



Promotion of countermeasures against marine plastic litter in Southeast Asia and India

“Rethink Plastic”

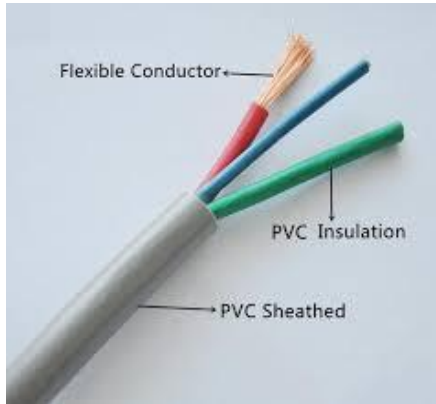
[A short film to begin with](#)



IS PLASTIC REALLY A VILLAIN?

A discussion

Advantages of Plastic



<https://www.indiamart.com/proddetail/personal-computers-2205514797.html>

<https://www.indiatvnews.com/business/india/dish-tv-offers-basic-channels-for-free-3118.html>

<https://www.sciencedirect.com/science/article/pii/B978012802230600031X>

<https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQxk8ZI9Zitg8VFbLDnqijlW7N1PkrjCZDna8OnpsqiN2V1GZWL&tbid0.gstatic.com>

<https://www.chemanager-online.com/en/topics/economy-business/major-pharma-packaging-trends-2018>

<https://www.google.com/url?sa=i&source=images&cd=&ved=2ahUKewjajoip55jmAhXETX0KHXSDBb0QjRx6BAGBEAQ&url=https%3A%2F%2Fwww.dnaindia.com%2Fmumbai%2Freport-maharashtra-dairy-industry-still-divided-over-alternatives-to-plastic-pouches2747732&psig=AOvVaw2E4C3reWwS8Xti5nZPksiU&ust=157543924488825>

Is this a treat to your eyes?



....OR THIS ?



Impacts of Plastic

Impacts on Marine Life



- ~ **800** marine species have had damaging interactions with marine litter-
entanglement and ingestion
- ~ **17%** species impacted by marine plastic debris: **Near Threatened** species as per the IUCN Red List.

1. <https://www.google.com/url?sa=i&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwiootLg8JmAhWRgAKHV5nBFoQjRx6BAgBEAQ&url=https%3A%2F%2Fscienceworld.scholastic.com%2Fissues%2F2016-17%2F041717%2Fan-ocean-of-plastic.html&psig=AOvVaw3fwn98d12hBe6Mn8tFrcFD&ust=1575441266915303>

2. [https://www.thenational.ae/image/policy:1.838894:1552991629/07430364.jpg?f=16x9&w=1200&\\$p\\$w=6f82040](https://www.thenational.ae/image/policy:1.838894:1552991629/07430364.jpg?f=16x9&w=1200&pw=6f82040)

3. [https://www.google.com/imgres?imgurl=https%3A%2F%2Fi.pinimg.com%2foriginals%2F8e%2F5d%2F21%2F8e5d213b095857b30d8e0da29397db97.jpg&imgrefurl=https%3A%2F%2Fwww.pinterest.com%2Fpin%2F343329171577877182%2F&docid=3TjVz1958mCk7M&tbnid=N0mh3suXgWzdbM%3A&vet=10ahUKEwJShdaZ7pjmAhXBShUIHc53AIMQMwhnKAwwDA..i&w=1600&h=1016&bih=757&biw=1600&q=marine%20animals%20and%20plastics&ved=0ahUKEwJShdaZ7pjmAhXBShUIHc53AIMQMwhnKAwwDA&iact=mr&uact=8](https://www.google.com/imgres?imgurl=https%3A%2F%2Fi.pinimg.com%2Foriginals%2F8e%2F5d%2F21%2F8e5d213b095857b30d8e0da29397db97.jpg&imgrefurl=https%3A%2F%2Fwww.pinterest.com%2Fpin%2F343329171577877182%2F&docid=3TjVz1958mCk7M&tbnid=N0mh3suXgWzdbM%3A&vet=10ahUKEwJShdaZ7pjmAhXBShUIHc53AIMQMwhnKAwwDA..i&w=1600&h=1016&bih=757&biw=1600&q=marine%20animals%20and%20plastics&ved=0ahUKEwJShdaZ7pjmAhXBShUIHc53AIMQMwhnKAwwDA&iact=mr&uact=8)

4. https://www.tropicalconservationfund.com/uploads/8/5/2/9/85297444/plastics-pollution_orig.jpg

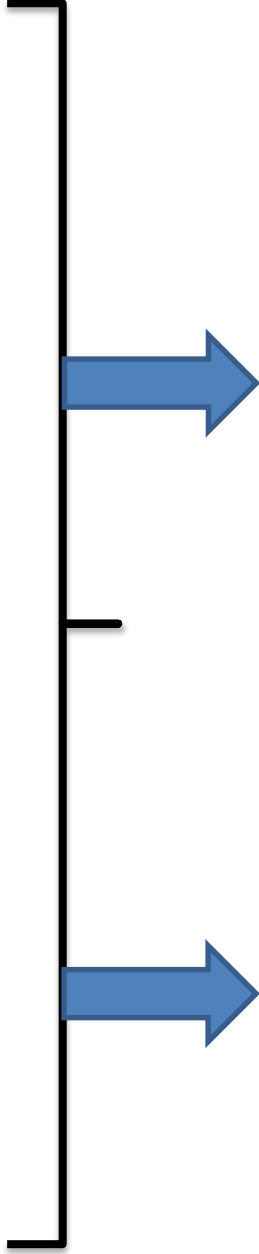
Impacts on Terrestrial Animals



**We see
the
difference
Animals
don't...**

<https://www.timesnownews.com/mirror-now/in-focus/article/banning-single-use-plastics-what-india-can-learn-from-other-countries/499252>

Who is to blame that Our Waste Ends up here?



A short video to summarize it all

Video

<https://www.youtube.com/watch?v=lQQajO5yIUE>

How Can You Help Change this Scenario?

Be the change you want to see....



© Can Stock Photo

Be assured that our individual actions, collectively, make a huge difference.

— Jane Goodall —

Image source
<https://www.google.com/url?sa=i&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwj65ai0hZnmAhU4A2MBHe6PCrsQjRx6BAGBEAQ&url=https%3A%2F%2Fwww.azquotes.com%2Fquote%2F609266&psig=AOvVaw3gkyWbGjMnWMgBB3TG8b51&ust=1575447132905022>

UNEP is implementing the project:

**Promotion of countermeasures against marine
plastic litter in Southeast Asia and India**

in

Mumbai, Agra, Allahabad, Haridwar

TERI is the outreach partner in MUMBAI

Why Mumbai?

WATER

Mumbai, Kerala most affected by marine litter; microplastics pose a major threat

For the first time, the researchers have compiled 1,237 scientific studies on marine litter into a single, comprehensive database

HOME > EARTH MATTERS

Mumbai's sea will have more plastic than fish in a few years

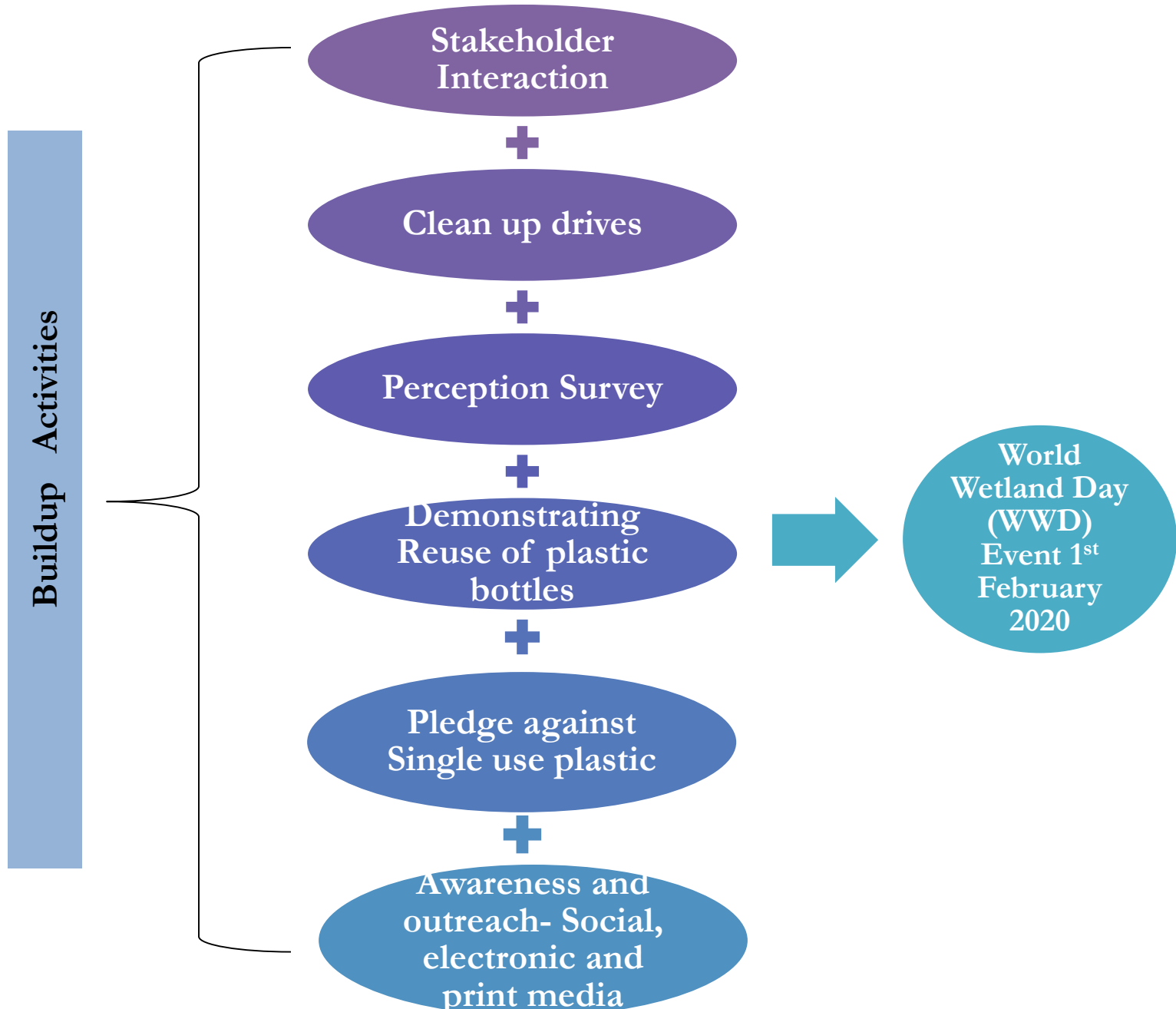
A study by a team from IIT-Bombay warns of an alarming rise in pollution in the Arabian Sea

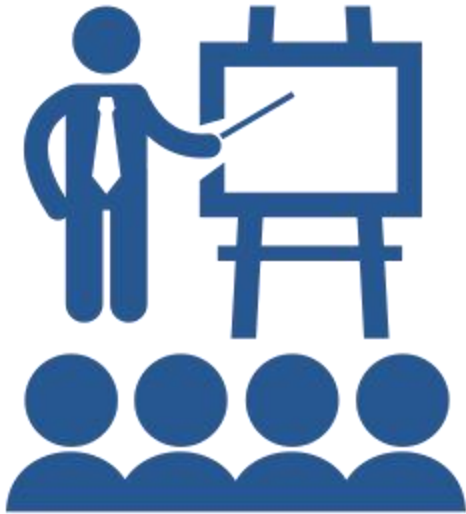
You are here: [Latest News](#) / [India News](#)

Mumbai rains: Environmentalists say flooding will persist as long as ill-planned construction, plastic pollution continue



Campaign Overview





Become trainers and spread your knowledge. Motivate others to use plastic responsibly and follow the 7Rs (Retain, Refuse, Recycle, Reuse, Reduce, Rethink)

Take a pledge and commit yourself to our noble cause. You can participate in the treasure hunt for plastic and saplings

Be a Part of change

- How many of you are ready to take a pledge to stop using single use plastic?
- How many of you are ready to conduct a Treasure Hunt for Collecting Bottles?
- How many of are ready to conduct a Treasure Hunt for Native Saplings ?
- How many of you are ready to prepare bottles with saplings?
- How many of you are ready to become trainers?

**TREASURE HUNT FOR WASTE
PLASTIC BOTTLES**

TREASURE HUNT FOR WASTE PLASTIC BOTTLES

Where?



Along roadsides



Cleanup activities

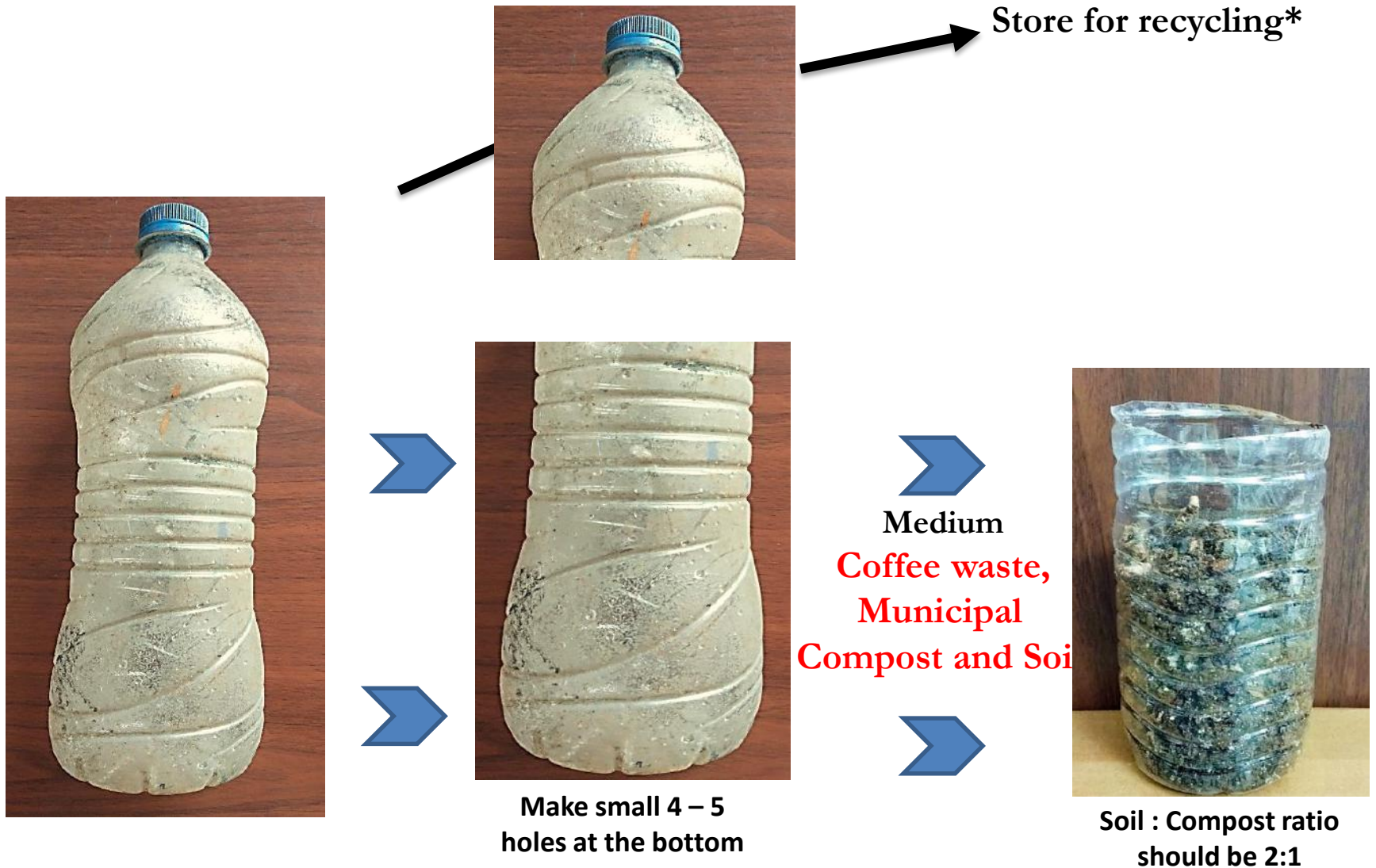


Along water bodies



Along railway tracks and other leakage points

Preparation of bottles to raise saplings



*We will connect you to recyclers

TREASURE HUNT FOR SAPLINGS/ SEEDS

Treasure hunt for saplings/ seeds

- Where?



Anywhere around- your campus, roadside, footpath, gardens.....

You just need to find the treasure

Image Source:

<https://www.google.com/imgres?imgurl=https%3A%2F%2F5.imimg.com%2Fdata5%2FAR%2FFT%2FKU%2FANDROID-23750399%2Fproduct-jpeg-500x500.jpg&imgrefurl=https%3A%2F%2Fwww.indiamart.com%2Fproddetail%2Fmango-seeds-powder-20472720891.html&docid=Oq6Mz-t105mPjM&tbnid=lal15dynfKF8SM%3A&vet=10ahUKEwiCxe-S76DmAhWHWwIsKHQ9sD10QMwiBASgKMAo..i&w=500&h=388&bih=708&biw=1600&q=mango%20seeds&ved=0ahUKEwiCxe-S76DmAhWHWwIsKHQ9sD10QMwiBASgKMAo&iact=mr&uact=8>

Treasure hunt for saplings/ seeds

- **Which seeds and saplings?**
 - ✓ Native tree species
- **Why native tree species?**
 - ✓ Survive well in local conditions
 - ✓ No invasion
 - ✓ Enhance and support biodiversity
 - ✓ Multiple ecological benefits- fruits, wood, medicinal value, carbon sequestration
 - ✓ Save a treasure being wasted



Treasure hunt for saplings/ seeds

Native tree species to be collected- Examples



Banyan (*Ficus benghalensis*) (Vad, Bargad)

- Medicinal properties: leaf, bark, seeds and fig cure disorders like diarrhea, polyuria, dental, diabetes and urine disorders
- Wood : making door panels, boxes
- Bark : making paper and ropes
- Figs: edible
- Habitat for numerous bird species



Sacred Fig (*Ficus religiosa*) (Peepal, Pimpal)

- Host for Lac Insects
- Fodder for goats and cattle
- Figs: edible
- Bark: extraction of reddish dye; cure inflammations and glandular swelling
- Medicinal uses: beneficial for eczema, asthma, blood purification, digestive ailments



Neem (*Azadirachta indica*)

- Medicinal uses: effective for skin infections, intestinal problems, diabetes, malaria,
- Neem oil: pesticide for grain storage
- Twigs: used for brushing teeth
- Bark fiber: rope making
- Requires less water for growth
- Provides shade

Other suggested native species: *Ficus racemosa* (Umbar), *Terminalia catappa* (Kadwa Badam)

Identifying saplings



Peepal Tree

Heart shaped leaves
with a pointed end



Banyan Tree

The leaves are long
and oval
Venation is
formation.
Margins are smooth
petiole is short with
fine hair



Umbar Tree

The leaves are dark
green, oblong i.e.
have a narrower end
and tapering to a
blunt point
They grow in
clusters

Other suggested native species: *Phyllanthus emblica* (Amla), *Aegle marmelos* (Bael)

Treasure hunt for saplings/ seeds



- **Points to remember**

- Identify the species before plucking
- Pluck the saplings gently without damaging the roots
- Store carefully until planting it
- For seeds- plant multiple seeds in a pot → some seeds germinate → transplant the saplings to plastic bottles
- Documentation- photos and written records

How to raise the seeds/ saplings

1. Collect the treasure



Terminalia catappa
(Kadwa Badam)
seeds



Ficus racemosa
(Umbar) sapling

How to raise the seeds/ saplings

1. The planting process- Saplings



Sapling of
Ficus racemosa
(Umbar)



Plant the sapling



Sapling growing
in plastic



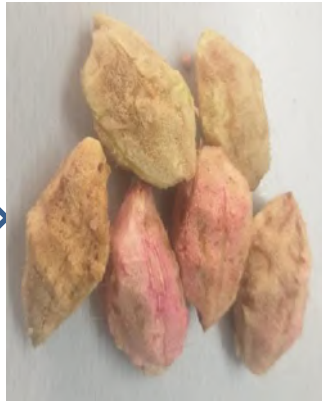
- Saplings tend to undergo shock on being transplanted
- This results in symptoms like wilting of old leaves

How to raise the seeds/ saplings

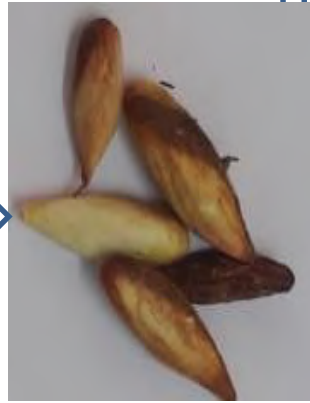
2. The planting process- Seeds



Seeds with
outer covering



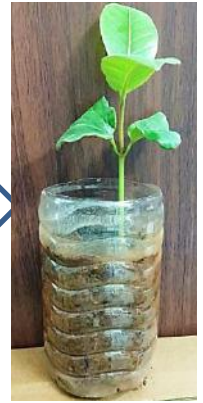
Outer
covering
removed



Seeds
obtained by
breaking the
hard shell



Seeds planted in
the bottle



Saplings
in plastic
bottles

Where to store?

- A semi shaded place
- A designated place in your campus
- At your home
- Designated places at NMMC/ BMC gardens

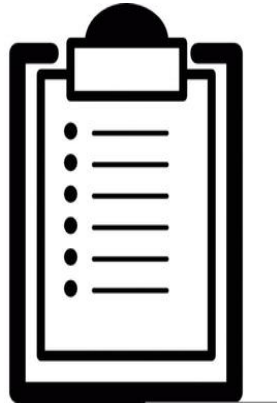
When to hand over ?

- **1st February 2020- World Wetlands Day**
- Representatives from the organization should collect and bring the saplings to the event venue.
- You can continue nurturing the saplings in your homes as well.

Photo-Documentation

To effectively depict the importance of the activity, its always beneficial to develop photo-documentation **in the form of a storyline** which shows the overall scenario of the situation

Steps



[List of required photos](#)



ORGANIZE





in the 'Rethink Plastic' Campaign Through These Simple Ways

Take the **Perception survey** on 'Plastic Use and Management' at

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

Take a Pledge against Single use Plastics at

<https://forms.gle/ct7Ctd9GSP3k9c1n7>

OR

By downloading the Rethink Plastic App (Android users) using the link or QR code:



<https://play.google.com/store/apps/details?id=com.teri.RethinkPlasticApp>

To Become a Trainer

OR

Contribute Saplings of Native Trees/Waste PET Bottles

Contact

022-27580021

m.asodekar@teri.res.in

For More Details Visit <https://www.teriin.org/project/rethink-plastic>



"The greatest threat to our planet is the belief that someone else will save it"

Robert Swan

THANK YOU

Image source:
<https://www.google.com/url?sa=i&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwiUjK6X6ZbmAhUDb1AKHaBFCgQQjRx6BAgBEAQ&url=https%3A%2F%2Fwww.pinterest.com%2Fpin%2F320881542179650225%2F&psig=AOvVaw1Pk76Esjm42Dhz0lDd6FQZ&ust=1575371184549908>