



Nordic Council
of Ministers



GENERATION 2030

Sustainable Consumption and Production

AN ANALYSIS OF
NORDIC PROGRESS
TOWARDS SDG12,
AND THE WAY AHEAD

Sustainable Consumption and Production

An analysis of Nordic progress towards SDG12, and the way ahead

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A person is shown from the back, in silhouette, holding a smartphone up to take a photo of a red brick wall. The person is wearing glasses and a dark t-shirt. The wall is made of red bricks and is the background for the entire image. The lighting is dramatic, with the person's face and the wall's texture highlighted by a warm, reddish light.

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**Mainstreaming
SCP requires bold
and ambitious
politicians, agile
and long-sighted
businesses and
motivated
citizens.**

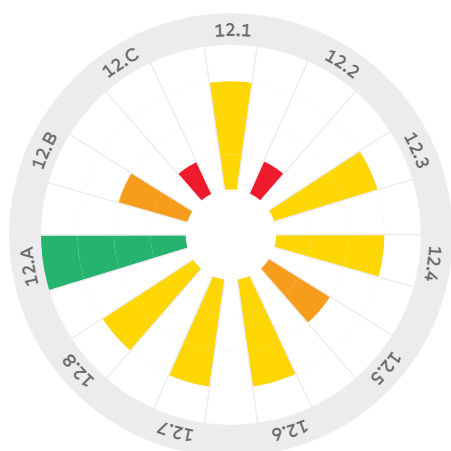
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SUMMARY



The Nordic Council of Ministers has adopted the Generation 2030 programme to support the Nordic countries in the implementation of the 2030 Agenda. Up to 2020, Generation 2030 places emphasis on sustainable consumption and production (SDG 12). This report presents an analysis of the Nordic countries' progress towards SDG 12 up to 2018. The Nordic countries include Denmark, Finland, Iceland, Norway, Sweden as well as Greenland, the Faroe Islands and Åland.

The Nordic countries enjoy considerable wealth that – in terms of material comforts – allows for a prosperous life. The backside of the coin is that the Nordics, despite ambitious policies and well-functioning organisations and systems, globally stand out as over-consumers of natural resources (12.2) and substantial producers of wastes of all kinds (12.5) although they are good at collecting, responsibly treating and recycling the wastes they do produce. The Nordics in addition score poorly on the phasing out of fossil fuel subsidies (12.C) and relatively low on tourism (12.B) – as illustrated in the figure below.




See more of the figure on page 14.

A main reason for this situation is that the governments of the Nordics have not been able to effectively address the drivers of unsustainable consumption and production patterns such as insufficient commitment, product prices not reflecting true resource, environmental and social costs, limited product life spans, slow shifts towards greener business models, limited incentives for waste prevention via reuse and other means, and the absence of sustainable alternatives to high impacting consumption patterns.

The Nordics demonstrate relatively good achievements in terms of policies and strategies (12.1), reducing food waste (12.3), sustainable business practices (12.6), sustainable public procurement (12.7), information and awareness (12.8) and SCP support to developing countries (12.A) – but the more genuine confrontation with the galloping consumption patterns has yet to be taken. It is characteristic that many relevant initiatives promoting sustainable consumption and production (SCP) are about changed consumption – and not reduced consumption – continuing a path that has demonstrated its unsustainability.

Mainstreaming SCP at all levels is a tall order. It requires bold and ambitious politicians, agile and long-sighted businesses and motivated citizens. It involves engaging all stakeholders, the private sector, workers' organisations, as well as researchers, educators, civil society organisations and consumers. It entails consideration of the interlinkages between different goals and economic sectors as well as an integrated approach to social, economic and environmental objectives. The Nordics have started out on this journey.



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SDG 12
has been identified
as one of the
most challenging
Sustainable
Development
Goals for the
Nordic region.

PHOTO: UNSPLASH.COM

PREFACE

In 2017 the Nordic Council of Ministers adopted the Generation 2030 programme to support the Nordic countries in the implementation of the 2030 Agenda in the Nordic region. The programme builds on a strong tradition of Nordic collaboration on sustainable development (SD), with the first Nordic SD strategy adopted in 2001. For the period 2017 – 2020, Generation 2030 places particular emphasis on achieving sustainable consumption and production patterns (SDG 12), which has been identified as one of the most challenging Sustainable Development Goals for the Nordic region. This report presents an analysis of the Nordic countries' progress towards SDG 12 up to 2018.

The survey was carried out during April–June 2018 by experts from PlanMiljø, Denmark: Bjørn Bauer (team leader), David Watson,

Anja Charlotte Gylling, Mads Werge, Kia Rose Egebæk, Nina Svendsen, Betina Brink Laursen Winther and Jeppe Nothlev Nørtoft and with valuable contributions from Mikkel Stenbæk Hansen, Danish Ethical Trading Initiative (DIEH), and Arne Remmen, Aalborg University.

The draft report has been reviewed by the Nordic Working Group for Sustainable Consumption and Production (HKP) under the Nordic Council of Ministers and by UN Environment. Thank you for your most valuable input.

The project group wishes to thank the representatives from a wide range of organisations throughout the Nordic Region for their time and input during interviews – without which this project would not have been possible.

INTERVIEWEES:

From Denmark: Kaj Juhl Madsen (Danish Environmental Protection Agency), Mike Speirs (Ministry of Foreign Affairs of Denmark), Peter Christiansen (Globalt Fokus), Sine Beuse Fauerby (Danish Society for Nature Conservation), Rikke Dreyer (Forum for Bæredygtige Indkøb), Tina Sternest (Confederation of Danish Industry), Dorethe Nielsen (Novo Nordisk), Eva Thybo (VisitDenmark), Steen Hildebrandt (Copenhagen Business School and Aarhus University), Martiina Skoc (PRME (Student organisation at Copenhagen Business School)). From Faroe Islands, Heidi Mortensen, Maria G. Hansen, Lena Ziskason and Sigga Jacobsen (Environment Agency), Guri Højgaard (Visit Faroe Islands). From Finland: Taina Nikula (Finnish Environmental Protection Agency), Tiina Putkonen (Finnish Safety and Chemicals Agency, Tukes), Joini Nissinen (Finnish Association for Nature Conservation and European Environmental Bureau), Sofia Savonen (The Finnish Agenda 2030 Youth Group). From Greenland: Lykke Geisler Yakaboylu (VisitGreenland). From Iceland: Elva Rakel Jónsdóttir (The Environment Agency of Iceland), Tryggvi Felixson (Nordic Council of Ministers). From Norway: Ingunn Sørnes (Innovation Norway, Department of Sustainable Travel and Food), Tormod Lien (Ecolabelling Norway), Audrun Utskarpen (Ecolabelling Norway), Anne-Grete Haugen (MATVET). From Sweden: Annica Carlsson (Swedish Environmental Protection Agency), Johanna Giorgi (Swedish Agency for Economic and Regional Growth), Christina Rådelius (Swedish Agency for Economic and Regional Growth), Katarina Sundberg (Agenda-2030 Delegation Sweden), Ida Texell (Agenda-2030 Delegation, Sweden), Peter Repinski (Stockholm Environment Institute), (Anna Runa Kristinsdottir SWEREA (Network for EcoDesign), Andreas Provodnik (Swedish Society for Nature Conservation), Eva Eiderström (Swedish Society for Nature Conservation). From Åland: Micke Larsson (Ålands Landskapsregering).



”

**The Nordics
stand out as
over-consumers
of natural resources
and substantial
producers of wastes
of all kinds.**

PHOTO: UNSPLASH.COM

INTRODUCTION

In September 2015, the United Nations (UN) adopted the 2030 Agenda for Sustainable Development, including 17 Sustainable Development Goals (SDGs) and a total of 169 detailed targets under the SDGs. The member countries of the UN, including the Nordic countries, have committed to implementing the 2030 Agenda nationally and achieving the goals and targets.

The Nordic countries rank high in international reports of nations' progress towards the 17 SDGs. Along with other industrialised countries, however, the Nordic countries have been ranked poorly in their progress towards SDG 12, which concerns Sustainable Consumption and Production (SCP). For example, the latest SDG Index and Dashboards¹ published by the Sustainable Development and Solutions Network (SDSN) ranks the four largest Nordic countries among the 40 lowest performing countries on two indicators according to SDG 12 (Municipal Solid Waste and E-waste generated) despite taking the top four positions against the 17 SDGs as a whole.

Since global analyses of nations' progress towards the SDGs cover the whole spectrum of the 2030 Agenda they only include a few indicators for each SDG, providing an incomplete idea of the nations' performance on SDG 12. With the adoption of the Generation 2030 programme, the Nordic Council of Ministers (NCM) identified a need to carry out a more detailed assessment of the Nordic countries' progress towards the eleven individual targets under SDG 12 in view of building

a more nuanced picture. This is the reason for the assessment presented in this report.

SUSTAINABLE CONSUMPTION AND PRODUCTION (SCP)

Addressing current unsustainable patterns of consumption and production is imperative for the achievement of sustainable development in a world in which the human population is projected to be 9.7 billion by 2050. Economic growth will need to be decoupled from resource use and environmental degradation, so that inclusive socio-economic development can be sustained.

SCP refers to *"the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of future generations"*.² SDG12 can be regarded an environmental SDG, but with evident connections to social factors and human rights – and pivotal in achieving many other SDGs.

SDG 12 is the goal most interlinked to other goals, being coupled to no less than 14 out of the 16 remaining goals.³ Thus, ensuring sustainable consumption and production patterns is a key transversal *enabler* of Agenda 2030.⁴

There are no gender specific indicators for SDG 12, and related processes, such as the UN 10-Year Framework of Programmes on Sustainable Con-

¹ Sachs et al, 2017.

² UNEP, 2018a.

³ Le Blanc, 2015.

⁴ UNECE, 2018.



The four largest Nordic countries ranks among the 40 lowest performing countries on two indicators according to SDG 12 (Municipal Solid Waste and E-waste generated).

sumption and Production Patterns, are also largely gender-blind. Greater analytical work is needed to fully assess the implications of SDG 12 on gender equality.⁵ As the young people of today will mature in the next 12 years right alongside SDGs, they are the people who will experience the success or failure of the 2030 Agenda. This is why it is particularly important to engage with youth and empower them in our endeavor for a more sustainable future – as reflected in target 12.8.

SCP offers opportunities to attain vital development goals, on a sustained basis, and improve quality of life by promoting efficient, responsible and clean production systems, and sustainable lifestyles. Conversely, unsustainable consumption patterns and management of chemicals and

waste can impede achievement of these goals and may have direct impacts on human health and life quality.⁶

SDG 12 is particularly challenging for the highly developed countries and the world's fast-emerging economies due to their high per capita material footprints.⁷ Previous development agendas have been criticised for failing to fully integrate SCP, despite it having been identified as a key element of sustainable development pathways at the first Earth Summit in 1992. Contributing factors to this include the political difficulty of addressing SCP issues; weak institutional anchoring due to SCP's cross-cutting and systemic nature; and lack of integration of SCP considerations into other sector policies.⁸

⁵ Razavi, 2016.

⁶ TST drafting group on SCP, 2013.

⁷ Kroll, 2015.

⁸ Le Blanc, 2015.

OBJECTIVE AND METHODOLOGY OF THIS REPORT

The overall objective of this report is to assess Nordic countries' progress towards SDG 12 and identify measures that the Nordic national governments and the Nordic Council of Ministers can adopt that have the potential to accelerate progress in areas that are currently lagging.

The analysis covers the five Nordic countries Denmark, Finland, Iceland, Norway and Sweden, as well as Greenland, Åland and the Faroe Islands.

SDG 12 includes 11 targets that vary considerably in the breadth of their scope. The UN's IAEG-SDG⁹ has selected an initial set of indicators that to a certain extent measure progress against these, but the absence of accepted methodologies and necessary data for the operationalisation of many SDG 12 indicators means that the assessment of performances must be based on other sources of information.





For some operational indicators, data exists for all UN countries, and such indicators have been used in the SDG Index and Dashboards for ranking of all countries against individual SDGs. For other indicators, data exists for OECD and/or EU countries but not for all UN countries, and for some targets and underlying UN indicators, no data is available at OECD or EU level, but may exist for Nordic countries, e.g. food waste data (12.3.1). In some cases additional or proxy indicators to the UN ones have been included, for example a Eurostat indicator on collection rates of waste electrical and electronic equipment (WEEE) under SDG 12.4.

In coming to a final evaluation of progress against each target the consultant has made use of:

- Information and data gained from comprehensive literature study
- Relevant available data from international and Nordic data sources
- UN indicators and additional indicators that are available for the Nordic countries and their peers to allow benchmarking (see below)
- Expert evaluations gathered via interviews with more than 40 key thematic experts.

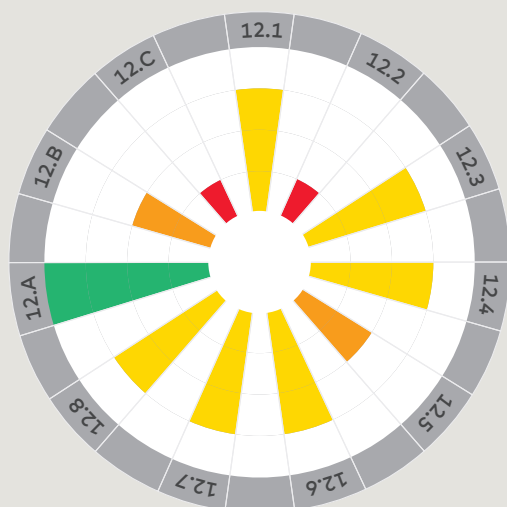
In the assessment of progress, the Nordic Region is – where possible – benchmarked against EU and EFTA countries to evaluate performance against each target.

Results are displayed with a traffic light approach with four colours to indicate progress of the Nordic Region according to the following colour codes. Performance scores are given for the region as a whole; differences in national progress and approach are noted in the text assessments under each target.

-  Close to achievement
-  Well on the way
-  An uphill climb
-  Little progress

⁹ Sachs et al, 2017.

NORDIC PROGRESS ON SDG12



- Close to achievement
- Well on the way
- An uphill climb
- Little progress

12.1 Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries.

12.2 By 2030, achieve the sustainable management and efficient use of natural resources.

12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

12.A Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production.

12.B Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.

12.C Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities.

NORDIC PROGRESS TOWARDS SDG 12 TARGETS

The Nordic region has favourable conditions to enable a joint transition towards SCP. The countries share a common culture with a strong sense of equality embedded in the Nordic welfare model. Further strengths are consensus-based political cultures, strong local governments, a high degree of trust and a high level of collaboration across stakeholder groups, and a long-lasting tradition of political cooperation across the region. On top of this the pursuit of SCP is enabled by a highly educated population with relatively high environmental awareness, especially amongst the younger generations, and a generally high level of transparency and trust in state authorities.¹⁰

The wealth of the Nordic countries constitutes both a challenge and an opportunity with respect to SDG 12: the high consumption of resources and products leads to high material footprints and high volumes of waste; but the level of wealth also allows for the purchase of more sustainable goods and services both by households and government, for investments in new eco-innovative technologies and strategic endeavours at national and regional levels.

However, this potential will only be realised through setting out bold policies and strategies and allocating sufficient resources for implementing them. The Nordic countries perform moderately on SDG 12, with variations at the individual target level, and with ample room for improvement at both political and practical levels. SDG 12 is pivotal in achieving many of the other SDGs and thus provides a key leverage point for the Nordic countries.

The following analysis of the Nordic countries' progress towards SDG 12 reveals Nordic challenges and strengths within the individual 11 target topics and identifies areas where increased efforts are necessary to bring the Nordic countries in the direction of fulfilling SDG 12 before 2030.



In the following, individual targets are discussed and progress assessed as far as data, literature and interviews allow benchmarking against peer countries.

¹⁰ Sachs et al, 2017.

NATIONAL PROGRAMMES ON SCP



TARGET 12.1: Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries.

UN INDICATOR: 12.1.1 Number of countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or a target into national policies.¹¹

Inclusive and evidence-based governance is key to achieving SCP patterns, but policy responses do not always respect the interconnectedness of challenges, resulting in fragmented approaches. An adaptive, interconnected and responsive institutional framework, including policies, laws, financing, technology, diverse stakeholders and practices should help connect the dots between various sustainable development challenges.¹²

PROGRESS TOWARDS TARGET

The Nordic region is assessed as being well on the way towards this target

The Nordic countries possess significant resources to develop ambitious SCP schemes and to monitor progress towards achieving the SDG 12 targets, based on the existing comprehensive Nordic data frameworks.

As the experts have underlined, circular economy principles have a great role to play in relation to resource efficiency, material flows, waste generation and waste management. National circular economy strategies are therefore important elements in the coordinated national effort for pursuing SDG 12.

Most Nordic countries have a dedicated SCP policy/strategy, or a circular economy strategy,

promoting resource and energy efficiency and sustainable infrastructure and reducing pollution. The countries with less consolidated SCP policies/strategies have SCP elements embedded in guiding documents for relevant policy areas like economy, industry and energy/climate.

In 2014 Finland adopted a material efficiency programme¹³ designed to implement concepts from the 2012 Sustainable Development Summit and the EU's SCP Action Plan, and the programme was updated in 2018. The Finnish Innovation Fund Sitra in 2016 prepared a roadmap to a circular economy,¹⁴ a multistakeholder strategy developed in cooperation with three ministries, the business sector and other key actors. On the international scene, Finland has been at the forefront of progressing the global agenda on SCP and circular economy. Finland was co-leader of the Marrakesh Task Force on Sustainable Buildings and Construction (SCB), which later became the SCB Programme under the 10YFP under continued co-leadership of Finland. In 2017, Finland held the world's first international circular economy conference in Helsinki,¹⁵ which it will host again in 2019.

In Iceland, SCP elements – such as waste treatment and hazardous substances – are embedded in the sustainable development strategy,¹⁶ but not very prominently, as the strategy focuses on Iceland's natural resources, taking little account of the impact of Iceland's consumption on other parts of the globe. At municipal level SCP issues have been facilitated via the Local Agenda 21 initiative, a joint venture between the Ministry

¹¹ No data for this indicator is currently available. This section presents the status of the Nordics but does not benchmark against other countries.

¹² TST drafting group on SCP, 2013.

¹³ Finnish Ministry of Employment and the Economy, 2014.

¹⁴ Rajantie, 2017.

¹⁵ SSitra – Forum (n.d.).

¹⁶ Icelandic Ministry for the Environment, 2002.

for the Environment and the association of local authorities. While the country does not have a specific SCP strategy it has worked on specific areas under the SCP umbrella, including control of hazardous waste and hazardous chemicals in products¹⁷ and more recently in the area of food waste.

Several initiatives in Sweden indicate a strong political commitment and emerging action towards SCP. In 2016, both a national Strategy for Sustainable Consumption¹⁸ (12.2 and 12.8) and a national public procurement strategy¹⁹ (12.7) were adopted, the latter as a catalyst for green innovation in the public sector and in business. In the same year, tax breaks and VAT reductions were adopted for rental, repair and second hand services for clothing, bicycles and white goods as a first step in encouraging circular business models and circular consumption (12.6). The Swedish Environmental Council, which comprise 16 ministries, every year submits new environmental targets and initiatives, in 2018 focusing (among others) on sustainable procurement, sustainable lifestyles and food waste²⁰. The recent National Strategy for Smart Industry specifically points out sustainable production and increased resource efficiency as focus areas for strengthening Swedish industry.²¹

Norway already launched a sustainability strategy in 2004, with reference to the Millennium Development Goals and containing a long series of SCP-related considerations and efforts, including sustainable public procurement, ecolabelling, consumer awareness, school projects, increased resource productivity and environmental taxes.²² The Bioeconomy Strategy from 2016 demonstrates an explicit circular economy approach with a cross-sectorial focus on renewable biobased products and sustainable production.²³ On the 21st of June 2017, the Norwegian government presented a White Paper on waste policies in a circular eco-

nomy with an emphasis on increasing reuse and recycling to the Norwegian Parliament.

In Åland, a democratic approach was taken in 2014 towards developing a sustainable vision for the islands; every citizen was invited to take part in the process, which resulted in four sustainability principles and seven sustainability goals. One goal of the 2016 Sustainability Strategy is focused on SCP, with the target that by 2030 all consumption will be sustainable and all waste will be regarded as a resource.²⁴

Denmark's current sustainable development strategy²⁵ from 2014 is limited in its inclusion of SCP elements. Relevant elements are a goal for 50% recycling of household waste (which is in any case required under the EU Waste Framework Directive), a 40% reduction in use of pesticides and regulation of other hazardous substances (12.4). The waste prevention strategy from 2015²⁶ placed focus amongst other things on more resource efficient business, consumption of greener goods and services, and reduced food waste and packaging waste. These objectives have been implemented via soft measures and the area have had less focus during recent years.

CHALLENGES AND STRENGTHS

The Nordic countries overall have SCP national strategies or SCP mainstreamed as a priority into national policies (with Denmark showing least progress) and budgets are allocated for implementation. Changing the present unsustainable consumption and production patterns is a long-term process, and a broad political consensus supporting radical changes is not apparent in all countries.

RECOMMENDATIONS

The NCM should further support the UN SCP work with preparing a joint Nordic indicator and monitoring framework for the continuous monitoring and annual evaluation of SDG 12 progress – in cooperation with UN Environment.

All Nordic countries should prepare dedicated national SCP or Circular Economy policies and strategies in an inclusive manner and with concrete targets and indicators. The policy and strategy should ensure transversal integration of SCP into other national policies.

¹⁷ Norwegian Government, 2016a.

¹⁸ Swedish Ministry of Finance, 2016.

¹⁹ Ministry of Finance, 2017.

²⁰ Swedish Environmental Council, 2018.

²¹ Swedish Government, 2016a.

²² Norwegian Government, 2004.

²³ Norwegian Government, 2016b.

²⁴ Bärkraft.ax, 2017.

²⁵ Danish Government, 2014.

²⁶ Miljøstyrelsen (Denmark), 2015.

SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES



TARGET 12.2: By 2030, achieve the sustainable management and efficient use of natural resources.

UN INDICATORS: 12.2.1 Material footprint, material footprint per capita, and material footprint per GDP.

12.2.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP.

Additional indicators used in this assessment: % anthropogenic wastewater that is treated and environmental taxes as a share of total taxes and social contributions.

The Earth's natural resources are vital to the survival and development of the human population. Freshwater, forests and harvesting products are renewable, provided that exploitation does not exceed regeneration. Fossil fuels and metal ores are nonrenewable. Although many effects of over-exploitation are felt locally, international trade in natural resources, make their demand and sustainable management a global issue (EEA, 2016a).²⁷ Nations must, therefore, not only be aware of their own domestic extraction of resources but also of the resources extracted in other countries to feed their demand, and the prime indicator for this is Raw Material Consumption (RMC). Resource footprints should be kept within global carrying capacity where this has been mapped.

However, material footprint indicators using RMC data are not yet available for Nordic countries. Therefore, calculations are based on the weaker Domestic Material Consumption (DMC) indicators that only include the physical weight of imports but not the resources used to produce them.

PROGRESS TOWARDS TARGET

The Nordic region is assessed as having made little progress towards this target

Material footprints are amongst the highest in Europe, with Finland and Norway topping the European tables and Denmark and Sweden not far behind in 6th and 7th places. This is in part a result of high levels of wealth. However, the Nordic nations' resource productivity, which takes account of GDP levels, falls far behind peers such as Switzerland, the Netherlands and the UK.

While the material footprint of these three leading countries fell between 2000 and 2014, and resource productivity increased substantially, only moderate progress was made in Sweden, Denmark and Finland, and resource productivity actually fell in Norway.²⁸

Countries that perform well in DMC and resource productivity may simply be those that increasingly 'outsource' their heavy industries abroad and whose domestic economy further shifts towards service industries.²⁹ Nordic countries such as Sweden, Finland and Norway, on the other hand, have retained heavy extractive industries, such as timber, iron and oil. Sweden's metal ore extraction, for example, nearly doubled between 2009 and 2014 and now constitutes more than 25% of the country's material footprint (EEA, 2016b). A further 25% of Sweden's and Finland's material

²⁷ EEA, 2016a.

²⁸ EEA, 2016b.

²⁹ OECD, 2015.

footprint is from biomass extraction, much of which comprises timber.

When DMC is eventually replaced by RMC as a material footprint indicator this may tell another tale as the effects of outsourcing are removed. Material resource use as measured by RMC will become more closely related to the high levels of wealth and material consumption of Europeans and not to the specific industries which individual countries have specialised in.

A further factor in the decline of DMC in a number of European countries was a sharp decline in construction projects following the economic crisis (EEA, 2016b). Across Europe the construction industry declined until 2013 and was still much reduced compared to precrisis even by 2016.³⁰ This decline was also apparent in Denmark³¹ and Finland³² but not in Sweden and Norway.³³ As the construction industry recovers, DMC may increase rapidly again and gains since 2007 may be eaten away (EEA, 2016b). It should be noted, though, that while construction materials make up around half of DMC, they are only responsible for 1% of the climate impact of material resource use.³⁴

CHALLENGES AND STRENGTHS

A high level of wealth was perceived by many experts as the key challenge to reducing a region's resource footprint. Material resources remain cheap globally with, apart from fossil fuels, few taxes placed on them that could have the effect of reducing demand. The experts further stress the issue of externalities not being included in global material prices, and the lack of decoupling. This is perhaps less true in the Nordic countries than elsewhere. The Nordics have earlier been frontrunners in the use of environmental taxes and charges to curb nitrogen and sulphur emissions and extraction of water.³⁵ The Nordics have, however, lost their leading position in the use of environmental taxes.³⁶

Sweden recently broke new ground by tentatively engaging in economic instruments that address

product lifetime and thus material consumption. Tax breaks and VAT reductions were adopted in 2016 for rental, repair and second hand services for clothing, bicycles and white goods as a first step in encouraging circular business models and circular consumption. This is one of the first implementing measures in a national Strategy for Sustainable Consumption.³⁷

Some experts claim that attempts to nudge consumption patterns will have relatively little effect, while the key indicator of progress continues to be economic growth. Efforts have been made in various places around the world to develop and adopt Green GDP or Beyond GDP indicators that adjust for losses in the quality of natural resources. Many of these efforts died with the economic crisis. Sweden and Denmark have been global leaders in the development of green national accounts, although the Danish government removed funding from Statistics Denmark for carrying out these activities in 2017.³⁸ The technical capacity still remains, even if the political commitment does not.

RECOMMENDATIONS

The NCM should prepare a joint Nordic guideline for Green National Accounts and carry out a pilot for all the Nordic countries. The Nordic countries should annually prepare Green National Accounts that highlight the link between the economy and the environment, and take account of losses of environmental quality, impacts on human health and other sustainability costs and assets. This would take advantage of the high Nordic knowledge of green national accounts.

Impacts on key green national account indicators should be considered when developing resource extraction, energy, transport, agricultural and other policy that affects natural resource use. The Nordic countries should develop and maintain material footprint and resource productivity indicators based on Raw Material Consumption and adopt concrete targets for reducing their footprints.

The Nordic countries should develop Sustainable Consumption strategies and/or action plans which use hard as well as soft measures to nudge consumption towards less material intensive consumption patterns.

³⁰ CBS – Construction, 2016.

³¹ Danish EPA, 2016.

³² EEA, 2016c.

³³ EEA, 2016d.

³⁴ Danish EPA, 2016.

³⁵ Skjelvik et.al., 2011.

³⁶ Eurostat (n.d).

³⁷ Swedish Ministry of Finance, 2016.

³⁸ Drivsholm, 2017.

REDUCING FOOD WASTE



TARGET 12.3: By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.

UN INDICATOR: 12.3.1 Global food loss index.

One third of the food production in the world is either lost or wasted. Food waste occurs in all sectors of the value chain from field to fork – from farmers to consumers. Approximately 1.3 billion tonnes of food produced for human consumption is wasted every year, with the largest fraction in developing countries being food loss at post-harvest and processing levels (40%) and in industrialized countries being food waste from the retail and consumer levels (40%).³⁹

PROGRESS AGAINST TARGET

The Nordic region is assessed as being well on the way towards this target

Food waste data are improving in the Nordic countries. Norway, Sweden and Denmark now have fair data on the amounts of food waste from consumers and to a certain extent from the retail and service sectors.

- In Denmark, recent data shows an 8% decrease in the amount of food waste from households since 2011.⁴⁰
- In Norway, figures show a decrease in household food waste at around 10% in the period 2010–2016, and Norwegian retailers have in the same period reduced food waste by 25%.⁴¹

- In Sweden, data on food waste from households up to 2016 is not encouraging as there has been no reduction in the period 2014–2016.⁴² However, new initiatives have been launched to improve the situation.
- A Finnish study from 2014 shows that Finnish households produce 120,000 tonnes of food waste per year,⁴³ but no figures on progress are available.
- No data is available from Åland, Faroe Islands and Greenland.

The Nordic retailers and consumers are on the right track – but they still waste substantial amounts of food, clearly indicating a correlation between wealth and food waste amounts. On the other hand, an effective food production system in the Nordics leads to modest food loss/waste amounts from harvest to consumer – in percentage of total food production ranging between 3.1% (Denmark) and 0.4% (Finland).⁴⁴

CHALLENGES AND STRENGTHS

The high levels of food waste at consumer and retail levels have led to significant waste reduction efforts in the Nordic countries, led by organiza-

³⁹ FAO, 2018.

⁴⁰ Danish EPA, 2018.

⁴¹ Stensgard og Hanssen, 2018.

⁴² Naturvårdsverket, 2018.

⁴³ Silvennoinen et.al., 2014.

⁴⁴ Global Food Security Index, 2017.

tions such as *Matvett* in Norway and *Stop Spild Af Mad* in Denmark. The discussion is rapidly evolving – from a narrow focus on consumer food waste to a wider acknowledgement of food waste as a problem occurring in all parts of the food value chain, requiring solution models based on cross-stakeholder initiatives.

In Denmark, Sweden and Norway partnerships have been put in place to strengthen cooperation across the value chain. The Norwegian Government in 2017 signed an agreement with the food industry to reduce food waste across the entire value chain by 50% by 2030 – precisely matching target 12.3.⁴⁵ In Sweden a similar process was initiated in October 2017 and a strategy was adopted in June 2018.⁴⁶ Denmark adopted a waste prevention strategy, in 2015 with (amongst other themes) aspirations of reducing food waste amounts.⁴⁷ The objectives have been pursued via soft measures; the political commitment has faded, but many of the efforts are continued by dedicated stakeholders.

The overall key challenges of the Nordic countries in respect to 12.3 relate to:

- Lack of public attention and data on food loss from primary production
- A retail market demanding vegetables and fruit of a uniform size and appearance
- Too few redistribution systems for excess food from retail – compared to e.g. France that has more than 100 food banks

- Lack of knowledge in households on estimating durability of food and utilizing leftovers
- Lack of knowledge among young people and insufficient resources for school projects.

RECOMMENDATIONS

Significant initiatives are required, if the Nordic countries are to approach the 50% reduction target.

The NCM should support the development and adoption of a common Nordic definition and methodology for measuring food waste and food loss from the complete value chain and not least from primary production, since this is lacking at international level.

Each of the Nordic countries should establish cross-sectoral agreements on food waste reduction with binding targets and reporting obligations, using the common measurement methodology developed by NCM.

The countries should remove regulatory barriers to food donation and prepare clear provisions for determining VAT and taxes for food banks. Governments should support food banks and research smart packaging and food waste reducing additives.⁴⁸

The NCM could further strengthen food knowledge and food literacy among children through joint programmes and materials for the region.

⁴⁵ Klima- og Miljødepartementet et.al., 2017.

⁴⁶ Livsmedelsverket, 2017 and Livsmedelsverket et al 2018.

⁴⁷ Danish EPA (n.d.). The official Danish Partnership against Food Waste was closed by the government in December 2017, but other actors now continue the efforts.

⁴⁸ NCM, 2017b.

SOUND MANAGEMENT OF CHEMICALS AND WASTES



TARGET 12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

UN INDICATORS: 12.4.1 Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement
12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment.

Additional indicators: Since WEEE is also hazardous waste the following additional indicators have been included: *EEE put on the market per capita and Share of WEEE that is collected and treated under WEEE schemes.*

It is estimated that 85,000 different chemicals are used by industry worldwide of which the majority have had no risk assessment.⁴⁹ Chemical use and associated risks are increasing globally and it has been estimated that impacts on human health and ecosystems cost society up to 10% of GDP.⁵⁰ Exposure of humans and ecosystems to hazardous chemicals and chemical cocktails can come via a number of routes including airborne and water-borne emissions, use of agricultural, industrial and household products and exposure to incorrectly treated hazardous waste. Hazardous waste poses a greater risk to human health and the environment than non-hazardous wastes, and thus requires a strict control regime.⁵¹

PROGRESS TOWARDS TARGET

The Nordic region is assessed as being well on the way towards this target

Nordic progress is mixed on this target. On the one hand, the Nordic countries are some of the largest generators of hazardous waste in Europe. On the other, the region has taken a global role in encouraging progressive improvements in reducing the risk presented by hazardous substances, both by strictly controlling substances placed on the market and by safe collection and treatment of hazardous waste.

Denmark, Finland and Norway are amongst the top five generators of hazardous waste at over 300 kg/year/capita. Norway, Iceland, Denmark and Sweden, meanwhile, are amongst the top six consumers of electrical and electronic equipment

⁴⁹ Gross and Birnbaum, 2017.

⁵⁰ Trasande, L., 2016.

⁵¹ EEA, 2016e.

(EEE) at over 26 kg/year/capita which must also be treated as hazardous when discarded. Collection rates and responsible treatment for WEEE is reasonably high, however, with Norway and Sweden topping European tables with 58% collection. The high generation figures for hazardous waste as a whole may also be an indicator of responsible treatment, rather than of a high level of use of dangerous substances. There is a risk that countries that report low generation of hazardous waste may simply not be making efforts to collect and responsibly treat it. It may instead be discarded in ordinary mixed waste with subsequent increased risk of emissions into the environment and subsequent exposure of humans and ecosystems.

The Nordic countries along with all EU Member States are full signatories to the 1989 Basel Convention, the 1998 Rotterdam Convention and the 2001 Stockholm Convention.

CHALLENGES AND STRENGTHS

All the Nordic countries have advanced systems to control the use and release of chemicals. The Swedish Chemical Agency KEMI, has a Strategy for a Non-toxic Environment which is implemented via consecutive action plans. One implementing measure is a strategy and process for the restriction of chemicals in products, with focus on toys, clothing, EEE, construction materials and furniture.⁵² KEMI assists businesses by providing a so-called SIN list of substances that will be banned within a few years under this strategy. The Swedish strategy is backed up by strict inspection and enforcement.

Inspection and enforcement of substance restrictions in consumer products for children and young people was also the focus for 40% of a 185 million DKK budget under a chemical initiative adopted by the Danish Parliament for the period 2014–2017.⁵³ A further half of the budget was aimed at lobbying towards stronger restrictions of hormone-disrupting chemicals at EU level under the REACH regulations.⁵⁴ Swedish KEMI has, meanwhile, submitted several proposals to the EU Commission on how REACH can be more effectively applied.⁵⁵

Through these kinds of activities, the individual Nordic countries and the Nordic Council of Ministers have been at the forefront of international development of substance control. The coming EU Strategy for a Non-Toxic Environment is largely based on Swedish national initiatives.⁵⁶

RECOMMENDATIONS

Nordic countries should continue to phase out most hazardous chemicals in manufacturing processes and take action to prevent chemical waste from arising.

The Nordic countries and the Nordic Council of Ministers should continue to provide a strong lobbying position at EU level in development and implementation of strategies and directives on hazardous substances through the provision of timely studies and research and good examples.

⁵² European Commission, 2017b.

⁵³ Ibid.

⁵⁴ Jerking, 2015.

⁵⁵ KEMI, 2017.

⁵⁶ Chemical Watch, 2014.

REDUCE WASTE GENERATION



TARGET 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.

UN INDICATORS: 12.5.1 National recycling rate, tons of material recycled.

The following additional indicators have been included to reflect progress:

Generation of municipal solid waste per capita; Recycling rate of municipal waste;

Recovery other than energy recovery – except backfilling (for all waste excluding soil);

Circular material use.

A society that meets its needs while producing less waste is more resource efficient, with lower environmental risks from waste management.⁵⁷ Waste can be prevented via reducing the consumption of material products through a change in consumption pattern, through extending the lifetimes of those products we do use, for example via reuse, and through more efficient production processes. Recycling, although it does not under strict definitions lead to a reduction in waste generation, can also reduce the demand for virgin material resources. All these actions are part of a circular economy.⁵⁸

PROGRESS TOWARDS TARGET

The Nordic region is assessed as having an uphill climb ahead to reach this target

The Nordic countries are progressing reasonably well towards the target according to the selected indicators and expert assessments. This is partly, however, due to the emphasis on recycling-based indicators within the indicator set. When going further up the waste hierarchy to prevention, the high levels of municipal waste per capita in Nordic countries suggest that the countries face considerable challenges. Denmark and Norway have the highest per capita municipal waste generation in Europe with Iceland also being in the top five.

High wealth is certainly a major driver of waste generation: in both Denmark and Norway waste generation fell sharply after the economic crisis⁵⁹ but has since rebound to close to precrisis levels. However, Sweden, despite similar levels of wealth, has significantly lower waste generation; less than 60% of Denmark's. It is not clear what lies behind these differences. On the other hand, Denmark is somewhat better than the other Nordic countries at recycling, particularly when looking to all waste streams. This is in part due to a longterm focus on recycling of construction and demolition waste, which comprises 30% of Danish waste.

Looking further afield, the Nordic countries still fall some way behind European leaders in recycling such as Belgium, the Netherlands, Slovenia and Austria. Belgium reports a recycling level for all waste of 78% compared to the best-performing Nordic country at 59%. This may be in part due to an early Nordic focus on energy recovery from waste.

CHALLENGES AND STRENGTHS

In part as response to a requirement under the revised EU Waste Framework Directive, some of the Nordic countries have developed waste

⁵⁷ EEA, 2017.

⁵⁸ EEA, 2016f.

⁵⁹ Kjær, 2013.

prevention strategies. These vary somewhat in how concrete their goals are. The Swedish⁶⁰ and Finnish⁶¹ strategies include quantitative targets for waste prevention. The Finnish target is for stabilisation and gradual reduction of municipal waste generation after 2016, but proposes that industrial sectors develop their own material efficiency agreements and targets. The Swedish strategy includes reduction targets for total waste generation, textile waste, WEEE and construction waste. The Danish strategy⁶² does not include any quantitative targets.

More recently, the EU's Circular Economy Package has inspired similar approaches in some Nordic countries, often with strong industry involvement in the process. A Danish Advisory Board on Circular Economy presented 27 recommendations to the government in 2017;⁶³ at least some of these are expected to be included in a coming national circular economy strategy. The Finnish Innovation Fund (Sitra) prepared a multistakeholder Roadmap to a Circular Economy in 2017.⁶⁴

The Nordic waste prevention and circular economy roadmaps rely very much on soft measures such as partnerships, voluntary agreements and platforms to meet targets rather than harder economic or regulatory measures.⁶⁵ One challenge to waste recycling and re-circulation of materials is the partial lock-in that can be caused by heavy commitment to, and investments in incineration for energy recovery (in Denmark, Sweden and Norway). While this may reduce municipal waste companies' commitment to waste prevention and material recycling, national government may be less affected.

In Iceland and Greenland, challenges are geographical according to interviewed experts; setting up systems for collection across sparsely populated, rugged landscapes is a logistics challenge while the small size of economies and long distance to larger economies have challenged access to recycling facilities.

Otherwise experts consider that the Nordics have many strengths to draw on with respect to increased recycling. These include a high environmental awareness among both citizens and businesses and a strong willingness to engage in separation of waste. Moreover, Nordic businesses have a strong track record in developing technological and innovative recycling solutions and material efficiency measures that can be brought to bear. The NCM paves the way for significant waste reduction through joint pilot projects analysing and demonstrating waste prevention and reuse methods, including regulation such as prolonged product warranty and ecodesign minimum requirements for selected product groups.

RECOMMENDATIONS

The waste systems are in general well-functioning, but bold initiatives are necessary to reduce the high levels of waste from all sectors of the society. The Nordic region and the individual countries should establish themselves as world leaders in circular economy with ambitious targets and strategies and allocation of sufficient resources to genuinely demonstrate ways of reducing waste amounts and ensuring recycling of waste resources.

⁶⁰ Naturvårdsverket, 2015.

⁶¹ Finnish Ministry of employment and Economy, 2014.

⁶² Danish EPA, 2015.

⁶³ Miljø- og Fødevareministeriet, 2017.

⁶⁴ Rajantie, 2017.

⁶⁵ EEA, 2015.

COMPANIES' SUSTAINABLE PRACTICES



TARGET 12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

UN INDICATOR: 12.6.1 Number of companies publishing sustainability reports.
Additional indicators used: *EMAS licenses; ecolabel licenses.*

The practices of businesses across the globe today are largely unsustainable in terms of issues related to human rights, labour rights and environment/ climate change. The private sector plays a pivotal role in delivering on the SDGs through adopting sustainable practices, sustainable business models, supply chain management and integration of sustainability information into their reporting cycle. More and more companies are committing to responsible business practices, promoting dialogue, and engaging with stakeholders. It is clearer now than ever that addressing societal concerns while advancing enterprise interests can be mutually supportive.

PROGRESS TOWARDS TARGET

The Nordic region is assessed as being well on the way towards this target

Numerous studies and reports strongly suggest that over the last decade, an increasing number of Nordic companies – in particular large companies – have taken concrete action towards more sustainable practices and also integrated sustainability information into their reporting cycle. This is also the case for businesses globally.

According to KPMG, corporate responsibility reporting is standard practice for large companies around the world with around 75% of the 4,900

companies studied issuing corporate responsibility reports. 78% of the world's 250 biggest companies now integrate financial and non-financial data in their annual financial reports.⁶⁶ Swedish and Finnish businesses lie in the global top 6 in linking CSR reporting to SDG goals and targets while Swedish and Danish companies lie in the top 10 of companies that include human rights considerations.

The KPMG survey only covers the largest 100 companies in each country, and CSR reporting is less prevalent for the smaller companies. CSR reporting registered by the Global Reporting Initiative⁶⁷ has been carried out by between just 1% (Iceland) and 23% (Finland) of companies with more than 250 employees since 2015.⁶⁸ The remaining three Nordic countries lay between 5% and 10% of large companies..

Having a sustainability report does not necessarily mean that a company is actively engaging in sustainable practices as required by target 12.6. This can depend on whether the CSR reporting is an add-on, or whether it has buy-in and influences decisions at top management level.

Commitment can be demonstrated via other indicators. Nordic organisations have 1.4% of all EMAS (European environment management

⁶⁶ KPMG, 2017.

⁶⁷ GRI Web-portal (n.d.).

⁶⁸ This is based on calculations using GRI data combined with data from national statistics offices on total numbers of large companies.

system) licenses in Europe,⁶⁹ and 5.4% of all EU Ecolabel licenses.⁷⁰ Representing 5% of EU+EFTA by population, this makes them average with respect to ecolabelled goods and underperformers with respect to EMAS. However, Nordic countries place far more emphasis on the region's Nordic Swan label for goods and services, which has a much higher consumer recognition at 91% compared to 36% recognition of the EU Ecolabel. Nordic businesses are world leaders in gender equality. The World Economic Forum (2017)⁷¹ ranks Iceland, Norway, Finland and Sweden in the top five countries in smallest gender gap according to a range of business and gender indicators (Denmark lies in 14th position).

CHALLENGES AND STRENGTHS

On the policy side, the Nordic countries have in some cases spearheaded policy and regulation that promote more sustainable business practices. Concrete examples of this are the Danish Financial Statements Act⁷² and the Norwegian Accounting Act (Regnskapsloven)⁷³ that were inspirational in the development of EU Directive 2014/95/EU on corporate non-financial reporting. Other examples include comprehensive national support programmes for green business initiatives in all the countries.

Furthermore, the Nordic countries have a long tradition for cross-sectoral collaboration and partnerships for sustainability, including multistakeholder networks and public-private partnerships. Examples of these include the P4G (Partnerships for Green Growth for Global Goals) initiative, the network, Swedish Leadership for Sustainable Development, as well as as well as the Norwegian and Danish Ethical Trading Initiatives. However, there is still plenty of room for adopting more

sustainable practices and for displaying sustainability information in a more regular and transparent manner. There is also significant potential for improving Nordic companies' sustainability practices through increased use of policy-business dialogue and multistakeholder networks and partnerships.

RECOMMENDATIONS

The NCM should form a Nordic CEO roundtable on responsible business conduct and prepare an annual progress report with recommendations for actions on responsible investments, including impact investments. The NCM should further showcase best Nordic examples of sustainable business practices and corporate sustainability reporting internationally.

The Nordic countries should continue launching support programmes for sustainable businesses and create incentives for companies that produce sustainable goods/services or have environmental management systems. The Nordic countries should prepare annual reports on companies' CSR reporting to monitor compliance with EU Directive 2014/95/EU on non-financial reporting, which will also provide data for the SDG 12.6 progress assessment.

The Nordic countries should continue to promote national multistakeholder networks, initiatives and partnerships for responsible business conduct, hereby also supporting the use of key international guidelines and principles for responsible business, particularly the UN Guiding Principles on Business and Human Rights⁷⁴ and the OECD Guidelines for Multinational Companies.⁷⁵

⁶⁹ EC, 2018a.

⁷⁰ EC, 2018b.

⁷¹ World Economic Forum, 2017.

⁷² Krog and Brændstrup, 2013.

⁷³ Stenstrup, 2016.

⁷⁴ UN, 2011.

⁷⁵ OECD, 2011.

SUSTAINABLE PUBLIC PROCUREMENT



TARGET 12.7: Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

UN INDICATOR: 12.7.1 The number of countries implementing sustainable public procurement policies and action plans.⁷⁶

Around 16 % of the GNP in the Nordic countries is linked to the public institutions' procurement of products and services, and the potential impacts of Sustainable Public Procurement (SPP) are significant. SPP is defined as: *"A process whereby public organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life cycle basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst significantly reducing negative impacts on the environment."*⁷⁷ This definition elucidates that target 12.7 is closely linked to most of the other SDGs.

SPP follows the essential elements of good public procurement – transparent, fair, non-discriminatory, competitive, accountable, efficient use of public funds, and verifiable – whilst integrating the three dimensions of sustainable development: social, environmental, and economic. SPP requires an understanding of the full impacts of a purchase throughout the whole life cycle of a product or service, irrespective of location, from the sourcing of natural resources through end-of-life management (e.g., reuse, recycle, and disposal).⁷⁸

PROGRESS TOWARDS TARGET

The Nordic region is assessed as being well on the way towards this target

All the Nordic countries have been engaging in Green or Sustainable Public Procurement (GPP/ SPP) for many years at national and not least subnational levels, and there is plenty of evidence that SPP can lead to significant societal and environmental benefits.⁷⁹ However, in all countries it appears that subnational efforts have been more committed and substantial than endeavours at national level.

- Finland already in 2009 introduced a policy requiring inclusion of sustainability criteria in all state procurement by 2015⁸⁰ and in 2018 launching a new Competence Centre for Sustainable and Innovative Public Procurement (KEINO) to further promote SPP within national and local government.⁸¹
- Sweden is accelerating efforts within SPP which has been pointed out as a specific focus area in the 2018 priority plan from the Swedish Environmental Council comprising 16 ministries.⁸²

⁷⁶ No data for this indicator is currently available. This section presents the status of the Nordics but does not benchmark against other countries.

⁷⁷ UN 2015.

⁷⁸ Ibid.

⁷⁹ Hillgrén et al, 2016.

⁸⁰ Bauer et al, 2016.

⁸¹ Keino, n.d.

⁸² Swedish Environmental Council, 2018.

- The new Norwegian Act for Public Procurement states that national, county and municipal authorities and bodies shall organise their procurement activities in such a way that they reduce harmful environmental impacts and promote climate friendly solutions where relevant, including working with lifecycle costs.⁸³ Norway has integrated SPP in the new strategy for green competitiveness,⁸⁴ strengthened the national organisational structure for SPP, and allocated resources for capacity building.

CHALLENGES AND STRENGTHS

Globally, and to some extent in the Nordic countries, there is a perception that SPP can be troublesome and expensive – and if the SPP principles are not pursued at a larger scale and at national level, this tends to be a self-fulfilling prophecy: the market is not ready; setting criteria is a complex matter; procurement staff has limited knowledge; success factors do not include sustainability achievements; monitoring excludes sustainability factors etc. These are some of the challenges that have been mentioned by the experts.

The traditional overall key challenge according to the experts in respect of SPP has been lack of political commitment – not least from Ministries of Finance – to genuinely seek to harvest the potential benefits of intelligent, society oriented and sustainable procurement. Finland, Sweden and Norway are now on the right track demonstrating that aspiring public procurement policies and programs are inevitable ingredients in future oriented

national policies. Even though SPP cannot be said in general to have been mainstreamed into the public sectors' procurement practices, there are promising undertakings in the Nordics.

The NCM has carried out a long range of relevant projects within this field covering topics such as development of SPP policies,⁸⁵ innovative procurement,⁸⁶ criteria for green procurement,⁸⁷ organisation of green framework contracts and effective green procurement,⁸⁸ and best Nordic SPP practices.⁸⁹ The extent to which these valuable concepts, tools and experience are being utilised depends on the nature of the national public procurement models which do not necessarily open up for ambitious national and subnational SPP endeavours.

RECOMMENDATIONS

The Nordic governments should formulate more ambitious SPP policies with mandatory targets and clear strategies, enabling the public sector and the societies to reap the full benefits of SPP and motivating the market to prepare more sustainable products and services. The strategies should be accompanied by centralised capacity building, preparation of procurement criteria, and establishment of monitoring and compliance control systems.

The NCM should establish a formalised network between national and subnational procurement entities in the Nordic region, allowing exchange of experience, joint preparation of procurement criteria etc.

⁸³ Norwegian Government, 2016c.

⁸⁴ Norwegian Government, 2017.

⁸⁵ NCM, 2006.

⁸⁶ Bauer et al, 2008.

⁸⁷ NCM, 2009.

⁸⁸ Bauer et al, 2015.

⁸⁹ Hillgrén et al, 2016.

INFORMATION AND AWARENESS



TARGET 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

UN INDICATOR: 12.8.1 Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment.

Additional indicator: *Environmental awareness amongst young people.*

Embarking on the path of sustainable development will require a profound transformation of how we think, act and engage with sustainability-related issues as addressed in the SDGs, and individuals must become sustainability change-makers.^{90, 91} Education, or the transmission, acquisition, creation and adaptation of information, knowledge, skills and values, is a key lever of sustainable development and of achieving the SDGs in general.⁹² Target 12.8 is closely interlinked with the other SDGs, and in particular SDG4. A main point is to develop a deep understanding of which sustainability issues are at stake, now and in the future. The world is constantly and rapidly changing, what we think is sustainable today might not be sustainable tomorrow. Sustainability issues are characterised by complexity and uncertainty, and as a result education for sustainable development needs to evolve itself in order to be able to provide skills and competences that enable citizens to cope with this complexity and uncertainty. In order to deal with future sustainability issues, societies need to become flexible, adaptive and resilient.⁹³

PROGRESS TOWARDS TARGET

The Nordic region is assessed as being well on the way towards this target

The principles of sustainable development have been part of the national education policies and school curricula for many years in most Nordic countries, but sustainability is still to a large extent seen as an add-on in education rather than as being integrated into all subjects. The NCM has investigated the topic in a range of projects and provided guidance on, for example, climate change education and waste minimisation education.⁹⁴

According to PISA 2015, young people in high-income countries are largely aware of today's environmental challenges: an average of 62% of 15-year-olds are familiar with at least five of a set of seven key environmental issues.⁹⁵ For the Nordic countries, only Finland (66.3%) and Norway (65.4%) score above average, while Denmark and Sweden score average and Iceland below average (no data is available for Greenland, Faroe Islands and Åland).⁹⁶ However, even those countries not scoring above average have

⁹⁰ UNESCO, 2017.

⁹¹ No data for this indicator is currently available. This section presents the status of the Nordics but does not benchmark against other countries.

⁹² UNESCO, 2012.

⁹³ Lambrechts and Hindson, 2016.

⁹⁴ NCM, 2018.

⁹⁵ UNICEF, 2017.

⁹⁶ Ibid.

SCP-related educational goals and programs. For example the Danish Portal for Teaching lists more than a hundred teaching subjects with embedded elements of sustainability and/or SCP.⁹⁷

In Finland, sustainable development has been part of the core curriculum for basic education since 2006, with gradually increasing weight up to until the present day. One of the seven transversal competence areas is described as “Participation, influence and building a sustainable future”, which aims at promoting students’ ability to understand the importance of a sustainable future and to act as responsible citizens from individual, local and global perspective.⁹⁸

CHALLENGES AND STRENGTHS

Interviewed experts states that silo-thinking is partly the reason for SCP not being fully integrated in curricula as a cross-cutting theme – there is a recognized need for cross-silo thinking and for sharing of good practices between the entities and countries. A recent study pointed towards weak local management and a lacking promotion of sustainability as another reason for otherwise engaged teachers not providing pupils a sufficient introduction to sustainability and SCP.⁹⁹ A further study found that the specifications in the Norwegian curriculums for primary schools that involve sustainable development are vague, and that local authorities and teachers are given a lot of freedom to develop the content in these subjects.¹⁰⁰

RECOMMENDATIONS

The NCM should prepare a Nordic guideline on how to mainstream education for SCP/sustainable development goals into national education policies and curricula, based on good international and Nordic practices.

⁹⁷ EMU Danmarks læringsportal, 2018

⁹⁸ Anttila, 2014

⁹⁹ Gustafsson et al, 2015.

¹⁰⁰ Kristoffersen, 2017.

SUPPORT DEVELOPING COUNTRIES IN SCP



TARGET 12.A: Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production.

UN INDICATOR: 12.A.1 Amount of support to developing countries on research and development for sustainable consumption and production and environmentally sound technologies.¹⁰¹

With the Nordic region's diverse and deep experience with environmental technologies and SCP, and seen in perspective of the Nordic region's huge consumption of products manufactured in developing countries, the countries should play a significant role in supporting SCP research and development in developing countries. Like other rich countries they have a key part to play in assisting developing countries in leapfrogging towards sustainable low carbon and low material economies, and avoiding following the unsustainable pathways taken by the industrialised countries.¹⁰²

PROGRESS TOWARDS TARGET

The Nordic region is assessed as being close to achievement on this target

The Nordic countries are global leaders in terms of support to developing countries with the four largest Nordic countries being among the ten countries globally providing the largest contribution per capita¹⁰³ (in 2017, Sweden increased its already significant contribution with 10% while Norway reduced with 10%, Finland with 3% and Denmark with 2%). Despite these figures, experts have raised concern about insufficient funding

and political priority and have therefore only rated progress towards this target at 5 out of 10.

PROGRESS TOWARDS TARGET

The largest Nordic countries not only provide a significant magnitude of support, they also have specific programmes and initiatives supporting environmental development, including SCP, in developing countries.

- During the last years Denmark has supported the Global Green Growth Forum (3GF), sustainable resource management in Bolivia, circular economy in Indonesia and a number of dedicated environmental programmes in African, South American and Asian countries. Denmark supports the sustainable development of not least Small and Medium Sized Enterprises in developing countries – including the transition to sustainable production and trade.¹⁰⁴
- On the same note, Sweden has supported, amongst others, environmental policy development in Zanzibar and sustainable management of natural resources in a series of countries.¹⁰⁵

¹⁰¹ No data for this indicator is currently available. This section presents the status of the Nordics but does not benchmark against other countries. The assessment is based on review of literature and databases covering the individual countries' aid to developing countries, supplemented with findings from interviews.

¹⁰² UNEP, 2017.

¹⁰³ Aid statistics, 2018.

¹⁰⁴ Danida, 2017a.

¹⁰⁵ Sida, 2018; Danida, 2018.

Sweden has the explicit aim to support developing countries' sustainable management of chemicals and waste.¹⁰⁶

- Climate change and the environment are main focus areas of Norwegian development policy.¹⁰⁷ The Norwegian development aid agency, NORAD, supports a number of initiatives aiming at saving the world's natural resources.
- Finland's Strategic priority areas in the Foreign Service include specific attention to the 2030 Agenda. The Foreign Service¹⁰⁸ will participate in international climate and environmental financing, strengthen R&I activities, and support circular economy solutions.

The Nordics channel large amounts of aid through multilateral organisations such as the Nordic Development Fund (NDF), the UN and the EU, all supporting developing countries in moving towards SCP:

- The NDF, which is the joint development finance institution of the Nordic countries, facilitates climate change investments primarily in low-income countries. Many projects contain significant SCP aspects such as mitigation of climate change and natural resource planning.
- The UN runs a broad series of programmes of which the 10 YFP, and more recently the One Planet Network, focus directly on supporting SCP development from different angles.^{109, 110} These efforts have received significant support from the Nordic countries.

- The EU provides wide ranging SCP support especially with the SWITCH programmes¹¹¹ that have for more than a decade supported companies, organisations and public institutions in Asia, Africa and the Mediterranean in the shift towards sustainable consumption and production patterns.

CHALLENGES

One challenge common to most development assistance is the fact that a considerable part of the support is bound to procurement of resources (goods and services) from the donor country. In 2015 and 2016, 65% of contracts were awarded to companies in the donor country. Assistance that is not tied can reduce the costs with as much as 30 % and give the recipient the freedom to procure exactly the goods and services needed.¹¹²

RECOMMENDATIONS

The NCM should take the lead in preparing a guideline – based on best international practices – for Nordic support to SCP-oriented research and development in developing countries.

The Nordic countries should further prioritise untied support to SCP oriented R&D in developing countries, including support to the UN programmes. The countries should support testing of approaches related to circularity and eco-innovation with the involvement of developing countries and emerging economies. The countries should further ensure involvement of the respective Ministry of Environment in development programmes.

¹⁰⁶ Swedish Government, 2017; SIDA OpenAid Platform, 2018.

¹⁰⁷ NORAD, 2018.

¹⁰⁸ Finnish Government, n.d.

¹⁰⁹ One Planet – 10YFP.

¹¹⁰ Mackie, Bauer, Watson et al, 2016.

¹¹¹ Buhl-Nielsen, Bauer, Watson et al, 2015.

¹¹² OECD DAC, 2018.



TARGET 12.B: Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.

UN INDICATOR: 12.B.1 Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools.¹¹³

Tourism has significant connections beyond its contribution to economic activity, including impacts on the environment, dependencies on the environment and connections to society more generally. Being one of the most important economic sectors worldwide¹¹⁴ there is a need for more holistic approaches to the development of tourism and for facilitating tourism becoming a positive force in economic, environmental and social development.

Sustainable tourism can be defined as: *"Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities"*.¹¹⁵ Sustainability principles refer to the environmental, economic, and socio-cultural aspects of tourism development, and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability.

PROGRESS TOWARDS TARGET

The Nordic region is assessed as having an uphill climb ahead to reach this target

Sustainable tourism is a popular term and most of the Nordic countries have tourism strategies that include perspectives of sustainable tourism:

- Norwegian organisations have a system for Sustainable Destinations with an array of criteria and a monitoring scheme.¹¹⁶
- Iceland has a Sustainable Tourism Strategy that targets environmental awareness in the tourism sector and emphasizes the importance of protection of nature;¹¹⁷ there is no action plan or monitoring scheme.
- Sweden is using two different approaches to monitor sustainable tourism applied to seven different regions.¹¹⁸
- The Government of Greenland explicitly, through Visit Greenland's national tourism strategy, acknowledges the importance of, the preservation of natural and cultural heritage and minimisation of negative environmental and social consequences.¹¹⁹

¹¹³ No data for this indicator is currently available. This section presents the status of the Nordics but does not benchmark against other countries. The assessment is based on review of literature supplemented with findings from interviews.

¹¹⁴ World Travel & Tourism Council, 2017.

¹¹⁵ UNWTO, 2016.

¹¹⁶ PATA, 2018.

¹¹⁷ Ferðamálastofa, n.d.

¹¹⁸ Tillväxtverket, 2016.

¹¹⁹ Visit Greenland, 2016.

Experts state that there are many sustainable tourism initiatives in the Nordics and that not least municipalities are active in promoting sustainable solutions, emphasising the importance of the tourism industry for income and work places. The experts argue that if sustainability is not yet on top of the national tourism agenda, it will for certain be in the future.

CHALLENGES AND STRENGTHS

The lack of action plans and monitoring efforts illustrates the main challenge facing sustainable tourism in the Nordic region and globally, namely conflicting political priorities, which also has been identified by the experts.

Tourism is often considered as a vehicle for regional development due to the positive economic impacts of the industry. This is clearly identified in the 2030 Agenda framework with target 8.9 committing Member States to *“devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products”*. However, even though often being a source of most welcomed income, tourism is not automatically the best saviour for all peripheral areas, because it can also cause some negative impacts on local environments, societies and traditional cultures. An example of the latter are the potential impacts of tourism in northern Norway, Sweden and Finland on Saami traditions and communities.¹²⁰ It is a great challenge to balance economic gains with the potential social and environmental losses. With conflicting political priorities and a very diverse tourism industry (from city tourism in the capitals to eco-tourism in the Arctic), developing a common Nordic strategy (or even national ones) for sustainable tourism is a significant challenge.

One further issue is that of climate impacts related to long distance air travel emissions.¹²¹ Norway, and more recently Sweden, are attempting to tackle this through application of a tax on flights, which simultaneously increases flight costs and provides revenue that may be used for relevant sustainability initiatives. It is worth noting that almost half of the Swedish population is in favour of the new tax, according to news media.¹²² The Danish government is against such a measure fearing that a flight tax will weaken the competitiveness of the Danish tourism industry and actors within the flight business sector.¹²³

The theme of sustainable tourism has met significant interest from the NCM. Many projects have been carried out, and both sustainable tourism guidelines (as early as 2001)¹²⁴ and a common Nordic Sustainable Tourism Certificate have been prepared.¹²⁵ In 2016, a catalogue of Nordic Best Tourism Practices was issued.¹²⁶

RECOMMENDATIONS

The NCM could support the Nordic countries in developing a paradigm for sustainable tourism strategies followed by action plans and a monitoring scheme (with inspiration from Norway and Sweden). NCM could also take a role in collecting and documenting the impacts from increasing traditional tourism as opposed to sustainable and local tourism.

The national governments and key actors within the tourism industry should develop ambitious strategies for sustainable tourism, with action plans, incentives and disincentives, including introducing taxes on flights.

¹²⁰ Aikio, 2014.

¹²¹ Lenzen et al, 2018.

¹²² Finans.dk, 2018.

¹²³ Danish Ministry of Transport, Building and Housing, 2017.

¹²⁴ Nordic Council of Ministers, 2001.

¹²⁵ Nordic Ecolabelling, 2018.

¹²⁶ Nordic Council of Ministers, 2016.

RATIONALIZE FOSSIL FUEL SUBSIDIES



TARGET 12.C: Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities.

UN INDICATOR: 12.C.1 Amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels.¹²⁷

Fossil fuel subsidies (FFS) represent massive and ongoing lost opportunities for governments to support the delivery of the SDGs, since depressing the price of fossil fuels encourages greater consumption and production and thus creates increased carbon emissions.¹²⁸ Current global government subsidies to consumers and producers of fossil fuels amount to incredible USD 425 billion in 2015 and research estimates that the removal of all fossil fuel subsidies would lead to a global decrease in carbon emissions of between 6.4–8.2% by 2050.¹²⁹ Furthermore, FFS benefit the rich more than the poor and encourage the use of dirty fuels, creating pollution and undermining human health. FFS lock in fossil fuel dependency and tie up scarce resources that countries could otherwise reallocate for sustainable development.¹³⁰ All this happens at the expense of cleaner forms of energy and other economic activities more generally,¹³¹ and FFS therefore have a great impact not only on climate impact and SDG 12 performance, but also on a broad area of important themes covered by the other SDGs – for example education, skills and physical infrastructure.

PROGRESS TOWARDS TARGET

The Nordic region is assessed as having made little progress towards this target

According to the OECD, support measures for fossil fuels currently apply to all the major Nordic countries (no data for Iceland, Greenland, Faroe Islands and Åland),¹³² and a recent study covering Sweden's FFSs supports this picture.¹³³

The OECD divides fossil fuel subsidies into two broad types; budgetary transfers and tax expenditures. Budgetary transfers are usually direct support for fossil fuel industries, while tax expenditures typically represent lost revenue resulting from tax reductions for certain types of fossil fuels.

According to OECD inventories, the Nordic countries make limited use of budgetary transfers to support fossil fuels. Finland and Norway have budgetary transfers amounting to 0.0005% and 0.03% of GDP respectively. This compares to countries such as Greece and Australia with 0.95% and 0.35% of GDP respectively.

¹²⁷ UNSTATS, 2018.

¹²⁸ OECD, 2015b.

¹²⁹ Merrill, L., et al., 2017.

¹³⁰ Gerasimchuk, I., 2017.

¹³¹ OECD, 2015b.

¹³² OECD, 2018.

¹³³ Gençsü and Zerkaw, 2017.

On the other hand, Nordic tax expenditures on fossil fuels are some of the highest of OECD countries when measured against GDP. Finland topped tax transfers for 32 OECD countries with available data in 2016, at 0.79% of GDP, with Norway just behind at 0.73%. Sweden lay in 6th position. Only Denmark has a lower than average level of fossil fuel subsidies in the form of tax expenditures at 0.06%.

- In Finland, the costs of non-commercial stockpiling for part of the peat harvested in a given year is heavily supported, and together with other subsidies placing Finland as the OECD country with the largest amount of fossil-fuel subsidies per unit of GDP. Expert interviews have revealed that extraction of peat is a traditional sector with many vested interests, employing many people particularly in the rural areas where jobs are quite scarce.
- Norway supports research and development in petroleum resources and the government has historically provided operating subsidies to Store Norske, the operator of coal mines in the Spitsbergen archipelago. Norway has experienced a 400 % increase in FFS from 2011–2016.¹³⁴
- Important support measures for fossil fuels in Sweden include reduced energy tax for diesel used in motor vehicles (support to transport worth €1.1 billion between 2014–2016)¹³⁵ and energy tax exemption for peat used for heating. The Swedish government has put substantial effort into phasing out fossil-fuel support throughout the last decade¹³⁶ but there is still a lot more to be done.
- For Denmark, 2014 was the last year for fossil fuel support for bituminous coal and petroleum. The energy duty for 'diesel fuel for other end uses' has been reduced significantly since 2015, but is still active – but Denmark is the Nordic country closest to phasing out FFS.

CHALLENGES AND STRENGTHS

The Nordic countries (and especially Sweden) have some of the highest CO2 tax rates in the world hereby providing incentives contradictory to the FFS, and also other measures have been introduced to reduce dependency on fossil fuels. However, there are also many financial arrangements dragging in the opposite direction, and one challenge is that there is no international standard on how to review these subsidies.¹³⁷

It should be noted that one of the reasons for the apparent high level of fossil fuel subsidies in the form of tax expenditures, is the generally high level of environmental taxes in the Nordic countries (with the exception of Iceland). Therefore, where tax breaks are given for 'greener' fuels such as gas instead of coal, or diesel instead of gasoline the lost tax revenue can be very high, compared for example to a country that in general has low taxes on fuels. Nevertheless, these high apparent subsidies via tax exemptions illustrate a need for rationalisation of tax systems in the Nordic countries to ensure that fossil fuels are not being inadvertently supported in the name of cleaner energy.

The Nordic countries have for quite some years been moving away from FFS and toward support to alternative solutions, including heat pumps in Sweden, electric cars in Norway, and wind power in Denmark,¹³⁸ and the Nordic countries are members of the Friends of Fossil Fuel Subsidy Reform (FFFSR), a group of countries promoting global political consensus on the issue.¹³⁹

RECOMMENDATIONS

Since FFS are still found prominently in the Nordic countries, there is a need to analyse the current practices and phase out the remaining harmful FFSs. The NCM can support the countries in setting up a methodology for such analyses, inspired by the analysis of the Swedish FFSs,¹⁴⁰ and all the countries should carry out such a study and initiate action plans on completely phasing out these unsustainable subsidies.

¹³⁴ Calculations based on OECD 2018.

¹³⁵ Ibid.

¹³⁶ OECD, 2016.

¹³⁷ Finnsson, 2017.

¹³⁸ Merrill, et al. 2017.

¹³⁹ Finnsson, 2017.

¹⁴⁰ Gençsü and Zerkawy, 2017.

14 RECOMMENDATIONS FOR NORDIC ACTION

The assessment of progress towards the 11 targets have led to formulation of a series of recommendations for the Nordic Council of Ministers and the national governments, respectively. This section summarises the recommendations to the NCM as a key element of the report.

- 1** 12.1 The NCM should further support the UN SCP work throughwith preparing a joint Nordic indicator and monitoring framework for the continuous monitoring and annual evaluation of SDG 12 progress – in cooperation with UN Environment.
- 2** 12.2 The NCM should prepare a joint Nordic guideline for the development of Green National Accounts and carry out a pilot for all the Nordic countries.
- 3** 12.2 The NCM should develop and maintain material footprint and resource productivity indicators based on Raw Material Consumption to replace or complement those based on Domestic Material Consumption.
- 4** 12.3 The NCM should support the development and adoption of a common Nordic definition and methodology for measuring food waste and food loss from the complete value chain and not least from primary production, since this is lacking at international level.
- 5** 12.3 The NCM could further strengthen food knowledge and food literacy among children through joint programmes and materials for all the Nordic countries on human health and the environment.
- 6** 12.4 The NCM should continue to provide a strong lobbying position at EU level in development and implementation of strategies and directives on hazardous substances through the provision of timely studies, research and good examples.
- 7** 12.5 The Nordic region should establish itself as world leader in circular economy with ambitious targets and strategies and allocation of sufficient resources to genuinely demonstrate ways of reducing waste amounts and ensuring recycling of waste resources.
- 8** 12.6 The NCM should form a Nordic CEO roundtable on responsible business conduct and prepare an annual progress report with recommendations for actions on responsible investments, including impact investments.

- 9** 12.6 The NCM should further showcase best Nordic examples of sustainable business practices and corporate sustainability reporting internationally.
- 10** 12.7 The NCM should establish a formalised network between national and subnational procurement entities in the Nordic region, allowing exchange of experience, joint preparation of procurement criteria etc.
- 11** 12.8 The NCM should prepare a Nordic guideline on how to mainstream education for SCP/sustainable development goals into national education policies and curricula, based on good international and Nordic practices.
- 12** 12.A The NCM should take the lead in preparing a guideline – based on best international practices – for Nordic support to SCP-oriented research and development in developing countries.
- 13** 12.B The NCM could support the Nordic countries in developing a paradigm for sustainable tourism strategies followed by action plans and a monitoring scheme (with inspiration from Norway and Sweden). NCM could also take a role in collecting and documenting the impacts from increasing traditional tourism as opposed to sustainable and local tourism.
- 14** 12.C The NCM can support the Nordic countries in setting up a methodology for analyses and rationalisation of the Fossil Fuel Subsidies, inspired by the analysis of the Swedish FFSs.



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REFERENCES

- Aikio, E-M. (2014) *Tourism development in Saami communities in Finland*.
- Agerskov, U. (2018) *Generation 2030 – statistik*. Nordic Council of Ministers.
- Ahlner, E.: (pers. comm.) Comments by the Nordic Focal Points before the finalisation of the Nordic Policy Note on 10YFP.
- Aid statistics (n.d.) (Accessed 18.06.18) *Compare your country* – Map: <http://www2.compareyourcountry.org/aid-statistics?cr=oced&lg=en>
- Anttila, K. (2014) Vice-Minister, Ministry of Education and Culture of Finland: *Education for Sustainable Development – Best Practices from Finland*.
- Bauer, B., Fischer-Bogason, R., Boer, L., Kivistö, T. and Vildåsen, S. (2016) *Greening state framework contract – Approaches in the Nordic countries*. Report for Nordic Council of Ministers.
- Bauer, B., Larsen, B., Bode, B., Standley, M. and Stigh, L. (2008) *Technology procurement*. Report for Nordic Council of Ministers.
- Bertelsmann Stiftung & Sustainable Development Solutions Network (2017) *SDG Index & Dashboard – a global report*.
- Buhl-Nielsen, E., Bauer, B., Watson, D. et al (2015) *Thematic evaluation of the EU support to environment and climate change in third countries (2007-2013)*.
- Bärkraft.ax (2017) *Development and sustainability agenda for Åland – The vision and the seven strategic development goals* https://sustainabledevelopment.un.org/content/documents/1523development_and_sustainability_agenda_for_aland.pdf
- CBS – Construction (2016) (Accessed 18.06.18) <https://www.cbs.nl/en-gb/news/2016/26/construction-output-growing-faster-than-in-rest-of-eu>
- Chemical Watch (2014) (Accessed 20.6.2018) *Sweden and Denmark's influence on EU policy*. <https://chemicalwatch.com/21262/sweden-and-denmarks-influence-on-eu-policy>
- Concord: (2017) *Monitoring Agenda 2030 implementation across the EU*.
- Danida (2017a) *The world 2030 Denmark's strategy for development cooperation and humanitarian action*.
- Danida (2017b) *Project document: Circular economy and waste solutions*, Indonesia.
- Danida (2018) (Accessed 18.06.18): *Online open Aid Platform* <http://openaid.um.dk/>
- Danish EPA (2015) *Strategi for affaldsforebyggelse, Danmark uden affald II*.
- Danish EPA (2016) *Material Resource Productivity in Denmark – Past trends and outlook to 2030*. Environmental project No. 1838, 2016.
- Danish EPA (2018) *Kortlægning af sammensætningen af dagrenovation og kildesorteret organisk affald fra husholdninger 2017*.
- Danish EPA (n.d.) (Accessed 18.06.18) *Partnerskab for Madspild*: <http://mst.dk/affald-jord/affald/affaldsforebyggelse-strategi-aktiviteter/mindre-madspild/partnerskab/>
- Danish Government (2014) *Et bæredygtigt Danmark – Udvikling i balance*.
- Danish Ministry of Transport, Building and Housing (2017) *Aviation Strategy for Denmark*.
- Drivsholm, L. (2017) (Accessed 20.6.2018) *Regeringen dropper det grønne nationalregnskab*. Article in Altinget <https://www.altinget.dk/artikel/regeringen-dropper-groent-nationalregnskab>
- EMU Danmarks læringsportal (n.d.) (Accessed 18.06.18) <https://www.emu.dk/soegning/b%C3%A6redygtighed>
- Erhvervsministeriet, Denmark (2016) *National Strategy for Danish Tourism*.
- European Commission (2016) *Strategy towards implementing the UN's 2030 Agenda for Sustainable Development together with its member countries*.
- European Commission, Eurostat (2017a) *EU SDG indicator set: indicators for monitoring the Sustainable Development Goals (SDGs) in an EU context*.
- European Commission (2017b) *Study for the strategy for a non-toxic environment of the 7th Environment Action Programme*.

- European Commission (2018a) (Accessed 18.06.18) *Eco-Management and Audit Scheme* http://ec.europa.eu/environment/emas/emas_registrations/statistics_graphs_en.htm
- European Commission (2018b) *Ecolabel Facts and Figures on EC website* (Accessed 20/6/2018) <http://ec.europa.eu/environment/ecolabel/facts-and-figures.html>
- European Commission (2018) *Environment, Ecolabel*: <http://ec.europa.eu/environment/ecolabel/facts-and-figures.html>
- European Environment Agency (2015) *Waste prevention in Europe – the status in 2014*, EEA Report No 6/2015.
- European Environment Agency (2016a) *13. Exploitation of Natural Resources*.
- European Environment Agency (2016b) *More from less – Material resource efficiency in Europe*, Sweden.
- European Environment Agency (2016c) *More from less – Material resource efficiency in Europe*, Finland.
- European Environment Agency (2016d) *More from less – Material resource efficiency in Europe*, Norway.
- European Environment Agency (2016e) *Prevention of hazardous waste in Europe – the status in 2015*.
- European Environment Agency (2016f) *Circular economy in Europe, Developing the knowledge base*.
- European Environment Agency (2017) *Annual Indicator Report Series (AIRS) – In support to the monitoring of the 7th Environment Action Programme*. Indicator report on Waste Generation <https://www.eea.europa.eu/airs/2017/resource-efficiency-and-low-carbon-economy/waste-generation>
- Eurostat (n.d.) *Environmental Tax Statistics*. Statistics Explained. http://ec.europa.eu/eurostat/statistics-explained/index.php/Environmental_tax_statistics
- FAO (2018) (Accessed 18.06.18) *Save food: Global Initiative on Food Loss and Waste Reduction*: <http://www.fao.org/save-food/en/>
- Fen Wai (2017) *Compendium of Best Practices in Sustainable Tourism*, Prepared for United Nations Department of Economic and Social Affairs.
- FERÐAMÁLASTOFA (n.d.) (Accessed 18.06.18) *Icelandic Tourism Strategy 2011-2020*: <https://www.ferdamalastofa.is/en/about-us/tourism-strategy-2011-2020>
- Finans.dk (2018) *Sverige indfører flyskat for at værne om klimaet*.
- Finnish Government (n.d.) *Strategic priority areas in the Foreign Service*, (Accessed 18.06.18), 2018 <https://um.fi/strategic-priorities>
- Finnish Government (2015) *Roadmap for tourism 2015–2025* (Accessed 18.06.18): <https://tem.fi/en/roadmap-for-growth-and-renewal-in-finnish-tourism-in-2015-2025>
- Finnish Ministry of Employment and Economy (2014) *Sustainable growth and material efficiency, working group proposal for a national material efficiency programme*, Ministry of employment and the economy.
- Finnsön, P. (2017) *Nordic countries push the switch – from fossil fuel subsidies to sustainable energy investment*.
- FSR – Danske Revisorer (2017) *Analyse: Børsnoterede virksomheders rapportering om samfundsansvar*.
- Gassen, N.S., Penje, O. and Slätmo, E. (2018) *Agenda 2030 at the local level*. Nordregio Seminar.
- Gençsü and Zerkawy (2017) *Phase-out 2020: monitoring Europe's fossil fuel subsidies*.
- Gerasimchuk, I. (2017) *A Low Hanging Fruit for Financing and Implementing SDGs: End Fossil Fuel Subsidies*: <http://sdg.iisd.org/commentary/guest-articles/a-low-hanging-fruit-for-financing-and-implementing-sdgs-end-fossil-fuel-subsidies/>
- Global Food Security Index (2017) (Accessed 18.06.18) <https://foodsecurityindex.eiu.com/Country>
- GRI webportal (n.d.) (Accessed 18.06.2018) <https://www.globalreporting.org/Pages/default.aspx>
- Gross, L. and Birnbaum, L. S. (2017) *'Regulating toxic chemicals for public and environmental health'*.
- Gustafsson, P. et al (2015) *Teachers' View of Sustainable Development in Swedish Upper Secondary School*.
- Hälonen, M., Persson, Å., Sepponen, S., Siebert, C.K., Bröckl, Quinn, M., Trimmer, C. and Isokangas, A. (2017) *Sustainable Development Action – the Nordic Way. Implementation of the Global 2030 Agenda for Sustainable Development in Nordic Cooperation*. Nordic Council of Ministers.
- Hillgrén, A., Bröckl, M., Descombes, L., Kontiokari, V. and Hälonen, M. (2016) *Nordic Best Practices, Relevant for UNEP 10YFP on Sustainable Tourism and Consumer Information*.
- Icelandic Ministry for the Environment (2002) *Welfare for the Future, Iceland's National Strategy for Sustainable Development 2002–2020*.
- Husting, I. L., European Commission, DG Enterprise & Industry, Tourism Policy Unit (2013) *Challenges and opportunities for sustainable tourism development*.

Innovation Norway (2016) *Tourism Strategy 2014-2020*.

Jerking, A. (2013) *Danmark vil øge pres på EU om farlig kemi*. Article in Altinget.dk published 24.10.2013.

Keino (n.d.) (Accessed 18.06.18) *About Keino*. <http://www.procurementcompetence.fi/about-keino>

KEMI (2017) *EU evaluates REACH chemical legislation*. Article in Swedish Chemical Agency's website published 20/4/2017 (visited 20/6/2018).

Kjær, B. (2013) *Municipal waste management in Denmark*. Report for the European Environment Agency. <https://www.eea.europa.eu/publications/managing-municipal-solid-waste/denmark-municipal-waste-management/view>

Klima- og Miljødepartementet et al (2017) *Bransjeavtale om reduksjon av matsvinn*.

KPMG (2017) *The road ahead – The KPMG Survey of Corporate Responsibility Reporting 2017*.

Kristoffersen, L. B. (2017) *Sustainable Development Goals and children in Norway – A discussion paper on the SDG indicators*.

Krog and Brændstrup (2013) *Review of the Danish Financial Statements Act*.

Kroll, C. (2015) *Sustainable Development Goals: Are the rich countries ready?* SGI: Sustainable Governance Indicators, Sustainable Development Solutions Network, Bertelsmann Stiftung.

Lambrechts, W. and Hindson, J. (2016) *Research and Innovation in education for sustainable development*.

Larsen, M. and Alsland-Lanthén, E. (2017) *Bumps on the Road to 2030: An overview of the common challenges for the Nordic countries in achieving the Sustainable Development Goals (SDGs)*. Nordic Council of Ministers.

Le Blanc, D. (2015) *Towards integration at last? The sustainable development goals as a network of targets*. DESA Working Paper No. 141. ST/ESA/2015/DWP/141.

Lenzen et al (2018) *The carbon footprint of global tourism; Nature Climate Change 8*.

Lipinski, B., Clowes, A., Goodwin, L., Hanson, C., Swannell, R. and Mitchell, P. (2017) *SDG target 12.3 on food loss and waste: 2017 progress report*. An annual update on behalf of Champions 12.3.

Livsmedelsverket, Jordbruksverket and Naturvårdsverket (2018) *Flere gör mere – Handlingsplan för minskat matsvinn 2030*.

Mackie, J., Bauer, B., Watson, D. et al. (2016) *Evaluation of the EU Support to Research and Innovation for Development in Partner Countries (2007-2013)*.

Merrill, L., et al. (2017) *Making the Switch from fossil fuel subsidies to sustainable energy*.

Miljø- og Fødevareministeriet (2017) (Accessed 20.06.2018) *Anbefalinger om cirkulær økonomi*: <http://mfvm.dk/miljoe/anbefalinger-om-cirkulaer-oekonomi/>

Ministry of Foreign Affairs (2017) *Strategic priorities of the Foreign Service*.

Gaia (n.d.) *Accelerated action for sustainable consumption and production – Nordics share over 50 best practices*. <https://norden.diva-portal.org/smash/get/diva2:1177169/ATTACHMENT01.pdf>

Naturvårdsverket (2015) *Tillsammans vinner vi på ett giftfritt och resurseffektivt samhälle Sveriges program för att förebygga avfall 2014–2017*.

Naturvårdsverket (2018) *Matavfall i Sverige – Uppkomst och behandling 2016*.

Nissinen, A., Sætrang, Ø. and Ongre, K. (2009) *Nordic Cooperation on Green Public Procurement: The First Set of Criteria Examples*.

Norad (n.d.) (Accessed 18.06.18) *Thematic areas – Climate change and Environment*; <https://norad.no/en/front/thematic-areas/climate-change-and-environment/>

Nordic Council of Ministers (n.d.) (Accessed 18.06.18) *Undervisningsmateriale om klima og miljø*: <http://www.norden.org/da/tema/uddannelse-og-forskning-i-norden/undervisningsmateriale-om-norden/undervisningsmateriale-om-klima-og-miljoe/>

Nordic Council of Ministers (2001) *Towards a Sustainable Nordic Tourism*. Report by Tourism Ad Hoc Working Group.

Nordic Council of Ministers (2006) *Developing Public Procurement Policies for Sustainable Development and Innovation. Report from international roundtable*.

Nordic Council of Ministers (2009) *Nordic Cooperation on Green Public Procurement: The First Set of Criteria Examples*.

Nordic Council of Ministers (2016) *Nordic Best Practices, Relevant for UNEP 10YFP on Sustainable Tourism and Consumer Information*.

Nordic Council of Ministers (2017a) *Generation 2030*.

Nordic Council of Ministers (2017b) *Preventing Food Waste – better use of resources*.

- Nordic Council of Ministers (2018) *Undervisningsmateriale om klima og miljø* Nordic Ecolabelling for Hotels and other accommodation, 2018.
- Nordic Statistical Offices (2016) *Measuring the implementation of the 2030 agenda on Sustainable Development in the Nordic region*. Report from the Nordic Statistical Offices to the Nordic Council and the Nordic Council of Ministers.
- Norwegian Government (2004) *Ministry of Foreign Affairs: National Strategy for Sustainable Development*.
- Norwegian Government (2016a) *Ministry of Foreign Affairs: Norway's follow-up of Agenda 2030 and the Sustainable Development Goals*.
- Norwegian Government (2016b) *Ministry of Trade, Industry and Fisheries: The Government's Bioeconomy Strategy*.
- Norwegian Government (2016c) *Public Procurement Act*.
- Norwegian Government (2017) *Better growth, lower emissions – the Norwegian Government's strategy for green competitiveness*.
- Norwegian Ministries (2016) *Norway's follow-up of Agenda 2030 and the Sustainable Development Goals*.
- OECD (2011) *Guidelines for Multinational Enterprises*.
- OECD (2015a) *Material Resources, Productivity and the Environment*, OECD Green Growth Studies, OECD Publishing, Paris.
- OECD (2015b) *Companion to the Inventory of Support Measures for Fossil Fuels 2015*.
- OECD (2016) *Fossil Fuel Support Country note*.
- OECD (2017) *Measuring distance to the SDG targets – an assessment of where OECD countries stand*.
- OECD (2018) *Policy Framework for Investment*.
- OECD DAC (2018) *2018 Report on the DAC Untying Recommendation*.
- One Planet (n.d.) (Accessed 18.06.18) 10YFP: <http://www.oneplanetnetwork.org/what-10yfp>
- One Planet (n.d.) (Accessed 18.06.18) *Nordic Best Practices*: <http://www.oneplanetnetwork.org/nordic-best-practices>
- Pradhan, P., Costa, L., Rybski, D., Lucht, W. and Kropp, J. P. (2017) *A Systematic Study of Sustainable Development Goal Interactions*.
- Rajantie, L. (2017) *Resource Wisdom and Biosphere areas in UBC cities*. Report for SITRA.
- Razavi, S. (2016) *The 2030 Agenda: challenges of implementation to attain gender equality and women's rights*. Gender & Development Volume 24 Issue 1.
- Regeringskansliet (n.d.) *Att förändra vår värld: Agenda 2030 för hållbar utveckling*.
- Sachs, J., Schmidt-Traub, G., Kroll, C., Durand-Delacre, D. and Teksoz, K. (2017) *SDG Index and Dashboards Report 2017*. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN).
- SCB (2015) *Om statistikbaserad uppföljning av Agenda 2030*, Slutrapport av uppdrag till Statistiska centralbyrån om statistikbaserad analys av Sveriges genomförande av Agenda 2030, Statistiska Centralbyrån.
- Seuss, K. (2016) *Reflections on monitoring the environmental dimension of SDGs in Europe*. ENV Forum 20 October
- SIDA (2018): Open Aid Platform.
- Silvennoinen et.al. (2014) *Food waste volume and composition in Finnish households*.
- SITRA – Forum (n.d.) (Accessed 18.06.18) <https://www.sitra.fi/en/projects/world-circular-economy-forum-2017/>
- Skjelvik, J., Bruvoll, A. and Ibenholt, K (2011) *Greening the economy – Nordic experiences and challenges*.
- Statistics Netherlands (2017) *Measuring the SDGs: an initial picture for the Netherlands*. Statistics Netherlands, The Hague/Heerlen/Bonaire.
- Statistics Sweden (2016) *Monitoring the Shift to Sustainable Consumption and Production Patterns – in the context of the SDGs, 2016a*.
- Stenstrup (2016) *EU Reform of Corporate Social Responsibility Reporting Standards*.
- Swedish Environmental Council (Miljömålsrådet) (2018) *Miljömålsrådets gemensamma åtgärdslista*.
- Swedish Government – CE (2015) (Accessed 18.06.18): <https://www.regeringen.se/artiklar/2015/07/cirkular-ekonomi-inom-eu--en-prioriterad-fraga-for-regeringen/>
- Swedish Government (2016a) *Smart industry – a strategy for new industrialisation for Sweden*.
- Swedish Government (2016b) *Policy framework for Swedish development cooperation and humanitarian assistance*, Government Communication 2016/17:60.
- Swedish Ministry of Finance (2016) *Strategy for Sustainable Consumption*. <https://www.government.se/4a9932/globalassets/government/dokument/finansdepartementet/pdf/publikationer-infomtrl-rapporter/en-strategy-for-sustainable-consumption--tillganglighetsanpassad.pdf>

Statistics Denmark (2016) *Green National Accounts for Denmark, 2015-2016*.

Stensgård, A. E. Hanssen, O., J. (2018) *Matsvinn i Norge – Rapportering av nøkkeltall 2016*.

Tillväxtverket (2016) *Sustainable Destination Development*.

Trasande, L. et al. (2016) *Burden of disease and costs of exposure to endocrine disrupting chemicals in the European Union: an updated analysis*'.

Travel Trade OUTBOUND (2017) (Accessed 18.06.18) *Faroe Islands' new tourism Strategy*: <http://www.ttoscandinavia.com/faroe-islandsnew-tourism-strategy/>

TST drafting group on SCP with inputs from the 10YFP Inter-Agency Coordination Group (IACG) (2013) *Sustainable Consumption and Production, including Chemicals and Waste*

Työ – ja elinkeinoministeriö (2018) *Kestävää kasvua materiaalihokkuudella*.

UN IAEG-SDG (2017) *The Sustainable Development Goals Report*.

UNDP Independent Evaluation Office (n.d) *Country-led Evaluation in the Era of the Sustainable Development Goals: A Guidance*.

UNECE (2018) *Successful approaches to delivering on sustainable consumption and production by 2030*, Regional Forum, Geneva.

UNEP (2017) *Lancet Commission: how developing countries can 'leap-frog' pollution on the road to prosperity*. Web article from 20/10/2017 (Accessed 20.06.18).

UNEP (2018a) (Accessed 18.06.18) *What is SCP*: <http://web.unep.org/10yfp/about/what-scp>

UNEP (n.d.) (Accessed 18.06.18) *Sustainable Buildings and Construction Programme*: <http://web.unep.org/10yfp/programmes/sustainable-buildings-and-construction-programme>

UNEP (n.d.) (Accessed 18.06.18) *Sustainable Lifestyles and Education Programme*: <http://web.unep.org/10yfp/programmes/sustainable-lifestyles-and-education-programme>

UNESCO (2015) *UN System Task Team on the Post-2015 UN Development Agenda: Education and skills for inclusive and sustainable development beyond 2015*.

UNESCO (2017) *Education for Sustainable Development Goals*.

UNICEF (2017) *Building the Future – Children and the Sustainable Development Goals in Rich Countries*.

United Nations (2011) *Guiding Principles on Business and Human Rights*.

United Nations (2015) *Sustainable Public Procurement Programme of the 10-Year Framework of Programmes (10YFP SPP Programme): Principles of Sustainable Public Procurement*.

United Nations (2017) *The Sustainable Development Goals report 2017*.

United Nations Economic and Social Council (2015) *Progress report on the 10-year framework of programmes on sustainable consumption and production patterns*. Note by the secretary general.

United Nations Economic and Social Council (2016) *Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators*. Statistical Commission Forty-seventh session 8-11 March 2016. Note by the secretary general.

United Nations Environment Programme (2018) *Sustainable consumption and production: an update from the Secretariat*. 1st Joint Preparatory Retreat of the Bureaux of the UN Environment Assembly and of the Committee of Permanent Representatives, 22–23 March 2018, Tribe Hotel Nairobi, Kenya.

United Nations ESCAP (2017) *Measuring SDG progress in Asia and the Pacific: Is there enough data?* Statistical Yearbook for Asia and the Pacific 2017. United Nations Publication. ISBN: 978-92-1-120773-6 eISBN: 978-92-1-363121-8 ST/ESCAP/2825.

UNSTATS (2018) (Accessed 18.06.18) *SDG Indicators Metadata repository*: <https://unstats.un.org/sdgs/metadata/?Text=&Goal=12&Target=12.c>

UNWTO (2016) *Statistics and Tourism Satellite Account Programme Measuring Sustainable Tourism – Discussion Paper #1: Framing Sustainable Tourism*.

Visit Greenland (2016) *Tourism Strategy 2016-2019*.

Weitz, N., Persson, Å., Nilsson, M. and Tenggren S. (2015) *Sustainable Development Goals for Sweden: Insights on Setting a National Agenda*. Stockholm Environment Institute, Working Paper 2015-10.

World Economic Forum *The Global Gender Gap Report 2017* <https://www.weforum.org/reports/the-global-gender-gap-report-2017>

World Travel & Tourism Council (2017): *Travel & Tourism Economic Impact 2017 World*.



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**The Nordics are
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responsibly treating
and recycling the wastes
they do produce.**



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Sustainable Consumption and Production

The Nordic countries rank high in international reports of nations' progress towards the 17 Sustainable Development Goals (SDG). Along with other industrialised countries, however, the Nordic countries have been ranked poorly in their progress towards SDG 12, which concerns Sustainable Consumption and Production. This report looks closer at the Nordic countries' main challenges in achieving SDG12 and sets out recommendations for Nordic collaboration to tackle these.