



ISAP 2022

International Forum for Sustainable Asia and the Pacific

IGES
Institute for Global
Environmental Strategies

What Makes Reliable Data for Microplastics Policy?



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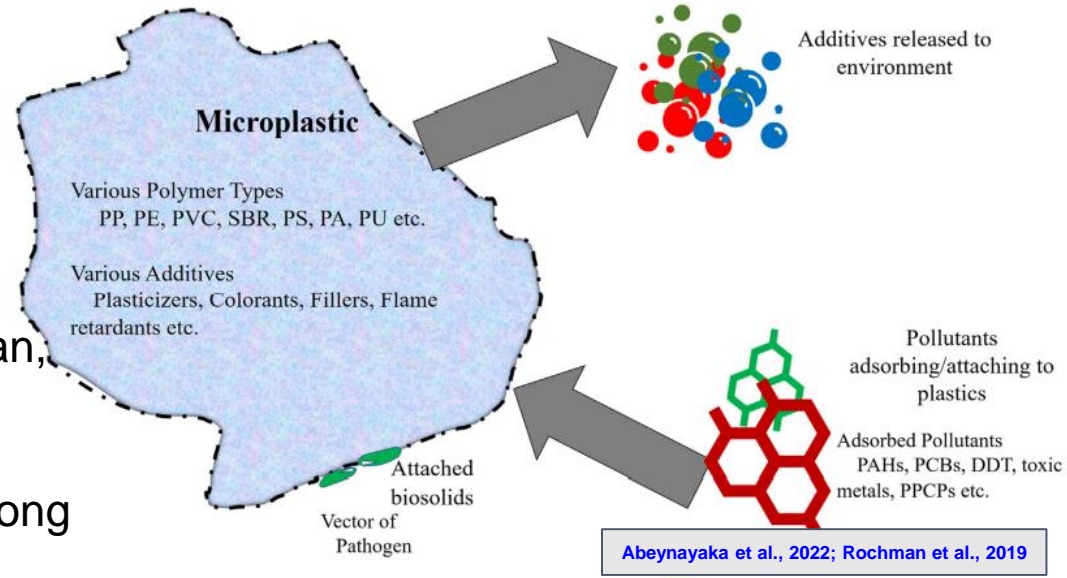


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Why Microplastics Data?

A. Microplastics (and nanoplastics)

- “Microplastic” is not just a small piece of plastic.
- (Emerging) Contaminant in ocean, freshwater, soil, food, drinking water, etc.
- It will be in the environment for long



B. Comparison of full life cycle impacts of plastics and alternatives

- International legally binding instrument on plastic pollution
- Plastic impacts integration into Life Cycle Assessment

C. Evidence based policies

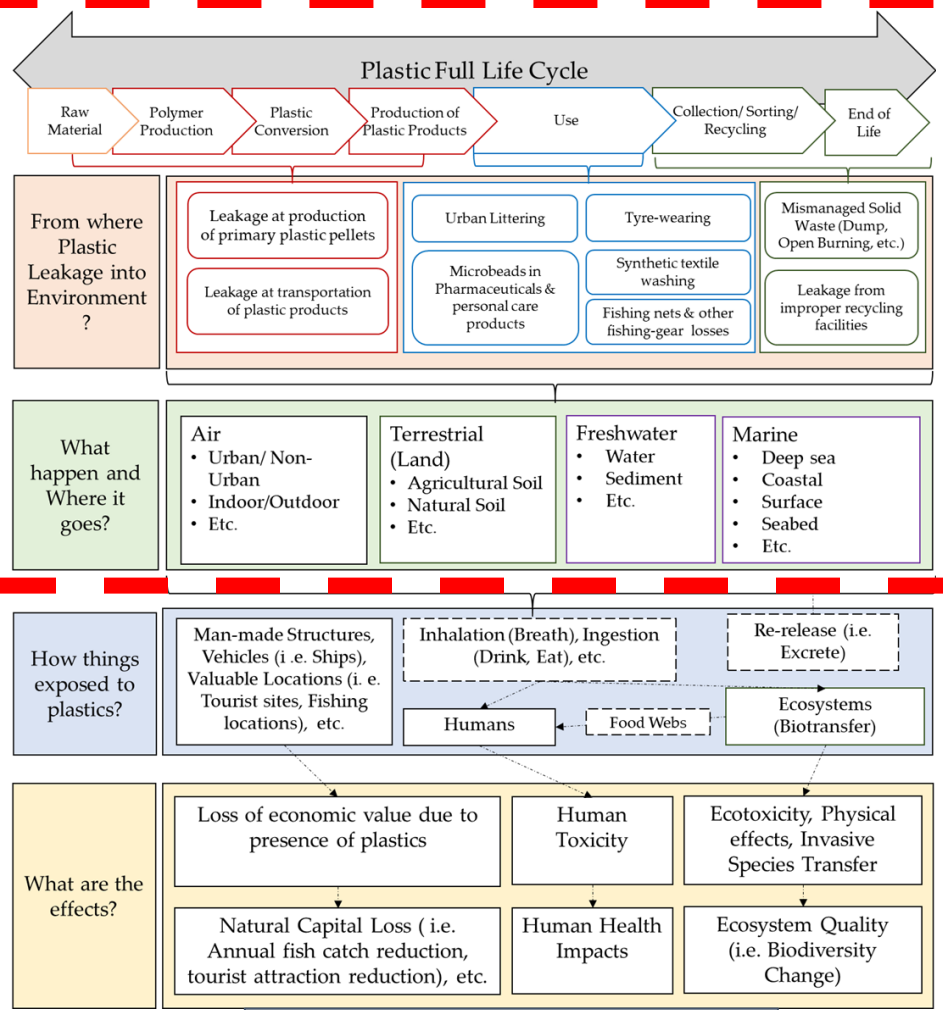
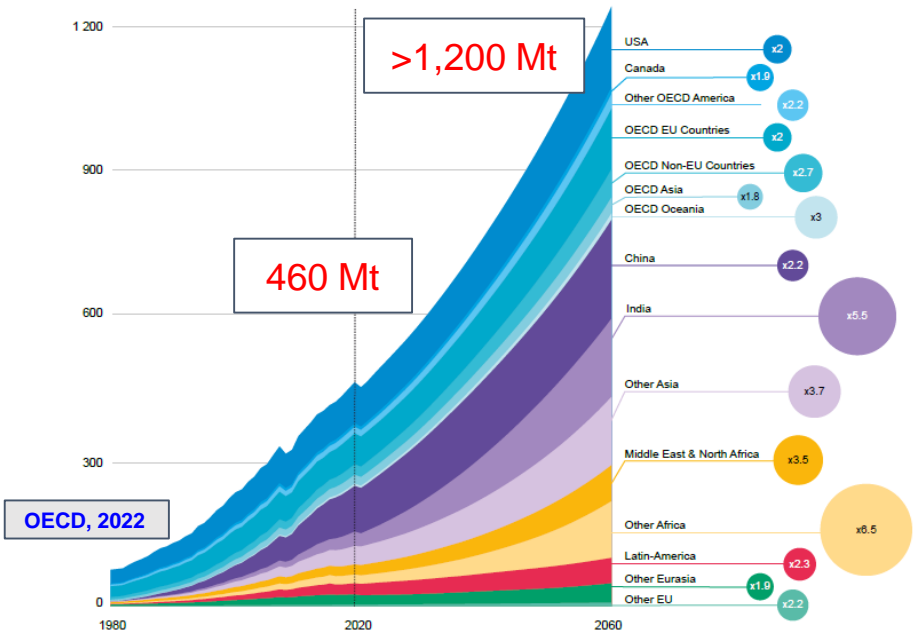
- Protect the human health
- Prevent environmental pollution



Microplastics (and nanoplastics)

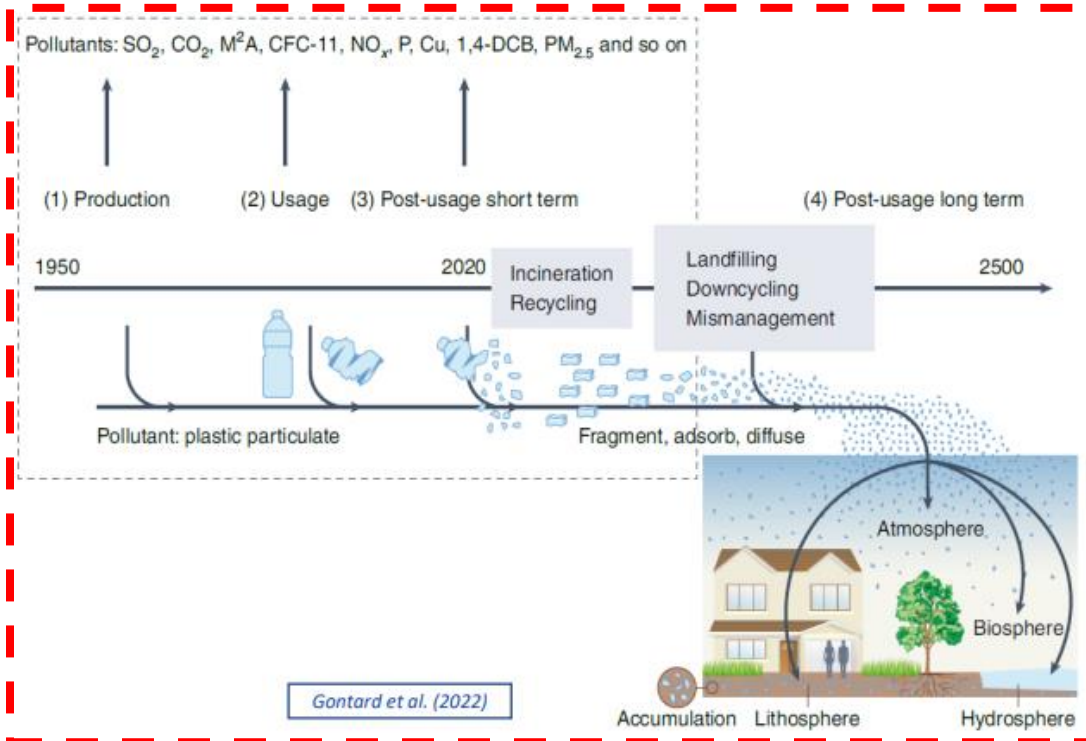
- Emerging Contaminant

- It is everywhere and can not be easily detected compared to macroplastics
- Microplastics keep generating - there is already plastic in use and in environment



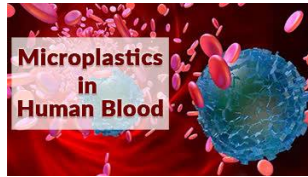
Microplastics Data for Life Cycle Impacts Assessment

- Comparison of full life cycle impacts of plastics and alternatives
- LCA as a scientific tool to support policy decisions (UNEA 5.2 - the full life cycle impacts)
- Present LCA do not consider microplastic impacts



Monitoring and Evidence Based Policy

- Monitoring
- Evidence based policy to
 - Protect human contamination/health
 - Prevent environmental pollution



Leslie et al., 2022

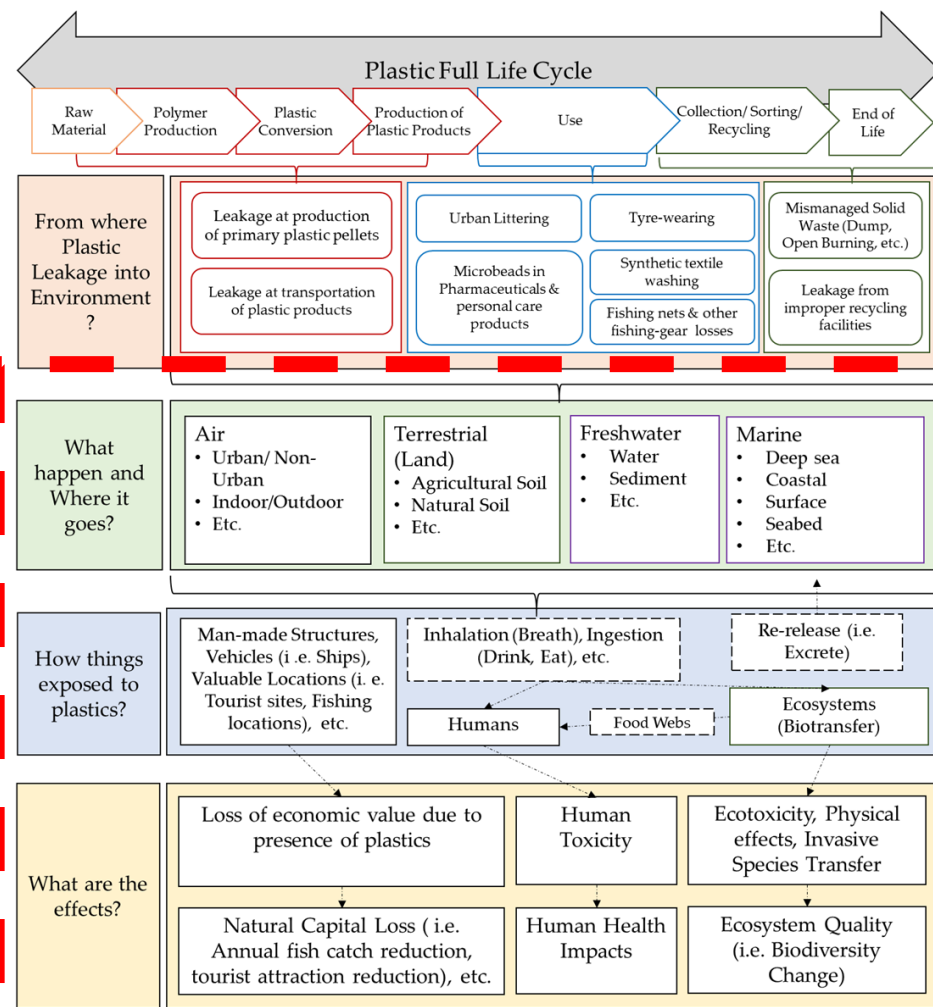
90 GESAMP UN environment programme
SOURCES, FATE AND EFFECTS MICROPLASTICS IN THE

Marine Litter 2010 →

Freshwater, Drinking Water ... 2015 →

UN@ environment programme
Health and Agriculture Department of the United States
MICROPLASTICS IN FOOD COMMODITIES
Supermarkets and its alter Microplastics Life Cycle Assess

Integration into LCA
FAO, 2020 →



Monitoring Microplastics in South Asia and Southeast Asia

- Diversity of data is equally important as the Quality and Quantity of data
- Our studies in SA and SEA
- Capacity building needs
 - Facilities
 - Training
 - Institutionalization
- Two tier training curriculum focussing monitoring and policies
 - Capacity building:
 - Policymakers, general public etc.
 - Technical staff capacity building
 - Monitoring programs inline with policy targets and vice versa



About the Special Issue

Plastic Pollution Inventories and Impact Assessments for Science-Based Policy

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ご清聴ありがとうございました。
Thank you very much for your attention.

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