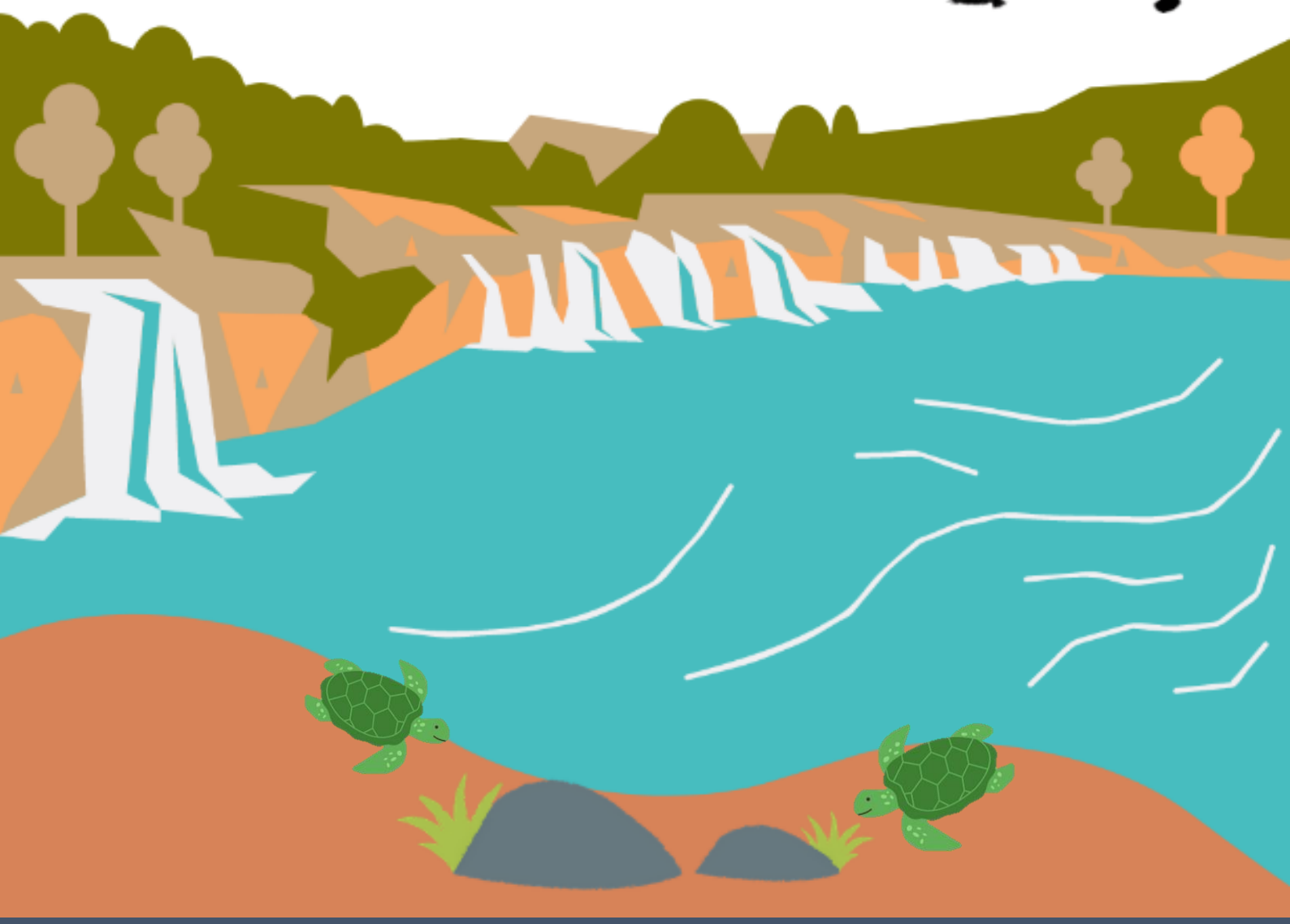
Prabodhan Education Society's

VIDYA PRABODHINI COLLEGE
OF COMMERCE, EDUCATION, COMPUTER & MANAGEMENT
Vidyanagar, Alto-Parvari, Goa

(Affiliated to Goa University & Approved by NCTE)
Recognised by U.G.C. under Section 2 (f) and 12 (B) of the UGC Act 1956)

Excellence Everywhere Everytime



COLLEGE TO VILLAGE AND CAMPUS TO COMMUNITY

INSTITUTIONAL DISTINCTIVE PRACTICE - A CASE STUDY

2018-2023

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I. INTRODUCTION

Vidya Prabodhini College of Commerce, Education, Computer and Management (VPCCECM) came into being in 2012. Since its inception, it has strived to create and develop a quality learning environment by integrating conceptual knowledge, practical skills, basic human values, and field realities to create value-based and resourceful citizens, who selflessly contribute to nation-building by serving the nation above self.

This sentiment is echoed in the college's motto, *"**College to Village and Campus to Community**",* where the focus is not just to provide education, but to create responsible citizens who are sensitive to the needs of humanity. The students are exposed to various learning experiences that enable them to develop their potential and prepare them for life outside the campus. This desire to be responsible members of society stems from the college's commitment towards promoting environmental stewardship and reducing its negative impact on its surroundings through various initiatives.

The Goan biosphere is considered one of the most biodiverse regions in India, with a wide variety of flora, fauna, and natural resources. It sits on the Western Ghats, which is **one of the world's ten hottest biodiversity hotspots.** It has over 7,402 species of flowering plants, 1,814 species of non-flowering plants, 139 mammal species, 508 bird species, 227 reptile species, 179 amphibian species, 290 freshwater fish species, and 6,000 insect species. However, it is also among the most threatened due to rapid urbanization and industrialization. The college recognizes the rising environmental concerns and actively engages in three major environmental initiatives that align with and advance the college's commitment towards fostering change through promoting environmental conservation. These initiatives are as follows:

- **Costal Cleanliness Drive (Turtle Conservation)**
- **Bhu Jal Sanvardhan (Ground Water Recharging)**
- **Tree Plantation and Forest Fire Protection (Biodiversity Conservation)**

Through the implementation of these three initiatives, the college maintains an aggressive and successful environmental conservation initiative, which is administered by its National Service Scheme (NSS) Unit, the Nisarg Club, and Dhavrukh NGO in coordination with various local entities running under the parent umbrella of Prabodhan Education Society.

II. BHU JAL SANVARDHAN (GROUNDWATER RECHARGING)

Situation

Goa has faced recurring drinking water shortages during recent summers, despite receiving some of the highest monsoon rainfall in the country. Unfortunately, a considerable amount of this water is washed away to the sea due to a lack of awareness among citizens, exacerbating the crisis. Bhu Jal Sanvardhan is a vital water resource management initiative undertaken by the college in association with Dhavrukh with a focus on addressing the pressing need for water conservation.

Objectives

The Bhu Jal Sanvardhan initiative endeavours to:

- Implement rainwater harvesting and groundwater recharging systems across Goa.
- Transform at least **30 sites** into groundwater recharging facilities.
- Foster a culture of environmental responsibility amongst students and the community.

Strategy

A robust strategy to tackle the problem head-on and put in place a system to a streamline the process of rainwater harvesting and groundwater recharge was envisaged:

1) Assess and identify locations to determine the viability of setting up groundwater recharging systems.
2) Collaborate with local environmental organizations for expertise and community support.
3) Emphasize the importance of rainwater harvesting and recognizing the criticality of groundwater recharging as a method of water conservation.

Tactics

The tactics implemented in the initiative :

1) To conduct comprehensive assessments of neighbouring housing societies, educational institutes, and community centres and pitch the viability of the project to respective stakeholders.
2) To form dedicated teams for digging holes, placing barrels, and connecting roof systems.
3) The installation of these systems involves:
    - Carefully digging a hole at the identified location, allowing us to access the layer of soil where water is absorbed more easily.

- Strategically placing plastic tanks with holes at its base within the dug hole, ensuring efficient absorption of water into the soil.
- Connecting the plastic tank buried in the ground to the roofs of the building through a network of pipes that act as conduits, channelling rainwater directly into the plastic tanks beneath the ground.

4) To hold workshops to educate locals and tourists about the importance of rainwater harvesting and groundwater recharge.
5) To use social media to amplify the importance of such an initiative to drive community participation.

Action

The implementation of the rainwater harvesting and groundwater recharging initiative happened all across Goa:

Sr. No.	Taluka	Ward	Village	Photo
1	Pernem	Hali	Hali	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=7846027a-1065-42eb-8bd1-ef9c13c1c64b_1691422023.jpg
2	Sattari	Morlem colony	Morlem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=376fb083-55d3-4077-a4f9-7e56e1bb9621_1689855966.jpg
3	Sattari	Morlem colony	Morlem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=6f7832bd-19b1-409c-9a7e-a759c0b5b9a3_1689855777.jpg
4	Sattari	Morlem colony	Morlem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=958a06ba-1965-48d9-8048-379aca6cc9d2_1689855573.jpg
5	Sattari	Morlem colony	Morlem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=810a0e2c-a328-4c91-b39b-02fa1beb542f_1689855371.jpg
6	Sattari	Morlem colony	Morlem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=9da9ddd2-fcec-439f-bf14-147f9a22a9eb_1689855237.jpg
7	Sattari	Morlem colony	Morlem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=79e386f8-701b-4d3f-b2c6-75348d167150_1689855119.jpg
8	Sattari	Morlem colony	Morlem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=24c0945f-b72f-4902-96f5-187aeaf9fa32_1689854866.jpg
9	Sattari	Morlem colony	Morlem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=c68a8b82-4a53-4541-94f3-0963e41a2b12_1689854020.jpg
10	Pernem	Torse	Torse	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=d4f285db-6c47-4210-954d-9b99440e311e_1689596440.jpg

11	Pernem	Chandel	Chandel	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=b94c1317-4c61-45e1-9f45-10c964f874c7_1689515951.jpg
12	Pernem	Hasapur	Hasapur	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=d5d55716-b46b-4334-8b90-b683576e1075_1689515257.jpg
13	Pernem	Hasapur	Hasapur	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=d52f9962-6fae-4776-84a3-8882e5cbd15d_1689514960.jpg
14	Bicholim	Deulwada	Shirgao	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=daa1c7a0-b5de-4da5-a1b1-78f6f77a7f27_1689485333.jpg
15	Bardez	Vidya Nagar	Penna De Franca	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=71f8b322-bfbf-4b02-a8c3-4114da7c950b_1689400427.jpg
16	Pernem	Chandel	Chandel	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=dd839cf1-e5c5-4ab1-bae9-3e413b231de5_1685882061.jpg
17	Pernem	Chandel	Chandel	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=0a249f86-f91a-4619-a141-ac0b38e1056f_1685881708.jpg
18	Pernem	Hali	Chandel	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=6b17ce4d-9a16-44ba-bd7f-3bce9f9c37fe_1685881624.jpg
19	Pernem	Hali	Chandel	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=ef58e6d0-c1b8-4b85-9007-647cf35c50d2_1685880434.jpg
20	Pernem	Deulwada Mandre College	Mandrem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=ff41391b-5023-43dd-aa76-9cb0986fb435_1685258030.jpg
21	Pernem	Deulwada	Mandrem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=d57d1096-44ff-48d5-8f53-487a4ce22f44_1685257611.jpg
22	Pernem	Dandoswada	Mandrem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=ee78529e-aeee-407b-94a1-34141a17ef91_1685257034.jpg
23	Pernem	Dandoswada	Mandrem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=c2823a01-41c6-41ee-be89-3ff3a4870dae_1685256368.jpg
24	Pernem	Marathwada	Mandrem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=536146b4-cf99-4bcf-b207-bd8dd20ca8c2_1685255280.jpg
25	Pernem	Junaswada-Tree of Hope	Mandrem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=5269d633-cd49-4c0b-b5a7-89af8857341f_1685253996.jpg
26	Pernem	Junaswada Tree of Hope	Mandrem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=dbcdc50b-9dcd-4a6b-8fcb-62238aef11d9_1685253549.jpg
27	Pernem	Junaswada Tree of Hope	Mandrem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=c22792e6-8b4d-40ec-a68d-869f2fec54d3_1685253106.jpg
28	Pernem	Junaswada Tree of Hope	Mandrem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=4b49e6fa-ab41-4a6e-bde5-6009205d48b0_1685252929.jpg

29	Pernem	Junaswada Tree of Hope	Mandrem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=48439475-5317-48ac-86e0-fc38bb84b18c_1685252793.jpg
30	Pernem	Junaswada	Mandrem	https://five.epicollect.net/api/media/bhu-jal-sanvardhan-a-initiative-by-dhavrukh-goa?type=photo&format=entry_original&name=59047531-b6b2-402e-a6b8-bc31f79f895f_1685194410.jpg

Activities conducted:

Sr. No.	Name of the Activity	Date	No. of Students	Name of faculty in charge	Aims and Objectives
1.	Community Outreach Activity: Rain Water Harvesting	23/12/22-29/12/22	28	Dr. Pinkesh Dhabolkar (NSS Convenor)	To encourage volunteers to work with the rural community and implement water harvesting techniques and promote environmental conservation.

Control

The initiative will:

1) Regularly inspect the rain barrels to ensure proper functioning.
2) Adjust strategies based on whether the amount of water saved is more or less.
3) Utilize mapping tools to document the location where these initiatives were carried out and chart the amount of water conserved.

Results

The college has set up 30 groundwater recharge projects and has conserved approximately 1 crore 20 lakh litres of water through the collecting of rainwater from rooftops before it is lost as surface run-off to recharge groundwater. This deliberate process mimics the natural recharge of groundwater, fostering a sustainable cycle that benefits both our institution and the environment. By adopting this method, we indirectly support the replenishment of groundwater and compensate for the depletion of non-potable water sources. The College's initiative also aims to raise community awareness about the significance of responsible water resource management.

Figure 1: Sites in Goa where the initiative has been set up

Figure 2: Installation of Tanks

No. of rainy days	Speculated amount of water saved (in m^3)
Day 01-10	1006
Day 10-20	2012
Day 20-30	3018
Day 30-40	4024
Day 40-50	5030
Day 50-60	6036
Day 60-70	7042
Day 70-80	8048
Day 80-90	9054

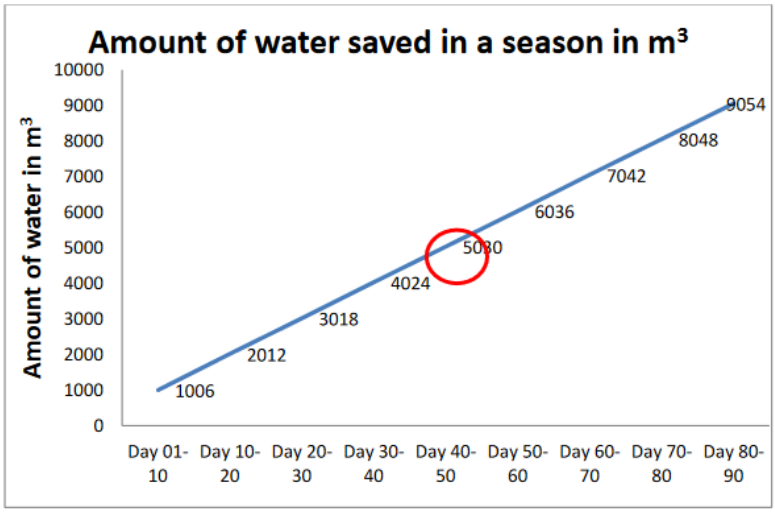

Figure 3: Data collection on water saved

The above graph shows the amount of water that is saved in the form of rainwater harvesting from surface runoff and rooftop collection in one season. The graph shows a combined amount of water saved from a 6 m^2 rooftop and a ground surface of 1000 m^2 in the village of Keri, Sattari, Goa. This is considering 90 days of rain but as that is generally not the case, we have considered at least 50 days of rain accounting for 5030 m^3 of rainwater being saved

The benefits of this project include:

- Preventing Water Scarcity: Rainwater harvesting helps mitigate these issues by providing a consistent water source that can supplement natural sources like lakes and rivers, which are subject to seasonal variations.

- Economical and Accessible: Rainwater harvesting offers a simpler way to access water, especially in rural India where natural water sources may be distant. Storing rainwater

at home enhances accessibility to clean water, positively impacting health. It is also more cost-effective than over-exploiting groundwater sources.

- Simplicity of Implementation: Rainwater harvesting does not require elaborate technical knowledge; traditional methods suffice for collecting and recharging groundwater.

News Coverage:

Session on water conservation held in Mandrem

PANAJI: Mandre College of Commerce, Economics and Management on Saturday held an orientation session on water conservation. Rudresh Mhamal, the President of Dhavrukh NGO and Assistant Professor of Commerce at Vidya Prabodhini College, was the resource person for the session.
During the session, Mhamal explained about the exact nature of water crisis in the world and also specifically in Goa. Various methods of rainwater harvesting and groundwater water recharging were also introduced to the audience.

Figure 4: Session on water conservation

III. COSTAL CLEANLINESS DRIVE (TURTLE CONSERVATION)

Figure 5: The olive ridley turtle

Situation

The olive ridley sea turtle, also known commonly as the Pacific ridley sea turtle, is a species of turtle in the family Cheloniidae. It is the most abundant of all sea turtles found in the world and it also calls the shores of Goa its home. The olive ridley sea turtle is found on two beaches– Morjim and Mandrem–where they lay their eggs every year. The nesting season starts from October and ends in April during which turtles visit and create nests on the beaches of Goa. However, due to rapid urbanization and the littering of beaches, the population of this turtle species has dwindled.

In Goa, the population of olive ridley turtles has declined over the past decade due to the destruction of their nesting sites. This destruction is attributed to the growing amount of waste and garbage that litter the beaches of Goa, a result of rapid urbanization, pollution, and reckless activity of a few individuals who dump waste on Goan shores.

Objectives

The Costal Cleanliness Drive initiative endeavours to:

- Reduce debris on targeted Goan beaches to facilitate turtle nesting.
- Engage stakeholders in the mission for optimal results
- Implement and sustain cleanliness efforts throughout the nesting season.
- Achieve an increase in the total number of nests created and eggs laid.

Strategy

A twin strategy to tackle the problem head-on and put in place a system to minimize the long-term impact of negative human activity on the identified beaches was envisaged:

1) Identify and implement mechanisms to increase turtle visits to the identified beaches
2) Create mechanisms to educate the local populace and other stakeholders on the importance of protecting turtle nesting sites.

Tactics

The tactics implemented in the initiative :

1) Assess shortlisted beaches to determine the number of nesting sites and their condition.
2) Identify locations with significant garbage pile up.
3) Collaborate with local entities and mobilize student volunteers for beach cleanup activities and to bring the initiative to fruition.
4) Organise cleanliness drives to clear up affected areas before and throughout the nesting season.
5) Emphasize the importance of clean beaches for turtle nesting success through workshops to educate locals and tourists about the importance of marine life and why they must not litter.
6) Use social media to amplify the importance of such an initiative to drive community participation.

Action

The actions taken up through the initiative include:

Sr. No.	Name of the Activity	Date	No. of Students	Name of faculty in charge	Aims and Objectives
1.	Beach and Roadside Cleaning Drive	15/8/2022-16/8/2022	14	Ms. Shamal Dessai (NSS Convenor)	To elevate environmental consciousness, fostering community engagement, and enhancing local ecosystems.
2.	International Coastal Clean-up Day	17/9/2022	34	Dr. Pinkesh Dhabolkar (NSS Convenor)	To promote environmental awareness, encourage community participation, and improve local ecosystems.
3.	Field Trip to Keri Beach	25/1/2023	36	Dr. Sagar Mali	To understand the factors behind the various erosional and depositional physical features at Keri beach and to generate awareness to protect natural water bodies and their aquatic environments.

Control

The initiative will:

1) Track the number of turtle visits, nesting sites and hatchlings.
2) Adjust strategies based on whether the number of turtle nesting increase or decrease.

Results

Since the implementation of this initiative, there has been a rise in the number of nests created and eggs laid at these spots. The data collected by the Forest Department of Goa on turtle nesting shows an overall upward trend and the cleanliness drive is one of the key attributors to this change. The NSS Unit performs these cleanliness drives on 17th September every year to commemorate International Coastal Cleanup Day and tasks itself with cleaning all debris from the shoreline to allow for unfettered access to sea turtles to nest and as well as allowing hatchlings to safely reach the sea. This initiative of the college has garnered appreciation from the Government of Goa and its entities.

Chart showing the turtle nesting record at Morjim /Mandrem Beach for a period w.e.f. 1999 to 2023.

Sr. no.	Year	Total of nests	Total no. of eggs laid	Total no. of Hatchlings released	Unhatched dead eggs/ young ones	Remarks (Hatching%)
1.	2012-2013	07	831	501	330	60.29%
2.	2013-2014	04	441	162	279	36.74%
3.	2014-2015	08	951	331	620	34.81%
4.	2015-2016	06	641	255	386	58.97%
5.	2016-2017	11	1206	417	789	34.58%
6.	2017-2018	14	1695	1050	645	61.94%
7.	2018-2019	22	2499	1522	977	60.90%
8.	2019-2020	15	1895	1437	339	75.83%
9.	2020-2021	24	2496	1674	822	67%
10.	2021-2022	52	5795	4794	965	82.72%
11.	2022-2023	65	7391	3951	3440	53.45%

Figure 6: Data collected by Forest Department of Goa

Figure 7: Hatchlings heading to sea

The benefits of this project include:

- Preservation of Marine Ecosystems: Coastal clean-up activities play a crucial role in preserving the health of marine ecosystems. Removing debris from our shores helps maintain the balance of the delicate coastal environment, ensuring the well-being of diverse marine species that call these areas home.

- Protection of Wildlife: One of the direct outcomes of our coastal clean-up efforts is the protection of wildlife, particularly sea turtles. By removing plastic and other pollutants from the coastline, we create a safer nesting environment for sea turtles. This, in turn, contributes to the conservation of these endangered species, fostering biodiversity along our shores.

- Public Health and Safety: The removal of debris from coastal areas contributes to public health and safety. Hazardous materials and sharp objects, often found in litter, pose risks to both humans and wildlife. By regularly conducting coastal clean-ups, we mitigate these risks and create a safer environment for all.

Figure 8: The NSS Unit carrying out the cleanliness drive at Morjim Beach

News Coverage:

Printed from
THE TIMES OF INDIA

Not just night, sea turtles start arriving on Goan beaches during day for nesting

TNN | Apr 21, 2023, 07.24 AM IST

PANAJI: Olive Ridley turtle nests in Goa have gone up from 93 last season — across the four protected nesting beaches of Morjim, Mandrem, Galgibaga and Agonda — to 157 this season. Sea turtles are most commonly known to nest at night. Now, along with increased nesting, Goa over the last three years is also witnessing a new phenomenon of Olive Ridleys arriving during the day to the state's coast.Day time nesting is not unheard of and has been reported elsewhere, including in Odisha in the country, but this occurrence is completely new in Goa, where only night time nesting has been seen ever since organised sea turtle conservation efforts were taken up in the 1970s.

Instances of arrivals for nesting during the day have been reported now at least for three seasons, which last from September to March.

"This has not been seen for the last 20 years. There have been three incidents in Morjim this year. The arrival was seen at around 5pm. In Galgibaga, a case was reported at around 2pm. It was seen that the turtle arrived in the day when it was cloudy and when there was high tide, as the females come to lay eggs riding on high tide," said a ground worker at one of the state's turtle nesting sites.

Figure 9: Increase in turtle nesting

IV. TREE PLANTATION AND FOREST FIRE PROTECTION (BIODIVERSITY CONSERVATION)

Situation

During the decade the percentage of green cover in Goa has decreased at an alarming rate due to rapid urbanization and expansion. The Goan landscape has also become prone to forest fires and the number of cases is on a steady upward trend due to global warming. The college recognizes the importance of maintaining a balanced ecosystem and has created initiatives and partnerships to combat these problems.

Objectives

The Tree Plantation and Forest Fire Protection initiative endeavours to:

- Establish a comprehensive tree plantation program and implement forest fire protection measures throughout Goa.
- Plant over 500 trees and conduct forest fire prevention drills
- Foster a green campus environment, contribute to biodiversity, and mitigate the risk of forest fires.

Strategy

A detailed strategy to tackle the problem head-on and put in place a system to mitigate deforestation and forest fires was envisaged:

1) Assess and identify at-risk locations to implement tree plantation and forest fire protection measures.
2) Emphasize the importance of tree plantation and recognizing the criticality of having forest fire protection measures in place.
3) Collaborate with local forestry departments, environmental organizations, and firefighting agencies.

Tactics

The tactics implemented by the initiative will be:

1) To organize regular tree plantation drives involving students and the campus community.
2) To conduct workshops and drills to educate about fire prevention and response.
3) Planting indigenous flora recommended by the Goa Biodiversity Department in identified places.
4) Actively engaging in the removal of weeds to facilitate more effective plant growth.

5) Implementing techniques such as firewall protection, also known as controlled burning, to create a barrier around the local flora resulting in the creation of a natural barrier against forest fires.
6) Organising Nature trails to introduce volunteers to the importance of conserving seasonal biodiversity and the bigger role it plays in our environment through experiential learning.
7) Selectively picking flowers, like Monsoon Glory, from one location and transplanting them to another, a gesture aimed at fostering environmental awareness and conservation.
8) To establish partnerships with local authorities for joint efforts in fire protection.
9) To use social media to amplify the importance of such an initiative to drive community participation.

Actions

The actions taken up through the initiative include:

	Name of the Activity	**Date**	**No. of Students**	**Name of faculty in charge**	**Aims and Objectives**
1.	Tree Plantation Drive	5/6/22	55	Ms. Shamal Dessai (NSS Convenor)	To raise global awareness to take positive environmental action to protect nature and the planet earth.
2.	Tree Plantation Drive	8/8/22	38	Ms. Yogita Chodankar	To raise global awareness to take positive environmental action to protect nature and the planet earth.
3.	Save Soil Movement	23/8/22	100	Ms. Shamal Dessai (NSS Convenor) and Mr. Rudresh Mhamal	To raise awareness about conserving vital ecosystems, preventing erosion, and fostering a cleaner environment for healthier communities.
4.	Seasonal Bloom Nature Trail	28/8/22	69	Shri. Uaddhav Pol	To introducing the volunteers to the importance of conserving the seasonal biodiversity and the bigger role it plays in our environment through experiential learning.
5.	Workshop on Biodiversity Conservation through Sustainable Afforestation	30/10/22	52	Mr. Rudresh Mhamal	To help participants acquire knowledge on environmental degradation and the need for biodiversity conservation.
6.	Community Outreach Activity: Rain Water Harvesting	23/12/22-29/12/22	28	Dr. Pinkesh Dhabolkar (NSS Convenor)	To encourage volunteers to work with the rural community and implement water harvesting techniques and promote environmental conservation.

7.	Field Trip on Biodiversity Conservation and Sustainable Development	30/1/23	50	Dr. Pinkesh Dhabolkar (NSS Convenor)	To create awareness about biodiversity and to remind NSS volunteers of their fundamental duty to protect and improve the natural environment.

Control

The initiative will:

1) Regularly assess the growth and health of planted trees and conduct fire risk assessments.
2) Regularly maintain plants by making visits, especially during the summer seasons to water plants.
3) Adjust strategies based on whether the amount of green cover has increased or decreased.
4) Adjust strategies based on successful implementation.
5) Chart progress and address community feedback and suggestions.

Results

The Nisarg Club and Dhavrukh manage and facilitate these activities by making regular visits to sites in Mandrem, Arambol, Keri, and Porvorim. The three-pronged approach of tree plantation, controlled burning, and trench digging are all part of the college's initiative to increase green cover and reduce deforestation in hopes of securing a brighter future for the future generation.

Figure 10: Planting of indigenous plants at Mandrem

Figure 11: Volunteers digging trenches to protect local flora

Figure 12: Controlled burning to protect from forest fire

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Figure 13: Introducing volunteers to the importance of conserving the seasonal

The benefits of this project include:

- Biodiversity Enhancement: Tree plantation diversifies local flora, creating a more resilient ecosystem. A variety of tree species fosters biodiversity, providing habitats for various wildlife and insects.

- Undergrowth Management: Controlled burning is a proactive approach to managing undergrowth. By periodically burning away accumulated vegetation, we reduce the fuel load for potential wildfires, minimizing the risk of intense and uncontrollable fires.

- Firebreak Establishment: Trench digging serves as an effective method for creating firebreaks. These trenches act as barriers to the rapid spread of wildfires, providing a physical obstacle that can help contain and control the fire.

V. CONCLUSION

At VPCCECM, our environmental initiatives go beyond individual actions; they represent a holistic approach to conservation echoing the college motto of "***College to Village and Campus to Community***". Through the successful implementation of Bhu Jal Sanvardhan (Ground Water Recharging), Costal Cleanliness Drive (Turtle Conservation), and Tree plantation and Forest Fire Protection (Biodiversity Conservation) the college has helped over 10 villages across 4 talukas creating an immense geographical imprint over the regions of Goa. The college VPCCECM strives to create an atmosphere and sensibility in society that is acutely aware of its responsibilities to the environment in terms of environmental stewardship while also working to implement cost-effective environmental solutions to mitigate our environmental problems.

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