmental protection through activities conducted**



**Front view of the College**



**Women's hostel build**





**Parking**



**College office**





Commerce Laboratory



Drinking water facility



## CONCLUSION AND MANAGEMENT PLAN

Natural Solution, Islampur has conducted a Green Audit of Malati Vasantdada Patil Kanya Mahavidyalaya Islampur, in the academic year 2019-20. Green auditing is the process of identifying and determining whether institution practices are eco-friendly and sustainable. The main objective of college to carry out green audit is to check green practices followed by college and to conduct a well formulated audit to understand where we stand on a scale of environmental soundness.

### Conclusions:

From the green audit conducted by college following are some of the conclusions which can be taken for improvement of the college campus to become environment friendly college campus.

1. College takes efforts to dispose majority waste by using proper methods.
2. Confidential paper waste is disposed properly.
3. Use of CFL lamps in the college is minimum. Its use should be encouraged and now converted to LED lights.
4. Toilets and bathrooms are consuming more water.
5. Roof top rain water harvesting should be planned which is useful for filling up of tanks on campus.
6. E-waste segregation, handling and disposal are properly done.
7. Practice of waste segregation to be initiated.
8. Air quality on the campus is good.
9. Conduct more seminars and group discussions on environmental education and awareness



**Recommendations:**

Following are some of the key recommendation for improving campus environment.

1. College should develop its own Environmental Policy by using guidelines given in Green Audit document.
2. The data related to all measured environmental parameters should be monitored and recorded regularly and information be made available to administration.
3. The college should develop internal procedures to ensure its compliances with environmental legislation and responsibility be fixed to carry out it in practice.
4. Wherever possible the waste should be reused or recycled.
5. Rain water harvesting may be installed.
6. Practice of waste segregation to be initiated.

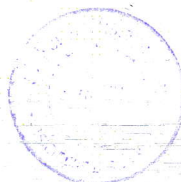




**ENVIRONMENT MANAGEMENT PLAN:**

By understanding the dynamics of present situation of resource utilization and current practices of waste disposal we have prepared an Environment Management Plan (EMP) for the Malati Vasantdada Patil Kanya Mahavidyalaya Islampur Dist. Sangli. This plan not only will provide the strengths, weaknesses and remedies for the green and clean campus but also give priority of the sector where the college has to give more efforts to improve its environment.

Sector	Strengths	Suggestions
<b>Solid Waste</b>		
<b>Paper</b>	<ol style="list-style-type: none"> <li>1. Pulping of major portion of papers i.e. answer sheets, bills and other administrative papers.</li> <li>2. Use of one sided papers in many department sand main building</li> </ol>	<ul style="list-style-type: none"> <li>• Towards paperless office: More use of e-mails, e-money transfer and advance IT technology for communication</li> </ul>
<b>Plastic</b>	Reuse of plastic at some departments	<ul style="list-style-type: none"> <li>• Segregation of waste at the source and sending plastic waste for recycling</li> <li>• Ban on Plastic carry bag sin College premises</li> </ul>
<b>Biodegradable waste</b>	Solid waste generated	<ul style="list-style-type: none"> <li>• Segregation of solid waste help in composting process</li> </ul>
<b>Energy</b>		
<b>Electricity</b>	Use untraditional source of energy	<ul style="list-style-type: none"> <li>• Employment of more solar panels and other renewable energy sources.</li> <li>• General awareness about Electricity saving.</li> </ul>
<b>Fuel</b>	Use of public Transport system is comparatively more by staff and students.	<ul style="list-style-type: none"> <li>• 'Cycle on rent' service for student</li> <li>• General awareness about efficient use of fuel.</li> </ul>
<b>Water</b>		
<b>Water utilization</b>	College has potential of Rain water harvesting.	<ul style="list-style-type: none"> <li>• Installation of automatic water pumps to avoid overflowing losses</li> <li>• Proper and timely maintenance of plumbing at all departments</li> <li>• Installation of rainwater harvesting assembly.</li> </ul>



<b>Hazardous Waste</b>		
<b>E-waste</b>	<ul style="list-style-type: none"><li>• E waste is sent to E waste collection center at Kolhapur.</li></ul>	<ul style="list-style-type: none"><li>• There must be segregation of e-waste from regular waste and also among thee-waste.</li><li>• E-waste in all forms not only computers, should be collected properly</li></ul>
<b>Air and Noise</b>		
<b>Air and Noise</b>	Air quality is still in good condition	The plantation can be increased by vertical gardening.

