

Chapter-V

Environment Consciousness through Green practices:

5.0 Environment Consciousness through Green practices:

5.1. Environment Consciousness:

A clean and healthy environment is one of the desired pre-requisites in any educational institution. To accomplish this, our institution emphasizes on adopting good green practices and bringing environment consciousness to our campus and surrounding areas through various endeavors. The institute is conscious of environmental issues. It tries to create environmental awareness among the stakeholders. The conscious involvement of all stake holders facilitates this process.

The institution works towards inculcating best practices, invoking environmental consciousness among students and creating global awareness. The institute authorities are very keen on making the campus eco-friendly by adopting



energy conservation practices, effective waste management at source and plantation for making the campus clean, green and healthy. Some following strategies adopted by the college for environmental consciousness

are listed as 'Green Practices'. Environment awareness, Tree plantation, Clean campus, Energy conservation, Rain water harvesting, Solar street lamps, Solid and Liquid Waste Disposal, Green auditing of campus, Greening the campus, No vehicle day , Bicycle Bank for girls, Awareness rallies, Different Competitions for the awareness and protection of environment like Best from waste competition, Trackings, study tours/ visits to biodiversity places to give the message of walk, Cleaning of campus and the nearby villages on different occasion.

5.2 Initiatives taken by the college to make the campus eco-friendly-

In the present year the college started Environmental Eco-club to implement green policy around the year to make the college eco-friendly. The club undertakes activities like organization of related event , beautification, tree plantations, awareness programs, water and power management

In order to create environmental awareness amongst the students, they are encouraged to participate in activities like ‘Swachata Abhiyan’, Save Fuel, No Vehicle Day etc.



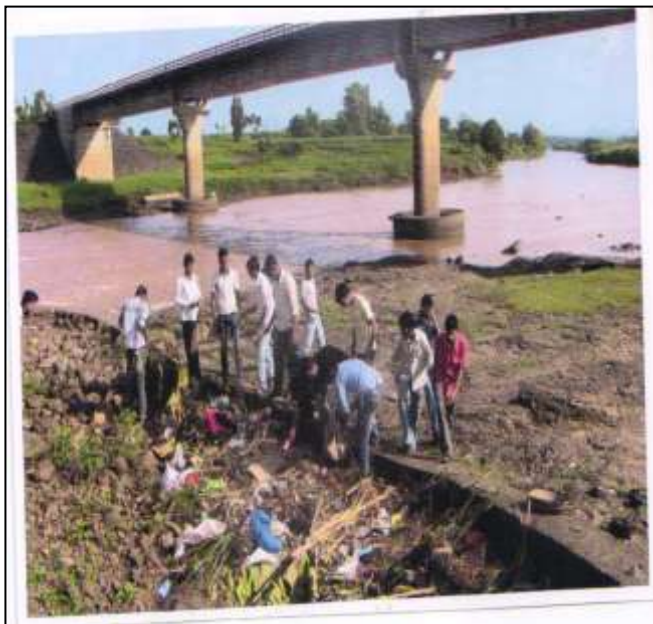
Various competitions like Rangoli, Essay, Elocution, Poster Presentation etc. on the topics related to environment are organized. Students are also motivated to give message of eco-friendly practices through Street Plays, Rallies, Articles in Botanical News Letter, Wall Paper, Warana Varshik etc

5.2.1Energy conservation:

There is a close connection between excess use of energy and environmental damage. Consumption of energy for routine activities like lighting, heating, cooling and ventilation results into severe depletion of invaluable environmental resources. Attempts are made for energy conservation through following measures:

- Majority of our class rooms, office, gymnasium, canteen, hostels and staff quarters are provided with spacious windows to have enough ventilation and sun light, so the use of electricity is naturally less.

- Preference is given to the most energy efficient



and environmentally sound appliances such as energy-saving CFL and LED bulbs and LED

tubes with reflectors. All computers (except 6) in the institution are provided with LED screens.

- It is ensured that all electronic and electrical equipment, such as computers, are switched off when not in use and are generally configured in power saving mode, when such option is available. The air-conditioners are not used anywhere in the campus.
- In Department of Physics Mr. Chitrapunj Jaysurya . Joint Director, Petroleum Energy Conservation Association(PCRA), Govt. of India, and Prof. M.M.Wagh, Assistant professor, Department of Technology, Shivaji University, Kolhapur jointly deliver an profitable lecture on electricity and petroleum energy conservation on 15/10/2015
- LPG is used in the department of Physics, Chemistry and HSVC for practical and educational purpose but its consumption is very less.
- ‘No Vehicle Day’ is observed every year on 13th December which is death anniversary of the founder of the institution late Tatyasaheb Kore.
- Students and staff are encouraged to walk by organizing workshop on ‘Yogic Walking’ and walking competition for faculty members.



- Majority of staff coming from other places use vehicles in sharing. About 45 % of students use state transport vehicles for college.
- To promote use of cycling, Cycle Bank Scheme for girl students is run as one of our Best Practices.

5.2.2 Use of renewable energy:

To make the campus pollution free and to conserve conventional energy resources, our college tries to enhance use of solar energy. Presently, use of renewable energy in our campus is as listed below.

- Sunlight is our principle source of energy. All the rooms in both the buildings are airy and sunny and do not need electricity during day time.
- Solar water heating panels are used for Boys and Girls Hostels.

5.2.3 Water Harvesting:

In 2013 our students presented One Act Play ‘Pani Re Pani’ (Water... Water) in District and Central Youth Festivals of Shivaji University. It was awarded with 3rd and 2nd prize respectively.

5.2.3 Plantation:

There are a good number of trees and plants that make the campus of the college green. The college campus has Total 5021 trees including flower plants, medicinal plants, fruit plants and local varieties. The college has made conscious efforts to bring unutilized land under plantation through NSS, NCC, staff and students. On the east side of new building 100 trees are planted in year 2011-12. Drip/sprinkle irrigation scheme is being used for watering the gardens and lawns. The increased green cover has reduced carbon foot- print of the college campus. Plantation is done on the occasions of special days like, Teachers Day, Guru Pournima, Kranti Din, Paryavaran Day etc. Welcome of our guests is done by giving plants. The periodic pruning of the trees and the plants is done meticulously. Lecture of eminent personality (Scientist and environmentalist like Principal Dr .Madukar Bachulkar, Prin. Dr. S. R. Patil) are organized under Lead College Activity. As an effort towards creating awareness on plantation in nearby places Cycle Rallies are arranged by NSS/NCC students, on different occasions.

- Following chart shows tree plantation in the campus.(Annexuer- P)



Table. 1. Total Plants (Campus Excluding Botanical Garden)

Sr. No.	Name	Types/ Variety	Total No.
1	Trees	85	3087
2	Shrubs	46	1424
3	Herbs	17	473
4	Climbers	4	37
Grand Total:		152	5021

Table. 2. Classification as per utility of Tree Plants (Campus Excluding Botanical Garden)

Sr. No.	Plant class	Types	Quantity
1	Avenue trees	16	817
2	Flowering plants	22	355
3	Fruiting Trees	27	640
4	Gymnosperm	05	076
5	Ornamental trees	08	375
6	Palms	07	824
Total		85	3087

5.2.4E-waste management:

Institute disposes all types of E-waste by outsourcing. The institute has remarkably less e-waste in the form of chips, bulbs, circuit boards, mother boards, computers, batteries, relays, and switches. Institute sends it for recycle or disposes scientifically by outsourcing.

5.3 Some Green practices-

1.Cycle Bank for Girl Students- The scheme is started with a goal to Promote women education particularly in rural area. - Warana region where our institution is situated comprises of near about 70 villages and some hilly settlements. Majority of our students

come from such places. Facilities of S. T. bus is available but very often does not suit to the college timings. Even the students have to walk miles together to reach the nearby bus stand, as there is no provision of state transport to the settlements where they live.. Very often students have to travel by private transport which is more expensive and inconvenient, particularly for the girl students. It has been noticed that because of the inadequacy of transportation facility, parents from rural area do not allow their daughters to have higher education.



Establishment of Cycle Bank Scheme for the girl students is a novel concept to provide easy and almost cost free transportation facility to girl students and promote the noble cause of 'women education'.



Every year about 80-85 bicycle are distributed among girl students who coming from rural areas and facing travelling problems, under cycle bank scheme. Which they can use for transportation to college and also for personal purpose.

As cycling is one of the best exercises, the beneficiaries have developed physical fitness also. It is one of best green practices of our institution which minimize fuel consumption, Energy consumption control CO₂ and air pollution of campus surrounding.

Tree plantation-Tree plantation is done in and outside the campus by faculty, students, various occasion like Krantidin, Anniversaries of distinguished people, Teacher's day etc.

Also college organize tree plantation programmes through NSS and NCC in adopted villages. The students gave the plants to their teachers as a gift on Teacher's Day. Usually plants are used as gifts and token of appreciation. The greenery in campus helps for carbon neutrality.

Swachata Abhiyan- Students are encouraged to give active participation in 'Swachata Abhiyan'. Under this NCC and NSS student run different programme to clean the nearby villages and adopted villages.

The students of our college participate in 'Clean India Mission' to clean their villages and the



surroundings of college campus. They have



occasionally cleaned local bus stand and river beds etc.

The student of NSS participate very actively and enthusiastically in camp and they extend their duties to clean villages nearby. To create awareness about the cleanness, college organizes different programmes through NCC and NSS also.

Classroom cleaning by student: Students keep their classroom clean. Students take initiative in keeping the campus clean, washing the classrooms. After any programme, the campus is immediately cleaned by the students.

College campus cleaning: The students of NSS and NCC clean the surroundings /campus of college at different occasion.



Drip/sprinkle irrigation: Drip/sprinkle irrigation has been used

for watering the garden / lawns. The increased green cover has reduced carbon foot- print of the college campus. It reduces water and electricity consumption.



Dust bin:-Dustbins are placed at proper places in college to collect wastes (solid, wet separately) and these are monitored periodically.



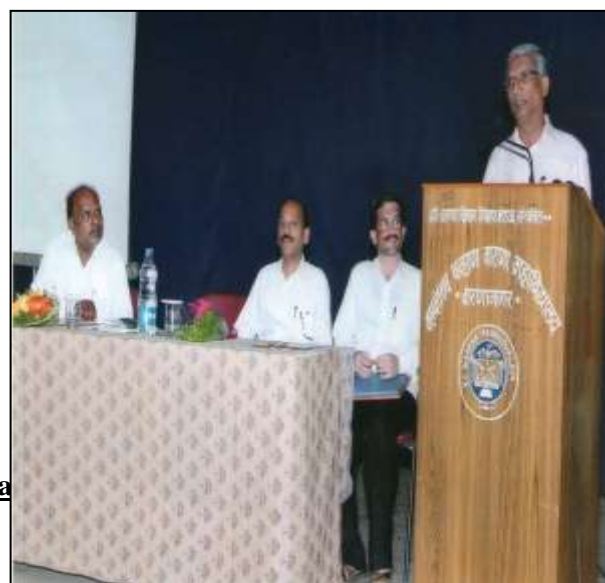
Warana Magazine-Institution tries to create awareness about the issues related to environment among students through students articles, photos, sketches, poems, visit reports, essays etc in Warana Magazine.

Through our Annual Warana Varshik the message of environmental consciousness and cleanliness is given to the society.



Use of Non-conventional and Renewable Energy. To create the environmental awareness between the stakeholders college organize the

Lead college activity: College organize different activities under the Lead College Activity : To different activities under the Lead College Activity : To Preserve Enviroment, To Enhance



workshops and seminars through which eminent



personalities and expertise give the guidelines.

For example lectures of Principal Dr.Madhukar Bocholkar, Principal Dr.S. R. Patil, HOD Dr. P.M. Bhoje. HOD Dr. B.S. Jadhav etc who are welknown environmentalists and they work on different environmental related issues.

Cultural programs-In different programmes like Yovkamohostav, Cultural competition, NSS/ NCC cultural programme the message of ‘Save Nature’, ‘Save Environment’, ‘Save Water’, ‘Save



energy’, ‘Save baby girl’, ‘Save birds’ etc is given through street plays (Pathnatya) , Muknatya, dances, one act play, street plays (Pathnatya) , Muknatya, dances, one act play and group songs. Such practices create awareness about environmental consciousness and students participate actively.



Yoga- Yoga shibirs are organized by NSS,NCC. All the faculty members observed International Yoga Din by practicing yoga. Yoga workshops are organized for NCC and girls students.



Projects on environmental Science –In the syllabi of B.A./B.Sc./B.Com.II under the subject Environmental Studies, projects have been included. We allot the projects to the students concerning to the local area environmental issue. It creates the better understanding about the environmental consciousness.

Women empowerment :- Every year college

organize Maha Hadaga for women empowerment.



All girl students of the college, all female faculties and many other eminent women from Warananagar enthusiastically participated in the event and once again enjoyed the childhood.



Best from Waste competition: Best from Waste competition is organized to encourage creativity, reuse and recycling of waste material.

Students actively participate in this event produce articles from paper cuttings, useful things from old cloths/ cottons, wall pieces from small wooden sticks, things from husk etc, which enrich environment consciousness.



Elocution competition- College organize

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elocution competition in different subjects related environment issues. Every year such competitions were arranged on different occasions in these students were motivated to handle on the subjects



related energy conservation , water harvesting , save earth, solid waste management and environmental consciousness. Zilla Parishad, Kolhapur and Panchyat samiti , Panhala combined arrange an elocution completion in each year named 'Swachata Karadak Spardha.'



(on subject of water harvesting, pollution free town, Swachat Abiyan etc) . In which our college student team is winner of fist two prizes from last three years.

consumption as well as carbon emission.

Poster presentation and exhibition :- college



organize poster presentation campaign, through this competition our student throw the light on

environmental issues by handling the burning issues related to care of environment.



Poster



presentation and exhibition give some solution for care of environment and increase the awareness about it. In such competition student handle the issues like Hiking price of electricity, tree cuttings, necessity of plantation, Water harvesting, Drip irrigation, chemical free cultivation, say no to plastic, Solid waste management, save water etc.

Essay writing:-The college organizes essay competitions in different subjects like preservation of eco- system, go toward villages, Free addictions ,Save biodiversity, tree plantation, save baby girl, save enery, benefits of blood donation, rural cleanliness etc.

Lecture of eminent personality- Every year we organize the lectures of the eminent personality in different sectors who aware and improve the technical knowledge about burning issues of environment and its ecology.



profitable lecture on electricity and petroleum energy conservation on dtd.15/10/2015 .

In Department of Physics Mr. Chitrapunj Jaysurya . Joint Director, Petroleum Energy Conservation Association(PCRA), Govt. of India, and Prof. M.M.Wagh, Assistant professor, Department of Technology, Shivaji University, Kolhapur jointly deliver an



Lecture of Pricipal. Bachulkar of V.Y.College Vadgaon arranged on biodiversity of western ghat,
Lecture of Dr. B.S. Jadhav of V.Y.College Vadgaon on water harvesting .

Establishment of ‘Rockery’:- Students of B.Sc.-III botany established a ‘Rockery’ in the botanical garden of the college. This rockery have sheltered almost 30 different xerophytic plant species .



Students of Botany and Zoology Department each year make the rockery to plants, trees before the rainy season.



Treks-Trekking is essential for every one , it keeps us healthy and strong. Keeping this object Departments like Geography, History, Sociology, Botany, Zoology, NCC,NSS units organize treks to historical and biodiversity place which gives the message if walk and create awareness about environmental consciousness.



Study tours/ Visits:- Departments like Geography, History, Sociology, Botany, Zoology, Physics organize study tours and visits to historical and bio-diversity places.



Save pavan-khind : On 5th march 2015, department of History has undertaken the venture of conservation of Pavankhind, 28 Students with six faculty members occasionally visited to Pavan-khind and cleaned it.

Adventure camps: our students have participated in 'Adventure Camp' gave the message of Sahyadri Conservation and create Environmental Awareness.



Say no to plastic: Our Students from NSS and NCC have actively participated the drive of making Panhala Plastic Free. Today Panhala is declared 'No Plastic Zone' and this is success of

the united efforts. A team of 20 students lead by faculty member Dr. Vilas S. Patil, Department of Physics organize 'Waste Plastic Bottle Free Abhiyan' at Sindhudurga Fort in last year. The collected waste plastic bottles send for recycle through Sindhudurga Corporation.



Cleaning of premises of Shiva Kashid Monument:



For last two year our students from NCC and NCC clean the premises of historical place 'Monument of Shiva Kashid ' in Panhala.





participated)

NSS / NCC Activity:-NSS/ unit organized Cleaning of College campus and Cleaning of Temple Premises, School premises, Drinking water premises (river/ lake) in adopted Village.

Snake Exhibition:-

As in the Warananagar Agriculture is main business obviously snake bite cases frequently occur. To remove myths about snake and to disseminate knowledge about usefulness of poisonous and non poisonous snakes (300 students and staff are

Snake Rescue

In warananagar and in nearby villages remove snake from residential area to its habitat this activity.



warananagar is situated in the western Ghats, to understand snake diversity in western Ghats (200 students are present)

Work Shop on Handling of Non Poisonous Snakes :

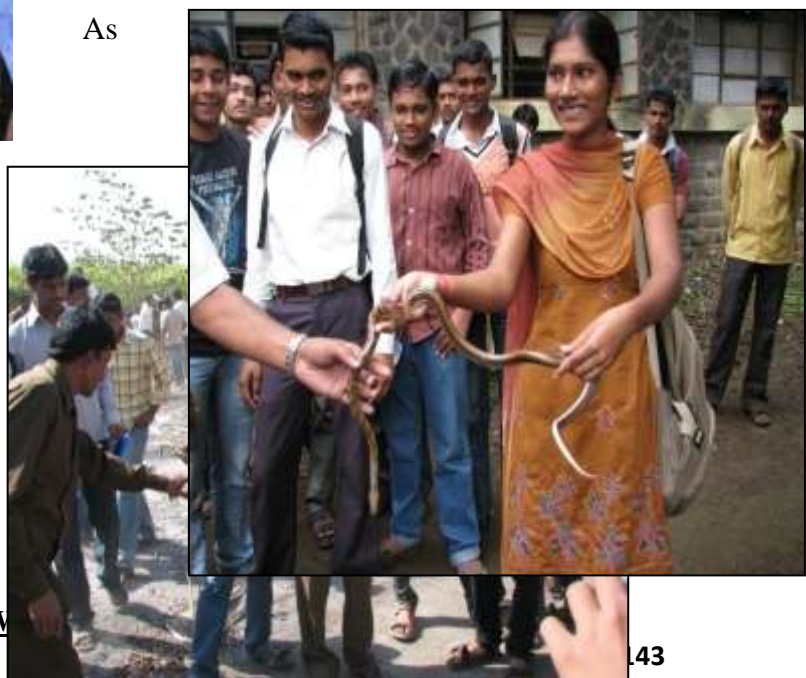
As the Warananagar Agriculture is main business obviously snake bite cases are frequently occur. To train the students in

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Slide Show on Snake Diversity of Western Ghats:

As



identifying poisonous and non poisonous snakes. To disseminate knowledge about usefulness of poisonous and non poisonous snakes (300 students are Present)

Nature Games:

Increase awareness for conservation of nature and to understand food web through game ,to understand nature and its basic rules.

Study of biodiversity of Sagareshwar wild life sanctuary.



To understand bio- diversity of Sagareshwar wild life sanctuary, (A man made sanctuary) provoke student to collect information of mysterious, useful and harmful animal animals.



Use of CFL Lamps :- To light the exterior of buildings as well as for lightening purpose in department of chemistry and HSVC uses CFL from last seven year.



Proper recycle: In department of Chemistry glass , plastic waste collected and sent for recycle. Chemicals used are low concentrated but these are diluted for number of times before drain. Chemical waste from laboratory is collected in large packed drums and send for recycle.



Rain water Harvesting:-Rain water collected every year, it is used to fulfill the necessity of distilled water for experimental work of all science department.

Research article presented :

1)Mr.Chikhalkar(HOD) attended and presented paper in national conference on 'Waste Management' at Bagewadi College, Nipani

2)Dr. Vilas S. Patil . Assitant professor in Physics attended UGC Sponsored National Seminar on 'Enhancing Quality education and Environment Consciousness through IQAC in Colleges'Organized by Shri. Annasaheb Dange Arts, Commerce andScience College Hatkangale Dist- Kolhapur and presented paper entitled 'Green



determining the institutional practices are eco-friendly and sustainable'

3)Also Students of B.Sc.-III along with Dr. S.Y. Jadhav and Dr. S.S. Khot presented a research paper on ' Studies on in situ conservation of biodiversity in Botanical Gardens: A case study of Warana Mahavidyalaya Botnical garden'in garden' in NationalConference on 'Recent Trends in Bio-systematics' at Dharwad, Karnataka.

4)Students of B.Sc.-III along with Dr. S.Y. Jadhav and Dr. S.S. Khot presented a research paper on 'Effect of leaf extract of Eupatorium on Mitotic Index of Onion' at National conference at Jaysingpur (MS).

Air Quality Checking :- Periodically Air Quality Checking in campus is conducted with help of our ex- student Dr. Banne Prashant who is working as Director, Saitech, Research and Development Organization, Kolhapur.

Blood Donation Camps:-College creates awareness about blood donation by periodically organizing blood donation camps .



Recycling of 'Thermacol':-

The students of the Botany department under the guidance of Dr. S.S. Khot used waste thermacol for preparation of scientific models of plant viruses, chlorophylls, Bacillus bacteria etc. The models were presented at 'Avishkar-2014-15' under the stream of 'Education'.



During this studies the group of students prepared some biological dyes from plants and used them to colour the clothes.



The preparations were exhibited in 'Avishkar' where we won first prize at

District and central events. This work is presented in the National seminar which was highly appreciated by experts.

Research Activity:-There are two Minor Research projected run by Botany department as under:

- a) 'Database studies in Lichens of Sahyadri Ranges of Kolhapur, Satara and Sindhudurga Dist of Western Maharashtra' - Dr. S.Y. Jadhav .
- b) 'Effect of Warana River Flood on the productivity of soil' - Dr. S.S. Khot which To inculcate and increase the interest of the students in Environmental issues.
- c) Publications-Dr.Vilas S. Patil. Coordinator green audit committee attended a two day national Seminar and presented a research paper on 'Green auditing of Educational Institute is the



continuous process of determining whether institutions practices are eco-friendly and sustainable.' Hon. Annasaheb Dange Arts, Commerce and Science College Hatkangale Dist- Kolhapur , paper published in proceeding ISBN-978-93-82028-82-6.

Greeting Card Making :- Department of Botany organized a work shop on' Greeting Card Making' by using pressed and dried plant parts from herbaria. Thirty students of B.Sc. II &B.Sc.III III

participated the event and learnt the technique of the same, which encourage awareness about Environment and attitudes towards the Best form Waste.



Today's Plant Activity :- On every teaching day of the year the B.Sc.-III students from Botany Department display a plant in front of the department under the activity ' Todays Plant.' Along with this they also provide the information on Botanical Name, Family, Common Name, occurrence and Medicinal uses of that plant which gives beneficial information about local plants.



Plants Counting (Biomass Assessment):- Junior, Senior wing faculty , students of B.Sc.-II and III of Botany and Zoology department actively participated in the Plant Counting (Biomass Assessment) programme of ‘Green Audit’ under which the counting of plants in overall campus , its classification and the Biomass generated is estimated in span of 2th November 2015 to 16th November 2015 after their regular college timing.



Gardens and Greenery:- Warananagar is having a treasure of gardens and greenery.

The campus is having variety of gardens which includes Botanical garden, Landscape gardens, Garden of Medicinal plants etc. The emphasis has been given to save the rich bio-diversity of the region. The students of B.Sc.-II have studied these gardens from the view point of botany and to study the architecture for their horticultural term papers. They have enlisted various plants grown therein and submitted the term paper for the practical examinations.



Vermicomposting Plant:-The efforts were also made to form a Vermicomposting plant in Botanical garden to convert the bio-mass and bio-degradable waste, canteen waste in campus to 'Vermicompost' and which is being used for the greenery of the campus.



Medicinal and cosmetic products:- Students of B.Sc.- II are working on 'Medicinal and cosmetic products' for their Horticulture Term



paper.

Save Birds :-Department of English organized 'Save Bird Abhiyan' on 17 Jan 2011 to create environmental awareness about bird species. Dr. Ladgaonkar purchased three birds from bird thrusters, brought these birds to English

department.

Also faculty and HOD express the view on the activity, make the awareness of the order of Hon. Supreme court according to environmental issues.



Our Botany and Zoology student form small nests on different trees in botanical garden due to which bird diversity in our college garden is increased.

Organization of Nature Visits:-Being the students of Botany, our staff and pupils are always in interaction with 'Nature'. The acquisition of knowledge of botany can be well demonstrated in the 'Nature Visits'. Every year we organize study tours to various biodiversity rich places where we share our knowledge with



Competition'

Identification of medicinal plants:- Correct identification and authentication of medicinal plants is having prime importance in the field of pharmacy. Our department provides these facilities to the T.K. pharmacy college and Biotechnology Dept. of TKIET. None the less we have signed an MOU with these institutions for mutual sharing of knowledge between us. We have some common publications in National journals under this activity.

Plantation of endemic plants:-Bio-diversity conservation is one of the important subjects now a days. Being botany students it's our prime duty to save the nature for which we are taking plantations programmes every year. We give more emphasis on the root drugs and endemic plants for their conservation. We have also shared our botanical expertise with the social forestry department of the Maharashtra and have exchanged the botanical materials.

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students and localities. This indicates our affinity towards nature and its conservation.

Rangoli competition :- In this competition number of students helps in making the awareness of other students with well handling of burning issues of environmental pollution and need of save baby girl. The college create the awareness about environment protection by organizing 'Rangoli



in

Celebration of Birth Anniversaries:-

India wish to become a 'Super Power' at the end of 2020. Scientists and students are playing vital role in this movement. We are also committed to become the part of this International Event. Being science students we always celebrate the 'Birth Anniversaries' of important scientists and make students aware of their contribution in 'World Building'. These create scientific awareness among the students for their own development none the less these types of events are supportive for creating awareness about nature and its conservation

Bio-treasure :- Botanical gardens are playing vital role as 'Bio-treasure' in the field of Botany. We are very proud to mention here that our college has got botanical garden of almost one acre area. This shelters plant diversity like algae, bryophytes, pteridophytes, gymnosperms, angiosperms etc. The emphasis has been given to propagate endemic and endangered plants of the region. The samplings are collected during field visits, from the lead botanical garden of the Shivaji University, Kolhapur and Social Forestry department of the Maharashtra Government.

'Avishkar' Research Competition:-

Every year our students participate in 'Avishkar' University Level Research Poster Presentation Competition organized by Shivaji University and bag the prizes. In this competition our student present the research poster on the local environmental consciousness issues. Mainly on the Energy conservations, Solid Waste Management, Water Harvesting, Air Pollutions etc.

Concession in fees for girls;- (efforts for gender equality) Right from the beginning the institution has supported and facilitated woman education and multifaceted development of the female gender.



In 1980 Late. Tatyasahebji Kore established ladies hostel. He provided concession in the tuition fees and hostel fees to the needy girls, so that maximum number of girls should avail the facility of education. Today also Yashwantrao Chavan Warana Mahavidyalaya works on the principles and philosophy of the founder.

Animal corner:

On every teaching day of the year the B.Sc.-III students from Zoology Department display a information of animals in front of the department under the activity 'Animal corner.' Along with this they also provide the information on animal Name, Family, Common Name, occurrence etc.



Gymkhana:- College Gymkhana plays a vital role in the multi-faceted development of students. The Gymkhana provides sports facilities of 24 types to both girls and boys. Excellence in Mallakhamb is the best practice of the institution.

The boys Mallakhamb team is the winner of R.P. Powar Mallakhamb Trophy for 29 years in row .
The girls Rope Mallakhamb team has all India place.





During last five years total 835 girls and 605 boys participated in various types of sports. Out of them 394 girls and 366 boys participated in team events and 241 girls and 239 boys played individual sports. Girls Hockey team and Handball team are the Zonal winners for the last 12 years in row.

NCC:-

College has the Boys NCC unit as 56 MAH BN NCC Kolhapur and girls NCC unit as 6 MAH Girls BN NCC Kolhapur. Intake of Boys NCC unit is 104 and girls unit is 50 cadets. Both boys and girls cadets take oath of body donation, participate in various social activities



and awareness programmes. They have equal opportunity of participating in various State and National level Camps and appearing for 'B' and 'C' Certificate exams. Participation of NCC Girls and Boys cadets in regional, State and National level Camps.



. Health Awareness:-

Every year girls are made aware of the health issues through expert lectures. Care is taken that every year at least one doctor should be invited to guide the girls. Hemoglobin checkup camps are organized. From 2010 to 2015 following Doctors provided guidance to the girls regarding their health.



- 1.Dr.Sucheta Kore: Polysistic Overian syndrome
- 2.Dr.Kanchan Kore :General Health Problem
- 3.Dr. Ujawala Chougule -Haemoglobin and health problems
- 4.Dr. Vidya Wagh: Diet for good Health

Chapter –VI

Earth provides enough to satisfy every man's need, but not every man's greed.

- Mahatma Gandhi

Man has lost the capacity to foresee and to forestall. He will end by destroying the earth.

- Albert Schweitzer

Process of Green Auditing At Glance...



Green Audit Awareness: Meetings with experts- Dr.Prashant Banne.



Meeting :Green Audit Committee with expert



Green Audit: Faculty Awareness through: PPT presentation.



Green Audit: Concept understanding through interaction in staff.



Classroom Awareness "Save Energy"



Meeting: to fix different indicators for auditing



Near Sugar Factory (AAQ2)



Near main Building (AAQ3)



Near Library (AAQ4)



Near Gymnastic Hall (AAQ5)



Near Bus Stop (AAQ6)



Plant Counting-NilKantheshwar



Plant Counting- Garden in front of college



Plant Counting- Boys Hostel



Greenery Measurements.



Plants counting



Water Tank Monitoring- Office Site



Water overflow Monitoring (Library Site)



Water Tank Monitoring- Science building Site



Water Tank Monitoring- Filter House Site



Green auditing: Student Data Collection



Green auditing: Student Data Collection (Science wing)



Student Data Collection: With raising Hands



Data Collection : Vehicle Use of Students



Interaction with students: Green Audit



Noise Measurement: Green Audit

Chapter-VII

‘Problems cannot be solved at the same level of awareness that created them.’

- Albert Einstein

"You can tell how high a society is by how much of its garbage is recycled."

-John Muir

Proposed Green Policy

The green Audit committee of our college conducted green audit in 2014 -15 very keenly. According to the green audit report, college has already taken some steps to conserve the energy as well as to avoid loss of energy. College students, faculty members and other staff all are committed to undertake this green audit as a means of continually improving in environmental performance of campus and to make it eco-friendly. College recognizes the need to function around the year in a manner to minimize its harmful environmental impact so green policy is decided.

YCWM College Green Policy is based on three pillars:

- Environmental sustainability: The Green Policy must ensure sustainability of the environment.
- Economic viability: Economic viability options should be considered in the implementation of the Green Policy.
- Social acceptance : Social acceptance is a key to the success of the Green Policy and therefore, the social context of the community, faculty and students must be taken into consideration in the Green Policy.

To this end YCWM College will:

1. Reduce energy consumption, especially of electrical and fuel energy in college campus.

YCWM College therefore commits to:

- Give preference to the most energy efficient and environmentally sound appliances, which includes using energy-saving light (CFL, LED) bulbs and LED tubes with reflectors.
- Conduct adequate ventilation and natural light survey of infrastructure. Maximize use of windows for air and natural light.
- Encourage staff, students and conference guests to save energy through visible reminders, incentives and information to increase awareness. This particularly concerns switching off electrical appliances when not in use.
- Conduct switch off drills at regular intervals and fix its responsibility on teaching / non teaching staff.
- Ensure that all electronic and electrical equipments, such as computers, are switched off when not in use, and are generally configured in power saving mode when such option is available.
- Provide energy efficient heating systems, with adjustable controls for individual heating appliances wherever possible, and ensure that comprehensible instructions are available to staff and students on the use of heating controls
- Each block of institute has individual power control panels and energy meters installations, which help in separate and effective monitoring and control of energy consumption.
- Arrange 'No Vehicle Days' periodically/frequently.
- Adopt solar power to light up the roads, area in front of new and old buildings.
- Encourage to the students and staff of the college for walk and use vehicle with sharing to minimize fuel energy consumption.
- To Maximize use of renewable energy plan to install solar energy panel for 100 computers in lab.
- Take step to plant wind turbine near library to furnish electrical requirement of office, library and MPSC center

2. Maximize the proportion of waste that is recycled & minimize the quantity of non recyclable refuse.

YCWM College therefore commits to:

- Reduce the absolute amount of waste that it produces from office, departments and common facility centers like college canteen, staff quarters.
- Take steps to plant vermin composting near canteen.
- Compost all biodegradable wastes from gardens, lawns in campus, not to burn it on site.
- Donate absolute old computers to schools or the needy.
- Recycle or safely and scientifically dispose E-wastes like damaged circuits, ICs, switches, electrical components, parts of computers and electrical appliances regularly.
- Place sufficient big waste bins where essential and monitor them periodically.
- Categories solid waste in to wet, dry, glass and constructional at source.
- Not to burn classroom waste on site.
- Always purchase recycled resources where these are both suitable and available.
- Make specific arrangements for events, such as cultural Events, internal and external seminars and conferences, where significant recyclable waste is likely to be produced, in order to both minimize the waste produced and maximize what is recycled / reused.
- Promote reuse of items and waste recycling among staff, students and conference guests through training, competitions, posters , Environmental incentives and awards.
- Dispose all waste, whether solid or otherwise, in a scientific manner and ensure that it is not released directly to the environment
- Reduce the practice of burning plastic and other waste material which emits harmful gas on burning . Burning shall be prevented in the campus.
- Declare YCWM college campus as plastic free and noise free.

3. Minimize consumption of water.

YCWM College therefore commits to:

- Build an underground big water tank for roof water harvesting near old building, use it for drinking and as distilled water for practical purpose.
- Build cement water tank near library for roof water harvesting of new as well as library building.
- Encourage decrease in water usage among teaching/ nonteaching staff, students, visitors, parents and conference guests.
- Conduct plumbing survey of water supply line and fix water closing valves to turn off the water supply after occupancy time in campus.
- Monitor the overflows of water tank by shouldering responsibility on peons/ nonteaching staff in the concerned department.
- Repair sources of water leakage, such as dripping taps in infrastructure as quickly as possible.
- Install appliances which reduce water consumption.

- Minimize wastage of water and reduce electricity for water fetching. Ensure that the equipment used for water drinking usage, are regularly serviced, and the water wastage of such equipment should be used for watering purpose of garden.
- Maximize use of drip and sprinkler for watering the gardens, lawns, trees and flower plants.
- Encourage staffs to arrange lectures in gardens, lawns in campus rather than classroom when possible.
- Note that water conservation is also related to water treatment infrastructure and attendant costs and can include capturing rainwater and grey water for irrigation purposes.

4. Minimize the use of chemical pollutants both in college by students and staff

YCWM College therefore commits to:

- Ensure dilution of some chemical and hazardous waste at since laboratory (about 100 times) before draining it. Collect laboratory waste in air tight cement chamber, send it periodically for recycle/reuse or destroy properly.
- Ensure that all chemicals used by college, staff have a minimal detrimental impact on the environment, i.e. should be biodegradable and non-toxic, even where this exceeds make its dilution proper before drain.
- Dispose the chemical waste generated from the laboratories in a scientific manner.

5. To motivate students and faculties for good air quality in the campus.

YCWM College therefore commits to:

- Plant the rare and eco-friendly plants, through we have green campus.
- Encourage the faculties and students to plant trees in the garden.
- Review periodically the list of trees planted in the garden from time to time.
- Arrange 'No Vehicle Days' periodically/frequently.
- Organize free checking PUC camp in campus by pollution department.
- Monitor the air quality and noise level in campus regularly and display it for awareness.
- Arrange programme to teach Yoga and Pranayama techniques to the students and staff of the college, encourage them to walk.

6. To create environmental awareness

YCWM College therefore commits to:

- Conduct environmental awareness workshops as a part of the program.
- Conduct events such as plant trees to spread environmental awareness among the students.
- Create awareness of environmental sustainability and take actions to ensure environmental sustainability.
- Promote environmental awareness as a part of course work in various curricular areas, independent research projects, and community service

7. Ensure that the Green Policy is enacted, enforced and reviewed.

YCWM College therefore commits to:

- Establish a College Eco Club that will hold responsibility for the enactment, enforcement and review of the Green Policy. The Eco Club would be the source of advice and guidance to staff and students on how to implement this Policy.
- Ensure that the Eco Club will review the Green Policy on an annual basis, and will monitor progress and set measurable targets wherever possible.
- Require that every staff and student member recognizes the responsibility to ensure that the commitments in the Green Policy are properly put into practice.
- Ensure that a Green audit is conducted annually and action is taken on the basis of audit report.

Dr. Vilas Shamrao Patil.

Assistant professor,

Department of Physics,

and

Co-ordinator Green Audit Committee

Chapter-VIII

Plans to protect air and water, wilderness and wildlife are in fact plans to protect man.

- Stewart Udall

A nation that destroys its soils destroys itself. Forests are the lungs of our land, purifying the air and giving fresh strength to our people.

- Franklin D. Roosevelt

The use of solar energy has not been opened up because the oil industry does not own the sun.

- Ralph Nader

CONCLUSION , RECOMMANDATIONS AND ENVIRONMENTAL MANAGEMENT PLAN

CONCLUSION , RECOMMANDATIONS AND MANAGEMENT PLAN

The Green Audit Committee of Yashwantrao chavan Warana Mahavidyalaya.Warannagar has conducted a "Green Audit" of our college in the academic year 2013-14. As we know that 'Green auditing' is the process of identifying and determining whether institutions practices are eco-friendly and sustainable. As mentioned in objective to carry out green audit means is process of checking green practices followed by college and to conduct a well formulated audit report to understand where we stand on a scale of environmental soundness. From which one can able to understand that the practices inside the college whether is it eco-friendly or not?. This is the first attempt to conduct green audit of our college campus. After the process of green auditing of college campus we record the in detail, record all the green practices followed by college, according to which there are following conclusions, recommendations and a management plan which can be adopted as an 'Green Policy' of college in future for keeping college campus environment eco-friendly.

Conclusions:

From the green audit following are some of the conclusions which can be taken for improvement in the campus.

- There are a good number of trees and plants that make the campus of the college green. The college campus has Total 5021 trees including flower plants, medicinal plants, fruit plants and local varieties
- College can't take efforts in serious manner to dispose majority solid waste by proper methods. Garden waste is burnt on site.
- Students and staff of the college are encouraged for walk and use vehicle with sharing to minimize fuel energy consumption.
- Dispose confidential paper waste properly by supplying for recycle..
- LPG is handled by department of Physics, Chemistry, HSVC for practical for educational or practical purpose but its consumption of is very less .
- In science department like physics, chemistry, Mathematics, Botany and zoology electricity was shut downed after occupancy time is one of greening practices for energy conservation.
- Biodegradable waste is not used efficiently for composting and vermicomposting.
- Electricity consumption is more at some departments.
- CFL lamps is rarely used in some department.
- Toilets and bathrooms and exterior are consuming more water.
- Good waste water management is in practice with help of two well in campus.

- Majority staff using two wheeler vehicles, some staffs using four wheeler in sharing
- Major electricity required for water fetching and irrigating .
- Roof top rain water harvesting has proved beneficial for filling up the well on campus.
- Water filtration Plant is functioning properly.
- A special days like, Teachers Day, Guru panama are celebrated by new plantation in our campus also for Welcome of the guests plants are used.
- The air-conditioners are not used anywhere in the campus.
- E-waste segregation, handling and disposal are properly done.
- Air quality on the campus is good.
- Biodegradable wastes from gardens, lawns in campus, is burnt on site , it is not composted.
- The college employs persons for periodic pruning of the trees and the plants
- Classroom waste is not sent for composting
- College arrange the events, such as Cultural Events, Internal and External seminars and conferences, in order to literate the student in both how to minimize the waste produced and maximize what is recycled / reused.
- Adequate ventilation and natural light survey' of college infrastructure is essential and accordingly adopt some renovations.
- There is no use of air conditioners in college campus.
- To promote use of cycling, Cycle Bank Scheme for girl students is run as one of our Best Practices.
- The air-conditioners are not used anywhere in the campus.
- All the rooms in both buildings are airy and sunny and do not need electricity during day time.
- Solar water heating panels are used for Boys and Girls Hostels.
- Solar power lamps are used to light some part of area in front of new and old buildings.
- Drips and sprinklers are used for watering the gardens and lawns.
- Roof top rain water harvesting is also being practiced, up to some extent, by the department of chemistry, by storing rain water, using and distributing it as distilled water to other departments and it is used for the practical.

Recommendations: Following are some of the key recommendation for improving campus environment:

- Conduct switch off drills at regular intervals and fix its responsibility on teaching / non teaching staff.
- Provide energy efficient heating systems, with adjustable controls for individual heating appliances wherever possible, and ensure that comprehensible instructions are available to staff and students on the use of heating controls
- Institution has done Water Audit that has helped to save water. Responsibility of monitoring the overflows of water tank is fixed on peons/ non -teaching staff in the concerned department.
- save electricity by proper maintenance of the wiring and electrical equipment.

- Preference given to the most energy efficient and environmentally sound appliances such as energy-saving CFL and LED bulbs and LED tubes with reflectors.
- Adopted solar power to light up the roads, area in front of new and old buildings
- Biodegradable wastes from gardens, lawns in campus, is not burnt on site , but it is composted.
- Sufficient big waste bins are placed where essential(in classroom, near office etc) and monitored periodically.
- Segregation solid waste in to wet, dry, glass and constructional at source, biodegradable is sent for composting.
- Classroom waste on segregation is sent for composting.
- College purchases recycled resources where they are both suitable and available.
- Classroom waste on segregation is sent for composting.
- Sufficient big waste bins are placed where essential(in classroom, near office etc) and monitored periodically
- An environmental Green policy has to be prepared with all the conclusions, recommendations and current green practice carried by college.
- A frequent visit should be conducted to ensure that the generated waste is measured, monitored and recorded regularly and information should make available from concerned staff.
- The waste should be reused or recycled at maximum possible places.
- Glass waste should be disposed properly and send it for recycle.
- Avoid high intensity bulbs CFL and LED lights must be used for street lightning.
- Reduce chemical wastes formation in chemistry laboratory. Adopt the principles of green chemistry to reduce chemical wastes
- A proper method of disposal / recycle to be followed for hazardous waste treatment.
- Pipes, overhead tanks and plumbing system should be maintained properly to reduce leakages and wastages.
- Start an E-banking suvidha for junior wing class and distance mode admissions as experimental and again implement it for other wings.
- Use the facility of extension counter of Shree Warana Bank, Warananagar for bank mode payment.
- At science laboratories large amount of water wasted during the process practical, design small water recycle system for science wing.
- The college should develop internal procedures to ensure its compliances with environmental legislation and responsibility should be fixed to carry out it in practice.

ENVIRONMENT MANAGEMENT PLAN

After studying a present situation of different resource, it's utilization, methods adopted for waste disposal and current green practices followed in college campus. The Green Audit committee has prepared an Environment Management Plan for the college. This plan will reveal the strengths , weaknesses and suggests remedies for the green and clean campus.

ENVIRONMENTAL MANAGEMENT PLAN

ENERGY ELECTRICITY

SRENGTHS	WEAKNESS	SUGGESTIONS	PRIORITY
<p>1) Use of Solar water heater at girls and boys hostel.</p> <p>2) Use of LED/ CFL lamp for lightning in some department like Chemistry, HSVC.</p> <p>3) No use of air conditioner anywhere in campus.</p> <p>4) In science wing electricity supply is closed after occupancy time.</p> <p>5) Adequate ventilation and natural light is present in classroom as well as in some department.</p> <p>6) Use of LCD, LED monitors in everywhere. (no CRT monitors are observed.)</p> <p>7) Recently ventilation and light survey is proposed with help of experts of our sister concern branch of TKIET.</p> <p>8) For watering drip, sprinklers irrigating system are used.</p>	<p>1) Use of incandescent lamp and fluorescent lamp is more.</p> <p>2) For lightning the campus at night HID and Na- Vapor lamps are used.</p> <p>3) More electricity is used for water fetching purpose.</p> <p>4) Use of electricity is more in some department like admin. Office. Computer/ I.T lab. and science department etc.</p> <p>5) Unnecessary use of Lights, fans and computers at some places when no one is using.</p> <p>6) Use of conventional power resource at all departments.</p> <p>7) Some traditional heating coil (energy consuming) equipments are used in science departments. e.g. Botany, chemistry.</p> <p>8) Take the separate electricity meter to monitor the consumption.</p> <p>9) Requirement of electricity for computer lab. is large.</p>	<p>1) Use CFL/LED lamps for lightning purpose everywhere.</p> <p>2) Use proper reflectors for CFL/LED blubs and LED tubes.</p> <p>3) Avoid use of light / fan (electricity) when adequate natural light / ventilation is present.</p> <p>4) Create an awareness about electricity saving (e.g. circular, notice, supplying instructions etc)</p> <p>5) Take steps to use renewable energy resources i.e. wind mills. Solar energy panels where use of electricity is maximum viz computer /I.T. department, office, library and VKAC.</p> <p>6) monitor and control the overflows of water tank.</p> <p>7) Place central electricity cut- off switch to shut down / close electric supply in all</p>	Medium

		departments after occupancy time. 8) Use solar pump for fetching water in tanks.	
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FUEL

STRENGTHS	WEAKNESS	SUGGESTIONS	PRIORITY
1)Bicycle Bank Scheme for girl student with about 90 bicycle 2) About 48.15 % students are using State Transportation(ST), about 10% students are using bicycle and about 28% students use the walking mode . 3)while only 9.5% students use their own two wheeler vehicle to college. 4) about 14% of staff using four wheeler,64% staff using an two wheeler vehicles 5)while about 4% staff is using four wheeler with shairing,10 % come by walking, about 6% staff use ST and about 3% staff is using Bicycle for transportation 6)Important is that about 23% staff did not use any type of vehicle and adopt environment friendly mode(walking) of transportation for college.	1)Use of two wheeler is maximum. 2)Major use of LPG at CFC (common facility center) like canteen and mess. 3) PUC checking is not organized. 4)Less number of student as well as staff come by walking. 5) Avoid use of carbon paper and don't fill the cartridges of computer printer in office or inside the campus.	1)General awareness about walk and health fitness should be created among stake holders. 2) Organize PUC checking camp periodically for awareness of pollution. 3)Produce an awareness among stakeholders of institution to use vehicle in sharing. 4)Plan bio-gas project for kitchen purpose of canteen and mess. 5)Frequently organize No Vehicle day, bicycle day etc. 6)Conduct free PUC camp in the college.	Low

STRENGTHS	WEAKNESS	SUGGESTIONS	PRIORITY
<p>7) About 67.5% of our staff resides near the college campus and only 32.5% of staff resides just far from campus (Far from 25 to 30 KM distance) which minimize fuel consumption in liter per month.</p> <p>8)'No Vehicle day' on some occasion.</p> <p>9)Use of LPG very less ,it is used at some departments of science and HSVC where is it essential.</p> <p>8) Number of green practices through like Tracking, study tour, save fuel, sports, save electricity, poster presentation, debates, writings etc awareness in stake holder is produced by some departments and college also.</p> <p>9)Diesel generator is occasionally /rarely used.</p> <p>10) Campus has uninterrupted 1 kv electricity power supply of electricity provided by MSEB.</p> <p>11) Less use of institutional transportation vehicle.</p> <p>12) There are a good number of trees and plants that make the campus of college green. The college campus has</p>			

Total 5021 trees including flower plants, medicinal plants, fruit plants and local Varieties.			
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SOLID WASTE PAPER

STRENGTHS	WEAKNESS	SUGGESTIONS	PRIORITY
1) Use of two sided printing on paper at office and many departments. 2) One sided papers from students laboratory journals, project reports are used for rough printing / writing. 3) Old journal files/ covers are used for office and departmental records. 4) Very less amount of small papers is observed in classroom waste. 5) Large paper waste is collected from office, staff room etc 6) Major paper waste is collected in CFC (i.e. Canteen, Quarters, etc) 7) Well equipped computer Lab. with about 100 nodes.	1) Large amount of paper stationary was required for office work. 2) Major printed stationary was required internal evaluation work, internal memos, notices, unit tests etc. 3) Number of set of copies are required for official record. 4) Large amount of carbon paper waste is generated in bill section of office. 5) major consumption of paper is observed at time of admission and examination. 6) Solid waste (paper waste) from office and staffroom is burned near the parking. 7) At different places paper waste is burned.	1) Avoid use of carbon paper in bill section of office. 2) For internal Memos and Notices use e-mail, sms, Intercom, mobile network and advanced techniques of ICT. 3) Start an 'E-banking suvidha' for junior wing class and distance mode admissions as experimental and again implement it for other wings. 4) Use the facility of extension counter of Warana Bank for bank mode payment. 5) Switch towards the paperless office work. 6) Send all type of the paper waste for recycle or for proper destroy.	High

		<p>7)For the internal memos, notices use SMS, MMS, mobile, e-mail etc.</p> <p>8)Adopt the on line tutorials. Tests for B.A., B.SC.and B.Com.III experimentally after successful implementation apply for other wings.</p> <p>8)For on line examination use well equipped computer Lab.</p>	
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PLASTIC

STRENGTHS	WEAKNESS	SUGGESTIONS	PRIORITY
1)Large amount of hard plastic is collected.	<p>1)Plastic thrown with the general waste in many department.</p> <p>2)Some amount of soft plastic and carry bags collected.</p> <p>3)At some places hard and soft plastic is burned at campus.</p>	<p>1) Segregation of waste at the sources .</p> <p>2)Send all type of plastic waste for recycle.</p> <p>3)Declare the college campus as 'Plastic Free'</p>	Medium

BIODEGRADABLE WASTE

STRENGTHS	WEAKNESS	SUGGESTIONS	PRIORITY
<p>1)Clean Campus.</p> <p>2)Classrooms are clean.</p> <p>3)Total green trees / plants are 5021(green campus).</p> <p>4)Every year tree plantation.</p>	<p>1)Biodegradable waste in campus and small paper waste is burned on site at different places.</p> <p>2)Some wet garden waste is burned near the botanical garden.</p> <p>3)No composting or vermin-composting seen in botanical</p>	<p>1)Provide small readymade composting plant at different places for biodegradable waste composting.</p> <p>2)Start major Fermi-composting plant on campus at proper location.</p> <p>3)Use the output of</p>	Medium

5)NCC,NSS and last year student gave their devoted efforts for cleaning the classroom as well as campus. 6)Waste bins are placed in classrooms as well as in corridors. 7)Periodically cutting and cleaning of lawns and gardens 8)Composting is carried in small extent on campus site. 9)Average in month about an seven ton biodegradable waste is collected in campus.	garden. 4)All collected biodegradable waste is not composted properly. 5)The food waste from canteen and mess is thrown nearer, is not composted. 6)Classroom waste (plastic piece, paper waste, soft plastic, carry bags, dust etc.) is thrown at site and burned. 7)Garden waste from, botanical garden, waste of big trees (big pieces of wood ,grass, leaves , coconut branches etc.) and grass on the ground is burned near boys hostel, near health center. 8)Waste from the canteen is burned near it.	composted plant for nursery, plantation and gardening purpose. 4) Sufficient, big waste bins are placed where essential (in classroom, near office etc) and monitored periodically 5) Food waste from canteen not on site.	
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WATER UTILIZATION

STRENGTHS	WEAKNESS	SUGGESTIONS	PRIORIT Y
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<p>1)In campus very much availability of water.</p> <p>2)Roof top water harvesting is practiced by the department of chemistry.</p> <p>3)The water filtration is functioning and which supplies filter water for drinking purpose.</p> <p>4) Water harvesting is practiced by digging two wells in campus at such geographical place where rain water and percolated water easily trapped in it.</p> <p>5)Campus is self sufficient for irrigating the water to lawns, gardens ,etc by these two wells.</p> <p>6) Gardens are watered by using drip/sprinkler irrigation system to save water</p> <p>7) Less number of leakages are observed while conduction of verification of data.</p> <p>8) Scope for rain water harvesting.</p>	<p>1)The major use of water is in common staffroom , science building, canteen, Staff quarters, hostels, and at exteriors.</p> <p>2)Reuse of waste water is not observed.</p> <p>3)Leakages are less but observed at Bathroom, toilets and exteriors.</p> <p>4) For Botanical garden traditional watering is used.</p> <p>5)No any small/ large water recycle plant under progress.</p> <p>6)At some places Lavatory outlets are open air.</p> <p>7) Outlets of some laboratory is directly used for garden.</p> <p>8) No Proper attention toward Rain water harvesting .</p> <p>9)Water in large quantity is used</p>	<p>1) Inspection of infrastructure and plumbing survey of water supply line is necessary.</p> <p>2) To stop water supply after occupancy time central on /off halve is necessary.</p> <p>3)Install the water guard at overhead water tank or pressure valves / sensor valves to make control on overflow of tanks .</p> <p>4) Install rain water harvesting system at old ,New and library building.</p> <p>5)Repair the roof water collecting pipes on both buildings.</p> <p>6)Apply the proposals to UGC or other funding authority for water reuse/ recycle system.</p> <p>7) Immediately install small scale waste water Reuse/ recycle plant.</p>	Medium
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WASTE WATER

STRENGTHS	WEAKNESS	SUGGESTIONS	PRIORITY
<p>1) Two wells in campus at such geographical place where rain water and percolated water easily trapped in it.</p>	<p>1)No gutters are build up to drain the waste water from departments and etc,</p> <p>2)As the new , old and library building, boys hostile, ladies hostel, gymnasium hall and CFC are scattered ,hence total roof water is not trapped by wells.</p> <p>3)Large amount of drinking water is wasted for bathroom,</p>	<p>1)Design the new drain piping to collect the used water for washing, blush , bathroom etc.</p> <p>2)Install the water recycle/ reuse plant for above mentioned drain water.</p> <p>3)Use the drip irrigation for botanical garden from abovementioned water.</p>	

	toilets and sometime for irrigating purpose. 4) Very less steps toward waste water harvesting.	4)Build check dam to trap the rain water in campus geographical location.	
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CHEMICAL WASTE

STRENGTHS	WEAKNESS	SUGGESTIONS	PRIORITY
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<p>1) Less chemical waste is handled only by Chemistry, Botany and Zoology departments.</p> <p>2) The dilution of hazardous chemical is very high.</p> <p>3) Chemical waste and it is of category III.</p> <p>4) In chemistry, Botany, zoology different chemical bottles are labeled properly, tight with unbroken caps</p>	<p>1) By Department of Chemistry it is directly drained in botanical garden near the departments.</p> <p>2) In some extent it produces an air, soil, water pollution</p> <p>3) By Zoology and Botany it is directly drained in lawn near the departments..</p> <p>4) At some places hard and soft plastic is burned out campus.</p> <p>5) The exhaust fans are not provided in these laboratories to expel gaseous waste.</p> <p>6) In these laboratory provide an dust bin for wet solid waste.</p>	<p>1) Segregation of waste at the sources</p> <p>2) Collect the chemical waste of Chemistry, Zoology and botany in air tight cement chamber .</p> <p>3) Send it frequently for recycled or destroyed scientifically to approved chemical industry.</p> <p>4) Immediately fix exhaust fans to expel gaseous waste in these laboratory where it essential</p>	Medium
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HAZARDOUS WASTE

STRENGTHS	WEAKNESS	SUGGESTIONS	PRIORITY
<p>1) Waste chemicals are drain out after hundred times dilution.</p> <p>2) Hazardous chemicals are kept in sealed containers.</p> <p>3) Use of Hazardous chemicals only under expert supervision.</p>	<p>1) Proper disposal methods for hazardous chemicals are not used.</p>	<p>1) Hazardous chemical waste should be transferred to disposal facility centre.</p> <p>2) There must be presence of collection tank and collected waste should be recycled .</p>	Medium

GLASS WASTE

STRENGTHS	WEAKNESS	SUGGESTIONS	PRIORITY
<p>1) Less handling of glassware(i.e. only by some departments in science)</p> <p>2) Already reuse of bottles in</p>	<p>1) Glass waste is thrown in regular waste though it is recyclable.</p> <p>2) Glass waste is not segregated</p>	<p>1) Sent broken glassware for recycle.</p> <p>2) Collect the pieces of glass ware nearer to science</p>	High

some departments at science. 3)Very small glass waste generation.	while throwing in waste bin. 3)Some pieces of glassware are directly thrown in campus near some science laboratory 4)some glass pieces thrown near boys and girls hostel also.	departments, boys and girls hostel by NSS/NCC students.	
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E-WASTE

STRENGTHS	WEAKNESS	SUGGESTIONS	PRIORITY
1)E-waste generated in our college is of schedule III and it is generated in very less quantity. 2) In year 2012-13 the Purchas committee of college sold an about 52 old computer peripherals like (CRT monitor, P III computers , CPUS, UPS, Multi media system etc .) hence less generation of e-waste.	1) Institute have some e-waste like chips, bulbs, circuit boards, mother boards, computers, batteries, relays, and switches with garbage. 2)E-waste thrown along with the regular waste, some of the E-waste is hazardous and some of it is recycled. 3) Carbon emission in printers, carbon copy of bills, filing of cartridge inside the office and several department is observed. 4) The non-working computer spare parts and other non-working electrical equipments are dumped in different department at several places is observed. 5) Buy back policy at the time of purchase is not in force.	1)Purchase committee should decide specific policy for the destroying E-Waste. 2)Adopt an buy back policy at the time of purchase if available. 3) The cartridge of laser printers should be refilled outside the college campus. 4) Conduct the awareness programmers regarding -E-waste Management with the help of Department of physics and department of Electronics & Telecommunication of sister institute TKIET, Warananagar. 5) All the e-waste generated per year within campus will be stored separately and disposed off through authorized vendors.	