No Plastics in Nature

Yumi Nishikawa
WWF Regional Lead, Plastic Smart Cities
POLLUTION FROM PLASTICS - A THREAT TO NATURE AND SOCIETY

Since 2000, the plastics industry has produced as much plastic as all the preceding years combined. The production of virgin plastic has increased 200-fold since 1950, and has grown at a rate of 4 per cent a year since 2000. In 2016, the most recent year for which data is available, production reached 396 million metric tons. That is equivalent to 53 kilograms of plastic for each person on the planet. Production of plastic in 2016 resulted in approximately 2 billion metric tons of carbon dioxide emissions, which accounts for almost 6 per cent of the year’s total global carbon dioxide emissions. If all predicted plastic production capacity is constructed, current production could increase by 40 per cent by 2030.

1/3 OF PLASTIC (100 MLN METRIC TONS) ALREADY BECAME LAND OR MARINE POLLUTION AND 104 MLN WILL LEAK INTO NATURE BY 2030 IN BUSINESS AS USUAL SCENARIO.

396 MILLION METRIC TONS

IN 2016, PRODUCTION REACHED 396 MILLION METRIC TONS. THAT IS EQUIVALENT TO 53 KILOGRAMS OF PLASTIC FOR EACH PERSON ON THE PLANET.

40% INCREASE IN PLASTIC PRODUCTION BY 2030


75% OF ALL PLASTIC EVER PRODUCED IS WASTE

80% OF OCEAN PLASTICS ARE ESTIMATED TO COME FROM LAND-BASED SOURCES.

Figure 1: Global plastic production from 1950 to 2016 (in million metric tons)

Source: Dobbing analysis, Jambeck & al (2017)
By 2025 Asia will represent 8 of top 10 countries with mismanaged plastic waste, though Nigeria and the North Africa region are growing problems.

Projected Share of Global Mismanaged Plastic Waste* in 2025

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Country</th>
<th>Region</th>
<th>2025 Mismanaged plastic waste (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>China</td>
<td>Asia</td>
<td>17,814,777</td>
</tr>
<tr>
<td>2</td>
<td>Indonesia</td>
<td>Asia</td>
<td>7,415,202</td>
</tr>
<tr>
<td>3</td>
<td>Philippines</td>
<td>Asia</td>
<td>5,088,394</td>
</tr>
<tr>
<td>4</td>
<td>Vietnam</td>
<td>Asia</td>
<td>4,172,828</td>
</tr>
<tr>
<td>5</td>
<td>India</td>
<td>Asia</td>
<td>2,881,294</td>
</tr>
<tr>
<td>6</td>
<td>Nigeria</td>
<td>Africa</td>
<td>2,481,008</td>
</tr>
<tr>
<td>7</td>
<td>Bangladesh</td>
<td>Asia</td>
<td>2,210,230</td>
</tr>
<tr>
<td>8</td>
<td>Thailand</td>
<td>Asia</td>
<td>2,179,508</td>
</tr>
<tr>
<td>9</td>
<td>Egypt</td>
<td>North Africa</td>
<td>1,937,428</td>
</tr>
<tr>
<td>10</td>
<td>Sri Lanka</td>
<td>Asia</td>
<td>1,918,670</td>
</tr>
<tr>
<td>11</td>
<td>Malaysia</td>
<td>Asia</td>
<td>1,765,977</td>
</tr>
<tr>
<td>12</td>
<td>Pakistan</td>
<td>Asia</td>
<td>1,221,460</td>
</tr>
<tr>
<td>13</td>
<td>Burma/Myanmar</td>
<td>Asia</td>
<td>1,149,267</td>
</tr>
<tr>
<td>14</td>
<td>Algeria</td>
<td>North Africa</td>
<td>1,017,444</td>
</tr>
<tr>
<td>15</td>
<td>Brazil</td>
<td>South America</td>
<td>954,198</td>
</tr>
<tr>
<td>16</td>
<td>South Africa</td>
<td>Africa</td>
<td>836,279</td>
</tr>
<tr>
<td>17</td>
<td>Turkey</td>
<td>Middle East</td>
<td>790,235</td>
</tr>
<tr>
<td>18</td>
<td>Senegal</td>
<td>North Africa</td>
<td>738,264</td>
</tr>
<tr>
<td>19</td>
<td>Morocco</td>
<td>North Africa</td>
<td>706,583</td>
</tr>
<tr>
<td>20</td>
<td>North Korea</td>
<td>Asia</td>
<td>610,607</td>
</tr>
</tbody>
</table>

Note: * Defined as plastic that is either littered or inadequately disposed - including disposal in dumps or open, uncontrolled landfills - by populations within 50km of coastline
1. Business Model Innovation
- Bilateral & Sectoral Corporate Engagement
- Global platform (ReSource)
- National platforms (Pacts and similar)
- Entrepreneurship and innovation

Extended Producer Responsibility

2. Global Plastics Policy
- Advocacy for a global policy solution to halt plastic emissions
- Create international legally binding instrument and agreement to target plastic pollution (including Extended Producer Responsibility schemes)

3. Plastic Smart Cities
- Addressing major leakage points at city level
- Piloting in high polluting sites in South East Asia
- Ambition to start a global movement

Global Plastics Campaign
Cross cutting support to all work-streams
The countries with biggest mismanaged plastic waste issues are concentrated in Asia. China, Indonesia, Philippines and Vietnam are the worst offenders.

Source: Jambeck et al. 2015
WWF is working on hands-on projects in SE Asia, while building a global movement of PlasticSmart Cities

Pilot Country Projects
With funding from the Norwegian Agency for Development Cooperation (NORAD) and WWF NL, WWF colleagues are currently working on the ground with cities and tourism areas in 5 pilot countries. The goal is to scale up to 25 cities by 2021.

Movement & Knowledge Sharing Platform
WWF invites Cities to commit to ambition plastic pollution targets in line with WWF’s No Plastic in Nature vision and to develop and disseminate Plastic Smart Action best practices, to achieve our ambition of 1000 PlasticSmart Cities.
1. PlasticSmart Cities Commitment – Example Declaration of Intent

DECLARATION OF INTENT

The undersigned:
1. Constance Steenkamp-Faaj, Chairman of Amsterdam Clean Water
2. Maria Westerbos, director of the Plastic Soup Foundation
3. Kristen Schuit, director of World Wide Fund for Nature - Netherlands

The undersigned have determined the following:

a. plastic is all around us, not only in our kitchen cupboards and clothing, but also in the canals of Amsterdam, in the sea and on the beach;
b. Amsterdam is implementing many joint initiatives to combat plastic pollution, including through the Amsterdam Clean Water partnership, which formally expires in September 2019;
c. the World Wide Fund for Nature (WWF) has launched an initiative, Plastic Smart Cities, to motivate cities around the world to reduce plastic pollution in the city;
d. the Plastic Smart Cities Initiative pursues the same goals as the Amsterdam Clean Water cooperation agreement.

By signing this declaration of intent, the undersigned agree to do the following:

the City of Amsterdam:
- develop an innovative, feasible action program that will lead to a clean and healthy situation without plastic pollution by 2020;
- involve key actors and stakeholders in the city in approaching, evaluating and improving policies, services and strategies to prevent plastic waste and to promote circular solutions;
- create a pilot area in the city where plastic pollution is measurably reduced;
- monitor progress and share progress annually on www.plasticsmartcities.org.

The Plastic Soup Foundation:
- assist and advise on the implementation efforts by the City of Amsterdam to prevent plastic pollution;
- advise on the development of action plans by providing knowledge and expertise to reduce plastic pollution;
- participate in relevant meetings to give substance to the declaration of intent;
- provide knowledge and expertise and provide assistance to stakeholders, nationally and internationally.

The World Wide Fund for Nature:
- provide Amsterdam with best practice examples and solutions from all over the world via www.plasticsmartcities.org, which have been assessed by a team of international Plastic Soup experts;
- endeavor to share solutions from and for cities worldwide via www.plasticsmartcities.org;
- ensure public recognition, nationally and internationally, by recognizing Amsterdam as a Plastic Smart City through various media channels.

Amsterdam, 30 June 2019

On behalf of the City of Amsterdam
Constance Steenkamp-Faaj

On behalf of the Plastic Soup Foundation
Maria Westerbos

On behalf of WWF-Netherlands
Kristen Schuit
WWF is implementing PlasticSmart Cities projects in four South East Asian countries: Philippines, China & Hong Kong, Vietnam, and Thailand.
## Plastic-Smart Cities Strategic Framework

<table>
<thead>
<tr>
<th>Focus Areas:</th>
<th>REDUCE USE OF KEY WASTE PLASTICS</th>
<th>SEPARATION AND COLLECTION</th>
<th>IMPROVED RECYCLING / REUSE</th>
<th>LANDFILL MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>0. City Prioritization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Plastic-Smart Cities Commitment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Scoping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Policy &amp; Governance Interventions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private / Community</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Identify And Scale Entrepreneurial Solutions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Monitoring Through Citizen Science</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>