

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

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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.

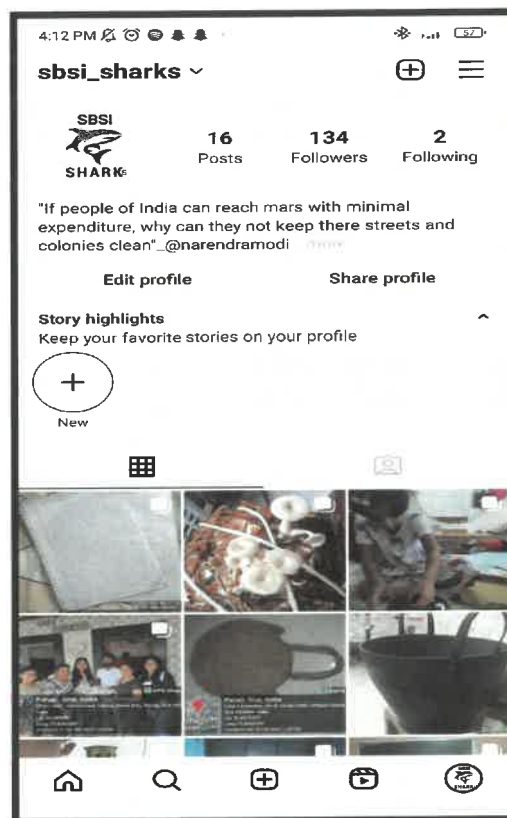
In this pursuit, collaboration and innovation are key. Governments must enact and enforce policies that promote green infrastructure and incentivize sustainable practices. Businesses should adopt sustainable models and prioritize environmentally friendly solutions. Individuals can make a difference through 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



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; moping 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 moping and watering plants

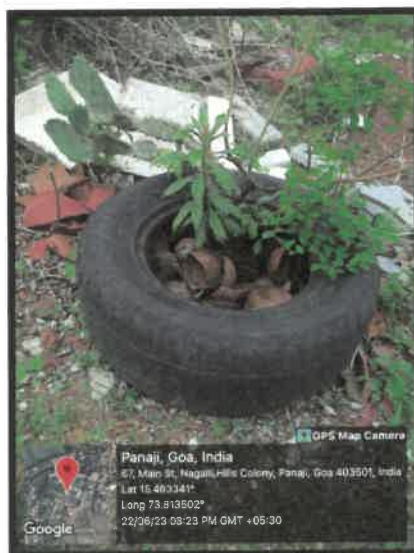


Tyre planters:

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.

Recycled Waste Containers for Plants at Calapore Village



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 Chimbel:

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

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

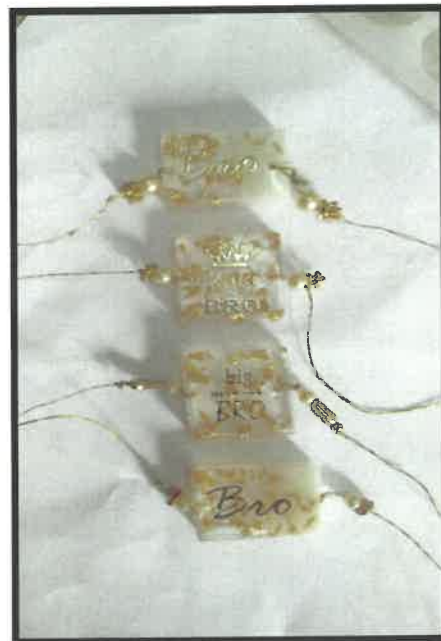
SCRUNCHIE AND RAKHI MAKING AT HOME

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

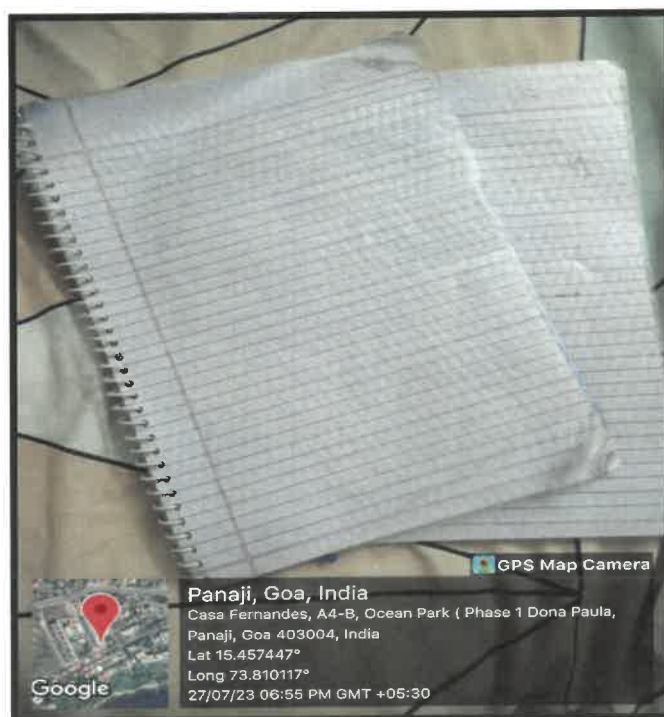
Our team members made use of old cloth materials to make bags as an alternative for plastic bags. These bags can be used for carrying goods and can be reused many times until it gets torn as it is much stronger when compared to plastic bags.



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 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

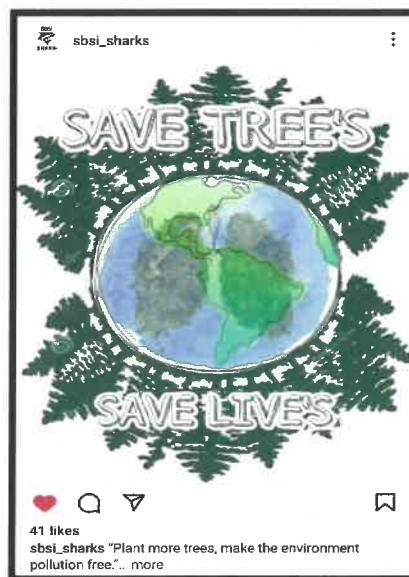




Pictorial evidence of sapling distribution at St'cruz and Ravona

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

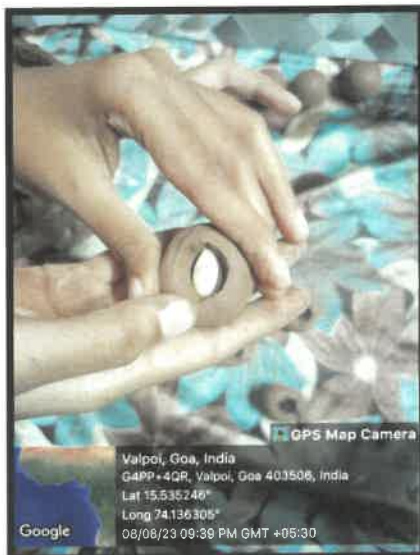
Seed Balls are also known as seed bombs. They are small clusters of seeds encased in a mixture of clay, compost, and sometimes other materials. We made seed balls at home and explained the procedure to our classmates and teachers and distributed it. Seed balls are designed to be a convenient and effective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



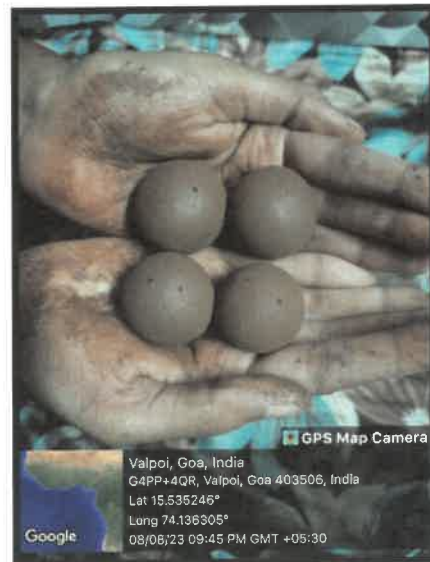
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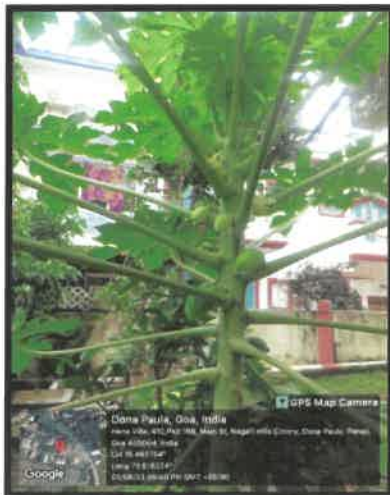


4.

PROCESS OF MAKING SEED BALL

BACKYARD FARMING

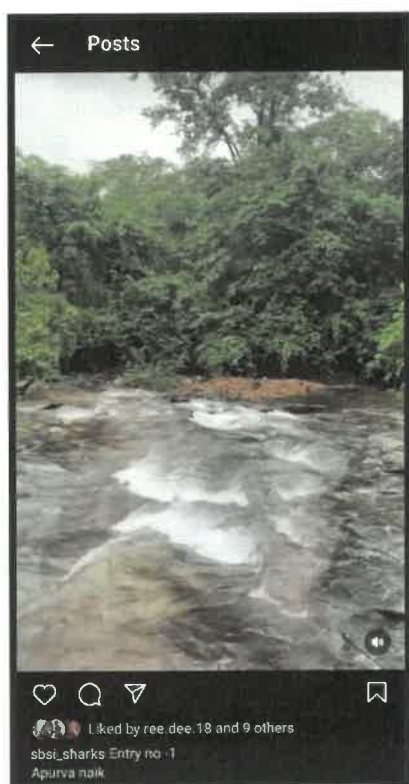
This activity was conducted as a measure to plant local vegetable and fruit samplings in our backyards to produce pesticide free products. It also helped local women to generate income as they can sell this yield in the market. It also provides an aesthetic value to the house and provides fresh oxygen.



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

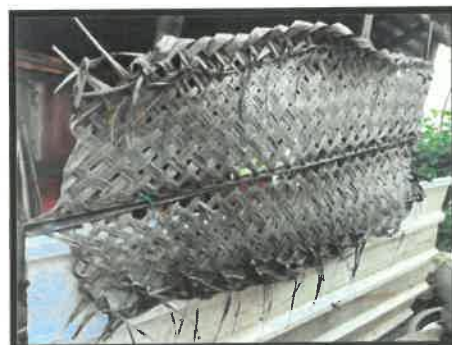
SoakingFilling of bagsKeeping bags in dark roomThe Harvest

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

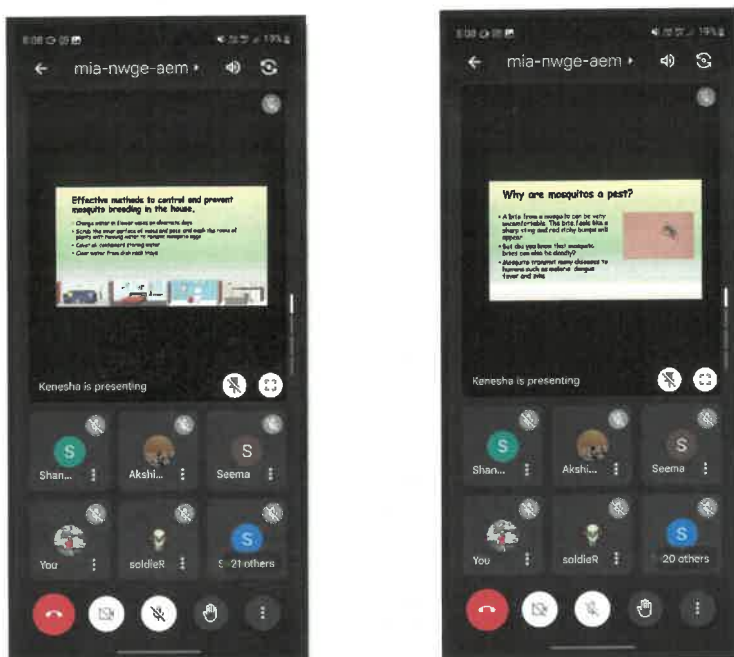
This knowledge was passed on to us by Mrs. Shila Shirvoikar and Mrs. Isha Shirvoikar, residents at Odxel.

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

7:33 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)
- Contact lens wear
- Environmental heat, wind, smoke, air conditioning
- Medications (antihistamines, antidepressants, beta blockers, diuretics)
- Laser eye surgery
- Corneal injury
- Medical conditions (diabetes, multiple sclerosis, Sjögren's syndrome, rheumatoid arthritis, thyroid disease, lupus)

What can help?

- Warm compresses and gentle eye massage
- Artificial tears or eye drops
- Avoid eye makeup
- Adjust your computer time, take breaks
- Humidifier at home
- Eye drops

See your optician for advice on over the counter products that may help

Kenesha 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.

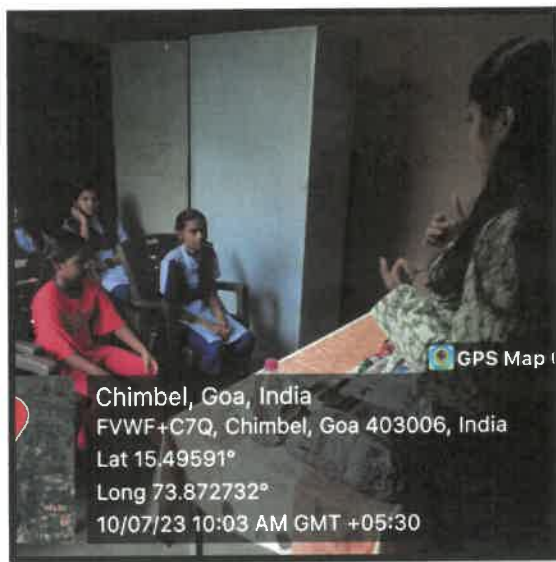


Production process

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, Chimbhel:

After attending the Josa factory, we decided to spread our knowledge with some school girls, we went to Union High school Chimbhel, 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.

