

GREEN AUDIT REPORT

2020-2021

SIR K. P. COLLEGE OF COMMERCE



Coordinated By

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GREEN AUDIT REPORT(2020-21)

Of

SIR K. P. COLLEGE OF COMMERCE

Executive Summary

"Green is the prime colour of the world and that from which its loveliness arises."

A nation's growth starts from its educational institutions, where the ecology is thought as a prime factor of development associated with environment. A clean and healthy environment aids effective learning and provides a conducive learning environment. Indian educational institutes have become more sensitive to environmental factors and more concepts are being introduced to make them eco-friendly. On this background it becomes essential to adopt the system of the green campus for the institute which will lead for sustainable development. To preserve the environment within the campus, various viewpoints are applied, thereby addressing various environmental issues and promoting energy savings; recycle of waste, proper waste management, water reduction, water harvesting etc. The activities pursued by colleges can also create a variety of environmental impacts.

Environmental auditing is a process whereby an organization's environmental performance as well as environmental consciousnesses evaluated 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.

The audit process for Sir K. P. Commerce College, involved initial interviews with principal, IQAC members and other faculties to clarify policies, activities, and records. The collection of data was done through the questionnaire, review of records, observation of practices and observable outcomes. The purpose of this audit was to ensure that the practices followed in the campuses are in accordance with the green policy adopted by the institution. It works on several facets of Green Campus including water conservation, electricity conservation, tree plantation, waste management. Paperless work, mapping of biodiversity. With this in mind, the specific objectives of the audit are to evaluate the adequacy of the management control framework of environment sustainability as well as the degree to which the departments are in compliance with the applicable regulations, policies and standards.

We are happy to submit this green audit report to the Sir K. P. Commerce College authorities. It was observed that the management, Principal, IQAC committee, Campus Development Committee have put best of their efforts towards environment consciousness and are committed to continue to implement more such policies.

The present audit report was during the covid pandemic and the college conducted majority of its teaching in online mode. the energy usage, water usage, waste management, pollution check all were very negligible due to work and learn from home mode.

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Acknowledgement

Green Audit Assessment Team is thankful to the management especially chairman Shri Kamlesh Yagnik and Dr. Martina R. Norhona, principal of Sir K. P. College of Commerce College, Surat for entrusting process of Green Audit with Faculty of Civil Engineering, Sarvajani College of Engineering and Technology. We appreciate the cooperation extended in providing the information and necessary data's by the IQAC Team members during the entire process. We are thankful to the coordinator NAAC and other staff members who were actively involved while collecting the data and conducting field measurements. We would like to sincerely thank all the students, teaching and nonteaching staff for their kind cooperation during this survey.

Further, we hope this will boost the new generation to take care of Environment and propagate these views for many generations to come.

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1. INTRODUCTION

GENERAL

Earth is the only planet in the universe to sustain life because of its environment..Increasing population, civilization, industrialization and urbanization on the earth have brought this environment under the great pressure. Revolution in the field of science and technology to make the life more comfortable has made the environmental degradation as transboundary problem which has degraded air, water, soil and ecosystem as whole. Polluted environment leads to the adverse effects on the health of animals, plants and human being. Booming technological fight in the past decade has affected environment very adversely. Environmental issues have now become a world-wide concern and the focus of discussion in a variety of forums both at national and international levels. India is a developing country and adapting science and technology for its progression. There is improvement in the life style but on the other side it is creating exploitation of the environment. Luxurious life style is becoming environmental risk which may render it unsuitable for future generation.

Generally, every constituents of our society is responsible for environment crises and it is the duty of each of us to strive hard for its conservation. If we start with ourselves, it will definitely create a positive benchmark of the success in the journey of environment protection.

Green audit is the prime solution of this scenario. Green audit is the tool of management system used methodologically for protection and conservation of the environment. It is also used for the sustenance of the environment. The audit suggests different standard parameters, methods and projects for environmental protection. It can be adopted by any industry, organization, and institute and even by housing complex. The green audit is useful to detect and monitor sources of environment pollution and it emphasizes on management of all types of wastes, monitoring of energy consumption, monitoring of quality and quantity of water, monitoring of hazards, safety of stakeholders and even the management of disasters.

Background

Green Audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. Green auditing is a means of assessing environmental performance (Welford, 2002). It is a systematic, documented, periodic, and objective review by regulated entities of facility operations and practices related to meeting environmental requirements (EPA, 2003). The Green Audit aims to analyse environmental practices within and outside the college campus, which will have an impact on the eco-friendly ambience. It was initiated with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Audit. It is systematic examination of the interactions between any operation and its surroundings. This includes all emissions to air; land and water; legal constraints; the effects on the neighboring community; landscape and ecology; the public's perception of the operating company in the local area. Green audit does not stop all compliance with legislation. Rather it is a total strategic approach to the organizations activities

- Audit is a systematic approach.
- Audit is conducted objectively.
- Evidence obtained and evaluated by the auditor concern assertions about economic actions and events.
- Auditor ascertains the degree of correspondence between assertions and established criteria.

Context

The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory from the academic year 2016–17 onwards that all Higher Educational Institutions should submit an annual Green Audit Report. Green audit is assigned to the criteria 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of

Global warming through Carbon Footprint reduction measures. Green Audit focuses on the Carbon Footprint reduction measures being implemented by the College Management.

The auditing was done for the period of 2020-2021. The concept, structure, objectives, methodology, tools of analysis, time frame and cross-cutting themes of the audit are discussed below.

About the College

The establishment of the Sir K. P. College of Commerce was a land mark in the growth and development of the Sarvajanik Education Society. This new institution of higher education in Commerce, started by the Society in 1946, owed its existence to the generous donation of Rs.1,00,225/- by Sir Kikabhai Premchand, then president of the society, and to the untiring efforts of some of the leading members of the society. In 1945 Sir Kikabhai Premchand, who had been greatly impressed by the educational activities of the Society, made over to it 100 ordinary shares of the Fort Gloster Jute Manufacturing Co. Ltd. and 50 shares of the Hukamchand Jute Mills Ltd. of the market value of Rs.1,00,225/- on the conditions that the society should start a commerce college within two years, i.e. by June 1947, that the college should be named after the person named by Sir Kikabhai, that the amount of the donation should be utilized towards the construction of a building for the commerce college and that a minimum amount of Rs.3,00,000/- should be collected, by the society for starting and maintaining the college.

The Managing Committee of the Society accepted the donation and began to make arrangements for starting the Commerce College. An application was sent to the **University of Bombay in August 1945**. The Local Inquiry Committee appointed by the University for the purpose visited Surat on **23rd December 1945** and the **Senate of the University recommended to the Government in March 1946 the affiliation** of the Commerce College for teaching of courses leading upto Intermediate commerce class for two years.

The college was named as Sir K. P. College of Commerce and it **started working from June 20, 1946** with a **total number of 181 students**. Shri Y. D. Keskar, who had worked as professor of commerce for a number of years at the H. L. College of Commerce, Ahmedabad, was appointed the first Principal of the College.

To begin with the College was housed in a spacious bungalow in Athwa Lines opposite the Police Headquarters. **The opening ceremony of the College was performed by Hon'ble Shri B. G. Kher, Prime Minister, Government of Bombay, on July 3, 1946.**

The spacious plot situated to the north-east of the M.T.B. College was allotted to Sir K. P. College of Commerce for its building and on 22nd March 1948, the Sarvajanik Education Society got the foundation stone of the building laid by his Excellency Raja Sir Maharaj Singh, C. I. E., the Governor of Bombay and an old friend of Sir Kikabhai Premchand. Earlier on December 8, 1947, a Local Inquiry Committee, appointed by the Bombay University in connection with the application of the College for extension of affiliation, had visited the College and had recommended the extension of affiliation for teaching courses leading up to B.Com. Degree. So from June 1948, the College provided Instruction in all the three optional subjects at the Intermediate Commerce level and Advanced Accountancy and Auditing, Cotton Economics and Statistics at the B.Com. level. The introduction of the teaching of Statistics as an optional subject proved to be of great value to the students owing to the paucity of statisticians.

From the inception of the College efforts were made to arrange for the enrolment of the students in the University Officers Training Corps (U.O.T.C.) but as the scheme of the formation of the N.C.C. was being prepared, the efforts had not succeeded. In November 1948, however, the Government sanctioned one Company for Surat with two platoons for the M. T. B. College and one for the Commerce College as part of the Fourth Bombay Battalion. For the College, the prospect of having its own building materialized sooner than was expected. The construction work started during the summer vacation of 1949-50 and the building, which cost Rs.3,29,592.67, was ready by June 1951. The opening ceremony was performed by "Sheth Kasturbhai Lalbhai" on November 23, 1951. Moreover from the new academic year, the college was granted recognition to start M.Com. classes. On March 10, 1953, a full-size statue of Diwan Bahadur Gandhi was put up by the Society in front of the college. It was in grateful commemoration of Diwan Bahadur Gandhi's devoted services to the cause of Education and to the Co-operative movement in the District of which he was a pioneer.

Sir Kikabhai, after whom the College is named, was a great benefactor of the Society. He was the President of the Society for twenty years from 1933 to 1953. His vision of this office had brought additional prestige and dignity to the Society. His last act of benevolence towards the Society and the College was a donation of Rs.8000/- towards the Commerce College Hostel Building fund.

One of the essential needs of the college was a building for the College Hostel. The resident students were housed in the Green Gate, Bungalow which was a bit too far from the College. It was therefore felt necessary to build a Hostel which would be nearer the college premises. The Society had already purchased a plot of land in Athwa Lines, behind the M.T. B. College play-ground, for the Hostel Building. The foundation was laid in the first term of the year 1953-54. The building was ready for occupation in June 1955. It was built at a cost of Rs.1,95,000/- and was declared open by Shri Morarji Desai, Chief Minister, Bombay State, on June 19, 1955. The number of the students in the College was steadily growing from year to year, but in 1955 it registered a sharp rise and reached the figure 675. The College building, which was barely four years old, was soon found to be inadequate. Two new halls were put up on the first floor to meet the immediate need of more accommodation. Late Shri Atmaram Motiram Diwanji donated Rs.40,000/- for the purpose. There was similar extension in the courses of study available at the College. Banking and Co-operation were introduced at the B.Com. level and International Banking at the M.Com. level. Moreover Ph.D students were enrolled for Commerce and Economics. The N.C.C. training was introduced and a platoon under the command of Prof. M.T. Chiplonkar was formed in the College.

Thus by 1956, when it was ten years old, the College had progressed well in all respects. It imparted instruction upto B.Com. and M.Com. Degree levels with Accounting and Auditing, Statistics, Banking, Co-operation, Economics of Cotton, Higher Statistics, Advanced Account, Costing and Industrial Management as optional subjects. The strength of the students had reached the figure 700 and their performance in curricular and extra-curricular activities was equally brilliant. In the year 1958, the college got permanent affiliation with Gujarat University.

Though the College building had now sufficient number of class-rooms, it lacked adequate Library and Reading Room facilities for serious academic work. The University Grants Commission sanctioned a grant of Rs.49,000/- for the purpose and the Society put up a Library Extension Block, thus completing the western wing of the First Floor of the College Building at a cost of Rs.80,866/-. Another addition to the College building was the Non-Resident Students' Recreation Centre built at a total cost of Rs.88,460/-. For this also the University Grants Commission sanctioned a grant of Rs.35,000/-. The Centre now provides good accommodation to the students for recreation and refreshments, it was declared open on August 11, 1962 by Shri Hitendra K. Desai, Minister for Law and Revenue, Gujarat State.

It is a matter of great pride that the college has been granted, A "grade in NACC accreditation in 2014.

The College has successfully completed 73 years of its joining and has entered in the 74 year. The strength of the students is 3376. The college is the first, to introduce M.Com.(Honours)Integrated Program in the South Gujarat Region. The college also runs a Diploma Course in Tax Management.

The vision, mission and objectives are:

Vision

- Transforming lives through learning
- Nurturing an environment of intellectual excellence, inculcate values, identify talent and above all make good human beings.

Mission

- To foster a positive, supportive and safe learning environment that values pursuit of knowledge.
- To empower students with knowledge and skills and make them successful learners and responsible citizens.

Objectives:

- To establish a link between theoretical knowledge and its practical use.
- To help, guide and prepare our students for facing practical problems.

2. GREEN AUDITING

Objectives of green auditing

The objective of Green Auditing is its most imperative component. A well-defined objective enables the Green Auditor as well as his Team to conduct the auditing without deviating from the focus. Achievement in terms of Carbon Footprint reduction needs to be assessed in both quantitative and qualitative terms. 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 aware students to 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 of the campus.
- To establish a base line data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requiring high cost.
- To bring out a status report on environmental compliance.

Methodology

Green Audit during the year 2020-2021 was carried out only by interacting with NAAC committee members.

Pre-Audit

A pre-audit meeting was held at SCET, College to reinforce the scope and objectives of the audit. The discussions were held on the work and practicalities associated with the audit. The audit report for the year 2019-2020 was already given and the pre-audit for the year 2020-2021 was done to suggest the implications of some best practices and environmental awareness amongst the students.

Audit

The Green Audit coordinator visited the institution and interacted with the staff, principle and NAAC coordinator as the key focus was on concern of the students and employees health during the pandemic.

The students and faculties had online interaction during the pandemic and hence minimal resources of energy were used during the said period. Hence water auditing, energy auditing and carbon footprint is not considered. The campus was devoid of human footprint hence, waste generation and management and noise and air pollution was not studied.

The campus was visited and the various points were discussed with the Principal Madam **Dr. Martina R. Norhona** and with various members of IQAC and Campus Development committee. The list of the committee is as follows:

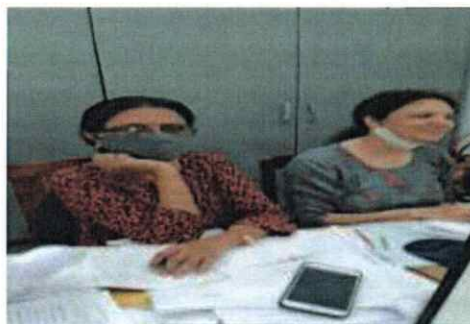
- 1 .P. P. Jariwala(Coordinator)
- 2 .S. P. Desai
3. S. O. Desai
4. B. V. Gheewala
5. S. M. Soni
6. R. R. Patel
7. B. J .Baldaniya
8. M. N. Mane

9. P. A. Kothari
10. A. F. Baxi(Mgt.Rep.)
11. R. A.G andhai(Non.TeachingRep.)
12. H. J. Desai (Non. Teaching Rep.)
13. Mr. Jigneshbhai Desai(Parents Rep.)
14. Mr. Rahul Kachariya (Students Rep.)
15. Mr. Ashvin Patel(Alumni Rep.)

CAMPUSDEVELOPMENTCOMMITTEE

1. Prof. M. T. Solanki(Convener)
2. Dr. M. B. Patel
3. Dr.B. J. Baldaniya
4. Dr.M. N. Mane

Few pictures of the interaction are shown below:



I. PHYSICAL DETAILS OF CAMPUS

The total Land area of the campus 16336.14 sqmt. Out of which the 1401.11 sqmt. Area is garden area. The details of the campus is as follows.

SIR K.P.COMMERCE COLLEGE			
Campus Area			
Date: 16.03.2021			
Sr.No.	Details	Survey no	Area in Sq.Mtr.
A	K.P Campus Area as per Property Card	1801	208.17
		1802	26.73
		1803	95.64
		1804	5914.98
		1805	10090.62
	Total Area as per Property Card	Total A	16336.14
B	Less: Existing Building Plinth Areas		
	K.P. Main building		1526.43
	Gymkhana bldg		366.8
	New water hut		7.06
	Sanitary block (N.C.C. Office)		34.4
	Canteen		16.73
	S.P.B. Vanija Vidhyabhavan		511.14
		Total B	2464.56
C	Garden Area		1401.11
		Total C	1401.11
D	Basket Ball Court Area		792
		Total D	792
E	Road & Parking Area		11678.47
		Total E (A-B-C-D)	11678.47

K.P. Ground Area - 24116.50 sq. mtr.



Principal
Sir K.P. College of Commerce
SURAT.

The Institution has adequate infrastructure and physical facilities for teaching-learning viz. classroom, laboratories, computing equipment, etc.

The Campus area of the college is 16,336.14 sq.meters. with three separate buildings i.e. Main Building with 18 classrooms, Principal's office, Strong Room, Administration office, IQAC Room, Peon Room, Girls Common Room, Computer Centre, two Staff Rooms, NCCO office 6 Battalion, Career Counselling Room, Store Rooms, Lift and Public address system. The Commerce Bhavan building has 3 classrooms, an A.C. Auditorium, one Conference Room, two Libraries with reading facility for students and staff, office of the librarian,

Cubicles for reading, Xerox machine, Research Laboratory, Commerce Laboratory Dr. Babasaheb Ambedkar Open University Office, Store room for BAOU and Lift.

The teaching learning facilities in the college areas follows:-

There are 18 classrooms in the main building and 3 class rooms in the Commerce Bhavan building with 16 LCD Projectors facility, 3 classrooms have smart board facility 25 Routers, amplifiers in every class, Wi-Fi facility. Each department has its own notice board on the corridors. Apart from that we have television on the ground floor for displaying notice or important events happening or to be happening.

Library is situated at Commerce Bhavan at two levels. At lower level there is a library and reading room consisting of separate reading 25 cubicles and 118 seating arrangements for students and at upper level facilities like printer, xerox machine, reading area and separate reference section, two newspaper stands and New arrival boards.

There are three laboratories i.e. Computer Centre with 25 computers, research laboratory with 10 computers and Commerce Laboratory with 25 computers.

There are two staff rooms with computers, Wi-Fi facility, Printer facility, separate male and female washrooms, Television and Magazine rack, Pantry with a water cooler, Fridge and oven facility,.

There is an Auditorium with 8 AC and with a seating capacity of 252, LCD Projector, screen and audio system. All Seminars, Conferences, and Cultural activities are conducted in this hall. There is a Conference hall with the round table sitting facility.

There are 25 computers in the Computer center LAN with Wifi facility. The college has internet connections of City Broadband having capacity of 75 SMC and Air link having capacity of 30 SMC and 25 routers in the main building and 4 routers in Commerce Bhavan for teachers and students. Gujarat gives tablets at a subsidized rate to first-year students of the college.

There is a girls' common room with 6 washrooms, sanitary pad incinerator, sanitary pad vending machine, a resting chair, 30 chairs and 3 big tables.

There are washrooms at each floor on Commerce Bhavan for girls and boys. There is one potable water tank on the campus and one cooler at Commerce Bhavan. The administrative office has a computer with Wifi facility and Office Superintendent Cabin. The entire campus is under CCTV surveillance. The College has its Website and Mobile Application to inform about various activities to students and other stakeholders.

There is a health center available for students and staff on the Sarvajanic Education Society campus. The hostel facility for boys and girls is also available for students.

Some of the facilities are compiled in table below

SR.NO	NAME OF FACILITY	NOS. AVAILABLE
1	Classroom	21
2	LCD Projector	16
3	Smart Boards	3
4	Library	2
5	Commerce Laboratory	1
6	Computer Centre	1
7	Research Laboratory	1
8	Auditorium	1
9	Conference Room	1
10	Staff rooms	2
11	Principal Office	1
12	IQAC	1
13	Career Guidance Cell	1
14	NCC Room	2
15	NSS Room	1
16	Girls Common Room	1
17	Medicinal Garden	1
18	Internet Facility	3 connections of 30 MBPS each + 1 connection 250 MBPS + 1 connection of 5 MBPS
19	Gymkhana Building	1
20	College Website	1
21	College Mobile Application	1
22	Campus Wifi System (Routers)	25
23	Hostel	2
24	Health Centre	1
25	CCTV Surveillance System	1
26	Grievance Redressal Cell	1
27	Parking Area for Girls	1
28	Parking Area for Boys	1
29	Drinking Water Facility	1
30	Canteen	1
31	Generator	1
32	Water Harvesting System	1

II. GREEN COVER AT CAMPUS

As mentioned earlier the college campus enjoys lush green view with 273 small, big, trees and creepers with bamboo green wall, mehandi, lawn, large playground, etc. The ground area is 24821.80 sq ft. Front side garden area is 30450 sq ft. The play ground is having fencing around it, to prevent trespassing and unauthorized used. The number and species of plants and trees are (nearly 53). The large trees have been labelled with their botanical names. The NSS volunteers have planted saplings every monsoon and taken care of them. The garden is maintained by Gayatri Nursery, Surat a private contractor. The water from bore well is used for gardening purpose. Pesticides and chemical fertilizers like urea, potash, etc. for the growth of the plants are used minimal and plants are grown with natural fertilizers. The flora and fauna of the college campus is recorded by the zoology dept. of Science College. The list of trees in the campus is described in the table below.

Table: List of trees in the Campus

SR.NO	NAME OF TREE IN ENGLISH	NAME OF TREE IN GUJARATI
1	Night Flowering Jasmin	પારિજાત
2	Sweet Basil	ડમરો
3	Peppermint	ફૂદીનો
4	Betel	નાગરવેલ
5	Gymnema sylvestre	મધુનાશીની
6	Vrindavan Basil	વૃંદાવન તુલસી
7	Pattharchatta	પત્થર ચટ્ટા
8	Holy Basil	તુલસીનો છોડ
9	Stevia	સ્ટીવિયા
10	Black Holy Basil	શ્યામ તુલસી
11	Abhatodavasic	અરડુંસી
12	Celery	સેલરી
13	Five Leaved Chaste Tree	નગોળ
14	Aniseed	વરિયાળી
15	Terminalia elliptica	સાજ
16	Akarkara	અકલગધા
17	Oregano	ઓરેગાનો
18	Tylophora Indica	દમવેલ
19	Thyme	થાઇમ

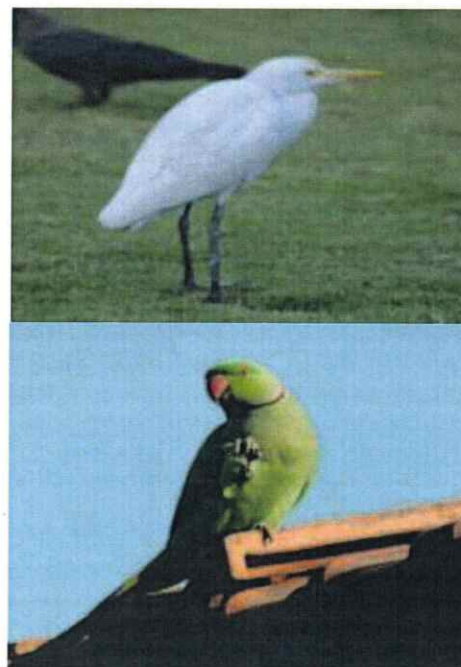
20	Blueberry	જાંબુડી
21	Conocarpus	કોનોકાર્પસ
22	Palm Tree	પામનુંઝાડ
23	Cycas tree	સાયકસ
24	MilletiaPinnata	કરંજ
25	Neem	લીમડો
26	Panthers	પેન્થર્સ
27	Hibiscus	જાસુદ
28	Moneyplant	મનીપ્લાન્ટ
29	Jack fruit	ફાઇસ
30	Ananta	અનંતા
31	GmelinaArborea	સેવન
32	Almond	બદામ
33	Spanish Cherry	બોરસલી
34	Ashoka Tree	આસોપાલવ
35	Cactus	નાગમણી
36	Calotropisgigantea	આંકડો
37	Crape Jasmin	ટગરી
38	Fig	અંજૂર
39	Pomegranate	દાડમ
40	Mango Tree	આંબાનુંઝાડ
41	Goose Barry	આમળા
42	Pineapple	અનાનસ
43	Papaya	પપૈયા
44	Drumstick	સરગવો
45	Guava	જમરૂખી
46	Paras	પારસ
47	Custard apple	સીતાફળ
48	Amomum	એલચો
49	Brahmi	બ્રાહ્મી
50	Giloy	ગીલોય
51	Damno	દમણો

52	Canna	કેના
53	Chilly	મરચી

No endangered species of plant are noted. In order to support best practices for water management ,sprinklers and tapes are used to water the garden and ground which saves water. For the environmental awareness, celebration of plantation week, awareness rallies, cleanliness campaign, demonstration of preparing compost pit and vermin-compost are conducted to preserve nature and environment. The bamboo green wall at the entrance, halcyon surrounding by large trees and a green playground, under tree canopy is created which adds beauty and clean air making the campus lush green. The chirping of birds at dawn and dusk provides liveliness to the campus. The bird feeders and water pots are hanged on some trees to attract birds and create a balance in flora and fauna.

The pictures of some birds dwelling and visiting the college are;

PICTURES OF SOME BIRDS IN CAMPUS





The pictures of green landscape and trees are seen in the picture of the campus.



III. WATER MANAGEMENT

College enjoys the prime location in the heart of the city with a stable and ventilated surrounding. The campus is wide enough to accommodate six institutes, where K. P. College of Commerce is one of its parts. The requirement of water is fulfilled by the Surat Municipal Corporation water supply. Soft & hard water for different purposes like-drinking, sanitation, sprinkling, mopping and gardening are used.

Water Stored as under:

- 1 Underground Tank with capacity of 25,000 Litre in front garden
- 3 Overhead Tank on main building terrace with 1000 litre. each
- 1 overhead tank on the terrace of commerce Bhavan with 2000 litre capacity
- 1 water tank in the pantry with 500 litre capacity

There is little scope for wastage of water, which causes water logging, marsh or mud which breed mosquitoes.

Water of the washrooms goes to the SMC drainage line and nowhere spreads outside. The incoming point of water is at the Main gate, from where two pipe lines of 2 inches each goes to the underground storage tank and one inch pipeline goes to the water hut. Normally 25000 to 30000 litre Water is given to the greenery every day, to the large playground by **water sprinklers** or to flower/ grassbeds /lawn through water tables. The Garden and lawns are maintained very well by a private contractor, Mr. Anand Kushwaha of Gayatri Nursery, Surat. They use a bit of fertilizers and pesticides to keep the plants healthy. They also use organic manure to keep the soil sound. The college does not have Science Laboratories that may use water; Water is used only as per requirement, so there is no question of gross wastage of water as such. However, we may suggest some IDEAS to save water that

- Splindklers could be installed to reduce the flow of water.
- In the sanitary blocks, Flush Tank or Push cock could be used in place of Flush cock to save water.
- Creation of awareness among users of water.

An average water charge of Rs.8650/-bimonthly is paid to the SMC, against the average use of 20000 litter of water. Water is not used for agriculture purpose.

There are 3 water coolers, each at library, staffroom, and water hut, which may use nearly 2000litres of water per day.

College has the following urinal/toilet blocks & taps:

1. 2.Nos of toilet blocks in staffroom:

2. 6 nos. of toilet blocks for girls students in ladies room
3. 30 girls and boys toilet blocks in Commerce Bhavan Building
4. 3nos.of toilet in Gymkhana building
5. Total consumption of water

There are no waterless toilets & water fountain in the college. Care to conserve water has been taken by placing the awareness slogans to save water, at the water hut. There is no college-bus facility, so no water is used to clean the bus. The overall water-management of campus was highly satisfactory.



Figure: rain water harvesting collection pipe and tank

IV. ENERGY MANAGEMENT

- Sun is the supreme Source of energy for the globe. The campus enjoys natural light and ventilation. The other sources of indoor use of energy for light and heat are electricity, electric stove, Microwave, LPG.
- The vehicles and generator use petrol, diesel and gas(CNG).
- 3 solar lights are installed on campus.
- The college plans to increase the use of solar energy step by step, as govt. is also promoting solar energy devices.
- The electricity is supplied by Torrent Power Limited in the Surat city. The bill for electricity consumption of last year was around Rs.32,006/-per month.

The other apparatus/appliance used are listed below:

Sr.	Items	Quantity
1.	2 tonA/C	12
2.	Xerox machine	2
3.	Computer	78
4.	Lights	LED-50tubelights-280 (LED bulbs & Tubes of 15watts)
5.	CeilingFan	268
6.	WallFan	7
7.	Pedestalfan	3
8.	Projectors	18
9.	SmartBoards	3
10.	Microwaveoven	1
11.	Refrigerator	02
12.	Printers	13
13.	CCTVCamera	44

The tungsten bulbs have been replaced by LED bulbs. The fans are used as per the need in the class rooms during teaching/ working hours (7:00 a.m. to 5:00 p.m.) on working days. But during this period the campus was closed due to pandemic. Slogans of “Save Electricity” under switch boards in the class are placed to encourage student to save energy and switch off lights and fans when not in use. There is one generator, but no inverter in college. No burning of firewood on the campus is noted so no smoke-emission. *It can be noted that due to pandemic lockdown and lectures conducted from home there was minimal use of energy.*

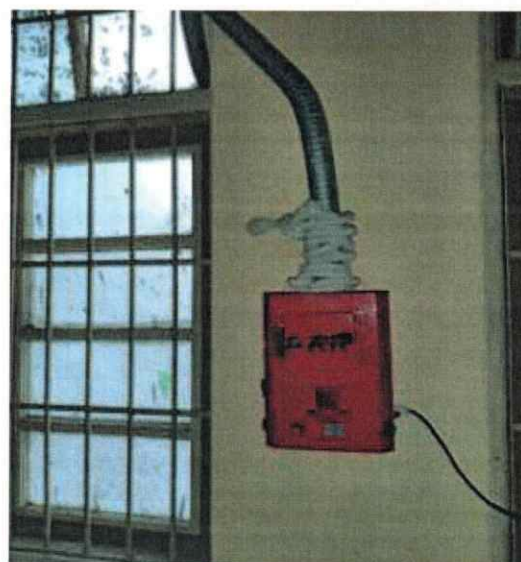
V. WASTE MANAGEMENT

SMC collects waste everyday by its vehicle. The dry waste (bio-degradable) especially dry leaves are generated up to 2 to 5 kg. per day which are collected separately and is managed in the composting pit at the backyard of the college and left to sundry and compost naturally. Picture of the compost pit is shown below for the reference. There was minimal other waste generated during the said period and was disposed off considering and following Covid-19 norms perfectly.



Whereas the plastic waste and canteen waste (minimal) was picked up by SMC waste collecting vehicle every day, hence no garbage is found scattered on the campus and under COVID norm. Canteen was closed and hence no canteen waste was generated. There are no scopes for medical waste or hazardous waste on campus.

Sanitary Pad Vending Machine is placed in the girl's common room and is disposed off by the machine/ incinerator. The pictures of both the vending machine and incinerator are shown below:



Thus, wastage generated, creates no environmental impact on land, air, ground or surface water.

There are dustbins are placed in all the lobbies of the college. The corridors are swiped and mopped twice a day by private agency workers. The campus is also cleaned every day to ensure utmost possible cleanliness. The entire campus is neat and clean, decorated by

educative and inspirational slogans.

Precautions are taken for use of paper, by minimizing its use and reusing it on both the sides. Rough work is done on the used paper. Office and staff has been given standing instruction and awareness for not to waste paper.

VI. CARBON FOOTPRINT

The college family comprises of nearly 3800 persons including both the student and staff. Due to Covid pandemic the work from home/ teaching and learning from home was adopted hence, there was minimal carbon foot print during the said period.

3. FURTHER SCOPE / RECOMMENDATION

- More Environment education/awareness should be imparted amongst students by organizing various seminars/ events and through effective boards.
- New green spots should be developed near parking area by planting trees as Miyawaki method.
- Solar panels can be used for power generation.
- Observe power saving day every year.
- College can calculate their carbon footprint.
- Establish water, waste and energy management systems.
- Encourage students and staff for vehicle pooling and use of mass transportation. This shall keep a check on their carbon emission.
- Establish a plastic free campus.
- Celebration of following days in the campus
 1. World water Day
 2. World Earth Day
 3. World Environment Day
 4. World Ozone Day