



Affiliated to Dr Babasaheb Ambedkar Marathwada University, Aurangabad

BEST PRACTICES – 1

Academic Year -2020-21

TITLE OF THE PRACTICE

“ROOFTOP RAIN WATER HARVESTING”

INTRODUCTION

There is great increase in domestic and industrial demand for water among fast growing human population, which directly affects the water resources of the region. Thus, rainwater harvesting can be taken as opportunity of harvesting rainwater to meet the scarcity of water and avoid destruction of the normal groundwater level. Rainwater harvesting is like a boon to mankind that help in utilizing unused or extra water, with charging the groundwater level.

Rainwater harvesting is a Green Practice having great benefit of keeping the groundwater level undisturbed and charging the ground water with an environment friendly approach. This green practice in the campus and in the houses of the employee encouraged through Green Initiative Committee, Board of Institutional Management and other stakeholders of the college. Rooftop Rainwater and run-off water if collected or diverted and stored in a planned way, can serve the great future source in drought prone areas.

Rainwater harvesting is eco-friendly and economical. It is very cost-effective way to recharge the ground water. The cost of digging a catchment area can be saved by roof-top collection of rainwater. The catchments and settlement tanks reduce the ground heat and act as a natural cooler.

OBJECTIVES

1. The Shri Chhatrapati Shivaji College is located at Omerga. It is drought prone and rain shade area of Marathwada.

2. To increase recharge of groundwater by capturing and storing rainwater, by rainwater harvesting from rooftop run-offs.
3. To store the water for gardening & laboratory purpose. Storage of rain water for drinking and day to day use is important in this area as there is no river in and around.
4. The use of rainwater is a useful alternative. Rooftop rain water harvesting is to make water available for future use.

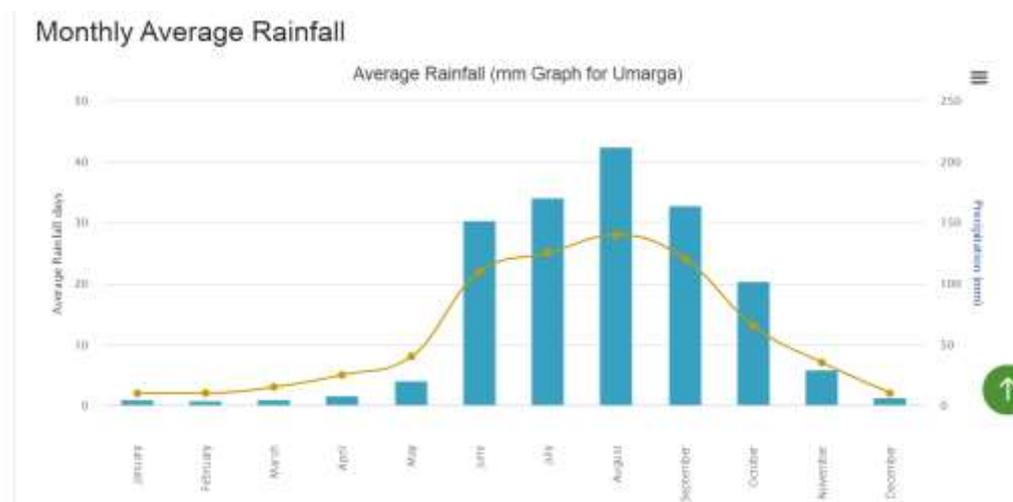
WHY RAIN WATER HARVESTING?

1. To meet the ever-increasing demand of water for drinking, gardening, laboratory and lavatory use in the college campus.
2. To reduce the unnecessary runoff of natural water which may form chokes in the drainage system developed by the municipality.
3. To avoid flooding on roads and in populated areas which may disturbs the routine and peaceful life of the people.
4. To increase the ground water table and helps in recharging borewells and tube wells in the campus and in the city.
5. To reduce ground water pollution by collecting non polluted, pure rooftop rainwater, which helps in improvement in the increasing and maintaining ground water quality.
6. To supplement household and drinking water requirements, scarcity of water during summer etc.

THE PRACTICE

The Shri Chhatrapati Shivaji College is located in the drought –prone area of Marathwada. The wet season is muggy and overcast, the dry season is mostly clear, and it is hot year-round. Over the course of the year, the temperature typically varies from $17^{\circ}C$ to $38^{\circ}C$ and is rarely below $13^{\circ}C$ or above $42^{\circ}C$. The rainfall is 1-120 mm during the year. The highest rainfall was 100 to 120 mm during June to September 2020 which drop down below 1 inch. Average rainfall is around 85 mm during the rainy season.

In the year 2019, college has conducted Green Audit by Surya Envirotech, Nagpur. On the basis of recommendations and the regional need-based priority, Management of the College, Green Initiative Committee, Raje Shivaji Rotaract Club, Jakekur Wadi and the other stakeholders unanimously decided to take up Rooftop Rainwater Harvesting activity in the campus, as well as off the campus. Rotary International Rotary India Water Literacy mission's structured WATER mission program by Rotary Club of Omerga also shaken the hands to help and promote this acidity through supporting Water Literacy Certificate Course in the college.



Source - <https://www.worldweatheronline.com/umarga-weather-averages/maharashtra/in.aspx>

Rooftop Rainwater Harvesting in the Campus

The college has its own infrastructure. The available rooftop area as follows-

1. Administrative Building - 850.92 Sq. mtr
2. Teachers Hostel - 87.96 Sq. mtr
3. Girls Hostel - 438.6 Sq. mtr
4. Student Centre - 534.47 Sq. mtr
5. Library / Classroom Building - 4777.54 Sq. mtr
6. Shooting Range - 783.27 Sq. mtr

Total : 7472.76 Sq. mtr

Rainwater Harvesting at the College Campus till date = 7472.76 Sq. mtr X 85 mm x 0.8

= 5,08,147.68 Cu.m.

The Employees (Teaching and Non-teaching staff) of the college and Schools run by the Bharat Shikshan Sanstha also participated in this activity and almost 90% employees have fitted Rooftop Rainwater Assembly to channelise the rainwater into Soak pit, Direct Borewell Recharge or in the storage tanks. Average available area of rooftop for rainwater harvesting is Apprx. 300 Sq. mtr.

Houses with Rainwater Harvesting Assembly till date 400 x 300 Sq. mtr. = **1,20,000 Sq.mtr.**

Ie. 1,20,000Sq.mtr. X 85 mm x 0.8 = **81,60,000 Cu.m.**

TOTAL ROOFTOP RAINWATER HARVESTED IN THE LAST YEAR =

5,08,147.68 + 81,60,000 = 86,68,147.68 Cu.m.

APPROX. **8668147000 LTRS** RAINWATER HAS BEEN HARVESTED DURING THE YEAR 2020-21

Formula Used for Rooftop Rainwater Collection

Total quantity of water to be collected (cu.m.) = Roof Top Area (Sq.m.) x Average Monsoon Rainfall (mm) x 0.8 (Runoff factor)

Water Conservation Project through Deepening and Widening of Nalha at Jakekur wadi carried out in collaboration with Grampanchayat of the village. Under this project Nalha widening and deepening has been carried out for 7000 meters in length and 20 meters wide at the depth of 3.65 meter. Total area for percolation of water is about 511000 Cubic Meter. Standing water capacity of the area is 34748000 Cubic Mtr.

WHAT WE ACHIEVED?

Benefits to the campus, Omerga region and to the society due to Rooftop Rainwater Harvesting is mentioned below-

1. Self-sufficiency in water availability for drinking and domestic use. No one has faced water scarcity during this period.
2. As water is collected with utmost care and by hygienic way is provides high quality water, soft and low in minerals.
3. Most of the borewell uptakes water has high Total Dissolved Solids (TDS) in it. The TDS is drastically reduced from 850 to 250 due to direct borewell recharge as a result of dilution to ground water.
6. Due to water recharge either through Soak Pit or direct flooding in to tube well ground water level increased. No one from employees has faced water problem during 2020-21 year.
7. As Rooftop rain water harvesting systems are easy to construct, operate and maintain they are economically advisable to others also. Our staff members are now motivating neighbours to implant the system.

ACHIEVEMENT

1. Rotary Club of Omerga has bestowed the **“Rain Water Harvesting College Award” for Water Conservation** Practices.
2. Certificate course in Water Literacy
3. Gained Media Publicity to popularise the concept of Water Harvesting.



Omerga, Maharashtra, India
Shri Chhatrapati Shivaji College, Omerga.
Maharashtra 413606, India CF
Lat 17.879031°
Long 76.63337°
07/12/21 10:28 AM



EVIDENCES OF THE SUCCESS









Dr. Sanjay Aswale

Vice Principal & IQAC Coordinator

Shri Chhatrapati Shivaji College, Omerga

Dist- Osmanabad , Maharashtra , 413606



BEST PRACTICES – 2

Academic Year -2020-21

TITLE OF THE PRACTICE:

ACCEPTANCE OF PANDAMIC AS A CHALLANAGE AND OPPORTUNITY

INTRODUCTION:

The COVID-19 crisis is depending upon public health responses and a comprehensive recovery that include all people. Considering the effects of the pandemic the college has accepted it as a challenge which provides key lessons from the pandemic that can guide all concerned in advancing safe and inclusive mobility. No one will be safe from the pandemic until everybody is safe.

AIMS AND OBJECTIVES:

The aim of this practice is to consider the current situation as an opportunity to reimagine the social structure. It needs to be observed as how migration to be governed in a more humane and effective way, during and after this crisis. It also aims to observe and guide for the closed borders and mobility restrictions which will be amongst seen men, women, and children specially the senior college aged boys and girls who have trapped in precarious situations.

CONTEXT:

We formed a separate committee to implement the campaign of covid19 awareness and guidance to students and all stakeholders of our region.

COVID-19 AWARENESS COMMITTEE:

Sr No	Name and Designation	Role
1.	Dr. G. H. Jadhav, Principal	Chairman
2.	Dr. Sanjay Aswale, Head & Vice Principal (Commerce)	Director
3.	Dr. V.S. Ingale, Head & Vice Principal (Science)	Member
4.	Dr. D. V. Thore, Vice Principal (Arts)	Member
5.	Dr. Vinod Devarkar, Head Dept. of Botany	Member
6.	Dr. G. N. Somwanshi, NSS Programme Officer	Member
7.	Prof. D. S. Chittampalle, NCC Officer	Member
8.	Rotary Club Omerga	MoUs Partner
9.	Mr. Baba Jafri, Foundation	MoUs Partner
10.	NTV News Marathi Journalist	MoUs Partner
11.	Corona Coordination Committee , Omerga Lohar Taluka	Working Partner

The working pattern:



4) Online Counseling about Education in Pandemic

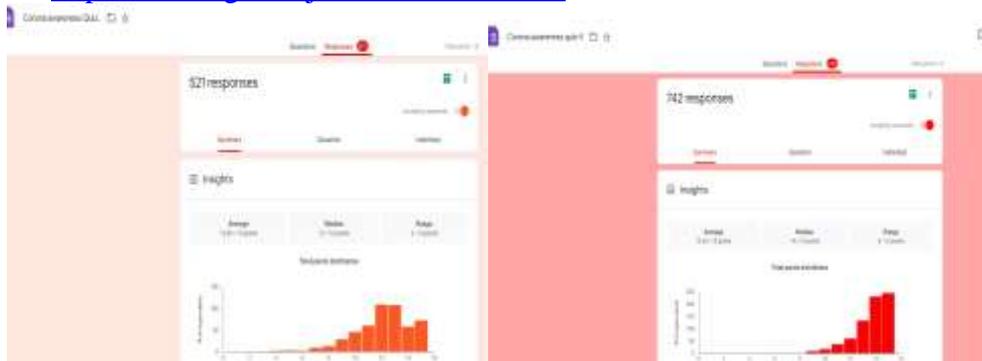
<https://www.facebook.com/thore.dhanaji/videos/611101223384458>



5) Corona virus awareness/prevention program organized by Department of Chemistry and Industrial Chemistry:

The results of the current activity are consistent with what it confirmed that the teacher is increasing their students' awareness through using the technology effectively, including distance learning.

- A) Corona Virus Awareness Quiz (I) -2020
Link: <https://forms.gle/7x4SkdrSeDr88Coq5>
- B) Corona Virus Awareness Quiz (II) -2020
Link: <https://forms.gle/JKj9Zrwc43RaPHkdA>



6) Lecture on Consequences of Nepotism:

Due to Lockdown every adult specially College Students are in stress. They are unable to be released from this unexpected life. A lecture was an attempt to make their mind free from any type of stress.



7) Security and Safety Awareness by Home Visits:

It was a very critical situation for the people locked down at their homes. They were totally unknown about the safety and security of their children. As per college committee work we directly went to the houses of people and answered their queries.



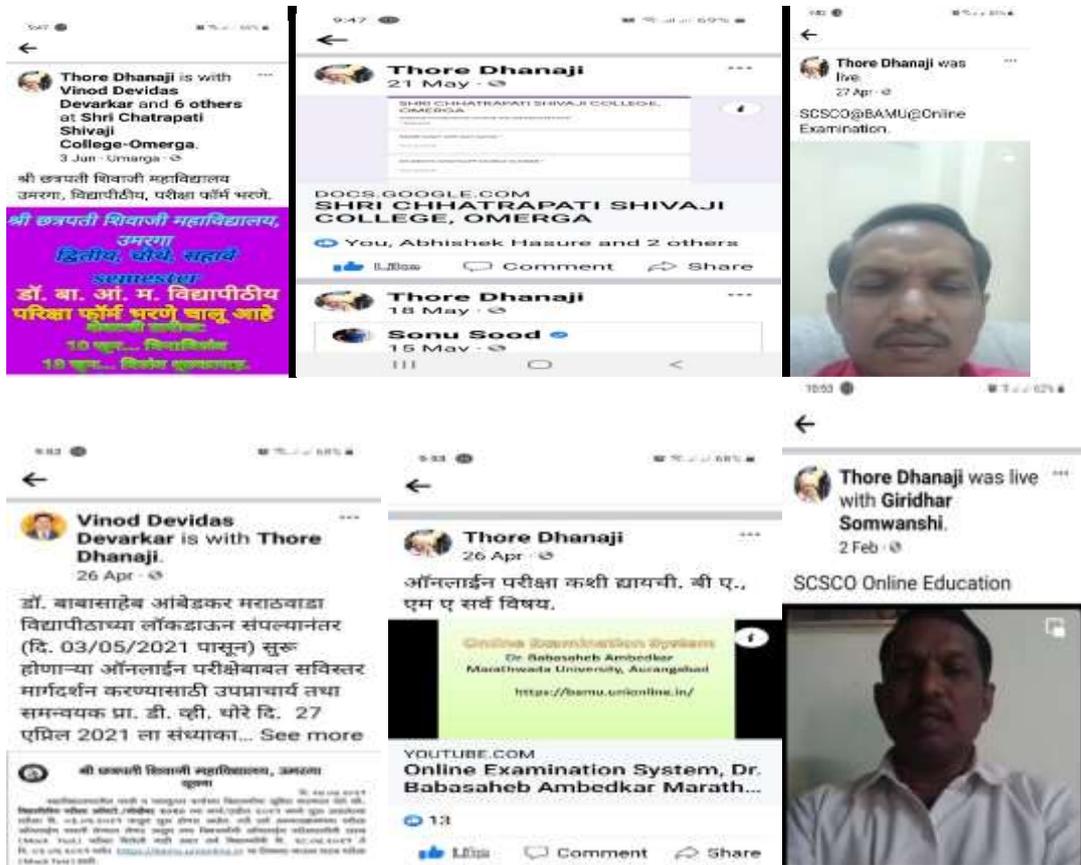
8) Lecture by Dr. Amar Singh (Chindwada, MP) on Stress Management and Peace of Mind:

The IQAC was organized an Online Guest Lecture on ‘Stress Management by Dr. Amar Singh from Chindwada, MP on Saturday, 26th August 2021 in the auditorium. Dr. Amar Singh guided and motivated students to plan and managed their studies. He explained how stress is a part of human life and explained causes of stress and, its effects on body and mind. He explained in detail the strategies to manage stress effectively. Altogether 250 students and faculty attended the programme. Principal Dr. G. H. Jadhav proposed a vote of thanks.



9) Guidance about Online Education:

Due to the Lockdown as per the guidelines of Government, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad decided to manage online education system. It was our responsibility to manage the education system. It was totally new process to go through. We used our ICT labs for online teaching and provided each and every important messages regarding students’ benefit.



10) Lecture on Teacher as a Nation Builder: Role and Challenges:

Prof D. V. Thore Vice Principal of faculty of Arts delivered a talk on Teacher as a Nation Builder: Role and Challenges. Online teaching and learning was a challenge for both the teachers and students. To motivate both of them was the essential need so through this speech we reached at our goal to handle both of them.



I) Mask and Sanitizer Distribution:

In this regard SCSCO COVID- 19 awareness committee identified the COVID warriors working in the community. The college has distributed hand sanitizers, face masks and soaps to many students, citizens and also the Corona Warriors.



II) Providing Health Facilities on the Spot:

Considering the need of food and health for the economically backward people it was decided to provide the Health Facilities at their home. The health kits also were distributed for the corona workers at Civil Hospital and many other workplaces in collaboration with Rotary Club Omerga. The members of the rotary club donated the food grains packages.



III) Handover of College Infrastructure as COVID Center:

The world doesn't expect any pandemic may rise in the life of human beings but nobody can understand the rules of nature. As it was a sudden shock the government was trying to establish the COVID quarantine centers as soon as possible. The college authorities without any delay handed over the Hostel building to make a center.



IV) Grocery and Food Distribution:

To provide the household needs was the measure issue during the pandemic. The college was bound to think of the needy people from the rural area and distributed the household needs like grocery, wheat, sugar, oil and kitchen ingredients. The beneficiaries were happy to have a help to manage their food in time.



V) Social Awareness Week:

(1st March to 6 March 2021 at 7:30pm

Meeting ID: 89881526271 Passcode: 470322 <https://us02web.zoom.us/j/89881526271>)



During the COVID-19 crisis Shri Chhatrapati Shivaji College, Omerga has made an initial attempt to institute a Lecture Series to transport in prominent talent who can stimulate the children,

college boys and girls and needy people in the society. The people are stressed very much but the Discussion of knowledge is imperious both for the common people and small scale workers.

1) **Dr. Smita Deshmukh, Principal, Shivaji Mahavidyalaya, Amravati):** The lecture series was inaugurated by Prof. **Dr. Smita Deshmukh, Principal, Shivaji Mahavidyalaya, Amravati** on March 01, 2021 through online mode. During the inaugural session, the speaker restated that the lecture series of this kind was a very rare opportunity for the participating students to get academic exposure from highly accomplished universities and experts. Being a part and parcel of the social work and follower of Chhatrapati Shivaji Maharaj and Jijau, Dr Smita Deshmukh mentioned as Rajmata Jijau was founder of the *Hindavi* Empire. She stated that we need to study the Working Management of Jijau which essentially needed in 21st Century.

2) **Ms. Sharmila Yewale**, a social activist, delivered her talk on **“The Role Youth in Contemporary Indian Politics.”** She commented that to make a modification in the longer term, it is important that youths are to be engaged in proper political methods and have a say in expressing today’s and tomorrow’s politics. Political participation is not only an important political and democratic right but also is crucial to build stable and diplomatic societies and developing policies that respond to the specific needs of younger generations.

3) **Dr. Arjun Jadhav, Social Activist, Osmanabad) :**

In this pandemic it was a need to motivate the society by giving examples of great people and historical Icons from Indian History. Considering this issue Dr. Arjun Jadhav delivered a talk on **“Punyshlok Ahilyadevi Holkar life and Work”**. In his speech Dr Jadhav stated that, despite women’s education being far cries in the village, Ahilyadevi’s father home schooled her to read and write. While Ahilya did not come from a royal lineage, most deem her entry into history a twist of fate.

4) **Dr. Dnyanoba Kadam, DBJ College, Chiplun:** On the fourth day of the lecture series Dr. Dnyanoba Kadam, from Chiplun delivered is speech on **“Five Principles of Indian Constitution”** His speech reflects the importance of every constitution replicates the ideas and ideals of the people who surrounded it. Though it is envisioned to be a document of enduring value, it is assured to reflect also the circumstances and situations of the period in which it was outlined.

5) **Hon. Avinash Patil, Mumbai:** Hon. Avinash Patil spoke on ***Purogami Maharashtraatil Shikshanik Chalvali aani Aajcha Yuvak*** . He focused on the superstitions though measured as illogical beliefs are widely predominant in all cultures. He was firm to say that in tis pendamic situation citizens need to focus on Scientific Studies instead of any superstitious remedies on the Virus.

5) **(Dr. Sanmukh Muchatte, Topic: Universal Pandemic and Literature):**

While dealing with a very specific topic as **“Universal Pandemic and Literature”** Dr. Sanmukh Muchatte stated that the final theme of the literature of pandemic, born from the awareness that this world is not ours alone. It is that we can’t avert our eyes from the truth, no matter how cruel and ugly it may be in the temporary. The presence of disease is evidence of that. Illness reminds us that the world isn’t ours; literature lets us know that it is sometimes. Be safe. Most of all take care of each other.

VI) School and College Students Adaptations:

Many parents in the society were unable to afford the school and college expenditure of their children. Knowing this cause the Vice President Hon. Ashlesh Shivajirao More of Bharat Shikshan Sanstha Omerga decided to adopt the needy students from Z. P High School Omerga and S.C.S. College, Omerga. The totals educational needs of about 23 adopted students were provided by him. News Link: <https://www.youtube.com/watch?v=eZBxiEep1Wc>



VII) Sewing Machine Distributed

Our management supported the women who have lost their husband during Corona period by providing sewing machine.

Sewing Machines distributed to Women of adoptd village Kadmapur, donated by Ashlesh More , Vice President of Bharat Shikshan Sanstha Omerga



Conclusion: The best practice run by our college as the title itself shows that we accepted the pandemic as a challenge as well as opportunity. We felt that we have that potential to a more important part of students' life similarly we can do many more things for the society also.

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