

Plastic Waste and Marine Plastic Pollution in South Asia

Second Sub – Regional Workshop on Preparation of Status Report and Sub Regional Roadmap for Implementing the Global Waste Management Goals towards Addressing SDGs in South Asia,

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EARLY RELEASE "State of Plastics Waste in Asia and the-Pacific - Issues, Challenges and Circular Economic Opportunities"





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Trends in Consumption & Waste Generation in South Asia (Major Drivers)

- 1. Population about 1.8 billion (2018) to 2.38 billion by 2050 (25% of the world's total population)
- 2. Urbanization (Urban population from 35.5% of the region's population in 2018 to 51% of the total by 2050
- 3. Economic growth GDP of the region was above US\$ 3.45 trillion (2018)
 - One of the fastest growing regions in the world (GDP 4.9% in 2012 to 7% in 2019 & expected to reach 7.1% in 2021)
 - Growing purchasing power and the domestic private consumption are the major economic growth drivers

Key Take Away: Demography, Economic growth & Growing purchasing power and the domestic private consumption are the major drivers for Plastic Consumption, Plastic Waste Generation accompanied by Plastic Pollution & marine litter in South Asia

Journey of Plastics in South Asia

On Land
Plastic
Pollution



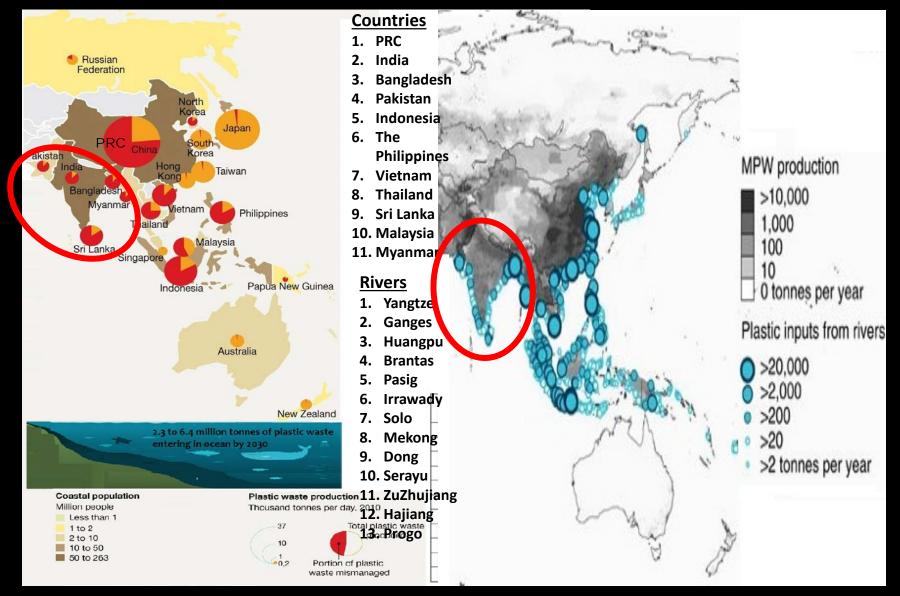
Marine Litter

- 1. Through the Ganga, Indus and Brahmaputra Rivers, the three major river basins of the region
- 2. Through the 11,682 km coastline

Country	Length of the Coastline (km)		
Bangladesh	710		
India	7,517		
Maldives	820		
Pakistan	1,050		
Sri Lanka	1,585		
Total	11,682		

Source: UNEP, South Asia Environment Outlook, 2014

Journey of Plastics in South Asia: Where? How Much? Broad Estimates

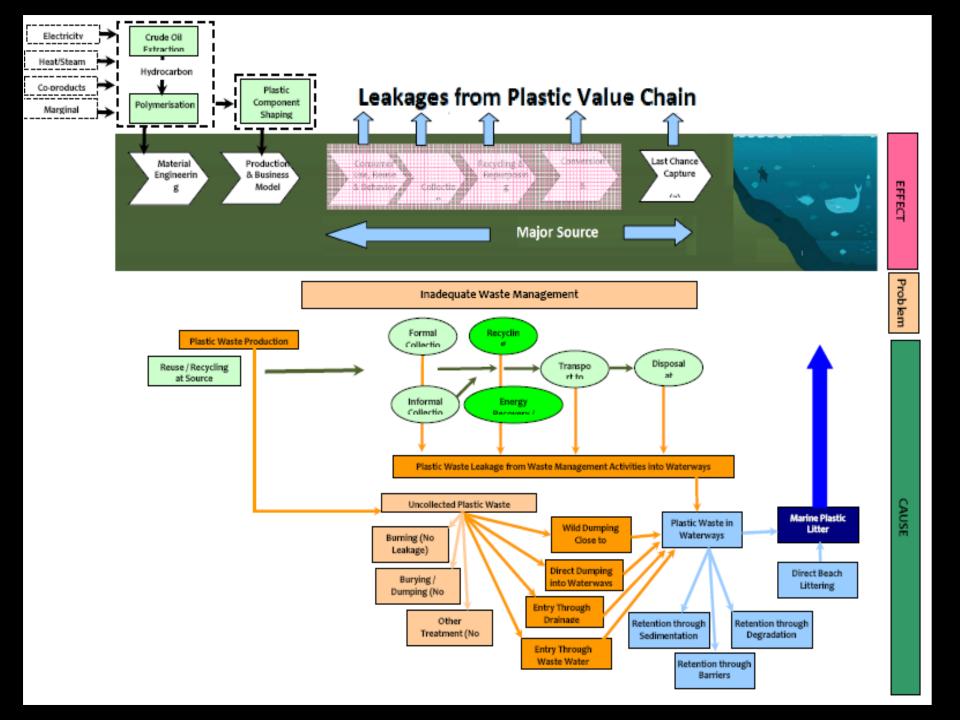


Journey of Plastics in South Asia: Yamuna Bank (Agra)in Ganga Basin



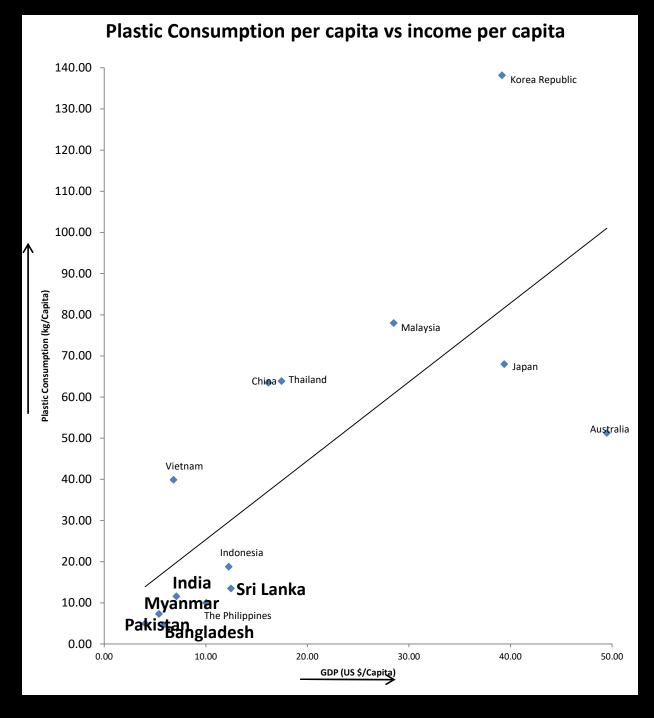
Journey of Plastics in South Asia: Plastics draining into Yamuna (Agra) in Ganga Basin





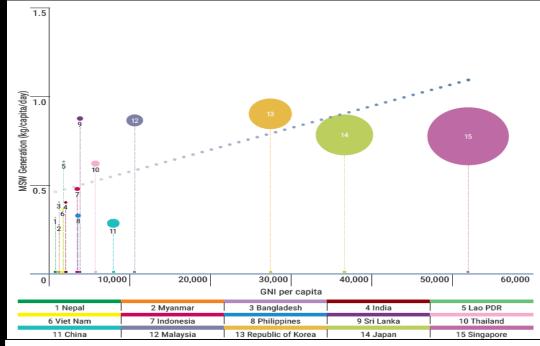
Trends in Plastic Consumption

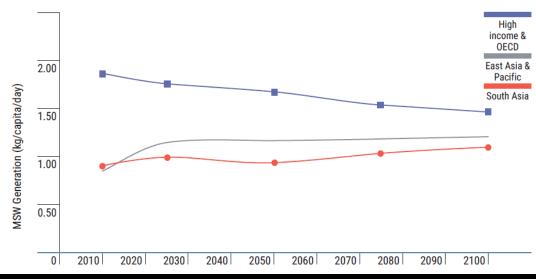
- Importer of fossil fuel, the feedstock for manufacturing plastics
- 2. Positive correlation exist between GDP growth rate and plastic consumption in the region
- 3. Increasing trends of plastic consumption (Packaging 40 50 %)



Trends in MSW Generation

- Strong correlation between MSW
 Generation
 (kg/capita/day) &
 GNI per capita in
 South Asian
 Countries
- Increased trend of MSW generation
 (> 1kg/capita/day by 2030)





Trends in Plastic Waste Generation, Recycling & Disposal

Country	Total MSW Generation (Million tonnes)	Source Segregation (%)	Plastic (%)	Plastic Recycling (%)
Bangladesh	8.6 (2014)	<50%	7.35 %	50-70%
India	55	50-60%	8-12%	<50%
Pakistan	48 (2016)	<50%	9%	<50%
Sri Lanka	2.5	50-70%	10%	<50%

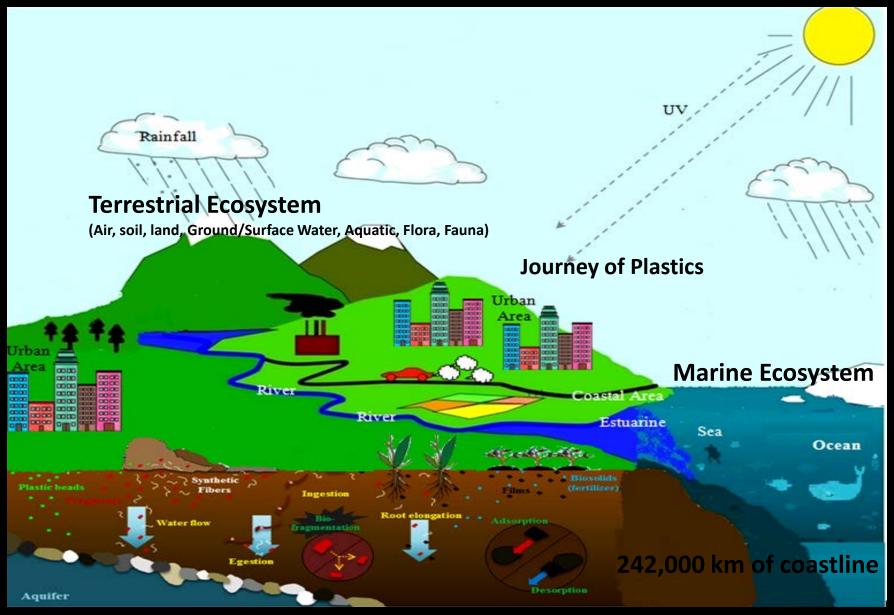
Source: Country reports, 3R Forum, 2013, 2014, 2015, 2016 and 2017; http://www.uncrd.or.jp/index.php?menu=389

- L. An average MSW generation rate of < 1 kilogram per person per day to > 1 kilogram per person per day (2030)
- 2. The proportion of plastic, is around 7.3 17.7% in South Asia with average collection rate < ranging from 50% to 70%
- 3. Type of plastic recycling (formal/ informal, single use/ other types) existing in the region is not known
- 4. Majority of plastic is unscientifically disposed

Impacts

- 1. Impacts on Terrestrial Ecosystem
- 2. Impacts on Aquatic & Marine Ecosystem
- 3. Health Impacts
- 4. Climate Change
- 5. Socio economic impacts

Impacts on Terrestrial Ecosystem



Impacts on Aquatic & Marine Ecosystem



Summary of Key Regulations in South Asia

- 1. Regulations on SWM in the region
- 2. Ban & restrictions on plastic bags & single use plastic
- 3. Market Based Instruments for Regulating Plastic Bags & single use plastic
- 4. Market based instruments on return, collection, recycling and disposal of plastic bags & single use plastic

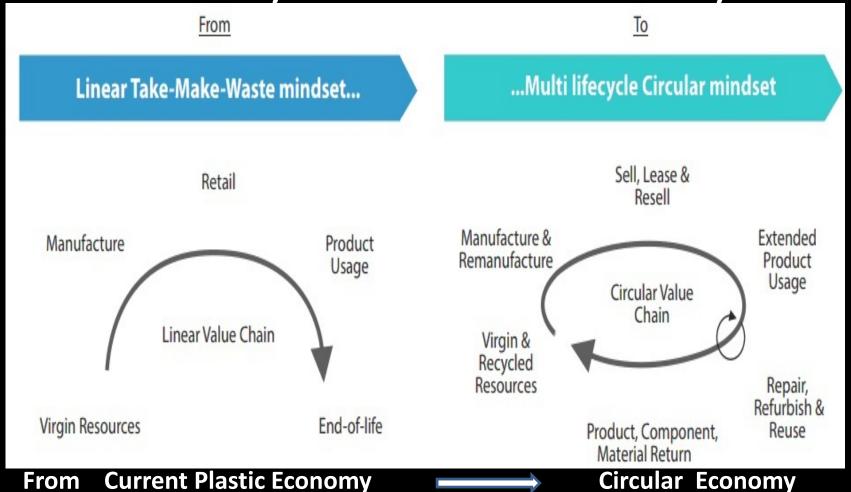
Key Gaps

- 1. Though impact of plastic pollution on air, water, soil, freshwater, health, aquatic & marine ecosystem & climate change is well recognized in the region, its quantification with respect to baseline is required at city, national and regional level to identify interventions related to technologies & mitigation and management strategies.
- 2. Further, in view of the significant income differences (coastal Vs. mainland) population, socio-economic impacts need to be assessed and addressed in the region. e.g. Coastal tourism a subset of cultural services in the natural capital is also affected as tourists seek to avoid beaches known to have high concentrations of plastics litter.

Major Challenges/ Enablers / Way Forward

- 1. Policy & Regulatory (Linear Vs. Circularity, **3Rs**, Coverage, Type of intervention e.g. ban on items such as single use, ban from landfill, statutory targets for recycling rate, EPR etc.)
- 2. Economic instrument e.g. resource tax,
- 3. Technology (Recycling Vs. WtE, Waste plastic sorting, technology for recycling mixed plastics, Thermosets, Alternate materials)
- 4. Knowledgebase, Data & Information (Baseline data across region; Impacts assessments across terrestrial, aquatic, marine ecosystem, health & socio economics; Human resources/ experts; Indicator monitoring; Capacity building; Sharing of best practices
- 5. Voluntary measures (Industry led market transforming interventions/ projects, better labeling and declarations on packaging, sustainability reporting SDG 12, 14)

Plastic Economy to Circular Economy & SDGs



Five SDGs (SDG 6, 11, 12, 14 and 15) are relevant to reducing the inputs and impacts of waste plastic on terrestrial & marine ecosystem. <u>Coverage</u>: sustainable management of water and sanitation; sustainable consumption and production; inclusive, safe, resilient and sustainable use of terrestrial & marine ecosystem while ensuring their protection, restoration & conservation.



Regional 3R Forum in Asia and the



1st Japan 2009

2nd Malaysi a 2010 3rd Singapor e 2011

4th Vietna m 2013 5th Indonesi a 2014

6th Maldive s 2015 7th South Australia 2016

8th India 2018

Tokyo 3R Statemen

Singapore Recommendation

Ha Noi 3R Declaration (2013-2023) Surabaya 3R Declaration

Male 3R Declaration

9th Thailand 2019

Upcoming 10th
The Russian
Federation 2020

Bangkok 3R Declaration Towards Prevention of Plastic Waste Pollution through 3R and Circular Economy



Adelaide 3R Declaration on Circular Economy

Indore 3R
Declaration on Clean
Water, Land, Air in
Cities

<u>Pollution through 3R and Circular Economy</u> (Adopted at the Ninth Regional 3R Forum in Asia, 4-6 March 2019, Bangkok, Thailand)

Upscale Reinforce Gaps in **Policy** → policies →actions existing laws transformation towards <u>&measures</u> and regulations circular economic Attach significance of utilization 3R and circular Innovative economy Environment solutions Corporate Social friendly bio-Responsibility economy (CSR) and Extended Effective plans and Promote multilayer Producer collaboration programmes Responsibility (EPR)

THANK YOU

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