BASELINE ENVIRONMENTAL ASSESSMENT OF

KARMAVEER SHANKARRAO KALE EDUCATION SOCIETY'S

SAU. SUSHILAMAI KALE ARTS, COMMERCE & SCIENCE COLLEGE, GAUTAMNAGAR

POST- KOLPEWADI, TAL- KOPARGAON, DIST- AHAMEDNAGAR. PIN- 423602

2016 - 2020

1. Introduction

Karmaveer Shankarrao Kale Education Society's educational complex has its own status of one of the progressive education societies in Ahmednagar district. The campus is connecting three major urbanized and industrialized areas. It is about 115 kms from Ahmednagar, 74km from Nashik and 121kms from Aurangabad. The entire campus spreads over 5.12 acres of land constituting different sub-units of colleges. This college has proved to be main stream education source in and around Kolpewadi has impacts on the surrounding community.

This education complex was inaugurated in year 2002. At present the organization is actively progressing under the dynamic leadership of Hon. Chairman Ex. MLA Ashokrao Shankarrao Kale, known for his environmentally sustainable development in the region. The organization has started Traditional courses for educationally and financially deprived class of the society in the region.

Karmaveer Shankarrao Kale Education Society's, Sau. Sushilamai Kale Arts, Commerce, & Science College, Gautamnagar shows its strong willingness to plan and demonstrates its commitment to execute strategies and action plan. The organization is looking for overall development of the students with the vision:

Our Vision: -

"To create academic excellence through skill oriented and value-based education".

The organization encourages many ways to implement sustainable activities through which students find their ways for community-based research. Environment conservation is one of the ten values at global level and organization has taken serious steps reduce possible environmental impact. The organization very systematically progressing for its own development so that students studying in the various courses should able to use

optimum resources for their development. The following comprehensive yearly planner shows organization commitment and responsibility towards environment protection.

The college comprise of courses of UG (Arts, Commerce & Science). Around 876 students enrolled for various programme and faculties in two different time schedules. In order to maintain healthy learning environmental surrounding in and around educational complex it was decided to carry out baseline environmental assessment for the following purposes.

- To establish a baseline of existing environmental scenario
- To provide base for sustainability practices
- To promote environmental awareness through continuous assessment process
- To create an educational document for future use

The first step taken in this direction is establishing a baseline survey. The different environmental criteria's with their current status, action being taken by an institution and effective ways to improve the actionable points being highlighted in this report. Sensitization of all the stakeholders of an institution towards eco-friendly campus is very crucial at this juncture. In view of making green and eco-friendly campus the organization has taken an important step to understand the environmental parameters within the campus. This report highlights organization efforts towards greener campus.

2. Environmental criteria's

2.1. Know green and think green is promoted within the campus

Governance and Leadership

Karmaveer Shankarrao Kale Education Society determinedly working in the area since 2002 with the mission

Our Mission: -

To achieve a high order of excellence and scientific outlook in academics, culture and sport, and also to enhance social responsibility amongst the students.

Sau. Sushilamai Kale Arts, Commerce, & Science College, Gautamnagar has Clear quality policies, principles and goals to make future responsible citizens. The management constantly provides direction for staff, administrators, and other members of the campus community. Clear decision-making and reporting mechanisms with responsibilities to monitor, and report promotes action for environmental sustainability.

Action:

The College has an active Environmental Advisory Committee (EAC), which is composed of members each from different stake holders of the college. It is co-chaired by a student and by the Principal of the college. The EAC has been very active in analyzing and advising the College on campus eco-friendly practices.

Environmental Advisory Committee (EAC)

Sr. No	Name of Member	Designation	Title in Committee
1.	Dr. Gursal V.N.	Principal	**Chairman**
2.	Mr. Nilkanth A.A.	HOD of Botany Dept.	**Coordinator**
3.	Mr. Ghorpade A.P.	Asst. Prof. Botany Dept	**Member**
4.	Mr. Kale A.D.	Asst. Prof. Botany Dept	**Member**
5.	Mr. Pote V.C.	HOD of History Dept.	**Member**
6.	Mr. Jadhav S.D.	HOD of Eco. Dept.	**Member**
7.	Mr. Gangurde M. A.	Student	**Student Representative**
8.	Mr. Wable D. S.	Parent	**Parent Representative**

The roles and responsibilities of this Environmental Advisory Committee has been clearly mentioned and communicated. The meetings being held once in every two months. The committee has pointed out the need of various action programmes in align with the mission of the organization.

2.2 Canteen

The college has provided a facility of canteen within campus which provides snacks and tea for students and staff. The total number students 876 from different streams and 45 staff members visits canteen at different intervals. The college authorities have appointed a food supply vender on annual basis. On an average 300 persons including staff and students visits canteen on daily basis on working days. Canteen vendor at present following the rules set for him by college authorities.

The food is being served in stainless steel plates and drinking water being served in steel glasses. The approximate water uses in canteen area including drinking, hand wash, food preparation and washing of utensils is approximately 700 lit/day.

Action:

College canteen area is situated away from classrooms with covered shade. Safe drinking water being utilized in the canteen supplied by campus water supply schemes. At present canteen waste water being collected separately from the specially made basin and sink and disposed of in the drainage system. The biodegradable waste being sent to compost pit within the campus. The plastic and pet bottles given to scrap vendor.

2.3 Water conservation and prevention of water wastage

The college campus encompasses with different faculties and courses from Arts, Commerce and Science faculties. Management ensures adequate, safe and continuous supply of water for drinking and other uses for students and staff. The source of water for the college is ground water i.e. (bore well within the campus). There is RO plant of capacity 500lits. The water quality monitoring is being done regularly to assess the pot-ability. The water being stored in overhead water storage tanks of 10,000 lits.

The water consumption within the campus is controlled and effectively channelized by campus authority. There is an installation of water cooler of the capacity 40lits. Water coolers placed at adequate place for drinking purpose. Rain water being effectively stored and utilized for various purposes.

The washing and cleaning of storage tanks and drinking water coolers being regularly carried out. The maintenance of water supply network within the campus is maintained properly to protect it from leakage and decay. The drainage system has designed and constructed properly to care of waste water.

The approximate water uses on any working day during working hours can be summarized as follows.

S.No	Activity	Utilization(Student + staff)	Total lits
1	Drinking	921 x approximately 1 lit	921
2	Toilet /urinals	921 x approximately 2 lit	1842
3	Laboratories (UG) all subjects	5 labs x 24 students x 5 lits x 2 batches	1200
4	Watering plants		1000
5	Spraying on play ground		500
6	Canteen area		700
7	Cleaning		1000
	Total		7163

Action:

1) Awareness (slogans, posters) on minimum and adequate water use.

2) Regular water quality monitoring. (Drinking water Coolers -1) Water storage tank being cleaned every week by college peons.

3) Well planned laboratory schedule of practical and research work. Laboratory waste water discharged into sock pits (Lab sock pits- 1.)

4) The design of urinals was made in Indian type & western type. Drainage water from urinals and canteen discharged into drainage system.

5) Watering to plants being done by manual sprinklers during morning and evening time.

6) Work in progress for the rain water harvesting facility.

7) Timely maintenance schedule for ensuring the implementation of water supply system devices.

8) Routine survey for various water consumption patterns.

2.4 Solid waste management

Mainstreams' Arts, Commerce and science faculties are implementing different educational courses with flexible working hours from 7.30am to 5.00pm. Total number of 921(Student and Staff) are utilizing the campus throughout the day. Different types of waste being generated from classrooms, canteens, laboratories, libraries admin sections, urinals and office areas. The daily solid waste being generated in the camps categorized in the following way.

S.No	Activity	Utilization(Student + staff)	Total kg.
1	Classroom 25	25 Dustbin x 200 gm	5 kg approximately
2	Laboratories	Labs 5	1.5 kg approximately
3	Canteen	Students used for snacks or meal	2 kg approximately
4	Sweeping and cleaning	Campus	2 kg approximately
5	Admin block	All offices	1.5 kg approximately
	Total		12 kg approximately

Action:

1) Usage of recycled paper bags was promoted among students by displaying boards like 'Say No to Plastic'

2) Students being encouraged for using non plastic bags.

3) Reduce – Reuse – Recycle methods are followed

The collection bins are made for specific types of waste. All these type of waste collected separately and given to respective vendors for recycling.

a) Dry waste b) Paper waste c) Plastic d) E-waste e) Chemical waste

The remaining waste being managed within the campus.

4) The number of printouts has been reduced from admin blocks and computer laboratories. The regular necessary printouts were attempted to be taken on used i.e. one sided paper.

5) Old exam answer papers and newspapers are sold every after three years to designated vendor.

6) The compost facility is in progress to convert organic waste into organic manure. The dry tree leaves will be utilized for composting.

Chemical waste management

The college authorities are well aware about the existence of a monitoring and management process for each chemical-intensive process. This process considers toxicity, downstream impacts, staff safety etc.

Action:

1) The college performs well in terms of custodial chemical use, monitoring their use, minimizing their impact, and keeping employees and others safe.
2) All of the chemicals are bought by contracting with only one company, the college reduces costs, limits inventory, limits overuse, and help maintain consistent chemicals (consistency helps keep workers safe because the chemicals are familiar).
3) The college now is working with some more cutting edge, environmentally friendly products such as oxidation products, citric acid-based products,
4) While purchasing chemicals considerations being made that all of the packaging that is recyclable.
5) Laboratory staff members are all trained by the vendor twice a year here to make sure that all staff members are familiar with the products. Each bottle of chemical has label to avoid confusion over what exactly is in a particular bottle.

6) There is a policy for the handling and disposal of hazardous materials in association with Pharmacy College in the area. There is a safe and well maintained chemical storage area. Expired and used chemicals being returned to the same vendor.

E-waste management

The college has a system to collect e-waste in the campus separately and handover to trust office for further disposal procedures.

2.5 Carbon dioxide neutrality

The college campus situated at 19.895725 N and 74.353155 E with average rainfall in the area 90 cm. Carbon dioxide neutrality has been maintained on the campus by developing greenery with available plants. It has been attempted to maintain greenery in the campus. About 40% area is occupied by greenery of all type of plants with abundance of shade giving trees due to huge canopy.

Action:

1) The campus is situated in such an area that there is no any other type of disturbance. The industries are 19km away from the campus.
2) An indoor atmosphere is designed to be well ventilated that airflow mixing of fresh/outdoor air is continuous.
3) No electricity is required during day time.
4) Specific strategies and plans in place in order to reduce transportation impacts.
   A) Parking slot for students and staff is about 3,270sq.fit (2-wheelers and 4-wheelers) maintained at the back side of the building to restrict the traffic movement in the campus.
   B) The entry of vehicles without PUC certificate and helmet are restricted in the campus.
   C) Awareness among the students was increased to use public transport.

c) The layout of the campus is relatively open with much green space, thus Keeping the amount of impermeable surface area below 50%

d) The college has a canopy of trees and plants that make the serene environment. The garden plantation with shade giving trees which in turns provide beautiful ambience. These trees are also important as per economic point of view.

e) The trees species in the campus are shade giving as well as important as per ecological point of view. As they release more oxygen and helps in reducing air pollutants. These are also marked as ecological indicators showing water contents in aquifers.

f) Plants were selected with low maintenance requirements and that otherwise fit the local ecosystem (provide habitat for native species of insects and birds).

g) The medicinal plants planted and maintained in the campus **(Total plant list attached in annexure section).** The college is in the process of increasing the area of botanical garden which will be utilized for research project purpose.

2.6 Campus Culture and Environmental Awareness

The college is committed for overall development of the student. The college has an aim to educate all students in the area of environmental studies in an interdisciplinary framework, and provide adequate training for those students who wish to pursue environmental research or environmentally-related career choices.

Action:

1) College has developed a system for timely assessment of the environmental issues and implementation of environmental curriculum for undergraduates. Through properly execution of environmental awareness period in master timetable. **(Time table attached attached in annexure section).**
2) The college undertakes various activities through effective use of ongoing schemes like N.S.S. Through these activities students work like beautification of campus,

water and power management. The biodegradable and non-biodegradable waste segregated by the college was utilized for composting. To create eco-friendly awareness among the students, college arranges special programmes by inviting the eminent personalities, who in turn train and educate stake holders. Students are encouraged to participate in eco-friendly activities by making the activities of eco-club part of the curriculum. **(Details of environmental action programmes mentioned in annexure).**

3) College authorities have created an atmosphere of awareness and sense of responsibility within the campus regarding environmental issues. Engaged students, faculty and administrative staff in analysis and response to these issues.

4) College has developed its own environmental policy for the campus and displayed it everywhere. **(Environment Policy attached in annexure section).**

Environment based activities	
Workshop	**Details**
Workshop	■ Dr. Vijaya Gursal- Agrotourism ■ Prof. Arun Nilkanth – Bee Keeping. ■ Prof. Ashok Ghorpade – Bee keeping
N.S.S. camp	■ Blood donation camp – every year
Rallies & other activities	■ Women empowerment rally – once in a year ■ Environment awareness rally - every year since 2014 ■ AIDS Awareness ■ Tree plantation - every year since 2013 ■ Constitution day ■ Swatch Bharat Abhiyan ■ Fund raising for affected people of natural calamities
Field visits	■ Field visit – Geography – every year ■ Field visit – Botany – every year ■ Environment science - every year

2.7 Campus planning and construction

Energy Conservation

Total Campus is situated in the area of 5.12 acres). Out of which Build up area is around 1645.09 Sq. ft. The college campus has planned quite significantly that, there is enough open space, greenery, playground (800.00 Sq. ft) and 25 fully-ventilated (cross ventilation) spacious classrooms to accommodate students. The energy utilization pattern of college on any working day is as follows.

S.No	Activity	Utilization	Total units.
1	Classroom 25	1 Tubes, 1 Fans, /class	4 units approximately
2	Departments - 6	2 Tubes, 1 Fans, 1 computer, /department + 1 printer, Xerox machine 1	3 units approximately
3	Laboratories - 5	Laboratory instruments: Hot air oven- 1, Centrifuge- 1, Incubator- 1, Hot plate- 1, Exhaust fan- 2, Fridge- 1	6 units approximately
4	Computer lab	8 Computers, server, UPS, Printer 1, Projector 1, Inverter Batteries- 4 etc.	5 units approximately
5	Admin block	2 Tubes, 2 Fans, /section + 4 computer, 1 printer, Inverter- 2, Xerox machine 1, Inverter Batteries- 2	5 units approximately
6	Water supply pumps, water cooler, bore-well water filter, CCTV -6, Common lights	Pumping and circulation water in the campus	7 units approximately
			30 units approximately

Action:

1) Architectural design for college is based upon use of natural lighting and ventilation to save extra energy(electricity).
    a) As per the structure of the building the chemistry laboratories are placed in such a way that hazardous fume discharges outside.

b) The courtyard planning makes ample availability of natural light during the day along with good ventilation.

c) The percentage of soft landscape is more than hard landscape so the surrounding temperature including the building temperature is low and that also helps in water percolation thus increasing the ground water table.

d) Height and size of the windows in classrooms and laboratories provide adequate ventilation. There is no heat trapping mechanism and glare due to excessive use of glass in the campus.

e) There is less construction cost due to well designed structure.

f) There is easy mobility for handicapped students and staff due to uninterrupted spaces with fewer columns and long wide corridors in the building.

g) The monotony of long corridors is broken by providing courtyards every now and then.

h) There is significant consideration for disaster management. The building is earthquake proof and provides ample fire escape routes.

2) As per the availability attempts being done to replace florescent bulbs with CFL and LED bulbs/tubes.

3) Strictly turning of monitors, fan, tube lights, and laboratory instruments after the work.

4) Solar system established in 2017-18. It's has capacity is 15.3kw. This solar system was installed through university funding scheme. Which is one of the best practices in our campus as it reduces electricity cost of the institute by over 90%. Campus requires traditional electricity supply for the monsoon season only.

5) Organizing lectures on energy conservation in order to give awareness to the students.
6) Perhaps the most significant improvement has been the general switch from CRT (cathode ray tube) monitors to LCD (liquid crystal display)/flat panel display monitors. This change occurred in response as an initiative for meeting Kyoto Protocol standards. Although over twice as expensive up front, LCD monitors are estimated to use 40-60% less energy overall than CRTs.
7) All computers purchased by the college have an Energy Star rating, which is beginning to be a standard requirement for computers.
8) Retired computers and other equipment are sent to e-storage room of trust office and then it is collected by vendor.
9) During practice session for computer course the printouts being taken on one sided used paper.

3. General Recommendations:

- The College should improve its monitoring and reporting of energy, water and other resource usage and provide information to campus users. In order to do so the College must install separate water meters and electricity meters for campus buildings.
- College should encourage students to undertake a project to create college environment inventory. This would supply the campus with current status of environmental concerns and enable the College to look into areas where they can improve and accordingly an action points can be formulated.
- To reach the goal of a significant recycling rate, which some institutions have achieved, college should compost food waste and be more vigorous about recycling education.
- The college should continue to stay with current chemical products that may have a minimal environmental impact and make this an explicit formal goal.
- College should consider developing explicit policies for reducing the impact of new construction on impermeable surface area and runoff.
- Any future increases in servers should be consolidated in one “machine room,” rather than building another on campus with the same high maintenance requirements. Additionally, when the College’s phone system is replaced, the central system could also be consolidated in this space.
- The EAC should make decisions with respect to continuous input, interests and commitments of the students, participating faculty, and administration. The college should continue to support the work of the EAC and should ensure that its recommendations are considered carefully and in a timely manner through the appropriate chain of command.

- College should develop a mechanism of monitoring and information dissemination of various environmental parameters. College should have strong solid waste management policy.
- The college should formulate well devised and succinct environmental code or statement or policy through which all decisions are filtered. Many colleges, especially larger ones, seem to have environmental principles or codes for sustainability.
- Chemistry department should encourage “Green Chemistry” program.
- As per modern understanding regarding environment, local trees should be planted from biodiversity (Birds, insects, pollinators etc.) point of view.
- The roof area approximately 5000 Sq. mts. shows potential for rain water harvesting.

4. Conclusions

The findings of this report show that the college performs fairly well on sustainability issues. It does consider the environmental impacts of most of its actions and makes a concerted effort to act in an environmentally responsible manner. In conversations with faculty, staff, and administration at the college, a major theme has been the improvements made over the last many years in how the college performs environmentally. Even though the college does perform fairly well, the recommendations in this report highlights many ways in which the college can work to improve its actions and become a more sustainable institution.

In this section, the recommendations are ranked in terms of priority. We have three categories high priority, medium priority, future and minor concerns.

4.1 The high priority recommendations are:

- Improve the College's monitoring and reporting of water, energy usage, and solid waste management mechanism to provide better feedback and information for campus users.
- Continue working towards composting the post-consumer food waste generated by the canteen areas.
- Adopt Environmentally Responsible Purchasing Policy, and work towards creating and implementing a strategy to reduce the environmental impact.
- There should be value education modules based action programs to inculcate environment protection as one of the value.

4.2 The medium priority recommendations are:

- Look towards meeting different environmental standards.
- Communicate with computer hardware suppliers to find out what the ways to recycle e-waste materials.
- The practice of self-serving of food where possible should be initiated in canteens to make users more aware of food waste.
- Develop explicit policies concerning the impact of new construction on impervious surface area and runoff.
- Continue to stay with chemical products that may have a minimal environmental impact and make this an explicit formal goal.
- Continue to support the work of the EAC and should ensure that its recommendations are considered carefully and in a timely manner through the appropriate chain of command.

4.3 The minor and future concerns are:

- Encourage student project on environmental footprint for College.
- Continue expanding interpretive program to better educate students about natural history and college role in preserving biodiversity and optimum utilization of natural resources.
- Increase price for parking charges and implement it across all types of employees, faculty, and students in order to encourage use of public transport.
- Should formulate “Environmentally Responsible Purchasing Policy” for college

5. Annexure

5.1. Environment policy

I. College is committed to environmental friendly action; The College will act to minimize the impacts of all its activities in terms of

1. Performance, including reliability and energy efficiency

2. Durability

3. Maintainability

4. Natural resource use, including recycled content, transportation, costs etc.

5. Recyclability or biodegradability

6. Toxicity

II. The College will, when possible, use independent organizations to assess the environmental impact within the campus.

5.2. Square footage of different surface types on campus

Total area - 5.12 hectors.
Playground – 800.00 sq.ft.
Greenery area - 1 acre
College building - 1645.09 sq.fts

5.3 List of the plant species within the campus

Sr. No.	Local Name	Botanical Name	Code	Total no. of Trees
1.	गुंजपाला	*Abrus precatorius L.*	A	1
2.	ख्रिसमसपाम	*Adonidia merrillii Becc.*	B	2
3.	कोरफड	*Aloe vera L.*	C	1
4.	सप्तपर्णी	*Alstonia scholaris L.*	D	4
5.	ख्रिसमसट्री	*Araucaria columnaris J.R.Forst.Hook.*	E	1
6.	कडुलिंब	*Azadirachta indica L.*	F	6
7.	आपटा	*Bauhinia racemosa Lam.*	G	1
8.	पळस	*Butea monosperma Lam.*	H	4
9.	शंखासुर	*Caesalpinia pulcherrima L.*	I	4
10.	बॉटलब्रश	*Callistemon lanciolatus (Sm.)Sweet.*	J	3
11.	कर्दळ	*Canna indica L.*	K	1
12.	बहावा	*Cassia fistula L.*	L	1
13.	सुरु	*Casuarina equisetifolia L.*	M	34
14.	सदाफुली	*Catharanthus roseus L.*	N	1
15.	नारळ	*Cocos nucifera L.*	O	47
16.	गुलमोहर	*Delonix regia (Boj ex Hook)Raf*	P	4
17.	मनीप्लांट	*Epipremnum aureum G.S.Bunting*	Q	1
18.	क्राइस्ट प्लांट	*Euphorbia milii Des Moul.*	R	1
19.	फिकस	*Ficus benjamina L.*	S	4
20.	रबर	*Ficus elastica Roxb.*	T	1
21.	पिंपळ	*Ficus religiosa L.*	U	1
22.	बॉटलपाम	*Hyophorbe lagenicaulis L.H.Bailey*	V	2
23.	गोल्डनड्यूर्याटा	*Duranta erecta L.*	W	1
24.	इक्षोराइक्सोरा	*Ixora coccinea L.*	X	1
25.	अडुळसा	*Justicia adhatodaL.*	Y	1
26.	मेहंदी	*Lawsonia inermis L.*	Z	1
27.	सुबाभूळ	*Leucaena leucocephala Lam.*	AA	3
28.	गुळवेल	*Lilium candidum L.*	AB	1
29.	आंबा	*Mangifera indica L.*	AC	1
30.	बकाण	*Melia azedarach L.*	AD	3
31.	कन्हेर	*Nerium oleander L.*	AE	1
32.	आवळा	*Phyllanthus emblica L.*	AF	1
33.	मोरपंखी	*Platycladus orientalis L.*	AG	13
34.	पेरू	*Psidium guajava L.*	AH	1

35.	ट्रव्हलिंगपाम	*Ravenala madagascariensis Sonn.*	AI	2
36.	रेनट्री	*Samanea saman(Jacq.) merr.*	AJ	3
37.	तरवटा	*Senna auriculata L.*	AK	2
38.	चिंच	*Tamarindus indica L.*	AL	2
39.	बदाम	*Terminalia catappa L.*	AM	3
40.	अश्वगंधा	*Withania somnifera L.*	AN	1
41.	फॉक्सटेलपाम	*Wodyetia bifurcate A.K.Irvine*	AO	2
42.	बोर	*Ziziphus jujuba Mill.*	AP	4
43.	शेंद्री अनोठा	*Bixa orellana L.*	AQ	2
44.	बिबळा	*Pterocarpus marsupium Roxb.*	AR	2
45.	शिकेकाई	*Acacia concinna L.*	AS	2
46.	निलगिरी	*Eucalyyyyptus oblique L.*	AT	1
47.	ब्रम्हानंद	*Kejelia pinnata L.*	AU	2
48.	सफेद मुसळी	*Chlorophytum boriviliaum*	AV	2
49.	जयपाल	*Croton tiglium*	AW	2
50.	काटेसावर	*Bombax ceiba L.*	AX	2
51.	बेहडा	*Terminalia bellirica Roxb.*	AY	2
52.	भोकर	*Cordia dicholoma L.*	AZ	2
53.	वाळा	*Chrysopogon zizanioides L.*	BA	2
54.	पाडळ	*Stereospermum tetragonum DC.*	BB	2
55.	पळस पिवळा	*Butea monosperma (Lam.) Taub.*	BC	2
56.	सिमारुबा	*Simarouba glauca DC.*	BD	2
57.	सीता अशोक	*Saraca asoca Roxb.*	BE	2
58.	कांचन	*Bauhinia racemosum Lam.*	BF	2
59.	शतावरी	*Asparagus racemosus Wills.*	BG	2
60.	मोह	*Madhuca longifolia J.F.Macbr.*	BH	2
61.	पॅप्यूलर ट्री	*Populus tremula L.*	BI	2
62.	कलाब्क्ष	*Crescentia cujeta L.*	BJ	2
63.	कुंभा	*Careya arborea Rob.*	BK	2
64.	अर्जुन	*Terminalia arjuna Roxb.*	BL	2
65.	माहोगनी	*Swietenia mahogoni L.*	BM	2
66.	खाया	*Khaya grandifoliola C.DC.*	BN	1
67.	कर्पूर तुळस	*Ocimum kalimandschariea L.*	BO	5

5.4 Academic Timetable

TIME TABLE (COMMERCE) YEAR 2015-2016

Lect.	Time	Class	Monday	Tuesday	Wensday	Thursday	Friday	Saturday
1	7:45 to 8.30	F.Y.	Marathi/Hindi (K.B.D/ R.B.M.)	Marathi/Hindi (K.B.D/ R.B.M.)	B.Eco. (J.S.D.)	B.Eco. (J.S.D.)	Comp .Eng (K.C.A)	Comp .Eng (K.C.A)
		S.Y.	E.C.Law (D.S.B)	E.C.Law (D.S.B)	Cost –I/ Mark-I (D.S.B/B.J.S.)	Cost –I/ Mark-I (D.S.B/B.J.S.)	B.M (B.J.S.)	B.M (B.J.S.)
		T.Y.	I&G Eco. (J.S.D)	I&G Eco. (J.S.D)	Auditing&Tax (M.P.K))	Auditing&Tax (M.P.K)	Cost –III/ Mark-III (G.V.N./D.S.B)	Cost –III/ Mark-III (G.V.N./D.S.B)
2	8:30 to 9:15	F.Y.	Comp .Eng (K.C.A)	Comp .Eng (K.C.A)	O.S.D./Bank (M.P.K /D.S.B)	O.S.D./Bank M.P.K /D.S.B)	O.S.D./Bank (M.P.K /D.S.B)	O.S.D./Bank (M.P.K /D.S.B)
		S.Y.	B.C. (G.V.N)	B.C. (G.V.N)	B.M (B.J.S.)	B.M (B.J.S.)	B.Eco. (K.H.B.)	B.Eco. (K.H.B.)
		T.Y.	Cost –II/ Mark-II M.P.K./B.J.S)	Cost –II/ Mark-II (M.P.K /B.J.S)	Adv.A/C (G.V.N.)	Adv.A/C (G.V.N.)	Adv.A/C (G.V.N.)	Adv.A/C (G.V.N.)
3	9.15 to 10.00	F.Y.	Fin.A/C (G.V.N.)	Fin.A/C (G.V.N.)	Fin.A/C (G.V.N.)	Fin.A/C (G.V.N.)	Computer (G.V.N)	Computer (G.V.N)
		S.Y.	Cost –I/ Mark-I (D.S.B/B.J.S.)	Cost –I/ Mark-I (D.S.B/B.J.S.)	Cor.A/C (M.P.K)	Cor.A/C (M.P.K)	Cor.A/C (M.P.K)	Cor.A/C (M.P.K)
		T.Y.	Auditing&Tax (M.P.K))	Auditing&Tax (M.P.K)	B.R.F (M.Law) (D.S.B)	B.R.F (M.Law) (D.S.B)	B.R.F (M.Law) (D.S.B)	B.R.F (M.Law) (D.S.B)
10.00 to 10.15			SHORT RECESS					
4	10:15to11.00	F.Y.	B.Eco. (J.S.D.)	B.Eco. (J.S.D.)	Mark/B.E.E (M.P.K / B.J.S)	Mark/B.E.E (M.P.K / B.J.S)	Computer (G.V.N)	Computer (G.V.N)
		S.Y.	B.Eco. (K.H.B.)	B.Eco. (K.H.B.)	B.C. (G.V.N)	B.C. (G.V.N)	E.C.Law (D.S.B)	E.C.Law (D.S.B)
		T.Y.	Cost –III/ Mark-III (G.V.N./D.S.B)	Cost –III/ Mark-III (G.V.N./D.S.B)	I&G Eco. (J.S.D)	I&G Eco. (J.S.D)	Cost –II/ Mark-II M.P.K./B.J.S)	Cost –II/ Mark-II (M.P.K /B.J.S)
5	11.00 to11:45	F.Y.	Mark/B.E.E (M.P.K / B.J.S)	Mark/B.E.E (M.P.K / B.J.S)	Phy.Education (CRN)	Phy.Education (CRN)	Marathi/Hindi (K.B.D/ R.B.M.)	Marathi/Hindi (K.B.D/ R.B.M.)
		S.Y.	-	-	Environment	Environment	Environment	Environment
		T.Y.	-	-	-	-	--	--

INCHARGE

(Dr. DEOKAR S.B)

PRINCIPAL

Principal

Sau Sushilamai Kale Arts,Commerce & Science College Gautamnagar Po.Kolpewadi Tal.Kopargaon (A.Nagar)

ARTS -FACULTY TIME TABLE 2015-2016

Lect.	Time	Class	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	7:45 to 8:30	F.Y.	Geo. (SSU)	Geo. (SSU)	Pol. (SSA)	Pol. (SSA)	Eco (K.H.B)	Eco (K.H.B)
		S.Y.	S 1	S 1	S2	S2	Hist. (PVC)	Hist. (PVC)
		T.Y.	Hist. (PVC)	Hist. (PVC)	Geo. (MVB)	Geo. (MVB)	Mar/Hin/Eng (KBD/RBM/KUB)	Mar/Hin/Eng (KBD/RBM/KUB)
2	8:30 to 9:15	F.Y.	Pol. (SSA)	Pol. (SSA)	Hin/Add. Eng (PKS/KUB)	Hin/Add. Eng (PKS/KUB)	Mar. (KNC)	Mar. (KNC)
		S.Y.	Eco(JSD)	Eco(JSD)	S1	S1	S2	S2
		T.Y.	S4	S4	Eco(KHB)	Eco(KHB)	Eng. (KCA)	Eng. (KCA)
3	9:15 to 10:00	F.Y.	Eng. (KUB)	Eng. (KUB)	Eco(KHB)	Eco(KHB)	Hist (KSR)	Hist (KSR)
		S.Y.	Geo. (MVB)	Geo. (MVB)	Eng. (KUB)	Eng. (KUB)	Pol. (SSA)	Pol. (SSA)
		T.Y.	S3	S3	S3	S3	S4	S4
10:09 TO 10:20			SHORT RECESS					
4	10:15to11.00	F.Y.	Hist(KSR)	Hist(KSR)	Eng. (KUB)	Eng. (KUB)	Hin/Add. Eng (PKS/KUB)	Hin/Add. Eng (PKS/KUB)
		S.Y.	Eng. (KUB)	Eng. (KUB)	Pol. (SSA)	Pol. (SSA)	Mar/Hin/Eng (KBD/RBM/KCA)	Mar/Hin/Eng (KBD/RBM/KCA)
		T.Y.	Pol. (SSA)	Pol. (SSA)	Eng. (KCA)	Eng. (KCA)	Geo. (MVB)	Geo. (MVB)
5	11.00 to11:45	F.Y.	Phy.Edu. (CRN)	Phy.Edu. (CRN)	Mar. (KNC)	Mar. (KNC)	Geo. (SSU)	Geo. (SSU)
		S.Y.	Hist. (PVC)	Hist. (PVC)	Mar/Hin/Eng (KBD/RBM/KCA)	Mar/Hin/Eng (KBD/RBM/KCA)	Geo. (MVB)	Geo. (MVB)
		T.Y.	Mar/Hin/Eng (KNC/RBM/KUB)	Mar/Hin/Eng (KNC/RBM/KUB)	Hist. (PVC)	Hist. (PVC)	Eco(KHB)	Eco(KHB)
6	11.45to12.30	F.Y.	--	--	--	--	--	--
		S.Y.	Environment	Environment	Environment	Environment	Eco(JSD)	Eco(JSD)
		T.Y.	S2 (Geo.Pract.)(SSU)	S2 (Geo.Pract.) (SSU)	S4 (Geo.Pract.)(MVB)	S4 (Geo.Pract.) (MVB)	Pol. (SSA)	Pol. (SSA)

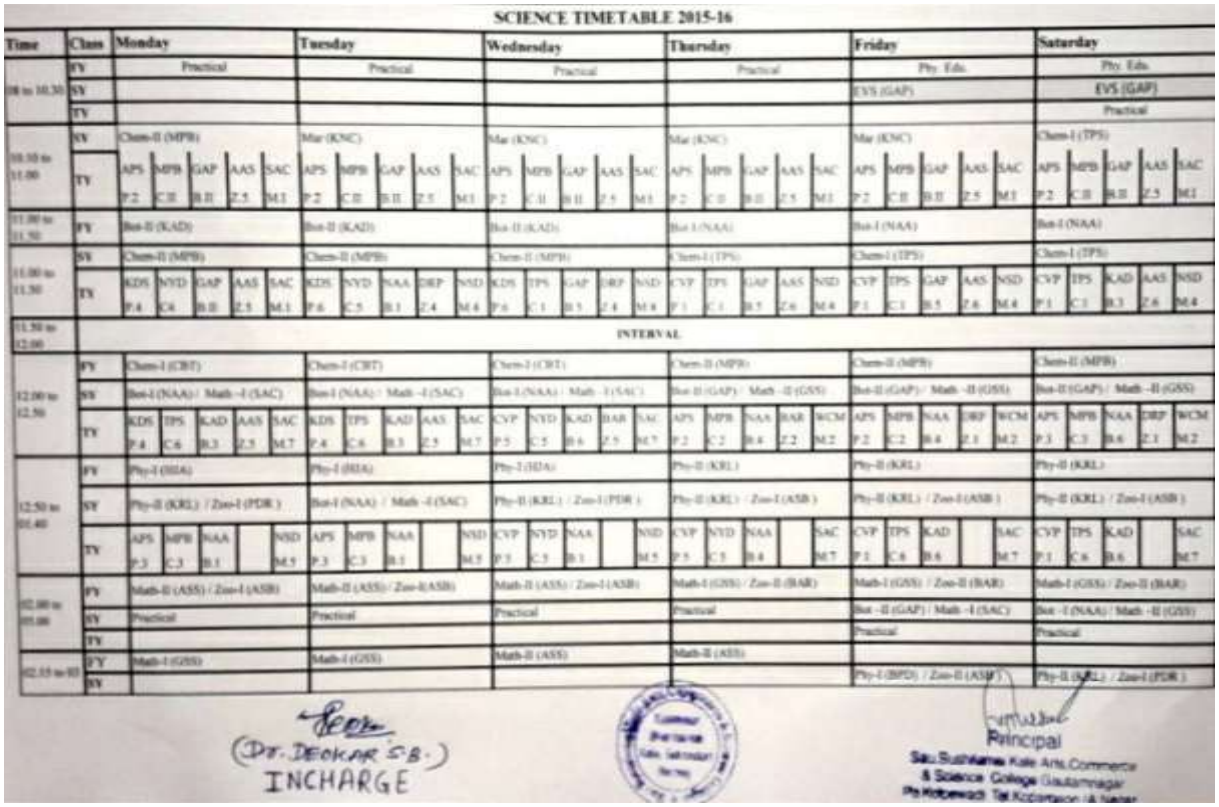
INCHARGE

(Dr. DEOKAR S.B)

PRINCIPAL

Principal

Sau Sushilamai Kale Arts,Commerce & Science College Gautamnagar Po.Kolpewadi Tal.Kopargaon (A.Nagar)



SCIENCE TIMETABLE 2015-16

Time	Class	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10 to 10.30	FY	Practical	Practical	Practical	Practical	Phy. Edu.	Phy. Edu.
	SY					EVS (GAP)	EVS (GAP)
	TY						Practical
10.30 to 11.00	SY	Chem-II (MPB)	Mar (KNC)	Mar (KNC)	Mar (KNC)	Mar (KNC)	Chem-I (TPS)
	TY	APS MPB GAP AAS SAC P.2 C.II B.II Z.5 M.1	APS MPB GAP AAS SAC P.2 C.II B.II Z.5 M.1	APS MPB GAP AAS SAC P.2 C.II B.II Z.5 M.1	APS MPB GAP AAS SAC P.2 C.II B.II Z.5 M.1	APS MPB GAP AAS SAC P.2 C.II B.II Z.5 M.1	APS MPB GAP AAS SAC P.2 C.II B.II Z.5 M.1
11.00 to 11.30	FY	Bot-II (KAD)	Bot-II (KAD)	Bot-II (KAD)	Bot-I (NAA)	Bot-I (NAA)	Bot-I (NAA)
	SY	Chem-II (MPB)	Chem-II (MPB)	Chem-II (MPB)	Chem-I (TPS)	Chem-I (TPS)	Chem-I (TPS)
	TY	KDS NYD GAP AAS SAC P.4 C.4 B.II Z.5 M.1	KDS NYD NAA DRP NSD P.6 C.5 B.1 Z.4 M.4	KDS TPS GAP DRP NSD P.6 C.1 B.5 Z.4 M.4	CVP TPS GAP AAS NSD P.1 C.1 B.5 Z.6 M.4	CVP TPS GAP AAS NSD P.1 C.1 B.5 Z.6 M.4	CVP TPS KAD AAS NSD P.1 C.1 B.3 Z.6 M.4
11.30 to 12.00	INTERVAL						
12.00 to 12.30	FY	Chem-I (CBT)	Chem-I (CBT)	Chem-I (CBT)	Chem-II (MPB)	Chem-II (MPB)	Chem-II (MPB)
	SY	Bot-I (NAA) / Math -I (SAC)	Bot-I (NAA) / Math -I (SAC)	Bot-I (NAA) / Math -I (SAC)	Bot-II (GAP) / Math -II (GSS)	Bot-II (GAP) / Math -II (GSS)	Bot-II (GAP) / Math -II (GSS)
	TY	KDS TPS KAD AAS SAC P.4 C.6 B.3 Z.5 M.7	KDS TPS KAD AAS SAC P.4 C.6 B.3 Z.5 M.7	CVP NYD KAD BAR SAC P.5 C.5 B.6 Z.5 M.7	APS MPB NAA BAR WCM P.2 C.2 B.4 Z.2 M.2	APS MPB NAA DRP WCM P.2 C.2 B.4 Z.1 M.2	APS MPB NAA DRP WCM P.3 C.3 B.6 Z.1 M.2
12.30 to 01.00	FY	Phy-I (SDA)	Phy-I (SDA)	Phy-I (SDA)	Phy-II (KRL)	Phy-II (KRL)	Phy-II (KRL)
	SY	Phy-II (KRL) / Zoo-I (PDR)	Bot-I (NAA) / Math -I (SAC)	Phy-II (KRL) / Zoo-I (PDR)	Phy-II (KRL) / Zoo-I (ASB)	Phy-II (KRL) / Zoo-I (ASB)	Phy-II (KRL) / Zoo-I (ASB)
	TY	APS MPB NAA NSD P.3 C.3 B.1 M.5	APS MPB NAA NSD P.3 C.3 B.1 M.5	CVP NYD NAA SAC P.5 C.5 B.1 M.7	CVP NYD NAA SAC P.5 C.5 B.6 M.7	CVP TPS KAD SAC P.1 C.6 B.6 M.7	CVP TPS KAD SAC P.1 C.6 B.6 M.7
01.00 to 01.30	FY	Math-II (ASS) / Zoo-I (ASB)	Math-II (ASS) / Zoo-I (ASB)	Math-II (ASS) / Zoo-I (ASB)	Math-I (GSS) / Zoo-II (BAR)	Math-I (GSS) / Zoo-II (BAR)	Math-I (GSS) / Zoo-II (BAR)
	SY	Practical	Practical	Practical	Practical	Bot -II (GAP) / Math -I (SAC)	Bot -I (NAA) / Math -II (GSS)
	TY					Practical	Practical
01.15 to 03	FY	Math-I (GSS)	Math-I (GSS)	Math-II (ASS)	Math-II (ASS)		
	SY					Phy-I (BPD) / Zoo-II (ASB)	Phy-II (KRL) / Zoo-I (PDR)

(Dr. DEOKAR S.B.)
INCHARGE

Principal
Shri Sushilkumar Kale Arts,Commerce & Science College Gautamnagar

5.5: NSS environment action programmes :-

The college authorities are keen for continuously conducting awareness and action programmes to inculcate environment protection value within staff, students and society members. These includes arranging road shows, rallies on various issues related to environment and health. The college students and faculty members through NSS getting involved in these activities.

Our college is having National Social Service (NSS) Unit which regularly takes part and arranges the street shows and rallies every year.

The students also took part in AIDS awareness rally, prevention of self-medication and Dengue awareness rallies. National and social outlook is inculcated in the students through programmes such as Constitution Day, Swatch Bharat Abhiyan, blood donation camp, polio eradication, communal harmony, fund raising and natural calamities and other such activities through the NSS unit. We are linked with Sanjivani Blood Bank, Kopergaon for arrange blood donation camp every year.

Waste Management Awareness Rally

Students Appreciation For Their Environment Awareness Initiatives

Guest lecture on Sustainable Management of the resources

Plantation programme throughout the year:

As a part of social responsibility, along with the college campus, villages from the Kopergaon tehasils were adopted by college for tree plantation and post plantation care. More than 150 saplings were planted through NSS unit on 18th -24th Feb 2017. The tree plantation details are mentioned in following table.

Sr. No	Year	No. of Plants	Total no. of plants
1.	2015	30	405
2.	2016	40	
3.	2017	65	
4.	2018	110	
5.	2019	160	

Plantation Drive within campus and adopted villages

5.6. Photo Gallery

Sufficient sunlight in the laboratory during day time, along with Exhaust fans in the laboratories to remove gases during experimental work

*** Effective cross ventilations for the classrooms and corridors***

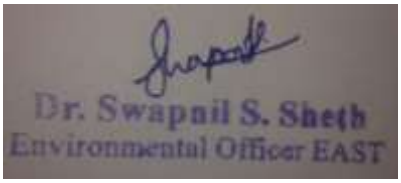
Effective use of slogans and dustbins to behave in a eco-friendly manner

Installation of Solar Power plant on rooftop

Greenery from all the sides of the college campus

Team of Assessors

* **Dr. B.R. Mardikar**
  Scientist, M.B.B.S., M.D., M.S. Ph.D
* **Dr. B.G. kulkarni**
  Scientist, Botanical Survey of India
* **Dr. Swapnil Sheth**
  Environmental Expert
* **Ar. Indrayani Dasare**
  Architect, Green Building



EAST *Reaching Out to People Globally*

Environmental Action for Sustainable Transformation

5/1, Anand Nagar, Kothrud, Pune - 411038, Maharashtra India
Email: eastresearch@gmail.com Tel. (M): +91- 9860965856, 9011036050
Redg. No. : Maharashtra/270/2006/Pune

Date: 26/02/2018

To
The Principal
Sau. Sushilamai Kale Arts, Commerce
& Science College, Gautamnagar,
Post Kolpewadi, Tal. Kopargaon(A.Nagar)

Sub: Environmental review and assessment

Respected Madam,

With reference to subject mentioned above we are pleased inform you that, EAST has undertaken the Environmental assessment of your college campus.

The assessment was carried out as per the criteria mentioned in NAAC section VII for the college campus during 5th to 7th February 2018. It was found that campus as a whole unit committed for environmental friendly actions and demonstrated through its various implementations along with well structured Environment Policy.

We wish all the best for all the future endeavors.

Thanking You

Dr. Bhaskar R. Mardikar
President, EAST