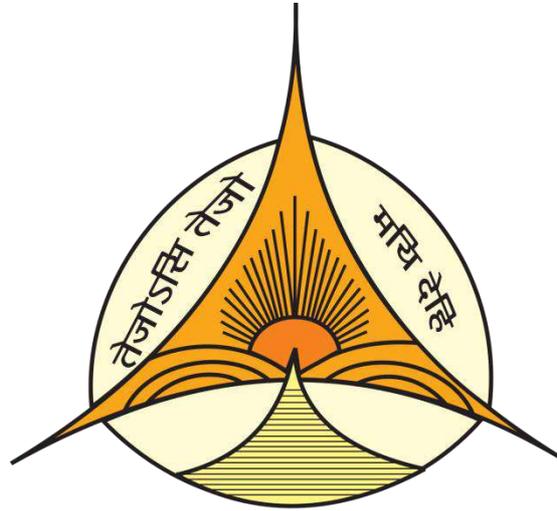


# ENVIRONMENT AUDIT REPORT



**Jesus and Mary College, Chanakyapuri (New Delhi) 110021**



**EHS Alliance Services**

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## 1.0 ACKNOWLEDGEMENT

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EHS Alliance Services Green Audit Team thanks the management of **Jesus and Mary College** for assigning this important work of Green Audit (Environmental Audit). We appreciate the co-operation to our team for completion of study.

Our special thanks are due to:

- Principal of the college – Sr. Dr Rosily
- IQAC Member and professor of mathematics – Dr. Alka Marwaha
- IQAC member and Professor of Commerce – Dr. Renu Gupta
- Environment Expert at the campus – Dr. Surendra Kumar Yadav and Dr. Divya Agarwal
- Green Audit coordinator & Assistant professor, Department of Commerce – Ms. Trisha Chowdhry
- Teaching & Supporting Staff of College

For giving us necessary inputs to carry out this very vital exercise of Green Audit (Environment Audit). We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

## 2.0 DISCLAIMER

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EHS Alliance Services Green Audit/Environment Audit Team has prepared this report for **Jesus and Mary College** based on input data submitted by the representatives of College complemented with the best judgment capacity of the expert 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 organisation, then all pages must be included.

EHS Alliance, its staff and agents shall keep confidential all information relating to your organisation 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. EHS Alliance staff, agents and accreditation bodies have signed individual confidentiality undertakings and will only receive confidential information on a 'need to know' basis.



**Report by: (Puneet Kaushik) Lead Auditor**

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## 3.0 CONTEXT

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We are committed as a component of Corporate Social Responsibility of the Higher Edifying Institutions to ascertain that they contribute towards the minimization of ecumenical warming through Carbon Footprint abbreviation measures.

JMC College Management decided to conduct an external Green Evaluation by a competent Green Auditor along with a Green Audit Assessment Team headed by Sr. Dr. Rosily, Principal, **Jesus and Mary College, New Delhi.**

Green Audit or Environment Audit focuses on the Green Campus, Waste Management, Water Management, Air Pollution, Energy Management & Carbon Footprint etc. being implemented by the College Management. The concept, structure, objectives, methodology, tools of analysis, objectives of the audit are mentioned below.

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## 4.0 CONCEPT

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The term 'Environmental audit' or 'Green audit' means differently to different people. Terms like 'assessment', 'survey' and 'review' are also used to describe similar activities. Furthermore, some organizations/Institutions believe that an 'environmental audit' addresses only environmental matters, whereas others use the term to mean an audit of health, safety and environment-related matters. Although there is no universal definition of Green Audit, many leading companies/institutions follow the basic philosophy and approach summarized by the broad definition adopted by the International Chambers of Commerce (ICC) in its publication of Environmental Auditing (1989).

The ICC defines Environmental Auditing as:

*"A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of safeguarding the environment and natural resources in its operations/projects."*

The outcome of Green Audit should be established with concrete evidence that the measures undertaken and facilities in the institution under green auditing.

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## 5.0 INTRODUCTION

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A Nation's growth starts from its educational institutions, where the ecology is thought as a prime factor of development associated with environment. Educational institutions now a days are becoming more sensitive to environmental factors and more concepts are being introduced to make them eco-friendly. To preserve the environment within the campus, various viewpoints are applied by the several educational institutes to solve their environmental problems such as promotion of the energy savings, recycle of waste, water reduction, water harvesting etc.. The activities pursued by colleges can also create a variety of adverse environmental impacts.

Environmental auditing is a process whereby an organization's environmental performance is tested against its environmental policies and objectives. Green audit is defined as an official examination of the effects a college has on the environment. As a part of such practice, internal environmental audit (Green Audit) is conducted to evaluate the actual scenario at the campus.

Green audit can be a useful tool for a college to determine how and where they are using the most energy or water or resources; the college can then consider how to implement changes and make savings. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve waste minimization plan. Green auditing and the implementation of mitigation measures is a win-win situation for all the college, the learners and the planet. It can also create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of Green impact on campus.

Green auditing promote financial savings through reduction of resource use. It gives an opportunity for the development of ownership, personal and social responsibility for the students and teachers. Thus it is imperative that the college evaluate its own contributions toward a sustainable future. As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to environmental sustainability is more prevalent.

A clean and healthy environment aids effective learning and provides a conducive learning environment. There are various efforts around the world to address environmental education issues.

Environmental Management Systems (EMS) is very popular in the industrial sector, but the general belief is that EMS is something pertaining to industries only. Other parts of the world have started adopting compatible environmental management systems either voluntarily or for promoting standards by external certification. International environmental standards do not suit the existing Indian educational system. Hence EHS Alliance has developed a compatible system by developing locally-applicable techniques.

A very simple indigenized system has been devised to monitor the environmental performance of educational institutions. It comes with a series of questions to be answered on a regular basis. Environmental conditions may be monitored from angles that are relevant to Indian requirements, without stress on legal issues or compliance.

This innovative scheme is user-friendly and totally voluntary. The environmental monitoring system helps the institution to set environmental examples for the community and to educate young learners. It can be adapted to urban and / or rural situations.



## 6.0 OVERVIEW OF INSTITUTE

This Religious Congregation was founded by Saint Claudine Thevenet in Lyons (France) in 1818. The first Institution started in India was St. Patrick's Junior College in Agra. Jesus and Mary College, a constituent college of the University of Delhi, was established by the **Congregation of Jesus and Mary** in 1968. The building of the JMC was designed by Powar & Powar (Northern Construction Company) and stands on the solid rock of the Aravali range. It consists mainly of three sections: the interconnected teaching and administrative block, the Library and the Saint Claudine Hall designed by Mr. Ranjit P. John. The residence of the nuns is set apart, surrounded by a lovely garden.



The landscaped grounds of JMC are widely admired for their beauty. In addition, there are hockey, cricket, lawn tennis, football and basketball fields along with an amphitheater.

In 2017-18 JMC celebrated its **Golden jubilee** with great joy and pride. The year-long celebrations were inaugurated on 20<sup>th</sup> September 2017 with a memorable inaugural function in which the **Hon'ble President of India, Shri Ram Nath Kovind** was the Chief Guest. An international academic conference on the theme of empowering women through transformative education, and a professionally directed play on the life of Saint Claudine Thevenet entitled 'How good God is' were among the special events that were organized to celebrate the 50<sup>th</sup> Jubilee.

The most valuable investment any educational institution can make is “Nurturing Future Leaders”. With the continuous rise in expectation of essential leadership standards, Jesus and Mary College torch bearers have taken a responsibility for this investment to nurture the Next-Gen leaders with a vision to bridge the existing skill gap. With a firm step forward to attain an academic excellence, several Centers of Excellence, computer labs, and industry-academia associations have been setup at the Jesus and Mary College in association with the top leaders.

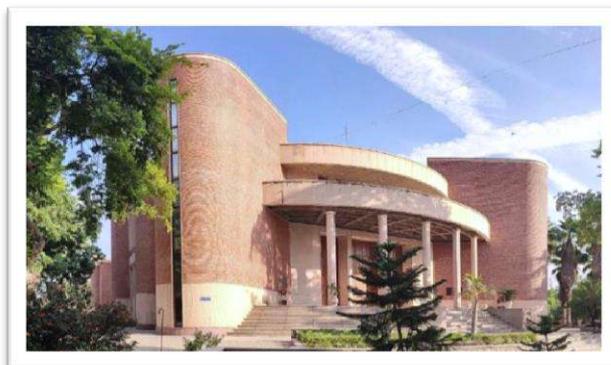


The College believes that its primary stakeholders are the students. All aspects of education focus on the core values of contributing to national development while fostering global competencies among students. The College admits students from all social milieus and empowers them through intensive mentoring and counselling to face the challenges of life and become responsible and sensitized citizens of the country.



The Jesus and Mary College imparts education to *Undergraduates* in the following Departments:

- Department of Economics
- Department of English
- Department of Hindi
- Department of History
- Department of Mathematics
- Department of Political Science
- Department of Psychology
- Department of Sociology
- Department of Commerce
- Department of Bachelor of Elementary Education (b. El. Ed.)
- Philosophy
- Physical Education
- Spanish
- Computer Science
- French
- B.voc
- Library



## COURSE OFFERED

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### I Bachelor of Arts (Hons.)

1. Economics
2. English
3. Hindi
4. History
5. Political Science
6. Psychology
7. Sociology

### II B.A. Programme : Discipline Subject Combination

1. Economics-Entrepreneurship

2. Economics-Mathematics
3. Computer Application – Advertising, sales promotion & Sales Management
4. Computer Application – Mathematics
5. History – Spanish
6. History – Political Science
7. Political Science – Sociology
8. Psychology – Sociology
9. Psychology – Philosophy
10. French – Philosophy
11. Entrepreneurship –Advertising, sales promotion & Sales Management
12. Elective English - French
13. Elective English – History
14. Spanish – Sociology
15. Spanish - Advertising, sales promotion & Sales Management

**III** Bachelor of Commerce (Hons.)

**IV** Bachelor of Commerce Course

**V** Bachelor of Science (Hons.) Mathematics

**VI** Bachelor of Elementary Education (4 Years Course)

**VII** Bachelor of Vocational Studies

1. B.Voc:-Health care Management
2. B.Voc:-Retail Management & IT

**Note:** All undergraduate degree courses except B.El.Ed shall be taught in three years, semester mode.

## 7.0 OBJECTIVES AND SCOPE

The broad aims/benefits of the eco-auditing system would be

- Environmental education through systematic environmental management approach
- Improving environmental standards
- Benchmarking for environmental protection initiatives
- Sustainable use of natural resource in the campus.
- Financial savings through a reduction in resource use
- Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the College campus and its environment
- Enhancement of College profile
- Developing an environmental ethic and value systems in young people

## 8.0 AUDIT PARTICIPANTS

On behalf of Institute:

Name	Position/Department
Sr. Dr. Rosily	Principal, Jesus and Mary College
Mr. R.S. Pathania	Care taker, Jesus and Mary College
Dr. Surendra Kr. Yadav	Assistant Professor – Department of Environment
Dr. Divya Agarwal	Assistant Professor – Department of Environment
Dr. Renu Gupta	Associate Professor – Department of Commerce
Dr. Alka Marwaha	Associate Professor – Department of Mathematics
Trisha Chowdhry	Assistant Professor – Department of Commerce

On behalf of EHS Alliance Services:

Name	Position	Qualification
Puneet Kaushik	Lead Auditor	M.Sc. M.Tech (Environment Science & Engineering), PGDISM, Lead Auditor ISO 14001:2015, OHSAS 18001:2007
Pooja Singh	Co- Auditor	M.Sc. (Applied Geology), Energy Auditor , Post Diploma in Climate Change

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## 9.0 EXECUTIVE SUMMARY

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An environmental audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. 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.

JMC already done internal green assessment and annual reports published for continual improvements; QS Programme and doing their bid towards environmental protection and environmental awareness at local and global front. Audit criterion is environmental cognizance, waste minimization and management, biodiversity conservation, water conservation, energy conservation and environmental legislative compliance by the campus. A questionnaire is used during audit. This audit report contains observations and recommendations for improvement of environmental consciousness.

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## 10.0 AREAS OF IMPROVEMENT

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- Environment Policy to be adopted by the College Campus.
- Water Meter should be installed and maintain the inventory of ground water extraction resource bore well.
- Stack height of DG set should be as per DG Rules
- Storage of chemicals like; paints, gums resins, oils, lubricants, acids etc. in designated place and safety/warning signs should be displayed.
- Internal inspection system should be developed for various aspects of environment available in campus
- Waste Management plan should be prepared for the campus.
- Display of environment awareness posters should be there in the prominent areas of campus.

## 11.0 ENVIRONMENTAL AUDIT - QUESTIONNAIRE

The areas of eco/environmental/green auditing to be followed/practiced by participating institutions:

- 11.1.1 Waste Minimization and Recycling
- 11.1.2 Greening
- 11.1.3 Energy Conservation
- 11.1.4 Water Conservation
- 11.1.5 Clean Air
- 11.1.6 Animal Welfare
- 11.1.7 Environmental Legislative
- 11.1.8 General Practices

### Does any Environmental Audit conducted earlier?

The college has conducted the internal Green Audit under the Green Society of JMC. The Annual reports records reviewed during the audit, Main focus of this is to bring awareness of environmental values in students and society. Now, the external audit for environment is awarded to EHS Alliance Services for a systematic way of monitoring the environmental eminence initiative, taken by College for environment protection.

### What is the total permanent population of the Institute?

	Male	Female	Total
<b>Students</b>	-	3282	<b>3282</b>
<b>Teachers</b>	3	66	<b>131*</b>
<b>Non-Teaching Staff</b>	33	12	<b>60*</b>
<b>Sub Total</b>	36	3360	<b>3473</b>
<b>Approximate Number of Visitors (Per day)</b>			<b>10</b>
<b>What is the total number of working days of your campus in a year?</b>			<b>180</b>

*Note: \* The futuristic recruitments included in total population (Teaching Staff # 62; Non-Teaching Staff # 30)*

**Where is the campus located?**

The campus is Located in Chanakyapuri, New Delhi.

**Which of the following are available in your institute?**

<b>1 Garden area</b>	<b>Available</b>
<b>2 Play ground</b>	<b>Available</b>
<b>3 Kitchen</b>	<b>Available</b>
<b>4 Toilets</b>	<b>Available</b>
<b>5 Garbage Or Waste Store Yard</b>	<b>Available</b>
<b>6 Laboratory</b>	<b>Available, only Computers lab</b>
<b>7 Canteen</b>	<b>Available</b>
<b>8 Hostel Facility (numbers)</b>	<b>Not Available</b>
<b>9 Guest House</b>	<b>Not Available</b>

**Which of the following are found near your institute?**

<b>1 Municipal dump yard</b>	<b>Not in vicinity of institute</b>
<b>2 Garbage heap</b>	<b>No Garbage heaps</b>
<b>3 Public convenience</b>	<b>Yes</b>
<b>4 Sewer line</b>	<b>4 km sewer line within campus</b>
<b>5 Stagnant water</b>	<b>No stagnant water</b>
<b>6 Open drainage</b>	<b>No</b>
<b>7 Industry – (Mention the type)</b>	<b>No</b>
<b>8 Bus / Railway station</b>	<b>Faraway from campus</b>
<b>9 Public halls</b>	<b>Yes</b>

**11.1 WASTE MINIMIZATION AND RECYCLING**

<p><b>1. Does your institute generate any waste? If so, what are they?</b></p>	<p><b>Yes, Solid waste, Canteen waste, paper waste, plastic waste, toiletry waste, Horticulture Waste, etc.</b></p>											
<p><b>2. What is the approximate amount of waste generated per day? (in Kilograms/month) (approx.)</b></p>	<table border="1"> <tr> <td>Bio Degradable</td> <td>Non-Biodegradable</td> <td>Hazardous</td> <td>others</td> </tr> <tr> <td>40kg</td> <td>4kg</td> <td>1kg</td> <td>&lt;6kg</td> </tr> </table>	Bio Degradable	Non-Biodegradable	Hazardous	others	40kg	4kg	1kg	<6kg			
Bio Degradable	Non-Biodegradable	Hazardous	others									
40kg	4kg	1kg	<6kg									
<p><b>3. How is the waste generated in the institute managed? By</b></p> <p>1 Composting</p> <p>2 Recycling</p> <p>3 Reusing</p> <p>4 Others (specify)</p>	<p>5 composting pits are there in campus, Reuse of one side printed Paper for internal communication. Sewage water is discharged to public Sewer. Domestic Waste is given to Municipal Corporation. Two types of Waste bins are provided at campus for biodegradable and non-biodegradable waste. Horticulture waste is also given to Municipal Corporation. Incinerator is used for managing sanitary waste.</p>											
<p><b>4. Do you use recycled paper in institute?</b></p>	<p>Yes, in academic evaluation works</p>											
<p><b>5. Do you use reused paper in institute?</b></p>	<p>Yes</p>											
<p><b>6. How would you spread the message of recycling to others in the community? Have you taken any initiatives? If yes, please specify.</b></p>	<p>Yes, Green Society carried out numerous activities. Recycling campaigns, e waste management, Anti-plastic campaigns, Varsha Vriksharopan, sustainable goal awareness programme.</p>											
<p><b>7. Can you achieve zero garbage in your institute? If yes, how?</b></p>	<p>Yes, as per new waste management rules all kind of waste is managed in an adequate manner without any deviation.</p>											

**11.2 GREENING THE CAMPUS**

<b>8.</b>	<b>Is there a garden in your institute?</b>	<b>Yes, about 1.5 Acre is the Green Area.</b>	
<b>9.</b>	Do students spend time in the garden?	2-4 Hours during winters	
<b>10.</b>	Total number of Plants in Campus	Plant type	Approx. number
		Trees	More than 350
		Shrubs	More than 1000
		Grass Cover	1.5 Acre
<b>11.</b>	Suggest plants for your campus. (Trees, vegetables, herbs, etc.)	Ashoka, Ficus Religeosa, Bogavellia, Alovera, Azadirachta indica , and many more as per geographical regime.	
<b>12.</b>	Is the College campus have any Horticulture Department	Yes	
	Number of Staff working in Horticulture Department	Five Gardeners	
<b>13.</b>	Number of Tree Plantation Drives organized by College per annum. (If Any)	Yes, Three Tree Plantation Drives are Organized Annually. 50+ trees and 100+ shrubs planted in this financial year.	
<b>14.</b>	Number of Trees Planted in Last FY.	80	
	Survival Rate	90%	
<b>15.</b>	Plant Distribution Program for Students and Community	Yes, Seed Bank is developed and, Saplings are distributed to Students and visitors at various Occasions.	
<b>16</b>	Plant Ownership Program	No	

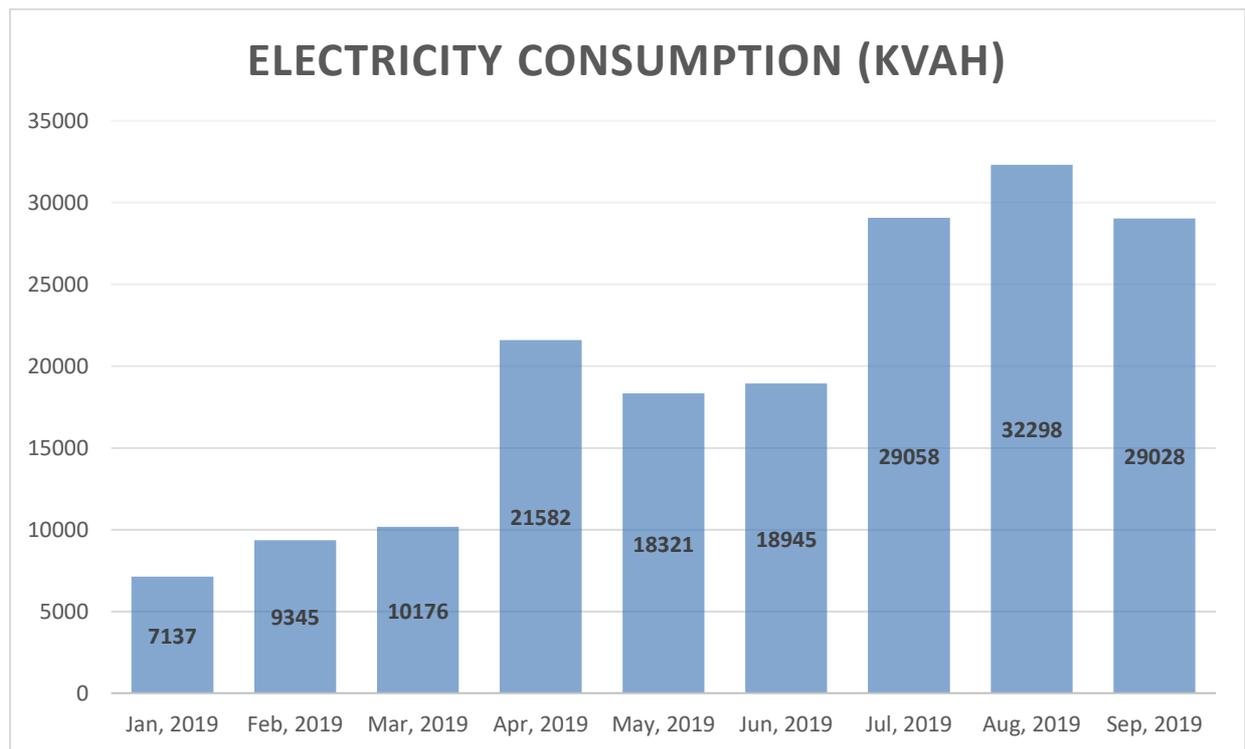
**11.3 ENERGY**

17.	List few ways that you use energy in your institute. (Electricity, LPG, firewood, others). Using this list, try to think of ways that you could use less energy every day.	Electricity is saved by use of LED bulbs for illumination, LPG is saved by use of Pressure cookers for cooking food. Alternate source of energy i.e. Solar Panel Installed.
18.	Are there any energy saving methods employed in your institute? If yes, please specify. If no, suggest some	Yes, Renewable source of energy through solar plant (910 KW) in commissioning phase. 320 Watt is operational. Messages will be displayed at various locations to aware the People about Energy Savings. Use of Natural Lights and Natural Ventilation are promoted.
19.	How many CFL/LED bulbs has your institute installed?	95 % of Total Conventional bulbs are replaced by LED Lights.
20.	Are any alternative energy sources employed / installed in your institute? (photovoltaic cells for solar energy, windmill, energy efficient stoves, etc.,) Specify.	Yes, photovoltaic cells for solar energy, energy efficient stoves
21.	Do you run "switch off" drills at institute?	Yes
22.	Are your computers and other equipment's put on power-saving mode?	Yes, In Practice
23.	Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby modes most of the time? If yes, how many hours?	No

**Table showed the power consumption details of last year**

S.No	Month	Electricity Consumption (KVAH)
1	Jan, 2019	7137
2	Feb, 2019	9345
3	Mar, 2019	10176
4	Apr, 2019	21582
5	May, 2019	18321
6	Jun, 2019	18945
7	Jul, 2019	29058
7	Aug, 2019	32298
8	Sep, 2019	29028

Energy consumption trend is in accordance with electricity readings captured by Reliance Energy with Bill consumer No. 6500918 SERIAL 2319/122/1, Bill Cycle Jan to Sept 2019

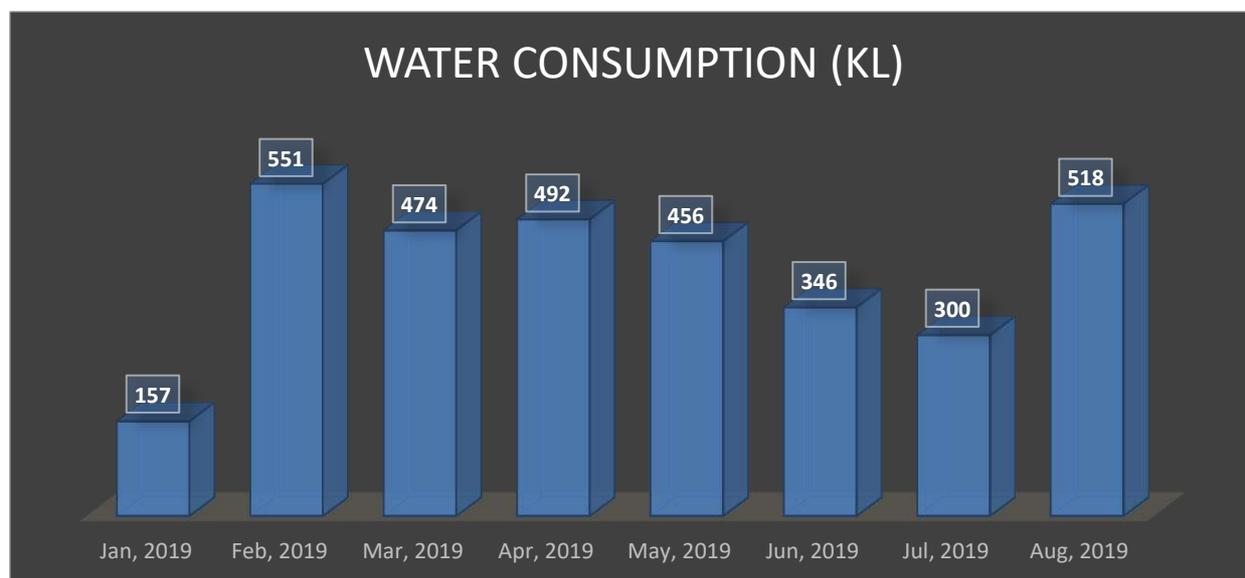


**11.4 WATER CONSERVATION**

24.	List uses of water in your institute	Basic usage of water in campus are; Drinking, Gardening, Kitchen & Toilets, and Others. And total consumption is 411.75 KL/month
25.	How does your institute store water? Are there any water saving techniques followed in your institute?	Underground Water tank installed for storage of water. Avoid overflow of water controlled valves are provided in water supply system.
26.	If there is water wastage, specify why and How can the wastage be prevented / stopped?	No
27.	Locate the point of entry of water and point of exit of waste water in your institute.	Entry- Water comes from MCG water supply at campus Exit- From Water Drainage System to the back gate of campus
28.	Write down few ways that could reduce the amount of water used in your institute	By Following ways: 1. RWH, Close the taps after usage 2. Maintenance and monitoring of valves in supply system to avoid overflow, leakage and spillage 3. Water Conservation awareness for new students
29.	Record water use from the institute water meter for six months (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 on the basis of Water Bill is shown below.

30.	Does your institute harvest rain water?	Six number of Modern rain water harvesting system are available.
31.	Is there any water recycling System.	Yes, RO waste water is stored in tank and is attached to toilet supply

S.No	Month	Water Consumption (KL)
1	Jan, 2019	157
2	Feb, 2019	551
3	Mar, 2019	474
4	Apr, 2019	492
5	May, 2019	456
6	Jun, 2019	346
7	Jul, 2019	300
8	Aug, 2019	518



**11.5 CLEAN AIR**

<b>32</b>	<b>Are the Rooms in Campus are Well Ventilated?</b>	<b>Yes</b>				
<b>33</b>	Window Floor ratio of the Rooms	<b>Very Good</b>				
<b>34</b>	Provide details of school-owned motorized vehicles?	Buses	Cars	Vans	Other	Total
	No. of vehicles	1	--	--	--	--
	Non-operational					
	No. of vehicles more than five years old	--	--	--	--	--
	No. of Air conditioned vehicles	--	--	--	--	1
	PUC done	--	--	--	--	--
<b>35</b>	Specify the type of fuel used by your school's vehicles:	<b>Total</b>				
	Diesel			--		
	Petrol			--		
	CNG			--		
	LPG			--		
	Electric			--		
<b>36</b>	Air Quality Monitoring Program (If Any)	No monitoring is being done				
<b>37</b>	Students suffer from respiratory ailments? (If Any)	No				
<b>38</b>	Details of Genset	Yes, 1 Number of Genset - model, Kirloskar, 82KVA; The capacities of DG is (60) KVA. Acoustic enclosure canopy and adequate stack height is under planning				

**11.6 ANIMAL WELFARE**

<b>39</b>	List the animals (wild and domestic) found on the campus (dogs, cats, squirrels, birds, insects, etc.)	More than 200 Squirrels are found in the campus, Approx. 8 dogs, 2 cats and others including butterflies, insects, bees, earthworms, etc. are there in campus.
<b>40</b>	How many dogs in your area have undergone Animal Birth Control - Anti Rabies (ABC - AR)?	Not required
<b>41</b>	Does your institute have a Biodiversity Programme or a KARUNA CLUB?	No

**11.7 ENVIRONMENTAL LEGISLATIVE COMPLIANCE**

<b>42</b>	Are you aware of any environmental Laws pertaining to different aspects of environmental management?	Yes
<b>43</b>	Does your institute have any rules to protect the environment? List possible rules you could include.	They have banned single use plastic. Their environment policy includes awareness, and environmental conservation efforts through Green Society and Department of Environmental Sciences. All under graduates are studying the paper of Environmental Sciences, prescribed by UGC.
<b>44</b>	Does Environmental Ambient Air Quality Monitoring conducted by the Institute?	NA
<b>45</b>	Does Water and Wastewater Quality monitoring conducted by the Institute?	Yes
<b>46</b>	Does stack monitoring of DG sets conducted	Yes

	by the Institute?	
47	Is any warning notice, letter issued by state government bodies?	No
48	Does any Hazardous waste generated by the Institute?	No
49	Does any Bio medical waste generated by the Institute? If yes explain its category and disposal method	No

## 11.8 GENERAL

50	Are you aware of any environmental Laws pertaining to different aspects of environmental management?	Yes
51	Does your institute have any rules to protect the environment? List possible rules you could include.	Yes, there are some rules like e banned single use plastic. Their Environmental Policy includes awareness and environmental conservation.
52	Does housekeeping schedule in your campus?	Yes, Swatch Bharat movement
53	Are students and faculties aware of environmental cleanliness ways? If Yes Explain	Yes, Periodically pollution reduction, plantation, energy conservation awareness campaigns carried out by institute
54	Does Important Days Like World Environment Day, Earth Day, and Ozone Day etc. eminent in Campus?	Yes
55	Does Institute participated in National and Local Environmental Protection Movement?	Yes, Swatch Bharat Abhiyan by students at campus.

56	Does Institute has any Recognition/certification for environment friendliness?	No
57	Does Institute using renewable energy?	Yes
58	Does Institution conducts a green/environmental audit of its campus?	Yes, This is first environmental audit done by the College.
59	Has the institution been audited / accredited by any other agency such as NABL, NABET, TQPM, NAAC etc.?	Yes, NAAC grade A

## BEST PRACTICES/INITIATIVES FOR ENVIRONMENT

<p><b>A</b></p>	<p>Renewable Energy</p> <p><b>Solar panel installed at MPH of Jesus and Mary college.</b></p> <p><b>A clean source of energy is utilized at campus.</b></p> <p><b>Efforts towards Carbon Neutrality</b></p> <p><b>The capacity of 910 KW Solar plant on building roofs is commissioned and will be operational in a month that will supply approx. 30% of total power in campus.</b></p>	
<p><b>B</b></p>	<p><b>Biodiversity Conservation</b></p> <p>Flora and fauna conservation</p>	<p>They have lush green campus which provides habitat to various species. Recently conducted bird count reports Indian peafowl, paraqueets, Sunbird, black kite, house crow, Humes wasbler, large billed crow, wood pecker, jungle babler, roofers trrpie, common tailor bird, Eurasian collar dove, oriental magpie Robin, bulbul, Green bee eater, brown headed green barbet, Brahmini Starling, Paro cistatus, Indian Robin.</p>
<p><b>C</b></p>	<p><b>Tree Plantation Drives</b></p> <p>Two Drives Annually as well as Every Guest is honored by Tree Plantation at Campus.</p>	<p>Yes, periodically the plantation drives by students and staff of campus.</p>
<p><b>d</b></p>	<p><b>Ground Water Recharge</b></p> <p>15 units of Rain Water Harvesting System.</p>	<p>Yes, 100% recharge of the rain water</p>
<p><b>E</b></p>	<p><b>Pollution Reduction</b> Personal Vehicles (Students) not allowed at campus</p>	<p>Reduction in Air Pollution through vehicular emission.</p>
<p><b>F</b></p>	<p><b>E Waste Management</b></p> <p>Collection of e-waste by staff</p>	<p>E waste is sent to the authorized recyclers for adequate disposal</p>
<p><b>G</b></p>	<p><b>Solid Waste Management</b></p> <p>Lifting of garbage from campus on alternate day by</p>	<p>Yes, different mechanisms for proper disposal and recycling of e-waste,</p>

	Municipal Corporation.	plastic waste, biodegradable waste and MSW
<b>H</b>	<b>Adoption of Village/society</b> CSR	No, but the General Environmental awareness campaigns like Beat the Plastic initiated by campus.
<b>I</b>	<b>Water Conservation</b>	Yes, water saving push taps fitted in the drinking water zone and the toilets to avoid the wastage. They are re-using RO waste water in their washrooms.
<b>j</b>	<b>Corporate Resource Center (CRC)</b>	Jesus and Mary College Corporate Resource Center (CRC) is dedicated to nurturing future leaders

## RECOMMENDATIONS

- Formation of Environment Policy and communicated to all faculties and other staff members.
- Environmental Monitoring i.e. (Ambient Air Quality monitoring, Stack Monitoring of DG sets, Water monitoring need to be conducted by Delhi State Pollution Control Committee, approved laboratory with frequency of six month.
- Reduction in use of paper work by go digital system.
- Water Meter should be installed at institute for monitoring of water consumption for landscape.
- Increase in Environmental promotional activities for spreading awareness at campus.
- As practically feasible avoid use of personal vehicles inside the campus.



## CONCLUSION

This audit involved extensive consultation with all the campus team, interactions with key personnel on wide range of issues related to Environmental aspects. The Jesus and Mary College has Environmental Committee for sustainable use of resources. Overall 60% of university campus is for landscaping. The audit has identified several observations for making the campus premise more environmental friendly. The recommendations are also mentioned with observations for campus team to initiate actions.

The audit team opines that the overall site is maintained well from environmental perspective. There is no major observations but few things are important to initiate urgently are waste management records by monthly inventory of hazardous waste, rainwater harvesting recharge; water balance cycle and periodic inspection of buildings housekeeping and environment policy.



## REFERENCE

- The Environment [Protection] Act – 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- The Petroleum Act: 1934 – The Petroleum Rules: 2002
- The Central Motor Vehicle Act: 1988 (Amended 2011) and The Central Motor Vehicle Rules:1989 (Amended in 2005)
- Energy Conservation Act 2010.
- The Water [Prevention & Control Of Pollution] Act – 1974 (Amended 1988) & the Water (Prevention & Control of Pollution) Rules – 1975
- The Air [Prevention & Control Of Pollution] Act – 1981 (Amended 1987) The Air (Prevention & Control of Pollution) Rules – 1982
- The Gas Cylinders Rules – 2016 (Replaces the Gas Cylinder Rules – 1981
- E-waste management rules 2016
- Electrical Act 2003 (Amended 2001) / Rules 1956 (Amended 2006)
- The Hazardous Waste (Management and Handling and Trans-boundary Movement) Rules, 2008 (Amended 2016)
- The Noise Pollution Regulation & Control rules, 2000 (Amended 2010)
- The Batteries (Management and Handling) rules, 2001 (Amended 2010)
- Relevant Indian Standard Code practices
- Internal Records of the Campus

## SUMMARY OF GREEN SOCIETY

The Environment Society of Jesus and Mary College, The Green Society, aims to spread awareness amongst students regarding the natural environment that they are a part of, and the impact of their everyday actions on it. We aim to protect the environment by spreading awareness to save energy, water, reducing use of disposable plastics, promoting reusable materials, planting saplings, etc. We believe that better world is not only within reach, but is being built today. We conduct environment friendly events which are not only intellectual, but also interactive and fun to attend. These include workshops, tree plantation drives, rallies, and online awareness campaigns, competitions such as Slam Poetry, Poster Making- online and offline and so on. The Society has also taken pride in being eco-friendly in every little way possible, starting from our paper free, online council elections. The Green Society currently has over 300 students under its wing.

The green society focuses on utilizing the power of social media platforms for spreading awareness regarding environment conservation and protection. It has an active *facebook* and *Instagram* page on which all the events of the society and environment related posts are uploaded time to time. Approximately 33000 people thereby creating awareness amongst a larger community.

AWARENESS BUILDING CUM ACTION			
Herbal garden	250 medicinal plants planted	Learning about herbs cum gardening	Learning through action
'seeds of hope'	Internationally acclaimed gsi exhibition about man-nature and 'power of one'	24 panels showing how nature can be revived by 'a single person'	Awareness building
Clear and clean jmc campus	Attempt to inculcate self help in cleanliness	Allotted spaces maintenance	To internalise 'no litter and no shame in picking up litter'
Effects of mobile phone radiation on health	Survey about mobile usage in JMC, Poster campaign; later activists to address issues	Currently awareness building	On green board
Effects of e-waste	Information campaign	To drive home good practices of disposing off e-goods	On green board

Green society identified and put up nameplates of 56 different species of trees present in our college campus for developing awareness about diversity in nature. In continuation, this year a project on tree watch and tree mapping were carried out for 15 species. We found that our college has 118 Neem trees (*Azadirachta Indica*) and 8 Saptaparini trees (*Alstonia Scholaris*).

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*KEY ACTIVITIES OF THE SOCIETY – 2019-2020*

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**22 July, 2019** - In collaboration with NSS and The Fine Arts Society of Jesus and Mary college, The Green Society organized an awareness programme (a rally on water conservation, a talk given by Ms Trisha Chowdhry, a tree plantation programme and poster making competition) as initiated by District Disaster Management Authority, New Delhi, under the *JAL SHAKTI ABHIYAN* which is an initiative of Department of Drinking Water and Sanitation, Ministry of Jal Shakti, Government of India.

**17 Aug, 2019** - A religious follower of everything nature-friendly, the society held its council elections on online basis, wherein the society students were able to vote for their preferred candidates through Google forms to avoid wastage of paper.

**6 Sep, 2019** - The members of Green Society voluntarily participated in the Logo Design Contest for the Ministry of Environment, Forest and Climate Change, Government of India.

**9 Sep, 2019** - In association with the Delhi University Garden Committee, Principal Sr. Dr. Rosily was accompanied by the teacher members and students of the Green Society in planting a variety of saplings across college campus as part of a tree plantation drive, Varsha Vriksharopan.

**18 Sep, 2019** - A workshop on Reducing Plastic Footprint was organized in association with The Happy Turtle organisation. A stall was also set up by The Happy Turtle, selling environment friendly plastic alternatives.

**24 Sep, 2019** - We also voluntarily participated in United Nations' #ActNow Climate Campaign, wherein people from across the globe are being urged to take daily actions to reduce their carbon footprints. Members of The Green Society had put up posts on their respective social media accounts talking about their daily efforts in order to help the environment.

**24 Sep 2019** - As part of Delhi Pollution Control Board's efforts to provide significant instructions this festive season of Ganesh Chaturthi/ Durga Pooja, The Green Society of Jesus and Mary College organized a *Nukkad Natak* in association with Asmita Theatre Group.

**25 Sep, 2019** - Some of The Green Society members had accompanied the society convener to conclave on '*Circular Economy of Plastic Waste and Livelihood Opportunities and Excellence Awards for Academia and Community*'. This event occurred as part of the Prime Minister's Make India Plastic Free Mission and was organized under the guidance of Ministry of Environment, Forest and Climate Change, Government of India.

**3 Oct, 2019** - We showed our support towards the Anti- Plastic cum Recycling campaign organized by *Enactus* and *Mercatus* Society under which plastic was collected by the students with the aim of recycling the same. Members of The Green Society were asked to get their personal plastic waste for the massive collection.

**23 Oct, 2019** - The Green Society collaborated with *Greensphere*, *Eco Club* of Indira Gandhi Delhi Technical University for Women, and organized a workshop on menstrual hygiene in which members were informed about alternative menstrual products and samples were brought as part of a show and tell, for better understanding.

**23 - 27 Oct, 2019** – *Say No To Crackers Campaign* - A 5 day online campaign with a fact check series of posters was initiated to spread awareness to avoid crackers in order to reduce Air pollution.

## ANNEXURE – PHOTOGRAPHS OF ENVIRONMENT CONSCIOUSNESS

### GREEN SOCIETY 2015-16



Weekly cleanliness drives organized by the students of Green Society.

### GREEN SOCIETY 2016-17



Inter College competition on *Best out of Waste* organized by Green society



Active participation to build up the college nursery during 2016-2017 academic year.



Anti-Cracker Silent Rally was held in areas near college campus on 10<sup>th</sup> October 2017



Students of Green Society went for a nature walk to Lodhi Garden on 14<sup>th</sup> October 2017.

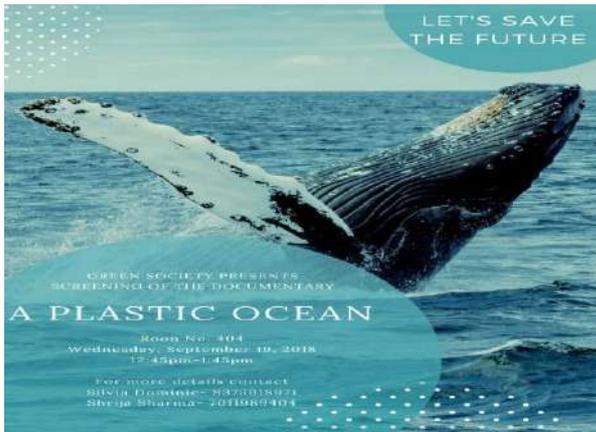


'Make the Scrap Worth a Wrap', a best out of waste competition was held on 8<sup>th</sup> January 2018 by Green society.

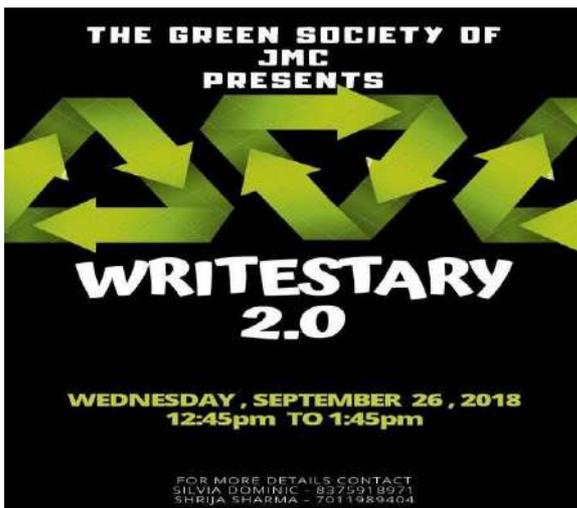


As part of Montage'18, Green Society held 'EnvironQuiz Competition', and 'Express your Greenances' on 16<sup>th</sup> and 17<sup>th</sup> February respectively.

## GREEN SOCIETY 2018-19



The documentary 'The Plastic Ocean' was screened on 19<sup>th</sup> September 2018.



A writing competition on 'Prevention of Plastic Pollution in our daily lives' was organized by Green society on 26<sup>th</sup> September 2018.

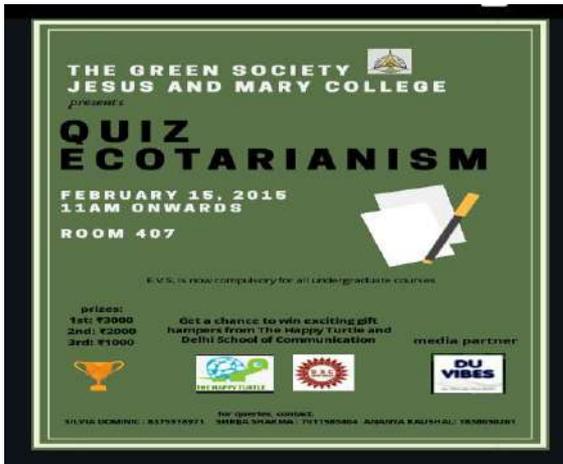
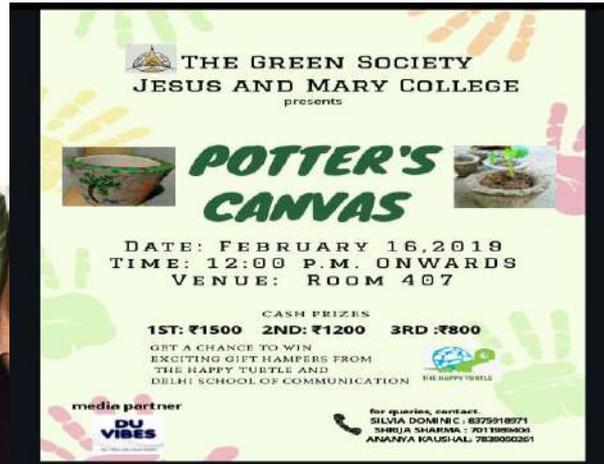


A workshop on Plastic Pollution was organized in association with the Happy Turtle on 23<sup>rd</sup> October 2018.





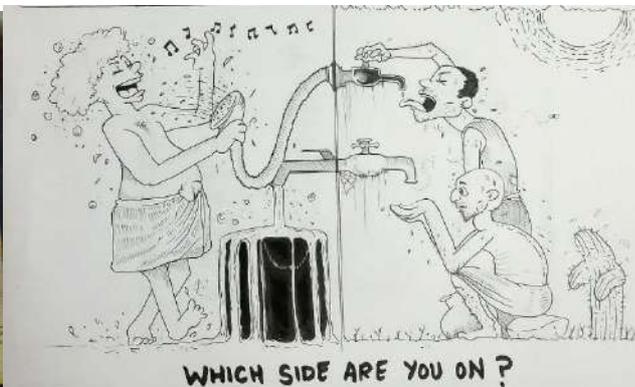
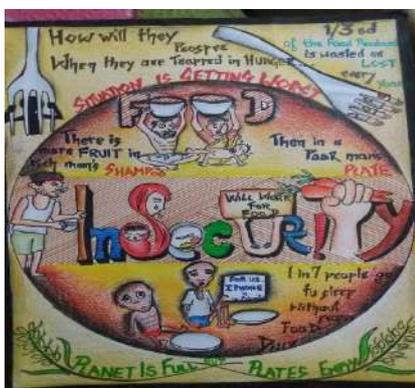
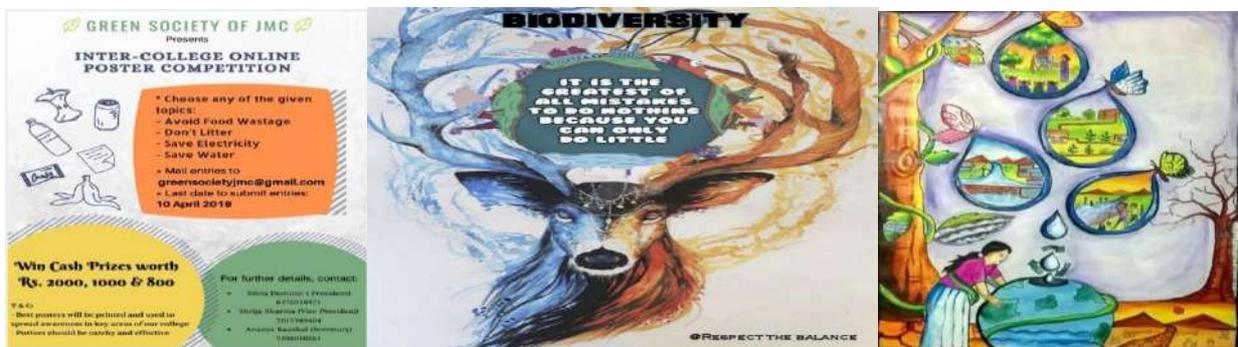
Green Society set up a stall for selling biodegradable sanitary napkins, and hosted a slogan writing competition on 1<sup>st</sup> November 2018.



As part of Montage'19, The Green Society organized a quiz competition, and a pot painting competition on 15<sup>th</sup> and 16<sup>th</sup> February respectively.



A slam poetry competition was organized on 13<sup>th</sup> March 2019, on 'Colours of the Earth'.



An inter-college poster making competition was held on 10<sup>th</sup> April 2019 by Green society.

## GREEN SOCIETY 2019-20



In collaboration with NSS and The Fine Arts Society of Jesus and Mary College, The Green Society organized an awareness programme as initiated by District Disaster Management Authority, New Delhi, under the JAL SHAKTI ABHIYAN, an initiative of Department of Drinking Water and Sanitation, Ministry of Jal Shakti, Government of India.



Green Society organized a tree plantation drive, Varsha Vriksharopan, on 9<sup>th</sup> Sep 2019.



A workshop for reducing plastic footprint was organized by Green society in association with the Happy Turtle on 18<sup>th</sup> September 2019.



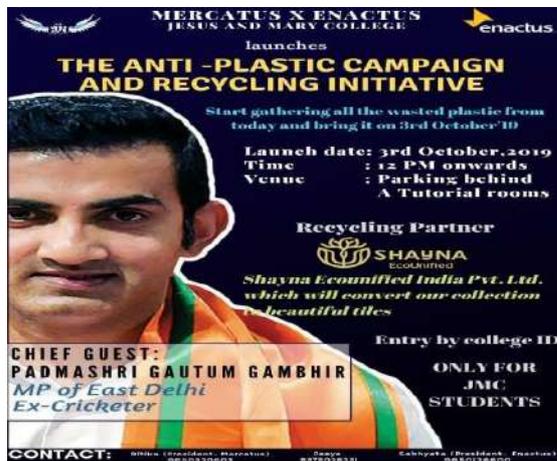
Green Society voluntarily participated in **United Nations' #ActNow Climate Campaign.**



A Nukkad Natak, in association with Asmita Theatre Group, was organized by Green society on 24<sup>th</sup> September 2019.



Members of Green Society attended a conclave on 'Circular Economy of Plastic Waste and Livelihood Opportunities and Excellence Awards for Academia and Community' 25<sup>th</sup> September 2019.



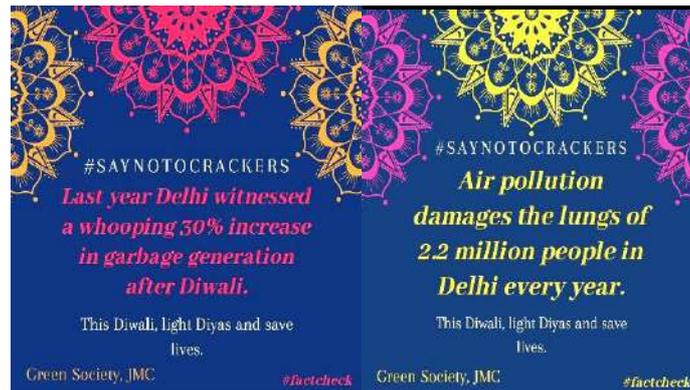
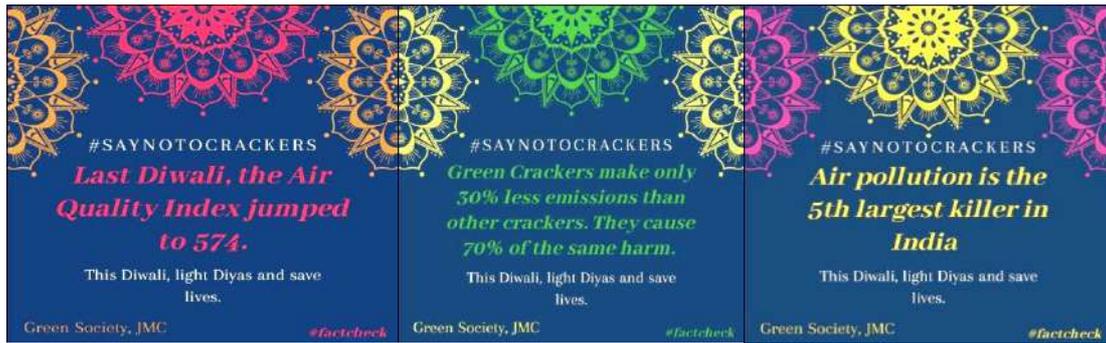
Anti-Plastic cum Recycling campaign organized by Enactus and Mercatus Society and supported by Green and Peace society on 3<sup>rd</sup> October 2019.



A workshop on menstrual hygiene was organized in collaboration with Greensphere, Eco Club of Indira Gandhi Delhi Technical University for Women, on 23<sup>rd</sup> October 2019.



Students of B.A. Programme department collected E-waste in an effort to reduce pollution.



#SayNoToCrackers Campaign- a 5 day social media campaign with a fact-check series of posters was organized from 23<sup>rd</sup> October to 27<sup>th</sup> October 2019.



The Marketing Society of JMC, Mercatus, set up a crockery bank in college on 6<sup>th</sup> November 2019 to help with solid waste management.



Second round of plastic collection took place between 4<sup>th</sup> and 6<sup>th</sup> November 2019 as a joint effort of Mercatus, Enactus, Green and Peace society.



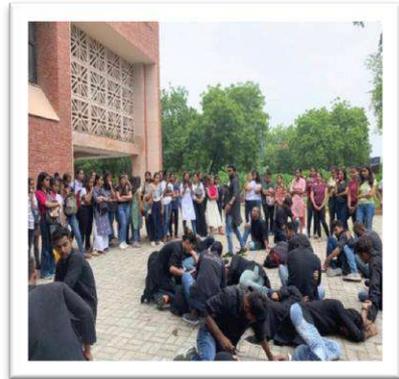
Roof top Solar System installed; Reverse Osmosis (RO) water purification system; Rain water harvesting (RWH) pits; Push Water Taps; Composting tanks in campus



ECO Drive by Campus –Active Participation by staff and students in Poster Competition, Environmental Quiz, Green Awareness Lectures



Various Campaigns for Water conservation, reduce plastic usage, Electricity conservation, No cracker campaign, Recycling of paper and Waste and much more



Environment Fair organized by campus, Green March by the Students

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*TRANSPARENCY OF GREEN AUDIT REPORT*

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*Green audit report is one of the useful means of demonstrating an organization/Institution's commitment to openness and transparency. If an Institute believes it has nothing to hide from its stakeholders, then it should feel confident enough to make its green audit reports freely available to those who request them. As a basic rule, green audit reports should be made available to all stakeholders.*

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