



Combating marine litter and microplastics

Opportunities and options to strengthen and/or coordinate relevant legislative frameworks

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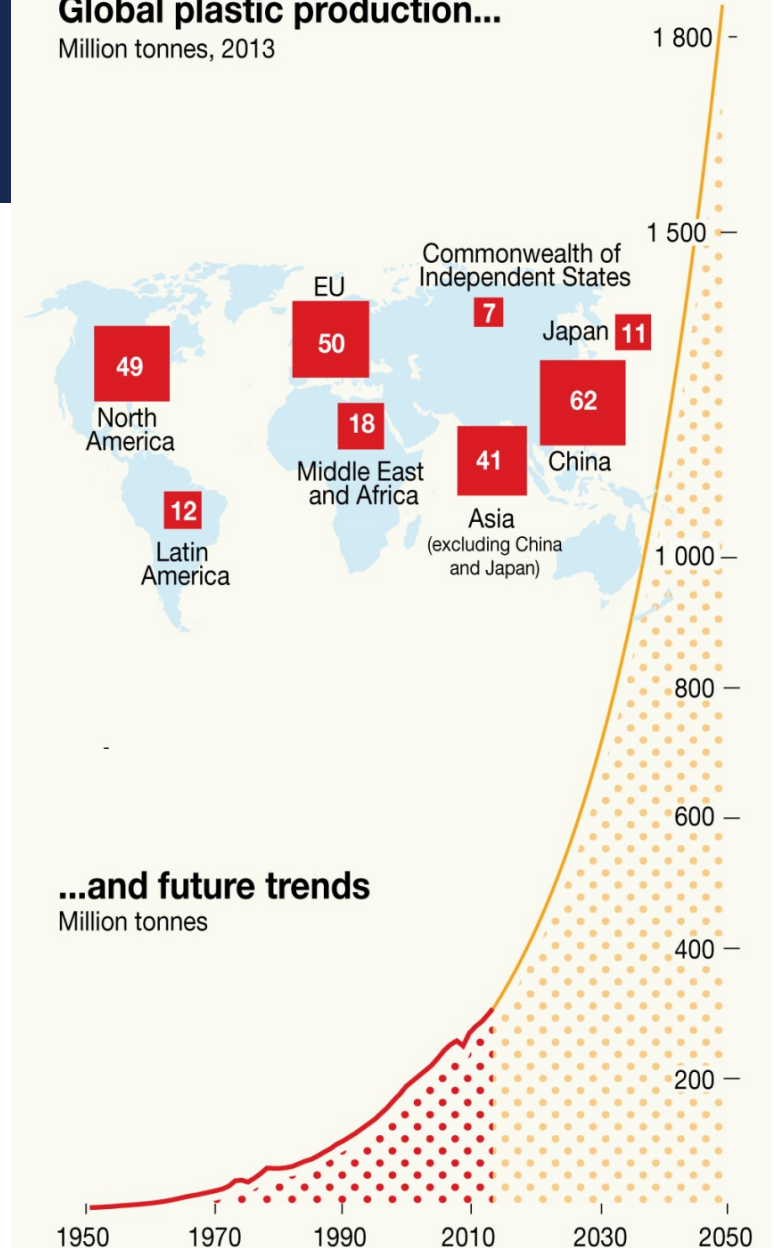


Introduction – Plastics

- Since their widespread introduction in the mid-1950s, the production and development of plastics has expanded dramatically
- **8,300 million metric tons (Mt)** of virgin plastics have been produced to date
- Plastic production: more than 322 Mt in 2015 (an increase of > 50% from 204 in 2002) – 2016 – **335 Mt**
- 6,300 Mt of plastic waste has been generated as of 2015
- Of this waste, **9%** has been recycled, **12%** incinerated, and **79%** has accumulated in landfills or the natural environment.
- 12,000 Mt of plastic waste will be in landfills or in the natural environment by 2050 under current production and waste management trends

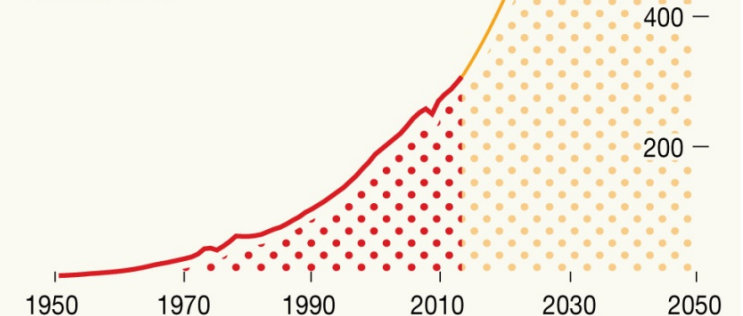
Global plastic production...

Million tonnes, 2013



...and future trends

Million tonnes



Source: Ryan, A Brief History of Marine Litter Research, in M. Bergmann, L. Gutow, M. Klages (Eds.), Marine Anthropogenic Litter, Berlin Springer, 2015; Plastics Europe

Microplastics – where do we find it?



- 259 bottles of water from 11 brands across 9 countries (China, Brazil, India, Indonesia, Mexico, Lebanon, Kenya, Thailand and the US.
- Only 17 free from plastic, on average 325 pieces of microplastics (polypropylene, nylon etc. Highest 5,230)
- Tap water, sea salt, beer (e.g. Germany and US), honey, fish and bivalves
- Arctic: **12,000 microplastic particles/liter of sea ice (2018)**, Study from 2015 – **95% fibers**
- European shellfish consumers can ingest 11,000 microplastics per year (Cauwenberghe et al 2014)
- Nano plastics? Transport across cell membranes

International Legal Framework: Pollution

- **United Nations Convention on the Law of the Sea (UNCLOS)**, 1982: General obligation on the States to protect and preserve marine environment – calls to address land-based sources of pollution as well as pollution from the ships.
- **International Convention for the Prevention of Pollution from Ships (MARPOL)**, 1973/1978: regulations aimed at preventing and minimizing pollution from ships, both accidental pollution and that occurring during routine operations -> **Annex V of MARPOL (2013)**, addresses ocean-based litter pollution and prohibits the discharge of all plastics from ships.
- **Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention)**, 1972: Dumping of plastics is prohibited.



Photo: South Korea, Aaron Vuola, 2017

International Legal Framework: Other instruments

Other instruments that have relevance to marine litter:

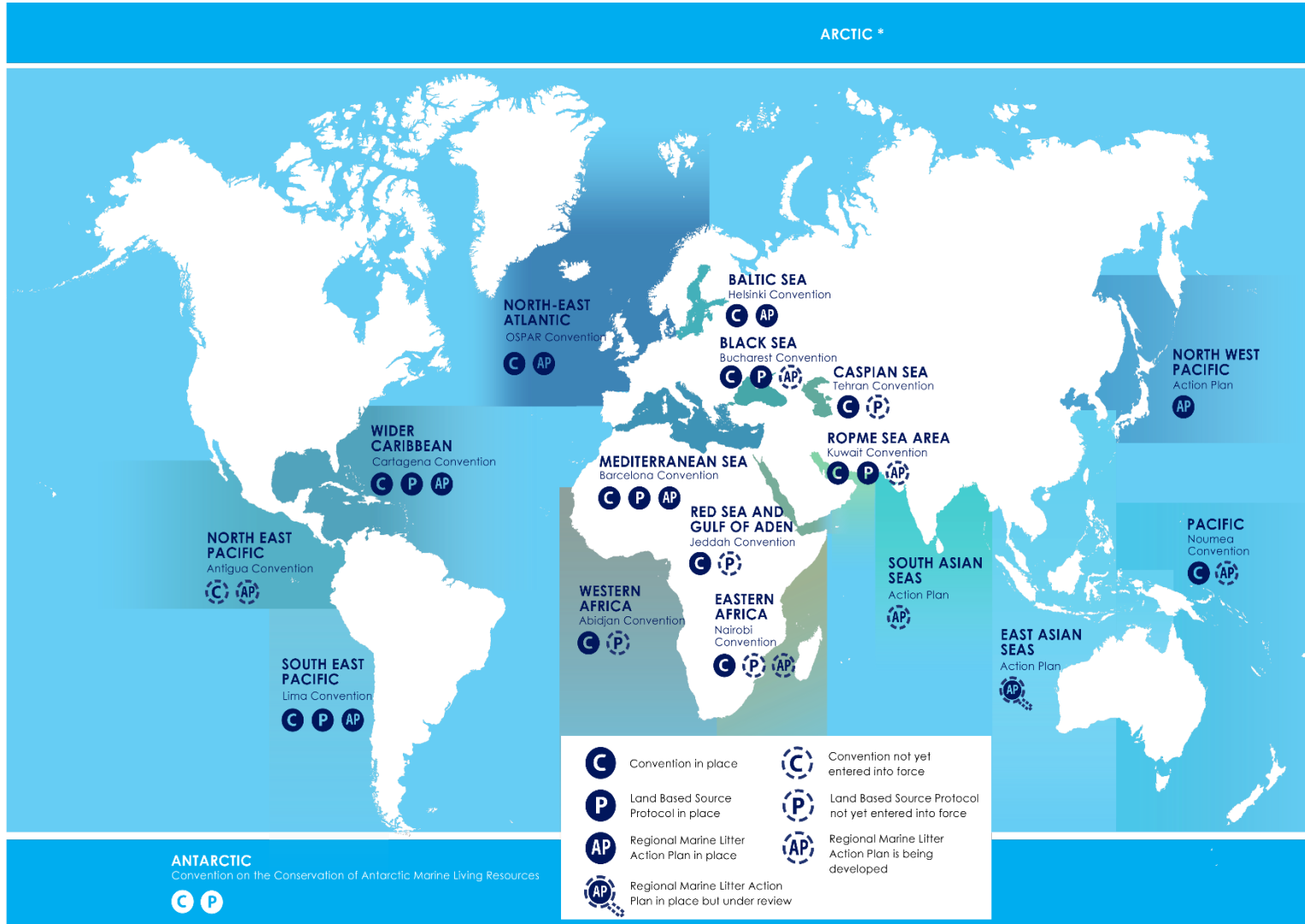
Chemicals and waste oriented agreements:

- **The Stockholm Convention** on Persistent Organic Pollutants
- **The Basel Convention** on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal

Biodiversity and species oriented agreements:

- **The Convention on Biological Diversity (CBD)**
- The Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (**United Nations Fish Stocks Agreement**).

International Legal Framework: Regional instruments – Marine Litter Action Plans



International Legal Framework – Soft Instruments

- **Declaration on Environment and Development:** Adopted at the 1992 UN Conference “Rio Earth Summit” - Agenda 21
- **Global Programme of Action (GPA)** for the Protection of the Marine Environment from Land-based Activities (1995)
 - Global Partnership for Marine Litter (GPML) (2012)
- **Food and Agricultural Organization of the United Nations (FAO)** Code of Conduct for Responsible Fisheries (1995)
- **The Future We Want:** Adopted at the 2012 UN Conference on Sustainable Development (“Rio+20”) – launch of the GPML
- **SAMOA Pathway** (2014)



International Legal Framework: Soft Instruments cntd.

- **Sustainable Development Goals (10/2015)** - Agenda 2030 for Sustainable Development:
 - Goal 14 seeks to conserve and sustainably use the oceans, seas, and marine resources for sustainable development, **and explicitly addresses marine debris.**
 - 14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution
- **United Nations General Assembly Resolution 235 (12/2015)** - Resolution on Oceans and the Law of the Sea, addresses marine debris in many ways, including urging States to adopt national and **regional strategies**, incentives, and infrastructure



What is the GPA?

- The Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities
- Adopted in 1995, it is a voluntary, action-oriented, intergovernmental programme, led by UN Environment, to prevent the degradation of the marine environment from land-based activities
- Brings together Governments, private sector actors, NGOs, and the scientific community to discuss solutions and catalyze action



Global Partnership on Marine Litter (GPML):

- Launched in Rio+20, June 2012 to protect human health and the environment by the reduction and management of ML
- Stand alone resolutions on marine litter and microplastics adopted both at all United Nations Environmental Assemblies (UNEA 1/6, 2/11 and 3/7) -> preparations for UNEA-4
- Voluntary multi-stakeholder partnership ~ 100+ partners, many networks in their own right (African Marine Waste Network, Clean Europe Network etc.)
- Help countries reach their targets related to Sustainable Development Goal target 14.1



Activities: UNEA Resolutions Marine Litter and Microplastics:

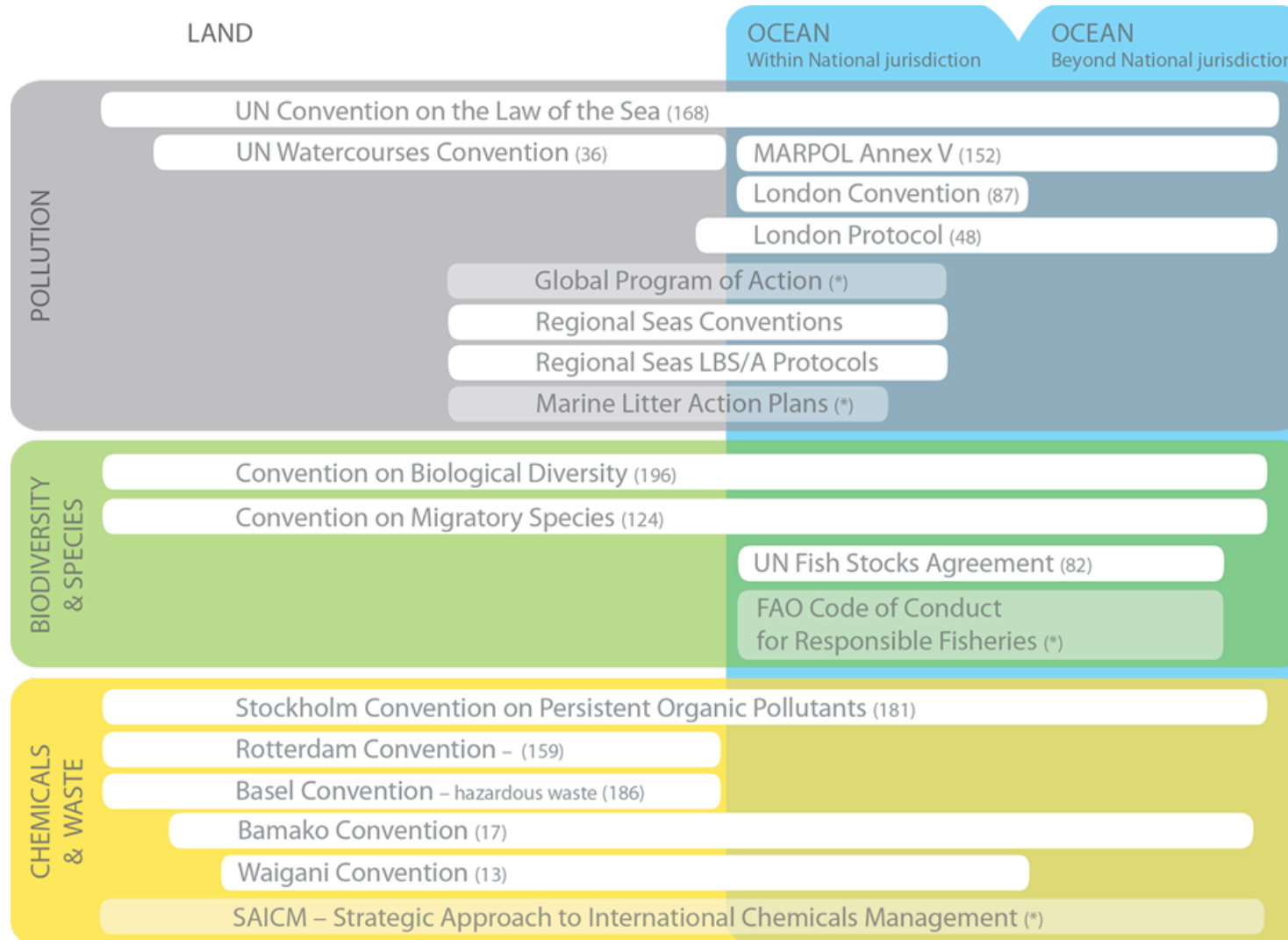
- Requested UNEP to provide **support to the development of marine litter action plans** upon request by countries
- State of knowledge
- Requested **assessment of the effectiveness of relevant international, regional and sub-regional governance strategies and approaches** to combat marine plastic litter and microplastics and **identify gaps and options** for addressing them (→ UNEA-3)
- Establishment of **public-private partnerships**, development of **campaigns** for awareness-raising, prevention and clean-up
- Encouraged product manufacturers to consider the lifecycle environmental impacts of products containing **microbeads and compostable polymers**

Activities: Knowledge Generation: Marine Plastic Debris and Microplastics – policy relevant recommendations



- Phase out of microbeads
- Drastic reduction/ban of **single-use plastics**
- Short-term: waste management, **long-term: upstream reduction**
- ‘Biodegradable’ will NOT decrease ML internationally
agreed definition of biodegradability (marine env.)
- harmonization and **standardization** of methods
- Gaps/solutions for governance frameworks

International Legal Framework - Overview



An Assessment of the effectiveness of relevant international, regional and sub-regional instruments and frameworks was submitted to UNEA-3 as an information document!

Conclusion

Current governance strategies and approaches
provide a fragmented approach that does not
adequately address
marine litter and microplastics



Options

OPTION 1 Maintain Status Quo

- Strengthen implementation of existing instruments
- Continue current efforts

OPTION 2 Revise and Strengthen existing framework

- Bring industry into the solution
- Expand the mandate of an existing international body to include the coordination of existing institutions
- Strengthen existing measures
- Revise existing instruments such as the Honolulu Strategy
- Adopt a voluntary agreement on marine biodiversity

OPTION 3 New global architecture with multilayered governance approach

- Establish a new international legally binding architecture.
- Take phased approach:
 - Phase I: Develop voluntary measures (same as Option 2)
 - Phase II: Develop a binding agreement

Example: Implementation of the Marine Litter and Micro Plastics Resolution

Operative Paragraph 10

Ad-Hoc Open-Ended Experts Group (May & November):

- ✓ barriers to combating marine litter and microplastics,
- ✓ Identify response options, including actions and innovative approaches, and voluntary and legally binding governance strategies and approaches;
- ✓ Identify environmental, social and economic costs and examine the feasibility and effectiveness of different response options;
- ✓ Identify potential options for continued work

Operative Paragraph 9

Analysis of voluntary commitments

Operative Paragraph 7

- Expansion of the Global Partnership on Marine Litter
- Development of six new Regional Action Plans
- Harmonization of monitoring methodologies for marine litter

Operative Paragraph 11

Progress report on implementation of marine litter resolutions

Thank you for your attention!

Questions?

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