



Plastic pollution, rivers&climate change

Interreg
Baltic Sea Region



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CIRCULAR ECONOMY

BALTIPLAST

Coalition
Clean Baltic

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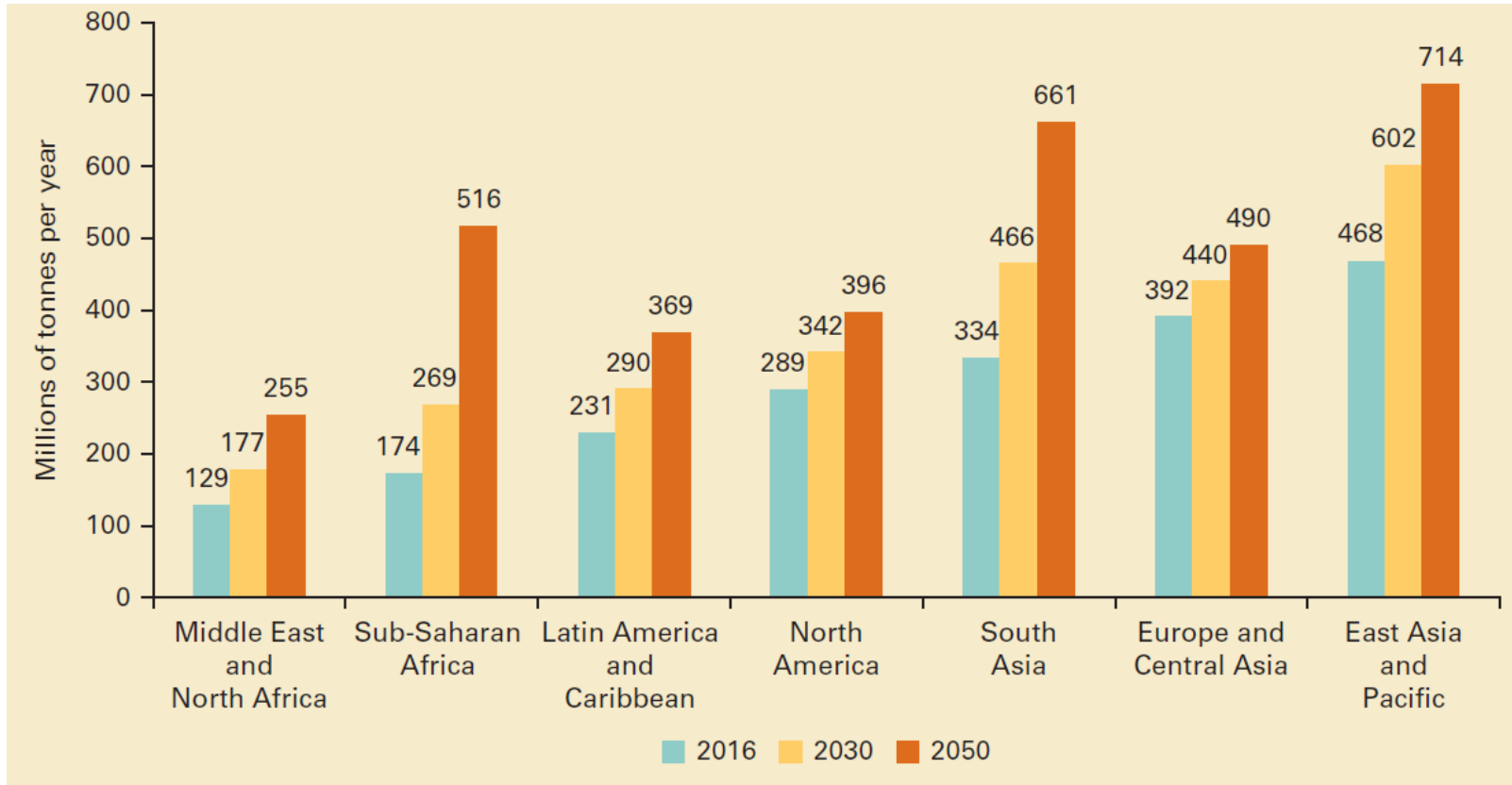
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22.09.2025

Triple planetary crisis



Waste generation



World Bank

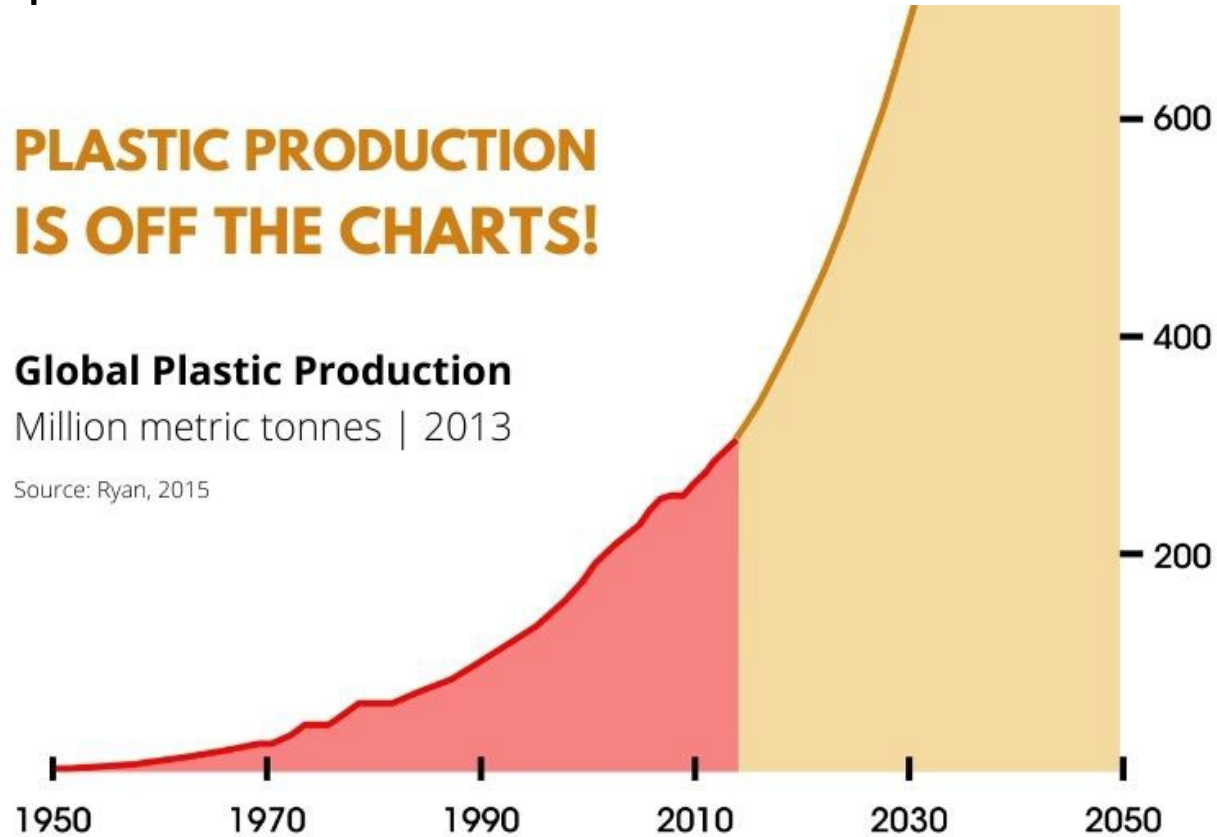
Plastic production

PLASTIC PRODUCTION IS OFF THE CHARTS!

Global Plastic Production

Million metric tonnes | 2013

Source: Ryan, 2015

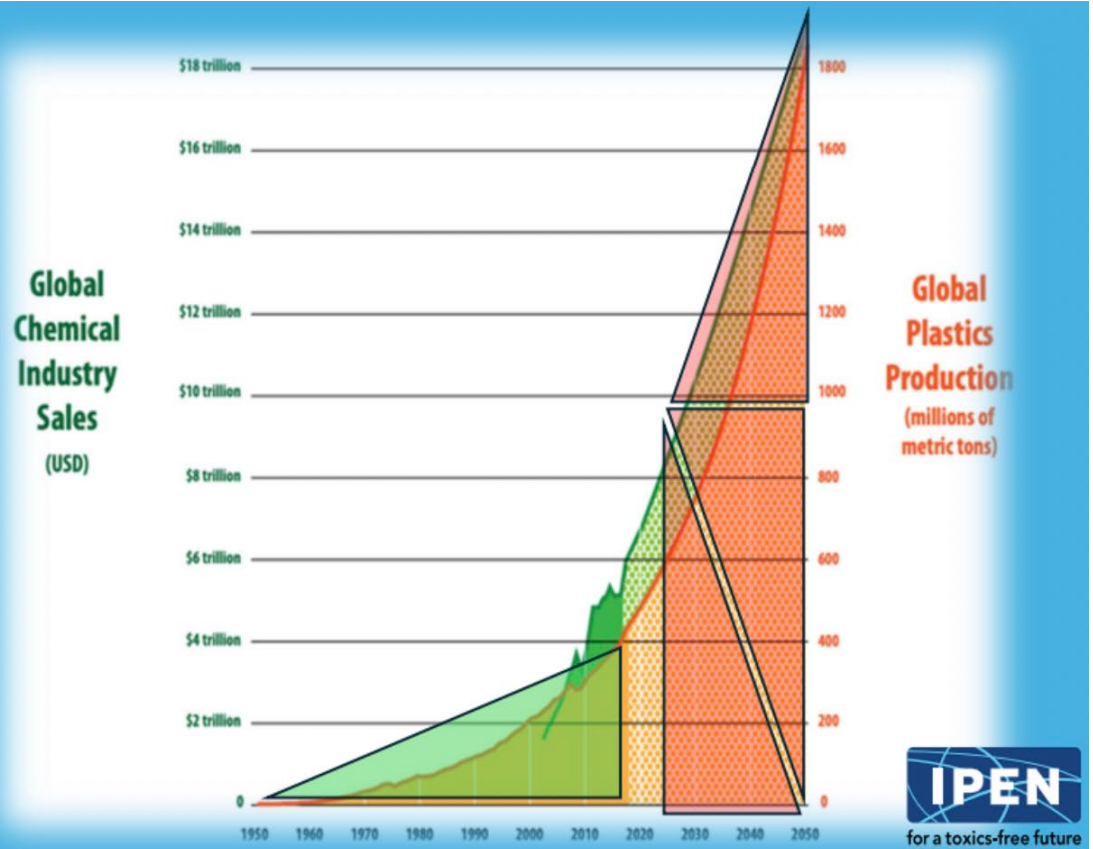


Plastic production & chemicals

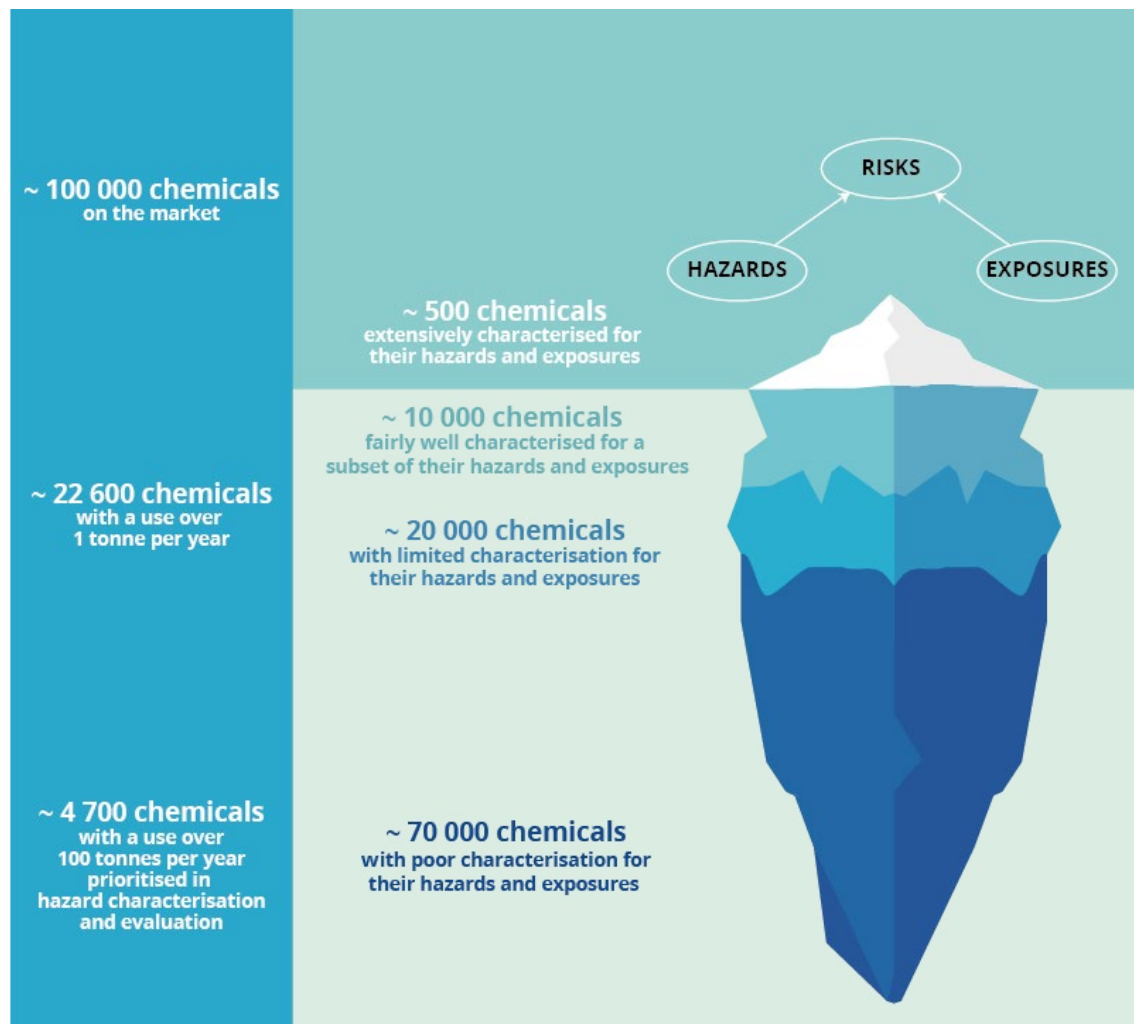
More Plastic Production
=
More Plastic Pollution
More Chemical Pollution

Plastic Production
300% Growth by 2050

1% of Chemicals Controlled
99% Out of Control



Chemicals in plastic



Recycling?



Plastic & Climate

Plastic is a key driver of the climate crisis

More than 99% of plastic is made from fossil fuel



Plastic & Climate: key impacts

Greenhouse gas emissions from plastic production are substantial and growing

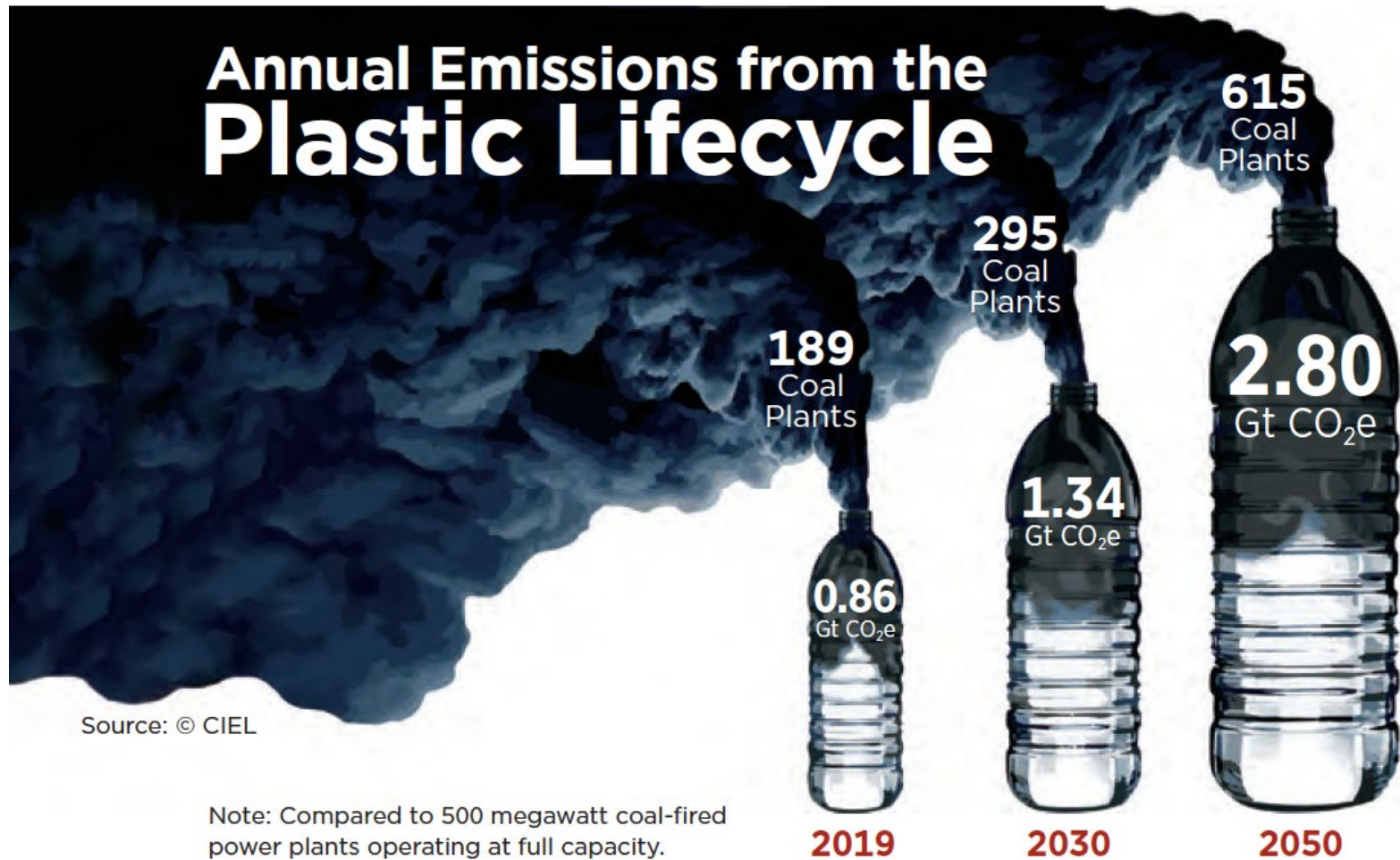
End-of-life & unsustainable waste management exacerbate emissions

Single-use plastics disproportionally contribute to waste, emissions, and resource consumption

Plastic demand is expected to rise, making the climate problem worse unless mitigated

Hidden / secondary climate effects

GHG emissions from plastic are growing



SUPs significantly contribute to emissions



SUP plastic items have very short functional life span

The environmental and climate costs per use are very high when compared to reusable alternatives.

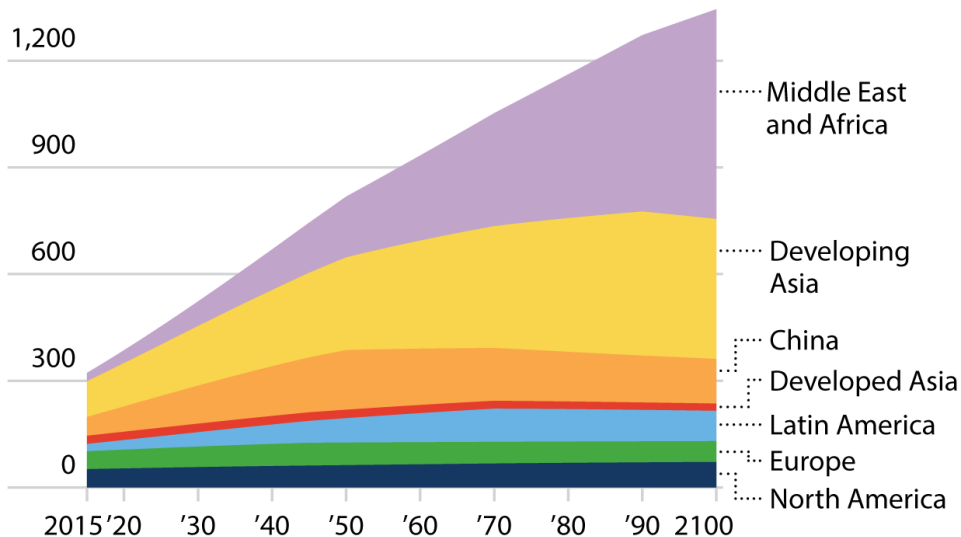
Plastic demand is expected to rise

World Plastics Demand May Increase Significantly

Projections based on business-as-usual growth predict markedly increased plastic use through 2100.

Plastics Demand by Region, 2015 to 2100

1,500 million tons per year



Source: Material Economics, The Circular Economy (2018).

Some forecasts suggest plastics could be responsible for ~19% of global greenhouse gas emissions by 2040 under a business-as-usual scenario.

Hidden/secondary climate effects

- Disruption of ecosystems: plastics (especially microplastics) in oceans, soil etc. may impair biological processes that sequester carbon (e.g. phytoplankton, soil microbiota).
- Land use and extraction: extraction of fossil fuels for plastic feedstocks causes emissions, both from the extraction itself and from associated land disturbance, deforestation or habitat conversion.
- Leakage of emissions beyond CO₂: e.g. methane leakage from natural gas used in plastics feedstocks; release of volatile compounds during use or degradation.



Baltic Sea region: where plastic + climate intersect



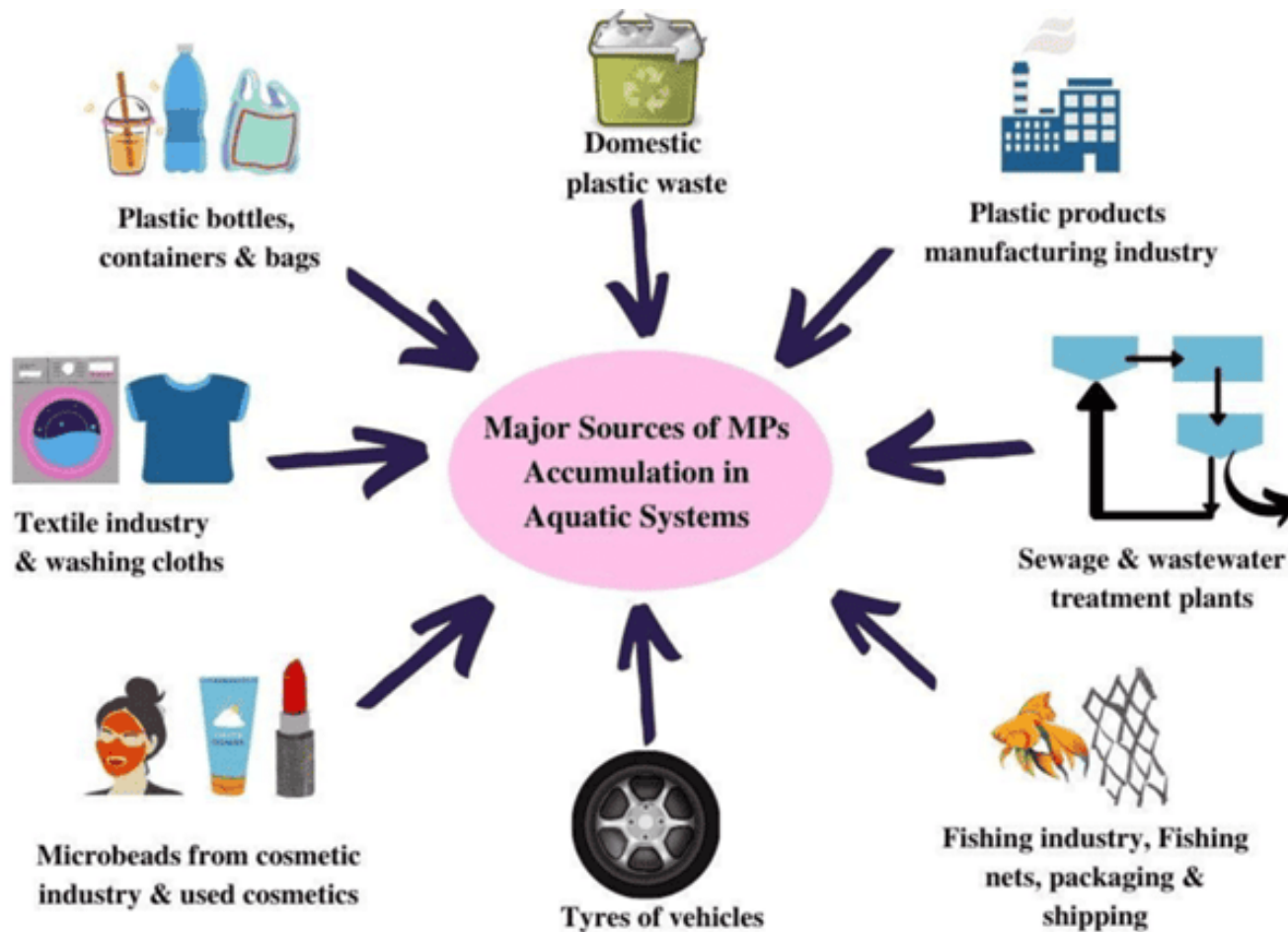
Baltic Sea region: where plastic + climate intersect

Single-use plastics dominate Baltic marine litter

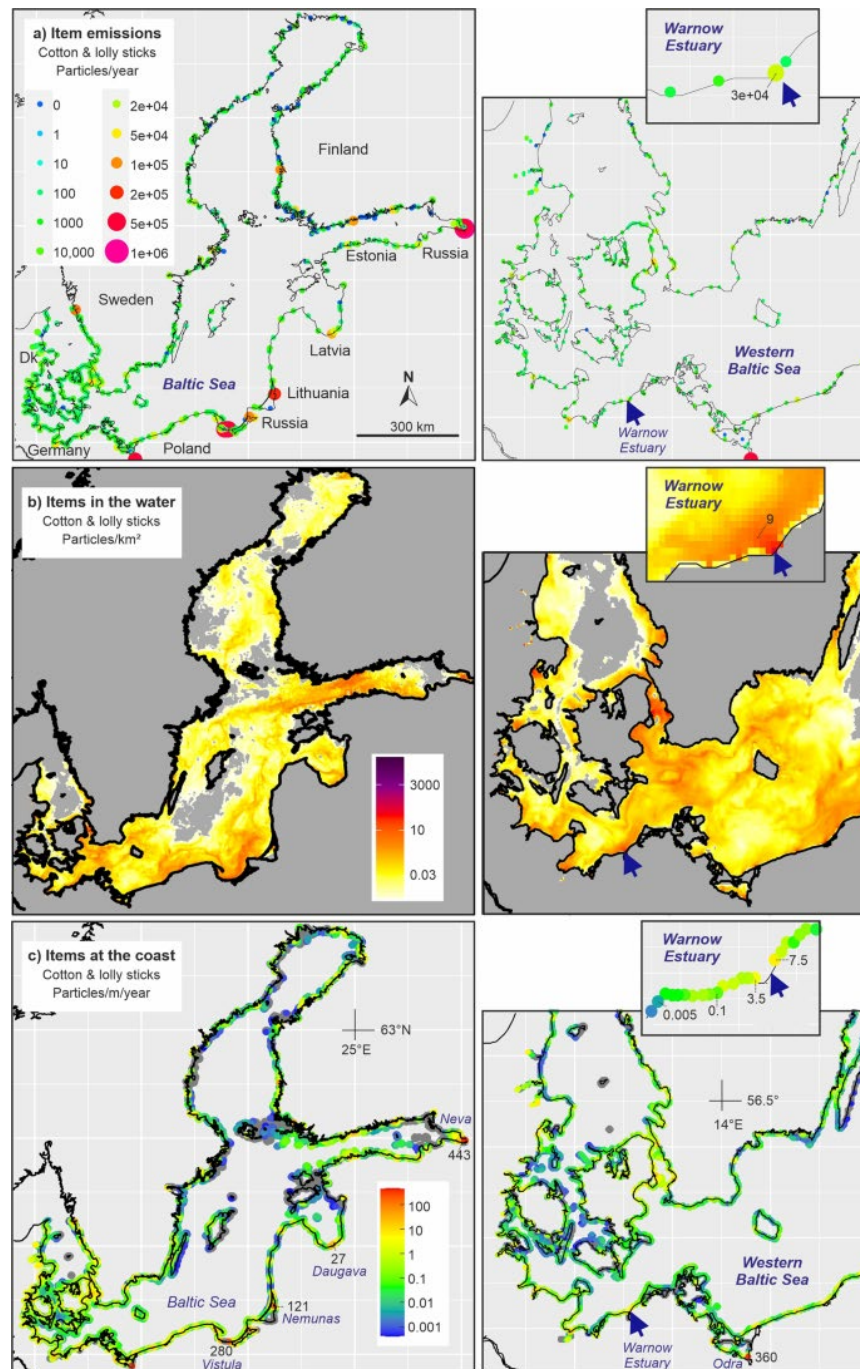


HELCOM's assessment shows **plastic litter—including single-use items—makes up 32–93%** of counted beach litter items across sub-basins

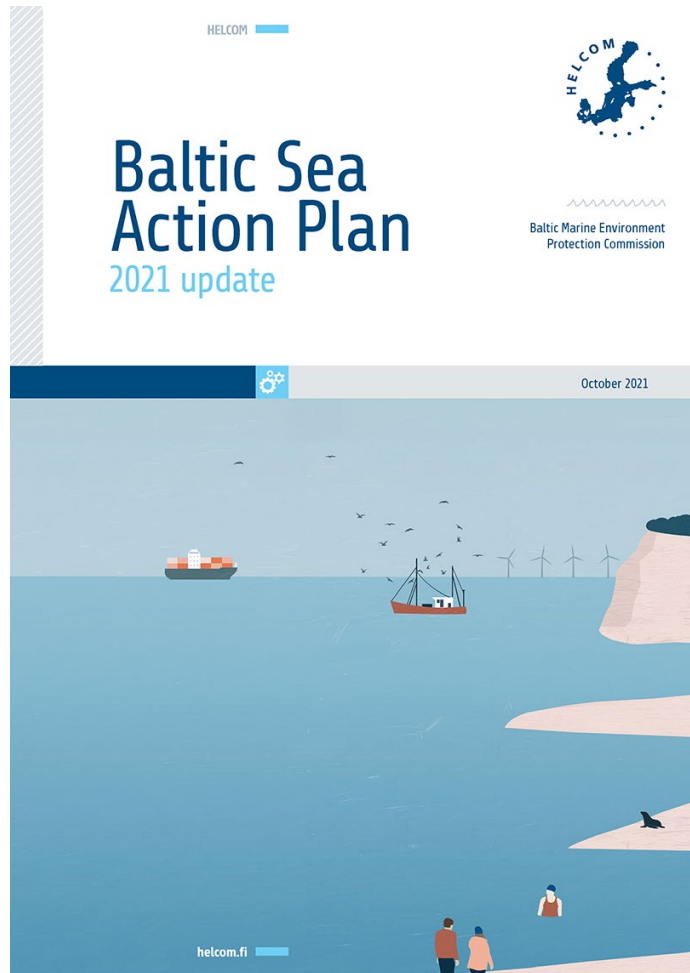
Where the plastic comes from



Deposition of visible plastics



Baltic Sea region: where plastic + climate intersect



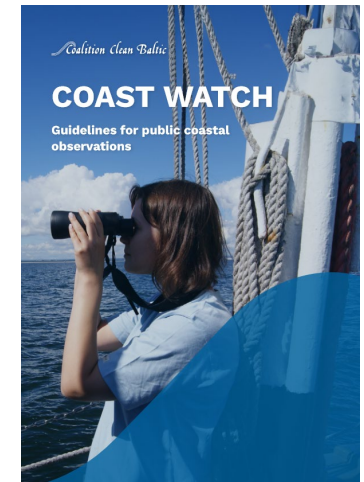
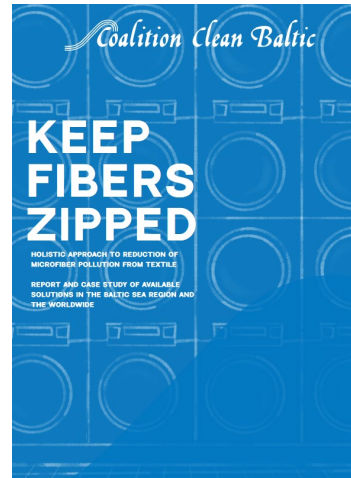
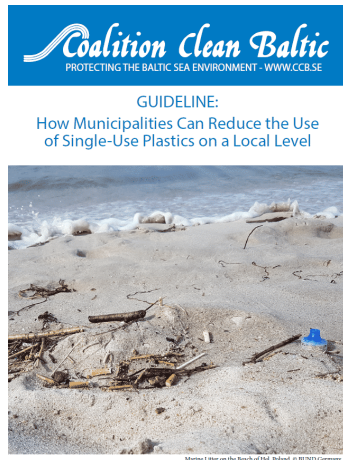
HELCOM Regional action plan targets single-use sources and waste handling

Climate-smart decisions in the Baltic region

- Prioritise prevention & reuse
- Design for durability and recyclability
- Implement microplastics & pellet-lose controls



Relevant CCB publications



<https://www.ccb.se/publications>

CCB&Baltiplast engagement tools

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