

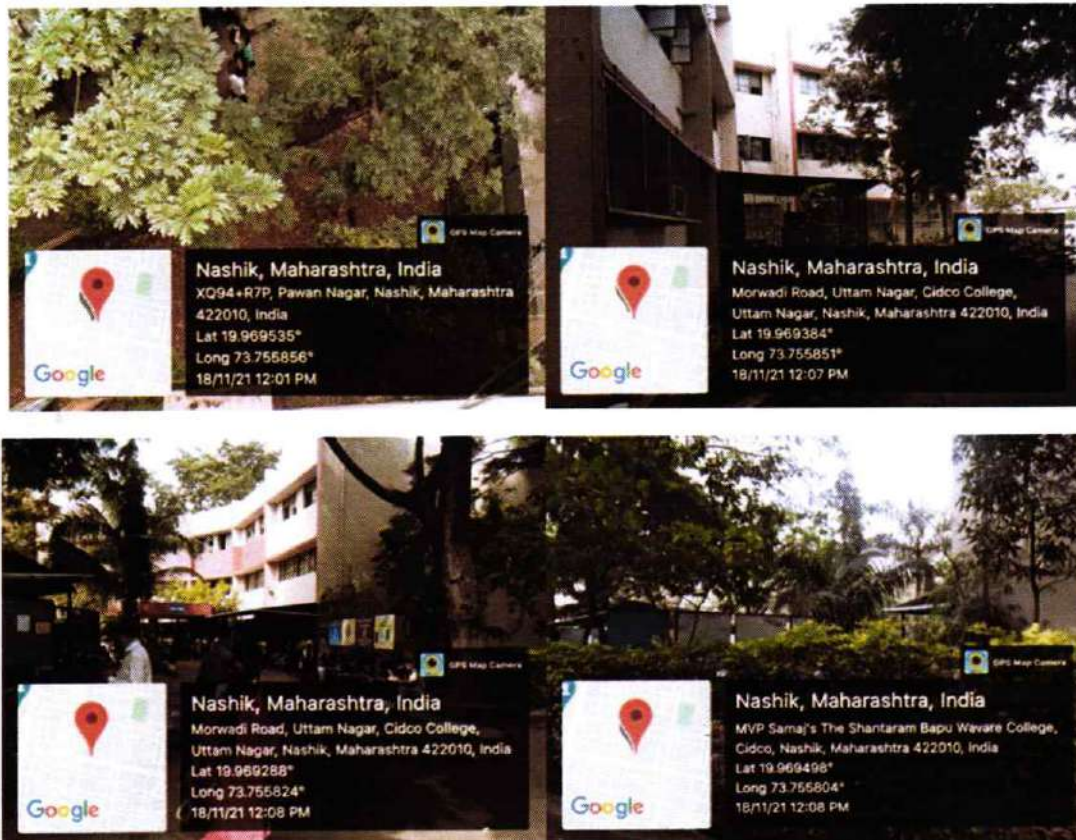


**MARATHA VIDYA PRASARAK SAMAJ'S**

**Karmaveer Shantarambapu Kondaji Wavare,  
Arts, Science and Commerce College, CIDCO, Nashik**

Affiliated to Savitribai Phule Pune University Pune , Id no PU/NS/ASC/047/1993  
NAAC reaccredited 'A' Grade with CGPA 3.20 ( 3<sup>rd</sup> cycle) Best College Award by S.P Pune University

## GREEN AUDIT REPORT



**2020-21**

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## **Executive Summary**

Rapid industrialization and urbanization has given rise to several environmental issues which may lead to ecological crisis. Keeping this in mind it becomes essential to adopt sustainable methods in our day to day activities. K.S.K.W. College CIDCO, Nasik believes in the same and is striving to address issues related to environmental problems.

The purpose of the green audit is to see that the practices followed in the campus comply with the green policy adopted by the institution. The methodology includes preparation and filling up questionnaire, physical inspection of the campus, observation and review of the documentation, data analysis, measurements and recommendations. It works on several facets like Water conservation, tree plantation, and Waste management, Alternative energy etc .The objectives of the audit are to evaluate as to which degree the departments comply with the same.

### **About the College**

M.V.P. Samaj's Karmaveer Shantarambapu Kondaji Wavare Arts, Science and Commerce College, Uttamnagar, CIDCO, Nashik (Maharashtra) is committed to provide higher educational opportunities to socially under-privileged and financially weaker sections of the society.

The College offers 21 UG and 09 PG courses affiliated to the Savitribai Phule Pune University, Pune. For the effective implementation of the curricula, a meticulous action plan is developed and deployed. Teaching plans are prepared and followed according to the time table. For the better teaching practices, teachers participate in workshops on Curriculum Restructuring, Training Programmes and Special Guidance on ICT based Teaching Technology. Eminent scholars are invited to enlighten the faculty as well as students. Career Oriented/ Placement Activity is conducted to orient students towards employment market. The College has established MOU's, Linkages and Collaborations with Industries, Research Bodies and other Universities for good academic prospectus. A good number of faculty members are working on Editorial Boards of various International Journals. Experienced faculty members participate in the procedure of curriculum design & development. Some faculty members are elected /nominated on BOS and other committees of S P Pune University, Pune.



## **Vision and Mission of the institution**

### **Vision**

To Empower Students with Innovative Life Skills and Social Values for Global Competency.

### **Mission**

Upholding the motto of MVP Samaj, 'Bahujan Hitaya, Bahujan Sukhaya', i.e. welfare and happiness of the masses, the College is committed to provide higher educational opportunities to the socially under-privileged and financially weak sections of the society and create dignity of labour and importance of self-reliance.

### **Objectives of the Study**

The main objective of the green audit is to promote the Environment Management and Conservation in the College Campus. The purpose of the audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards. The main objectives of carrying out Green Audit are:

- To introduce and make students aware of real concerns of environment and its sustainability.
- To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use on the campus.
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections require high cost.

To bring out a status report on environmental compliance

## **Methodology**

The methodology includes tools such as questionnaire, physical inspection, observation and review of documentation, interviewing key person's .The study covered the following areas

- Waste management
- Water management\*
- Energy conservation and Alternative energy\*
- Green area management
- Efforts for Carbon neutrality

\* For Water Management and Energy conservation and Alternative energy separate Water Audit and Energy Audit have been done.

## **Waste Generation and treatment**

This indicator addresses waste production and disposal of different wastes like paper, food, plastic, biodegradable waste, glass, dust etc. and recycling. Furthermore, solid waste often includes wasted material resources that could otherwise be channeled into better service through recycling, repair and reuse. Solid waste generation and management is a burning issue. Unscientific handling of solid waste can create threats to everyone. The survey focused on volume, type and current practice of solid waste management.

## **Observations**

The total solid waste collected in the campus is 30 kg/day. Food Waste and tree droppings are a major solid waste in the campus. The waste is segregated at source by providing separate dustbins for Bio-degradable and Non Bio-degradable waste. Segregation of chemical waste generated in laboratories is also practiced.

Important and confidential reports/ papers are sent for recycling to authorized recycler M/s. SainathRaddi Depot after completion of their preservation period. Complying with government rules plastic has been banned. In Polythene free campaign: The institute distributes bags made from used Sarees. Metal waste and wooden waste is stored and given to authorized scrap agents for further processing. Glass bottles generated in laboratories are reused. The food waste and tree droppings are sent to vermi-compost. Compost generated is used as organic fertilizer in the garden.

Paperless communication for administrative and academic purposes through e-media: - An

SMS Alert System for information dissemination about important dates and notices among the students and the staff is managed. Maximum use of G-suit account. Digital Display Board is used to display Notices for students. Single sided used papers are reused for writing and printing in all departments



### Vermi-composting

### E-Waste Generation

E-waste can be described as consumer and business electronic equipment that is near or at the end of its useful life. This makes up about 5% of all municipal solid waste worldwide but is much more hazardous than other waste because electronic components contain cadmium, lead, mercury and Polychlorinated biphenyls (PCBs) that can damage human health and the environment

### Observations

- 1) E-waste generated in the campus is very negligible. The college has total of More than 130 Computers & laptops and 35 printers, 06-xerox machine, Smart boards 02, LCD Projectors 11& 08-Scanner in working condition. The cartridges of printers are refilled and reused. Administration conducts the awareness programmes regarding E-waste Management with the help of various departments. The E- waste and defective item from computer laboratory is being stored properly.
- 2) At Mother Institute levele-waste is reduced, reused and recycled. Source reduction is achieved through installation of modular and upgradable type of instruments.

**Recovery and reuse** - The functional parts of electrical and electronic instruments were recovered and reused.

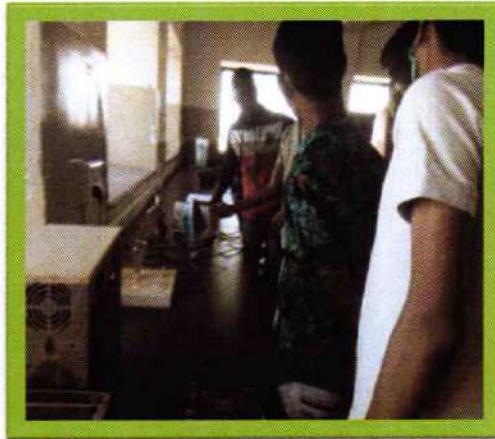
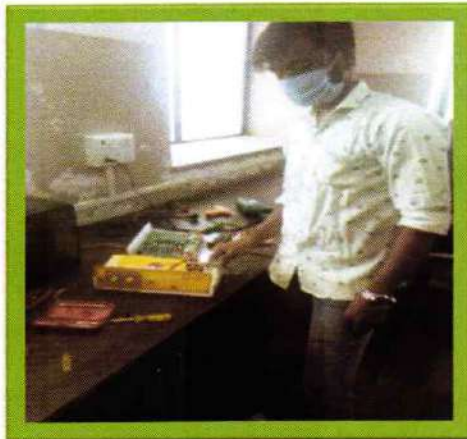
**Inventory management** - The e-waste is systematically recorded in registers with information about the source and reason for disposal.



**Production-process modification** - The e-waste is categorized based on their defects and processed for future use.

Electronic waste material such as Computer, Computer Peripherals, Printer, Scanner etc. are handed over to the following organization/department, where they are reused / recycled safely.

1. MVP Engineering college, Gangapur road, Nashik
2. MVP ITI Institute, Gangapur road, Nashik
3. Dept. of Physics & Electronics



### **Electric and Electronic appliance repairing**

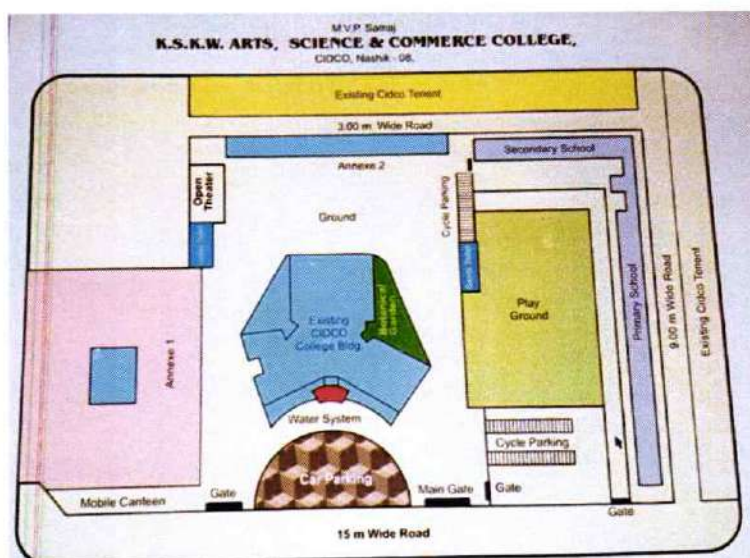
#### **Recommendations**

As far as possible electronics instruments from reputed companies should be purchased which have a better life- span.

#### **Land Use and Green area-**

This includes the available area under construction and open space available for plantation of plants, to ensure that the buildings conform to green standards. This also helps in ensuring that the Environmental Policy is enacted, enforced and reviewed using various environmental awareness programmes.

#### **Observations**



**Chart 1: showing Available area and area under construction.**

Facility	Rooms	Carpet Area	Facility	Rooms	Carpet Area
Large Class Rooms	16	1096.22 sq.mtr	Botanical Garden	01	595.24 sq.mtr
Small Class Rooms	11	520.78 sq.mtr	Vermin Culture Unit	01	9 x 15=135 sq.ft.
Departmental Class Rooms	12	183.55 sq.mtr	Virtual Classroom	01	21x19 =399 sq.ft.
UG Laboratories	09	672.84 sq.mtr	English language Lab	01	26.4x14.5 =382.80 sq.ft.
PG Laboratories (Chemistry)	01	31x41 =1271 sq.ft.	Psychology Lab	01	20x14 =280 sq.ft.
PG Lab. (Physics Dark Room)	01	15.3 x 12.5 = 191.25sq.ft.	YCMOU Centre	01	18x11 =198 sq.ft.
Computer Lab	01	25x25 =625sq.ft	NAAC Room	01	14x10 =140 sq.ft.
Library	01	45x29=1305 sq.ft.	Exam Room	01	Strong Room -12x20 = 240 sq.ft. Exam Section -12x20=240 sq. ft.
Administrative Block	01	103.42 sq.mtr	Staff Room (New Building)	02	25x21 =525 sq.ft.(New) 29x20=580 sq.ft.(Old)
Seminar Hall	01	318.47 sq.mtr	Staff & Guest Parking	01	1285 Sq. mtr.
Reading Rooms	03	1696.65 sq.ft.	Open Stage	01	47 x 19=893 sq.ft.
Utilities	08	11.25 sq.mtr	Store Room	02	13x18 =476 sq.ft.
Network Resource Centre	01	12.5x7.5=93.75 sq.ft.	IT Lab	01	21x22.8=478.80 sq.ft.
Day Care Centre	01	21x19 =399 sq.mtr	Open Space		1516Sq. mtr.

Location*	<b>Urban</b>
Campusareainsq.mts.	Total Area 3.6 acres
Builtupareainsq.mts.	<b>27625 sq.feet</b>

The campus attempts to maintain eco-friendly atmosphere on the campus; the number and variety of plant species helps to maintain eco-friendly ambience. Further, to create eco-



friendly awareness among the students college arranges special programmes through which the students get clear idea and importance of trees in life. There are several perennial plant species in the campus. College has undertaken various activities like plantation and beautification of campus through various drives.

**Efforts for Carbon neutrality:** The institute makes the student aware of the Carbon Credits, Carbon Neutrality; its advantages etc as a curriculum in the subject Environmental awareness in the second year programmes. Projects/assignments are also given to the students.

### List of Plants

Sr.No.	Name of Plant	Habit	Family
1.	<i>Acacia auriculiformis</i>	Tree	<i>Mimosaceae</i>
2.	<i>Adhatoda vasica</i>	Shrub	<i>Acanthaceae</i>
3.	<i>Aleuropteris farinosa</i>	Herb	<i>Pteridaceae</i>
4.	<i>Aloe vera</i>	Herb	<i>Liliaceae</i>
5.	<i>Alstonia scholaris</i>	Tree	<i>Apocynaceae</i>
6.	<i>Annona reticulata</i>	Shrub	<i>Annonaceae</i>
7.	<i>Anthocephalus cadamba</i>	Tree	<i>Rubiaceae</i>
8.	<i>Araucariacolumnaris</i>	Tree	<i>Aurocariaceae</i>
9.	<i>Asparagus racemosus</i>	Climber	<i>Asparagaceae</i>
10.	<i>Bauhinia purpurea</i>	Tree	<i>Caesalpiniceae</i>
11.	<i>Bauhinia variegata</i>	Tree	<i>Fabaceae</i>
12.	<i>Bougainvillea spectabilis</i>	Climber	<i>Nyctaginaceae</i>
13.	<i>Bryophyllum pinnatum</i>	Herb	<i>Crassuliaceae</i>
14.	<i>Caesalpinia pulcherrima</i>	Shrub	<i>Caesalpiniceae</i>
15.	<i>Callistemon lanceolatus</i>	Shrub	<i>Mimosaceae</i>
16.	<i>Carica papaya</i>	Herb	<i>Caricaceae</i>
17.	<i>Cassia fistula</i>	Tree	<i>Caesalpiniceae</i>
18.	<i>Casuarina equisetifolia</i>	Tree	<i>Casurinaceae</i>
19.	<i>Catharanthus roseus</i>	Herb	<i>Apocynaceae</i>
20.	<i>Centella asiatica</i>	Herb	<i>Apiaceae</i>
21.	<i>Cestrum nocturnum</i>	Climber	<i>Solanaceae</i>
22.	<i>Chlorophytum comosum</i>	Herb	<i>Liliaceae</i>
23.	<i>Chlorophytum glaucoides</i>	Herb	<i>Asparagaceae</i>
24.	<i>Cissus quadrangularis</i>	Climber	<i>Vitaceae</i>
25.	<i>Curcuma longa</i>	Herb	<i>Zingiberaceae</i>
26.	<i>Cymbopogon citratus</i>	Herb	<i>Poaceae</i>
27.	<i>Cyperus papyrus</i>	Herb	<i>Cyperaceae</i>

Sr.No.	Name of Plant	Habit	Family
28.	<i>Dalbergia sisso</i>	Tree	Papilionaceae
29.	<i>Delonix regia</i>	Tree	Caesalpiniceae
30.	<i>Grevillea robusta</i>	Tree	Proteaceae
31.	<i>Hamelia patens</i>	Shrub	Rubiaceae
32.	<i>Hibiscus rosa sinensis</i>	Herb	Malvaceae
33.	<i>Jacaranda mimosaeifolia</i>	Tree	Bignoniaceae
34.	<i>Kalanchoe sp.</i>	Herb	Crassulaceae
35.	<i>Madhuca longifolia</i>	Tree	Sapotaceae
36.	<i>Mangifera indica</i>	Tree	Anacardiaceae
37.	<i>Melia azedaracha</i>	Tree	Meliaceae
38.	<i>Millingtonia hortensis</i>	Tree	Bignoniaceae
39.	<i>Ocimum sanctum</i>	Herb	Lamiaceae
40.	<i>Parkia biglandulosa</i>	Tree	Mimosaceae
41.	<i>Phyllanthus emblica</i>	Tree	Phyllanthaceae
42.	<i>Piper longum</i>	Climber	Piperaceae
43.	<i>Pityrogrammacalomelanos</i>	Herb	Pteridaceae
44.	<i>Polialthia longifolia</i>	Tree	Annonaceae
45.	<i>Pongamia Pinnata</i>	Tree	Papilionaceae
46.	<i>Pteris vitata</i>	Herb	Pteridaceae
47.	<i>Punica granatum</i>	Shrub	Lythraceae
48.	<i>Putranjiva roxburghii</i>	Tree	Putranjivaceae
49.	<i>Roystonegia regia</i>	Tree	Arecaceae
50.	<i>Samania saman</i>	Tree	Mimosaceae
51.	<i>Stevia rebaudiana</i>	Herb	Asteraceae
52.	<i>Syzygiumcumini</i>	Tree	Myrtaceae
53.	<i>Tecoma stans</i>	Shrub	Bignoniaceae
54.	<i>Tectaria macrodonta</i>	Herb	Tectariaceae
55.	<i>Terminalia belerica</i>	Tree	Combretaceae
56.	<i>Terminalia chebula</i>	Tree	Combretaceae
57.	<i>Trachyspermum ammi</i>	Herb	Apiaceae





## Tree Plantation



### Environnemental Monitoring :

Environmental Awareness Course: This is compulsory course introduced by S.P Pune University, Pune for second year students for all faculties. Under this course students learn to be environmental friendly. They are made aware of

- 1) Renewable and Non-renewable energy sources
- 2) Energy conservation.
- 3) E-waste management.

**Air Monitoring:** Air quality in the academic institute is very important for health of the students, faculty and staff of the institute. The air pollution sources in the college campus are wind, pollen grains, natural dust, vehicular emissions, and laboratory fumes etc. The air pollutants monitored are Ozone, Carbon monoxide, Sulphur dioxide (SO<sub>2</sub>), Ammonia, Oxides of Nitrogen as NO<sub>2</sub>, Particulate Matter (PM) .

### Monitoring for :

#### Air Monitoring Report (Near Main Gate)

Air Quality	$\mu\text{g}/\text{m}^3$		
Pollutant	Min	Max	Avg
OZONE	9	15	12
CO	9	24	20
SO <sub>2</sub>	1	3	1
NH <sub>3</sub>	2	3	2
NO <sub>2</sub>	14	33	24
PM <sub>10</sub>	26	47	35

### Noise Environnement:

The noise levels measurements were carried out using Noise level meter.



Sr.No	Location	Minimum Reading In dB	Maximum Reading In dB	Limits
1.	Near Main Gate	27.5	38.4	75
2.	Near Back Gate	21.2	32.4	75

### Conclusions

There is significant environmental awareness amongst the faculty and students and initiatives taken by them are substantial. The installation of solar panels, paperless work system, composting and besides, environmental awareness course initiated by the administration shows how the campus is going to be a green. Few recommendations are added to curb the menace of waste management using eco-friendly and scientific techniques.


As part of green audit of campus, we carried out the environmental monitoring of campus which includes Noise level, Ventilation and Indoor Air quality of the class room. It was observed that Illumination and Ventilation is adequate considering natural light and air velocity present. Noise level in the campus is well within the limit.

### Action taken report -

Sr. No.	Recommendation of Green report (2019-2020)	Action taken/outcome (2020-2021)
1	A stand of tall trees should be planted near the front wall so as to reduce noise pollution	Due to lockdown this recommendation could not be implemented.
2	Observe No Vehicle Day to reduce Air Pollution.	As it was work from home, by default it became no vehicle days, but in the next academic year no vehicle day would be observed.

**Name and Signature of External Auditor**



  
**Principal**  
Karmyogi D.S. Patil  
College of Agriculture Nashik



  
**Coordinator**



**IQAC Coordinator**  
**Co-ordinator**  
**IQAC**

K.S.K.W Arts, Science and Commerce College  
CIDCO, Nashik-422008

  
**Principal**  
**PRINCIPAL**  
K.S.K.W. Arts, Sci. & Com. College  
CIDCO, Nashik-8.