



Sahyadri Nisarga Mitra

Project Summary and Background

Sahyadri Nisarga Mitra with support from Dow Chemical International Pvt. Ltd is trying to resolve the Waste management issue in Chiplun city of Ratnagiri, Maharashtra. DOW India has set multi-decade targets to put us on a path to achieve carbon neutrality and eliminate plastic waste. On this line, SNM and DOW India are working together to reduce the plastic and solid waste problem in Chiplun.

In 2020-21 years, SNM with DOW India had initiated "Plastic and Solid waste management in Chiplun, Maharashtra, India." At the initial phase, SNM educated and sensitized the community through various activities short animated films, community meetings, leaflets in the local language (Marathi), and awareness boards to outreach mass awareness. SNM had conducted education and awareness programs in 37 educational institutes. The locals participated in the project by themselves or through various activities such as Plastic Bhishi (Lucky Draw) and Milk Bag collection. SNM had collected 13215 Kg of plastic waste from all project activities.

My sustainability corner project is being implemented in 37 schools from Khed and Chiplun. Total 8125 students participated in the project and collected 931 kg plastic waste from 21 schools. SNM provided 135 & 200 ltr. good quality HDPE drums with composting base with Coir, Dried leaves and compost to 347 the stakeholders participated manage their Kitchen waste.

Education, awareness and outreach activity

- SNM had conducted 110 household meetings, 47 community meetings and training workshop to educate and sensitize the community.
- SNM distributed 20000 leaflets to outreach mass awareness.
- SNM distributed 16000 information fact sheets to educate and sensitize the community.
- SNM had painted 15X5 ft. sizes of 3 walls at college, school, and in the market public places to educate, sensitize and outreach within the community through art.

- Attended Kherdi, Pachad and Pimpali gram sabha discussed about the issue due to improper waste management, and solution waste management.
- Conducted meetings with Chiplun Municipal Corporation.

Plastic Collection

Plastic and solid waste collection activity

Sr. No	Time Period	Plastic Collected (Including Plastic Bottles) (Kg)	Milk bag Collected (Kg)
1	July-September 2021	2715	219
2	Oct- Dec 2021	2003	597
3	Jan – March 2022	2666	501
	Grand Total (Kg)	9233	1317

➤ **Online Plastic Bhishi**

(Online Lucky Draw)

- SNM had created a WhatsApp group of 182 participants, and the Stakeholders (households, Shops, general stores, hotels etc.) to outreach us through text message. Some people who don't have whatsapp, also contact us through call, or SMS to collect their plastic wastes.
- SNM team visits at stakeholder's place collect plastic waste and give them a plastic bhishi coupon (Lucky draw) and Rs.5/- per Kg of plastic waste.
- The coupon has a particular coupon number and name of the participants.
- SNM conduct an online Facebook live plastic bhishi (Lucy draw) event at the end of the month, and 40 participants win ranges of the Gift hampers.
- SNM had conducted 5 plastic bhishi, and distributed 180 prizes to participated Plastic bhishi winner.
- The event outreached to 2326 people through Facebook.

➤ Milk Bag Collection

- SNM Volunteers collect plastic milk bags in and around Chiplun.
- A daily visit to the participated stakeholders and collect the segregated empty plastic milk bags.
- SNM had collected total 1317 Kg of plastic milk bags from participated stakeholders.

- The collected plastic waste sent to the Amar Plastic Recycle.
- **E-Rickshaw** – SNM had purchased an E- Rickshaw (Kinetic super Jumbo) for plastic waste collection. We have printed project information on the vehicle. The vehicle is now in use and finds useful for plastic collection from shops as well as houses. We are currently collecting approx. 100 kg plastic per day using this vehicle.
- **My Sustainability Corner**
- My sustainability Corner is the concept in which students will be educated, sensitized and practice sustainable activity in day-to-day lifestyle, environmental issues and conservation.
 - In 37 educational Institute SNM initiated “My Sustainability corner” activity.
 - 37 Educational institutes educated and sensitized about plastic waste and its management through presentation and lectures.
 - SNM had given activities to school students to segregate and collect their household plastic waste.
 - SNM collected 931 Kg of plastic waste from 21 schools.
 - 8125 Students have participated in this activity
- **Plastic Upcycling-** Plastic Upcycling is the process of adapting used or waste plastic to create a new product offering with a greater value and content. The term is relatively newer than recycling. We have started plastic Upcycling as a part of our project. We segregate the plastic wastes in seven types and send the most of it to recycling. But type 7 plastic and few other items are hard to recycle, such things go to Upcycling. We are up cycle plastic waste into fabric which later turns into purse and handbags. We have also developed a handloom to make the fabric.
- **Plastic processing devices-** We are trying to make small articles like coasters, Key chains etc. by using plastic waste for which we have purchased these devices. The plastic crusher machine crushes all type of plastic and creates small particles of plastic. Then the extruder and hand molding device melts the plastic waste and creates a moldable paste. We are still on trying and experimenting phase & will start the production sooner.
- **Bottle Collection**
- SNM collected 2203 kg plastic bottles after 22 July floods in Chiplun and adjacent villages.

- Installed eight plastic bottle collection cages to collect plastic bottle waste in different public places in Chiplun.
- Plastic collection cages installed one at Vishwanath Vidyalaya and Saraf Highschool, two at Parshuram Hospital and research centre lote, and 5 in Chiplun public places and market.

➤ **Plastic Sunday**

- Sahyadri Nisarga Mitra had collaborated with Chiplun Nagar Parishad (Municipal Corporation) to implement the concept of “Plastic Sunday”.
- The concept is that the community should have waste segregation habit at the household level. The community segregate and store plastic waste from Monday to Sunday at their home.
- On Sunday, Chiplun municipal corporation garbage collection vehicle collected the segregated plastic waste from the community.
- A total of 538 kg segregated plastic waste collected in total 30 days of Sunday from September 2021 to March 2022 in the activity.

Kitchen Waste Management Activity

- SNM had educated and sensitized community and the community responded positively participating in the project to manage their Kitchen waste.
- 153 household is participated for the Kitchen waste management in Chiplun.
- 247 household participated for the Kitchen waste management in Pachad Gram panchayat.
- SNM had distributed 135 litres, 109 drums and 200 litres, 40 drums with composting bed to the participants in Chiplun.
- SNM distributed 247 composting bins of 135 litre HDPE Drums to participated household in Pachad Gram Panchayat.
- Handheld training provided to every individual and provided required material culture and IVM sprays for home composting.
- SNM team visits weekly every household for inspection of the composting bin, and sometimes visit whenever stakeholders required.

Society Composting-

- SNM have developed society composting unit for Green Cove society in Chiplun. The society is having 216 flats for which we have constructed 20 brick tanks of 6x3x3 feet

dimension. The construction of composting unit is completed and it will be functional soon.

- SNM visits every fortnight in Swara Vihar Society and Kane Bandhu Hotel every month for the inspection of the composting tank.
- Restored society composting unit in Swara Vihar society and Kane Bandu hotel after getting damaged by flood.

Challenges & Overcome:

We have faced lots of problems due to Covid-19 pandemic and the July flood while executing project activities.

- On 22nd and 23rd July, Chiplun faced devastating flood locals in the region had faced heavy loss.
- SNM office and segregation center had faced the worst situation the water level is approximately 8 to 10 ft. and damaged office and segregation center.
- SNM had taken 15 days to manage all refurbishing and was ready to initiate the project activity on 5th August 2021.
- In flood, many of the stakeholders lost their home composting drum, and we had conducted a survey that found 58 stakeholders had lost their home composting.
- SNM survey confirmed and provided 43 stakeholders 135 litter and 15 stakeholders 200 litter home composting lost in the flood.
- Swara Vihar Society composting and Kane bandu hotel composting tank heavily affected due to flood.
- SNM had restored the Composting tanks and Society household and hotels started to manage their Kitchen waste again.
- It was observed a huge amount of packaged water bottles and many bottles were littered everywhere. We had decided to collect plastic bottles before it goes into the waste.
- SNM had initiated project activity from 1st August 2021 started collecting Plastic bottles.



Fig. 1 Community meetings and training workshop



Fig. 2 Household meetings



Fig. 3 Outreach material



Fig. 4 Plastic Bhishi



Fig. 5 Milk bag collection



Fig. 6 My Sustainability awareness lecture



Fig. 7 e-Rikshaw for plastic collection



Fig. 8 Plastic bottle collection cage



Fig. 9 Plastic Sunday



Fig. 10 Home composting in large society



Fig. 11 Waste plastic Upcycling through weaving



Fig. 12 Plastic upcycling by molding



Fig. 13 Cleanup drive at pachad



Fig. 14 Collaborating with Chiplun
nagar palika



Fig. 15 My Sustainability waste
plastic collection



Fig. 16 My Sustainability waste
plastic collection