

Monitoring for Global Policy

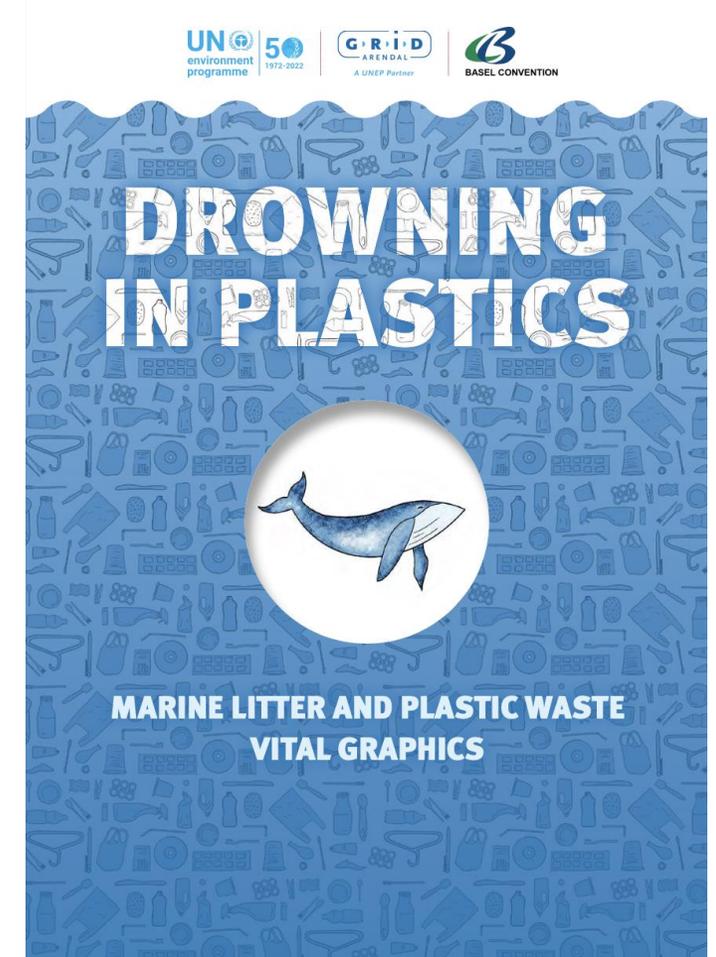
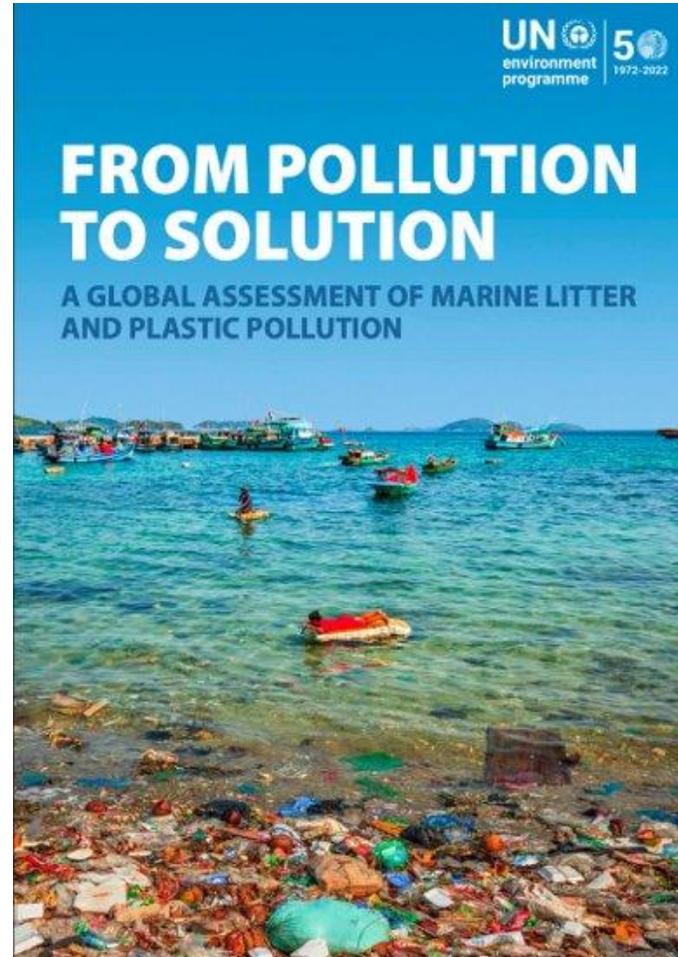


Global Partnership
on Marine Litter

Publications

Provides **evidence to enable** policymakers and the wider public to:

- comprehend the magnitude and severity of the effects and risks associated with marine litter and plastic pollution;
- identify gaps in knowledge;
- raise awareness of solutions;
- help stimulate global interventions to control and prevent marine litter and plastic pollution and to safeguard human and ecological health.



'From Pollution to Solution' – Key Findings

1. The amount of marine litter and plastic pollution has been growing rapidly. Emissions of plastic waste into aquatic ecosystems are projected to nearly triple by 2040 without meaningful action.
2. Marine litter and plastics present a serious threat to all marine life, while also influencing the climate.
3. Human health and well-being are at risk.
4. There are hidden costs for the global economy.
5. Marine litter and plastics are threat multipliers.
6. The main sources of marine litter and plastic pollution are land-based.
7. The movement and accumulation of marine litter and plastics occur over decades.
8. Technological advances and the growth of citizen science activities are improving detection of marine litter and plastic pollution, but consistency of measurements remains a challenge.
9. Plastic recycling rates are less than 10 per cent and plastics-related greenhouse gas emissions are significant, but some solutions are emerging.
10. Progress is being made at all levels, with a potential global instrument in sight.

Monitoring and Assessing Effectiveness of Global Policy

- Lack of assessing effectiveness and impact of policies and regulations due to **limited monitoring systems and/or data**
- A major need for existing monitoring programmes, concerns the development of **indicators for different policy measures**
- The majority of indicators are focused on downstream processes and impacts, rather than on **prevention** measures or their effectiveness.

Lack of Monitoring Systems and Data

There are **concerns around the monitoring and assessment** of plastics including microplastics:

- sampling biases of different field and laboratory techniques for identifying and determining the volume of microplastics in the environment
- intrinsic difficulties exist due to the high variability in the size, shape, colour, and degree of degradation of plastics

→ Without significant improvements in quality assurance and control protocols for sampling and analytical techniques, it will remain difficult to demonstrate the reliability and repeatability of published results.

'From Pollution to Solution' - Monitoring and Data (I)

Data and information being collected remain largely unconnected and fragmented.

There is a need to **streamline**:

- methodologies
- data flows
- indicator sets

There is also a need to **facilitate**:

- joint analyses
- unified definitions
- standards and formats
- well- developed infrastructures for data flow, storage and sharing

'From Pollution to Solution' - Monitoring and Data (II)

Urgent need for further improvements in **standardization, harmonization, and the interoperability** of datasets and platforms

A selection of data coordination, collection, repository and portal initiatives

Their geographical range, activities and application areas

		GEOGRAPHICAL RANGE	ACTIVITIES	APPLICATION AREA	INCLUDES CITIZEN SCIENCE
MARINE LITTER ACTION COORDINATION					
GPML	Global Partnership on Marine Litter	Worldwide			yes
GEOSS	Global Earth Observation System of Systems' Platform	Worldwide			-
-	Living Atlas of the World	Worldwide			yes
ODIS	IOC Ocean data and information system	Worldwide			-
ODP	Ocean Data Platform	Worldwide			yes
MDMAP	NOAA Marine Debris Monitoring and Assessment Project	US west coast, Worldwide			yes
MSFD	Marine Strategy Framework Directive - EMODnet	European waters			-
EMODnet	European Marine Observation and Data Network	European waters			-
SeaDataNet	Pan-European infrastructure for ocean & marine data management	European waters			-
DATA COLLECTION FRAMEWORKS					
TIDE	Trash Information and Data for Education and Solution	Worldwide			yes
-	LITTERBASE	Worldwide			yes
GGGI	Global Ghost Gear initiative - database and app	Worldwide			yes
-	Resource Watch	Worldwide			yes
MEDITS	International bottom trawl survey in the Mediterranean	Mediterranean			-
LARGE-SCALE DATA REPOSITORY/PORTAL INITIATIVES					
COASST	Coastal Observation and Seabird Survey Team - Marine Debris	US			yes
-	Deep-sea Debris Database - JAMSTEC*	Pacific & Indian Oceans			-
AMDI	Australian Marine Debris initiative database	Pacific, Oceania			yes
DOME	DOME (Marine Environment) data portal - an ICES data portal	European waters ¹			-
DATRAS	The Database of Trawl Surveys - an ICES data portal	European waters ¹			-
-	Marine LitterWatch	European waters			yes

ACTIVITIES²

- Data acquisition
- Analysis
- Collection/compilation
- Coordination

APPLICATION AREA²

- Beach
- Shoreline
- Water column
- Sea floor
- Biological - ingested plastic
- Inland water bodies

* Japan Agency for Marine-Earth Science and Technology

¹ Baltic Sea, Skagerrak, Kattegat, North Sea, English Channel, Celtic Sea, Irish Sea, Bay of Biscay and the eastern Atlantic from the Shetlands to Gibraltar

² Including but not limited to

Source: UNEP 2021.



Global Partnership on Marine Litter



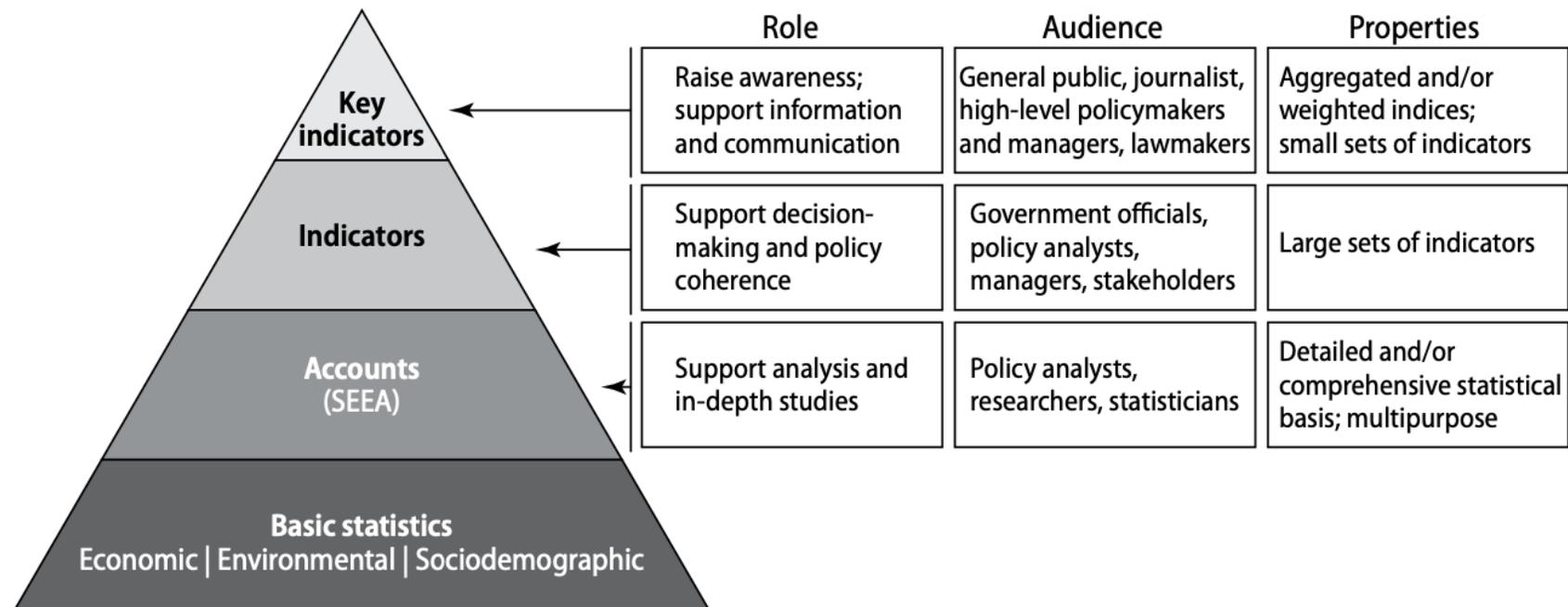
Illustrated by GRID-Arendal

'From Pollution to Solution' – Future Research Priorities

→ **Establishment of informatics and harmonized monitoring frameworks**, including standard methodologies for sampling, laboratory testing and data collection to quantify the fluxes and flows of plastics into the marine environment, the distribution of plastics and microplastics and the toxicology of microplastics and additives in the environment emanating from plastic waste, to be able to measure the effectiveness and impacts of different interventions and mitigation efforts

Indicators to Monitor Policy

Indicators assist in **understanding the state a focal area**. They can provide the **basis for setting policy targets, as well as measuring policy effectiveness** towards environmental and sustainable development targets by illustrating positive and negative trends.



The role of indicators and The System of Environmental Economic Accounting (SEEA)



Tracking Progress - National and Regional Action Plans

National indicators:

- Coordinate/guide action based on best available scientific knowledge
- Identify gaps & priority actions
- Facilitate target setting & measuring progress

Harmonized indicators:

- Metrics that are comparable across countries & regions
- Metrics that are consistent over time

Steps Towards a Global Indicator Framework

The approach to developing the recommended indicators is based on three phases of:

- 1. Consolidation** – use existing indicator frameworks of relevance to the life cycle of plastics, including global sources, and disaggregate plastics data.
- 2. Geographic expansion** – consult, test and assist all countries to implement the base, complemented by additional data sets collected at the national level.
- 3. Improved monitoring of effectiveness of broader holistic and integrated policy measures**, including the three planetary crises of climate change, biodiversity loss and pollution, seeking to reduce the stresses on the environment resulting from excessive use of natural resources and the leakage of residuals into the environment.

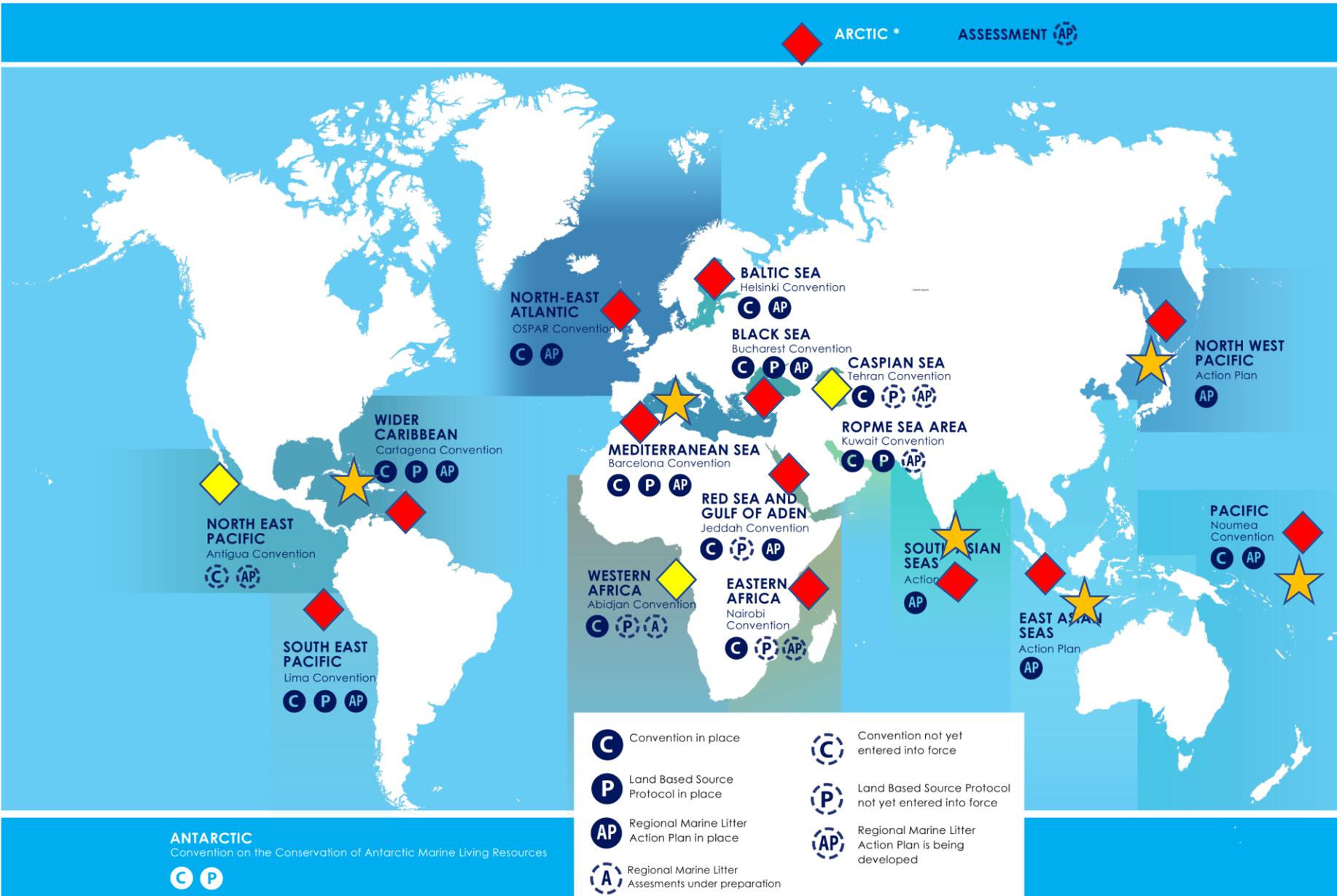
National Source Inventory Approach



- University of Wollongong: Concept development and indicator recommendation
- UN-Habitat: waste statistics, including municipal waste flows, major leakage points
- UNEP:
 - legislation review and policy support
 - monitoring of freshwater, coastal and marine waters and pilot testing
 - Harmonize methodologies and models
 - Knowledge management
 - Freshwater risk models

The objective is to produce a comprehensive and evidence-based National Action Plan to support and guide countries towards eliminating ML & plastic pollution.

Global and Regional Action



UNEA and AHEG-4

◆ 13 Regional Action Plans on Marine Litter

◆ 3 Draft Regional Action Plans

★ 5-6 Regional nodes – Global Partnership on Marine Litter

Ongoing: National source inventories pilots to guide action plan development

Capacity Development



Massive Open Online Course

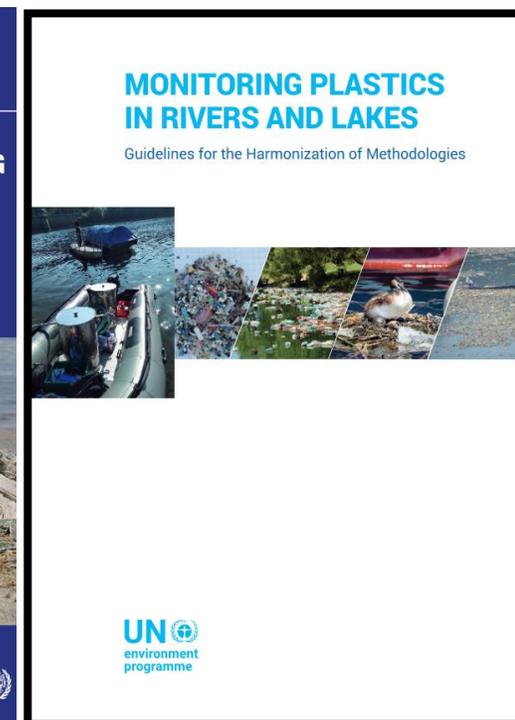
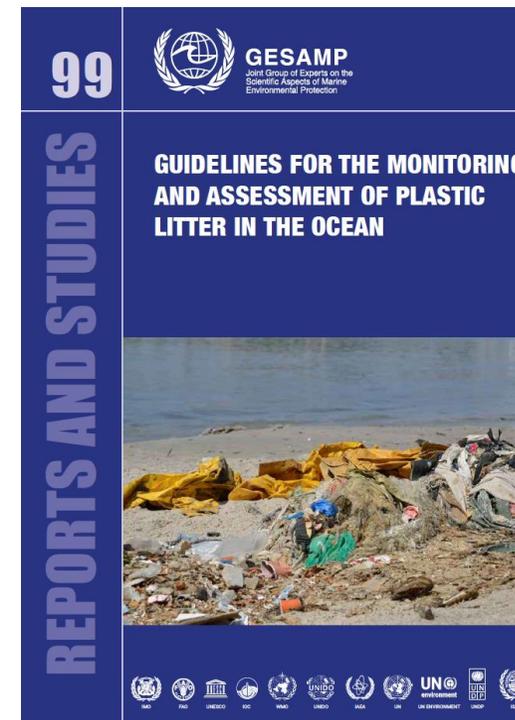
- 30,000 registered students - 54+ countries, 10 languages

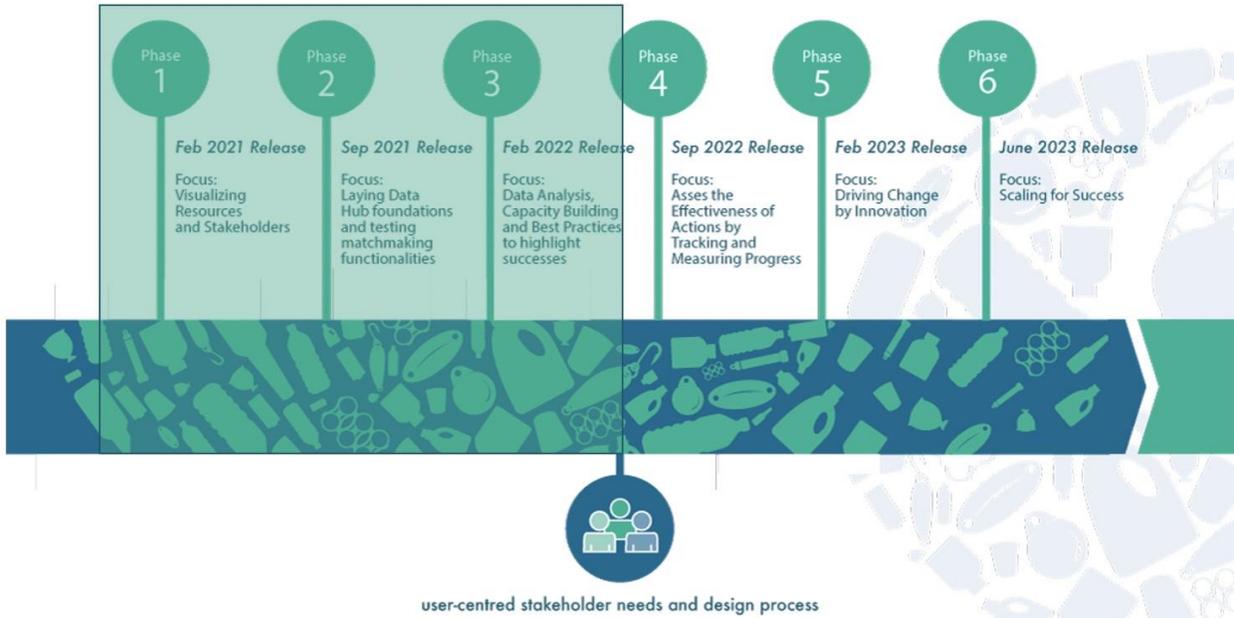
Harmonizing Monitoring & Assessment

- Training of Trainers
- National training
- Baseline setting & brand audits

Application of monitoring guidelines through Pilot approaches in collaboration with countries

Masterclasses on monitoring and assessment and Intergovernmental Negotiating Committee (UNEA resolution 5/14)





What have we achieved?

In numbers the GPML Digital Platform has brought together:

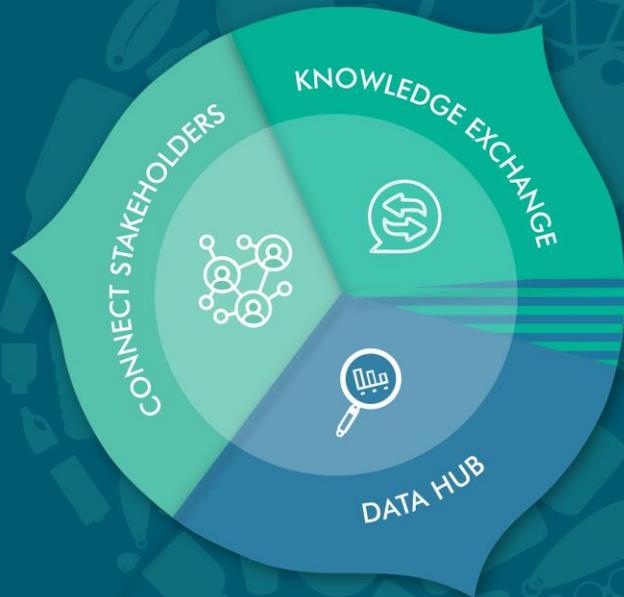
1614 Resources

247 Data sets

40+ Partners

1636 GPML Network

57 Action Plans



Workspace & Action Plans Workflow

Major Challenges:

- One of the main challenges is **fragmented funding**, combined with the need for continuous risk determination. Therefore, **scientific risk assessments** that target **knowledge transfer and capacity building** towards the most pertinent pollution issues are needed;
- **Robust financial structures and long-term budgetary commitments** are needed to facilitate science that effectively addresses marine pollution and to understand the effectiveness of actions taken with regard to complex ecosystem interactions and already prevailing pollution loads.
- Equitable access to ways to tackle pollution requires **expanding capacity** in developing countries. For example, the waste and wastewater management infrastructure in developing and emerging economies may not be adequate to deal with the increasing production and consumption of plastic and production of wastewater.
- Another topic that deserves further consideration is **effective science-policy dialogue**, especially as related to the implementation of science-based and adaptive management.

UNEA 5.2 calls for development of international legally binding instrument on plastic pollution including in the marine environment (UNEA res. 5/14)

Convene an **intergovernmental negotiating committee (INC)**:

- Starting work during the second half of 2022
- Convene a multi-stakeholder forum at INC-1 to exchange information
- Completing its work by the end of 2024
- Convene a diplomatic conference of plenipotentiaries

UNEP convened an **ad hoc open-ended working group (OEWG)**
30 May to 1 June 2022 to prepare for the work of the INC



Continued work on plastic pollution (para 14 and 15 of UNEA resolution 5/14)

Advance the work of the [Global Partnership on Marine Litter](#), while strengthening **scientific, technical and technological knowledge with regard to plastic pollution, including on methodologies for monitoring, and sharing available scientific and other relevant data and information;**

Calls upon all MS to continue and step up activities and **adopt voluntary measures** to combat plastic pollution, including measures related to sustainable consumption and production, which may include circular economy approaches, and **developing and implementing national action plans**, while fostering international action and initiatives under respective national regulatory frameworks, and also on a voluntary basis to **provide statistical information on environmentally sound management of plastic waste**, as appropriate, taking into account their national circumstances;

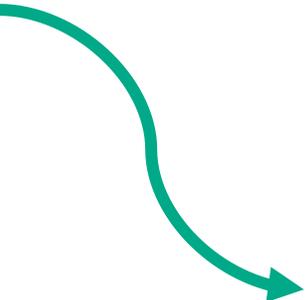
- **Coordination of methodologies**
- **Coordination of action plan approaches including indicator framework**

Seventh International Marine Debris Conference (7IMDC)



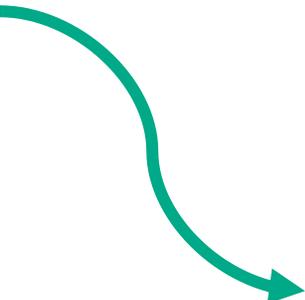
INTERNATIONAL
MARINE DEBRIS CONFERENCE

MARCH 2011
HONOLULU, HAWAI'I
USA



Innovation. Collaboration. Action.

MARCH 2018
SAN DIEGO, CALIFORNIA
USA



7TH INTERNATIONAL
**MARINE DEBRIS
CONFERENCE**
18th - 23rd September 2022
BUSAN, REPUBLIC OF KOREA



Global Partnership
on Marine Litter

www.7imdc.org





Global Partnership
on Marine Litter

Thank you.

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