

# World Wetlands Day (WWD) Celebration- 2020

## Theme- Save Wetlands from Marine Plastic Litter

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**Venue: Sagar Vihar, Vashi, Navi Mumbai,  
Date: February 2, 2020, Time: 10 am – 12.30 pm**

### 1. World Wetlands Day-2020

According to the Ramsar Convention, wetlands are defined as areas of marsh, peat land or water that may be natural or artificial, permanent or temporary, with flowing or static, fresh / brackish/ saltwater, including areas of marine water<sup>1</sup>. Wetlands also include riparian and coastal zones adjacent to the wetlands such as coastal beaches, rocky shores, mud flats; and islands lying within the wetlands<sup>1 2 3</sup>. They are important ecosystems that harbor a rich biodiversity and also provide numerous ecosystem services to sustain life on earth. In order to mark the anniversary of adoption of the Ramsar Convention for conservation of wetlands and raise global awareness regarding the importance of wetlands for humans and the environment, WWD is observed on the 2<sup>nd</sup> of February every year.

The wetland ecosystems are under tremendous stress due to the rapidly growing population and pollution, especially plastic pollution, and need to be conserved. With plastic waste ending up in wetlands and other marine environments through waste dumping, marine tourism, fishing activities, plastics on land getting dispersed into the sea by winds; the issue is a growing environmental and health concern<sup>4</sup>. Plastic comprises up to 87% of the total marine litter. On an average, humans are reported to ingest around 5g plastic every week, owing to micro plastics which end up in the food chain<sup>5</sup>. Various studies have claimed the ill -effects of plastic on human beings. Unsurprisingly, it also severely affects the marine life forms<sup>6,7</sup>. According to Werner and O'Brien (2017), nearly 800 marine species have shown damaging interactions with marine litter in the form of entanglements and ingestion of plastics<sup>8</sup>. Nearly 17% of the species impacted by marine plastic debris are listed as near

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<sup>1</sup> <https://www.ramsar.org/sites/default/files/documents/library/info2007-01-e.pdf>

<sup>2</sup> <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/coastal-wetland>

<sup>3</sup> <https://www.environment.gov.au/system/files/resources/21499ab3-dbc5-445d-ab82-ed727019de31/files/coastal-marine-wetlands.pdf>

<sup>4</sup> Napper et. al, 2019. Marine Plastic Pollution: Other Than Microplastic

<sup>5</sup> [https://wwf.panda.org/wwf\\_news/press\\_releases/?348337/Revealed-plastic-ingestion-by-people-could-be-equating-to-a-credit-card-a-week](https://wwf.panda.org/wwf_news/press_releases/?348337/Revealed-plastic-ingestion-by-people-could-be-equating-to-a-credit-card-a-week)

<sup>6</sup> Smith et al., 2018. Microplastics in seafood and the implications for human health

<sup>7</sup> Acampora et. al., 2016. The use of beached bird surveys for marine plastic litter monitoring in Ireland

<sup>8</sup> Werner and O'Brien, 2018. Marine Litter

threatened species as per the International Union for Conservation of Nature's (IUCN) Red List<sup>9</sup>. Thus, considering the severity of impacts of marine plastic litter on man and the environment, it becomes important to mitigate this problem at the local, national, regional and global levels at the earliest.

## 2. Rethink Plastic- A joint initiative of The Energy and Resources Institute (TERI) and United Nations Environment Programme (UNEP)

The UNEP has initiated a project named '*Promotion of countermeasures against marine plastic litter in Southeast Asia and India*', sponsored by the government of Japan. The project is aimed at raising awareness about the issue and to suggest doable countermeasures to tackle marine plastic pollution. In India, the project is being implemented at Haridwar, Agra, Prayagraj (Allahabad) and Mumbai (**Annexure- A: Project Description**). The UNEP has partnered with TERI to implement the project in Mumbai.

### 2.1 Why Mumbai?

Mumbai is a coastal megacity in India, situated along the coast of Arabian Sea. It has a coastline of 167 km<sup>10</sup> and mangrove ecosystem spread across 66 sq. km area, which is an important buffer zone for the city<sup>11</sup>. The amount of plastic waste generated in the city is ~243 metric tons/ day<sup>12</sup>. Lack of proper disposal mechanisms and mismanagement cause a significant amount of this plastic waste to end up in the sea and mangroves. This becomes evident when, during storms and high tides, the sea dumps over a thousand kilos of waste back on the sea shore<sup>13</sup>. Further, choked drains and sewers lead to severe water logging in the city during the monsoon<sup>14 15</sup>. Thus, awareness about the importance of wetland ecosystems, the threat of plastic litter and active citizen participation for their conservation is of utmost importance in Mumbai.

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<sup>9</sup> Gall and Thompson 2015. The impact of debris on marine life. Marine pollution bulletin

<sup>10</sup> <http://abrahamjohnarchitects.com/the-bombay-coastal-project>

<sup>11</sup> <http://fsi.nic.in/isfr2017/isfr-mangrove-cover-2017.pdf>

<sup>12</sup> <https://portal.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/Environment/Docs/MCGM%20ESR%20English%20Report.pdf>

<sup>13</sup> <http://abrahamjohnarchitects.com/the-bombay-coastal-project>

<sup>14</sup> <https://www.firstpost.com/india/mumbai-rains-environmentalists-say-flooding-will-persist-as-long-as-ill-planned-construction-plastic-pollution-continue-6965441.html>

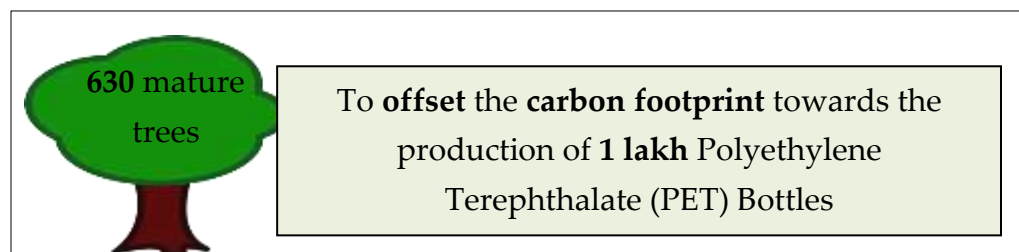
<sup>15</sup> <https://www.firstpost.com/india/mumbai-rains-environmentalists-say-flooding-will-persist-as-long-as-ill-planned-construction-plastic-pollution-continue-6965441.html>

## 2.2 Rethink Plastic Campaign

The program implemented in Mumbai under the aforementioned project, is in the form of an action oriented outreach campaign- the '*Rethink Plastic Campaign*' (November 2019- March 2020) (**Annexure B: Campaign Details**).

The campaign has following major components:

1. Creating awareness about plastic pollution and reaching out to at least 20,000 stakeholders from grass roots communities such as fisher folks, ferry boat owners, academia, corporates, and Civil Society Organizations (CSOs) during the campaign period (November 2019- March 2020) and engaging them in action oriented campaign activities like:
  - A. Taking pledge against single use plastics
  - B. Taking perception survey on plastic use
  - C. Participating in cleanup activities
  - D. Stakeholder discussions and focused group discussions
  - E. Awareness programmes/ workshops and more.
2. Communicating the outcomes of stakeholder discussions and perception survey to the State Government for taking further policy action.
3. Demonstrating effective reuse of at least 50,000 waste PET bottles to raise saplings of native trees. Towards the end of the campaign, these would be handed over to a wide network of stakeholders for nurturing and afforestation. The latter is expected to offset the carbon emissions (Foot Print) towards production of the PET bottles.



### 3. Details and Agenda of WWD Celebrations on 2<sup>nd</sup> February 2020

TERI – UNEP will jointly celebrate the WWD 2020 at Mumbai. The event will be an opportunity to highlight the outcomes of the campaign, while emphasizing upon the current scenario of plastic pollution, with respect to marine plastic litter, its impacts on the ecosystems; and encouraging the stakeholders to extend their support by taking a pledge to minimize the use of single use plastic and contribute towards the conservation of wetlands and marine ecosystems. The following activities have planned for the WWD event.

<b>Mangrove Cleanup</b> by volunteers	<b>Rangoli/ Mural Making</b> on the theme ' <b>Wetlands and Marine Plastic Litter</b> '	<b>Pledge against Single use Plastics</b> by all stakeholders/ volunteers present
<b>Treasure Hunt</b> for saplings of native tree species to be planted in waste plastic bottles	<b>Felicitation of citizens</b> carrying out exemplary work to protect environment and Plastic Recyclers	

The tentative agenda for the WWD event is presented in Table1.

<b>World Wetlands Day Event 2020</b> <b>Venue: Sagar Vihar, Vashi, Navi Mumbai</b> <b>Date: February 2, 2020</b> <b>Time: 10 am – 12.30 pm</b>	
10 Min	Registration
15 Min	Welcome and Project Introduction (TERI- UNEP)
10 Min	Inauguration by the Guest of Honor (# Mayor/ Commissioner,- Navi Mumbai Municipal Corporation (NMMC)
15 Min	Speech by dignitaries (UNEP, TERI, Guest of Honor)
5Min	Pledge against single use plastic by all stakeholders
10 Min	Briefing for clean-up activity
60 Min	Cleanup activity, Rangoli and mural making, Treasure Hunt for native tree saplings*
15 Min	Felicitation of citizens carrying out exemplary work to protect environment and Plastic Recyclers
5 Min	Vote of thanks (TERI-UNEP)
	Refreshments
<b>*Clean up , Treasure Hunt for native saplings and Rangoli/ Mural making activities will be conducted simultaneously by the respective groups of volunteers and experts</b> <b># Confirmation Awaited</b>	

Table 1 Tentative Agenda: WWD Event on 2<sup>nd</sup> February 2020

# Annexures

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## Annexure A: Project Background

### **UNEP Project Background: Promotion of Countermeasures for Marine Litter in Southeast Asia and India**

Southeast Asia and India have turned into hotspots of plastic leakage. Regional coordination and collaboration is of utmost importance to manage the trans boundary problem of plastic wastes including micro plastics, as they end up in the marine environments. Major rivers flowing through the region like the Ganges, Indus and Mekong are choking with plastics. However, there is no standard approach for identification, assessment and monitoring of the major sources and pathways of plastic leakage; along with formulation and implementation of proper policy measures on plastic waste management by governments, with emphasis at the local level. Thus, on 4<sup>th</sup> March 2019, the Government of Japan and United Nations Environment Programme (UNEP) declared a joint effort to enhance the knowledge and information for developing countermeasures against marine plastic litter in Southeast Asia and in India. In India, the locations identified for the project implementation are: Mumbai, Haridwar/ Rishikesh, Prayagraj (Allahabad) and Agra.

### **Role of TERI**

TERI Western Regional Center Mumbai has been appointed as implementation partner for outreach activities in Mumbai. This would involve:

- Partnering with local stakeholders for outreach and on-ground campaigns to reduce plastic pollution
- Engaging local communities through outreach and awareness activities
- Design and dissemination of outreach material through various media and approaches
- River/coastal clean-up activities and data collection on plastic pollution
- Collection of visual records pre and post intervention

## Annexure B: The TERI - UNEP Campaign 'Rethink Plastic'

### Broad Objectives



Figure 1: The broader project objectives.

### Expected outcomes of the campaign

- ✓ Collection and reuse of at least 50,000 waste PET plastic bottles for raising saplings: These would be the bottles that remain uncollected from marine environments or are spoiled due to exposure to sunlight, salt water or algal growth, oil coating and so forth. Using plastic bottles to raise saplings will extend their usability and offset the carbon foot print of these bottles which may otherwise end up as litter in rivers/ seas (Figure 1).
- ✓ Collection and nurturing of at least 50,000 seeds/saplings of native tree species: These will be seeds/ saplings found/grown alongside roads, in cracks and crevices on building walls and so on, where they do not necessarily germinate/ survive. Thus, the activity also ensures maximum utilization of seeds/saplings and better survival of uncared for saplings.
- ✓ Using the raised saplings for afforestation by volunteers/ organizations: This will lead to multiple ecological benefits while raising awareness about plastic waste.
- ✓ Closing the plastic loop: by Reuse and Recycle of waste plastic bottles while also offsetting their carbon footprint through afforestation.
- ✓ Entry into the LIMCA book of Records for collecting and reusing at least 50,000 waste plastic bottles to raise saplings which will be used for afforestation.
- ✓ Pledge by at least 20,000 individuals to act against plastic waste and stop using single use plastic
- ✓ A white paper based on inputs from stakeholder roundtable discussions (involving multiple stakeholders – grassroots, administrative, NGOs, academia and others), perception survey and cleanup drives.

- ✓ Cleanup drives along beaches and in mangrove patches with the help of volunteers to prevent the leakage of marine plastic litter and develop a sense of responsibility and consciousness towards the environment.
- ✓ Perception survey- To assess the perception and awareness of local citizens with respect to plastic pollution- its impacts on humans and environment, alternatives to plastics and their use in daily life, laws and policies, and plastic management practices at individual and society/ community levels.

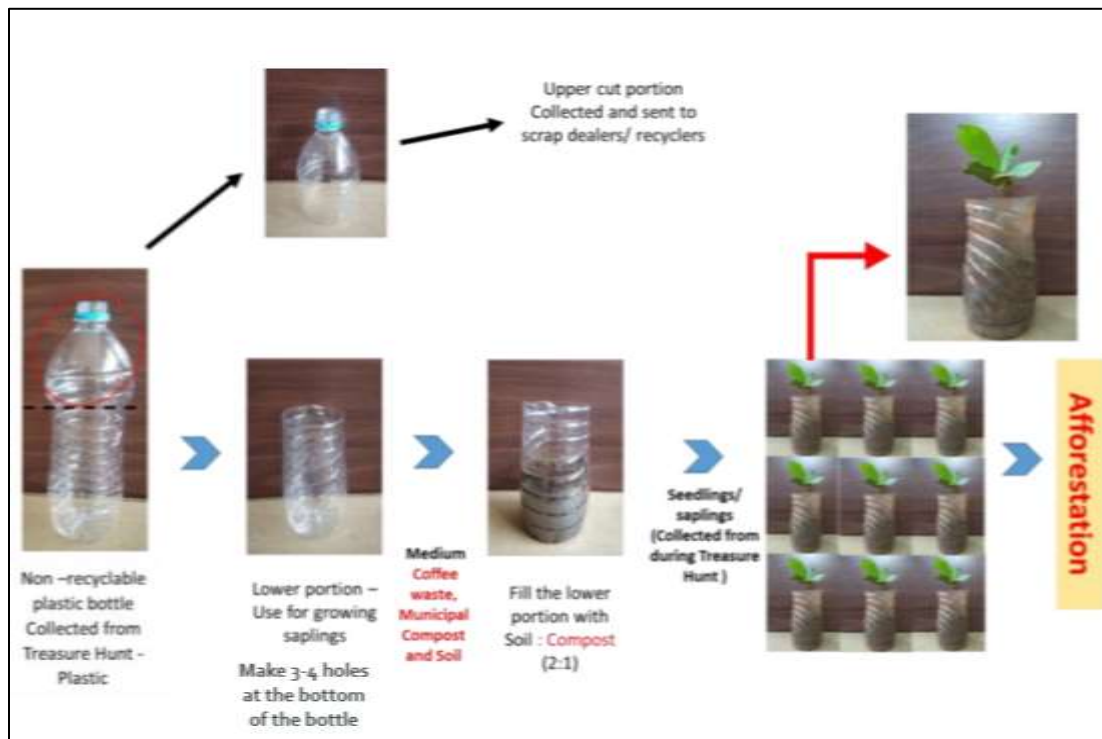


Figure 2 Raising saplings of native tree species in waste plastic bottles