



# A One Health Approach to Regulating Ocean Microplastics: Translating Advocacy into Implementation:

## Conclusion

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Side Event at APFSD 2022



**Marine Plastics Abatement (MPA)**  
School of Environment, Resources and Development (SERD)  
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The background of the slide is a photograph of a beach. In the foreground, there is a large, clear plastic bottle and some other debris. The beach is dark and pebbly, and the ocean is visible in the background under a cloudy sky.

# Session

01

The Ocean & Microplastics: One Health Approach

02

Global Plastics Outlook

03

Microplastic monitoring and surveys regarding plastics leakage

04

Tackling the Issue of Marine Plastic Litter from Ships



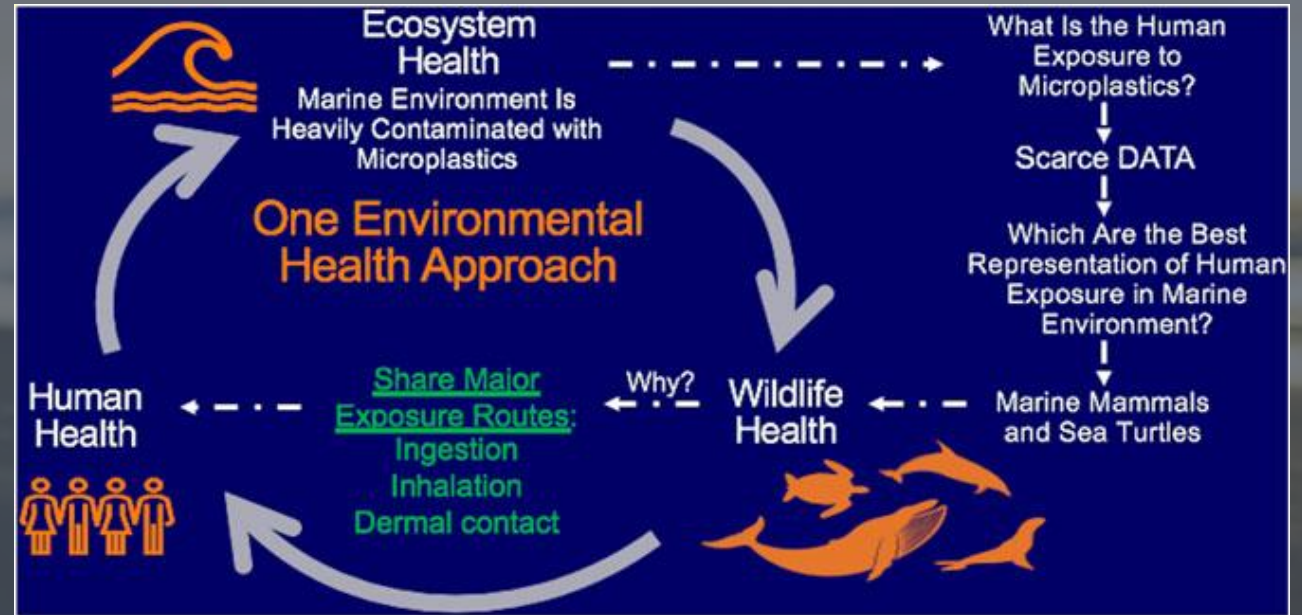
## Brief Summary

Scientific research on One Health is barely connected to the Ocean decade thematics

The Ocean decade document does not reflect the results of the ongoing scientific research

## 01 One Health & the Ocean

- Interdisciplinarity and inter-sectorality
- A full life cycle approach for microplastics

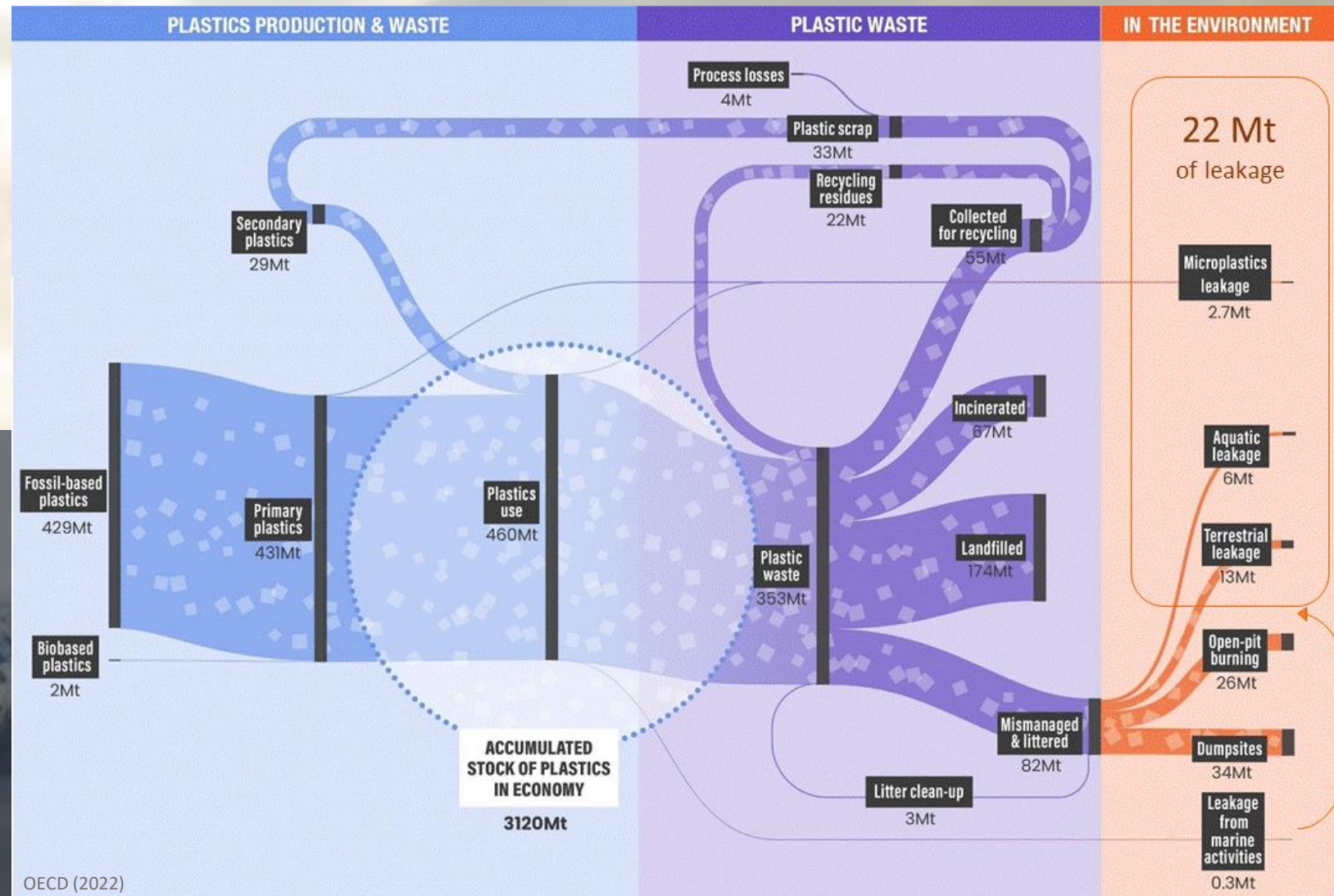


Prata et al. (2021) A One Health perspective of the impacts of microplastics on animal, human and environmental health, SC. of the Total Environment.

# Brief Summary

## 02 Global Plastics Outlook

- Rivers are a key pathway and sink for aquatic leakage

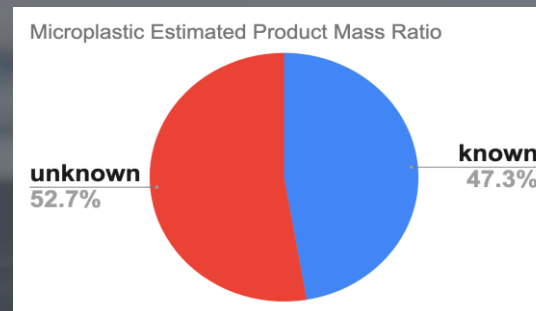
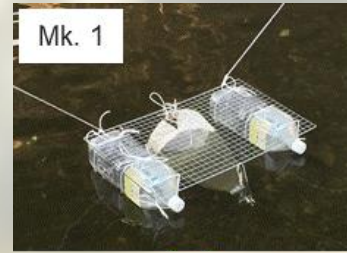




# Brief Summary

## 03 Microplastic monitoring and surveys regarding plastics leakage

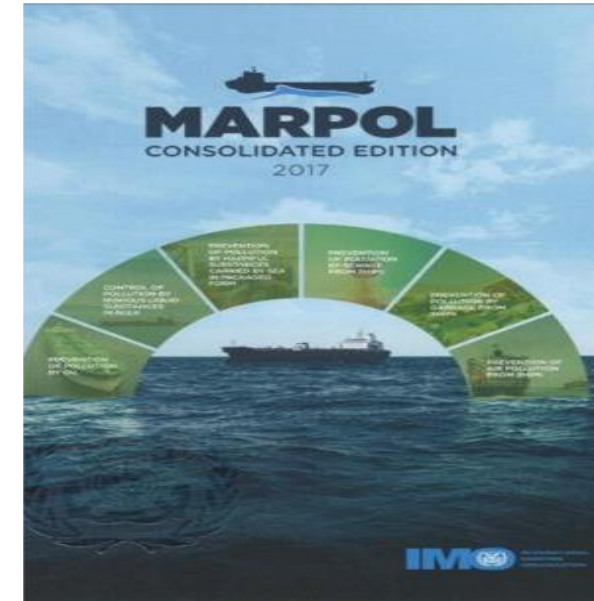
- Developed an affordable and versatile sampling device
- Collaborating with universities and plastics processing companies to analyze and identify samples in-depth



## Brief Summary

### 04 Tackling the Issue of Marine Plastic Litter from Ships

- challenges to tackle Marine Plastic Litter  
requires cross sectorial and intra/multi agencies  
cooperation with a high level of engagement





# Challenges and Future trends



- Local, regional, and international governance
- Effective management systems on the plastic litters
- Application of “Circular Economy”
- Capacity and Capability Development
  - Innovations and technologies
  - Human resources and new expertise
  - Transfer pollution controls into sustainable businesses



Plastic litter assessment by aerial drone visualization techniques with the experts of AIT's Geoinformatics Center (GIC)



Practical sessions on "Micro-plastic Investigations in Mangroves" of ED89.03 course module: Marine Ecosystems and Emerging Pollution



Hands-on experience on 'turning trash into cash by Precious Plastic Bangkok' (Upcycling Plastic Waste: The use of YOLO Extruder Machine)





**THANK YOU**