

# **A Report of the activities conducted by group 38 in Vasai-Virar.**

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## Acknowledgement

We, from group 38, would like to express our sincere gratitude to Group Vasai Beach Cleaner and all the other participants for their support and participation in our beach cleaning and tree plantation initiatives. Your hard work towards environmental conservation has helped us implement our project.

We would like to extend special thanks to Sir Lisbon Ferrao(+91 93223 42225) (insta-id : lisbon\_ferrao) who is head of the group Vasai Beach Cleaner, whose guidance and expertise have been invaluable throughout this journey. Your passion for the protection of Mother Nature enabled us to complete our project smoothly and without any issues.

We also appreciate the company Eyesea(insta-id : eyesea\_org) for their generous supply of resources such as gloves and masks during beach cleaning , as well as tree saplings and digging tools for tree plantation. Your contributions have significantly enhanced our efforts in restoring and preserving our natural surroundings. Together, with all your support, you have made a significant difference, and we are grateful for your involvement.

# Introduction

## **About Vasai-Virar,**

Vasai-Virar is an agglomeration of four previously governed municipal councils: Vasai, Virar, Nallasopara and Navghar-Manikpur, as well as a few towns to the east and west of the urban area. It lies in the Konkan division of Maharashtra, India. Being a part of the Mumbai Metropolitan Region(MMR) it is physically very close to Mumbai. Due to this it is a hub for residential buildings who work in Mumbai and other regions in MMR. It is part of the district of Palghar (originally Thane).

Geographically, to the north there is the Vaitarna river with Palghar city on the opposite side, while the south contains the Vasai creek with Mira-Bhayandar on the opposite side. It has a western coastline with the Arabian Sea, having a multitude of beaches, while to the east it borders the district of Thane.

## **Socio-Economic survey:**

Vasai-Virar has an estimated population of 1,735,000 in 2024<sup>[1]</sup>. The official census conducted in 2011 shows that it has a population of 1,222,390 of which 648,172 are males while 574,218 are females. Out of the total population, 490,018 were engaged in work or business activity. Of this 371,864 were males while 118,154 were females. Of this working population, 90.87% were engaged in Main Work while 9.13 % of total workers were engaged in Marginal Work.

## **Data collection:**

We had to conduct many meetings with the members both online and offline. The first online meeting was regarding who would be our leader on the 22nd of June. We also conducted many offline meetings to decide what should be the further course of action.

In order to pin down the issues to be addressed, we initialised a survey in the form of a Google form online. This survey consisted of various questions regarding many aspects of life. These include transit, water supply, garbage collection, cleanliness, electricity and many more things. We reached almost 200 people with this survey, a number we are very proud of and allowed us to make a truly representative decision using it. We followed this by another form which consisted of more focused questions regarding the cleanliness of beaches and general environment. This helped us understand which issues were important to address in these overarching problems. Using this as our basis we realised that there were many small things that we could address with our work. In the further section we will discuss the methodology we used.

# Methodology

After receiving the data from the form we circulated among the people of Vasai-Virar, we identified that the major issues are environmental issues like cleanliness of beach and lack forest cover in the area. Based on the information, we decided to address these environmental problems through key initiatives like beach cleaning, tree plantation and clothes donation. Since we recognized that the consumption of clothes contributes to environmental issues, such as water pollution, which further motivated our clothing donation project.

## **Beach Cleaning :**

Step 1:We began by searching for an NGO or group involved in beach cleaning efforts, and discovered the Vasai Beach Cleaner group led by Lisbon Ferrao.

Step 2:After discussions regarding the venue and timing, we decided on Pachubandar Jetty. Beach cleaning commenced at 8 am on July 21, 2024.

Step 3:Group 38 arrived promptly at the venue where organisers briefed us on safety precautions for the beach cleaning. Equipped with tools provided by the organisers, we initiated the cleaning process.

Step 4:We gathered the collected waste in one location, and the municipality's garbage truck promptly arrived to collect it.

Step 5: After the garbage was collected, we had breakfast provided by the organisers.

## **Tree Plantation :**

Step 1:We discussed potential locations where a tree could be planted and survive safely, and decided on Bhuigaon Beach

Step 2:Group 38 arrived promptly at the location at 9:30 a.m. We were then instructed on the tree planting process. According to the instructions, we first cleared the weeds from the area where the tree was to be planted, and then planted the trees.

Step 3:We planted around 30 saplings of a plant called Surangi (*Calophyllum inophyllum*).

Step 4:We placed stones around the planted area to prevent vehicles from parking near it.

# Description of our project

After identifying the problems mentioned in the methodology we decided to create an action plan to address all of these issues.

## Beach Cleaning

Beach cleaning was one of the first things we acted upon. We contacted many NGOs and had to decide on which beach we would want to clean. There were many options, but as a compromise between the form and the NGO's work, we decided to pick Pachubandar jetty area. This area was our choice due to its uncleanliness.

Organised at 8 am, it was the 100th "Killa Pachu cleanup campaign", about all of us showed up at this event. Our cleaning area consisted of the area included in the red line. We started by cleaning near the road area, which had less garbage compared to the shoreline. Most people except for Aryan Shinde and Aryan Sisode.

Our initial observations during cleaning was that most of the garbage consisted of thermocol, old shoes, rags and general garbage like used wrappers, bottles, cans etc. The presence of thermocol and styrofoam was very startling as we were under the presumption that they were outlawed and regulated.



This confusion was answered a bit when Lisbon sir shared with us an anecdote about how he once found a milk packet which dated back to the 1970-1980s. This shows us that this garbage has not been cleaned up for many decades, shedding a light on how serious this problem is. We will learn a lot more from him later. Our experience working with this NGO was very positive,

they provided us with all the needed equipment, such as gloves, masks etc. There was also the garbage management team that was sent by the municipality. They helped us in transporting the garbage to the designated locations and landfills.

There were also many other people who attended this campaign, Decathlon also sent some representatives from their company to help in the event. After cleaning the road area, we focused on the area near the beach. The area near the south had piles of garbage, which could not be cleaned without the help of a properly equipped team, we focused more on the northern part which was way less polluted.



We also learnt from this drive that most of this garbage doesn't actually come from people dumping, as that would be too much for just people. Lisbon Sir explained that it is actually the mismanagement of the waste management system in Vasai-Virar. Most of the waste collected from places is just dumped into the rivers, creeks and oceans. As the ocean just throws out whatever it is taken in, it lands up on beaches making them extremely dirty and unhealthy. This also causes a lot of issues to the locals and also affects their mentality in keeping their area clean.

This knowledge helped us a lot in giving some recommendations to address this issue both in the long and short term.

#### **Short Term:**

In the short term, social awareness and beach campaigns like these go a long way in shaping the minds of the people. As an Indian we



are conditioned to have many presumptions on cleanliness and cleaning. When people engage in these activities it reshapes their minds and changes their view on the world. However this can only do so much. This just tries to put a bandage on the problem.

#### Long term:

In the long term, the municipal corporation has to change the way it collects garbage. Many local gram panchayats don't cooperate with the municipality and this causes mismanagement of waste. These issues also need to be taken seriously so that it can receive enough funding. The lack of responsibility within the current system is also to blame as well as the indifference of the people. While awareness campaigns can help it there can also be efforts by the central government to give more resources to local governments.

After the clean-up, we got ourselves cleaned and were given breakfast. In general this event was a great experience for us, we all learnt more about our region and beaches in Vasai-Virar. We thank EyeSea and all its partners for organising this event!



## Plantation Drive and weed management

The rapid development and urbanisation in Vasai have led to significant environmental challenges, including the degradation of its natural beauty and ecological balance. A major contributor to this degradation is the deforestation or cutting down of trees, which has profound implications for the environment and quality of life in the region.

### Need and importance of considering plantation:

#### Loss of Green Cover

The reduction in the number of trees due to urban expansion, infrastructure projects, and real estate development has led to a loss of green cover. This not only diminishes the natural beauty of the region but also disrupts the local ecosystem, affecting flora and fauna.

#### Decline in Air Quality

Trees play a crucial role in filtering pollutants from the air and producing oxygen. The removal of trees has contributed to deteriorating air quality, which can lead to respiratory problems and other health issues for the residents of Vasai.

#### Increased Temperature

The loss of trees contributes to the urban heat island effect, where concrete and asphalt absorb and retain heat, leading to higher temperatures in urban areas. This can make Vasai less comfortable, especially during summer months, and increase energy consumption for cooling.

#### Soil Erosion and Flooding

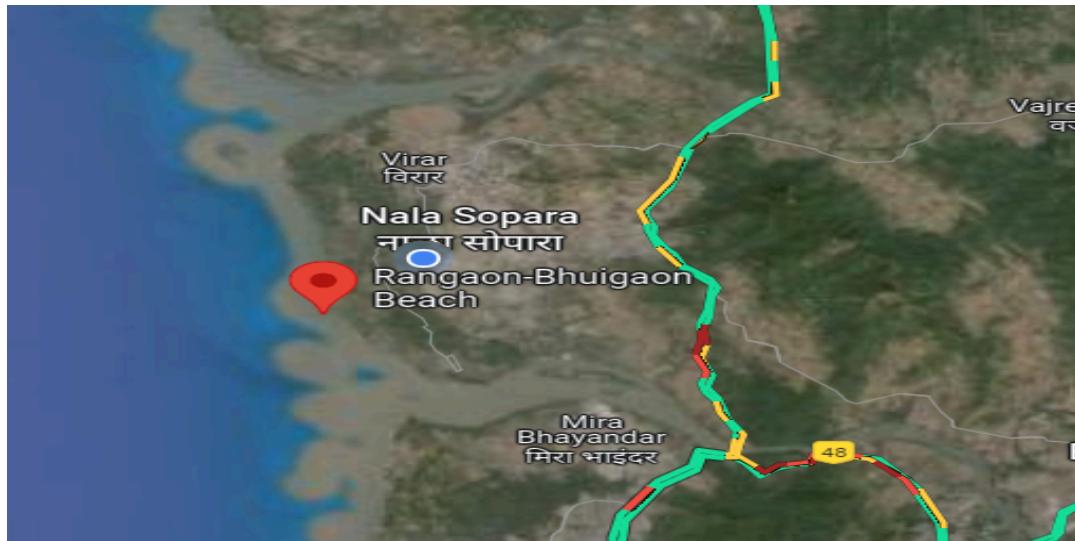
Trees help prevent soil erosion by stabilising the soil with their root systems. Their removal increases the risk of soil erosion, which can lead to sedimentation in water bodies, loss of fertile land, and increased susceptibility to flooding during heavy rains.

Hence every community project is incomplete without plantation.



We considered Bhuigaon beach suitable for plantation. Bhuigaon Beach, located in the Vasai region of Palghar district in Maharashtra, India, offers a tranquil retreat along the Arabian Sea. Positioned at approximately 19.429°N latitude and 72.808°E longitude, this coastal gem is accessible from the Vasai Road railway station, part of the Western Railway line in Mumbai. Visitors can reach the beach via local transport, such as auto-rickshaws or taxis, available from the station.

The area is characterised by its serene atmosphere and traditional village surroundings, providing a peaceful contrast to the more bustling beaches nearby.



The species of plant namely saal and coconut were selected. Mr. Lisbon ,organiser of this plantation drive revealed the reason for selecting these plants. There are very few species of plants that grow near coast and saal and coconut are among them.

Majority of other species are cut down by people because of their valuable wood. His words made us realise how much people are unaware of the ill effects of deforestation.

The drive took place on 23rd July. We extend our sincere thanks to Mr. Lisbon and Eyesea.

organisation for providing us saplings,gardening tools and gloves. Firstly we uprooted the weeds to make ground for new saplings. We planted about 30 saplings such that they are at least 5 -4ft away from each other so



that roots don't interfere with the growth of neighbouring plants. We made sure to encircle the newly planted sapling with stones.

#### Short Term Impacts:

The immediate planting of saplings at Bhugaon Beach contributes to the restoration of the local ecosystem. By introducing species of plants that can thrive in coastal conditions, the drive helps stabilise the soil and begins the process of reestablishing natural green cover.

Uprooting weeds and planting new saplings helps in improving soil health by reducing competition for nutrients and promoting better soil structure. The plantation drive raises awareness about the importance of tree conservation and the impact of deforestation. It educates participants and the local community about the benefits of maintaining green spaces and the specific needs of coastal plant species.

#### Long Term Impacts:

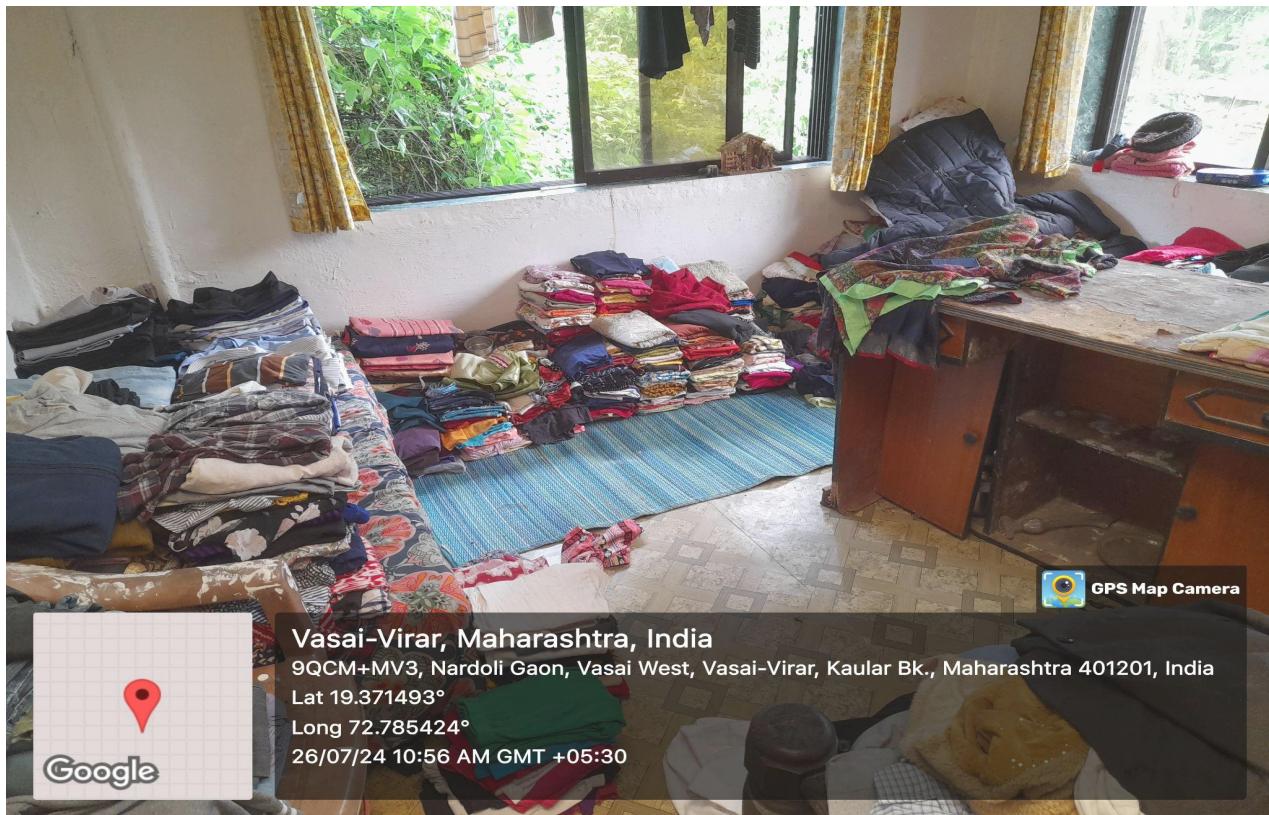
As the newly planted trees mature, they will play a crucial role in filtering pollutants from the air and producing oxygen, thereby improving the air quality in the Vasai region. Over time, the growth of these trees will help mitigate the urban heat island effect by providing shade and cooling the surrounding area, thus reducing energy consumption for cooling and making the region more comfortable. Mature trees will help stabilise the soil with their root systems, reducing the risk of soil erosion and sedimentation in nearby water bodies, and minimising the likelihood of flooding during heavy rains. By addressing both immediate needs and long-term environmental goals, the plantation drive at Bhugaon Beach contributes significantly to the health and sustainability of the region's ecosystem.



## Clothes Donation Drive

Completing the plantation, we decided to move onto a clothes donation drive. This would be the hardest thing to pull off due to the logistics and luck. The reason we decided to do this is because during our beach cleaning we found many clothes that were just tattered and were thrown away. This inspired us to go on and do a clothes donation drive. In order to donate clothes, we first need to get them from people. We decided to donate our own clothes from our parents, siblings and relatives. Mr. Lisbon once again helped us in organising this, and we are very grateful for his help. A few days before the actual donation we decided to haul all our clothes which we were going to donate to his house and organise it properly for every segment and size. This is also where we decided to formulate a plan for what we were going to do. While discussing it we realised that while it would seem obvious to donate them to some orphanage, they actually only take 1st hand/new clothes as donations and usually don't take second hand clothes here.

In order to work around this dilemma we decided to instead do something uncommon, instead of donating to some other organisation, we decided to set up a small shop near Papdi bus stop that would give out our clothes for free. This was a hard thing to pull off but after our previous success we believed we would pull it off.



Since we learned that NGOs prefer first-hand clothes, we decided to donate most of the clothes to people living in slums. So we set up our donation shop near Pachbandar slums on July 30th at 8 AM.

Initially, people were hesitant to take the clothes, so we reached out personally to every local people and passerby to inform them about our cloth donation drive. The first person came to us for clothes at 10 a.m. At first, it was challenging to attract people, but once they started coming, we no longer needed to approach them. By midday, there was a significant amount of activity at our stand. Most of the recipients were men, with a few women and children.



We created three posters, each with the message: “We are here to donate clothes!!! Donate clothes, spread warmth!” The posters were written in Marathi, Hindi, and English.

By the afternoon, we had donated around 100 T-shirts, 80 shirts, 40 kurtis, 20 shorts, and 10 pairs of jeans.

Seeing the positive response to the donations, we developed a belief that if everyone decided to donate clothes, we could each make a small but meaningful difference on an individual level.



## Social Awareness

As cited many times in our short term plans, we suggested that social awareness programs play a huge role in making an impact in our society. So our team also unilaterally decided to have one for ourselves. In order to do this we came up with many ideas like posters, social media marketings etc. However we finalised to actually go and spread awareness about these activities in a school.

We decided upon St. Gonsalo Garcia semi-english school situated in Gass, Nalasopara west as it was at equal distance from all of our homes. Our main goal was to teach these young minds how they can even help us make the world a better place.

With the help of Fr. Joe D'monte, who was the principal of this school, arranged 8th grade classes to spread awareness. Our talking points ranged from Cleanliness to donation and much more.

### **Beach cleaning:**

We started our message by asking how many of the students had been to a beach recently. As expected, most of the students had been to one. We followed up by asking how dirty they were when they went there. Each student had their own answers but in general most of the students did feel like they were very unclean. We followed this up by asking if they ever thought that they should help in cleaning it. Most of the students entertained the idea and wanted to participate however didn't know how. We gave them the procedure and contacts to help them have an easier time with this. Vasai-Virar is known for its coastline so we should all help in taking care of it.



### **Plantation and Weeding:**

After talking about beach cleaning we moved onto the plantation. The students were aware of the issues of climate change and deforestation and engaged with us on various issues. We told them that in order to have a plantation drive it is ideal to get saplings of plants that were cheap and also invaluable. This ensures that no one would steal them and also that they won't cost too much. The students agreed and said that it would be useful for them when they further look into this.



### **Clothing Drive:**

We started by asking the students how many of them had participated in a clothes donation drive. Many of them said that they had participated in it, after that we explained to them that in actuality it is really hard to recycle and donate clothes even though it seems so easy. Many orphanages near cities don't take in clothes that aren't new. Also due to the quality issues of fabrics in our country, recycling companies struggle with using our clothes for their work. This causes a huge waste of fabric and other clothes. So we explained to them that they should ask their parents to ask who they donate to whether they actually use it. This was something new for the students and they thought upon it.

We winded up the program and asked the students to be more active in their community and also care for the environment. We are very thankful to all the students and teachers for being cooperative with us.



## Conclusion

After working in various different fields for many weeks, we were very proud of our work. Even though we are aware this would only make a dent in the issues. However this experience was essential and also a growth opportunity for us as citizens of India. From beach cleaning to clothes donation, each activity was something we learnt from. By conducting these activities, we have not only addressed pressing community needs but also empowered residents to become active participants in their own development. This collaborative effort underscores the importance of partnerships between educational institutions and the community.

We believe that if everyone invested some of their time in their communities, we could all move on to a better future and standard of living. By investing in our community, we are investing in the future, and we are confident that the positive impact of this project will continue to ripple through the lives of countless individuals and families. Through all of this we always believe our project was really a success. The success of this project is a testament to the power of collaboration between the college, community organisations, and most importantly, the community members themselves. By working together, we have created a space for dialogue, understanding, and mutual support.



# Recommendations

## Cleanliness

1. Promote Segregation at source : Although the government recommends using two dustbins—one for dry waste and another for wet waste—many households still use only one. Increasing awareness about the importance of using two separate dustbins can encourage better waste segregation.
2. Improve Waste Collection Systems : Recommend that the municipal corporation deploy separate trucks for collecting dry and wet waste from households. This approach ensures that dry waste can be recycled, while wet waste can be processed into compost to improve soil quality.
3. Enhance Waste Disposal Facilities : Municipal authorities should place dustbins at every one-kilometre interval to reduce littering. Additionally, implementing a fine system for those caught littering can help enforce cleanliness.
4. Introduce Bottle Recycling Machines : Implement a bottle recycling system similar to those in Germany, where individuals can deposit empty bottles and receive a monetary reward (e.g., 25 cents). This incentive can promote proper disposal and recycling of bottles.
5. Raise Awareness on Plastic Waste Reduction : Encourage people to reduce their consumption of packaged foods to minimise plastic waste. Educational campaigns can help people make more environmentally friendly choices.

## Tree Plantation

1. Integrate Tree Plantation into Urban Development : Incorporate tree planting into urban development plans to increase green coverage, which will enhance air quality and contribute to a healthier environment.
2. Prioritise Strategic Planting Locations : Focus on tree plantation in public parks, school grounds, and along streets where there is adequate sunlight, proper drainage, and sufficient space for trees to grow. This helps maintain soil quality and can increase groundwater levels.
3. Plant Native Tree Species : Emphasise the planting of native tree species that are well-suited to local soil and weather conditions. Native trees are more likely to thrive and support local biodiversity.
4. Promote Tree Plantation in Schools : Raise awareness about the importance of tree planting by providing saplings to schools and assigning related projects. This helps students understand the value of trees and fosters a culture of environmental responsibility.