

GREEN AUDIT REPORT

2020 – 2021

15/03/2021

Of

*Jethiba K. Patel Arts College & B.A. Patel and D. B. Vyas Commerce
College, Chanasma*

Patan, Gujarat, India 384220



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CHAPTER – 1

INTRODUCTION

Profile of Jethiba K. Patel Arts College & B.A. Patel and D. B. Vyas Commerce College

Brief History –

Jethiba K. Patel Arts College & B.A. Patel and D. B. Vyas Commerce College in Ruppur is a small village situated on Chanasma- Patan road. It is 02 K.M. far from Chanasma town and 16 K.M. away from Patan district place. The major occupation of the village people is farming and animal husbandry. In the village, there is a beautiful ancient temple of Harsiddha Matajee (Goddess). Besides the temple, there is a large, ancient lake built by Maharaja Siddharaj Solanki. The primary school of Ruppur was awarded as a “Model school of Gujarat” in 1971 and as the “Best School” of Chanasma Taluka in 1993 under the M.L.L. Project.

A farmer son Padma Shree, Dr. Karshanbhai K. Patel, Chairman of “Nirma Ltd.”, the leading industrialist of India, has glorified the name of this Village at the world level. Dr. Patel has been honored by various prestigious awards by the State and Central Governments for his philanthropic activities and generous donation for social upliftment. A well-known “Nirma University” established by him in Ahmedabad has acquired a unique position in the world of education.

CHANASMA:

Chanasma, a distinguished taluka, falls in Patan district and it is on the north region of Gujarat State. Barring some industrial zone, the major population of town which represents almost all the communities, depends on agriculture and its produce. Chanasma’s origin can be traced by its literature and stone-inscriptions. There is Ahirvadi, Goliya, Vasundhra, Rani’s well, and Mochi’s well that witness the ancient history of Chanasma. It is considered that it has a thousand years’ outline as its history. In the ancient time, the village had ten groups of families belonging to various castes. It has arisen many families till now, during the course of time. The major member of families among the town population is of Kadava Patidar caste. The rest of them belong to various castes like Brahmin, Jain, Harijan, Sathwara and other classes. Some of the families have settled down abroad.

Chanasma has various academic institutions right from pre-primary to Higher and technical education. There are government Hospital, General Civil Hospital, and Maternity Home. There are also two public Dinning-halls, and various beautiful temples. One can also see an



animal home (Panjara pole) for the care of the old and discarded animals. The industry of steel safe and Cupboard manufacturing is a leading business of the town. There is a G.I.D.C., Market yard (APMC), and Nationalized/Co-operative banks in the town. The Famous Sun Temple, Modhera and historical places like Rani Ki Vav, Sahastra Ling Talav at Patan are quite close to Chanasma. A resident of chanasma, Shri ManibhaiPurushottamdas Patel had sacrificed his life for Nation during 'Quit India Movement of 1942' and became a martyr at Adas on 18th August, 1942.

To develop these rural areas in many respects "The Nima Memorial" Gram Vikas Trust, Ruppur-Chanasma had been established on 1stJanuary 1983 through an active effort of Padmshree Dr. Karasanbhai K. Patel, (Originally belongs to Ruppur) the Chairman- Nirma Limited and the Founder-Nirma University, Ahmedabad with the help of his able foresighted team. The Core objectives of the trust cover the fields of Education, Economy, Women development and Health awareness, along with removal of Evil Customs, establishing communal harmony to create healthy and awakened society through comprehensive development in this rural area. The Jethiba K. Patel Arts college and B.A. Patel and D.B. Vyas commerce college came into existence in 1989 to fulfil the Vision and Mission of the trust.

OUR VISSION -

VISION of the Institution:

1. Rural Upliftment through Higher Education
2. National Character Building
3. Youth Empowerment
4. Awareness of Global Trends
5. Comprehensive development of Students

OUR MISSION –

MISSION of the Institution:

1. Co-curricular Socio-Economic Development
2. Series of lectures by learned Experts, Coherent Activities
3. Active Participation in Education, Apt Training, Various Amenities
4. Extension Activities



5. Cognition of Contemporary Social, Economical, Political,
6. Educational, Scientific and Spiritual Global Trends

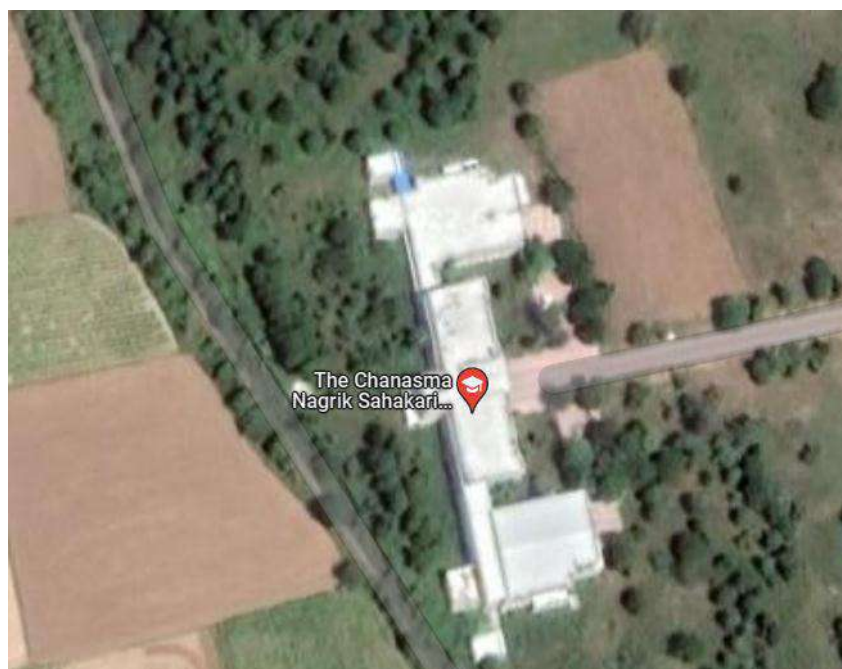
OUR GOAL –

GOALS of the Institution:

1. Educational and Socio- Economic Development
2. To build up the National Character of Students

OBJECTIVE –

- ✚ To understand moral values that guides a professional and to address moral issues in a profession.
- ✚ Justification of moral judgment concerning a profession.
- ✚ To nurture a set of beliefs, attitudes and habits that engineers are expected to display concerning morality.
- ✚ To introduce awareness on human values and professional ethics.
- ✚ To inculcate Moral Values and social responsibility.
- ✚ To follow the fundamental duties as per constitution of India



Arial view of college campus

Source – Google map

ADMINISTRATION AND MANAGEMENT –

The entire administration is managed by several bodies or unites. The college believe in democratic functioning of administration within the framework provided by H.N.G.



University and government of Gujarat. The members of the management, the principal, Heads of various faculties, office supervisor and convenors of college committees play vital role in the entire administration process.

"Nima Memorial" Gram Vikas Trust, Ruppur – Chanasma

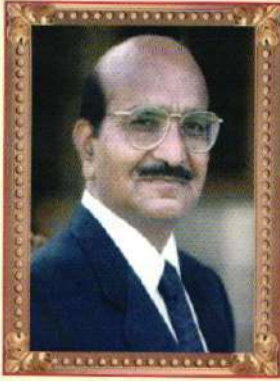
With a view to build the national character for the people of rural areas of Chanasma Taluka, the Gram Vikas Trust Ruppur – Chanasma was founded on 1-1-1983. The 'Nima Memorial Trust' donated Rs. 25,00,000(Twenty-Five Lakh Rs.) in 1994. So the Trust was named 'Nima Memorial' Gram Vikas Trust, Ruppur – Chanasma..

List of Members Management Committee(Trust Executive Committee)

Sr. No.	Name Of Trusty	Designation
1	<u>Dr.Karsanbhai K. Patel, Chairman,</u> <u>Nirma Ltd.</u>	President
2	Shri. Babubhai J. Patel	Vice President
3	Shri Narendrabhai K. Patel	Secretary
4	Shri. Mukeshbhai J. Patel	Secretary
5	Shri. Mahendrabhai A. Desai	Treasurer
6	Shri. Maganbhai D. Patel	Internal Auditor

Our President Dr. Karshanbhai K. Patel Awarded with "Padma Shri" By Government of India in 2010.





Dr. Karsanbhai K. Patel

President,

"Nima Memorial" Gram Vikas Trust, Ruppur - Chanasma.

Affiliated Institutions :

1. Shri Khodidas Vandas Patel Technical Institute, Chanasma - (Estd. on 25/8/1985)
2. The Chanasma Nagarik Sahkari Bank Arts & B.A. Patel & D.B. Vyas Commerce College, Chanasma - (Estd. on 15/6/1989)
3. Shri Khodidas Vandas Patel Industrial Training Institute, Chanasma - (Estd. on 01/8/1990)

DATE OF BIRTH : 07/01/1944

" THE NAME IS THE IDENTITY"

- ❖ Isn't the name enough for the Introduction of this towering personality of an Internationally eminent entrepreneur ?
 - ❖ 'The Living Institution'.
- Industry and Perseverance Personified.

THE MAN

Dr. K.K. Patel, son of a culturally elite farmer family of Ruppur Village, Chanasma Taluka, Patan District of North Gujarat who now belongs to the world.

THE VISION

Dr. K.K. Patel's vision of potentiality in business as well as market gave him an ample strength to compete in the field of an Industrial world which resulted into the establishment of a huge enterprise called 'NIRMA INDUSTRY', which won him a high place in the Industrial world of modern India.

THE MISSION

Dr. K.K. Patel devoted all his talents and energy to place Gujarat on the Zenith of International achievement not only through industrial progress but also with active contribution in the educational fields like Technology, Management, and Pharmacy. He made an invaluable, incomparable contribution by establishing many Educational institutions... Nirma Education & Research Foundation (NERF - 1994) was the first big step towards it, followed by the famous, one and only, 'NIRMA UNIVERSITY OF SCIENCE & TECHNOLOGY' Ahmedabad(2003).... a modern temple of learning.

Dr. K.K. Patel always emphasized Quality Education for an overall development of society and advocated preference to Girls' education.

THE INNOVATION

- ❖ Being an innovator, not only in Industrial but also in social and Educational spheres, Dr. K.K. Patel does possess a dynamic personality with outstanding understanding of 'Human Nature'.



- ❖ Judging standards, trends and values, Dr. K.K. Patel is always ambitious enough to face any Challenge boldly, with perfect 'time management.'
- ❖ The greatest quality, Dr. K.K. Patel imbibes, is the philosophy of 'Self-Reliance'.

The achievements

'Words are hollow, if there's no essence in them'

Many are the proofs for the fame of Dr. K.K. Patel's unique personality.

To enumerate a few....

- ❖ **'Udyog Ratna'** - Awarded by Federation of Association of small-scale Industries of Gujarat.
- ❖ **'Outstanding Industrialist of the Eighties' (1990)** - Awarded by Gujarat Chamber of Commerce and Industry, Ahmedabad.
- ❖ **'Gujarat Businessman Award' (1998)** - Given by Gujarat Chamber of Commerce and Industry, Ahmedabad.
- ❖ **'Excellence In Corporate Governance Award'** - Given by Rotary International District-2000.
- ❖ **'Honorary Doctorate Degree' (2001)** - Awarded by Florida Atlantic University, Florida, USA.
- ❖ **'Patidar-Ratna Award' (2005)**
- ❖ **'Life-Time Businessman Achievement Award (2006)** - Given by Ernest and Young.
- ❖ **'Patidar Shiromani Award' (2006)** - Given by World Patidar Federation.

The positions Held

- ❖ Chairman, 'Nirma Limited' - a leading industrial house.
- ❖ Chairman, Nirma Education & Research Foundation
- ❖ President, Nirma University of Science & Technology.
- ❖ President, 'Nirma Memorial' Gram Vikas Trust, Ruppur-chanasma.

Quotation

"I don't want to be number two in anything"

'Business India'

August 11 to 24, 1997

Page - 110.



'Nima Memorial' Gram Vikas Trust, Ruppur - Chanasma.

Established : 1-1-1983 Regd No : E - 5210 Ahmedabad Date : 16/7/1983

Regd Office : Nirma House, Ashram Road, Ahmedabad.

Head Office : College Building, Chanasma - 384220.

Ph. No. :- 222121, 222323 (02734)

With a view to build the national character for the people of rural areas of Chanasma Taluka, the Gram Vikas Trust Ruppur - Chanasma was founded on 1-1-1983. The 'Nima Memorial Trust' donated Rs. 25,00,000 in 1994. So the Trust was named 'Nima Memorial' Gram Vikas Trust, Ruppur - Chanasma.

OBJECTIVES :- The main objective of the Trust shall be the development of Ruppur and surrounding villages, such as educational development, economical development, social development, Health development, women development, removal of evil customs and systems by establishing communal harmony to create healthy and awakened society to build the national character, whose detailed outlines are as under :-

(A) EDUCATIONAL DEVELOPMENT :- For every kind of education such as Balmandir, Primary education, Women education, Technical and Technological education to create and manage educational institutions and to provide scholarships to brilliant students and to encourage them for higher studies.

(B) ECONOMICAL DEVELOPMENT :- To build suitable industries, workshop, Godown etc. for villagers, agricultural development and research to promote agriculture and create employment and to make research, give training and to conduct Home Industries and Women Industries.

(C) SOCIAL DEVELOPMENT :- To remove long established evil habits and wrong customs among villagers, to arrange mass marriages (Samuh Lagna) to create atmosphere of national Character and communal harmony and to build up healthy and awakened society for social sense by arranging lectures, seminars and exhibitions.

(D) HEALTH DEVELOPMENT :- To plan Schemes that will improve general health of villagers, to make attempts to remove infectious diseases and to make relative researches and to arrange various health-camps with the help of panel of doctors for village health such as Eye camp, Tooth Camp, etc. for general health and body welfare activities for villagers.

(E) NATIONAL CHARACTER :- By providing early national character building facilities to children, to raise all religion sympathy and to remove untouchability differences between different castes, to awaken national spirit by arranging suitable programmes, seminars, exhibitions etc. for rebuilding healthy and patriotic society.

'The' Nima Memorial 'Gram Vikas Trust decided to set up college and technical institute for the students of Chanasma, Sami and Harij Talukas. The Trust runs various institutes in a large 31 Acres land campus like.....

COURSES OFFERED BY COLLEGE –

Sr No.	Name of the course	Principal subjects	Subsidiary subjects
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1	Bachelor of Arts UG	Economics	Cooperation
		Gujarati	Sociology
		Home Science	-
		Sanskrit	-
2	Bachelor of Commerce UG	Advance Accountancy	Secretarial practice
			Computer Application
3	Master of Arts - PG	Economics	-
		Gujarati	-
4	Master of Commerce - PG	Advance Accountancy	-

The College undertakes teaching in arts and commerce faculty upto post graduation level and also undertakes following certificates and diploma courses

TEACHING LEARNING AND EVALUATION

The IQAC of the college focuses on the quality of teaching-learning and through it, new techniques in teaching process and structural reforms are suggested and introduced. The admission process is transparent in congregation with HNG University. College maintains reservation policy of state government. Students are given prospectus at the time of admission which contains detailed information about various subjects offered by the institution under CBCS system, co-curricular activities, NSS, NCC, Sports, add-on courses and other essential information. In the orientation programme, students are informed with college activities such as academic as well as co-curricular. Most of the faculties have been awarded the degree of Ph.D. All the classrooms are well equipped with LCD projector acrylic boards, podium, interactive penal board, HOP, visualize and 3 smart classrooms are also available in the college. Facility for the teaching and learning process in the staff room includes internet facility, LCD Projector, laptop, CDs. Students are encouraged to attend SANDHAN, a live teaching programme of the state government. Under CPE scheme, several workshops and seminar are organized by the college. Weekly tests and book review are compulsory as a part of continuous evaluation

Sr. No.	Certificate Courses	Diploma Courses
1	CCC – BAOU	DMCH
2	Food and Nutrition	DVHW
3	Computer science	DCH



4	Career and technical education	DACA
5	Environmental studies	DSL
6	CMT	PGDMAD
7	CCMB	PGDCS
8	CCSE	PGDCL
9	CYS	PGDCA
10	CIN	DFD

The student and faculty strength of the college is listed below:

Sr. No.	Year	Number of students enrolled in the institution	Number of full-time teachers in institution
1	2020 – 2021	1447	17
2	2019 – 2020	1166	16
3	2018 – 2019	979	16
4	2017 – 2018	862	17
5	2016 - 2017	1056	16

THE COLLEGE HAS FOLLOWING FACILITIES AND INFRASTRUCTURE

1. Main college building
2. Principal Office
3. Administrative office
4. Teaching Staff Room
5. IQAC
6. IT infrastructure
7. Seminar / Conference Hall
8. Parking
9. Landscape
10. Garden
11. Central library
12. Digital Education Learning Laboratory – DELL
13. Career Guidance UDISHA – Placement cell
14. NSS Office
15. NCC Office
16. Public Addressing system
17. CCTV Surveillance System room
18. Xerox/photo copier room



19. Computer laboratories
20. Home science laboratories
21. Grievance redressal cell
22. Women development cell
23. Counseling and career guidance placement cell
24. Anti – Ragging cell



Photo – College Main Building

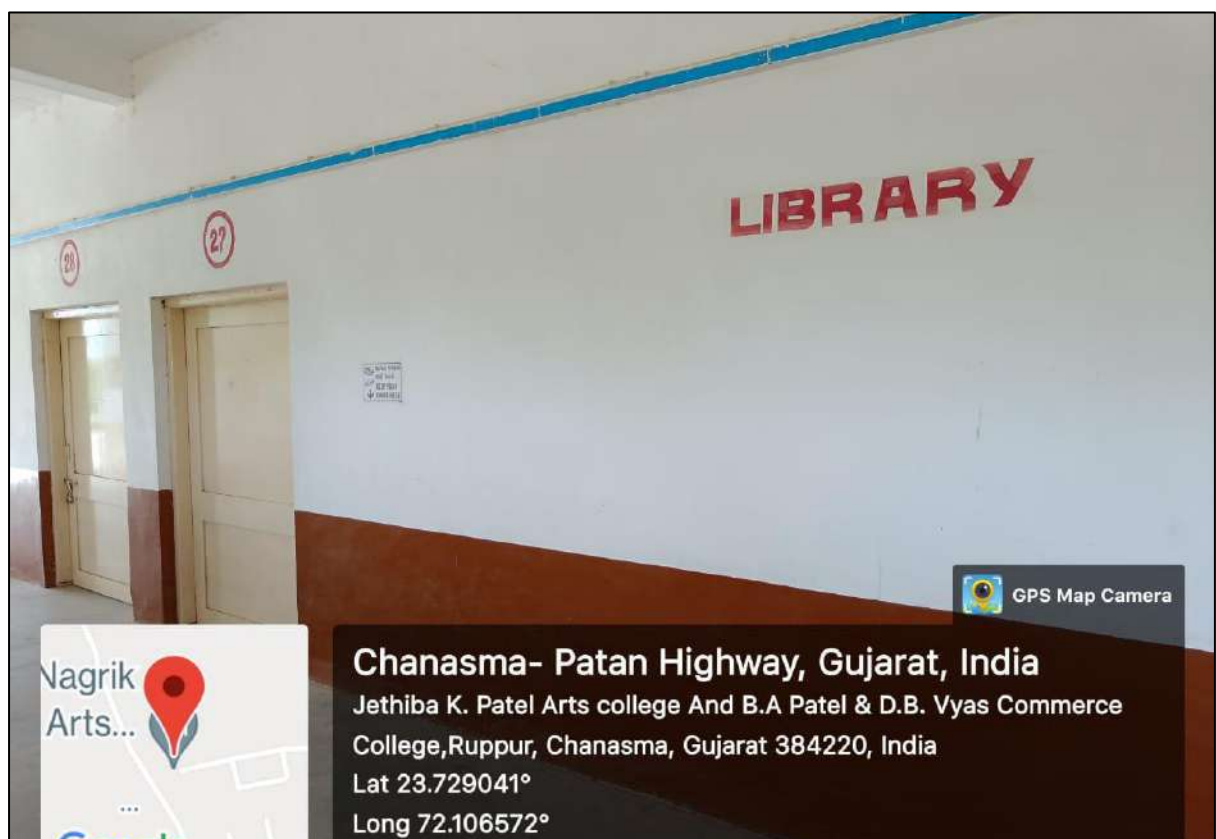


Photo – College Library



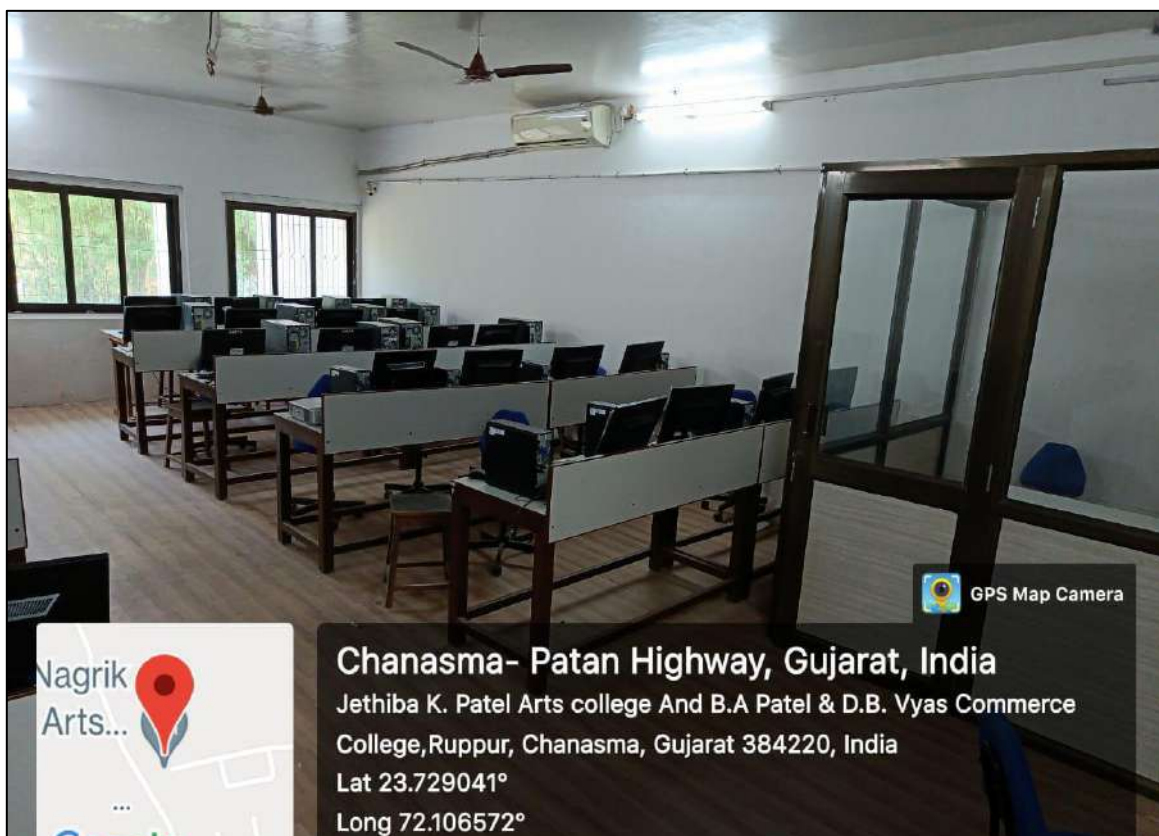


Photo – Computer Laboratory



Photo – Seminar Hall



Photo – Principal office



Photo – Laboratory



Photo – Gymnasium



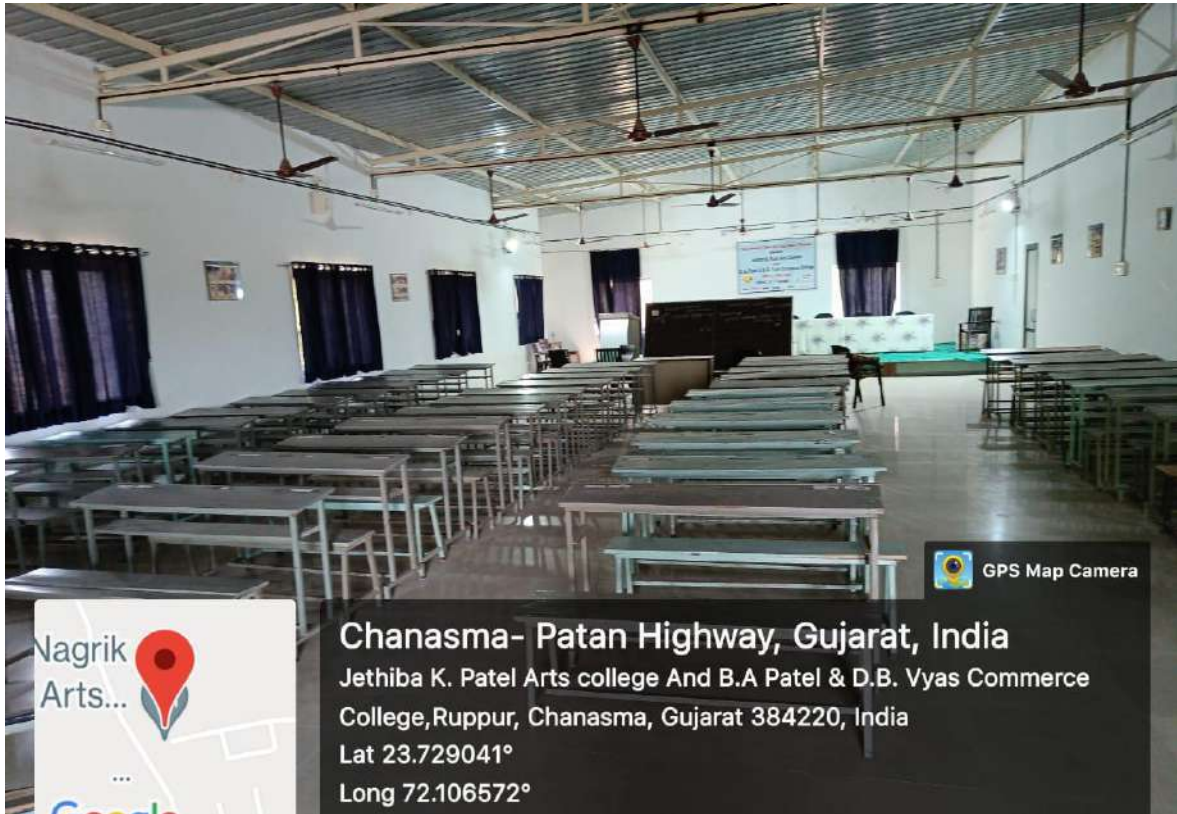




Photo – Conference Hall

 College Code - 277 D.P. Code - 036 Zone Code - 093 "Nima Memorial" Gram Vikas Trust, Ruppur - Chanasma Sanchalit Jethiba K. Patel Arts College & B. A. Patel and D. B. Vyas Commerce College Ruppur - Chanasma Tele-fax : (02734) 222323 Email : chinscoll@gmail.com Website : www.jkpatelco.org		
4.1.2: The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga centre etc.		
4.1.2 FACILITIES FOR SPORTS AND CULTURAL ACTIVITIES AVAILABLE IN INSTITUTION		
Sr No	Facility	No
1	Out-door Play ground	
	1 Cricket	01
	2 Foot boll	01
	3 Volley ball	02
	4 Basket ball	01
	5 Soft ball	01
	6 Hand ball	01
	7 Net ball	01
	8 Kabaddy	02
	9 Ball badminton	02
	10 Kho-Kho	02
2	In-door Play	
	1. Table-Tennis	√
	2. Chess	√
	3. Carom	√
	4. Cards	√
3	Indoor Gymnasium	01
4	Outdoor Gym (Garden Gym)	01
5	Sports Office	01
6	Seminar Hall/Auditorium	01
7	Multiple Use Stage for Cultural Activities	01
8	NSS Office	01
9	NCC Office	01
10	Various Instruments for Cultural Activities	√


 (Dr. R. N. Desai)
 Principal
 Jethiba K. Patel Arts College & B. A. Patel and D. B. Vyas Commerce College, Ruppur - Chanasma

RESEARCH, CONSULTANCY AND EXTENSION

The institution is promoting research and consultancy throughout the year. The college has local research committee comprising of five members from various subjects under the coordinators. The college has established a research centre, with well equipment and necessary research related books and journals. The faculties have completed several research projects under CPE scheme and more than 11 books and more than 31 research articles have been published in 2008 – 2013 with ISBN number by the institute during the academic year of 2012-13. Along with the principal, four faculties are recognized as Ph.D. guides. Ramp facility and priority in book issue is provided to physically challenged students. Besides, most of the faculty members have been published their research books.

STUDENTS SUPPORT AND PROGRESSION

- ✚ Under the poor student relief fund, those students who are really poor and do not get any kind of government scholarship, the college has paid their admission fees of the particular semester.
- ✚ The college also provides reading and study material to the economically challenged and weaker section students.
- ✚ In order to increase employability, college provides special coaching and guidance to the students under career counseling cell and Udisha.
- ✚ With a view of paying attention to the complaint of the students, various committees like the Students Council, Students Grievance Redressal Cell and Woman Cell have been formed.
- ✚ First Aid Box is available in the college for health-related problems.
- ✚ Book Bank facility is also provided by college library.
- ✚ Every year Thalassemia test is done by the college by paying only Rs. 100/- in association with India Red Cross Society.
- ✚ Health cards are issued in collaboration with Jivandhara Hospital.
- ✚ To aware the girl students an expert lecture on gynecological problems is organized.

GOVERNANCE, LEADERSHIP AND MANAGEMENT

The management remains present in various programmes and seminars organized by college. The management also sponsors the faculty to participate in national and international gatherings. Self-appraisal and academic performance of the staff members is also carried out every year and maintained.

INNOVATIONS AND BEST PRACTICES

- ✚ Every year in the beginning of academic year, the college celebrates Environment Day by planting many trees in the college campus and other surrounding areas.
- ✚ CC TV camera also helps in watching overall activities of the college
- ✚ With the assistance from UGC, the college has Career Counselling Centre to provide career and job-related information to the students.
- ✚ College has Udisha/Placement Cell and entry in service programmes to organize many workshops and seminars as well as to provide coaching and reading material to the students registered under these programmes.



- ✚ Free wi-fi, xerox facility with duplicator, generator with 40 KV, parking, scanner printer, CCTV camera system with DVR also. Even regular maintenance is done with the help of UGC.

CHAPTER – 2

PER – AUDIT STAGE;



Concept

The term environmental audit or green audit means differently to different people. Some organization believe that an environmental audit address only environment matter, whereas others used 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 Chamber of Commerce – ICC in its publication of Environmental Auditing in 1989. The ICC defines Environmental Auditing as;

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

The European commission, in its proposed regulation on environmental auditing, has also adopted the ICC definition of Environmental audit.

SCOPE AND GOALS OF GREEN AUDITING

A clean and healthy environment aids in effective learning and provides a conducive learning environment. There are various efforts around the world to address environmental education issues. Green Audit is the most efficient and ecological way to manage environmental problems. Green audit means assessing environmental performance. It is a systematic, documented, periodic, and objective review by regulated entities of facility operations and practices related to meeting environmental requirements. It is otherwise the 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 neighbouring 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. Nor is it a 'green washing' public relations exercise. Rather it is a total strategic approach to the organization's activities. It is a kind of professional care which is the responsibility of each individual who is the part of economic, financial, social, environmental factor. It is necessary to conduct green audit in college campus because students become aware of the green audit, its advantages to save the planet and they become good citizen of our country.



A very simple indigenized system has been devised to monitor the environmental performance of Jethiba K. Patel Arts College & B.A. Patel and D. B. Vyas Commerce College, Chanasma It comes with a series of questions to be answered on a regular basis. This innovative scheme is user friendly and totally voluntary. The aim of this is to help the institution to set environmental examples for the community, and to educate the young learners. Thus, Green audit becomes necessary at the college level.

OBJECTIVES OF GREEN AUDIT

- ✚ To examine the current practices, which can impact on environment such as of resource utilization, waste management etc.
- ✚ To identify and analyse significant environmental issues.
- ✚ Setup goal, vision, and mission for green practices in campus.
- ✚ Establish and implement Environment Management in various departments.
- ✚ Continuous assessment for betterment in performance in green

BENEFITS OF GREEN AUDIT TO EDUCATIONAL INSTITUTIONS

There are many advantages of green audit to an Educational Institute:

- ✚ It would help to protect the environment in and around the campus.
- ✚ Recognize the cost saving methods through waste minimization and energy conservation.
- ✚ Empower the organization to frame a better environmental performance.
- ✚ It portrays good image of institution through its clean and green campus.

Finally, it will help to build positive impression for through green initiatives the upcoming NAAC visit

OBJECTIVE 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

TARGET AREAS OF GREEN AUDITING

Green audit forms part of a resource management process. Although they are individual events, the real value of green audits is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or changeover time. Eco-campus concept mainly focuses on the efficient use of energy and water, to minimize waste generation or pollution and also economic efficiency. All these indicators are assessed in process of green auditing of educational institute. Eco-campus focuses on the reduction of contribution to emissions, procures a cost effective and secure supply of energy, encourages and enhances energy use conservation, promotes personal action, reduce the institute's energy and water consumption, reduce wastes to landfill, and integrate environmental considerations into all contracts and services considered to have significant environmental impacts. Target areas included in this green auditing are water, energy, waste, green campus and carbon footprint.

A) AUDITING FOR WATER MANAGEMENT

Water is a natural resource; all living matters depend on water. While freely available in many natural environments, in human settlements potable water is less readily available. We need to use water wisely to ensure that drinkable water is available for all, now and in the future. A small drip from a leaky tap can waste more than 180 litres of water to a day; that is a lot of water to waste - enough to flush the toilet eight times. Aquifer depletion and water contamination are taking place at unprecedented rates. It is therefore essential that any environmentally responsible institution should examine its water use practices. Water auditing is conducted for the evaluation of facilities of raw water intake and determining the facilities for water treatment and reuse. The concerned auditor investigates the relevant method that can be adopted and implemented to balance the demand and supply of water. It is therefore essential that any environmentally responsible institution examine its water use practices.

B) AUDITING FOR ENERGY MANAGEMENT

Energy cannot be seen, but we know it is there because we can see its effects in the forms of heat, light and power. This indicator addresses energy consumption, energy



sources, energy monitoring, lighting, appliances, and vehicles. Energy use is clearly an important aspect of campus sustainability and thus requires no explanation for its inclusion in the assessment. Energy auditing deals with the conservation and methods to reduce its consumption related to environmental degradation. It is therefore essential that any environmentally responsible institution examine its energy use practices.

C) AUDITING FOR WASTE MANAGEMENT

Pollution from waste is aesthetically unpleasing and results in large amounts of litter in our communities which can cause health problems. Plastic bags and discarded ropes and strings can be very dangerous to birds and other animals. This indicator addresses waste production and disposal, plastic waste, paper waste, food waste, and recycling. Solid waste can be divided into two categories: general waste and hazardous waste. General wastes include what is usually thrown away in homes and schools such as garbage, paper, tins and glass bottles. Hazardous waste is waste that is likely to be a threat to health or the environment like cleaning chemicals and petrol. Unscientific landfills may contain harmful contaminants that leach into soil and water supplies, and produce greenhouse gases contributing to global climate change. Furthermore, solid waste often includes wasted material resources that could otherwise be channelled into better service through recycling, repair, and reuse. Thus, the minimization of solid waste is essential to a sustainable college. The auditor diagnoses the prevailing waste disposal policies and suggests the best way to combat the problems. It is therefore essential that any environmentally responsible institution examine its waste processing practices.





STATEMENT OF EXPENDITURE

ON GREEN INITIATIVE AND WASTE MANAGEMENT EXCLUDING SALARY COMPOUND

Year	Details	Expenditure done by		
		College	Management	Total
2015-16	Campus Cleaning	2000	----	2000
	Garden Maintenance	36540	----	36540
	Fencing	----	----	----
	Total	38540	----	38540
2016-17	Campus Cleaning	2600	----	2600
	Garden Maintenance	2200	----	2200
	Fencing	----	----	----
	Total	4800	----	4800
2017-18	Campus Cleaning	9500	----	9500
	Building Maintenance	----	1,02,595	1,02,595
	Garden Maintenance	----	----	----
	Campus Development	----	73,000	73,000
	Fencing	----	----	----
	Total	9500	1,75,595	1,85,095
2018-19	Campus Cleaning	5305	----	5305
	Building Maintenance	----	42,000	42,000
	Garden Maintenance	3930	----	3930
	Campus Development	----	19,000	19,000
	Fencing	43095	----	43095
	Total	52330	61,000	1,13,330
2019-20	Campus Cleaning	12990	----	12990
	Building Maintenance	----	4,30,754	4,30,754
	Garden Maintenance	600	----	600
	Campus Development	----	10,900	10,900
	Fencing	----	----	----
	Total	13590	4,41,654	4,55,244
2020-21	Campus Cleaning	--	----	---
	Building Maintenance	----	4,30,794	4,30,794
	Garden Maintenance	260	----	260
	Campus Development	----	8000	8000
	Fencing	----	----	----
	Total	260	4,38,794	4,39,054

(Dr. R. N. Desai)
Principal
Jethiba K. Patel Arts College &
B. A. Patel and D. B. Vyas Commerce
College, Ruppur - Chanasma

D) AUDITING FOR GREEN CAMPUS MANAGEMENT

Unfortunately, biodiversity is facing serious threats from habitat loss, pollution, over consumption and invasive species. Species are disappearing at an alarming rate and each loss affects nature's delicate balance and our quality of life. Without this variability in the living world, ecological systems and functions would break down, with detrimental consequences for all forms of life. Newly planted and existing trees



decrease the amount of carbon dioxide in the atmosphere. Trees play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. In one year, a single mature tree will absorb up to 48 pounds (4.535×10^{-3} tones) of carbon dioxide from the atmosphere, and release it as oxygen. The amount of oxygen that a single tree produces is enough to provide one day's supply of oxygen for people. So while you are busy studying and working on earning those good grades, all the trees on campus are also working hard to make the air cleaner for us. Trees can impact one mental health as well; studies have shown that trees greatly reduce stress, which a huge deal is considering many students are under some amount of stress.

E) AUDITING FOR CARBON FOOTPRINT

Usage of fossil fuel-based vehicles impacts on the environment through the emission of greenhouse gases into the atmosphere. The most common greenhouse gases are carbon dioxide, water vapor, methane, nitrous oxide and ozone. Of all the greenhouse gases, carbon dioxide is the most prominent greenhouse gas, comprising 402 ppm of the Earth's atmosphere. The release of carbon dioxide gas into the Earth's atmosphere through human activities is commonly known as carbon emissions. An important aspect of doing an audit is to be able to measure the impact so that one can determine better ways to manage the impact. In addition to the audits of water, waste, energy and biodiversity aids to determine what our carbon footprint is, based on the amount of carbon emissions created. It is necessary to know how much the organization is contributing towards sustainable development. It is therefore essential that any environmentally responsible institution examine its carbon footprint

METHODOLOGY OF GREEN AUDITING

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The criteria, methods and recommendations used in the audit were based on the identified risks. The methodology includes: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the document, interviewing responsible persons and data analysis, measurements and recommendations. The methodology adopted for this audit was a three-step process comprising of:

Onsite Visit



The key focus of the visit was on assessing the status of the green cover of the Institution, their waste management practices and energy conservation strategies etc. The sample collection (water, soil) was carried out during the visits. The water samples from two open wells and two tap water sources were taken and soil samples from three different places of the campus was collected. The sample collection, preservation, and analysis were done in the scientific manner as prescribed by the standard procedures.

Focus Group Discussion

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

A) DATA COLLECTION

In preliminary data collection phase, exhaustive data collection was performed using different tools such as observation, survey communicating with responsible persons and measurements. Following steps were taken for data collection:

- ✚ The team went to each department, centres, library, canteen etc.
- ✚ Data about the general information was collected by observation and interview.
- ✚ The power consumption of appliances was recorded by taking an average value in some cases.

DATA ANALYSIS AND RECOMMENDATION

On the basis of results of data analysis and observations, some steps for reducing power and water consumption were recommended. Proper treatments for waste were also suggested. Use of fossil fuels has to be reduced for the sake of community health. The above target areas particular to the college was evaluated through questionnaire for data collection. Five categories of questionnaires were distributed which was given in survey forms. The formats of the same are given below.

SURVEY FORM FOR GREEN AUDIT

A) AUDITING FOR WATER MANAGEMENT

1. List uses of water in your college.
2. What are the sources of water in your college?



3. How does your college store water?
4. If there is water wastage, specify why.
5. How can the wastage be prevented / stopped?
6. Write down the ways that could reduce the amount of water used in your college.
7. Record water use from the college water meter for six months.
8. No. of water coolers?
9. No. of bath rooms in staff rooms, common, hostels?
10. No. of toilet, urinals?
11. Does your college harvest rain water?
12. How many water fountains are there?
13. How many water fountains are leaky?
14. Is drip irrigation used to water plants outside? YES/NO
15. How often is the garden watered?
16. Is there any water management plan in the college?
17. Are there any water saving techniques followed in your college? What are they?

B) AUDITING FOR ENERGY MANAGEMENT

1. List ways that you use energy in your college. (Electricity, electric stove, kettle, microwave, LPG, firewood, Petrol, diesel and others)
2. Electricity bill amount for the last year
3. How many times LPG cylinders are used/filled in a year?
4. How many LED bulbs are used in your college?
5. How many tube lights are used in your college?
6. How many fans are installed in your college?
7. How many air conditioners are installed in your college?
8. How many computers are there in your college?
9. Energy used by each inverter per month? (kwh)
10. How many generators are there in your college?
11. No of TV in your college?
12. How many R.O. are there in your college?
13. How many coolers are there in your college?
14. How many UPS are there in your college?
15. How many printers are there in your college?
16. How many Xerox machine are there in your college?
17. How many CCTV cameras are there in your college?



18. How many rooms are there in your college?
19. Do you run “switch off” drills at college?
20. Are your computers and other equipment put on power-saving mode?
21. What are the energy conservation methods adapted by your college?
22. Any alternative energy sources/non-conventional energy sources are employed / installed in your college?
23. Calculation of energy for electrical appliances.

C) AUDITING FOR WASTE MANAGEMENT

1. Which of the following are found near your college?
Municipal dump yard, Garbage heap, public convenience, Sewer line, Stagnant water, Open drainage, Industry – (Mention the type), Bus / Railway station, Market / Shopping complex /Public halls, residential area.
2. Does your college generate any waste? E-waste, Hazardous waste (toxic), Solid waste, Dry leaves, Canteen waste, Liquid waste, Glass, Unused equipment, medical waste if any, Napkins, Others (Specify)
3. Is there any waste treatment system in the college?
4. Whether waste is polluting the ground/surface/air of the college?
5. How is the waste generated in the college managed?
6. Can you achieve zero garbage in your college?
7. What is the approximate quantity of waste generated per day (in kilograms)?
8. What are the facilities available in the college campus?

C) AUDITING FOR GREEN CAMPUS MANAGEMENT

1. Is there any garden in your college?
2. Do students spend time in the garden?
3. List the plants in the garden, with approx. numbers.
4. Is there any vegetable garden in your college?
5. Is there any medicinal garden in your college?
6. Which are the vegetables cultivated in your garden?
7. Who is in charge of gardens in your college?
8. Do you have any composting pit in your college? If yes, what are you doing with the compost generated?
9. Is there any botanical garden in your campus? If yes give details of campus flora.
10. Give the number and names of the medicinal plants in your college campus.



11. Is there any nature awareness programme conducted in the campus? If yes, mention year.

D) AUDITING FOR CARBON FOOTPRINT

1. Total Number of vehicles used by the students of the college.
2. Number of parent-teacher meetings in a year?
3. Number of generators used per day (hours).
4. Suggest the methods to reduce the quantity of use of fuel used by the students/ teacher- non teaching staff of the college.
5. Mention the usage of cycles, two wheelers, cars, common transportation and visitors' vehicles per day.

CHAPTER - 3

POST AUDIT STAGE

The base of any green audit is that its findings are supported by documents and verifiable information. The audit process seeks, on a sampled basis, to track past actions, activities, events, and procedures to ensure that they are carried out according to systems requirements and in the correct manner. Green audits form a part of a process. Although they are individual events, the real value of green audits is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. Although green audits are carried out using policies, procedures, documented systems and objectives as a test, there is always an element of subjectivity in an audit. The essence of any green audit is to find out



how well the environmental management and environmental equipment are performing. Each of these components is crucial in ensuring that the campus environmental performance meets the goals set in its green policy. The individual functioning and the success of integration will all play a role in the degree of success or failure of the campus environmental performance.

KEY FINDINGS AND OBSERVATIONS

A) WATER

1. Main water uses in the campus
2. Rain water harvesting and bore well are main sources water in the campus.
3. Storage water: ground water storage and O2 tanks.
4. Water wastage mainly during urinals and toilets.
5. Water wastage can be prevented by: wisely flush in toilets.
6. Reuse and reduce are foremost ways to reduce amount of water used in college.
7. There is no water meter box in the college.
8. Number of water coolers: 1
9. Number of bathrooms in staff rooms, common, hostels:
10. Number of toilets: 8
11. Rain water harvesting system is available in the college.
12. Water fountains: 4
13. Leaky water fountains:
14. Drip irrigation system available at border of the garden-yet to install.
15. Every even day of month garden watered.
16. Water management plan: Bore well
17. Drip irrigation system used for watering the plants in garden.





Photo – Ro water purifier and water facility

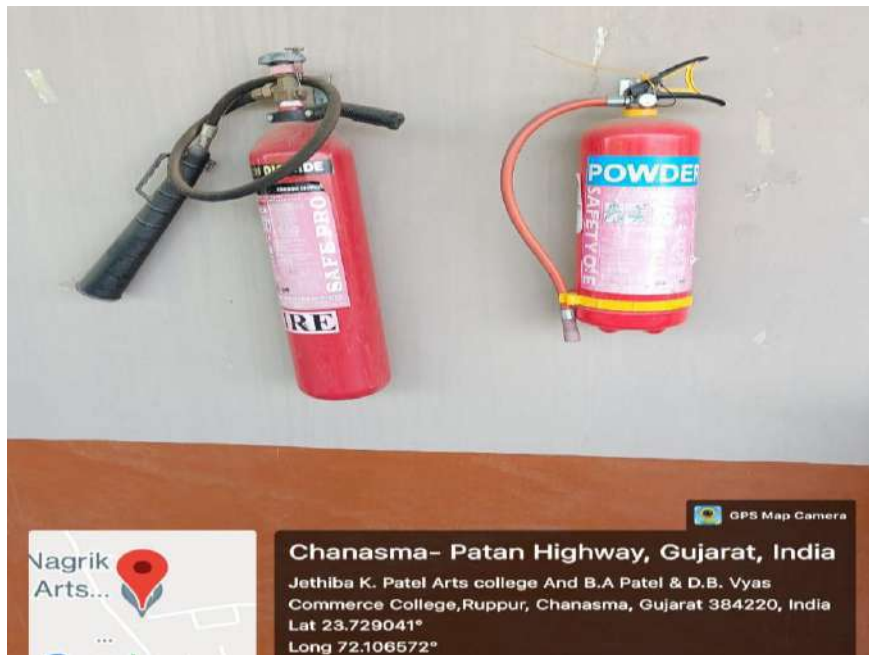


Photo – Fire Extinguisher



Photo – Storage Water tank

B) ENERGY





7.1.2: The Institution has facilities for alternate sources of energy and energy conservation measures

1. Sensor-based energy conservation
2. Use of LED bulbs/ power efficient equipment



1. Usage of energy through electricity, electric stove and LPG.
2. Electricity charges;

3. LPG cylinders filled thrice in a year.
4. Total number of LED bulbs: 17
5. Total number of tube lights: 50
6. Total number of fans: 92
7. Total number of air conditioners: 4
8. Total number of computers: 55
9. Investors are available in college.
10. Total number of generators: nil
11. Total number of TV: 2
12. Total number of R.O. system: 2
13. Total number of coolers:
14. Total number of UPS:
15. Total number of printers: 8
16. Total number of Photocopy machine: 4
17. Total number of CCTV camera: 45
18. Total 12 class rooms, 05 Smart class rooms, 01 Staff room, 01 auditorium hall, 01 language lab, 01 computer lab, 01 indoor games hall, 01 gymnasium room, 5 offices and 01 library.
19. College always follow switch off electrical equipment's when not in use.
20. Computers are on power saving mode: yes.
21. Solar energy conservation method will shortly adopt for the college.

C) WASTE





1. Following are near from the college area: residential area. One sewer line and solid waste disposal pit is available within the college campus area.
2. College generates e-waste, solid waste, dry leaves and canteen waste.
3. There is a composting system to reduce canteen waste and garden waste.
4. Generated wastes do not pollution ground/surface/air of the college.
5. Generated wastes manage by composting (by dumping dry leaves and other garden wastes in it) and by recycling (through rain water harvesting technique).
6. Solid waste as food waste, damage furniture, paper waste sends to municipal waste collection centre and through this college achieve zero garbage.

Approximate waste generated per day (in kilograms):

Office –

Approx.	Bio-degradable	Non - Bio-degradable	Hazardous	Others
< 1 kg	-	-	-	-
2 - 10 kg	6	-	-	-
> 10 kg	-	-	-	-

Home Science Food and Nutrition Lab.

Approx.	Bio degradable	Non - Biodegradable	Hazardous	Others
< 1 kg	-	-	-	-



2 - 10 kg	5	-	-	-
> 10 kg	-	-	-	-

C) GREEN CAMPUS



Photos - Green campus

1. College campus has a garden at the entrance of college.
2. Total number of plants identified: 1654
3. Garden has lemon tree which gives fruit throughout the year.
4. Medicinal garden was available in the college campus till May 2020; afterwards it is replaced by class room and in auditorium hall.



5. Management recruited a gardener to maintain the garden and paid 6000/month to the gardener.
6. The college has one composting pit inside the campus.
7. Campus harbours many botanical tree species but there's no separated botanical garden.
8. College has one composting pit and it is use as fertilizer in the garden.
9. There are 27 fountains are available along with drip system around the garden area.
10. Students actively organized nature awareness programmes such as:

-World Environment Day – 5th June

Awareness seminars are organized on various environmental problems. Distribution of trees, poster exhibition etc. activities are done on that day.









Photos - Van Mahotsav programme in college

Plantation of trees and No Plastic Zone



College encourages environmental protection activities and organizes tree plantation and no plastic zone in the college campus. Plantation of trees activity done by the students and teachers on the date of 19th MAY, 2020, to spread its important to student as tree plantation help to reduce greenhouse gasses and fight climate change; improving the quality of the natural environment, attracting more wildlife and increasing wildlife habitat as well as improving water quality in your streams and ponds. **Plastic hatavo** activity organized by college to establishes environment-friendly plastic waste disposal solutions. In the process it seeks to ban the use of plastic bags and plastic products, and reduce plastic littering across the campus.





Photos – Tree plantation in college





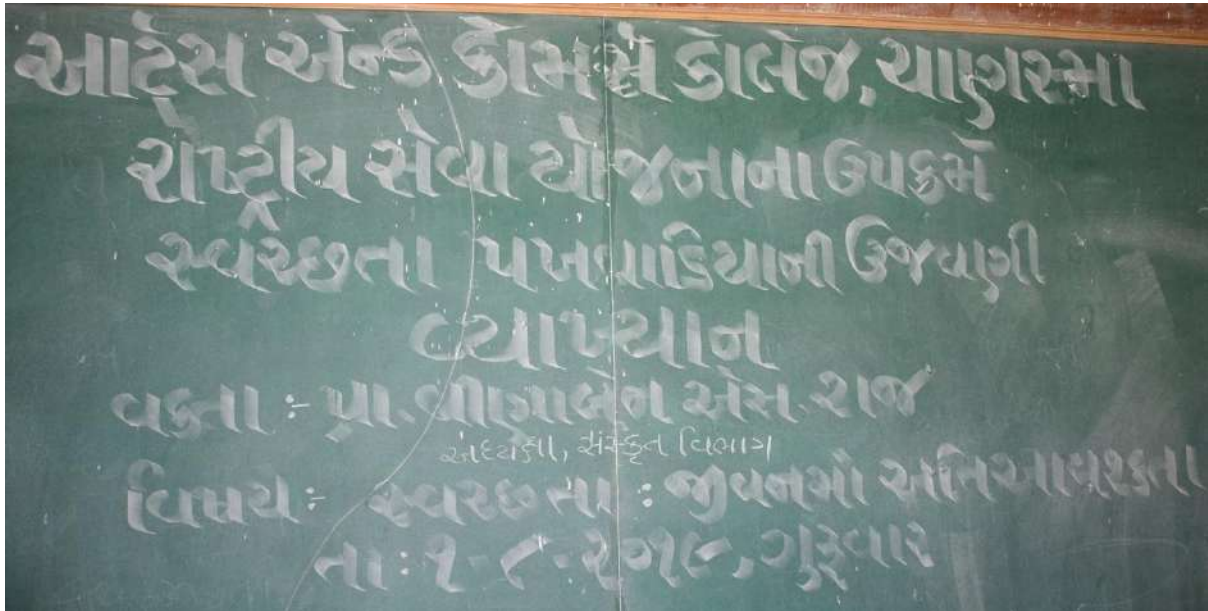




Swachh Bharat Abhiyan – 1st to 15th August



Under the Swachh Bharat Abhiyan, college organized cleanliness programme for a week and developed a committee which plays a significant role in the campus premises, to make campus neat, clean and dust free. The college also encourages the students to use dustbin put on the corridor as a part of good habit.





Photos – Swachh Bharat Abhiyan cleanness programme

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મીઠીઘારીઆલ ગ્રામ પંચાયત

મુ.પો. મીઠીઘારીઆલ, તા. ચાણસ્મા, જી. પાટણ. (ઉ.ગુ.)

—: સરપંચ —
કિષ્કામોન કાન્તીલાલ પટેલ
મો. ૯૮૨૪૮૯૮૮૧૫, ૯૪૨૬૩૭૩૨૫૫

વિના ચઠકાર નવિ ઉજાર

—: ઉપ સરપંચ —
જતનમોન સાંકાભાઈ દેસાઈ
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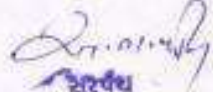
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NSS Camp-2016-17

Jethiba K. Patel Arts College and B.A. Patel & D.B. Vyas Commerce College, Chanasma organized seven days NSS camp from 8-2-2017 to 14-2-2017 at village Mithighariyal of Chanasma Taluka for Gram Safai (Village cleanliness drive) and Lok Jagruti (People Awareness) under the guidance of programme officer Prof. J.V. Patel along with co-ordinator Prof. H.S.Mulani. Total 50 students of college took part in it and performed various positive activities. The programme was comprehensive for social awareness and reform.

(Signature)

સરપંચ
મીઠીઘારીઆલ ગ્રામ પંચાયત
તા. ચાણસ્મા, જિ. પાટણ

	<h1 style="color: red;">સમસ્ત છમીણા ગ્રામ પંચાયત</h1> <p style="color: red;">મુ.પો. છમીણા, તા. ચાણસ્મા જિ. પાટણ (ઉ.ગુ.) પીન : ૩૮૪૨૨૦</p>	
	<p>સરપંચ :- પ્રોફ. અમૃતભાઈ નારણદાસ (મો.) ૯૯૦૯૪ ૫૩૩૪૫</p>	
જાન નં.	તા. - - ૨૦૨	
પ્રતિશ્રી,		
Dt. 01/01/2020		
<h2>NSS Camp-2019-20</h2>		
<p>Jethiba K. Patel Arts College And B.A. Patel & D.B. Vyas Commerce College, Chanasma organized seven days NSS camp from 26-12-2019 to 1-1-2020 at village Chhamisa of Chanasma Taluka for Gram Safai (Village cleanliness drive) Lok Jagruti (People Awareness), Prevention of Malnutrition and Women Empowerment under the guidance of programme officer Prof. J.V. Patel along with 50 students of the college took part in it and performed various positive activities. The programme was comprehensive for social awareness and reform.</p>		
 સરપંચ છમીણા ગ્રામ પંચાયત તા.ચાણસ્મા, જિ.પાટણ		

સમસ્ત ગ્રામ પંચાયત, ખોરસમ

ખોરસમ ગ્રામ પંચાયત

મુ. પો. ખોરસમ, તા. ચાણસ્મા, જિ. પાટણ (ઉ.ગુ.)

સરપંચશ્રી :: પટેલ ઈશ્વરભાઈ ગંગારામદાસ :: મો. ૮૫૧૧૫ ૪૦૦૨૫

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પ્રતિશ્રી,

ડા. 23/09/2019

NSS-2019-20

Adopted Village (Khorsam) Activities 22-23 September 2019

On behalf of Jethiba K. Patel Arts College and B.A. Patel & D.B. Vyas Commerce College, Chanasma, a programme for adopted village Khorsam of Chanasma Taluka was organized by NSS programme officer Dr. J.V. Patel along with 15 volunteers of the College. It was held enter the NSS Swachchha Bharat Summer Internship programme covered under Gram Safai (Village cleanliness drive) and Lok Jagruti (People Awareness) for the social reformation and acquaintances of latest uptrends. The village people were positively informed to keep themselves away from the habit of open toilet system and to remove the use of plastics in day to day life.

સરપંચ
ખોરસમ ગ્રામ પંચાયત
તા.ચાણસ્મા, જિ.પાટણ

Celebration of Gandhi Jayanti – 2nd October

Gandhi considered non-violence to be a philosophy, a principle and an experience based on which it is possible to build a better society.

Unnat Bharat

Unnat Bharatis an active campaign under NSS students. This campaign encourages students for student exchange programme under Ek Bharat Shreshtha Bharat.







Photos – Unnat Bharat campaign under NSS Students in college

Yoga and Health Awareness

The purposes of yoga were to cultivate discernment, awareness, self-regulation and higher consciousness in the individual.





Photos – International Yoga Day Celebration



Teachers Day Celebration 5th September

To mark the birth anniversary of its second president **Dr.SarvepalliRadhakrishanan**. India should regain the status of ‘**Vishwaguru**’ means leader in education by giving high respects to teachers whom he asked to encourage students to think critically about issues concerning the nation.



Photos – 5th Sep. Teachers day celebration

Mega Blood Donation Camp –



The events serve to raise awareness of the need for safe blood and blood products and to thank voluntary, unpaid blood donors for their life – saving gifts of blood.



“Nima memorial” Gram Vikas Trust, Ruppur-Chanasma Sanchalit
JETHIBA K. PATEL ARTS COLLEGE
B.A. Patel & D.B. Vyas Commerce College
Chanasma

**Mega Blood Donation Camp,
 All Disease Diagnose Camp , Plastic – Free Drive &
 Honor to our Professors, Those acquire Ph.D.
 In the Presence of**
Dr. K. K. Patel(Nirma), President of Our Trust
Mr. Anand Patel (IAS) , Collector , Patan District
Mr. Vishvasbhai Amin, Executive Director , RED Cross-Ahmedabad
Mr. B. J. Patel ,Mr. N.K. Patel, Mr. M.J. Patel, Mr. M.A. Desai
& Trustees
Dt.7/1/2020



Photos – Mega Blood Donation Camp in college

Fire Safety Awareness programme –

Fire dangers are the most hazardous of all because, if a fire breaks out in a building, it will not only destroy that portion but quickly spreads, possibly resulting in death. Though few fire incidents are avoidable and predicted early, the majority are not; thus, fire safety precautions are necessary.



Photos – Fire Safety Awareness Programme

Road Safety Awareness week 11 to 17th January –

To recognize the graveness of the matter and to enlighten people of the ways to become more cognizant about their safety on the road, the Government of India, in collaboration with various state governments, observes the National Road Safety Week from January 11 to January 17.

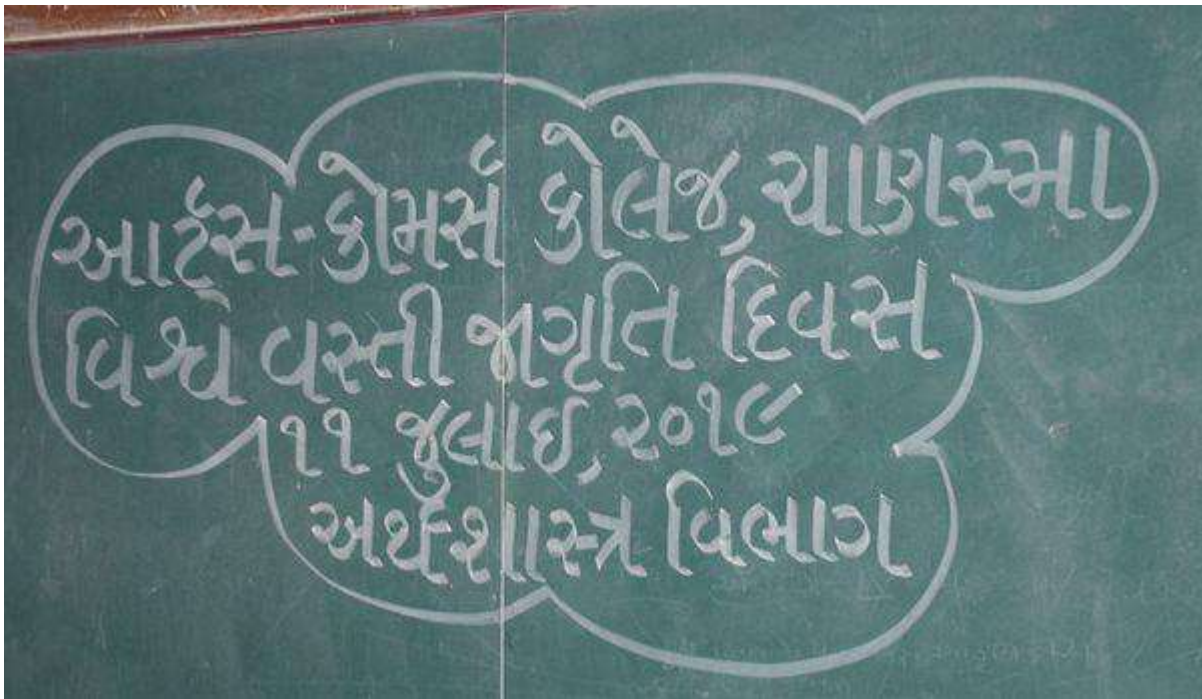


Photos – Road Safety Awareness Week January

World Population Day 2020:



It is celebrated on 11 July to spread awareness among people about the impact of a growing population and issues including gender equality, the importance of family planning, poverty, maternal health, human rights, etc.



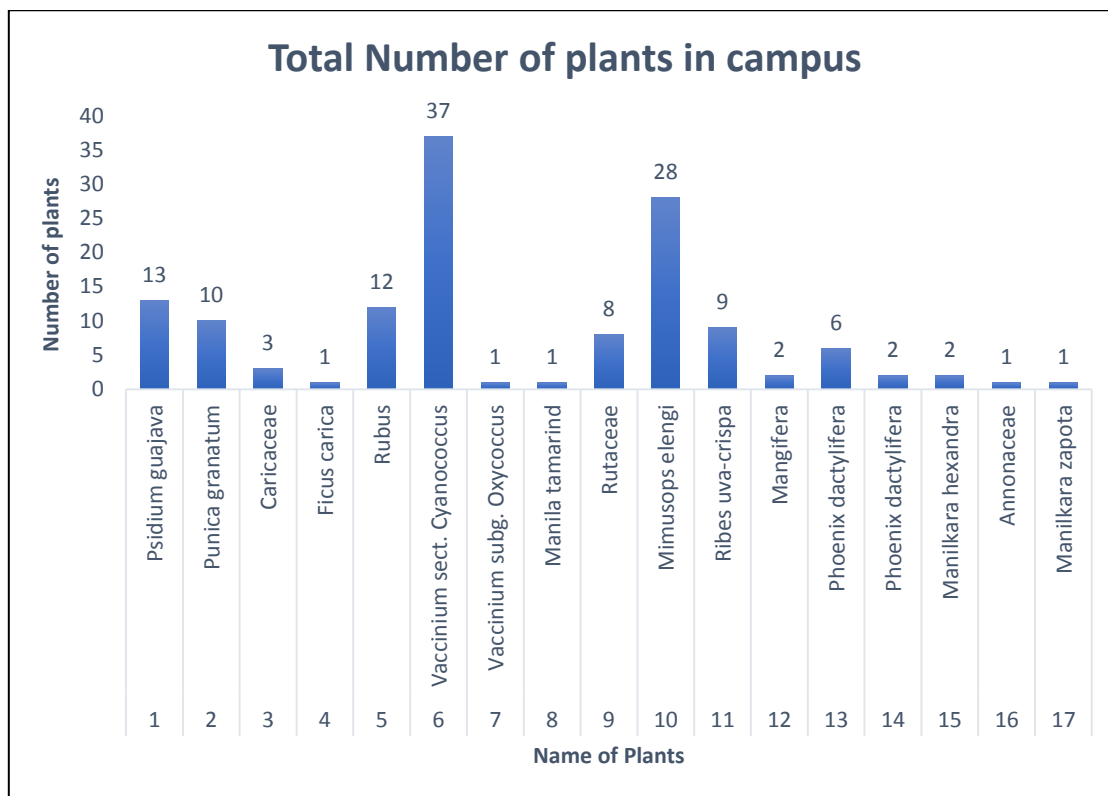
Photos – World population Awareness Day

IMPORTANT TREES IN THE COLLEGE CAMPUS:



Sr. No.	Scientific Name	Local Name	Family	Total No
1	<i>Psidium guajava</i>	જામફળ	Myrtaceae	13
2	<i>Punica granatum</i>	દાંડમ	Lythraceae	10
3	<i>Caricaceae</i>	પપૈયા	Caricaceae	03
4	<i>Ficus carica</i>	અંજીર	Moraceae	1
5	<i>Rubus</i>	સેતુર	Rosaceae	12
6	<i>Vaccinium sect. Cyanococcus</i>	જાંબુ	Ericaceae	37
7	<i>Vaccinium subg. Oxycoccus</i>	બોર	Ericaceae	01
8	<i>Manila tamarind</i>	આંબલી	Fabaceae	01
9	<i>Rutaceae</i>	લીંબુ	Rutaceae	08
10	<i>Mimusopselengi</i>	બોરસલી	Sapotaceae	28
11	<i>Ribes uva-crispa</i>	આંબળા	Grossulariaceae	09
12	<i>Mangifera</i>	આંબો	Anacardiaceae	02
13	<i>Phoenix dactylifera</i>	ખારેક	Arecaceae	06
14	<i>Phoenix dactylifera</i>	ખજૂરી	Arecaceae	02
15	<i>Manilkara hexandra</i>	રાયણ	Sapotaceae	02
16	<i>Annonaceae</i>	સીતાફળ	Magnoliales	01
17	<i>Manilkara zapota</i>	ચીકુડી	Sapotaceae	01



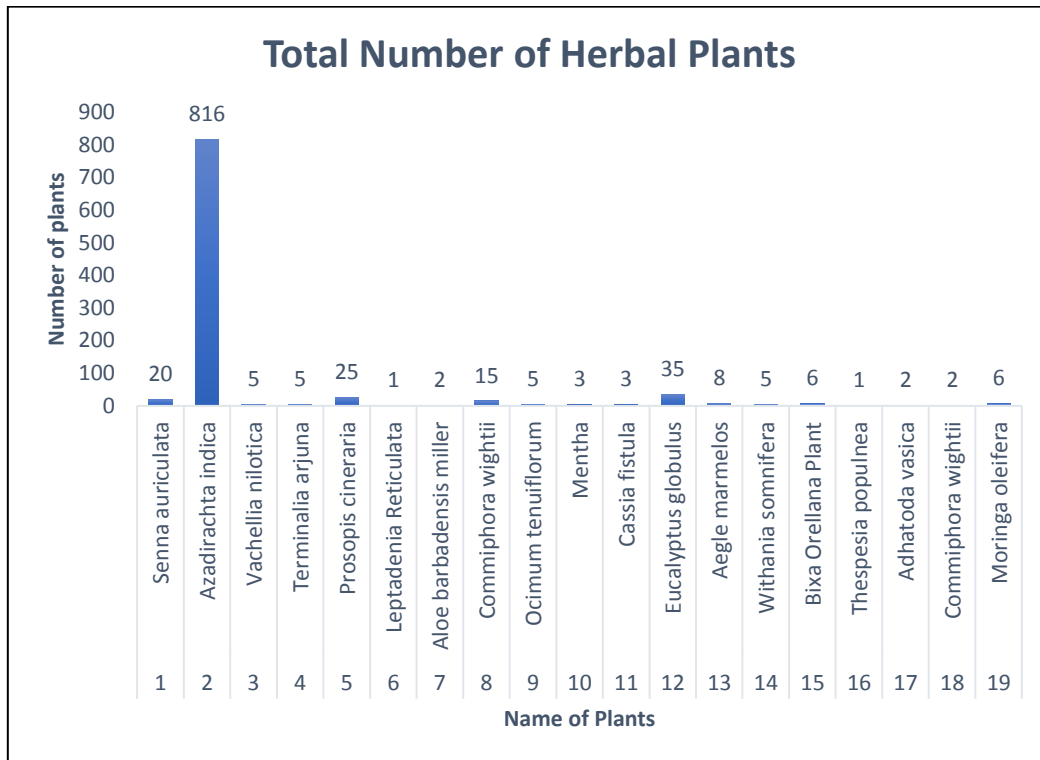


Herbal plants -

Sr. No.	Scientific Name	Local Name	Family	Total No
1	<i>Senna auriculata</i>	કણજી	Fabaceae	20
2	<i>Azadirachta indica</i>	લીમડા	Meliaceae	816
3	<i>Vachellianilotica</i>	બાવળ	Fabaceae	05
4	<i>Terminalia arjuna</i>	અર્જુનસાદ	Combretaceae	05
5	<i>Prosopis cineraria</i>	સમી	Fabaceae	25
6	<i>Leptadenia Reticulata</i>	ડોડી	Asclepiadaceae	01
7	<i>Aloe barbadensis miller</i>	અલોવીરા	Asphodelaceae	02
8	<i>Commiphorawightii</i>	પાતાલગૂગલ	Burseraceae	15
9	<i>Ocimumtenuiflorum</i>	તુલસી	Lamiaceae	05
10	<i>Mentha</i>	કુદીનો	Lamiaceae	03
11	<i>Cassia fistula</i>	ગરમાળો	Fabaceae	03
12	<i>Eucalyptus globulus</i>	નીલગીરી	Myrtaceae	35
13	<i>Aegle marmelos</i>	બિલી	Rutaceae	08
14	<i>Withaniasomnifera</i>	અસ્વગંધા	Solanaceae	05



15	<u>Bixa Orellana Plant</u>	સિંદૂર	<i>Bixaceae</i>	06
16	<u>Thespesia populnea</u>	પારસપીપળો	<i>Malvaceae</i>	01
17	<u>Adhatodavastica</u>	અરડુંસી	<i>Acanthaceae</i>	02
18	<u>Commiphora wightii</u>	કાચનાલગુગ્ગલ	<i>Burseraceae</i>	02
19	<u>Moringa oleifera</u>	સરગવો	<i>Moringaceae</i>	06

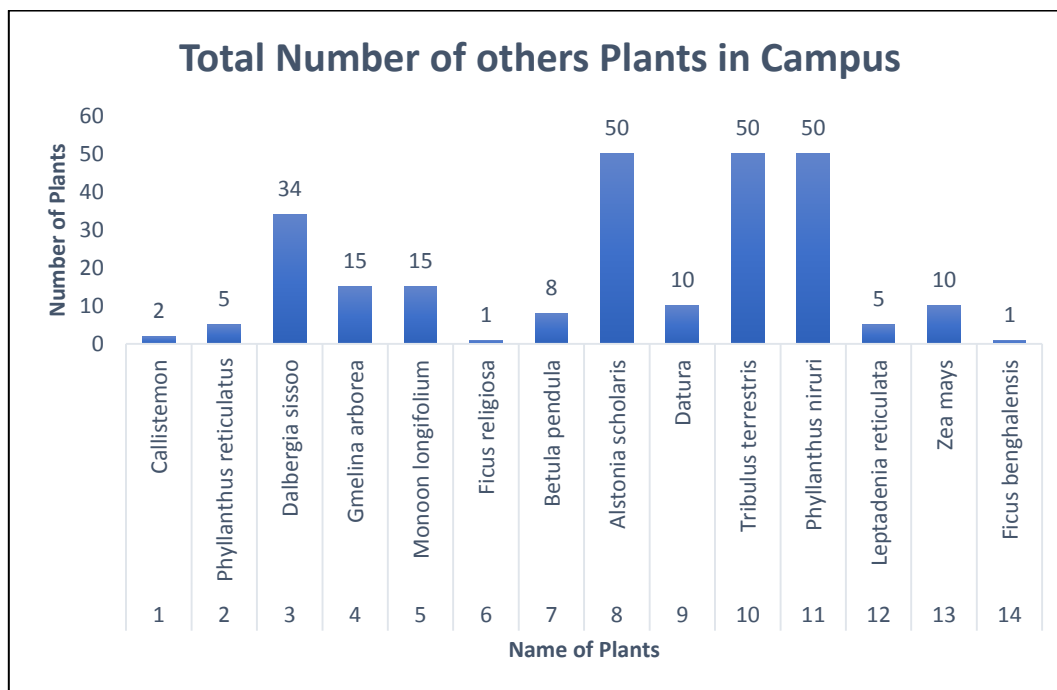


Others plant

Sr. No.	Scientific Name	Local Name	Family	Total No
1	<u>Callistemon</u>	બોટલબ્રાસ	<i>Myrtaceae</i>	02
2	<u>Phyllanthus reticulatus</u>	કુંબોઈ	<i>Phyllanthaceae</i>	05
3	<u>Dalbergia sissoo</u>	સીસમ	<i>Fabaceae</i>	34
4	<u>Gmelina arborea</u>	સેવન	<i>Lamiaceae</i>	15
5	<u>Monoonlongifolium</u>	અસોપલવ	<i>Annonaceae</i>	15
6	<u>Ficus religiosa</u>	પીપળો	<i>Moraceae</i>	01
7	<u>Betula pendula</u>	પેન્ડુલા	<i>Betulaceae</i>	08
8	<u>Alstoniascholaris</u>	સપ્તપરણી	<i>Apocynaceae</i>	50
9	<u>Datura</u>	ધતુરો	<i>Solanaceae</i>	10
10	<u>Tribulus terrestris</u>	ગોખરું	<i>Zygophyllaceae</i>	50
11	<u>Phyllanthus niruri</u>	ભોઈઆંબલી	<i>Phyllanthaceae</i>	50



12	<i>Leptadenia reticulata</i>	જીવંતિકા	<i>Apocynaceae</i>	05
13	<i>Zeamays</i>	મકોઈ	<i>Mays</i>	10
14	<i>Ficus benghalensis</i>	વડ	<i>Moraceae</i>	01



CURRENT SAVING METHODS ADOPTED IN THE COLLEGE

- ✚ Turn off electrical equipments when not in use.
- ✚ Maintain appliances and replace old appliances.
- ✚ Use computers and electronic equipments in power saving mode.
- ✚ Energy saving through the replacement of incandescent bulbs, CFL lamps and tube lights to LED light could be a good option.
- ✚ Energy efficient electrical equipments especially fans and pump sets can be replaced again old ones.
- ✚ Awareness programs for the students to save energy may also increase sustainability in the utilization of various energy sources.
- ✚ The composting facility of the college for the treatment of biodegradable waste generated from the canteen, office, vegetable garden, and from the college campus cleaning operation is not adequate.
- ✚ A model solid waste treatment system can be established in the college as a part of awareness program to the students
- ✚ More trees may be planted in the campus to make a source of sink for the carbon dioxide and for other greenhouse gases.



CONSOLIDATION OF AUDIT FINDINGS

We hope that students will have developed a greater appreciation and understanding of the impact of their actions on the environment. They have successfully been able to determine the impacts on the environment through the various auditing exercises. Participating in this green auditing procedure they have gained knowledge about the need of sustainability of the college campus. It will create awareness on the use of the Earth's resources in their home, college, local community and beyond

MAJOR AUDIT OBSERVATIONS

- ✚ The installation of solar panels under the practices.
- ✚ Gardens inside the college premises are found well maintained.
- ✚ Use of notice boards and signs are adequate to reduce over exploitation of natural resources.
- ✚ Programs on green initiatives should increase.
- ✚ Campus is plastic free zone.
- ✚ College has some major techniques like, Rain water harvesting systems, environmental education programs and solar power system will shortly available in the college.
- ✚ To aware and protect the environment the sign board is kept at all classrooms of the college

WATER AUDIT

- ✚ There is enough water consumption monitoring system in the college campus.
- ✚ The college has managed to collect all excretory waste material in absorption pit which further used as a fertilizer in the garden of the college campus.
- ✚ The architectural planning of college building is designed in such a way that the rain water can be harvested into the ground surface of the campus.
- ✚ Automatic switching system installed to stop overhead tank filling

ENERGY AUDIT

- ✚ Objectives for reducing energy, water and fuel consumption should be done.
- ✚ The older generator and non-energy efficient equipment's should be replaced with new energy efficient equipment's.
- ✚ Regular monitoring of equipment's and immediate rectification of any problems should be done as safety precaution in the campus.

WASTE AUDIT

- ✚ Solid waste (garden waste) management system is maintained.



- ✚ The college has proper communication with the local body for regular collection of other solid waste from the campus.
- ✚ Implementation of sustainable projects to attain set environmental goals should to be place.
- ✚ Waste bins in the class rooms, veranda, canteen and campus are adequate.
- ✚ Biogas plant should be established.

GREEN CAMPUS AUDIT

- ✚ Regular planting of trees in the campus should be done.
- ✚ Display boards to identify plants.
- ✚ There are inadequate fruit trees in the college to attract birds.
- ✚ Registry for flora and fauna on the campus is lacking.
- ✚ Total 1654 plants are available in the garden in which 137 tall trees and around 970 herbs and shrubs are present in the college campus.

CARBON FOOT PRINT AUDIT

The U.S. Energy Information Administration states that greenhouse gases are gases that keep heat in the earth's atmosphere. Although greenhouse gases do occur naturally, majorly human activity contributes a great deal to greenhouse gas emissions. The carbon footprint or the impact on the environment from the college campus measures the greenhouse gases that campus responsible for creating.

- ✚ College has initiative for carbon accounting.
- ✚ Adequate transportation facilities in the college.
- ✚ College should encourage the students and faculties to use cycles.

CHAPTER - 4

FINDINGS

PREPARATION OF ACTION PLAN

Policies referring to college management and approaches towards the use of resources need to be considered. The college should have a green policy/environmental policy for its



sustainable development. The environmental policy formulated by the management of the college should be implemented meticulously. The college should have a policy on awareness training programs and college also should have a procurement policy.

FOLLOW UP ACTION AND PLANS

Green Audits are exercises which generate considerable quantities of valuable management information. The time, effort and cost involved in this exercise are often considerable and in order to be able to justify this expenditure. It is important to ensure that findings and recommendations of the audit are considered at the correct level within the campus and that action plans and implementation programs result from the findings. Audit follow up is part of the wider process of continuous improvement. Without follow-up, audit becomes an isolated event which soon becomes forgotten in the pressures of management priorities and passing of time

ENVIRONMENTAL EDUCATION

The following environmental education program may be implemented in the college before the next green audit: -

- ✚ Training programs in solid waste management, liquid waste management, setting up of medicinal plant nursery, water management, vegetable cultivation, and more tree plantation programmes should be done at regular intervals.
- ✚ Increase the number of display boards on environmental awareness such as save water, save electricity, no wastage of food/water, no smoking, switch off light and fan after use, plastic free campus etc.
- ✚ Activate and raise the environmental clubs.
- ✚ Set up model for rainwater pits, vegetable garden, medicinal plant garden, paddy fields etc.
- ✚ for providing proper training to the students.
- ✚ Awareness on carbon consumption.
- ✚ The carbon consumption awareness programs on carbon emission at individual as well as social level will help to avoid air and noise pollution in the campus due to vehicles.

CONCLUSION AND FULL LIST OF RECOMMENDATIONS

The green audit assists in the process of testing performance in the environmental arena and is fast becoming an indispensable aid to decision making in a college. The green audit reports



assist in the process of attaining an eco-friendly approach to the sustainable development of the college. Hope that the results presented in the green auditing report will serve as a guide for educating the college community on the existing environment related practices and resource usage at the college as well as spawn new activities and innovative practices. It has been shown frequently that the practical suggestions, alternatives, and observations that have resulted from audits have added positive value to management of the campus. An outside view, perspective and opinion often help staffs who have been too close to problems or methods to see the value of alternative approaches. A green audit report is a very powerful and valuable communications tool to use when working with various students who need to be convinced that things are running smoothly and systems and procedures are coping with natural changes and modifications that occur.

COMMON RECOMMENDATIONS

- ✚ Adopt an environmental policy for the college.
- ✚ Conduct more seminars and group discussions on environmental education.
- ✚ Students and staff can be permitted to solve local environmental problems.
- ✚ Renovation of cooking system in the canteen to save gas.
- ✚ Establish water, waste and energy management systems.

CRITERIA WISE RECOMMENDATIONS

WATER

- ✚ Remove damaged taps and install sensitive taps is possible.
- ✚ Awareness programs on water conservation to be conducted.
- ✚ Install display boards to control over exploitation of water

ENERGY

- ✚ Conduct more save energy awareness programs for students and staff.
- ✚ More energy efficient fans should be replaced.
- ✚ Observe a power saving day every year.

WASTE

- ✚ Establish a functional biogas plant.
- ✚ A model vermi-composting plant to be set up in the college campus.
- ✚ Establish a plastic free campus.
- ✚ Avoid paper plates and cups for all functions in the college.

GREEN CAMPUS

- ✚ All trees in the campus should be named scientifically.



- ✚ Create more space for planting and plant trees as Miyawaki method.
- ✚ Grow potted plants at both verandah and class rooms.
- ✚ Not just celebrating environment day but making it a daily habit.
- ✚ Beautify the college building with indoor plants.
- ✚ Encouraging students not just through words, but through action for making the campus greener.
- ✚ Conducting competitions among departments for making students, teaching-non teaching staffs more interested in making the campus greener.
- ✚ Plantation of such trees which has maximum capacity to store atmospheric carbon with girth diameter of 51–70 cm which are require to give more attention during reforestation activities to retrieve the effect of emitted carbon in the campus.

AUDIT TEAM

Audit Team		
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4	Mr. Suhas Chaudhari, BE	Head, Electronics and Communication Team
5	Miss. Priyanka Chaudhari, M.Sc.	Head, Botanical Research Team
6	Mr. Ashal Pintu, B.Sc.	Lab Expert
7	Mr. Hitendra Darji, B.Sc.	Lab Expert

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