

**Swachh Bharat Student Internship 2023****PROJECT REPORT**

Submitted by

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Racheal D'Souza, Vaishnavi Pokle, Arya Pokle

Under guidance of

**Dr. Nitin Sawant**

Coordinator, SBSBI

Program Director

School Of Biological Sciences and Biotechnology (SBSB)

Goa University

**Miss. Gandhita Kundaikar**

Mentor, SBSI

Assistant Professor

SBSB

Goa University

**Dr. Preeti Pereira**

Mentor, SBSI

Assistant Professor

SBSB

Goa University

2023-2024

**DECLARATION**

We have carried out the SBSI 2023 Internship under the guidance of:

**Dr. Nitin Sawant**

Coordinator, SBSI

Program Director

SBSB

Goa University

**Miss. Gandhita Kundaikar**

Mentor, SBSI

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**Dr. Preeti Pereira**

Mentor, SBSI

Assistant Professor

SBSB

Goa University

The content of this Report and are reporting the 100 hours of work carried out by us during this Internship

Roll number, name and signature of SBSI 2023 interns:

1. 22P0440015, Ishika Chopdekar
2. 22P0440016, Kenesha Singh
3. 22P0440031, Riddhi Savoiverekar
4. 22P0440036, Vaishanavi Pokle
5. 22P0440021, Arya Pokle
6. 22P0440026, Racheal D'souza
7. 22P0440027, Saisha Chopdekar

**CERTIFICATE**

This is to certify that the following SBSI 2023 Interns-

1. Ishika Chopdekar *Ishika Chopdekar*
2. Racheal D'Souza *Racheal D'Souza*
3. Kenesha Singh *Kenesha Singh*
4. Riddhi Savoiverekar *Riddhi Savoiverekar*
5. Saisha Chopdekar *Saisha Chopdekar*
6. Arya Pokle *Arya Pokle*
7. Vaishnavi Pokle *Vaishnavi Pokle*

Have satisfactorily completed 100 hours of activities related to Swachhata.

During this internship period, it was noticed that the intern acquired and enhanced the following skills –

1. Team work, co-operating with each other and exploring each other ideas and learning from one another.
2. Creating Brochures, Google meet links and E-Posters.
3. Handling audience during a webinar, handling a social media handle, keeping updated with latest trends on social media. (That helped the interns reach to a larger audience)
4. The interns got to visit some of the remote areas in the state, interacting with the locals there, taking up their issues and trying to solve them in whichever way they could was a biggest take away for our interns.
5. The interns got a chance to work on ground with the locals and got to know the ground reality of how bad waste management issues are at some places.
6. Working, communicating and convincing people of all age groups was the most crucial skill that our interns have acquired.

This report is being submitted to SBSI 2023 University Nodal Officer, in partial fulfilment for the completion of the SBSI Course during the academic year 2023-2024.

*Dr. Nitin Sawant*  
10/08/23  
Dr. Nitin Sawant

SBSI Co-ordinator

*Ms. Gandhita Kundaikar*  
10/08/2023  
Ms. Gandhita Kundaikar

SBSI Mentor

*Dr. Preeti Periera*  
10/08/23  
Dr. Preeti Periera

SBSI Mentor

## **ACKNOWLEDGEMENT**

First of all, we would like to thank the almighty God, for protecting and guiding us throughout the internship. We extend our supreme gratitude to the Government of India, for providing us with the golden opportunity to participate in this internship – The Swachh Bharat Summer Internship 2023. For the successful completion of this internship, we have received valuable help from different sources.

We express our sincere gratitude to Senior Professor Dr. Savita Kerkar, Biotechnology discipline, School of Biological Sciences and Biotechnology, for always encouraging us to do better in every field. This internship would have not been completed without the guidance of our SBSI Coordinator Dr. Nitin Sawant sir, it is his most valuable assistance and advice which has always kept us on the right track. Special mention to our ever-supportive mentors, Miss. Gandhita Kundaikar and Dr. Preeti Pereira who guided us throughout the internship program.

Last but not the least we would like to convey our deep affection to all our dear friends and all the kind people who've knowingly or unknowingly helped us in completion of this internship program.

Thank you one and all.  
Team Sharks.

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## **INTRODUCTION**

In an ever-changing world, the topics of greenery and sustainable development have emerged as crucial pillars for a healthier and more prosperous future. With increasing concerns over environmental degradation, climate change, and resource depletion, the importance of integrating green practices and fostering sustainable development has never been more evident.

Greenery, in the context of urban and rural environments, refers to the deliberate cultivation and preservation of green spaces, such as parks, gardens, forests, and other natural areas. These green spaces offer numerous benefits to both humans and the environment. They provide a sanctuary for biodiversity, supporting various flora and fauna while also acting as carbon sinks that help mitigate the effects of greenhouse gas emissions. Moreover, green areas contribute to the overall well-being of communities, offering recreational spaces for people to connect with nature, exercise, and unwind from the stresses of modern life.

Sustainable development, on the other hand, is a broader concept that encompasses the integration of economic, social, and environmental aspects to meet the needs of the present generation without compromising the ability of future generations to meet their own needs. It recognizes the delicate balance between human activities and the Earth's ecosystems. Sustainable development promotes responsible resource management, reducing waste, and minimizing the ecological footprint of human activities.

The relationship between greenery and sustainable development is closely intertwined. Greenery plays a significant role in achieving sustainable development goals by providing a range of ecosystem services. These services include air and water purification, soil enrichment, climate regulation, and the preservation of biodiversity. Moreover, green spaces contribute to the resilience of communities against climate change impacts, such as floods and extreme heat events.

As we move forward, embracing greenery and sustainable development is not only a choice but a necessity. The challenges posed by climate change and environmental degradation demand urgent action from individuals, communities, businesses, and governments alike. By fostering green practices and sustainable development principles, we can build a more resilient and equitable society, where nature and human well-being thrive in harmony.

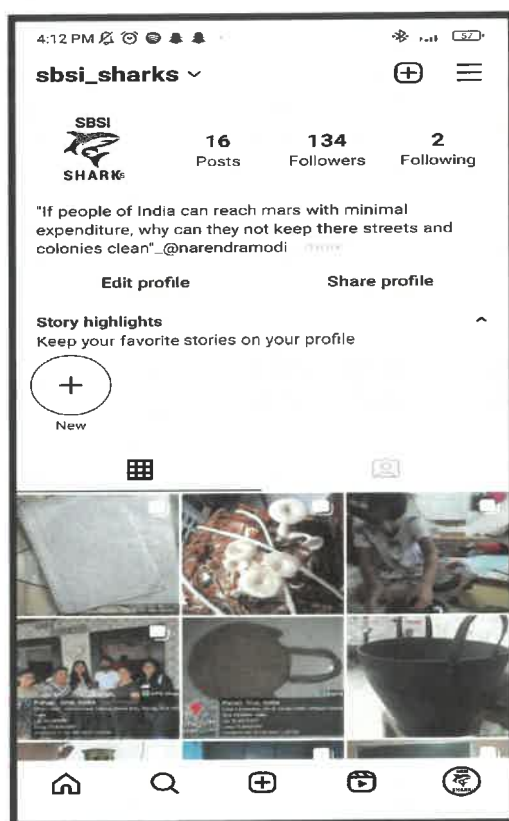
In this pursuit, collaboration and innovation are key. Governments must enact and enforce policies that promote green infrastructure and incentivize sustainable practices. Businesses should adopt sustainable models and prioritize environmentally friendly solutions. Individuals can make a difference through conscious consumption, waste reduction, and advocating for green initiatives in their communities.

By working together, we can create a world where greenery flourishes, and sustainable development becomes the foundation for a prosperous and thriving planet for generations to come. The time to act is now, as our actions today will shape the future for all life on Earth.

To spread the awareness about “Swachh Bharat Abhiyan” and eco-friendly practices we made an Instagram page.

Our Instagram page link:

[https://instagram.com/sbsi\\_sharks?utm\\_source=qr&igshid=NGExMmI2YTkyZg%3D%3D](https://instagram.com/sbsi_sharks?utm_source=qr&igshid=NGExMmI2YTkyZg%3D%3D)



**Screenshot of SBSI SHARKS instagram page**



## THEME: REUSE

### Bottle painting:

During the time spent for beach cleaning, a large amount of intact glass bottles was separated. These bottles were then hand painted.

OBJECTIVES: 1. Promote creativity

2. Encourage recycling

3. Raise awareness about the importance of waste reduction by transforming ordinary glass bottles into beautiful pieces of art.



### Photographic evidence of bottle paint

### Rain water harvesting:

Rainwater harvesting at home is an eco-friendly and sustainable practice that involves collecting and storing rainwater for later use.

OBJECTIVES: 1. The aim was to use the overflowing rain water for gardening and other household purpose.

2. By using this technique more than 200L of water was used for different purposes.



### Collection and use of overflowing rainwater for gardening

### Water saving techniques:

Water-saving techniques at home can help reduce water consumption, conserve this precious resource, and lower your water bills. Here are some effective water-saving tips.

OBJECTIVES: 1. The aim is to avoid maximum wastage of water at home.

2. On an average a water purifier produces 75% of waste water and only 25% of clean water. This waste water was used for different motives for ex; mopping of the floor, washing clothes etc.

3. Water used for vegetable wash and cleaning of rice are great for the plants, so this water was used for gardening.



### Using waste water from purifier for mopping and watering plants

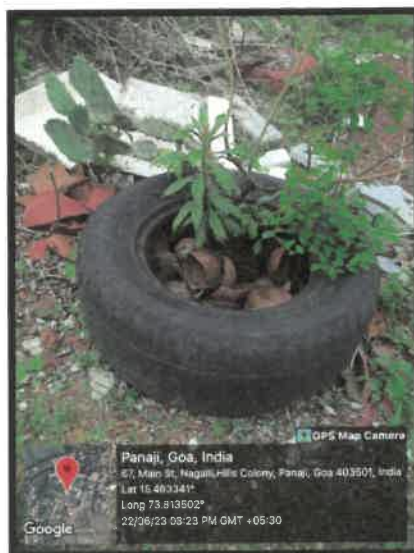


### Tyre planters:

Tyre planters, are a creative and eco-friendly way of reusing old tyres to grow plants and flowers. Instead of discarding used tyres as waste, they can be repurposed as containers for gardening, making them a cost-effective and environmentally friendly option for planting. We took old tyres, cleaned them and planted different varieties of plants in them for our house gardens.

OBJECTIVES: 1. Cost-effective technique

2.Environment friendly



### Pictorial evidence of tyre planters



### Also using tyres for decoration purpose



### Waste containers for plantation:

- Best way to use an old container instead of throwing it off, is to make it as a planter.
- This reduces plastic pollution and contributes to increasing the aesthetic value of a place.



### Reusing old containers for plantation

### Paper bag making and distribution:

Paper bags were made out of old newspapers by our team and distributed in supermarkets, vegetables shops, cafes etc. on 27/06/23.



### Distribution of bags by our team



### Making process of the bags

### **Donation of clothes and snacks at Valpoi, Corlim and Chimbhel:**

Our team members, had organised clothes donation to initiate re-use of clothes in different localities of Goa.

By donating clothes as a means of reuse, we can contribute to a more sustainable and compassionate society while reducing the negative impact of the fashion industry on the environment.

One of the main objectives of clothes donation for reuse is to promote environmental sustainability. The fashion industry is resource-intensive, and the production of new clothing items contributes to pollution, water usage, and waste generation. By donating clothes, individuals help reduce the demand for new clothing production, thereby conserving resources and lowering the industry's overall environmental impact.

A key objective of conducting clothes donation by our interns is to support individuals and communities in need. Donated clothes are often distributed to charitable organizations, thrift stores, or directly to people facing financial hardships or difficult circumstances. By providing affordable clothing options, clothes donation helps ensure that everyone has access to appropriate attire, regardless of their economic status.



### **Our team distributing clothes to children at Union High School**





**Promotion of biodegradable and recyclable items:**

We promoted biodegradable and recyclable items for a sustainable future and to promote local vendors .



**Basket made out of old tyre**



**Lamp made out of fish can**



**A jute bag**



**Vases made up of cement**



**Visit to Bal Bhavan for best out of waste activity:**

Our team visited Bal bhavan to conduct best out of waste activity with kids, this activity was fun learning for kids about how to recycle and reuse unwanted things.

**Picture proof of the activity**

Workshop for Children of Bal Bhavan on Best out of Waste Activity  
Under Waste Management Extension Programme

### **No gadget-evening for kids:**

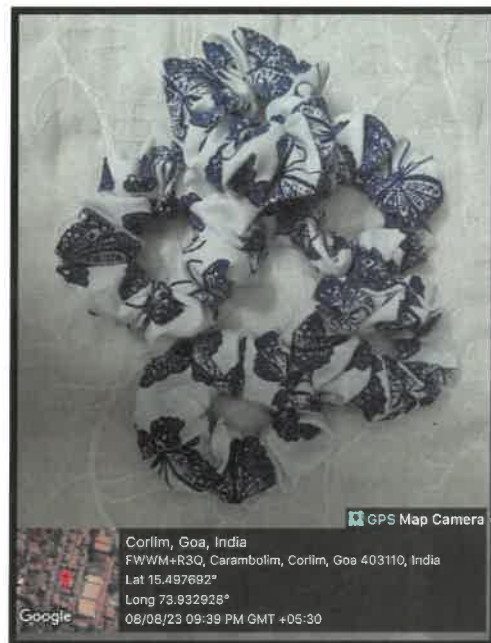
As gadgets now a days have taken over all the time of children, we team thought of an idea to introduce a concept of no gadget evening for kids, we conducted this activity in our colonies, on 01/20/23 and the kids really enjoyed the activity. We made them do different paintings and craft.



### **Pictorial representation of the activity**

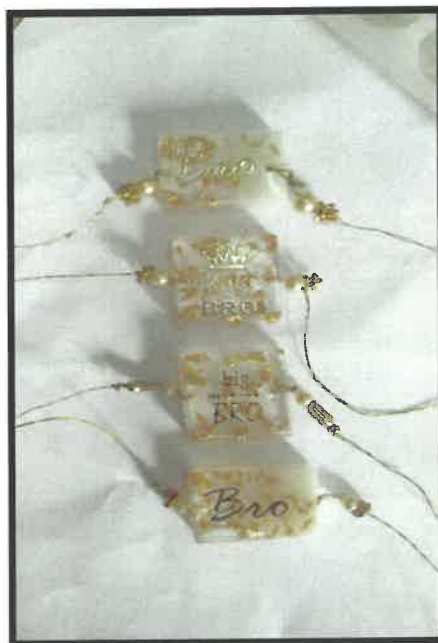
### **SCRUNCHIE AND RAKHI MAKING AT HOME**

One of our team members made scrunchies at home with the help of old torn bedsheets. The fabric was successfully reused. Since scrunchies are widely used by females, it was distributed to our classmates.



### **Pictorial representation of scrunchie making and its distribution**

One of our team member made Rakhis out of epoxy Resin which is a beautiful and biodegradable alternative towards the mother nature .

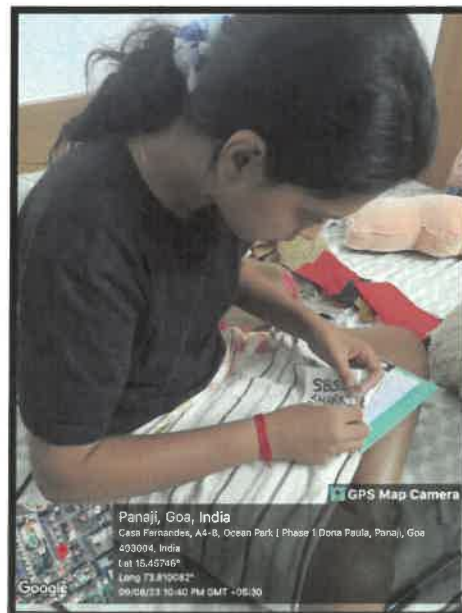


Pictures of resin rakhi



### **MAKING OF CLOTH BAGS**

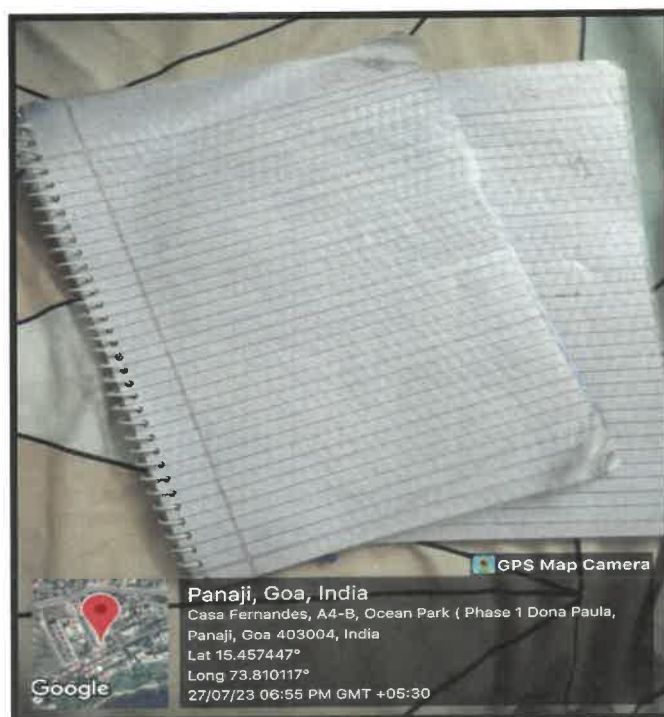
Our team members made use of old cloth materials to make bags as an alternative for plastic bags. These bags can be used for carrying goods and can be reused many times until it gets torn as it is much stronger when compared to plastic bags.



**A pictorial representation of the bags made**

### **MAKING OF NEW BOOKS FROM PAGES OF OLD USED BOOKS**

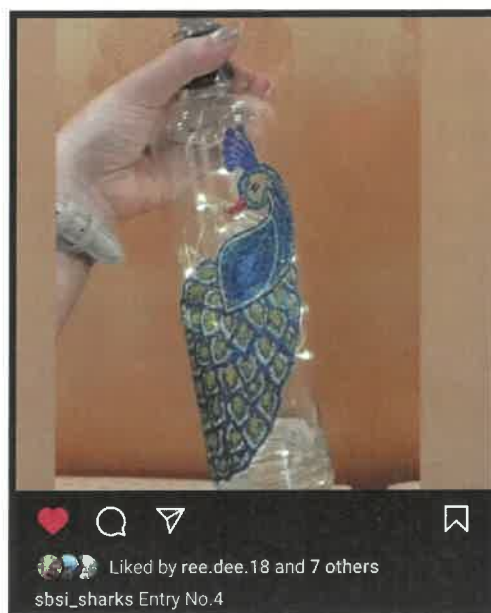
“To sit in shade you have to save paper first” Keeping this in mind our team took an initiative to reuse waste pages from old books in order to make new ones . This practice reduces wastage of paper which is a great help to our mother nature.



**Proof of the books we made**

### **BEST OUT OF WASTE ONLINE COMPETITION**

We organised as a part of our reuse theme, an online competition, to encourage the youth of today to convert trash into treasure. This competition had a great response, with 7 entries.



### **PROOF OF ENTRIES SUBMITTED**

## **THEME: GREENOVATION**

### **Beach cleaning: CACRA & ODXEL**

Beaches are pride of goa and because of increasing pollution these aesthetic places are becoming a garbage dump yard. To make these beaches clean our team took an initiative and on 20/06/23 we cleaned Cacra and Odxel beach.



**Our team cleaning the trash at the beach side**



### **Distribution of saplings in different areas of Goa:**

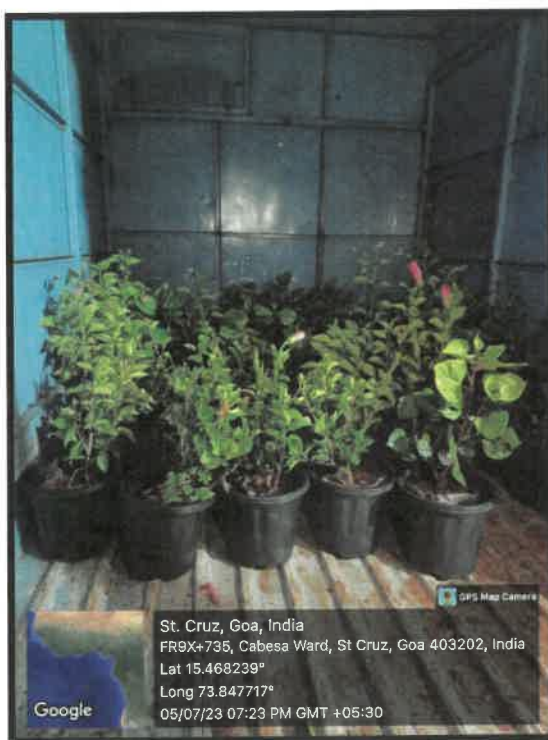
“The best thing to gift someone is a sapling”, we sharks took this initiative to gift saplings to the local people as to take a step forward towards a green Goa.

We got saplings of different medicinal, flowering, and fruit plants from forest nursery copardem, and Taleigao local nursery, and distributed the saplings in different areas like Valpoi, St. Cruz, and Ravora Goa.



### **Sapling distribution at Valpoi**





**Pictorial evidence of sapling distribution at St'cruz and Ravona**

### E-poster competition on Instagram:

To spread awareness about how our planet Earth is getting polluted and the ways to save it, our team organized a E-poster making competition on Instagram in which more than 15 people participated.



### Few of the posters from the competition we organized



## MAKING OF SEED BALLS

Seed Balls are also known as seed bombs. They are small clusters of seeds encased in a mixture of clay, compost, and sometimes other materials. We made seed balls at home and explained the procedure to our classmates and teachers and distributed it. Seed balls are designed to be a convenient and effective way to plant seeds in various environments.



1.



2.



3.

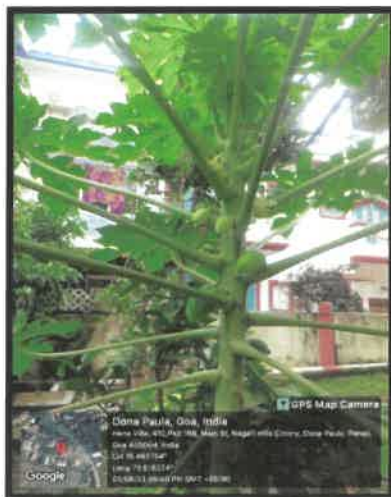


4.

## PROCESS OF MAKING SEED BALL

### BACKYARD FARMING

This activity was conducted as a measure to plant local vegetable and fruit samplings in our backyards to produce pesticide free products. It also helped local women to generate income as they can sell this yield in the market. It also provides an aesthetic value to the house and provides fresh oxygen.



## THE YIELD OF BACKYARD FARMING

### **REEL-MAKING COMPETITION**

We conducted an online reel making competition on Instagram "Green, it Reel it" to encourage the youth and spread the word about importance of nature and its beauty. A total number of 3 entries were submitted, which created a great impact on a number of audiences.



**Screenshots of some entries submitted**

### **PHOTOGRAPHY COMPETITION ON INSTAGRAM**

A nature photography competition was conducted on our Instagram page. "Explore the Outdoors", in which a total of 6 entries were submitted.



### **Screenshots of some entries submitted**



### Webinar on Sustainable development:

Sustainable is the smart way of development, keeping this in mind we team sharks decided to conduct a webinar about how to perform sustainable practices at home and for the development purpose too. This helps to maintain the nature human balance.



Proof of the webinar conducted



## **MUSHROOM CULTIVATION**

### **Mushroom cultivation at Goa University:**

Mushroom cultivation is the process of growing mushrooms for commercial or personal use. It involves creating an environment that is conducive to the growth of mushrooms, providing the necessary nutrients, humidity, and temperature conditions for their development. Oyster mushroom cultivation is gaining popularity as a lucrative business in many countries around the world. The cultivation process is relatively simple and can be done on a small or large scale, making it accessible for individuals or businesses to enter the market. Oyster mushrooms are highly nutritious and have many health benefits, including being low in calories and high in protein, vitamins, and minerals.

#### **OBJECTIVES:**

- To promote mushroom cultivation.
- Educational Experience for promoting mushroom cultivation among students.
- Provides practical and hands-on learning experiences for students.
- Skilled development and Entrepreneurial Opportunities.
- To conduct outreach activity contributing positively to society



**Cleaning of the mushroom incubation room**



**Cutting of substrate**

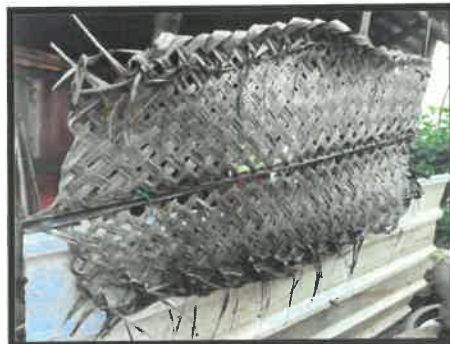
SoakingFilling of bagsKeeping bags in dark roomThe Harvest

## THEME: ADLEM GOEM

### Promoting goan culture Gen-Z:

Household Goan items have been used in an eco-friendly way, since a long time by our ancestors. We tried to implement this knowledge and spread awareness about it.





**HOW GOAN NATIVES HAVE MAINTAINED OUR CULTURE TILL DATE**

Various local households that we visited, shared their insights on various medicinal values and local medicines used by them during any diseases. These allow them as well as the communities to decrease their dependency on synthetic tablets, that have numerous side effects. Some of the information they shared with us included:

1. For headache: Heat the Halkun (dried turmeric) and smell it.
2. For rashes, pimple and acne: Grate Chandan and apply.
3. For diabetes: Sadafula (periwinkle) roots are grinded and mixed with water as a drink.
4. For ringworm: Talkilo paste apply on infected area. Tulsi soil can also be used.
5. For stomach acidity: Jeera water, Solkadi can be prepared and consumed. Ajwain water can also be consumed.
6. For stomach ache: Camphor with oil is mixed and applied on belly button.
7. For period pain: Ajwain and fennel seed in water and boil
8. For kidney stone: For instant relief, 5 black pepper and 1 spoon fennel seeds + 1 glass of water, boil it till it gets half the volume.
9. For toothache: Cloves
10. For UTI: Fennel seed water boil + Punarnava leaves
11. For roundworm: Garlic + Ajwain smell + Drink water.
12. For loose motions: Onion tied at belly button.
13. For fever: Coriander + water boil and drink little by little.
14. For acidity: Ghee + 1 glass hot water to be drank.
15. For sore throat: 1 spoon honey + 1 spoon ginger

This knowledge was passed on to us by Mrs. Shila Shirvoikar and Mrs. Isha Shirvoikar, residents at Odxel.

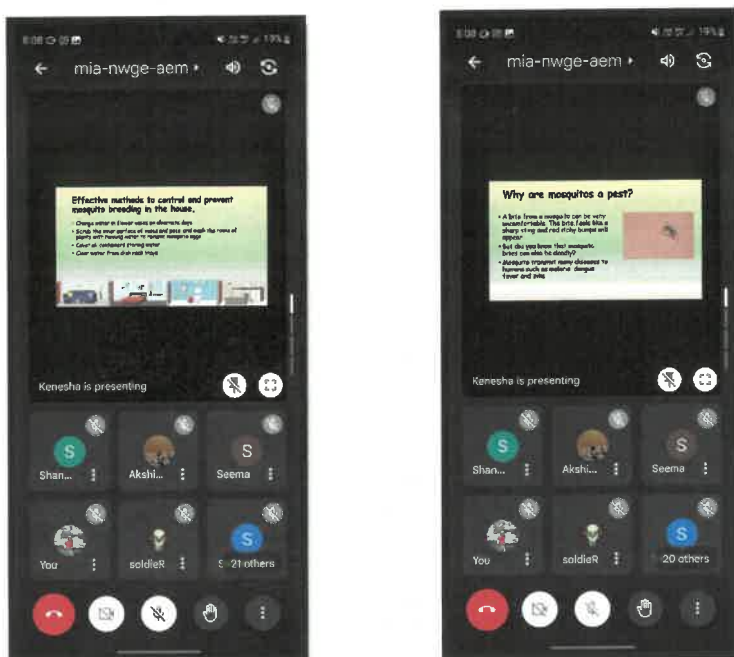


## THEME: HYGIENE

### Webinar on Malaria and Dengue awareness:

We conducted webinar on malaria and dengue through google meet platform.

Aim for this webinar was to create awareness about the increasing cases of these diseases with the increasing rainfall, in the webinar we educated people about precaution, causes and treatment for these diseases. For example, one should not allow the rainwater to stand as it can be a great breeding ground for the dengue causing mosquitoes.



Screenshot of the webinar conducted

7:42 5G 100% 18°C

nen-fdak-idb

Kenesha is presenting

- To be done once or twice a day, ongoing
- use a warm compress – to make the oil from glands around your eyes more runny
- gently massage your eyelids – to push the oils out of the glands
- clean your eyelids – to wipe away excess oil, unblock glands, remove bugs. Using a solution of 1 pint cooled boiled water to 1 tsp bicarbonate of soda

saahil 11B\_1... Rincy

You ARC... 16 others

7:33 AM

nen-fdak-idb

Where your eyes don't produce enough tears or your tears evaporate too quickly

**Dry Eyes**

- Increased tearing (symptoms worse after retirement party)
- Corneal dryness
- Eye irritation, burning, itching, redness, pain, discomfort
- Blurred vision (often worse in the morning or after long drives)
- Light sensitivity
- Contact lens intolerance
- Medical conditions (diabetes, thyroid, rheumatoid arthritis, Sjögren's syndrome, lupus, etc.)
- Medication side effects (antidepressants, antipsychotics, diuretics, etc.)
- Age-related changes (tear production decreases with age)
- Allergies (hay fever, sinusitis, etc.)
- Environmental factors (dry air, smoke, dust, etc.)

See your optometrist for advice on any of the over-the-counter products that may help

Kenesa is presenting

11B... ARC... Rincy

You Shan... 18 others

### Screenshot of the webinar

### Site Visit to Josa biodegradable sanitary napkin plant:

An average sanitary napkin is made up of plastic material which takes up to 100 years to get degraded, keeping this in mind our team searched and found out biodegradable pads which also supports "Make in India" mission and we found about a brand called Josa which is situated in Goa itself. We visited the factory of Josa and found out the way they are producing these biodegradable napkins. We even got some samples with us to spread awareness about this excellent alternative to the regular sanitary napkins at the same price too. The factory was located in Thivim industrial area.



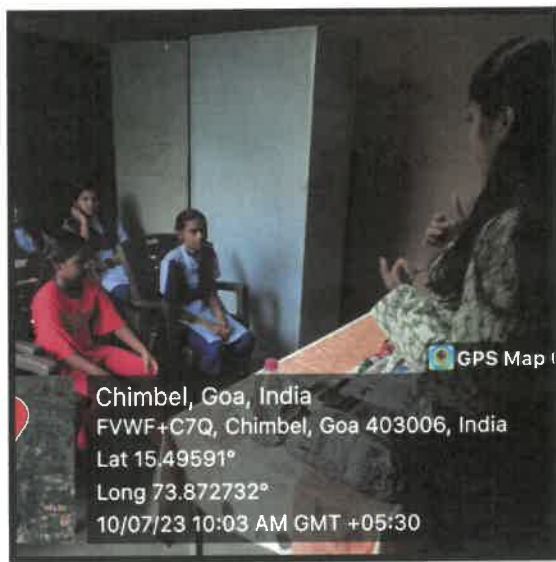
### Production process



Testing the sampleVariety of napkinsOur team with the napkinsCertification

### **Talk on menstruation and personal hygiene along with distribution of sanitary napkins in Union High School, Chimbel:**

After attending the Josa factory, we decided to spread our knowledge with some school girls, we went to Union High school Chimbel, there our team conducted a talk on personal hygiene and menstruation and we distributed Josa pad samples to the girls. Along with this we distributed some snacks and clothes to them.



**Our team mate giving the talk**



**Experimental demonstration**



**A picture with the students**

### **TALK AT GOA UNIVERSITY BY RIYA PATEL CHANDRAY ON JOSA BIODEGRADABLE PADS**

Our team organized a talk at Goa University by Mrs. Riya Patil Chandray, owner of Josa biodegradable sanitary napkin company. A great number of students and faculty were part of this talk, where she explained about the harmful effects of plastic and ordinary napkin and also demonstrated how Josa works even better in comparison to the other sanitary pad companies. The seed balls and sampling was given as a token of appreciation.





**A SUCCESFULL TALK BY MRS.RIYA CHANDRAY, ALONG WITH FACULTY AND STUDENTS OF GOA UNIVERSITY**



## **CONCLUSION**

The Swachh Bharat Abhiyan is the most significant cleanliness campaign by the Government of India. It is the responsibility of every citizen to keep their surrounding clean. This Internship helped our team members in becoming more responsible and develop a deeper understanding on the importance of the same. This internship also helped us to acquire and enhance various skills. It helped us to reach out to many people and create awareness about our themes. Most of the people actively participated in various activities and gave us their valuable feedbacks. We understood the ground reality of how bad waste management issues are at some places and we feel proud as students of Goa University and the citizens of India for taking up this Internship and making a change for nature.



