



Nordic Council
of Ministers

Bumps on the Road to 2030

An overview of the common challenges
for the Nordic countries in achieving
the Sustainable Development Goals (SDGs)



Bumps on the Road to 2030

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Bumps on the Road to 2030

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Foreword

This discussion paper titled **"Bumps on the Road to 2030 – An overview of the common challenges for the Nordic countries in achieving the Sustainable Development Goals (SDGs)"** was prepared by the Danish think tank Sustainia, by commission from the Nordic Council of Ministers in April 2017. The task at hand was to analyze, based on existing international comparisons, which SDGs the Nordic countries need to work on the most, in order to achieve them by 2030.

The views expressed in this paper are the authors', and do not necessarily reflect the opinions or policies of the Nordic Council of Ministers.

Bumps on the Road to 2030

Undoubtedly, the Nordic countries are in the global elite when it comes to being closest to achieving the SDGs by 2030. Across international analyses the Nordic countries consistently score in the top 10, with Sweden, Denmark and Norway often making up the top 3 (SDSN, 2016; Kroll, 2015; Gaia, 2017).

Despite this, successful implementation of the SDGs will require that the Nordic countries also understand their shortcomings in relation to Agenda 2030. In that sense, there are bumps on the road to 2030. The good news is that none of the countries are embarking on this journey alone, as across the Nordic region, countries are experiencing several of the same challenges. These challenges are the focus of this paper, with the assumption that a good understanding of shared challenges can foster strong collaborations across the region on how to overcome them.

The research on individual countries' performance across all 17 SDGs has been spearheaded by the UN Sustainable Development Solutions Network (SDSN) and Bertelmanns Stiftung. Their reports, *SDG Index & Dashboards* (SDG index, 2016) and *Sustainable Development Goals: Are the rich countries ready?* (OECD Comparison, 2016) are the most comprehensive studies of individual country performance to date. The latter is solely focused on the comparison of the OECD countries' performance. These reports' scoring of performances are compiled on the background of studies within each individual SDG topic. For example, the results of the Environmental Performance Index, developed by Yale, Columbia University et al., are applied as important performance indicators for the environment-related SDGs.

This paper is primarily based on the results from the SDG Index and the OECD Comparison in addition to a reading of similar international studies with a focus on identifying the SDGs towards which the Nordic countries are performing worst and will therefore have to focus their efforts in order to deliver by 2030.

The table below shows how the Nordic countries have been assessed individually in the SDG Index. For each SDG the countries are given a score of green, yellow or red. Green signifies that a country is on a good path for that particular SDG or that it has already achieved the goal. Yellow and red means respectively that a country is on a "caution lane" (yellow), or is seriously far from achievement as of 2015 (red). The color assessments are based on the countries' performance on a series of different indicators for each SDG. A full list of the indicators in the SDG index can be found in appendix 1 (SDSN, 2016).

SDG Index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Global rank (1-149)
Denmark	Green	Yellow	Green	Yellow	Yellow	Green	Yellow	Yellow	Green	Green	Yellow	Red	Red	Red	Red	Yellow	Green	2
Finland	Green	Yellow	Green	Green	Green	Green	Green	Red	Green	Green	Green	Red	Red	Red	Red	Yellow	Yellow	4
Iceland	Green	Yellow	Green	Yellow	Green	Green	Green	Yellow	Green	Green	Yellow	Green	Red	Red	Red	Yellow	Red	9
Norway	Green	Red	Green	Yellow	Yellow	Green	Green	Yellow	Green	Green	Green	Red	Red	Yellow	Yellow	Yellow	Green	3
Sweden	Green	Yellow	Green	Yellow	Yellow	Green	Green	Yellow	Green	Green	Green	Yellow	Red	Yellow	Red	Yellow	Green	1

¹ Each of the challenges is relevant for a minimum of three countries in the region.

OECD Comparison	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17																	
(x)=overall ranking out of 34 OECD countries	1.1	1.2	2.2	3.1	4.1	4.2	5.1	5.2	6.1	6.2	7.1	7.2	8.1	8.2	9.1	9.2	10.1	10.2	11.1	11.2	12.1	12.2	13.1	13.2	14.1	14.2	15.1	15.2	16.1	16.2	17.1	17.2		
Denmark (3)	Green	Green	Orange	Green	Yellow	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Finland (4)	Green	Green	Yellow	Yellow	Green	Green	Green	Orange	Green	Green	Red	Green	Yellow	Yellow	Green	Red	Orange	Green	Green	Green	Yellow	Yellow	Orange	Green	Green	Green	Green							
Iceland (9)	Green	Yellow	Green	Orange	Green	Orange	Green	Green	Green	Orange	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Orange	Green	Yellow	Yellow	Red	Green	Green	Yellow	Green	
Norway (2)	Green	Red	Red	Green	Yellow	Yellow	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Yellow	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Red
Sweden (1)	Yellow	Green	Green	Green	Green	Yellow	Red	Green	Green	Green	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Yellow	Yellow	Yellow	Green	Green	Green	Green	Orange
Color codes	Rank 1-5			Rank 6-13			Rank 14-20			Rank 21-27			Rank 28-34																					

Above, the results from the OECD comparison are summarized with the colors indicating how the countries rank against each other (Kroll, 2015).

The two tables above illustrates that some SDGs are currently particularly challenging for the Nordic countries. This has led this paper to focus on six SDGs that present challenges across the Nordic region, namely SDG 2, 7, 12, 13, 14, and 15. For each of the six SDGs it is presented below how and why they challenge the countries.

Interestingly, there are some discrepancies between the indicators included in the OECD comparison (appendix 2) and those included in the SDG Index (appendix 1) leading to different verdicts on how the countries are progressing on the SDGs. This is the case for SDG 7 where the Nordic countries score significantly worse in the OECD comparison than in the SDG Index. For the sake of this paper we have included SDG 7 as one of the particularly challenging SDGs for the Nordic countries, which is explained in more detail below.



SDG 2: Greening of agricultural systems needed

Extreme hunger, food insecurity and malnutrition are often not indicators applied when assessing the state of the Nordic societies. Nevertheless, the tables above both indicate that there are substantial challenges across the region with respect to achieving SDG 2 "Zero Hunger". The explanation for this is to be found in the region's agricultural systems. The use of fertilizers and the resulting levels of nitrogen are alarming. Especially Norway and Denmark are challenged on their environmental performance of the agricultural production. In the OECD comparison both countries are ranked in the bottom third for agricultural nutrient balances (Kroll, 2015).

According to the Sustainable Nitrogen Management Index, which is a key indicator for the SDG Index, all countries in the region score poorly. The Sustainable Nitrogen Management Index focuses on two important efficiency indicators in crop production, namely Nitrogen Use Efficiency (NUE) and land use efficiency (crop yield). This results in a score between 0–1 for each country, zero being the best. Here, the Nordic countries all score between 0.4 and 0.8 indicating that they all have significant room for improvement (SDSN, 2016; Zhang, 2015; Zhang 2016).

In short, the Nordic countries need to improve the sustainability of the region's agricultural systems in order to reach SDG 2 by 2030.



SDG 7 and 13: Despite global leadership, more action for low-carbon clean energy needed

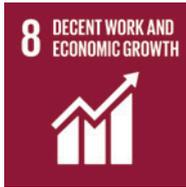
The Nordic countries are performing well in comparison with other OECD countries on SDG 13 "Climate Action" (Kroll, 2015). However, leadership within developed economies should not serve as a sedative for addressing this issue in the region seeing that all the Nordic countries are *"seriously far from achievement [of SDG 13] as of 2015"* (SDSN, 2016). The challenge primarily relates to addressing the high levels of CO₂ emissions per capita from energy generation. This is similar to what is needed for the Nordic countries to achieve SDG 7 "Affordable and Clean Energy". According to the SDG Index, the Nordic countries are performing well on this SDG, however there is still a need for these countries to transition their energy systems from high carbon to low carbon primary energy (SDSN, 2016; World Bank, 2016).

So why are the countries far from reaching the clean energy and climate targets? Actually the Nordic countries are performing well on integration of renewable energy but this is mitigated by the high primary energy intensity and the energy efficiency of most of the Nordic countries. In the OECD comparison it is highlighted that the Nordic countries are particularly challenged on their performance on indicator 7.1 (Kroll, 2015), which relates to SDG sub-target 7.3 *"By 2030, double the global rate of improvement in energy efficiency"*(UN 2015).

Zooming in on the individual countries, the performance with regards to indicator 7.1 is particularly troublesome for Finland and Iceland, but also Sweden and Norway are challenged with regards to the energy intensity of their economies. Moreover, Iceland and Finland share low rankings on energy efficiency in the OECD comparison (IEA, 2014; Kroll, 2015).

Looking toward 2030, the Nordic region has a head start on SDG 7 and 13 as compared to other developed countries. However, the reading of international studies also clearly concludes that continued and consolidated commitment to low-carbon energy development and increased energy efficiency is a prerequisite for reaching the goals.





SDG 8: Securing economic growth for all

SDG 8 "Decent work and economic growth" contains both the ambition of securing economic growth while at the same time achieving this in a sustainable manner; leaving no one behind. Notably, many OECD countries, including the Nordic, are challenged by this goal, which is mostly due to growing challenges fostering an inclusive economic model and stopping growing societal inequality (Kroll, 2015).

According to data from OECD, the Nordic countries are especially challenged by their GDP growth rates. In the SDG Index, Finland scores "red" for SDG 8 indicating that the country is far from reaching the goal. Denmark, Sweden and Norway are also all rated poorly with Iceland being the only Nordic country considered to be on track to reach the SDG. The challenge of achieving SDG 8 is further emphasized by the poor scores for Finland, Sweden and Denmark on the countries' unemployment rates. According to data from the International Labor Organization, these countries have unemployment rates between 6–10%, indicating a need for caution (SDSN, 2016; OECD, 2016a; ILO, 2016).

In short, SDG 8 is challenging the Nordic Region, alongside many other OECD countries, and there is a need to foster continued economic growth that benefits all.



SDG 12: Material consumption levels leaves Nordic region as laggard

SDG 12 “Responsible Consumption and Production” is one of the main challenges across the Nordic region with Denmark, Finland and Norway all scoring negatively in the SDG Index. However, Iceland is out-performing the rest of the region due to the country’s significantly better scores on non-recycled municipal solid waste (SDSN, 2016; OECD, 2016a).

Domestic material consumption is particularly challenging in the region. Especially Norway and Finland are challenged by consumption rates that put them in the bottom four of the OECD countries with rates close to double the amount of the OECD average. Norway and Finland consume respectively 35.6 and 34.3 tons per capita, close to four times more than top performers Japan and the United Kingdom. Denmark, Sweden and Iceland score close to the OECD average indicating that there is a lot of room for improvement if the countries are to achieve this goal by 2030 (Kroll, 2015; OECD, 2016a).

In addition, management of the consumed materials is also challenging several of the Nordic countries with Denmark standing out with very high levels of generation of municipal waste. Danes generate 751 kilograms of municipal waste per capita every year, one of the highest levels among OECD countries. By contrast, inhabitants of the best-performing countries for this indicator, Estonia, Poland, Slovakia, the Czech Republic, and Iceland, only generate between 293 and 347 kilograms per capita (Kroll, 2015; OECD, 2016a).

The high material consumption levels are affecting the Nordic region’s performance negatively in international comparisons on SDG 12. This calls for new efforts to create economies where economic growth is less bound to material consumption and where resources are circulated to a higher extent than today.



SDG 14 and 15: Ecosystem conservation still needs to improve

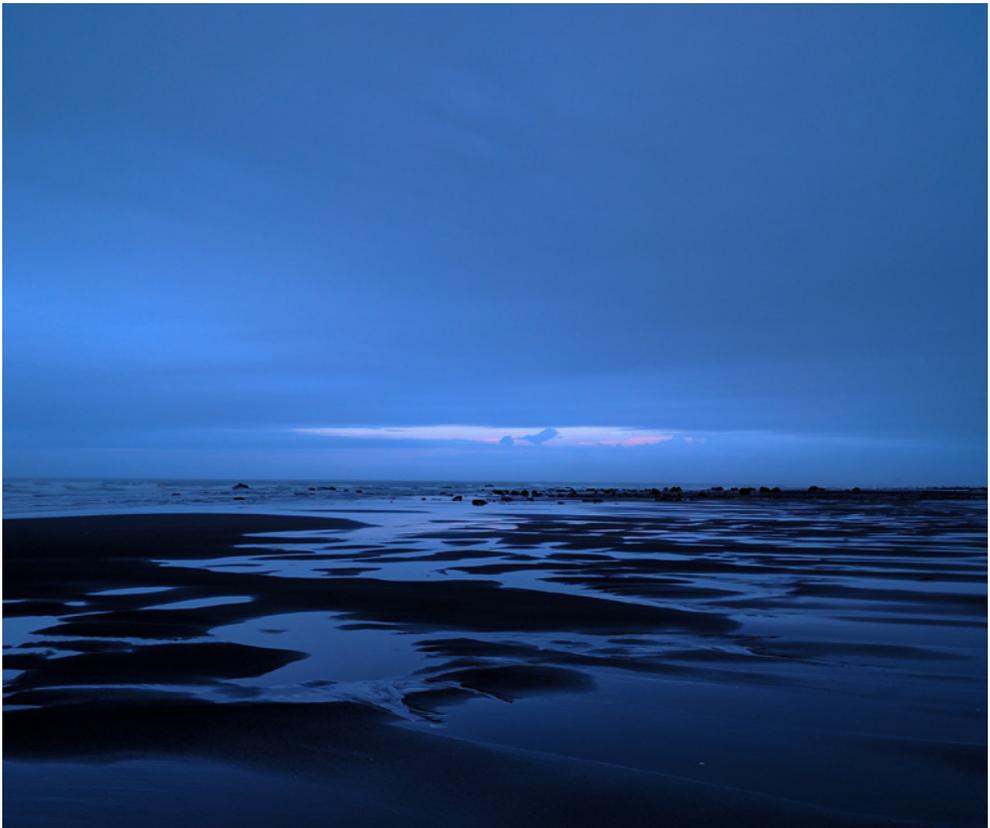
The global goals representing the sustainable management of natural resources, namely SDG 14 “Life below Water” and SDG 15 “Life on Land” also represent shared and individual challenges for the Nordic countries.

With regard to the oceans, Iceland and Finland leaves room for improvement concerning the protection of marine sites according to data from BirdLife International, IUCN & UNEP-WCMC. Meanwhile, Denmark is burdened by low scores on overexploited or collapsed fish stocks as indicated in the Environmental Performance Index. Norway is the top performer in the Nordics on SDG 14, but still face challenges regarding ocean health and the complete protection of marine and terrestrial sites (Kroll, 2015; Hsu, 2016).

Land-based conservation efforts mostly relate to deforestation, measured as the annual change in forest area. Here Denmark, Finland and Sweden are particularly challenged and score very poorly both on the global scale and in comparison with the other OECD countries. The loss of trees is troubling as forests are an important contributor to mitigating climate change and also provide ecosystem benefits and products for people. (Kroll, 2015; Hsu, 2014)

When it comes to SDGs 14 and 15, the Nordic region as a whole is challenged by its ecosystem conservation efforts. Recognizing the difference between the countries in terms of the aquatic and terrestrial conditions, the Nordic region as a whole needs to find more sustainable ways to engage with its natural environments.

The results from the international studies summarized here, demonstrate that across all OECD countries there are clear challenges in achieving all SDGs. Not one country performs outstandingly across the 17 goals, and every country needs to learn from and inspire each other if the global goals are to be met by 2030. This is also true for the Nordic countries.



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Appendix

Appendix 1:

List of indicators for the *SDG Index and Dashboards*
– *Global Report*

Appendix 2:

List of indicators for the *Sustainable Development Goals:*
Are the rich countries ready?

Appendix 1:

List of indicators for the SDG Index and Dashboards

– Global Report¹

SDG	Indicator	Notes	IAEG-SDGs**	Year(s)*	Source
1	Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population)		-	2009–2013	World Bank (2016)
	Poverty rate after taxes and transfers, poverty line 50% (% of population)	(a)	-	2011–2014	OECD (2016a)
2	Prevalence of undernourishment (% of population)		●	2013	FAO (2015)
	Cereal yield (t/ha)		-	2013	FAO (2015)
	Prevalence of stunting (low height-for-age) in children under 5 years of age (%)		●	2000–2015	UNICEF, WHO & WB (2015)
	Prevalence of wasting in children under 5 years of age (%)		●	2000–2015	UNICEF, WHO & WB (2015)
	Sustainable Nitrogen Management Index (0–1)		-	2006/2011	Zhang & Davidson (2016); Zhang et al. (2015)
	Prevalence of obesity, BMI ≥ 30 (% of adult population)	(a)	-	2014	WHO(2016b)
3	Mortality rate, under-5 (per 1,000 live births)		●	2013	World bank (2016)
	Maternal mortality rate (per 100,000 live births)		●	2015	WHO et al (2015)
	Neonatal mortality rate (per 1000 live births)		●	2015	WHO et al (2015)
	Physician density (per 1000 people)		●	2004–2013	WHO (2016a)
	Incidence of tuberculosis (per 100,000 people)		●	2014	WHO (2016a)
	Traffic deaths rate (per 100,000 people)		●	2013	WHO (2016a)
	Adolescent fertility rate (births per 1,000 women ages 15–19)		-	2005–2015	WHO (2016a)
	Subjective wellbeing (average ladder score, 0–10)		-	2014	Helliwel et al. (2015)
	Healthy life expectancy at birth (years)		-	2015	WHO (2016a)
	Percentage of surviving infants who received 2 WHO-recommended vaccines (%)		-	2014	WHO & UNICEF (2016)
	Daily smokers (% of population aged 15+)	(a)	●	2006–2013	WHO (2016a)

¹ SDSN 2016: Sachs, J., Schmidt-Traub, G., Kroll, C., Durand-Delacore, D. & Teksoz, K. (2016). *SDG Index and Dashboards – Global Report*. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN). <http://sdgindex.org/download/>

SDG	Indicator	Notes	IAEG-SDGs**	Year(s)*	Source
4	Expected years of schooling (years)		-	2013	UNESCO (2016)
	Literacy rate of 15–24 year olds, both sexes (%)		○	2001–2013	UNESCO (2015b)
	Net primary school enrolment rate (%)		○	1997–2014	UNESCO (2016)
	Population aged 25–64 with tertiary education (%)	(a)	-	2011	OECD (2016a)
	PISA score (0–600)	(a)	-	2012	OECD (2016a)
	Population aged 25–64 with upper secondary and post-secondary non-tertiary educational attainment (%)	(a)	-	2011–2013	OECD (2016a)
5	Proportion of seats held by women in national parliaments (%)		●	2012–2014	IPU (2015)
	Female years of schooling of population aged 25 and above (% male)		-	2014	UNDP (2015)
	Female labor force participation rate (% male)		-	2010–2014	ILO (2016)
	Estimated demand for contraception that is unmet (% of women married or in union, ages 15–49)		●	2015	WHO (2016c)
	Gender wage gap (% of male median wage)	(a)	-	2012	OECD (2016a)
6	Access to improved water source (% of population)		-	2011–2015	WHO & UNICEF (2016)
	Access to improved sanitation facilities (% of population)		-	2011–2015	WHO & UNICEF (2016)
	Freshwater withdrawal (% of total renewable water resources)		●	1999–2012	FAO (2016)
7	Access to electricity (% of population)		●	2012	World Bank (2016)
	Access to non-solid fuels (% of population)		○	2010	SE4All (2016)
	CO ₂ emissions from fuel combustion and electricity output (MtCO ₂ /TWh)		-	2013	IEA (2015)
	Share of renewable energy in total final energy consumption (%)	(a)	●	2010	SE4All (2016)
8	Unemployment rate (% of total labor force)	(b)	●	2015	ILO (2016)
	Automated teller machines (ATMs per 100,000 adults)		●	2009–2014	IMF Financial Access Survey (2015)
	Adjusted growth rate (%)		○	2012	OECD (2016)
	Youth not in employment, education or training (NEET) (%)	(a)	●	2013–2014	OECD (2016a)
	Percentage of children 5–14 years old involved in child labor (%)		●	2000–2014	UNICEF (2015)
	Employment-to-Population ratio (%)	(a)	●	2014	OECD (2016a)

SDG	Indicator	Notes	IAEG-SDGs**	Year(s)*	Source
9	Research and development expenditure (% of GDP)		●	2005–2012	UNESCO (2016)
	Research and development researchers (per 1000 employed)	(a)	○	2010–2014	OECD (2016a)
	Logistics Performance Index: Quality of trade and transport-related infrastructure (1–5)		-	2014	World Bank (2016)
	Quality of overall infrastructure (1–7)		-	2014/2015	WEF GCR 2015–2016
	Mobile broadband subscriptions (per 100 inhabitants)		○	2012–2015	ITU (2015)
	Proportion of the population using the internet (%)		●	2014	ITU (2015)
	Patent applications filed under the PCT in the inventor's country of residence (per million population)	(a)	-	2012	OECD (2016a)
10	Gini index (0–100)		-	2003–2012	World Bank (2016); OECD (2016a)
	Palma ratio	(a)	-	2009–2012	OECD (2016a)
	PISA Social Justice Index (0–10)	(a)	-	2012	OECD PISA (2012)
11	Annual mean concentration of particulate matter of less than 2.5 microns of diameter (PM2.5) (µg/m³) in urban areas		●	2013	Brauer et al. (2015)
	Rooms per person	(a)	-	2001–2013	OECD (2016a)
	Improved water source, piped (% of urban population with access)		-	2015	WHO & UNICEF (2016)
12	Percentage of anthropogenic wastewater that receives treatment (%)		●	2012	OECD (2016a)
	Municipal solid waste (kg/year/capita)	(b)	-	2012	World Bank (2016)
	Non-recycled municipal solid waste (kg/person/year)	(a)	○	2009–2013	OECD (2016a)
13	Energy-related CO ₂ emissions per capita (tCO ₂ /capita)		-	2011	World Bank (2016)
	Climate Change Vulnerability Monitor (0–1)		-	2014	HCSS (2014)
14	Ocean Health Index Goal – Clean Waters (0–100)		○	2015	Ocean Health Index (2015)
	Ocean Health Index Goal – Biodiversity (0–100)		○	2015	Ocean Health Index (2015)
	Ocean Health Index Goal – Fisheries (0–100)		○	2015	Ocean Health Index (2015)
	Marine sites of biodiversity importance that are completely protected (%)		●	2013	BirdLife International, IUCN & UNEP-WCMC (2016)
	Percentage of fish stocks overexploited or collapsed by EEZ (%)		●	2010	Hsu et al. (2016) / Sea Around Us (2016)

SDG	Indicator	Notes	IAEG-SDGs**	Year(s)*	Source
15	Red List Index of species survival (0–1)		○	2016	IUCN and BirdLife International (2016)
	Annual change in forest area (%)		○	2012	YCELP & CIESIN (2014) BirdLife International,
	Terrestrial sites of biodiversity importance that are completely protected (%)		●	2013	IUCN & UNEP-WCMC (2016)
16	Homicides (per 100,000 people)		●	2008–2012	UNODC (2016)
	Prison population (per 100,000 people)		-	2002–2013	ICPR (2014)
	Proportion of the population who feel safe walking alone at night in the city or area where they live. (%)		●	2006–2015	Gallup (2015)
	Corruption Perception Index (0–100)		-	2014	Transparency International (2015)
	Proportion of children under 5 years of age whose births have been registered with a civil authority, by age (%)		●	2014	UNICEF (2013)
	Government efficiency (1–7)		-	2015/2016	WEF (2015)
	Property rights (1–7)		-	2014/2015	WEF (2015)
17	For high-income and all OECD DAC countries: International concessional public finance, including official development assistance (% of GNI)		●	2013	OECD (2016a)
	For all other countries: Tax revenue (% of GDP)		●	2013	World Bank (2016)
	Health, education and R&D spending (% of GDP)		-	2005–2014	UNDP (2015)

Source: Authors' analysis

* Indicators marked (a) are included in the Augmented SDG Index and Dashboards for OECD countries only. Indicators marked (b) are not included in the Augmented SDG Index and Dashboards for OECD countries, as they are replaced by corresponding indicators (unemployment is replaced by the employment-to-population ratio, and municipal solid waste is replaced by recycled municipal solid waste).

** ● indicators included in IAEG-SDGs provisional Tier 1 indicators; ○ indicators similar to the IAEG-SDGs provisional Tier 1 Indicators (IAEG-SDGs 2016).

*** Data for the latest available year are used i.e. data refer to the most recent year available during the period specified.

Appendix 2:

List of indicators for the Sustainable Development

Goals: Are the rich countries ready?²

GOAL 1: POVERTY

1.1 Poverty rate, cutoff point 50 percent of median disposable income

Source: OECD online database

URL: stats.oecd.org

Date of retrieval: August 7, 2015

1.2 Poverty gap, cutoff point 50 percent of median disposable income

Source: OECD online database

URL: stats.oecd.org

Date of retrieval: August 6, 2015

GOAL 2: AGRICULTURE AND NUTRITION

2.1 Gross agricultural nutrient balances, N and P surplus/deficit intensities per square kilometer of agricultural land, deviation from zero

Source: OECD online database

URL: stats.oecd.org

Date of retrieval: May 1, 2015

2.2 Obesity rate

Source: OECD Obesity Update 2014

URL: <http://www.oecd.org/health/obesity-update.htm>

Date of retrieval: May 5, 2015

GOAL 3: HEALTH

3.1 Healthy life expectancy

Source: WHO Global Health Observatory Data Repository

URL: <http://apps.who.int/gho/data/node.main.688>

Date of retrieval: August 6, 2015 (first data point),
March 3, 2015 (second and third data point)

3.2 Life satisfaction

Source: Gallup World Poll

URL: <http://www.gallup.com/services/170945/world-poll.aspx>

² Kroll 2015: Kroll, C. (2015). *Sustainable Development Goals: Are the rich countries ready?* Gütersloh Germany: Sustainable Governance Indicators (SGI), Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN).

GOAL 4: EDUCATION

4.1 Upper secondary attainment

Source: Eurostat online database, OECD online database (AUS, CAN, CHL, ISR, JPN, KOR, MEX, NZL, USA)
URL: <http://ec.europa.eu/eurostat/data/database>, stats.oecd.org
Date of retrieval: February 6, 2015

4.2 PISA results

Source: OECD PISA 2012 (first data point),
OECD PISA 2009 (second data point),
OECD PISA 2006 (third data point) except USA (OECD PISA 2003)
URL: <http://www.oecd.org/pisa/pisaproducts/>

GOAL 5: GENDER EQUALITY

5.1 Share of women in national parliaments

Source: World Bank Gender Statistics
URL: <http://databank.worldbank.org/data/home.aspx>
Date of retrieval: February 5, 2015

5.2 Gender pay gap

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 7, 2015 (first data point),
May 1, 2015 (second and third data point)

GOAL 6: WATER

6.1 Freshwater withdrawals as percent of total internal resources

Source: World Bank, World Development Indicators
URL: <http://databank.worldbank.org/data/home.aspx>
Date of retrieval: March 29, 2015

6.2 Percentage of population connected to wastewater treatment

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: May 13, 2015 (second and third data point)

GOAL 7: ENERGY

7.1 Energy intensity

Source: IEA CO₂ Emissions Highlights 2014
URL: <http://www.iea.org/publications/freepublications/publication/co2-emissions-from-fuel-combustion-highlights-2014.html>

7.2 Share of renewable energy in TFEC

Source: World Bank, Sustainable Energy For All
URL: <http://databank.worldbank.org/data/home.aspx>
Date of retrieval: February 6, 2015

GOAL 8: ECONOMY AND LABOR

8.1 GNI per capita, PPP

Source: World Bank, World Development Indicators
URL: <http://databank.worldbank.org/data/home.aspx>
Date of retrieval: August 6, 2015 (first data point),
March 6, 2015 (second and third data point)

8.2 Employment-to-population ratio

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 6, 2015 (first data point),
February 6, 2015 (second and third data point)

GOAL 9: INFRASTRUCTURE AND INNOVATION

9.1 Gross fixed capital formation as percent of GDP

Source: IMF World Economic Outlook April 2013
URL: <http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/index.aspx>
Date of retrieval: April 21, 2015

9.2 Research and development expenditure

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 7, 2015 (first data point),
February 6, 2015 (second and third data point)

GOAL 10: INEQUALITY

10.1 Palma ratio

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 7, 2015

10.2 PISA Social Justice Index

Source: OECD PISA 2012 (first data point),
OECD PISA 2009 (second data point),
OECD PISA 2006 (third data point) except USA (OECD PISA 2003)
URL: <http://www.oecd.org/pisa/pisaproducts/>

GOAL 11: CITIES

11.1 Particulate matter, share of population exposed to >15 ug/cbm

Source: Environmental Performance Index, Yale University
URL: epi.yale.edu

11.2 Rooms per person

Source: OECD online database
URL: stats.oecd.org
Date of retrieval: August 7 (first data point),
May 1 (second and third data point)

GOAL 12: CONSUMPTION AND PRODUCTION

12.1 Municipal waste generated

Source: OECD online database

URL: stats.oecd.org

Date of retrieval: August 6, 2015 (first and second data point),
February 6, 2015 (third data point)

12.2 Domestic material consumption

Source: OECD online database

URL: stats.oecd.org

Date of retrieval: May 1, 2015

GOAL 13: CLIMATE

13.1 Production-based energy-related CO₂ emissions per capita

Source: OECD online database

URL: stats.oecd.org

Date of retrieval: May 1, 2015

13.2 Greenhouse gas emissions per GDP

Source: UNFCCC (GHG),

IEA CO₂ Emissions Highlights 2014 (GDP)

URL: <http://unfccc.int/di/FlexibleQueries.do>

http://unfccc.int/ghg_data/ghg_data_unfccc/ghg_profiles/items/4626.php
(CHL, ISR, KOR, MEX),

<http://www.iea.org/publications/freepublications/publication/co2-emissions-from-fuel-combustion-highlights-2014.html>

Date of retrieval: February 6, 2015 (UNFCCC)

GOAL 14: OCEANS

14.1 Ocean Health Index

Source: Ocean Health Index

URL: <http://www.oceanhealthindex.org/Comparison/>

Date of retrieval: May 13, 2015

14.2 Percentage of fish stocks overexploited and collapsed by exclusive economic zone

Source: Environmental Performance Index, Yale University

URL: epi.yale.edu

GOAL 15: BIODIVERSITY

15.1 Terrestrial protected areas

Source: Environmental Performance Index, Yale University

URL: epi.yale.edu

15.2 Red List Index for birds

Source: OECD online database

URL: stats.oecd.org

Date of retrieval: May 5, 2015

GOAL 16: INSTITUTIONS

16.1 Homicides

Source: United Nations Office on Drugs and Crime (UNODC)

Homicide Statistics

URL: <https://data.unodc.org/> (first data point),

http://www.unodc.org/documents/gsh/data/GSH2013_Homicide_count_and_rate.xlsx (second and third data point)

Date of retrieval: August 6, 2015 (first data point),

February 6, 2015 (second and third data point)

16.2 Transparency Corruption Perceptions Index

Source: Transparency International

URL: <http://www.transparency.org/research/cpi/>

GOAL 17: GLOBAL PARTNERSHIP

17.1 Official development assistance as percentage of GNI

Source: OECD online database

URL: stats.oecd.org

Date of retrieval: August 6, 2015 (first data point),

March 9, 2015 (second and third data point)

17.2 Percentage of SDG indicators used in this study that are reported annually with time lag no greater than three years in the respective country



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