Global Partnership on Marine Litter

The role of IMDOS in supporting the Global Partnership on Marine Litter (GPML) Digital Platform

19 November 2021

Global Challenges & Solutions Needed

From **Duplication and lack of data and information**

→ To integrated Knowledge and Data

From **Lack of harmonization**

→ To promoting unified approaches

From **Lack of coordinated action**

→ To a common framework to develop and implement Action Plans and measure progress

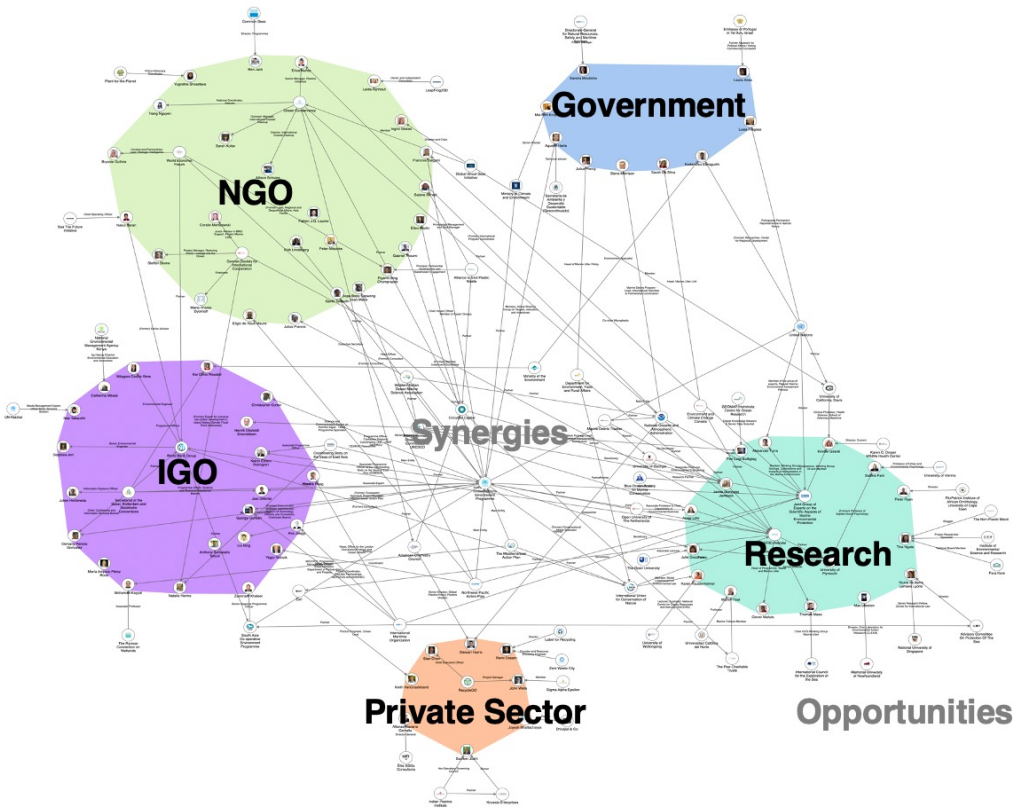
From **Lack of ad hoc and regular collaboration among Stakeholders**

→ To co-developed solutions

How?

The GPML is working with a wide range of Partners to create a common Digital Platform that brings together curated data, information, and innovative technologies and convenes stakeholders across sectors to give access to all.

Multi-stakeholder Engagement



GPML

Global Partnership on Marine Litter

Ramsar
Florida State University 1851
DHI
Interreg Atlantic Area
Clean Atlantic
World Economic Forum
Common Seas
Planet Tracker
Convention on Biological Diversity
ASCOBANS
UN environment programme
UN-HABITAT
D-WASTE waste management for everyone
esri
InforMEA
APEC
Quantis
GESAMP
NOAA
giz
Embassy of Portugal
vito
TSC
環境省 Ministry of the Environment Government of Japan
saicm
Alliance to End Plastic Waste
UNESCO
Ocean best practices
NOWPAP Northwest Pacific Action Plan
University of Wollongong Australia
Minderoo Foundation
WCMC
Ocean Conservancy
University of Plymouth
COBSEA
Department of State United States of America
ea
IBM
Duke University
GEMS Ocean
University of Leeds
BirdLife International
Akvo.
G·R·I·D Arendal
IMO International Maritime Organization
PEW
Global Alliance of Waste Pickers
IETC Technology for Environment
National Geographic
SEA circular
CMS
adenin
Open Universiteit
ACCOBAMS
GPA
FAO
International Whaling Commission
AlliedCrowds
Ghent University
Counter Measure for Plastic Free Rivers
GOOS

DATA COMMUNITIES

Communities of Practice

- Informal communities who meet regularly to discuss good practices or contribute to a project
- Three types
  - Geographic
  - Topical
  - Cross-cutting

Centers of Excellence

- Formal entities responsible for establishing good practices, contributing to data governance, and creating technical links to the GPML Digital Platform
- Two types
  - Geographic ("Regional Center")
  - Topical ("Research Center")

INDICATORS

- National Source Inventories on Marine Litter and Plastic Pollution
- Identifying and Recommending National source inventories & beyond
- Three-dimension indicators – economy, environment, social
- Working with 8+ countries to pilot the approach
- Join if interested!

NATIONAL SOURCE INVENTORIES & ACTION PLAN WORKFLOW

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
MAPPING AND BASELINE STUDY	**COORDINATING MECHANISM AND STAKEHOLDER ENGAGEMENT**	**INFORMATION SHARING**	**CREATE ACTION PLAN AND RELATED SCIENCE-POLICY PRODUCTS**	**REPORT ON ACTIONS AND MEASURE PROGRESS AND IMPACT**

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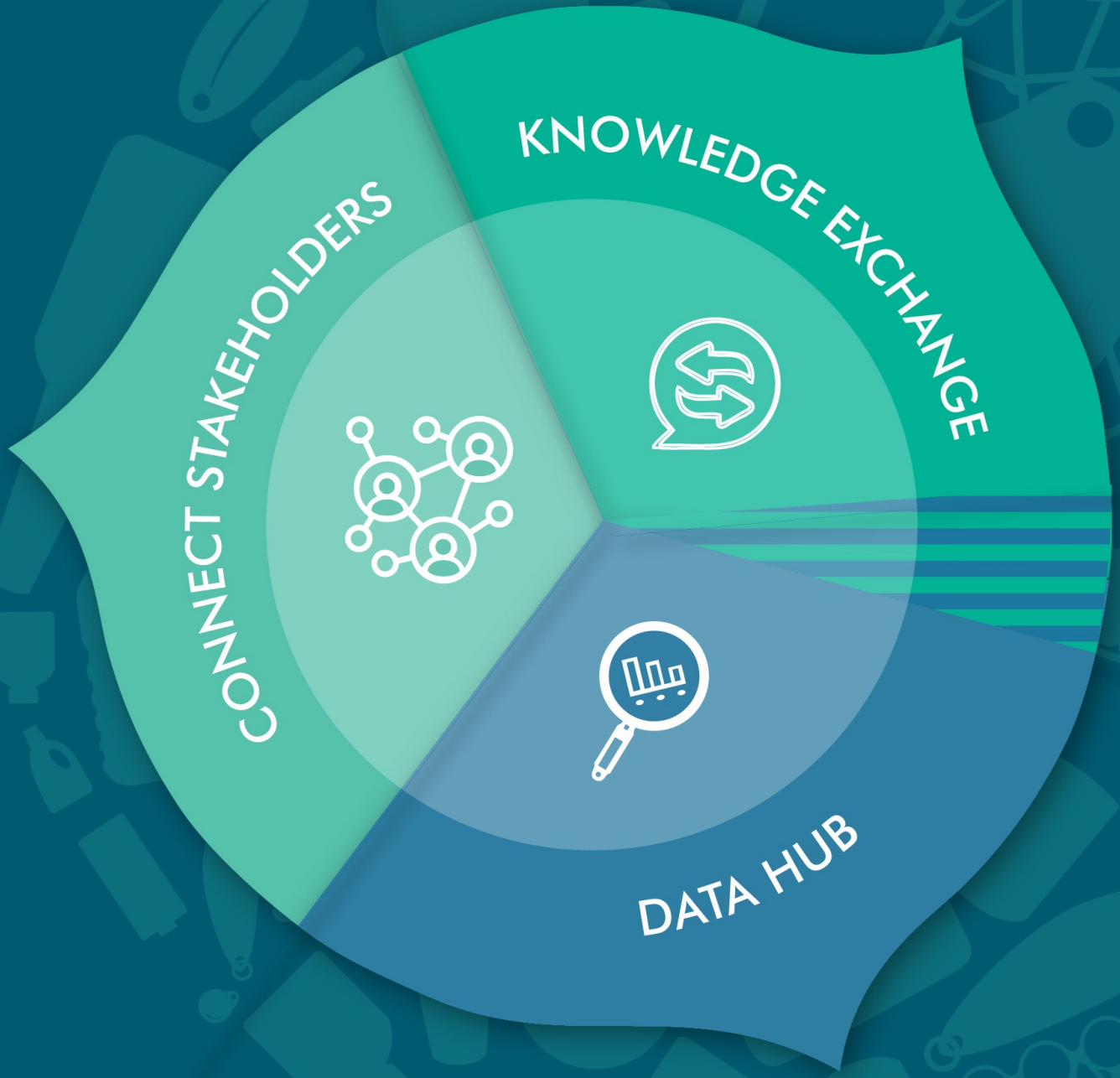

CONNECT STAKEHOLDERS
KNOWLEDGE EXCHANGE
DATA HUB

DATA HUB

Map & Layers

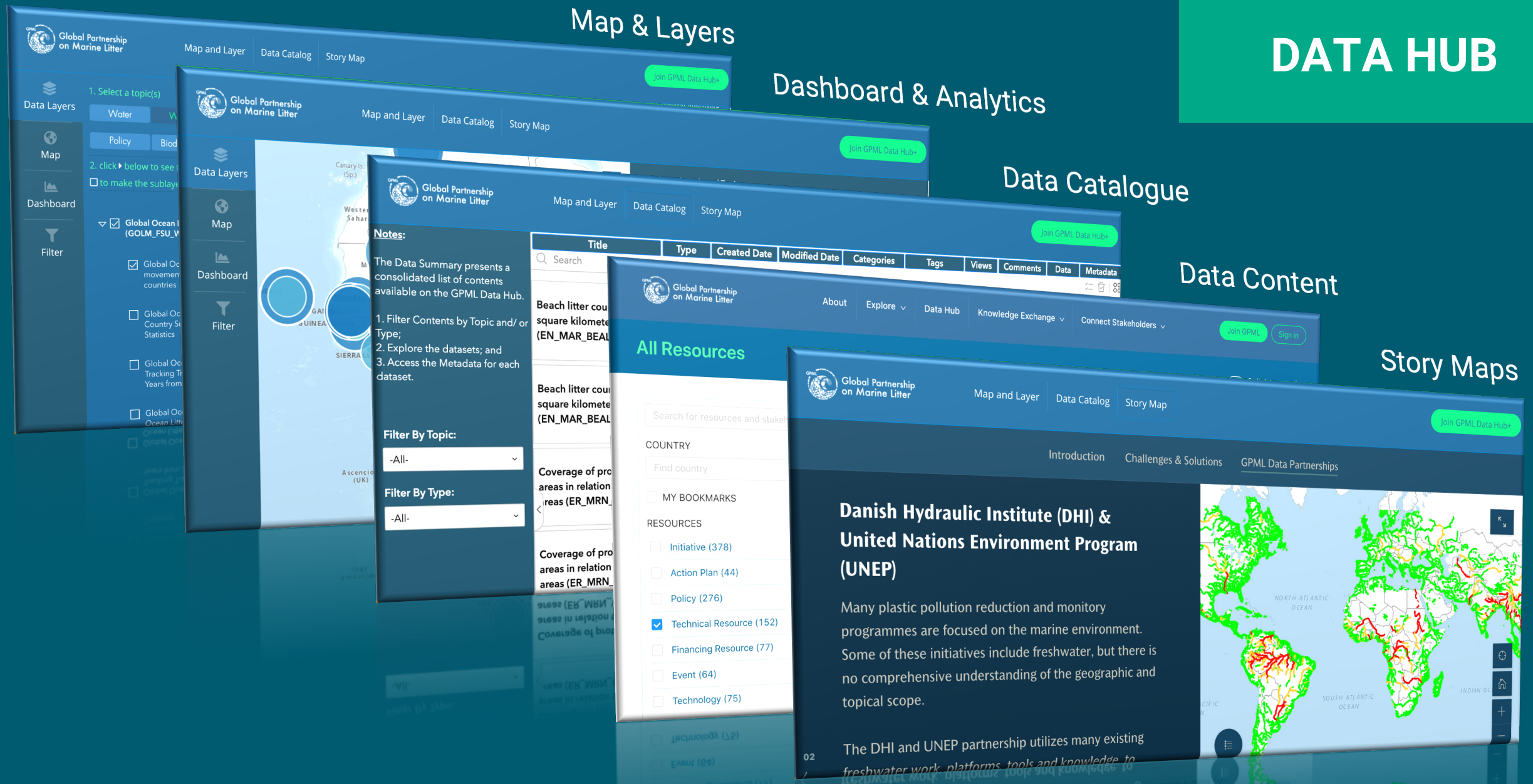
Dashboard & Analytics

Data Catalogue

Data Content

Story Maps

+ Data Communities



Operational GPML risk and warning system for macro plastic litter

Estimate macro plastic litter load along all major rivers for the next 9 months.

Support national authorities **identify and prioritize**:

- where the problem is
- where it is originating
- how to intervene

GLOBAL PARTNERSHIP ON MARINE LITTER
UN HABITAT
UNIVERSITY OF LEEDS
THE OCEAN CLEANUP
UN environment programme DHI
UNEP-DHI CENTRE

Tracking Marine Litter With a Global Ocean Model

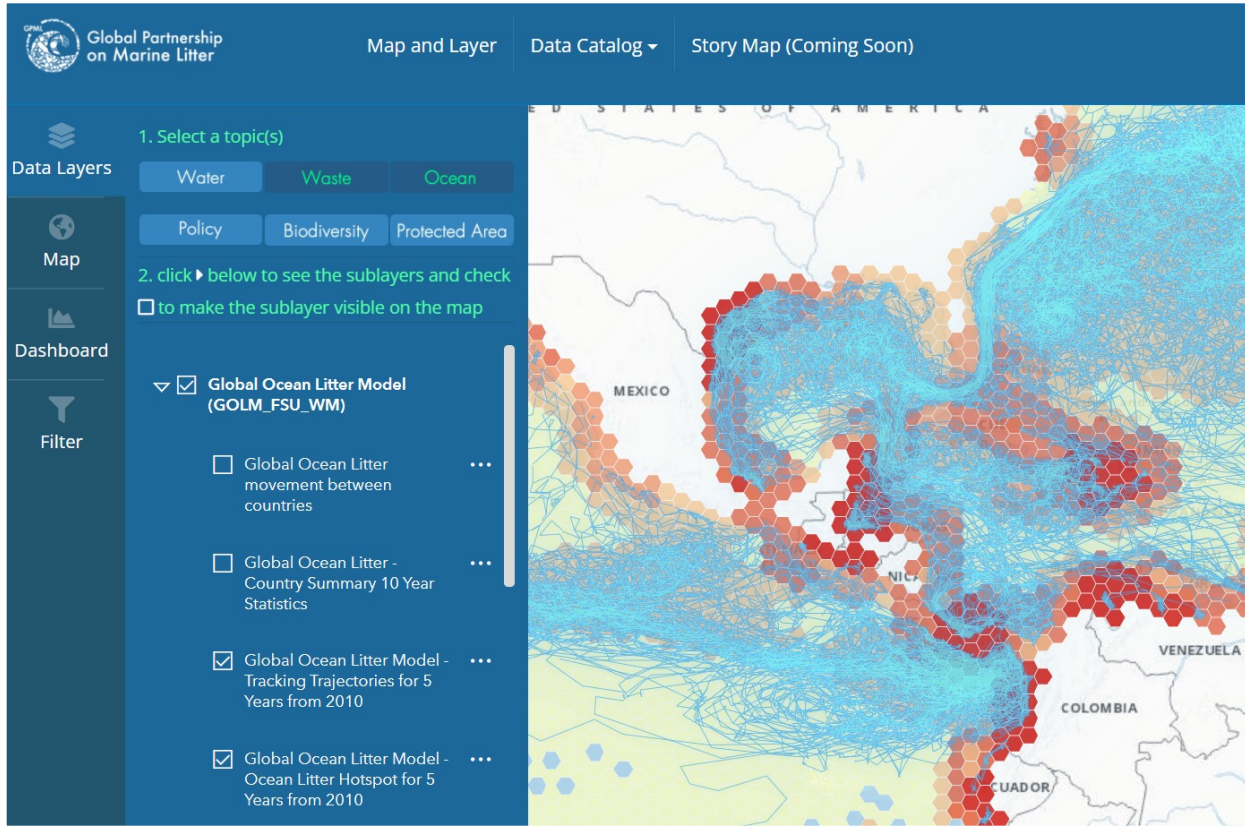
Where Does It Go? Where Does It Come From?

The global marine plastic waste tracking simulations are designed to address the following questions:

1. Where does the marine plastic waste go once released into the ocean?
2. Where does the marine plastic waste found on the coast come from?

Global statistics available from the GPML data hub

Current work: Development of a probabilistic atlas of stranding time and locations of marine litter originating from the Wider Caribbean Sea region to document a) the location and the type of plastics leaked in the environment, b) travel pathways as a function of seasons, c) where the plastic litter ends up, d) how useful is the model to address infrastructure gaps, and e) how can waste management be strengthened.

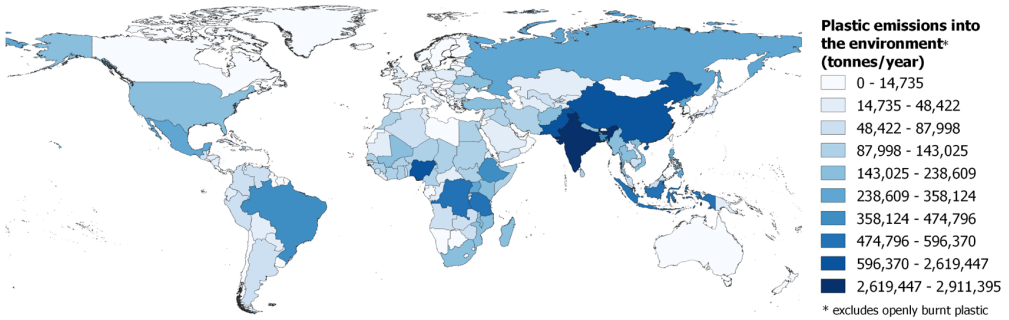


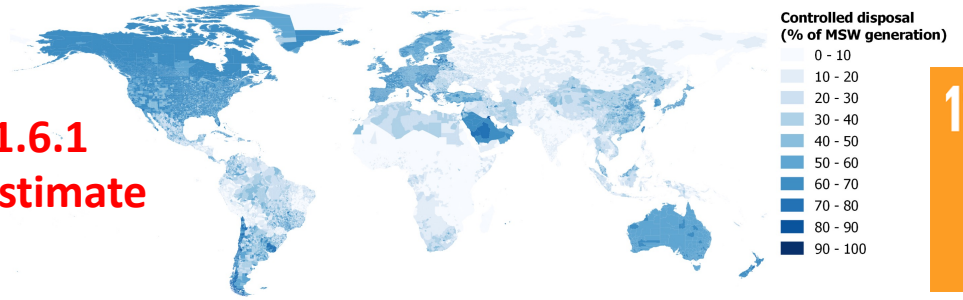
The global marine plastic waste tracking simulations include the following three components:

1. Particle seeding that represents realistically the input of the mismanaged plastic wastes (MPW) into the ocean.
2. High-resolution global ocean circulation **and** wind data.
3. State-of-the-art Lagrangian analysis tool (OceanParcels).

Global Partnership on Marine Litter

https://digital-gpmarinelitter.hub.arcgis.com/maps/gpml-community::marine-litter-hotspots-mlhs-uluh-wm/about

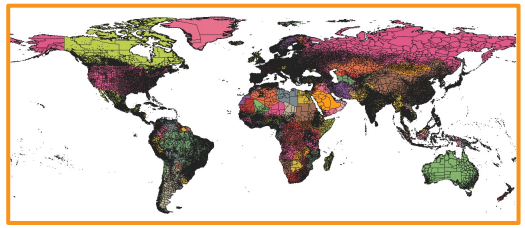




SDG11.6.1
Global Estimate

11 SUSTAINABLE CITIES AND COMMUNITIES

RANDOM FOREST



https://plasticpollution.leeds.ac.uk/toolkits/

BETA RELEASE

GPML Global Partnership on Marine Litter

UNIVERSITY OF LEEDS

UN HABITAT FOR A BETTER URBAN FUTURE

SPOT
Spatio-temporal quantification of plastic pollution origins and transportation

wasteaware

water @leeds

UNITED NATIONS UNIVERSITY

Thank you

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