

National Policy Workshop Webinar Series
On
Countermeasures for Riverine and Marine Plastic Litter in India
12 -22 May 2020

Session 2: Community Perceptions and behavioral aspects for plastic management and promotion of countermeasures to address

**Perception And Behaviour Towards Use Of Plastic And Its
Management**
Mumbai Story



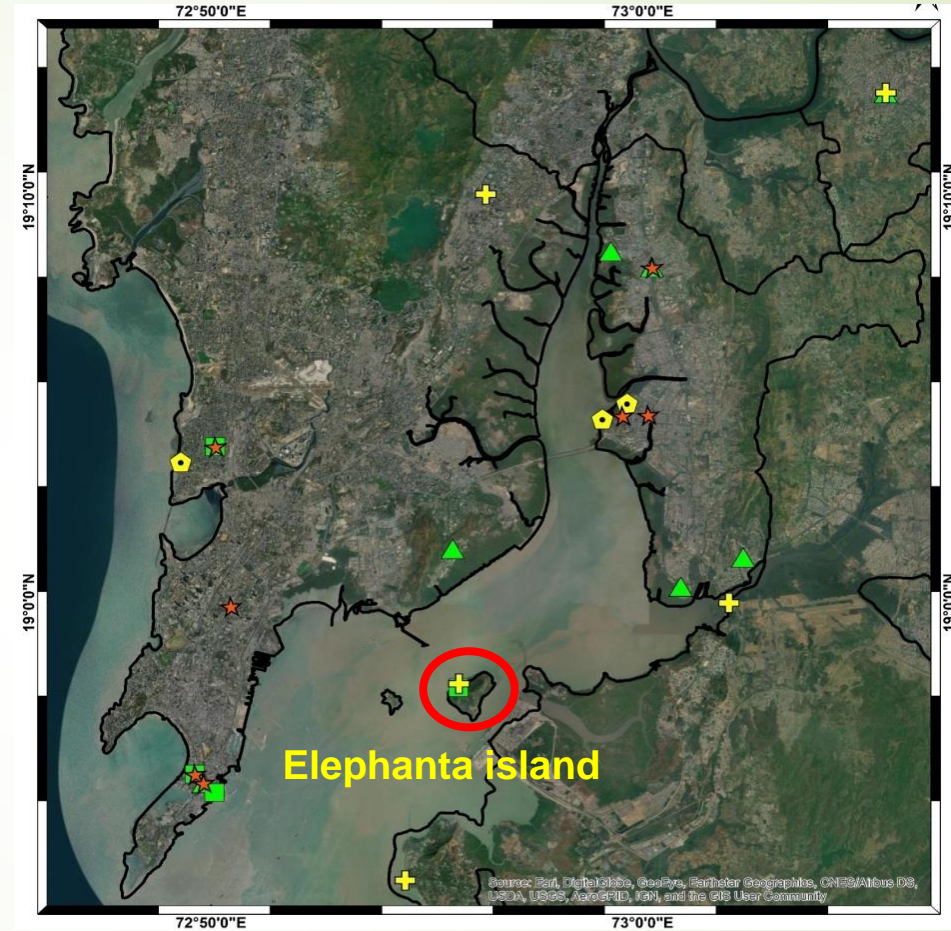
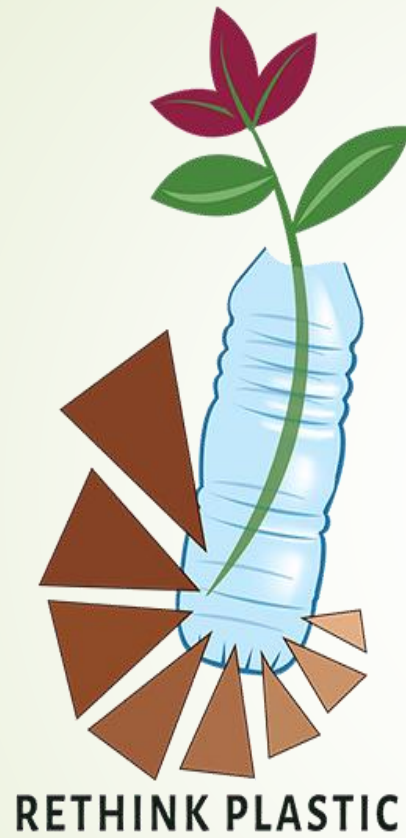
Project Time frame :
October 2019- March 2020

Implemented by



Presented by :
Mr. Manish B. Asodekar,
Research Associate , TERI
Date : 14th May 2020

TERI's Campaign under the Counter measures project



Legend

- ★ Awareness Program
- ⬢ Clean Up Activity
- ⊕ Treasure Hunt for Bottles
- ▲ Treasure Hunt for Saplings
- One to One Survey
- MMR Boundary

0 1.75 3.5 7 10.5 14

Kilometers

Summary Part 1



Awareness and Training of Trainers

>75 Trainers through these programs

35 Trainers conducted **17** awareness programmes



Treasure Hunt for Bottles and Saplings

>2000 bottles collected

>700 saplings collected through Treasure Hunts and planted in waste plastic bottles



Commitment for **>250 saplings** through 'Rethink Plastic' App



Waste collection and segregation in Mangrove, Beach, Island and Creek Ecosystems

- **> 100** Volunteers
- **>500 kg** Mixed Waste collected



- **> 2000** Pledge
- **> 860** Perception Survey



Round Table Discussion
30 experts from diverse domains

World Wetlands Day 2020

> 300 participants

Read full report at:

https://www.worldwetlandsday.org/display-event?p_p_id=eventDisplay&eventEntryId=660400&redirect=https%3A%2F%2Fwww.worldwetlandsday.org%2Fevents%23event660400

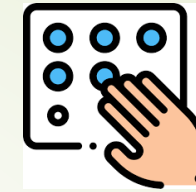


Summary Part 2

90.977 kg CO₂ eq emissions avoided¹



By saving **7050 sheets of paper²** by using Google Forms



Involving the differently abled

- 1 Braille Book
- 2 Touch and Feel Kits
- Adoption of **100** saplings by Helen Keller Institute of Deaf and Deaf blind, Navi Mumbai
- Participation in World Wetlands Day 2020



A Webpage for the campaign

<https://www.teriin.org/project/rethink-plastic-unep-teri-joint-initiative-mumbai-region>



3 QR codes

4 Google forms – Perception Survey, Pledge, Feedback form
Registration Sheet for World Wetland Day



WhatsApp Groups for Trainers



• 1 Google links for survey , pledge, registration sheet and feedback form

For more details visit: <https://www.teriin.org/project/rethink-plastic-unep-teri-joint-initiative-mumbai-region>



Diversity of Stakeholders

Stakeholder Mapping

Academia



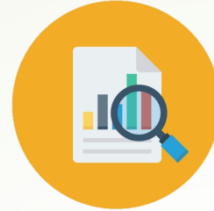
- **Colleges** affiliated to the University of Mumbai and **NSS unit**

Government



- Local Municipal Corporations
- Environment Department, Mantralaya
- Maharashtra Pollution Control Board

Research Institutes



- Indian Institute of Technology – Bombay
- Central Institute of Fisheries Education

NGOs / Foundations



- Sagar Mitra Abhiyan
- Jyoti Care Foundation

Industries/Corporates



- Thane Belapur Industrial Association ,
- IndusInd Bank,
- Hindustan Unilever,
- All India Plastic Manufacturers Association

Media



- Times of India
- Hindustan Times
- Sakal
- Maharashtra Times
- Loksatta
- E-papers

Grass root Organizations



- Ferry Boat Owner's Association,
- Rag pickers,
- Islanders (locals of Elephants islands)

Differently abled



Helen Keller Institute of Deaf and Deaf blind

**A. Overall Strategy And
Approach For
Understanding
Perception Towards
Plastic Use And Its
Management**



A1.Strategies and Tools of Engagement

1.Face to Face Interaction



>200 respondents surveyed @

1. Elephanta Islands
2. Gateway of India
3. Workshops and Events

2. Extensive use of social and electronic media

A. Mobile Videography (10 Nos.)

B. Google form and QR code (Perception Survey)

<https://drive.google.com/open?id=1A-VksO-GT6tZGDOF2cBr90GrTp83wohCPfyAiWyNDbM>



C. Link on Rethink Plastic Webpage

teriin.org/project/rethink-plastic-unep-teri-joint-initiative-mumbai-region

A perception survey about plastic consumption, waste management, and its impacts. Take Our Survey >>	Take a pledge with us to be a part of the solution to plastic pollution. Pledge Against Single-Use Plastic >>	Download our official app and join us to plant native tree saplings in PET bottles. Rethink Plastic App >>
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> 600 respondents surveyed

3.Reaching out to festivals

The standee was displayed at the **Kala Ghoda Festival** in Mumbai

A2. Gateway of India and Elephanta Island : Case study



- Participants: 15 **NSS volunteers** from K.C. College, Mumbai

- >100 **respondents** took part in a survey conducted in **English and Marathi** language.

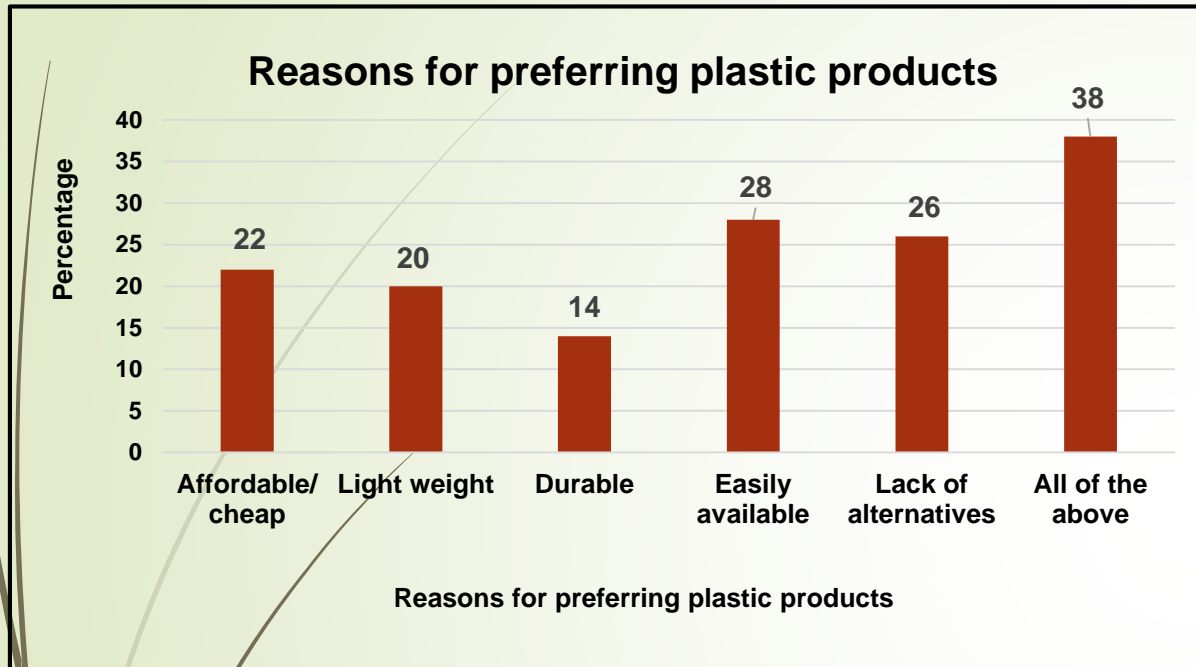
- **Respondents stressed** on the need for well established waste management system on the island

- restaurateur and shop owners showed a willingness **to give up plastic items** if suitable and easily available plastic alternative are available.

- A restaurateur even **showed willingness to work** with TERI to mitigate plastic problem on the island

A3.Perception towards Plastic

1. Use of Plastic



As per the respondents

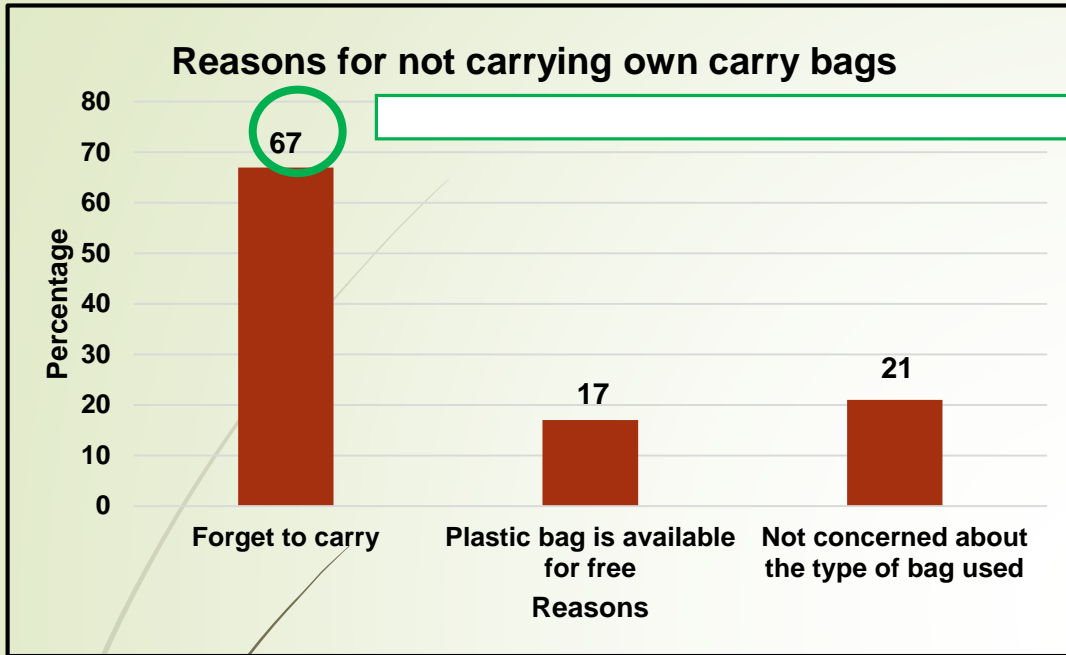
- **Cannot completely avoid** plastic use
- Even manufacturing of plastic alternatives would **require huge resources** such as wood, bamboo, metal

- **Proper waste segregation and disposal** is the main key to tackle waste problem including plastic waste

- It should be coupled with **recycle and reuse** and **use of alternatives** (an extent to which it would not become a burden on local resources)



A3.Perception towards Plastic



A **huge opportunity** for making change in behavior.

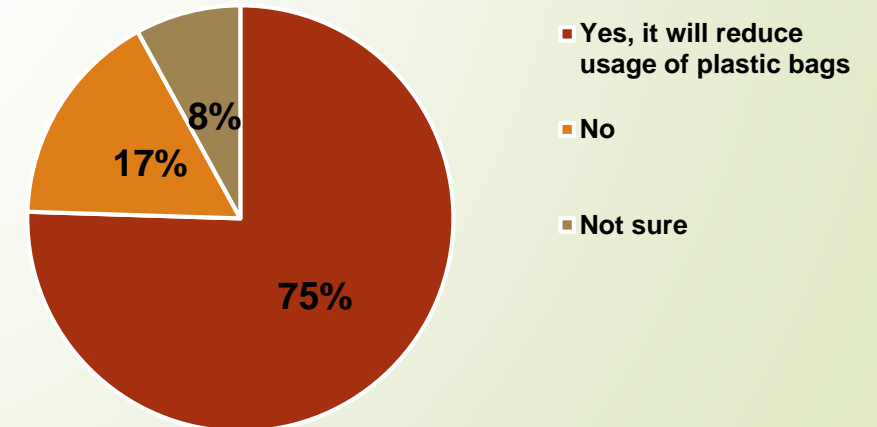
What can be done???


- Awareness through workshops/events
- Introduction and practicing waste segregation from **school level**
- Imposing heavy fines on plastic use especially **single use plastic**

- Need for housing societies to **tie-up with** plastic recyclers in the vicinity to promote proper segregation and management of plastic waste

- **Collective efforts** by the government, NGOs and citizens

Perception- Need of pricing of plastic carry bags



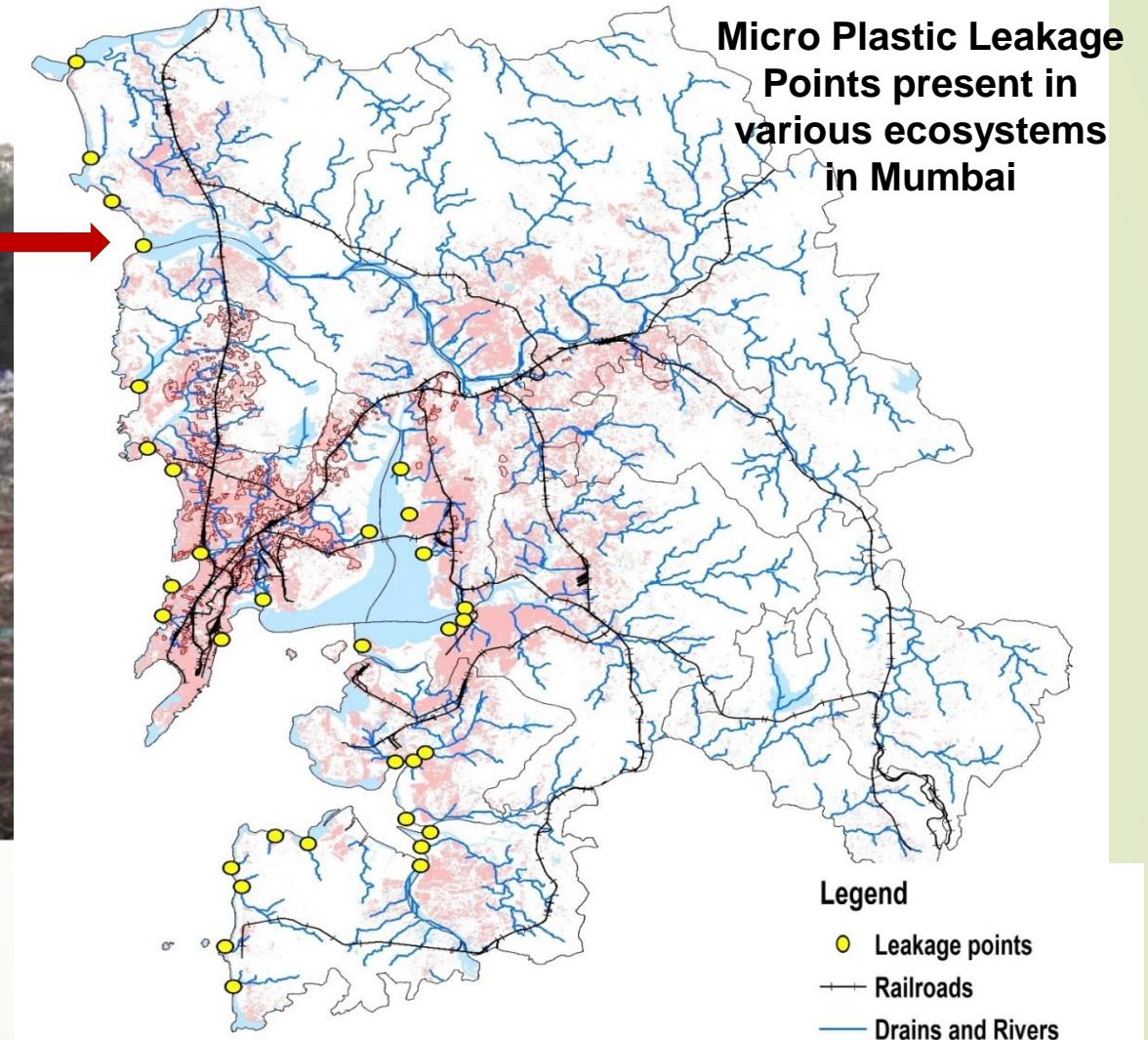


B. TERI's approach to validate stakeholder behavior towards plastic pollution

B1.Cleanup drives to understand stakeholder behaviour



Charkop cleanup site (Creek Ecosystem)
..That's just 1 leakage point...



Micro Plastic Leakage Points present in various ecosystems in Mumbai

Legend

- Leakage points
- Railroads
- Drains and Rivers
- MMR Boundary
- Built Up
- Water Bodies
- Slums

0 3.5 7 14 21 28
Kilometers



Volunteers during Chimbai beach cleanup at Bandra, Mumbai, 03.12.2019

NSS Volunteers during cleanup in mangroves during World Wetlands Day, 2020 at Navi Mumbai

First hand reaction of Volunteers after participating in cleanup drives

- **A sense of outrage seeing** the Actual Ground Reality
- Took A **Pledge** To Not Use Single Use Plastic
- Committed Self To **Engage** In Such Activities Regularly (*A Group Of Students Actually Got Connected With A Group Of **Mangrove Marshals** Who Conducts **Weekly Cleanup** In Mangroves Of Vashi, Navi Mumbai*).
- Promised To **Share** their experience with other Stakeholders.



B2. Training and beyond...



TERI conducted

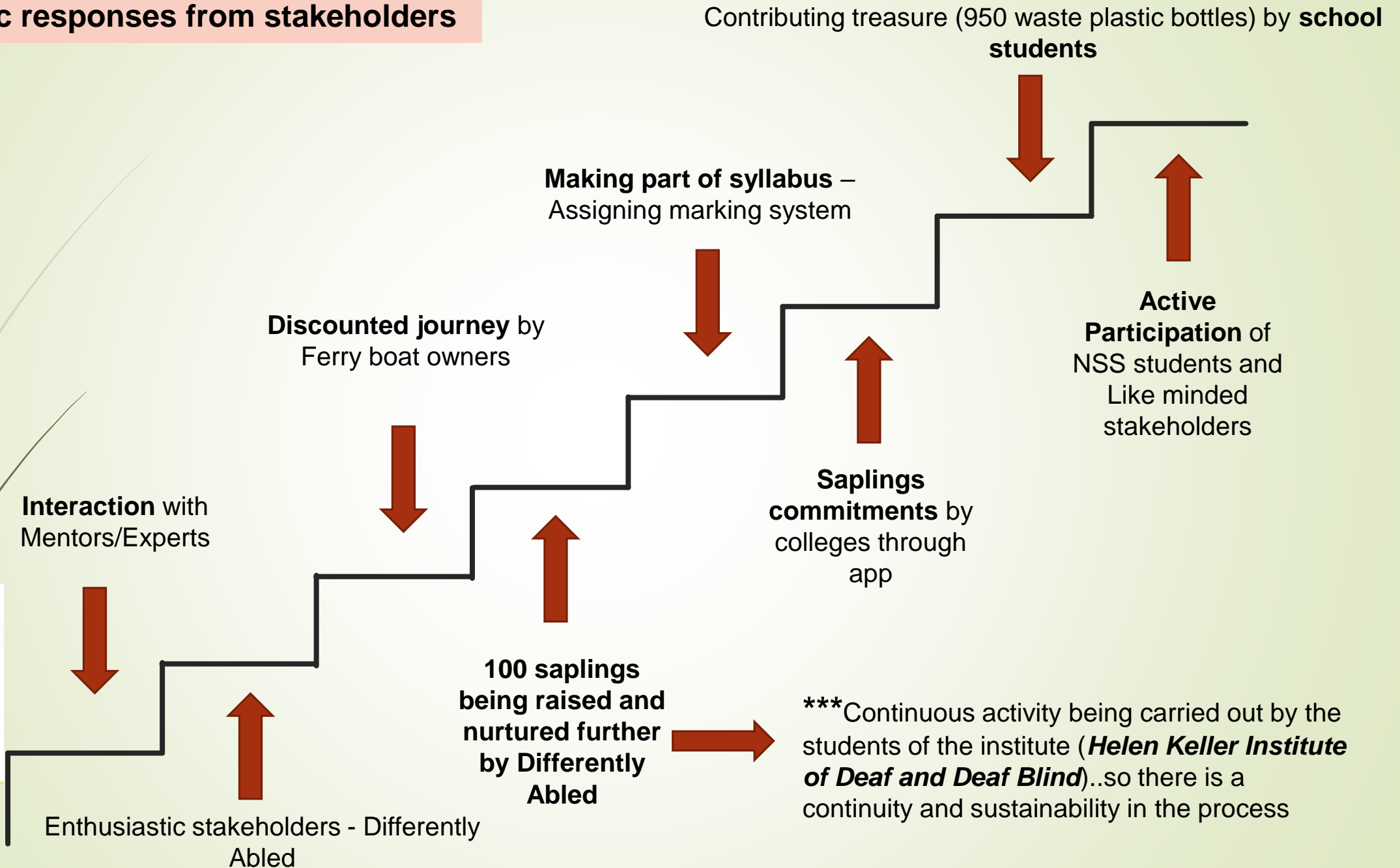
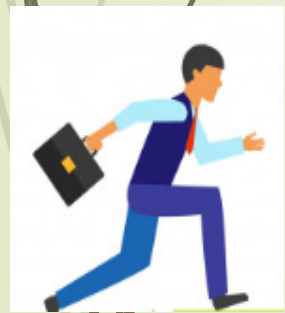
- 5 Awareness and sensitization workshops (520 participants)
- 3 TOTs – created a batch of **78 trainers**

Response received from stakeholders

- Out of 78, **35 trainers conducted 17 sessions** and trained other colleagues thereby created a chain of trained professionals and increased a scope of creating awareness among the youths.
- Same chain is to be continued further
- **> 700** native saplings collected and planted in waste plastic bottles
- **>300** participated in awareness activities during World Wetlands Day 2020 event
- **>2000** waste plastic bottles were collected and given to the recyclers.
- **Commitment towards avoiding single use plastic** received from stakeholders from different fields



Enthusiastic responses from stakeholders





C. Towards making a concrete roadmap against plastic waste management

C1. Stakeholder Interaction



Stakeholders at the Round Table Discussion

Event : Round Table Discussion (23.12.2019)

Location: University of Mumbai campus, Fort, Mumbai

Theme: Plastic pollution and Role of Stakeholders

Chaired by: Hon'ble Vice Chancellor, University of Mumbai

Primary objectives:

- Initiate Policy dialogue
- understand the policy status in Maharashtra
- use inputs to develop roadmap

Around **30 stakeholders** from different background discussed key points like

- Their Experiences/ Research Findings
- Identification of Strengths And Loopholes in Existing Policies
- Suggesting Better Policy Interventions And Discussing Practical Action At The Individual/ Organizational Levels

C2. Discussion Highlights : Key Gaps/Improvements Needs To Be Addressed

Awareness and Data gaps

- **Level of awareness**
- **Lack of Transparency in data availability**

Research on Life Cycle Assessment of Plastics and Micro-plastic

- **Innovation**
- **Focus** on sustainability and environmental impact
- **Lack of affordability and accessibility** of the required technology

Policy dimensions

- **Identifying hotspots**
- **Incentivize** plastic recycling
- **Prompt Implementation of bans and laws**
- **State wide Action Plan/Roadmap**





Thank You

In case of queries/contact

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