

**JAWAHAR ARTS SCIENCE & COMMERCE COLLEGE,
ANADUR, DIST- OSMANABAD 413 603**

Best Practice-I

**Campaign for Greening the Campus &
Ecological Sustenance**

IQAC

2019- 2022



A GREEN CAMPUS is one that carries out these functions according to a system-wide culture of environmental sustainability, balancing function and design with existing and foreseen resources.



Shikshan Prasarak Mandal's

Jawahar Arts, Science & Commerce College, Anadur,



Taluka- Tuljapur, Dist- Osmanabad. 413 603. (MS)

Best Practice- I

Campaign for Greening the Campus & Ecological Sustenance

“An enduring environmental ethic will aim to preserve not only the health and freedom of our species, but access to the world in which the human spirit was born.”

“The Diversity of Life”

E.O. Wilson

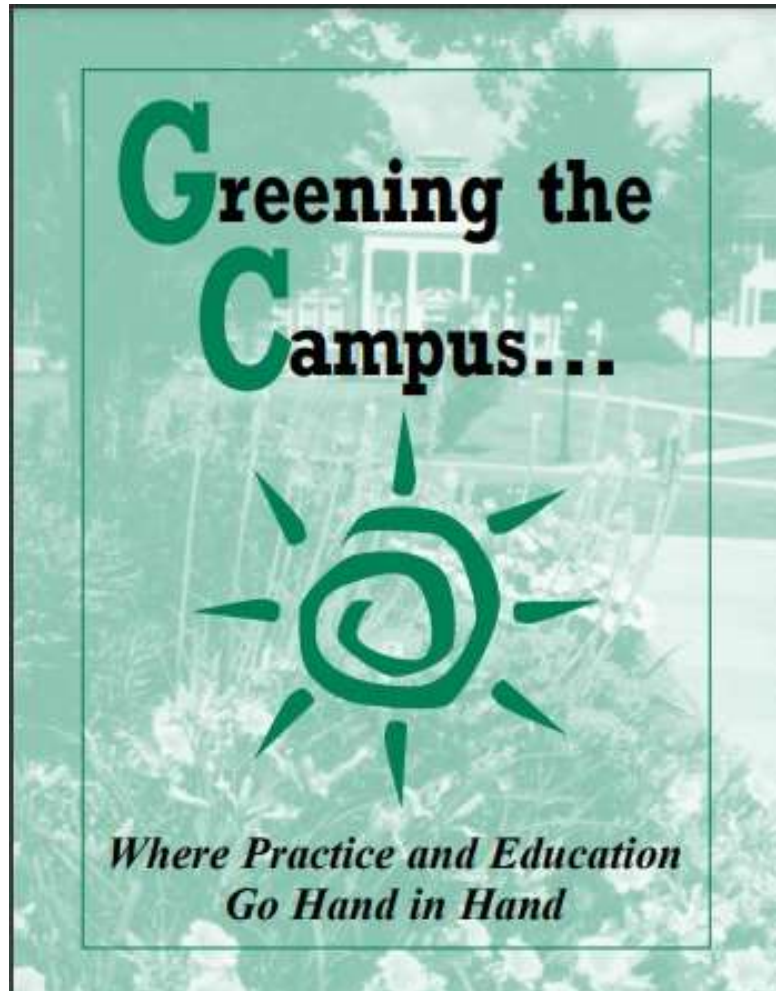
What Is a Green Campus?

In addition to being learning centers, college and university campuses are self-contained communities that are supported by vast systems of institutional and operational functions.

➤ **A GREEN CAMPUS** is one that carries out these functions according to a system-wide culture of environmental sustainability, balancing function and design with existing and foreseen resources.

➤ **A GREEN CAMPUS** is a place where environmentally responsible practice and education go hand in hand and where environmentally responsible tenets are borne out by example.

➤ **THE GREEN CAMPUS** institution is a laboratory of self-scrutiny, experimentation, and application. At its best, it is a model environmental community where operational functions, business practices, academic programs, and people are interlinked, providing educational and practical value to the institution, the region, and the world.




Dr. Umakant Chanshoti
Principal

Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad.



Why Should our Jawahar Campus Be a Green Campus?

As an institution of higher learning, the seeds of change that are sown on college campus will grow and, ultimately, disperse far afield. The Green Campus concept offers our institution the opportunity to take the lead in rethinking its environmental culture and developing new paradigms for solving problems that are local, national, and global in nature.



Greening the campus is about sweeping away wasteful inefficiencies and ushering in positive changes. Many of these changes address the daily, practical aspects of campus life—correct disposal, handling, and storage of cleaning chemicals and materials associated with labs and automotive shops; purchase of environmentally friendly supplies; effective recycling programs.

Other changes may require larger, big-picture investments. Changes don't have to happen all at once. They can be approached through a manageable, step-wise process in which changes are built into the institutional planning and budgeting processes, with an eye toward continually improving the campus and implementing responsible recommendations.

The Paybacks

Greening initiatives are challenging and require determination and a long-term commitment on the part of the entire campus community. These efforts, however, can yield significant paybacks. Such paybacks include:

➤ **Environmental and economic sustainability**

A system-wide culture of sustainability helps preserve and enhance what you value as an institution today, as well as for the future.

➤ **Reputation as a leader through example**

Many colleges and universities fall far short of making their mark as environmental leaders, because they fail to practice on the campus what they preach in the classroom. Although colleges and universities offer courses in environmental management, engineering, laws and regulations, and assessment, many have failed to comply with environmental requirements or to take part in pollution prevention activities.



As a result, some institutions have been assessed substantial fines by the Environmental Protection Agency (EPA). Colleges and universities need to examine their own organizations and implement on their own campuses what they and the public expect industry to do.

➤ **Economic benefits**

A routine, curriculum-based, environmental audit program that reveals waste and inefficiency associated with campus activities, coupled with the identification of environmentally friendly alternatives, can yield significant cost savings for your institution. Without paying outside contractors, you can discover steps—often simple steps—that your institution can take to correct and improve environmental problems on campus.

By acting on the recommendations resulting from these audits, colleges and universities can realize cost savings by reducing energy and water use, minimizing the campus waste stream, improving systems reliability, and increasing the efficiency of heating/air conditioning systems—to name a few. In addition, you will improve your environmental compliance and thereby minimize your potential for liability, fines, and cleanup costs.

➤ **“Real-life” work experience for your students.**

Environmental audits and pollution prevention evaluations can be integrated into the curriculum, providing students with hands-on

Investigative and problem-solving experience that they can take with them when they enter the workforce. This experience not only makes our students more marketable, it also provides them with the kinds of broad-thinking skills that allow them to succeed and thrive once they are employed.

➤ **Improved quality of life on our campus.**

A Green Campus is a cleaner, safer, and healthier place to live and work.

The students and the college has become a part of the green campus



The Student Ingredient:

What better place than a school/ college to learn the lesson with the practice? Yet, undergraduate and graduate programs are often caught up in theory and removed from the practical aspects of daily life. As a result, students risk losing sight of their connection to the world in which they live.

The Green Campus program is our golden opportunity to develop an exciting new curriculum that encourages students to take the lead in creating positive change and, at the same time, to gain invaluable, marketable skills. Our students, particularly those who hope to work in the environmental field, are the key ingredient for a successful program.

Students can team up with faculty and experienced personnel from government and non-government agencies, utilities, and private industry to conduct environmental evaluations of the campus.

They also became involved in developing campus-to promote Green Campus initiatives.

Objectives:

- To promote sustainable and eco-friendly practices in the campus.
- To develop alternative measures to solve environmental challenges.
- To incorporate green protocol among students and faculties.
- To motivate staff, students and teachers through environmental literacy.
- To establish an efficient way of waste management and recycling systems.
- To promote campus into plastic free manner.
- To prevent wasteful and unhealthy use of resources.
- To ensure waste, water and energy management.
- To decrease energy consumption to enhance energy utilization efficiency.
- To change the campus into pollution free and environmental friendly manner.



Target Areas for Improvement

The following areas of concern factors in campus activities:

- Plantation-
- Pollution prevention—solid and hazardous waste management/air emissions reduction/consumption minimization/maintenance regimens for equipment, ventilation, and other infrastructure areas;
- Hazardous materials management/purchasing/handling/disposal;
- Water quality/use/reuse & conservation;
- Wastewater management;
- Air quality;
- Energy use & conservation;
- Environmental management systems

The Context

Environmental pollution is one of the key challenges that facing around globe. The campus faces challenges in managing water resources, waste management, conservation of natural resources, eco-friendly buildings, reducing greenhouse gas emission, recycling of waste and preventing plastic pollution, etc.

Our Jawahar College, Anadur since 2018-2019 impart environmental awareness among students and faculties by conducting different environment protection activities. All the students and faculties joined in the initiative to implement green campus campaign. The college introduced green campus campaign. The main aim of green campus campaign is to promote sustainable and eco-friendly practices in the campus and to make the earth inhabitable for the living beings. The green campus campaign is essential for the fruitfulness of future generation.

The Practices

The educational institutions play an eminent role in solving environmental challenges. The students, staff and teachers actively participated in the green campus campaign. The college executed various programmes and activities. The activities organized under this project are:

- **Plastic free campus:** It is a programme organized in the campus that aims to reduce plastic pollution on college campus with special focus on the reduction and elimination of plastic bottles, plastic straws and utensils and plastic food packaging. The college organized various programmes such as plastic free campus campaign, recycling plastic campaign and awareness classes on world environment day, world wild life week, world ozone day.



Instead of buying bottled water student took initiative to buy refillable to carry around campus and also promoted students to use paper pens. By the initiative of Nature club cloth bags were introduced.

Waste diversion: The College has implemented composting and recycling



programmes. Vermicomposting and NADEP plants in college near canteen were constructed to recycle the solid wastes generated on the same. Separate dust bins were provided to collect degradable and non-degradable wastes.

Greening Campus Project: It is a green initiative aims at planting sapling trees in college campus under the guidance of Botany department. Under this project each student planted one tree in campus.



Water usage: Percolated water from Balubai Lake and Rain water harvesting facilities were established for the effective management of water. The seepage water from the lake was collected in a chamber and released into the reservoir through a pipeline



A water filtration unit implanted in the campus.

Energy management: Energy management is essential for every institution. The college implemented various methods to save energy.

- Instead of traditional bulbs/tubes/CFL lamps, LED bulbs were used in the campus.



Latitude: 17.819211
Longitude: 76.245427
Elevation: 558.72318 m
Accuracy: 20.4 m
Time: 13-09-2022 14:42
Note: Use of led bulb

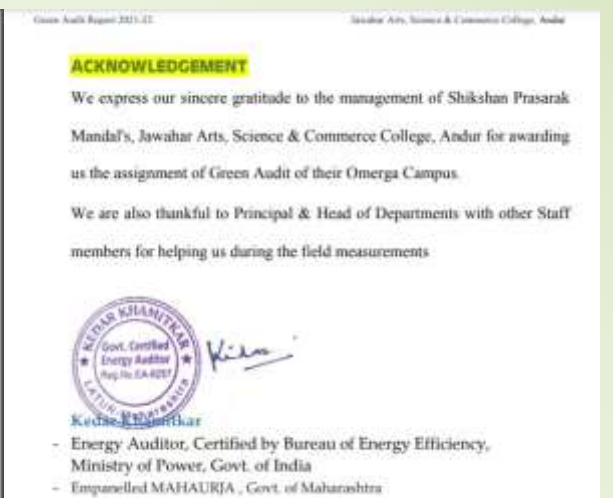
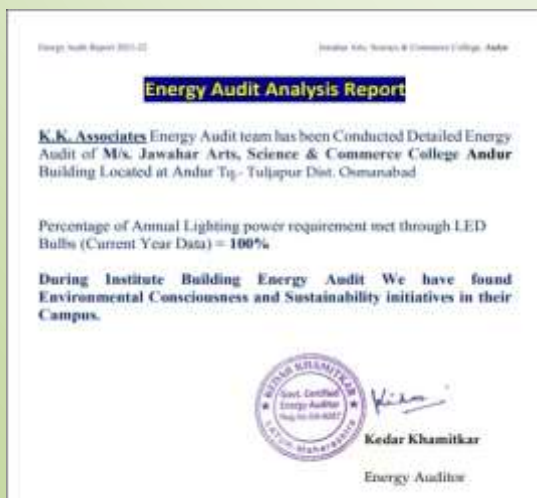
Honey Bee farm: In collaboration with Zoology department planning to Plant honey bee farm in our campus.

Sericulture Garden: Planted Mulberry plants in Botanical Garden. This initiative was appreciated by District Magistrate of Osmanabad Hon. Sachin Ombase.



Botanical Garden: Regular Botanical garden maintenance was done by green campus volunteers. As a part of this a team of volunteers visiting the garden on a set time nurtured the plants.

Green auditing: With the initiative of green auditing cell, the awareness programme was conducted on environmental issues. The cell also examined the effect of green initiative campaign in campus and a review was conducted at end every academic year.



The Makings of a Successful Green Campus

The impetus for a successful Green Campus must begin at the top and disseminate throughout the rest of the campus.

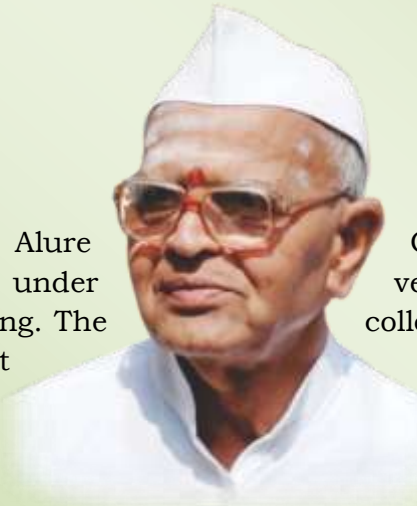
Without a strong message of commitment and involvement from the faculties, non-teaching staff and the students, well-intentioned initiatives may be too fragmented to allow for campus-wide participation and too easily undermined by naysayers and other obstacles.

Once the decision to become a Green Campus is made, then the real work begins. While there are some basic ingredients that will help ensure success:

- Vision
- Dedication
- Team spirit
- Continuity

Shikshanmaharishi S. N. Alure College on 2nd October 1991 under college had no separate building. The classrooms of letters built the land of the institution were used for the academic front of this building was a

As there is a seepage lake east of this plain, during the rainy season, water seeps from this lake and enters this plain, so the entire plain becomes muddy. Therefore, in this place, innumerable grasses used to grow.



Guruji established Jawahar very adverse conditions. The college was started in six using stone and mud on survey no. These rooms work of the college. In triangular open field.

called Balu Bai in the east of this plain, during the rainy season, water seeps from this lake and enters this plain, so the entire plain becomes muddy. Therefore, in this place, innumerable grasses used to grow.





Since there was grass and the open space was not fenced, the people of the village used to leave their animals and goats in this open field for grazing. We can use this free and unused space. If we properly plan the water that is wasted, it can be reused. Where only grass grows, no trees grow due to the presence of animals. All these things were discussed with professors and students. Then it was unanimously decided to use this place and plant trees and create a botanical garden on this place, give proper direction to the flow of seepage water and use it for tree conservation and store the rest of the water by making a reservoir in it and produce fish in this reservoir to the Department of Zoology. It can be used for students to learn fisheries.

Accordingly the work started. Prof. Dr. d. S. Suryawanshi, Botany, Prof. Dr. S. S. Bad, the professors of Zoology Department, Director of Physical Education Prof. Dr. U. S. Salgar and N. S. S. The students planned for tree planting in May-June 2019. Pits taken. Saplings brought from Social Forestry Department of Tuljapur. All the faculty and students started the green campus work by planting 250 trees on the same day.



NSS volunteers and non-teaching staff of the college arranged and planned water. Dr. D. S. Suryawanshi, Prof. Dr. Satyendra Raut, Prof. Dr. Ankush Kadam etc. gave strength to the green campus campaign by donating ashoka, palm and some ornamental trees.



Support of Savitribai Phule Mahila Mandal and Damayanti Mahila Credit Institution:

The women of Savitribai Phule Mahila Mandal and Damayanti Mahila Credit Institution of Andur village also spontaneously participated in this green campus campaign. 50 trees were gifted and



planted. Women's Board President Smt. Shashikala Patil, Vice President. Prof. Dr. Meena Jadhav, Secretary Mrs. Jayshree Suryawanshi, Member Prof. All the board members including Meenakshi Bhore-Salunkhe supported the green campus initiative by planting trees in the college premises.

Support of Retired Army and State Bank of India:

On 15 August 2019, on the occasion of Independence Day, the retired soldiers of the State Bank of India branch in Andur and its surroundings participated in the Green Campus initiative and brought saplings of trees like wad, pimpal, neem and planted trees in the college premises. Branch Officer of State Bank of India Branch Andur Hon. Jha Saheb participated in this activity with his wife.



Work during the Covid-19 disaster:

Due to the lockdown of Corona, the functioning of the college is closed. But local employees Santosh Chaudhary, Namdev Kale, Ganesh Sarje, Amit Alure, Subhash Koli etc regularly watered and weeded the planted trees.

Construction of protective wall and botanical garden:

College operations are closed in 2020-2021 due to Covid-19. When there was relaxation as per the rules of the Maharashtra Government, the construction of the protective wall and botanical garden was started and completed with the help of local construction workers. Earlier, as there was no black soil in this area, about 20 to 25 bras of black soil was brought from the outside area and spread.



Millidubi and Coconut Plantation:

In June 2021, Millidubi and coconut trees were planted along the newly constructed protective wall in the college premises and along the protective wall of the botanical garden.



Tree Plantation on behalf of Channabasav Multi-Purpose Organization, Andur:

Channabasav Multipurpose Institution, Andur Sanstha operates a tree bank in Andur area. On behalf of this organization, it has been working for many years to improve the environment by providing tree saplings in various schools and colleges.

On the occasion of **Van Mahotsav Saptah 1-7, July 2021**, the President of this organization Shri. Shivshankar Tirgule and his colleagues Dayanand Kalunke, Sachin Toggi donated and planted trees in the college premises.



Tree Plantation on behalf of Jawahar College Alumni Association:

Tree plantation was done on behalf of Jawahar College Alumni Association on 2nd July 2021. On this occasion Revansiddha Andhalkar, Executive President of Alumni Association, Vice-President Prof. Santosh Nare, Secretary Prof. Dr. Vishwas Mane, Treasurer Prof. Jyoti Hattarge, Member Sushma Birajdar, Makarand Patil, Shivaji Galakate, Ms. Sonali Jadhav and Coordinator Prof. Dr. Mallinath Birajdar was present.



Atal Dense Forest Scheme:

Information was received regarding Atal Dense Forest Scheme of Social Forestry Department. For more information about this scheme Director of Physical Education Prof. Dr. After telling Umakant Salgar, he contacted the concerned department and informed the Taluka level Social Forestry Department and after contacting the Group Development Officer, Panchayat Samiti, Tuljapur, he promised to cooperate in implementing the dense forest scheme under this scheme. Accordingly, on 8 July 2022, Block Development Officer Hon. Pratapsingh Marod and Village Development Officer Mr. Devidas Chavhan with Santosh Choudhari, Siddheshwar Masute and Matolkar came to the college and inspected the place.



A 100 x 100 plant garden has been created in this triangular open ground of the institute under the green campus initiative for the last two years. Different types of trees have been planted in this place. After expressing the intention of implementing Atal Dense Forest Scheme and planting trees in the open space around this park, the Block Development Officer Hon. Pratapsingh Marod and Village Development Officer Mr. Devidas Chavhan approved.

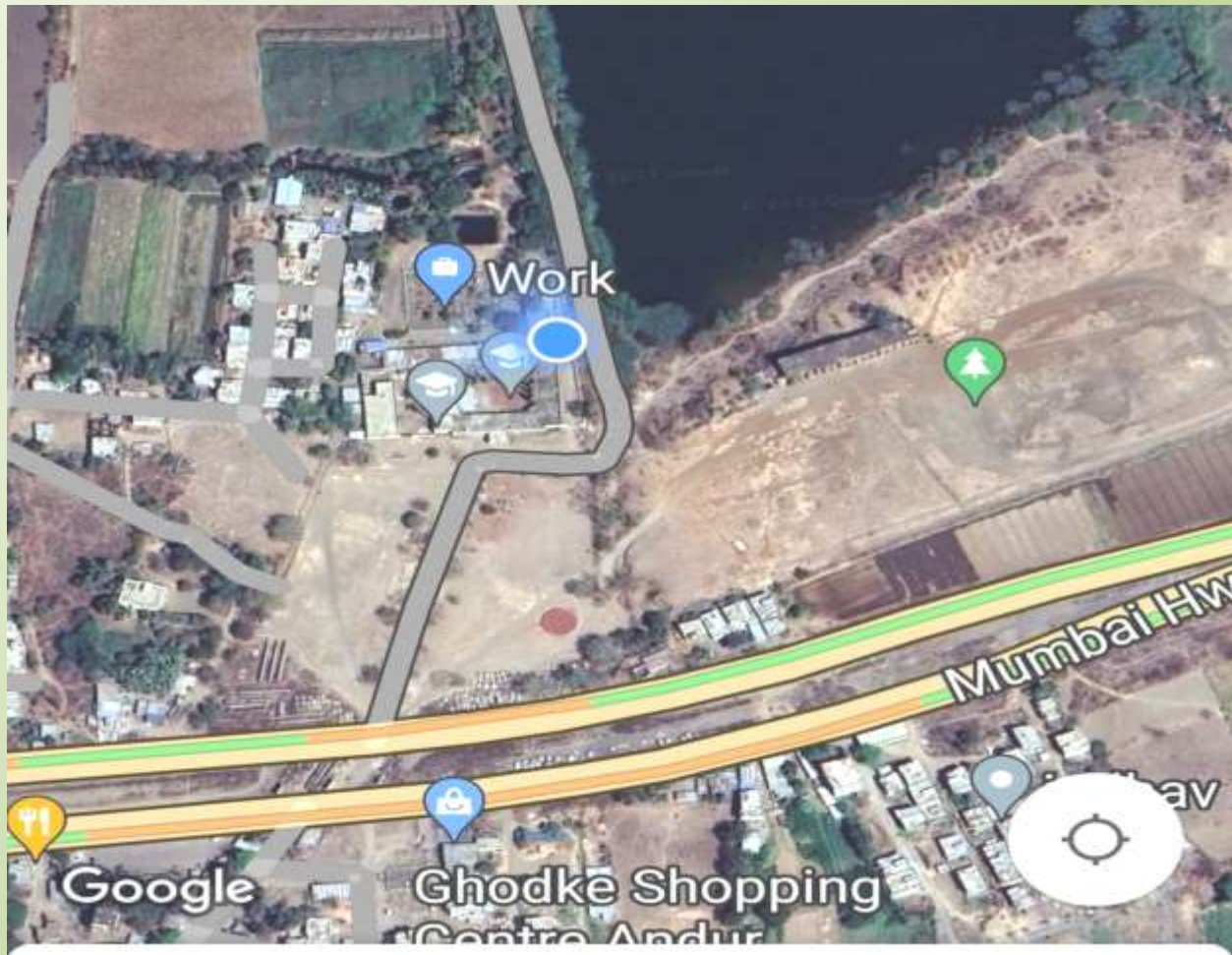


Accordingly, with the cooperation of Gram Panchayat, Andur, by implementing this Atal Dense Atal Solid Forest Scheme around 1500 trees were planted in this open space in the month of July 2022. Forest Scheme, around 1500 trees was planted in this open space in the month of July 2022.



Formation of Reservoir: Seepage water management

It was thought to create a reservoir on the northern slope of the plain to recycle the water seeping from the Balubai Lake. Its benefits are as follows –



- 1) Percolation spread throughout the field and was wasted, as it was stored together it would be recycled. Environmental recycling techniques can be explained.
- 2) The students of zoology department can study ichthyology through hands-on action by releasing fish seeds in this reservoir and producing fish.
- 3) Due to fish production, either the students can study, also the students and the farmers of the area can get the motivation to start a supplementary industry even in a minimum space and earn money from it. The college can also earn from this fish sale.
- 4) In the future, on behalf of Zoology Department and with the help of Fisheries Department of the Government, a fish pathological laboratory can be established to guide the fish farmers in the area by providing information about fish diseases.
- 5) Another important use is that there is a well at the north end of our institute premises. The entire Andur village (about 20000 people) is supplied with water from this well. In summer, however, water is scarce. This reservoir will increase the water

level of this well. The well springs will keep flowing continuously and help in reducing summer water scarcity. In this regard, after discussion with the founder respected Shikshan Maharshi Hon. S. N. Alure Guruji considering all these aspects the work of reservoir construction started on 24th February 2021.



Water Flow:

By confining the stream of percolating water into an old stone cistern (worshipped by the natives as the place of mhsoba), a chamber with a 4-inch pipe joined to its outlet mouth can be made to flow on both sides with tees and cocks, so that when the plants in the botanical gardens are to be watered, they can flow from the side of the reservoir. The flow can be turned off. And the pipeline has been designed in such a way that if the flow in the park is stopped, the water will flow to the reservoir.



Closure of Reservoirs:

Efforts are underway to protect the reservoir by pitching the walls of the reservoir with stones, constructing a protective wall up to one and a half to two feet on the ground and installing a wire fence and an iron gate on it to prevent soil from falling into the reservoir. While the stone pitching work was in progress, rains flooded the reservoir, leaving the pitching and retaining wall incomplete.



Use of Reservoir for Fish Production:

Fish seed was released for fish production in this reservoir filled with water. It was used to enable students of zoology to study freshwater fish culture.



जवाहर महाविद्यालय येथे मत्स्यसंवर्धन तलावाची निर्मिती



प्रतिनिधी। अणदूर

येथील जवाहर महाविद्यालयातील प्राणीशास्त्र विभागांतर्गत मत्स्य संवर्धनासाठी व प्रात्यक्षिकासह विद्यार्थ्यांच्या मत्स्य व्यवसाय अभ्यासक्रम आणि संशोधन वृत्तील वाव देण्यासाठी महाविद्यालयात असलेल्या पानथळ जागेवर मत्स्यसंवर्धन शेततलाव निर्मिती करून या मत्स्यसंवर्धन शेततलावात मत्स्यबीज सोडण्यात आले.

महाविद्यालयात शिक्षण घेणाऱ्या विद्यार्थी संशोधकांसाठी येथील पाणथळ जागेत पावसाच्या पाण्याचे जलपूनभरण करून या जलश्रोताआधार निर्माण करण्यात आलेल्या या मत्स्यसंवर्धन शेततलावात महाविद्यालयाचे प्राचार्य डॉ. उमाकांत चनशेट्टी, प्राणीशास्त्र विभाग प्रमुख डॉ. एस. एस. बाड, प्रा. डॉ. जी. टी. राठोड यांच्या हस्ते कटला, रोहिता, मिरंगला, कारपियो आदी प्रजातीचे मत्स्यबीज सोडण्यात आले. याबाबत असलेल्या अभ्यासक्रमासाठी

याचा उपयोग होणार आहे. महाविद्यालयीन विद्यार्थी, शिक्षक व या क्षेत्रात संशोधन करू इच्छिणाऱ्या संशोधकांसह मत्स्यव्यवसायाचा एकात्मिक विकास करण्यासाठी व मत्स्य उत्पादनासाठी केंद्र शासनाने निश्चित केलेल्या नीलक्रांती योजने अंतर्गत जलशाखाच्या क्षेत्रांमध्ये मत्स्यसंवर्धनातून शोतीपूरक व्यवसाय वृध्दीसाठी हा प्रकल्प उपयुक्त ठरणार आहे.

शेतकरी व मत्स्य व्यवसायिकांच्या आर्थिक उन्नतीसाठी माहिती व प्रशिक्षणासाठी हा पथदर्शी प्रकल्प म्हणून विकसित करणार असल्याचे मत प्राचार्य डॉ. उमाकांत चनशेट्टी यांनी व्यक्त केले. या येथी वामुक्ताचे अध्यक्ष डॉ. अंकुश कदम, प्रा. डॉ. एस. व्ही. माने, डॉ. अमोल पाचपडे, प्रा. डॉ. एस. व्ही. राजमाने, डॉ. विश्वास माने, डॉ. एस. व्ही. विराजदार, माजी विद्यार्थी संघटनेचे भैरवनाथ कानडे, डॉ. डी. एस. सूर्यवंशी, कारिनाथ करपे, पो. आर. भुरे, गणेश सर्जे आदींची उपस्थिती होती.

From this the income of fish started for the college. The student felt the fish being pulled through the net.



Use of Bore Well:

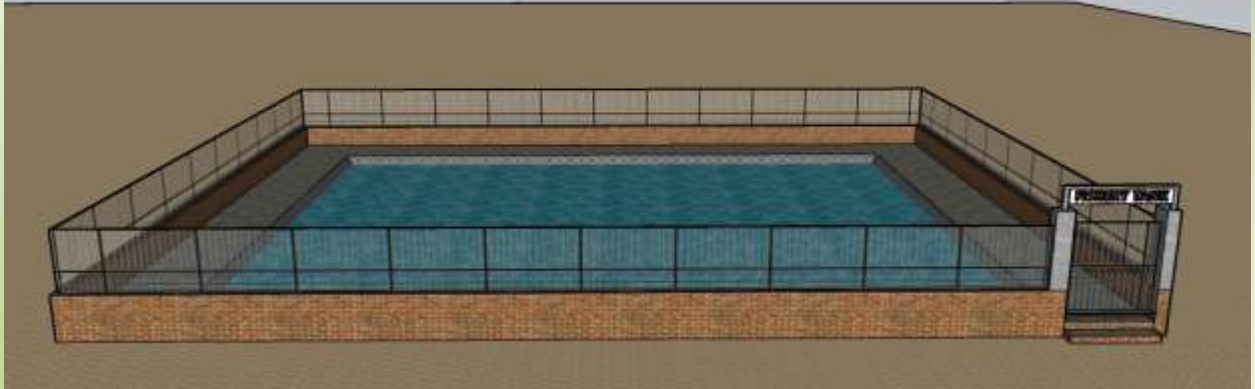
In the same place there was an old bore well with a hand pump in the north-east direction. This bore has abundant and constant water. It was occasionally used by the hostel students.



The water needed for the college and the girls' hostel was taken from a well. Then the water of this bore well should be used regularly and for the purpose of supplying water for all the activities of the institute, a submersible pump will be installed in this bore well, through which water will be used for drinking for the students, and this water will be used for the toilets of the boys and girls.

If fish production is to be made permanent in this reservoir, it is necessary to have water in the reservoir even in summer, so the pipe line was made to maintain the water level in the reservoir by leaving the water of this bore well in it.

Shortly we are planning to closer this reservoir for Fishery as shown in Plan.



Evidence of Success:

The students and the college has become a part of the green campus campaign. This paved a way in decreasing environmental issues in campus to an extent. Plastic free campaign encouraged students to give up plastic things. The concept of green campus campaign and environmental friendly practices in the campus resulted in developing a clean and green campus. The students are used this Green Campus for their study as well as spent their leisure time.



Use of LED bulbs instead of CFL bulbs and tubes reduced the consumption of electricity. Rain water harvesting and waste diversion were beneficial for drinking water and greenery purpose. The workshop and seminars on environmental issues created awareness among the students. Disposal of non-degradable and degradable wastes into separate dust bins helped the waste management more easily.

In future we planned for Green power generation by using solar panel. The review of green auditing provided feedback on green campus campaign and suggested remedial measures for solving the problems encountered in the campaign activities.

Problems Encountered:

There were number of barriers in executing green campus campaign. It was a tedious task in banning plastic completely in the campus.

The attitude of faculty and students towards changing the campus into plastic free environment were not fully positive.

Recycling of non-degradable waste material is very expensive and time consuming.

Climatic conditions adversely affected the survival of tree saplings planted by green campus volunteers.

Yield of fish production decreased drastically due to non-closure and fencing of the reservoir.

Glimpses of Green Campus: Before



Under the supervision of Principal Dr. Umakant Chanshetti, Dr. D. S. Suryawanshi (Head, Botany Dept.), Dr. S. S. Baad (Head, Zoology Dept.), Dr. U. S. Salgar (Physical Director)







Principal Dr. Umakant Chanshetti, addressing the students about the Best Practice of the year-2019-2020 Campaign for Greening the Campus & Ecological Sustenance Students and Staff are ready for making Green Campus with Plant Sapling for plantation



Glimpses of Green Campus: After



Dr. Umakant Chanshetti
Principal

Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad.

