Nordic Council of Ministers

The Nordics as a driving force against plastic pollution

Key highlights of the project

Contents

This publication is also available online in a web-accessible version at:
https://pub.norden.org/nord2025-024

All our reports and activities

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17. Sustainability criteria for plastic pollution (2022)
18. Science and knowledge to reduce Marine Plastic pollution (2021)
19. Elements of a global agreement on plastic pollution (2020)

Introduction

The Nordic Council of Ministers' Vision 2030 aims to make the Nordic region the most sustainable and integrated region in the world by 2030. The vision is built on three strategic priorities: a green Nordic Region, a competitive Nordic Region, and a socially sustainable Nordic Region. As part of this vision, the Nordic region also seeks to be a global driving force in the development of a new international agreement on plastic pollution

To help realize this ambition, the Nordic Council of Ministers launched a Vision Project on plastic pollution in 2021. In this project the Nordic countries have collaborated to build knowledge and develop effective means and policy measures to reduce plastics pollution. Plastic and microplasticpollution are among the fastest-growing environmental challenges globally, with plastic waste now found in oceans, freshwater, air, ice, soil, and within living organisms. Addressing this issue requires coordinated action at local, national, and international levels.

The project, which concluded in 2025 after 4.5 years, encompassed a wide range of activities, including:

- contribution to the Nordic Coastal Clean-up network;
- measures in the event of major accidents involving the discharge of plastic pellets and biocarriers;
- preventive measures in the use phase of plastic products;
- mapping of indicators for plastic leakage in the plastic value chain;
- support for a new global agreement on plastic pollution, including potential criteria to address problematic, unnecessary and avoidable plastic product;
- measures addressing lost and abandoned fishing gear;
- as well as upstream measures for sustainable management of plastic waste;
- support to simple wastewater solutions in Arctic small communities.

This publication presents a collection of eight one-page summaries highlighting the project's key reports and studies.

Nudging to increase the uptake of reusable cups

Single-use beverage cups are a major source of plastic pollution and one of top ten items littered around beaches today. In this study, the possibility of increasing the use of reusable cups through nudging have been explored.

Download the summary (pdf) →

Using nudging to influence the decision making

Nudging is used for influencing people in how they make their decisions, without making it for them. It's about getting people to behave in a desired way by making certain choices easier or presenting options in a different way. This is done without prohibiting or removing their options – or freedom to choose.

In this case, nudging was used as a method to make people choose reusable cups instead of single-use cups. This study showed that verbal prompts were found most effective.

Method

This study tested the effects of different nudging techniques in various coffee shops, cafeterias and gas station convenience stores in Denmark and Sweden, such as:

- Implementation of signs in stores with various messages
- Instructing staff to specifically suggest a reusable cup to customers
- Leveraging social norms by showing customers the accumulated sales with reusable cups over time
- Implementation of a lottery mechanism where customers could win their cash back when using a reusable cup
- Adding donation boxes for reusable cups

The results

To outright ask customers if they want a reusable cup was shown to be the most influential method to increase the use of reusable cups. It makes the option very clear for the customer.

Posters with various types of messages were not by themselves sufficient in affecting the customers behavior. In one of the tests, the study showed that there was a substantial drop in the use of reusable cups when verbal prompts were no longer provided, but posters remained.

Recommendations to reduce the use of single-use cups:

- **For coffee shops**: ask customers if they want a reusable cup to increase the visibility of the reusable option and make returns easier.
- **For regulators**: encourage verbal prompts without mandating them, increase the saliency of reusable compared to single-use cups, and explore an awareness campaign in collaboration with coffee shops.

Conclusion

Some of the nudging techniques have the potential to increase the use of reusable cups. However, the success depends on the setting in which the decisions take place. To achieve a transition to reusable cups engagement will also be crucial. From the customer who makes the choice to the owner and sales assistant who has the power to influence it. Not to forget, the regulators.

To read more about this study, including different nudging techniques that were conducted and conclusions that were made please click here to review the report.

Addressing the problematic, unnecessary and avoidable plastic products

A significant portion of plastic products placed on the market today are either problematic, unnecessary or avoidable (PUA). At the same time, over 140 countries now ban or restrict some of these plastic products. Some countries also have restrictions in place for specific plastic polymers or monomers.

Download the summary (pdf) →

This report aims to aid the development of control measures for PUA plastic products under a global UN agreement on plastics. It identifies potential criteria and governance approaches to control PUA plastic products at the global and national levels

The approach suggested by the authors to address the PUA plastic problem helps categorize plastic products based on their impact and necessity. The goal is to reduce plastic pollution through the identification and removal of unnecessary or unsafe plastic products, as well as to redesign and detoxify necessary plastic products.

Methodology

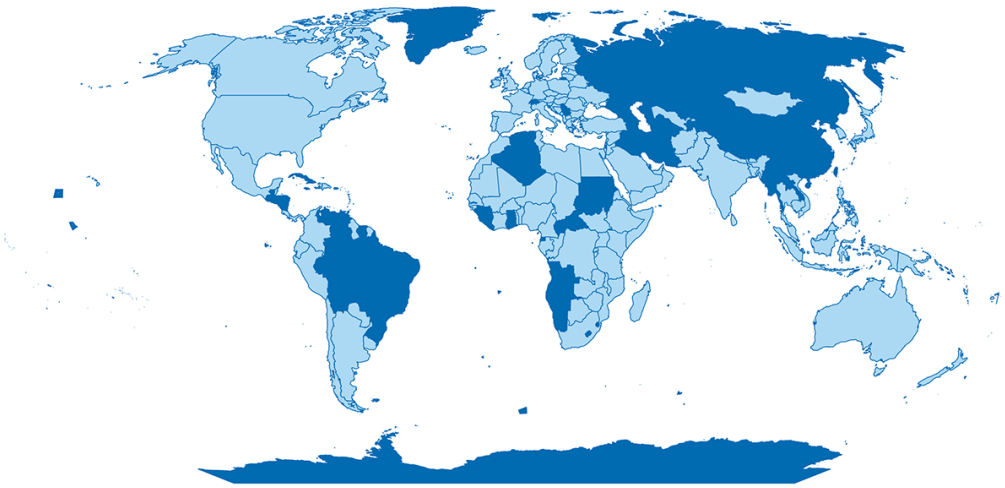
The report development involved a literature review of PUA plastic products, their drivers and potential solutions – including relevant criteria for determination. Adding to that, an Advisory Group of experts from national governments, Multilateral Environmental Agreements secretariats, UN agencies, science networks, and NGOs provided input. Existing legislation and voluntary initiatives on PUA plastic products were considered, with a focus on evaluating the criteria used to categorize the plastic products.

Suggested measures are to:

- Develop and implement global criteria, supported by clear guidelines, for identifying and phasing out PUA plastics.
- Promote sustainable alternatives and support innovation in non-plastic substitutes and resource-efficient product design.
- Strengthen international cooperation and align national policies with global frameworks to ensure consistency.
- Enhance circular economy initiatives to encourage redesign, recycling, and safe disposal practices to minimize plastic waste leakage.
- Monitor and evaluate policy impact by implementing tracking mechanisms to assess regulatory effectiveness and make necessary adjustments.

> **Single-use plastics account for approximately 36% of plastic production, of which an estimated 85% is mismanaged, underscoring the need to address these products specifically**

(UNEP, 2023a)



Geographical view of countries in which at least one plastic product is banned or restricted at the national or regional level.

A unified global strategy for PUA plastic products will be crucial for reducing plastic pollution, protecting ecosystems and promoting sustainability. The full report presents a foundation for informed decision-making in the ongoing negotiations for a legally binding international plastics treaty.

The report can be accessed here.

Better and harmonized statistics on plastic flows in the Nordics

Better plastic statistics is essential to develop good policies on plastics, and to measure their effects. A Nordic project found several challenges and solutions that should be prioritized in this work.

Download the summary (pdf) →

This report summarizes the findings and recommendations from a Nordic workshop focused on improving data collection and harmonization related to plastic material flows. The aim of the workshop was to identify key statistical information for national inventories and address critical knowledge gaps in data collection and quality.

Better data required at global and national level

In 2022, the UN initiated negotiations for a global agreement to end plastic pollution, emphasizing the entire life cycle of plastic products. The Nordic Council of Ministers launched a project to support Nordic countries in creating national plastic inventories. A workshop was held in Oslo in February 2024, bringing together technical experts from statistics bureaus, customs offices, and environmental agencies to address these issues.

Key Findings

The workshop participants identified several challenges and knowledge gaps:

- **Waste Export Issues**: Insufficient HS codes, control, inspection, and data regarding end-of-life fates of plastic waste export
- **Product Information**: Lack of detailed data on plastic shares, additives, and polymers in plastic products
- **Data Gaps**: Missing data on large waste sources, infrequent updates on plastic products and waste, and insufficient data for enabling closed-loop recycling
- **Methodological Issues**: Difficulties in mapping end-of-life fates and

double counting of semi-finished/finished products

Recommendations

The report suggests enhanced cooperation among Nordic countries in several areas:

- **Customs Authorities**: Improve data on waste shipments through common digital systems, address frontline experiences in implementing new waste shipment regulations, harmonize supervision and risk profiles, and collaborate on technology investments.
- **Statistical Methodology**: Follow up on UNITAR's Plastic-KEYs, ensure common data reporting on plastics, develop harmonized waste reporting, map available data from large industries, and establish standardized methods for waste analysis.
- **Environmental Agencies**: Enhance product passes with information on polymer composition and support measures to improve information flow between providers and demanders of plastic feedstock.

Potential solutions include close follow-up of the implementation of the new waste shipment regulation, actively contributing to the development of technical standards, and providing capacity building and technical gear for surveillance officers, along with searchable waste shipment documentation.

The Nordic countries can also collaborate with UNITAR to further develop the Plastic KEYs initiative, which helps harmonize data on plastic products and waste.

The technical experts also saw potential in forming a Nordic working group to standardize methods for waste analysis to get better insight into major waste streams such as the construction sector and industry.

UNITAR – statistical guidelines for plastics

The United Nations Institute for Training and Research (UNITAR) can be a big part of the solution. Their work might solve several key challenges, particularly when it comes to the plastic content of various products. UNITAR is developing statistical guidelines for plastic flows and plastic monitoring within The Sustainable Cycles Programme (SCYCLE).

UNITAR are developing "Plastic-KEY" - a plastic toolkit. The kit will include information on average plastic content and polymer composition of a range of products. It will also help map the links between plastic consumption and waste management.

If you want to read the full report on better and harmonized statistics on plastics in the Nordics, please click here.

Wet wipes a major source of plastic waste in in untreated wastewater

Plastics from untreaded wastewater is a major source of marine pollution in Greenland. Approximately 60% of the 2 tonnes of plastic estimated to be discharged annually to the sea by Greenland wastewater is wet wipes.

Download the summary (pdf) →

In the Arctic marine environment, concern has been raised upon observations of high concentration of plastic litter and microplastics (MPs). This study addresses issue of plastic pollution in the Arctic marine environment by identifying wastewater as a major source of both macro and micro sized plastics in Greenland. It finds that by regulatory or behavioural measures and technical solutions used to prevent wet wipes from entering the wastewater we could significantly reduce the emission of plastics – from wastewater to the marine environment.

Methodology

The detailed characterization of different plastics is vital for understanding their prevalence and impact. By quantifying plastic loads from wastewater, this study informs the development of effective pollution control measures.

The aim was to estimate the burden of plastic litter and MPs to the marine environment from sewage by sampling and quantifying inputs of plastic in different size fractions. This was done in two of the biggest towns in Greenland, Nuuk and Sisimiut. Plastic findings were visually characterized in terms of abundance, morphology size – and chemically, by characterizing the polymer composition using FTIR spectroscopy.

Wet wipes – a dominating source of marine litter

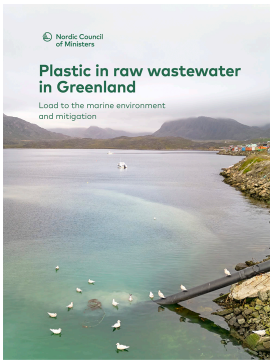
Wet wipes were found to be dominating, making up 59% of the total emitted plastic by mass.

Of the total plastic load, 70% of the mass was from plastic items larger than 25 millimetres. Wet wipes were found to be dominating, making up 59% of the total emitted plastic by mass, but other sanitary items were also detected.

A dominance of white/transparent MP fibers was observed in the raw wastewater samples in our study, where a large fraction was proposed to be of viscose origin.

Recommendations

The research from this study suggests actionable steps, such as regulatory or behavioural measures which could significantly reduce marine plastic pollution. To ban the retail of wet wipes would be a necessary step to prevent wet wipes from entering wastewater. A campaign to promote behavioral change would also be of value.



To learn more about the study on Greenland and the wet wipes in untreated waters, please find the report here.

Extended Producer Responsibility on Plastics – Learnings from the Nordics

Download the summary (pdf) →

Extended Producer Responsibility, EPR, is often mentioned as a key measure to transform the largely linear global plastics economy towards a more circular one. The aim of this report was to gather experiences from the Nordic countries' long history of EPR as a government policy instrument and create learnings for the future development and expansion of EPR schemes in the Nordics and other countries.

The Nordic countries have an extensive experience with EPR, including schemes for various product categories like packaging, electronics, and single-use plastics.

Why EPR?

EPR systems have multiple aims; to change public behavior, increase recyclability and the recycling rate, and to finance take-back, information and recycling.

Methodology

The methodology for this study included literature reviews and semi-structured interviews with authorities in Denmark, Finland, Iceland, Norway, and Sweden. These interviews gathered insights from the implementation of various EPR systems, focusing on challenges and success factors.

Key findings

The report notes diverse EPR implementations across the Nordics, each facing unique challenges and success factors.

- **Common issues related to EPR systems include** administrative burdens, unclear roles and limited influence on product design and waste generation.
- **Success factors include** single waste stream systems, such as PET bottle return systems, collaboration between producers, municipalities and Producer Responsibility Organizations, coupled with transparent systems see to be success factors for effective implementation of EPR schemes.

Conclusion

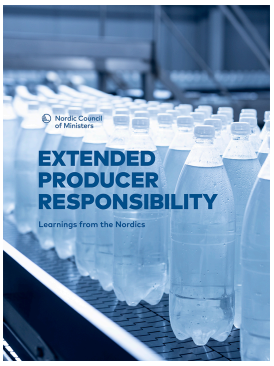
The report concludes that EPR should be viewed as a complement to policies directly targeting waste generation sources.

Although it may not be feasible to introduce separate systems for each packaging and product type, more stringent design requirements, combined with development of material quality standards for more types of recycled plastics, could be beneficial.

Harmonizing design requirements, reporting requirements and fee models across the EU could reduce the administrative burden on producers and possibly prevent freeriding to some extent. Differentiated fees also promotes higher recyclability, as seen in Sweden.

> **The fee structure and reporting obligations differ between the Nordic countries, making compliance complicated and resource intensive for international producers.**

Want to read more about EPR in the Nordics? Please click here to review the report.


Nordic Council of Ministers
EXTENDED PRODUCER RESPONSIBILITY
Learnings from the Nordics

Acute plastic pollution: causes, problems and solutions

Acute plastic pollution, particularly from the loss of plastic pellets, poses a significant threat to marine ecosystems. Immediate action to protect the environment and public health is necessary.

Download the summary (pdf) →

This report explores the scope of the acute plastic pollution problem, existing regulations, and proposes recommendations for more effectively addressing acute plastic pollution at the international, regional and national levels.

Norwegian and Swedish coastline polluted by plastic

In 2020, the Motor Vessel *Trans Carrier*, a cargo ship, lost 13.2 tons of plastic pellets at sea, polluting the coastlines of Norway and Sweden. As a result, part of the coastlines of both

Norway and Sweden were polluted by plastic pellets. The incident exposed the challenges of addressing acute plastic pollution (APP) and prompted a study under the Nordic Council of Ministers. The study considered questions, such as:

- Should plastic pellets be considered acute plastic pollution?
- How should we deal with this form of plastic pollution in an effective way?
- Can this be prevented?

Methodology

The Nordic countries should be in the frontline to spread best practice globally, and when possible, introduce stricter regulations before international rules are in place.

In order to determine an effective approach, interviews were held with representatives of the regional agreements and relevant national agencies. A literature review was also performed to evaluate relevant laws, policies. Four maritime incidents where pellets were lost was examined.

Conclusion

Addressing acute plastic pollution requires a combination of improved regulations and enhanced international cooperation. Measures must include a combination of preventive measures such as preparedness plans and improved cleanup technologies.

Derived from the conclusions, the following recommendations are proposed:

International level

1. Establish a standardized global definition of acute plastic pollution (APP).
2. Classify plastic pellets as hazardous materials to enforce stricter transport regulations.
3. Improve reporting systems for plastic spills to

National Level

1. Develop national contingency plans for APP response.
2. Implement rapid response and cleanup strategies to prevent pellet dispersion.
3. Improve tracking and analysis of spilled plastics to identify sources.
4. Strengthen legislation to prevent pellet

Regional Level

1. Conduct research to map the magnitude and sources of APP.
2. Establish standardized response protocols for plastic spills under agreements like the Bonn and Copenhagen Agreements.

enable rapid response.

4. Incorporate APP into international agreements, such as the Global Plastics Treaty.
5. Develop advanced cleanup technologies for plastic pellets in marine environments.

loss during transport and production.

Read the full report on Acute plastic pollution here.

Indicators for Plastic Pollution

Plastic pollution is a growing global issue, affecting ecosystems, economies and human health. Reliable indicators are needed to effectively measure and mitigate the impact of plastic pollution. This report, commissioned by the Nordic Council of Ministers, evaluates existing indicators for plastic pollution across its lifecycle.

Download the summary (pdf) →

The main conclusion of the report is that the current indicator landscape is fragmented and lacks harmonization, but useful indicators exist. Future efforts should be directed at a more holistic picture that combines different types of indicators.

Background

In 2022, the United Nations Environmental Assembly (UNEA) agreed to develop a legally binding international agreement to combat plastic pollution, addressing the full lifecycle of plastics. Policy decisions require reliable data to assess the problem and the efficiency of regulations, thus, indicators are needed. The purpose of the report is to flag differences in the current data and suggest a harmonized way to present indicators.

Methodology

The study applies the Drivers-Pressures-State-Impact-Response (DPSIR) framework to assess indicators along the plastic value chain. The authors have reviewed databases, regulatory frameworks, and scientific literature to identify strengths, weaknesses, and gaps in existing measurement approaches.

Recommendations

- Enhance waste management indicators to monitor mismanaged waste,

especially in high-leakage regions

- Develop standardized methodologies for measuring microplastic sources such as tyre wear and industrial pellet loss
- Develop cost-effective methodologies for tracking plastic flows and waste mismanagement
- Improve linkage between value chain and environmental indicators to provide a clearer picture of plastic pollution trends
- Strengthen global databases for tracking plastic pollution, ensuring consistency in measurement and reporting
- Incorporate emerging indicators such as container losses and wastewater discharges into monitoring frameworks

Effective plastic pollution management requires robust, harmonized indicators that connect production, usage and environmental impact. Strengthening data collection and integrating new metrics will improve policy effectiveness in tackling this global challenge.

Read more about the Indicators for Plastic Pollution here.

Lost fishing gear in the Nordic countries

Download the summary (pdf) →

The impact on the aquatic wildlife and environment

The occurrence of abandoned, lost and discarded fishing gear (ALDFG) in aquatic environments have a huge environmental and socioeconomic impact. This study compiles data from Nordic countries on the quantity and composition of lost fishing gear, primarily from sport and recreational fishing. It also explores the presence of harmful chemicals in the lost gear and their potential effects on the aquatic environment.

Methodology

Along with a web-based survey dedicated to gather information from the sports- and recreational fishers, the following methods were used:

- Literature survey
- Stakeholders dialogue
- Analyzation of information on sales statistics from retailers and producers
- Compiled relevant national import and export statistics

It is important to recognize that the quantity of lost fishing gear is difficult to estimate due to the general lack of data within the Nordic countries and low response rate on the surveys. The estimates presented should be considered indicative.

Key findings from the report

The study has estimated a total annual loss in the Nordic countries of 774 tonnes fishhooks, 78–235 million meters fishing line and 518–1035 tonnes of

fishing gear containing fishing nets. Harmful substances that exist in fishing gear has not been possible to quantify.

Conclusion

To clean up and recover abandoned, lost and discarded fishing gear is challenging, time consuming and expensive**.** The better, more cost efficient and less environmentally challenging solution would be to implement preventive measures.

The following measures are suggested:

1. Municipalities and retailers should provide more information regarding lost fishing gear, more frequently, to increase the awareness among fishers
2. The encouragement to reuse, recycle or recover fishing gear should be improved
3. Improve the communication and information regarding chemical substances in fishing gear
4. Ban harmful substances including lead in fishing gear
5. Conduct clean ups of ALDFG hotspots

Furthermore...

The report suggests that the implementation of the single-use plastics directive within the EU together with the new extended producer responsibility including fishing gear will be important drivers to prevent lost fishing gear going forward.

To learn more about lost fishing gear that affects the aquatic wildlife and environment in the Nordic countries, please read here.

About this publication

The Nordics as a driving force against plastic pollution

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Nordic co-operation

Nordic co-operation is one of the world's most extensive forms of regional collaboration, involving Denmark, Finland, Iceland, Norway, Sweden, and the Faroe Islands, Greenland and Åland.

Nordic co-operation has firm traditions in politics, economics and culture and plays an important role in European and international forums. The Nordic community strives for a strong Nordic Region in a strong Europe.

Nordic co-operation promotes regional interests and values in a global world. The values shared by the Nordic countries help make the region one of the most innovative and competitive in the world.

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