POLICIES TO TACKLE MARINE PLASTIC LITTER

INSIGHTS FROM RECENT WORK AT OECD

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Policy approaches to address marine plastic litter

- Substitution
- Waste prevention
- Collection and treatment
- Design
- Clean-up and remediation

Plastics policy approaches
Past OECD work on plastics

- Substitution
- Waste prevention
- Design
- Collection and treatment
- Clean-up and remediation
Ongoing OECD work on plastics

- Substitution
- Waste prevention
- Collection and treatment
- Design
- Microplastics
- Clean-up and remediation
- Microplastics
- Sustainability criteria
- Extended producer responsibility
- Single use plastics

Alignment of chemicals and waste legislation
SINGLE USE PLASTICS POLICIES
Single-use plastics (SUP)

- Consumer goods designed for one use and immediate disposal

- SUP have multiple environmental impacts
  - Waste generation
    - Ex: packaging = 141 mln tons of waste in 2015
    - Over 45% of global plastic waste
  - If improperly disposed of, plastic waste can leak into the environment
    - 32% of global plastic waste is leaked
Policies to prevent single-use plastic waste

- Current policy action is mostly regulatory and tends to target single-use plastic products rather than materials or intermediate goods.
- 127 countries worldwide have legislation targeting plastic bags (2018 data, UN Env)
  - 91 bans
  - 27 taxes on import / production
  - 30 levies / fees on consumption
- Policies addressing other SUP goods are not as common:
  - 27 bans
  - 29 taxes
- Increasing number of voluntary approaches
Environmental effectiveness

Market-based instruments
- Taxes and charges on carrier bags have proven effective: consumption drop by 70% to 90%
- Limited evidence on impact of MBI on other goods

Regulatory instruments
- Product bans successful in reducing littering, but evidence is limited to local policies
- Standards such as material requirements: effectiveness relies on full compliance

Voluntary approaches
- Little evidence on impacts of recent initiatives
Key messages

• **Contextual features** affect policy impacts
  – *Product alternatives*: characteristics, availability, affordability, popularity, environmental footprint
  – *Consumer preferences*
  – *Enforcement is key*

• **Unintended burden shifting**: environmental benefits of policies may be reduced by substitution effects towards other disposables

• This calls for **complementary policy initiatives**:
  – E.g. price signals on alternative disposables
POLICIES TO ADDRESS MICROPLASTICS
The issue with microplastics

• Microplastics = plastic fragments or fibres with a diameter < 5mm
• Enter the environment via direct discharge, wastewaters, or diffuse entry points (e.g. road runoff)
• Present in oceans, rivers, soil, air
  – Ocean surface: microplastics account for over 90% of the 5.25 trillion plastic particles by count (Eriksen et al 2014)
• Sampled in aquatic species, including seafood destined for human consumption
• Most important sources: tyres and textiles
Current policy landscape

• **Primary (manufactured) microplastics:**
  – *Microbead bans* implemented in 11 countries
  – *ECHA proposal* to restrict the use of intentionally-added microplastics where possible (e.g. PCCPs), and minimize other releases occurring due to mismanagement (e.g. pharmaceuticals, paints and coatings)
  – Industry-led initiatives for plastic pellets

• **Secondary microplastics from the degradation of larger plastics** already in the environment require waste management policies (e.g. single use plastics bans) and clean-up efforts

• **Secondary microplastics generated due to wear and tear** occurring during the product use phase (e.g. from clothing and tyres) have received less attention to date
What mitigation options to tackle microplastics (from tyres and textiles) in water?

Approaches to tackle microplastic pollution

**Source reduction**
- Ban
- Material substitution
- Best design and manufacturing practices

**Waste prevention**
- Best use practices
  - laundry practices,
  - eco-driving
- Maintenance of tyres, vehicles, road surfaces

**End-of-pipe solutions**
- Filtering technologies
- Improved stormwater management
- Improved wastewater treatment and sludge management

What mitigation options to tackle microplastics (from tyres and textiles) in water?
Microplastics: policy reflections

Research priorities

• Sources, pathways, and impacts of microplastics
• Solutions, and relative costs, implementation barriers, and mitigation potential

Life-cycle policy approach

• Measures *upstream* are likely to have the largest mitigation potential
• *End-of-pipe* measures provide a last barrier to prevent leakage into water cycle

Opportunities to:

• Exploit *synergies* with other micro pollutants and other environmental/climate agendas (“no-regret policies”)
• Build on existing policy frameworks (e.g. water sector, EPR schemes)
THANK YOU!

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