

Part 3

Policy Efforts and Monitoring Frameworks for the SDGs

The SDG Index and Dashboards focus on internationally standardized outcome statistics. Due to data gaps and time lags in international reporting, national policies and commitments must also be considered in gauging a country's efforts to achieve the SDGs. This section presents more forward-looking assessments of government efforts to achieve the SDGs – based partially on qualitative data including results from the 2021 SDSN survey on government efforts for the SDGs and a review of existing policy trackers organized around SDSN's six SDG Transformations (Sachs et al., 2019). We also analyze international efforts to strengthen SDG data and statistics. We emphasize the increased need for rigorous policy trackers and forward-looking approaches in the context of the COVID-19 recovery, to help accelerate government action for the SDGs, build accountability, and inform sustainable investment decisions.

3.1 Political leadership and policy environment: results from the 2021 SDSN Government Effort Survey for the SDGs

Every year, the SDSN mobilizes its global network of experts to track public statements by governments and the strategic use of public practices in support of the SDGs. Since 2018, this information has been collected through the SDSN survey on national coordination and implementation mechanisms at the central/federal level of government. The 2021 results and an indication of trends over time are presented in table 3.1. This year's survey covers 48 countries (18 more than the 30 countries covered in 2020), including all of the G20 countries and most OECD countries, as well as many countries with a population greater than 100 million inhabitants.

Over the past 12 months, a large majority of governments have made public statements of support for the SDGs and the 2030 Agenda. These statements, delivered by heads of states, government ministers or other cabinet members, often highlight implementation mechanisms and country initiatives taken to achieve key SDG transformations. We also find evidence in most surveyed countries that the SDGs are being integrated into dedicated strategies or action plans, or into sectoral policies (health, education, industrial strategy, or economic development). Most countries have also appointed a unit or agency as responsible for coordinating implementation of the SDGs.

As in previous years, there is some discrepancy between expressed political support for the SDGs and integration of the goals into strategic public policy processes, most notably national budgets. Fewer than half the countries surveyed (20 out of 48) mention the SDGs or use related terms in their latest official budget document – a slight improvement over last year. And only half of these include the SDGs in a dedicated section of their national budgets or in a dedicated budget line. The other half refer to the SDGs only in the general narrative, providing less SDG-specific budget allocations. Several countries surveyed do specifically refer to the SDGs in their national budget to support both domestic SDG implementation (including national health, education, social protection or economic development reforms) and SDG implementation abroad (for example, aid allocation or foreign policy).

National monitoring efforts are, however, increasing. Many countries covered in the survey (36 of 48) have adapted the SDG framework to their national context and identified a set of nationally relevant indicators. On average, such national SDG indicator sets comprise around 129 indicators. These efforts to strengthen monitoring mechanisms for sustainable development are very much aligned with the SDGs, including SDG 17 (Partnerships for the Goals), which calls to strengthen statistical capacities globally. The importance of data monitoring and statistics for the SDGs is discussed in section 3.3.

Table 3.1

National government efforts to implement the SDGs

 *DI = Domestic Implementation
 IC = International Cooperation

	VNR	High-level statements	SDG strategy/ SDGs into sectoral action plans	SDGs in national budget		
		Year submitted	yes/no	yes/no	yes/no	Overarching narrative/ section or budget line
Afghanistan	2017 and 2021	no	yes	no		
Argentina	2017 and 2020	yes	yes	yes	overarching narrative	DI
Australia	2018	no	yes	no		
Austria	2020	yes	yes	yes	overarching narrative	DI and IC
Bangladesh	2017 and 2020	yes	yes	yes	overarching narrative	DI
Belgium	2017	yes	yes	no		
Bolivia	2021	no	no	no		
Brazil	2017	yes	yes	no		
Canada	2018	yes	yes	yes	overarching narrative	IC
Chile	2017 and 2019	yes	yes	no		
China	2016 and 2021	no	yes	no		
Cyprus	2017 and 2021	yes	yes	yes	overarching narrative	DI
Czech Republic	2017 and 2021	yes	yes	no		
Denmark	2017 and 2021	yes	yes	yes	section or budget line	DI and IC
Ethiopia	2017	yes	yes	yes	section or budget line	DI
European Union	not applicable	yes	yes	yes	overarching narrative	DI and IC
Finland	2016 and 2020	yes	yes	yes	overarching narrative	DI and IC
France	2016	yes	yes	no		
Germany	2016 and 2021	yes	yes	yes	overarching narrative	DI and IC
Greece	2018	no	yes	no		
Hungary	2018	no	yes	no		
India	2017 and 2020	yes	yes	no		
Indonesia	2017, 2019, and 2021	yes	yes	no		
Ireland	2018	yes	yes	no		
Israel	2019	yes	yes	no		
Italy	2017	yes	yes	no		
Japan	2017 and 2021	yes	yes	yes	section or budget line	DI and IC
Korea, Rep.	2016	yes	yes	no		
Malaysia	2017 and 2021	yes	yes	yes	section or budget line	DI
Mexico	2016, 2018 and 2021	yes	yes	yes	section or budget line	DI and IC
Netherlands	2017	yes	yes	yes	overarching narrative	DI
New Zealand	2019	no	yes	no		
Nigeria	2017 and 2020	yes	yes	yes	section or budget line	DI
Norway	2016 and 2021	yes	yes	yes	section or budget line	DI and IC
Pakistan	2019	yes	yes	yes	section or budget line	DI
Philippines	2016 and 2019	yes	yes	no		
Poland	2018	yes	yes	no		
Portugal	2017	yes	yes	yes	overarching narrative	DI and IC
Russia	2020	yes	no	no		
Saudi Arabia	2018 and 2021	yes	yes	no		
Slovenia	2017 and 2020	yes	yes	no		
South Africa	2019	yes	yes	no		
Spain	2018 and 2021	yes	yes	yes	section or budget line	DI and IC
Sweden	2017 and 2021	yes	yes	yes	section or budget line	DI and IC
Switzerland	2016 and 2018	yes	yes	no		
Turkey	2016 and 2019	yes	yes	no		
United Kingdom	2019	yes	yes	no		
United States	not planned	no	no	no		
TOTAL "yes"		40	45	20		
Trend	...	=	=	+

Table 3.1

National government efforts to implement the SDGs (continued)

	National SDG monitoring		Citizens' assembly for the SDGs or PCA	SDGs in national COVID-19 recovery plan
	yes/no	no. of indicators	yes/no	– yes, as a central pillar (3 mentions or more) – yes, in the general narrative (1 or 2 mentions) – no – blank (recovery plan was not yet available in February 2021)
Afghanistan	yes	178	no	yes, as a central pillar
Argentina	yes	244	no	
Australia	no, but online reporting		no	no
Austria	yes	200	no	
Bangladesh	yes	40	no	no
Belgium	yes	87	no	
Bolivia	no, but it is planned		no	
Brazil	no, but online reporting		no	no
Canada	yes	60	yes	no
Chile	no, but online reporting		no	no
China	no		no	no
Cyprus	no, but it is planned		no	yes, in the general narrative
Czech Republic	yes	110	no	yes, in the general narrative
Denmark	yes	197	yes	
Ethiopia	yes	60	no	no
European Union	yes	100	no	yes, in the general narrative
Finland	yes	45	yes	yes, in the general narrative
France	yes	98	yes	no
Germany	yes	72	yes	yes, as a central pillar
Greece	yes	158	no	no
Hungary	yes	82	no	
India	yes	306	no	yes, in the general narrative
Indonesia	yes	85	yes	yes, as a central pillar
Ireland	no, but online reporting		no	no
Israel	no, but online reporting		no	
Italy	yes	130	no	yes, in the general narrative
Japan	no, but online reporting		yes	
Korea, Rep.	yes	197	yes	no
Malaysia	yes	128	no	no
Mexico	yes	147	yes	
Netherlands	yes	267	no	
New Zealand	yes	109	no	no
Nigeria	yes	230	yes	no
Norway	no, but online reporting		no	no
Pakistan	yes	96	no	no
Philippines	yes	155	no	yes, as a central pillar
Poland	yes	126	no	yes, as a central pillar
Portugal	yes	46	no	yes, in the general narrative
Russia	yes	160	no	no
Saudi Arabia	yes	114	no	
Slovenia	yes	54	no	
South Africa	yes	128	no	no
Spain	yes	144	yes	yes, in the general narrative
Sweden	yes	55	no	yes, in the general narrative
Switzerland	yes	106	no	
Turkey	yes	131	no	no
United Kingdom	no, but online reporting		yes	no
United States	no, but online reporting		no	no
TOTAL "yes"	36	129	12	14
Trend	+

Note: For comparability reasons, trends were calculated based on the 30 countries covered in both the 2020 and 2021 SDSN survey. For the EU, the answer to the integration of the SDGs in the COVID-19 recovery plan is based on the *Guidance to Member States Recovery and Resilience Plans*.

Source: SDSN 2021 Survey on national coordination and implementation mechanisms at the central/federal level of government (February 2021)

The SDGs can only be achieved if they enjoy societal legitimacy. This requires transparency and accountability of political processes and the engagement of the public in participatory decision making. But while many countries have launched stakeholder engagement processes, these are often limited in duration and focused on specific objectives and deliverables (for example, Voluntary National Reviews or the development of national SDG action plans). Some countries have established citizens' assemblies (or panels) to review progress on the SDGs or the Paris Climate Agreement, in which the participation of members of the public from diverse backgrounds is essential to accurately inform policies, indicator selection, and budgeting. More information is needed, however, to evaluate the implementation of policies and recommendations made by such citizens' assemblies.

As countries work to recover from the pandemic, it is important to maintain – and increase – the focus on achieving the long-term goals agreed by the international community in 2015, including the SDGs, the 2030 Agenda, and the Paris Climate Agreement. This year's survey included a question on SDG integration into national COVID-19 recovery plans. Among the 35 countries with national recovery plans in place at the time of the survey (February 2021), we found that fewer than half (14) refer to the SDGs. And most of these mentions are in the general narrative and not as the cornerstone or central pillar to guide a sustainable, inclusive, and resilient recovery.

3.2 The six SDG Transformations scorecards

The six SDG Transformations provide a detailed framework on which to construct integrated strategies for the SDGs (Sachs et al., 2019). They can be implemented in every country to help address trade-offs and synergies across the SDGs. They can also be used to recover from COVID-19 and to build back better (Sachs, Schmidt-Traub, Kroll, et al., 2020; Schmidt-Traub, 2020).

The core of the six Transformations is the recognition that all 17 SDGs can be achieved through six major societal transformations, focused on: (1) education and skills, (2)

health and well-being, (3) clean energy and industry, (4) sustainable land use, (5) sustainable cities, and (6) digital technologies. All are guided by the twin principles to “leave no one behind” and “ensure circularity and decoupling” (see Sachs et al., 2019 for details, page 3). The six Transformations provide an action agenda for government ministries, businesses, and civil society.

We presented the SDG Transformations in the 2019 and 2020 reports. In this year's edition we propose headline policy measures to track their implementation, using pilot SDG Transformation scorecards. These scorecards complement the SDG Index, which is based on outcome data (for example, poverty rate, life expectancy, and CO₂ emissions). At the international level, outcome data tend to have significant time lags and may not adequately reflect transformative policies and investments introduced by governments since the adoption of the SDGs, which often yield results in the medium and longer run. The scorecards focus, to the extent possible, on the enabling legal, regulatory, and investment conditions needed to achieve the SDGs and the obligations of the Paris Climate Agreement. The COVID-19 outbreak has increased international attention on policy frameworks and trackers to better evaluate preparedness, government response, and the greenness of recovery packages in the context of a pandemic (box 3).

This exercise has several caveats and limitations. First, the availability of internationally comparable policy trackers and measures (such as laws, regulations, investments, and subsidies) tends to be more scarce than international outcome data. They rely on more qualitative methods and require an advanced understanding of policy areas and country policies and contexts. Generally, more comparable policy trackers and measures are available for OECD countries than for others. Second, policy efforts need to be interpreted alongside national challenges and contexts. For instance, access to compulsory and free education between the ages of five and fifteen has generally been achieved in OECD countries, yet major challenges remain regarding equity in learning outcomes and quality education for all. Ambitious climate policies are particularly needed in G20 countries responsible for the bulk of greenhouse gas emissions globally. Similarly, the absence of an advanced cybersecurity policy matters

Figure 3.1

Six SDG Transformations



less in a country with low internet access and poor digital infrastructure. Third, apart from a few exceptions, government pledges and presented policy measures do not capture their effective implementation. Fourth, fewer internationally agreed targets or thresholds are defined at the international level for policy measures. The thresholds identified in the pilot scorecards were defined using a mix of expert judgement and careful review of data distribution (for detailed information, see supplementary material online at www.sdindex.org). For these reasons, neutral color coding (shades of blues) has been used in these scorecards – and caution should be applied in interpreting these pilot results.

The rest of this section provides an overview of countries' policy efforts and commitments on the six SDG Transformations, but also aims to highlight where further research and policy trackers are needed to strengthen our collective understanding of countries' efforts for the SDGs. It provides detailed results for all G20 countries – which represent two-thirds of the world population and 85 percent of global GDP – but also includes population-weighted averages by geographic region and income group. Detailed information on indicator sources and thresholds, and comprehensive country results, are accessible online at www.sdindex.org

Transformation 1: Education, Gender and Inequality

Education builds human capital, which in turn promotes economic growth, decent work, and the elimination of extreme poverty, and helps overcome gender and other inequalities. This first Transformation comprises three sets of interventions to promote education and gender equality and reduce inequalities.

First, countries need to expand and transform education systems. The SDGs call for universal access to 12 years of free education, of which at least 9 years are compulsory. As highlighted in the scorecards, these two targets are not reflected in the law and official policies of many governments around the world, especially in lower-middle-income countries and low-income countries. The SDG Index also underlines that, *in practice*, many countries fall short in providing universal access to basic education from primary to upper secondary education.

In most OECD countries, universal access to basic education is guaranteed in the law (*de jure*) and in practice (*de facto*) but there are persisting issues related to equity in learning outcomes. In many OECD countries, a student's socio-economic background remains an important predictor of learning outcomes at age 15 as measured by the OECD (2019) and highlighted in the SDG Index. In its reports and surveys, the OECD emphasizes the core role of early childhood development initiatives, as well as the quality of teachers and school leaders, and class size (especially in deprived areas) in curbing inequalities in learning outcomes (Schleicher, 2020). International

statistics on teacher quality and class environment, especially in disadvantaged areas, remains limited. The OECD Teaching and Learning International Survey (TALIS) provides among the best available dataset to gauge the working conditions of teachers and school leaders and the learning environments at their schools. Achieving the SDGs will require that education systems not only adapt to a data- and information-rich environment but also that they provide greater access to lifelong learning and training for adults to ensure a fair transition.

Second, to further reduce inequalities, countries need to expand social safety nets. These need to be complemented by anti-discrimination measures (including gender), improved labor standards, and measures to end all forms of modern slavery, trafficking, and child labor. This year's scorecards provide indicators on countries' commitments to reducing inequalities and on whether the principle of gender equality is enshrined in the law.

Third, to promote economic growth, which can contribute to lowering inequalities, most countries need to boost innovation and ensure diffusion from research and development. OECD countries spend, on average, more than 2 percent of GDP on research and development (R&D) compared with 0.5 percent or less in lower-middle-income countries and lower-income countries. Among G20 countries, Germany, Japan, and South Korea spend the most on R&D as a share of their economy. Consistent investment in R&D can support the emergence of solutions to address climate change but also for the development of vaccines and treatments.

Table 3.2

Transformation 1: Education, Gender and Inequality

Note: Regional and income level averages are population weighted. Details on definitions, sources, and thresholds are available on www.sdindex.org
Source: Authors' analysis



Transformation 1: Education, Gender and Inequality

	Years of free education in the law (#, 2019, UNESCO)	Years of compulsory education in the law (#, 2019, UNESCO)	Commitment to Reducing Inequalities: Tax Progressivity & Protection of Labor Rights (score, 2020, Oxfam & DFI)	Gender Equality in the Law (score, 2021, World Bank)	Expenditure on research and development (% of GDP, 2018, UNESCO)
G20 Countries					
Argentina	12	12	0.63	76.3	0.5
Australia	13	10	0.69	96.9	1.9
Brazil	12	12	0.57	85.0	1.3
Canada	12	10	0.74	100.0	1.6
China	9	9	0.54	75.6	2.2
France	12	12	0.72	100.0	2.2
Germany	13	13	0.75	97.5	3.1
India	8	8	0.45	74.4	0.7
Indonesia	12	9	0.54	64.4	0.2
Italy	8	12	0.67	97.5	1.4
Japan	9	9	0.69	81.9	3.3
Korea, Rep.	9	9	0.63	85.0	4.8
Mexico	12	12	0.56	88.8	0.3
Russian Federation	11	11	0.67	73.1	1.0
Saudi Arabia	12	9	MISS	80.0	0.8
South Africa	12	9	0.69	88.1	0.8
Turkey	12	12	0.56	82.5	1.0
United Kingdom	13	11	0.67	97.5	1.7
United States	12	12	0.66	91.3	2.8
By regions					
East and South Asia	9.1	8.7	0.51	72.0	1.2
Eastern Europe and Central Asia	11.3	10.4	0.62	72.9	0.6
Latin America and the Caribbean	11.6	11.2	0.57	83.8	0.8
Middle East and North Africa	10.9	9.5	0.54	48.7	0.6
Oceania	8.4	8.9	MISS	62.2	MISS
OECD countries	11.4	11.2	0.66	91.4	2.1
Sub-Saharan Africa	8.8	8.2	0.44	71.6	0.3
By income level					
Low-income countries	9.0	7.9	0.45	65.8	0.2
Lower-middle-income countries	8.9	8.7	0.48	70.0	0.5
Upper-middle-income countries	10.3	9.6	0.56	74.7	1.4
High-income countries	11.4	10.8	0.68	91.5	2.4
More ambitious	≥ 12 years	≥ 12 years	≥ 0.7	≥ 90	≥ 2.3%
Moderately ambitious	≥ 9 years	≥ 9 years	≥ 0.5	≥ 70	≥ 1.0%
Less ambitious	less than 9 years	less than 9 years	below 0.5	below 70	below 1.0%

Transformation 2: Health, Well-Being and Demography

This Transformation promotes key investments in health and well-being. Central to this is the SDG objective of achieving universal health coverage (UHC) (SDG target 3.8). The World Health Organization (WHO) defines UHC as “ensuring that all people have access to needed health services (including prevention, promotion, treatment, rehabilitation and palliation) of sufficient quality to be effective while also ensuring that the use of these services does not expose the user the financial hardship”. The COVID-19 pandemic has underscored the need to accelerate the implementation of UHC globally (Kickbusch and Gitahi, 2020).

UHC is measured by the WHO through two indicators:

(1) A service coverage index (SCI) (indicator 3.8.1) measures average coverage of essential health services based on tracer interventions in four areas: reproductive, maternal, newborn, and child health; infectious diseases, noncommunicable diseases; and service capacity and access.

(2) An indicator of financial protection (indicator 3.8.2) measures the proportion of the population with catastrophic health spending, defined using two thresholds as spending at least 10 percent or at least 25 percent of household income on health services.

The two indicators need to be interpreted alongside each other. Catastrophic expenditure on health may be very low because people have no access to health care. Conversely, people may have access to health care but at a very high cost. SCI is a very broad measure encompassing a number of public health interventions (including access to clean water) along with more specific interventions to combat certain individual diseases (for example, HIV or tuberculosis treatment). For OECD countries, other indicators exist that measure health coverage and access specifically – including tracking the percentage of people covered for a core set of services

by a public or mandatory private insurance – or draw on survey and interview data to assess health care needs that are unmet due to cost, travelling time, waiting times or other reasons (through surveys such as the EU-SILC and the Commonwealth Fund’s International Health Policy Survey). Although the comparability of data across countries or surveys is affected by the specific survey instrument used, asking people directly whether they face unmet health care needs is one of the best ways to assess universal health coverage and identify any persisting issues related to health care access and coverage.

Overall, international institutions including the WHO had emphasized even before the pandemic the slow rate of progress being made towards achieving UHC (WHO, 2019). In 2016, Asian countries, LAC countries, and middle-income countries had the largest number of people and the highest percentage of their populations facing catastrophic health spending. Among G20 countries, people in Argentina, Brazil, China, India, and South Korea tend to spend a larger share of their household income on health. Compared with the rest of the world, OECD countries tend to have greater shares of their population covered by a public or mandatory private health insurance, higher SCI scores, and lower catastrophic out-of-pocket expenditure on health – although there are exceptions, including Chile, Colombia, Poland, and the United States.

The SDGs also call on all countries to strengthen their capacity for early warning, risk reduction, and management of national and global health risks (SDG target 3.d). Pre-COVID-19 measures of health preparedness, including the Global Health Security Index, turned out to be poor predictors of effective COVID-19 response measured in number of cases and deaths (Lafortune, 2020). The pandemic has also raised questions around the self-reported assessment of preparedness submitted by countries to the WHO as part of the International Health Regulations (IHR). Looking ahead, it will be important to define solid international measures and monitoring systems to gauge countries’ preparedness for global health security issues.

Table 3.3

Transformation 2: Health, Well-being and Demography

Note: Regional and income level averages are population weighted. Details on definitions, sources, and thresholds are available on www.sdgindex.org
 Source: Authors' analysis



Transformation 2: Health, Well-being and Demography

UHC index of service coverage
(score, 2017, WHO)

Catastrophic out-of-pocket health
spending: Pop. spending 10%+ of
household income on health
(%, 2016, WHO)

Population coverage for health care
(%, 2019, OECD)

G20 Countries				
Argentina	76.0	16.9	MISS	
Australia	87.0	3.7	100.0	
Brazil	79.0	25.6	MISS	
Canada	89.0	2.6	100.0	
China	79.0	19.7	MISS	
France	78.0	1.4	99.9	
Germany	83.0	1.7	100.0	
India	55.0	17.3	MISS	
Indonesia	57.0	2.7	MISS	
Italy	82.0	9.3	100.0	
Japan	83.0	4.4	100.0	
Korea, Rep.	86.0	21.8	100.0	
Mexico	76.0	1.6	88.3	
Russian Federation	75.0	4.9	MISS	
Saudi Arabia	74.0	MISS	MISS	
South Africa	69.0	1.4	MISS	
Turkey	74.0	3.2	98.8	
United Kingdom	87.0	1.6	100.0	
United States	84.0	4.8	90.6	
By regions				
East and South Asia	64.5	15.6	MISS	
Eastern Europe and Central Asia	68.7	8.1	MISS	
Latin America and the Caribbean	75.4	18.1	MISS	
Middle East and North Africa	68.2	MISS	MISS	
Oceania	43.3	MISS	MISS	
OECD countries	81.4	5.6	96.0	
Sub-Saharan Africa	43.8	8.2	MISS	
By income level				
Low-income countries	42.0	8.5	MISS	
Lower-middle-income countries	54.8	14.4	MISS	
Upper-middle-income countries	75.0	14.1	MISS	
High-income countries	82.2	6.2	96.8	
	More ambitious	≥ 80	≤ 4%	≥ 99%
	Moderately ambitious	≥ 60	≤ 10%	≥ 95%
	Less ambitious	below 60	above 10%	below 95%

Transformation 3: Energy Decarbonization and Sustainable Industry

This Transformation aims to ensure universal access to modern energy sources; decarbonize the energy system by mid-century in line with the Paris Agreement; and reduce industrial pollution of soil, water, and air.

The scorecards identify three levels of commitments and actions for achieving climate neutrality by mid-century:

As a first level of commitment, more than 100 countries have joined the Climate Ambition Alliance: Net Zero 2050 under the leadership of UNFCCC and other partners. However, this is not always followed by the adoption of national policies, including ambitious targets and actions.

The second level of commitment is to integrate the principle of climate neutrality in national law and policies. According to the Net Zero Tracker, more than 30 countries have included climate neutrality by 2050 (or 2060) in laws, proposed legislation, or a national policy document. These include all G20 countries except Australia, India, Indonesia, Mexico, Russia, Turkey, and Saudi Arabia. Brazil and China committed to climate neutrality by 2060.

The third level of commitment is the adoption and implementation of policies, regulations, and investments aligned with achieving climate neutrality by mid-century. The Climate Action Tracker (CAT) is an independent scientific analysis that tracks government climate action and measures it against the globally agreed Paris Climate Agreement. The CAT tracks 36 countries and the EU, covering around 80 percent of global emissions. According to its latest update in November 2020, no G20 country is considered yet to have adopted a sufficient mix of policies and actions compatible with achieving the objectives of the Paris Climate Agreement. In fact, only Morocco and the Gambia are considered as having adopted adequate policies to meet the Paris objectives (1.5°C compatible). According to the Energy Policy Tracker, G20 countries continue to provide unconditional fossil fuel subsidies in COVID-19 recovery packages, exceeding \$50 per capita in eight of the G20 countries as of April 2021. Vivid Economics and the Oxford Recovery Observatory also emphasize the lack of “greenness” in most G20 countries’ recovery packages.

Table 3.4

Transformation 3: Energy Decarbonization and Sustainable Industry

Note: Regional and income level averages are population weighted. Details on definitions, sources, and thresholds are available on www.sdginde.org
Source: Authors' analysis



Transformation 3: Energy Decarbonization and Sustainable Industry

	UN Climate Ambition Alliance Signatory (March 2020, UN)	Policy- or NDC-based commitment to reach net-zero emissions by 2050 (March 2020, Energy & Climate Intelligence Unit)	1.5°C Paris-agreement-compatible climate action (November 2020, Climate Action Tracker)	Unconditional fossil fuel subsidies (USD per capita, April 2021, Energy Policy Tracker)	
G20 Countries					
Argentina	✓	✓	Critically insufficient	30	
Australia	X	X	Insufficient	34	
Brazil	X	2060	Insufficient	3	
Canada	✓	✓	Insufficient	467	
China	X	2060	Highly insufficient	3	
France	✓	✓	Insufficient	114	
Germany	✓	✓	Highly insufficient	196	
India	X	X	2°C compatible	16	
Indonesia	X	X	Highly insufficient	24	
Italy	✓	✓	Insufficient	64	
Japan	✓	✓	Highly insufficient	13	
Korea, Rep.	X	✓	Highly insufficient	98	
Mexico	✓	X	Insufficient	24	
Russian Federation	X	X	Critically insufficient	36	
Saudi Arabia	X	X	Critically insufficient	7	
South Africa	X	✓	Highly insufficient	11	
Turkey	X	X	Critically insufficient	167	
United Kingdom	✓	✓	Insufficient	590	
United States	X	✓	Critically insufficient	219	
By regions					
East and South Asia	9 of 21	4 of 21	MISS	MISS	
Eastern Europe and Central Asia	8 of 27	7 of 27	MISS	MISS	
Latin America and the Caribbean	21 of 30	7 of 30	MISS	MISS	
Middle East and North Africa	2 of 17	0 of 17	MISS	MISS	
Oceania	12 of 12	2 of 12	MISS	MISS	
OECD countries	30 of 37	33 of 37	MISS	MISS	
Sub-Saharan Africa	37 of 49	1 of 49	MISS	MISS	
By income level					
Low-income countries	26 of 29	0 of 29	MISS	MISS	
Lower-middle-income countries	25 of 49	2 of 49	MISS	MISS	
Upper-middle-income countries	25 of 54	13 of 54	MISS	MISS	
High-income countries	43 of 61	39 of 61	MISS	MISS	
	More ambitious	signatory	net-zero by 2050	1.5°C compatible	0 USD/capita
	Moderately ambitious	N/A	net-zero by 2060	2°C compatible	≤ 50 USD/capita
	Less ambitious	not a signatory	no commitment	above 2°C	50+ USD/capita

Transformation 4. Sustainable Food, Land, Water, and Oceans

Today's land-use and food systems have led to persistent hunger, malnutrition, and obesity. They account for a quarter of greenhouse gas emissions, over 90 percent of scarcity-weighted water use, most biodiversity loss, the overexploitation of fisheries, eutrophication through nutrient overload, and the pollution of our water and air. At the same time, food systems are highly vulnerable to climate change and land degradation. Integrated strategies are needed to make food systems, land use, and oceans sustainable and healthy for people.

Efforts to track commitments and objectives on Transformation 4 are constrained by the complexity of policies relating to land use, ocean, and agriculture but also by the absence of an internationally agreed target for biodiversity and land degradation. As of this writing in April 2021, discussions are ongoing of the "30x30" target for biodiversity, which proposes a new international target to place at least 30 percent of the Earth's surface under conservation status by 2030 (and possibly 50 percent by 2050). Currently, around 30 countries have protected at least 30 percent of their land area. Yet, there are concerns whether this target would be sufficient, whether the global community should instead focus on biodiversity "hot spots", and how to address potential negative impacts on communities living in these areas. Some evidence suggests that deforestation and unsustainable use of resources can still occur within protected areas due to poor implementation and enforcement mechanisms (Geldmann et al., 2019).

It is also important to consider countries' efforts to curb negative impacts on land and biodiversity embodied into international trade and supply chains. International supply chains must ensure sustainable resource use and curb pollution. Importing countries need to consider the environmental impact of imports on exporting countries, in particular, and stop the trade in endangered species. The International Spillover Index and consumption-based measures emphasize negative impacts on biodiversity loss, water scarcity, and other environmental impacts generated by high-income countries (including most OECD countries) through trade and consumption.

No comprehensive tracker and headline policy indicators are currently available (apart from indicators related to protected areas) to assess countries' performance on this Transformation. The SDSN has launched the Food, Environment, Land and Development (FELD) Action Tracker to track national commitments, including policies, regulations, and investments to achieve sustainable land use, resource management, and food systems (box 2).

Transformation 5. Sustainable Cities and Communities

Cities and other urban areas are home to around 55 percent of humanity and 70 percent of global economic output. By 2050, these shares will increase to 70 and 85 percent, respectively (Jiang and O'Neill, 2017). According to the OECD, 105 of the 169 SDG targets will not be reached without proper engagement of sub-national governments (OECD, 2020). Many urban organizations and associations have streamlined the SDGs in their work program including UN-Habitat, the United Cities and Local Governments (UCLG), C40, the OECD, Local Governments for Sustainability (ICLEI), and others. The COVID-19 pandemic will likely have lasting impacts on urban mobility, land use, and transport systems in developed and developing countries alike.

By design, Transformation 5 would require regional and local policy trackers. These would notably track efforts at regional and city level to curb urban pollution, strengthen access to public transport and mobility, and increase the affordability of housing. Other policy effort measures could be considered as proxies of local governments' commitment to achieve the triple objective of being economically productive, socially inclusive, and environmentally sustainable.

The SDSN Thematic Group on Inclusive, Resilient and Connected Cities is working with partners on a new project around "The future of transport and land use in the digital city" to identify how urban design tools and new sources of data and models can help inform urban mobility and land use strategies in the digital age and in the wake of the COVID-19 pandemic.

Box 2. The Food, Environment, Land and Development (FELD) Action Tracker

By Cecil Max Haverkamp and Marion Ferrat, Food and Land Team, SDSN

A strategic initiative under the Food and Land Use Coalition (FOLU), the FELD Action Tracker is being developed by SDSN to systematically analyze and track policy action at country level as it relates to the fourth SDG transformation to achieve sustainable food, land, water, and oceans. While the decarbonization of energy and transport, for example, is progressing in many countries, we are a long way still from systematically understanding and identifying practical approaches to fundamentally transform food production and consumption and the management of land, oceans, and other natural resources.

Activities in the land sector are a key driver of climate change, contributing about one-quarter of global greenhouse gas (GHG) emissions, a number that rises to roughly a third if the total food system, including storage, transport, packaging, processing, retail, and consumption, is taken into account. Land use, including agriculture and deforestation, is also a leading cause of the significant loss of natural capital and biodiversity at an unprecedented level in human history (IPCC, 2019). Technological and other innovations have supported the increasing production of food, feed, and fiber, and are projected to continue. Inversely, rising global temperatures have an impact on agricultural productivity and rural livelihoods. But the land sector is also part of the solution: efforts to mitigate climate change and global warming and the achievement of long-term targets under the Paris Climate Agreement require the use of land for carbon sequestration. Many of these land- and nature-based solutions require large land areas and are projected to compete with existing uses of land. Policy decisions in this sector are therefore critical not only for addressing climate and environmental challenges.

Existing and future climate and net-zero commitments require ambitious, coherent, and innovative policy initiatives and decisions in the agriculture, food, and land-use sectors. These must simultaneously ensure that growing populations are fed and that rural livelihoods and resilience can further improve. While increasingly recognized by policy makers in countries, international organizations, and businesses, there is relatively little action to date to address this complex multisectoral agenda systematically. Policymakers currently lack the capacity, actionable information, and integrated analytical tools to address the complex challenges around food and land use in a coherent manner, and to operationalize a common vision through effective policy design in their respective local contexts. Land-mitigation and adaptation options face many barriers. In the particular case of food and land use systems, the challenge of tracking action and its possible effects is further amplified by varying and highly fragmented policy approaches, in the context of substantial technical complexity and diffuse boundaries.

FELD will analyze policies and instruments as a basis for active engagement with national and technical expert communities and stimulate cross-country learning. Key issues in the analysis will be the identification of forward-looking indicators and key dimensions of policy design, including aspects of policy ambition and coherence across sectors as well as scientific, economic, and human resources action across-government. By analyzing how national and global commitments are being operationalized in different countries, FELD will, over time and together with partners, be able to assess what policies are proving to be effective in different contexts, and how cross-country learning and sharing can be most effectively facilitated and leveraged. Tracking national policies across relevant sectors is critical to understand a country's progress against set goals and global targets. Overall, the focus of FELD's efforts will be on the added practical value for countries and policy makers, by identifying both critical policy gaps and opportunities across countries and regions, as well as good and best policy practices available to all governments interested in strengthening policies to transform food and land use systems, and their implementation.

Transformation 6. Digital Revolution for Sustainable Development

Artificial Intelligence and other digital technologies are disrupting nearly every sector of the economy, including agriculture (precision agriculture), mining (autonomous vehicles), manufacturing (robotics), retail (e-commerce), finance (e-payments, trading strategies), media (social networks), health (diagnostics, telemedicine), education (online learning), public administration (e-governance, e-voting), and science and technology. Digital technologies can raise productivity, lower production costs, reduce emissions, expand access, dematerialize production, improve matching in markets, enable the use of big data, and make public services more readily available. They can also improve resource-use efficiencies, support the circular economy, enable zero-carbon energy systems, help monitor and protect ecosystems, and assume other critical roles in support of the SDGs. The COVID-19 pandemic led to a sharp acceleration in the roll out and use of digital technologies.

Countries need integrated strategies to identify and tackle risks and downsides. Perhaps the most feared risk is the loss of jobs, particularly for lower-skilled workers, and the shift of income distribution from labor to capital. While new jobs might replace existing ones, these new

jobs may come with lower real earnings and worse working conditions. Base erosion, profit shifting, and a concentration of industries threaten to undermine countries' tax bases. Other threats from the digital revolution include the theft of digital identities, invasion of privacy by governments or businesses, discrimination based on personal data, monopoly positions due to control of big data, challenges to deliberative decision-making processes, cyber warfare, hacking of election data, or the manipulation of social media.

This year's scorecards present some of the best digital policy trackers available. The SDG Index tracks the percentage of people using the internet. The policy indicators focus instead on digital infrastructure, open government data but also cybersecurity and internet freedom policies as means to achieve greater access to and quality of digital services and technologies. Regarding internet freedom, relatively lower thresholds were chosen, emphasizing the need for some regulations of online content to ensure internet users' safety and privacy. Looking ahead, further analyses will be needed to gauge the quality of internet regulations, access to and quality of e-government services, government readiness to prevent and respond to cybersecurity threats, and digital skills and proficiency across various population groups.

Table 3.5

Transformation 6: Digital Revolution for Sustainable Development

Note: Regional and income level averages are population weighted. Details on definitions, sources, and thresholds are available on www.sdgindex.org
 Source: Authors' analysis



Transformation 6: Digital Revolution for Sustainable Development

UN E-Government Development Index (score, 2020, UN) Open Data Inventory: Coverage & Availability of Official Data (score, 2020, Open Data Watch) Global Cybersecurity Index (score, 2018, ITU) Internet Freedom (score, 2020, Freedom House)

G20 Countries					
Argentina	0.83	46.8	0.41	71.0	
Australia	0.94	63.1	0.89	76.0	
Brazil	0.77	62.3	0.58	63.0	
Canada	0.84	76.0	0.89	87.0	
China	0.79	35.1	0.83	10.0	
France	0.87	62.0	0.92	77.0	
Germany	0.85	77.3	0.85	80.0	
India	0.60	58.1	0.72	51.0	
Indonesia	0.66	67.8	0.78	49.0	
Italy	0.82	65.9	0.84	76.0	
Japan	0.90	68.2	0.88	75.0	
Korea, Rep.	0.96	70.4	0.87	66.0	
Mexico	0.73	69.3	0.63	61.0	
Russian Federation	0.82	59.0	0.84	30.0	
Saudi Arabia	0.80	47.9	0.88	26.0	
South Africa	0.69	52.0	0.65	70.0	
Turkey	0.77	55.4	0.85	35.0	
United Kingdom	0.94	57.8	0.93	78.0	
United States	0.93	70.4	0.93	76.0	
By regions					
East and South Asia	0.66	48.2	0.72	33.0	
Eastern Europe and Central Asia	0.71	56.2	0.65	MISS	
Latin America and the Caribbean	0.70	54.9	0.45	MISS	
Middle East and North Africa	0.57	44.2	0.55	28.9	
Oceania	0.33	24.1	0.13	MISS	
OECD countries	0.86	67.7	0.84	MISS	
Sub-Saharan Africa	0.39	42.2	0.39	MISS	
By income level					
Low-income countries	0.30	35.0	0.20	MISS	
Lower-middle-income countries	0.55	52.6	0.61	MISS	
Upper-middle-income countries	0.75	46.4	0.74	MISS	
High-income countries	0.89	68.3	0.86	MISS	
	More ambitious	≥ 0.7	≥ 60	≥ 0.8	≥ 40
	Moderately ambitious	≥ 0.5	≥ 40	≥ 0.5	≥ 30
	Less ambitious	below 0.5	below 40	below 0.5	below 30

Box 3. Tracking preparedness and responses to global security threats

Policy trackers of pre-pandemic preparedness, government responses to the COVID-19 pandemic, and greenness of recovery packages provide useful information to gauge a country’s readiness and resilience to global health security threats and other critical risks (climate, nuclear, cybersecurity, and other). The COVID-19 pandemic may help to improve monitoring frameworks and statistics on the governance of public health risks, but also revealed the central role of political leadership and coordination for a rapid and effective response (The Lancet COVID-19 Commissioners et al., 2021).

Pre-pandemic trackers of government preparedness turned out to be poor predictors of governments’ abilities to respond to COVID-19. The COVID-19 pandemic highlighted the lack of preparedness to respond to such public health emergencies, including in many OECD countries, which before the crisis were considered as being better prepared. For instance, the United States and the United Kingdom topped the 2019 Global Health Security Index, yet the COVID-19 death rate in these two countries has been among the highest in the world (figure 3.2). The gap between predicted and actual responses to COVID-19 might also reflect the importance of political leadership, while the comparability of COVID-19 mortality rates may be affected by a country’s reporting systems and standards.

Table 3.6

Examples of international policy trackers of government preparedness to face critical risks and government response to the COVID-19 pandemic

Critical risks in general	COVID-19	
	Government response	Greenness of recovery packages
Global Health Security Index (Johns Hopkins and NTI)	Oxford COVID-19 Government Response Tracker	Greenness of Stimulus Index (Vivid Economics)
WHO International Health Regulations (IHR) Capacity	Our World in Data Policy Responses to the Coronavirus Pandemic	Green Recovery Tracker (E3G and Wuppertal Institute)
UNDRR Sendai Framework Progress of Global Targets and 2019 Global Assessment Report on Disaster Risk Reduction (GAR)	YouGov COVID-19 Public Monitor	Global Recovery Observatory (Oxford University Economic Recovery Project)
OECD Recommendation and Dataset on the Governance of Critical Risks	IMF Policy Response to COVID-19	Energy Policy Tracker (International Institute for Sustainable Development, and others)

Note: Non-exhaustive lists. *Source:* Compiled by authors

Policy trackers of government responses to COVID-19 provide useful information on measures that have been taken to contain the health and economic impacts of the pandemic in various parts of the world. The success of East Asia and more broadly the Asia-Pacific countries in controlling the spread of the virus can be attributed at least partly to various decisive Non-Pharmaceutical Interventions (NPIs), including strict lockdowns at the beginning of the pandemic; tight border controls; quarantining of arriving passengers; widespread adoption of face masks; physical distancing; and engaging public health surveillance systems in widespread testing, contact tracing, and quarantining (or home isolation) of infected individuals (The Lancet COVID-19 Commissioners et al., 2021). Recent experiences with virus outbreaks also helped some countries in East Asia and the Asia-Pacific take early, strong, and effective measures, and led to a higher proportion of their population accepting and following the rules and recommendations.

It remains difficult to demonstrate empirically the contribution of specific NPIs to success in controlling virus transmission. Most likely a combination of NPI measures drives success, with the effect of all measures taken together being greater than the cumulated effect of each taken separately. High-quality international measures are lacking that would enable development of robust estimates of the following factors (SDSN and IEEP, 2020):

1. Delays in obtaining COVID-19 test results (crucial for isolating confirmed cases and reducing transmission)
2. Number of contacts traced per positive COVID-19 test
3. Staff dedicated to contact tracing

Box 3. Tracking preparedness and responses to global security threats (continued)

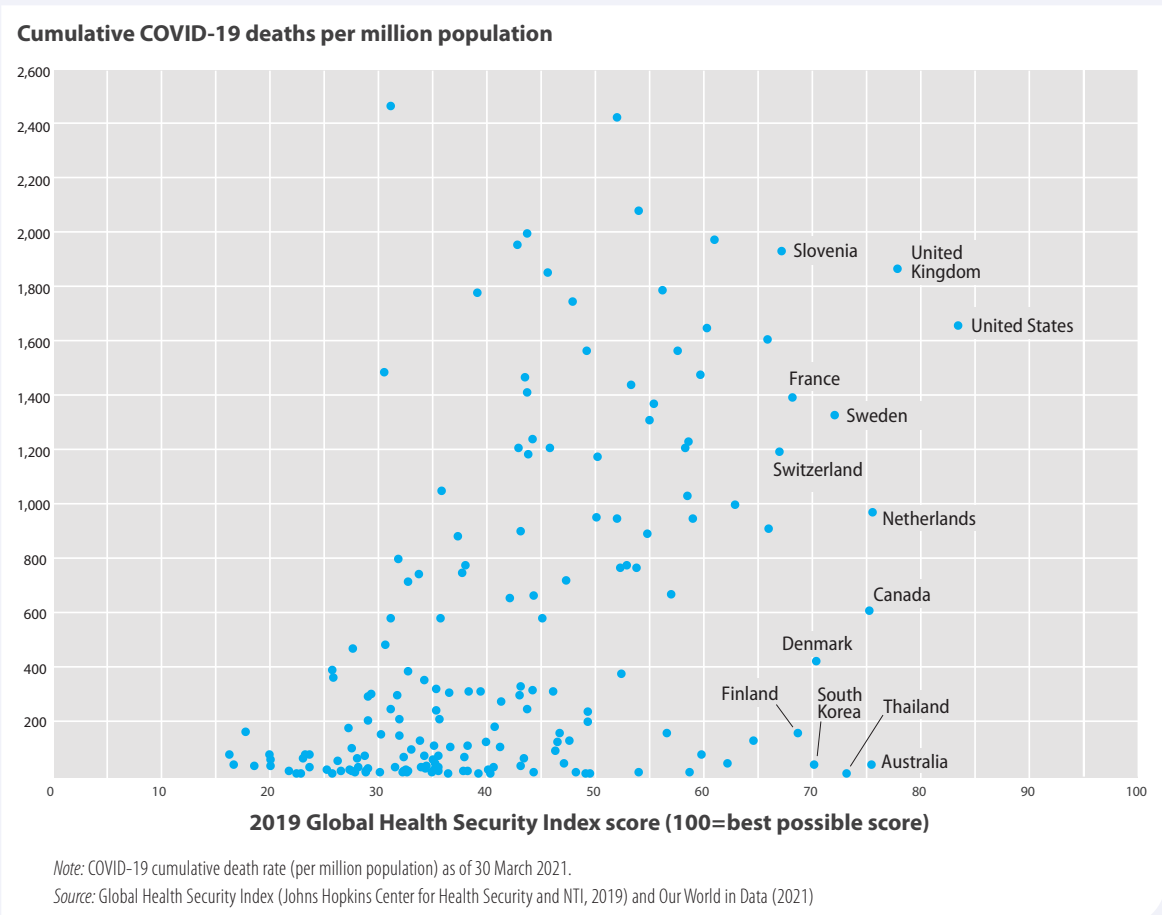
4. Financial support and specific policies to ensure effective isolation and quarantining
5. Data on the use of protective personal equipment (including face masks and hand sanitizers) disaggregated by population groups, including age groups and vulnerable groups
6. Average number of contacts and people met per person per day

The third group of trackers focuses on the greenness of recovery packages. These indicate that the financial resources devoted so far will be insufficient to support a transformative recovery in line with the objectives of the 2030 Agenda and the SDGs. As summarized in the Emissions Gap Report published by the UN Environmental Programme (2020), 70 tracking initiatives from Climate Action Tracker, Oxford University, the IMF, and Vivid Economics all show that only a small fraction of the US\$12.7 trillion in public spending that had been provided by G20 countries by October 2020 positively impacted the climate and the environment. The scope and coverage of these various green recovery trackers vary immensely, which explains the difference in results obtained for some countries.

As the world recovers from the COVID-19 crisis, it will be important to learn from countries that dealt with the pandemic outbreak most effectively and to strengthen existing indicators and monitoring systems to track each country's preparedness and capacity for resilience (Lafortune and Schmid-Traub, 2020a).

Figure 3.2

Estimated preparedness to health security risks and COVID-19 mortality, by country
 Global Health Security Index (total score) in November 2019 vs COVID-19 cumulative death rate as of March 2021 (per million population)
 (Country labels included for the 13 countries considered before the pandemic to be the best prepared in the world)



3.3 Data, statistics, and monitoring

The 2030 Agenda for Sustainable Development and the SDGs underscore the importance of reliable data and statistics. Along with this increased focus on data and statistics, far greater than that of the previous Millennium Development Goals (MDGs) (SDSN, 2015), SDG targets 17.18 (enhance availability of reliable data) and 17.19 (further develop measurements of progress) explicitly call on countries to strengthen their statistical capacities. Access to reliable, timely, and comprehensive data is crucial to track progress and help policymakers make informed decisions.

The COVID-19 crisis has amplified the need for timely data (UNSD, 2020). Investing in timely data is not only imperative to combat the socioeconomic consequences of the pandemic in the short-term, but also to design successful pathways for a long-term green recovery (box 4). We must also prioritize data disaggregated by income, gender, and other dimensions to address the disparities that the pandemic has widened (UN DESA, 2020).

Data availability and timeliness for the SDGs

Five years after the adoption of the SDGs, significant data gaps and time lags in international statistics remain (UNSD, 2020). The March 2021 edition of *IAEG-SDGs: Tier Classification for Global SDG Indicators* confirmed that all 231 official SDG indicators now have internationally established methodologies. Yet data on more than 40 percent of these indicators, those classified as Tier II, are still not being regularly produced in many countries (UNSD, 2021b). Our SDG Index integrates alternative data sources from research centers and other civil society organizations to fill some of these international data gaps.

Analysis of the Global SDG Indicators Database, maintained by the United Nations, shows large differences in data availability and timeliness across the SDGs. The greatest gaps are found for SDG 13 (Climate Action) and SDG 14 (Life Below Water), for which few countries have capacity to report data and time lags remain significant. These results align with other analyses that have similarly found significant gaps in data availability for environmental SDG indicators (Dahmm, 2021; UNEP, 2019).

While many significant data challenges remain, notable progress has been made since the adoption of the SDGs. In 2016, just 81 indicators were classified as Tier I (internationally established methodologies and data regularly produced), with 57 Tier II indicators (internationally established methodologies available but data not regularly produced), and 88 Tier III indicators (lacking internationally established methodologies). Four indicators had multiple tiers, in that different components were classified into different tiers. Tier III indicators represented the largest share. Yet by the end of 2020, there were 130 Tier I and 97 Tier II indicators, with no remaining Tier III indicators – marking an almost 50 percent expansion in the number of indicators with both an established methodology and data regularly provided by countries (UNSD, 2021b).

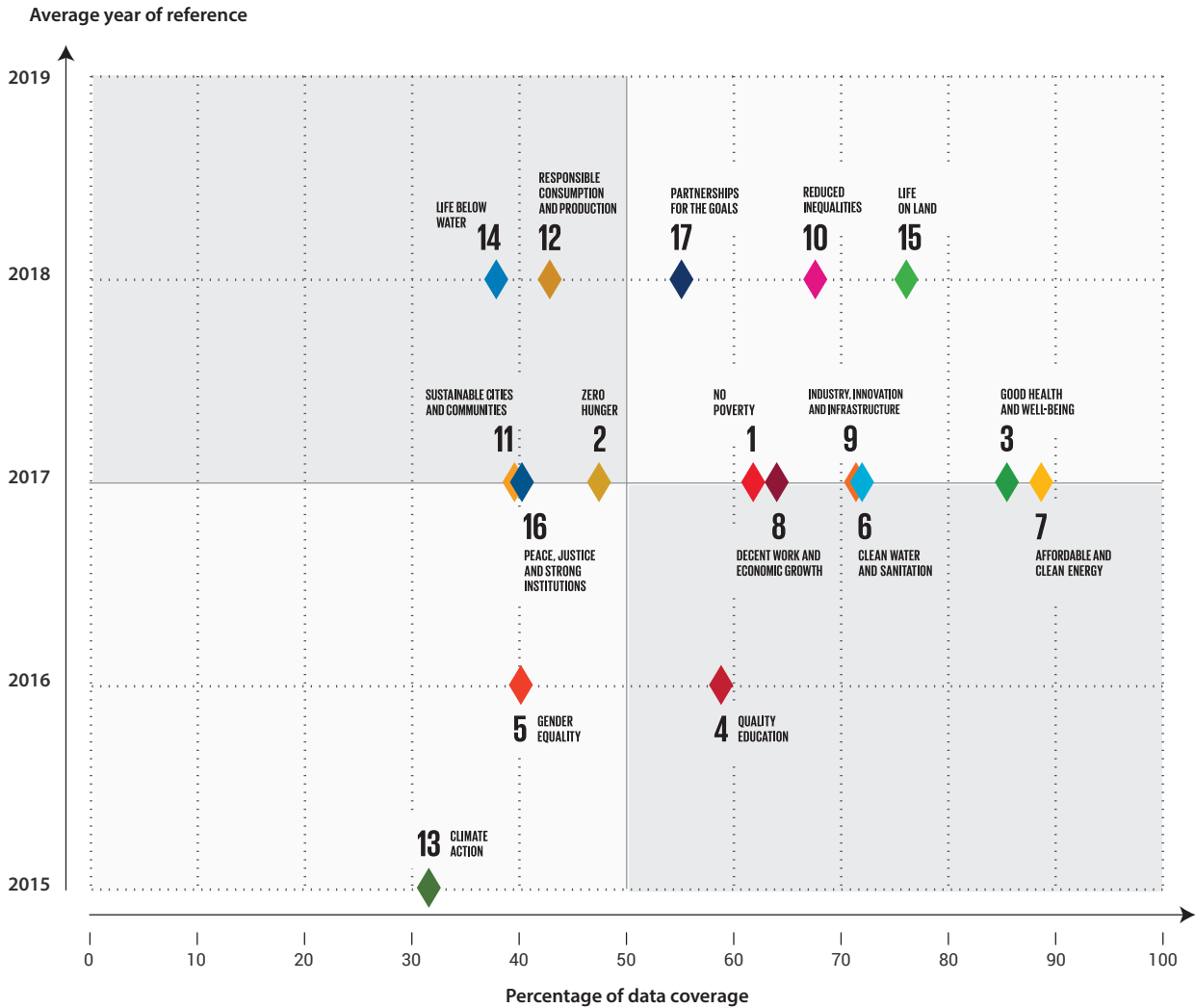
A review of the Global SDG Indicators Database shows that improvements in methodology have been accompanied by real improvements in actual data availability. Between the 193 UN Member States and the 247 indicators in the current SDG framework, there are 47,671 potential data points to fill every year. Back in March 2019, only 43.6 percent of these points had available data. Two years later, this proportion has increased to 58.3 percent. Promisingly, over half of the data needs are now being met.

It might be too early to assess the impact on international data availability and timeliness of the numerous SDG data initiatives launched since 2015 to monitor progress on the SDGs – led by governments, multilateral organizations, civil society, and businesses. In the previous edition of the *Sustainable Development Report*, we identified seven distinct types of such data initiatives:

1. International SDG monitoring reports
2. National SDG indicator and monitoring reports
3. Goal-specific monitoring initiatives
4. Policy trackers
5. Subnational and city-level SDG assessments
6. Corporate benchmarks and sustainability metrics
7. Capacity-building and partnerships to develop alternative data sources

Figure 3.3

Data availability (%) and average year of reference in official SDG indicators (2021)



Note: The percentage corresponds to the percentage of UN Member States that have data available. It was compiled as the average share of countries with data available for each indicator under each goal (as of March 2021).

Source: Authors' analysis in collaboration with SDSN TRenDS, based on the Global SDG Indicators Database from the United Nations.

The World Bank's Data for Policy (D4P) program is one such initiative that will likely yield notable improvements in national statistical capacities in the years to come (Dabalen et al., 2020). Under the 2019 replenishment of the International Development Association (IDA19), the Bank committed to supporting at least 30 of the world's poorest countries through the D4P program (Castelán et al., 2020), which supports countries and national statistical systems to strengthen data availability, timeliness, and quality, especially regarding the SDGs. The 50x2030 Initiative to Close the Agriculture Data Gap is an inter-agency collaboration to improve household and agricultural survey data in low and lower-middle-income countries. And in 2019, the Swiss Agency for Development and Cooperation and the Swiss Federal Statistical Office launched the Bern Network on Financing Data for Development to promote more and better financing for data and statistics, particularly in lower-income countries.

Measuring the capacity of national statistical systems

National statistical offices (NSOs) play a key role in tracking and monitoring SGD progress (Dang et al., 2021; UNSD, 2019; UNECE, 2015). NSOs must identify nationally relevant indicators to measure the SDGs, collect and compile timely, high-quality, comparable, and disaggregated data and provide dataset access to policy makers and the public via online portals or similar tools.

To better assess the outputs of national statistical systems, the World Bank has developed a new Statistical Performance Index (SPI) (Dang et al., 2021). The SPI groups indicators into five pillars: **1) data use** looks at how policy makers, civil society, academia, and international bodies use data; **2) data services** measures the quality, comprehensiveness, and openness of data; **3) data products** considers the ability to produce relevant indicators, primarily with regards to the SDGs, **4) data sources** assesses the availability of census, administrative, and geospatial data; while **5) data infrastructure** focuses on legislation, standards, and finance for effective statistical systems. These pillars are further disaggregated into a total of 22 dimensions.

Table 3.7

Top 10 and bottom 10 performers by Statistical Performance Index (SPI) score

	Country	Statistical Performance Index (SPI) score
1	Norway	90.1
2	Italy	89.8
3	Austria	89.1
4	Poland	89.1
5	Slovenia	88.9
6	United States	88.9
7	Spain	88.9
8	Sweden	88.5
9	Finland	88.5
10	Korea, Rep.	88.3
<hr/>		
165	Guinea-Bissau	33.4
166	South Sudan	30.5
167	Gabon	28.1
168	Syrian Arab Republic	26.5
169	Kiribati	24.5
170	Micronesia, Fed. Sts.	23.8
171	Turkmenistan	23.5
172	Libya	21.4
173	Marshall Islands	20.9
174	Somalia	19.6

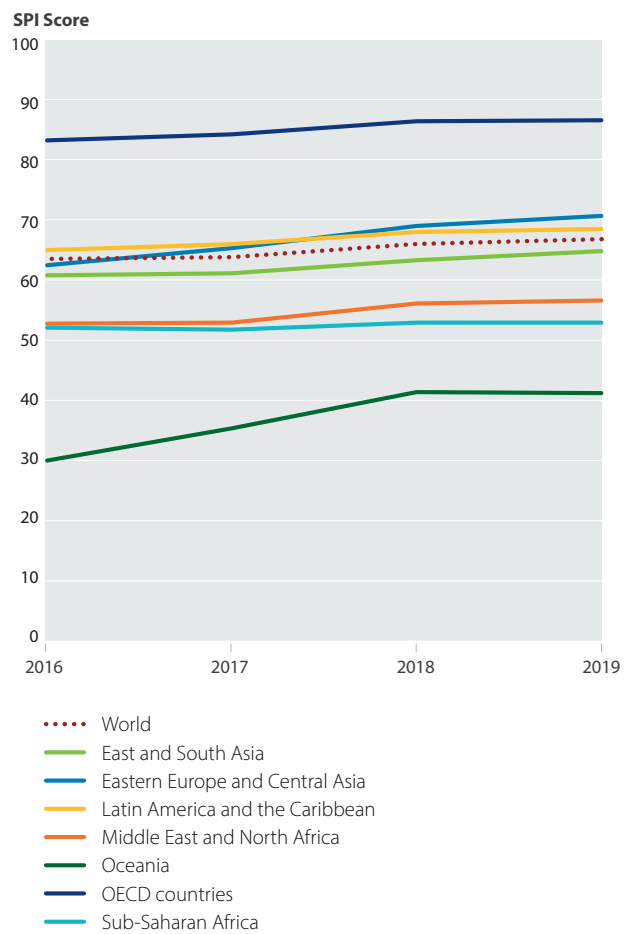
Source: Statistical Performance Indicators and Index (Dang et al., 2021). The reference year is 2019.

OECD countries have achieved the highest level of statistical performance (table 3.7). The top 30 countries in the SPI are all OECD members. Most OECD countries perform well on pillar 1 (data use), pillar 2 (data services), and pillar 5 (data infrastructure). But all face significant gaps in at least one of the five pillars, and especially in pillar 3 (data products), regarding their ability to produce relevant indicators (particularly for measuring the SDGs), and pillar 4 (data sources), relating to the availability of census, administrative, and geospatial data.

In the rest of the world, statistical capacity varies widely across countries and regions (figure 3.4). Eastern Europe and Central Asia scores 71, Latin America and the Caribbean 69, and East and South Asia 65 – all performing better than the Middle East and North Africa at 57 and sub-Saharan Africa at 53. Oceania, composed entirely of small island developing states (SIDS), records the lowest level of statistical capacity, scoring only 41. Most countries missing more than 20 percent of data in the SDGs Index are SIDS. Promisingly though, statistical capacity in Oceania improved by more than 30 percent from 2016 to 2019, the largest increase of any region.

Figure 3.4

Statistical Performance Index (SPI) score by region, 2016–2019



Source: Authors' analysis, based on Statistical Performance Indicators and Index (Dang et al., 2021). Population-weighted.

Box 4. Data gaps during COVID-19 and lessons learned for building stronger local and global data systems

By Grant Cameron and Alyson Marks, SDSN Thematic Research Network on Data and Statistics (TReNDS)

“In 2020, global health went local” is how Bill and Melinda Gates described COVID-19’s impact. Local, because it affected each of our daily lives. Global, because of the virus’s reach and the broad consortium of governments, academics and researchers, philanthropists, global institutions, and multinational companies that have come together to slow the pandemic’s spread and impact.

This global/local focus also described how we made sense of our new reality. We needed local information to understand how the virus was spreading through our neighborhoods and towns and to target support where it was most needed. But we also wanted information that was comparable with other jurisdictions and around the world to understand how we were faring relative to others and to exchange information and ideas with others to manage the pandemic.

Unfortunately, in 2020, the data we had were in failing health. Weaknesses in data systems left many policymakers in the dark as they invested trillions of dollars in policies and programs, often relying on out-of-date or inaccurate data.

In high-income countries, data were inadequate in three ways. First, the systems to capture statistics on those being infected were not designed to work in real-time. Basic information on COVID-19 confirmed cases and deaths, as well as more detailed information found in hospital records, suffered from delays, incomplete or missing data (Hester et al., 2020). Second, little attention had been paid to using common definitions for key health statistics (Reinhard et al., 2020). As a result, many governments lacked accurate information on how many people were sick, hospitalized, or had died. Third, new collaborations need to be formed quickly to combine data from health and other sources (data on employment, incomes, sense of anxiety) to target support (UNECE, 2020).

For low-income countries, particularly in the Global South, the lack of information was worse. Many of these countries have nascent or poorly-functioning health administration systems, and their National Statistics Offices (NSOs) were shut down for much of 2020 (World Bank, 2020). Lacking the ability to work from home, efforts to re-purpose existing data to guide policies and programs were few and far between. Additionally, with an over-reliance on face-to-face interviews to gather information, new data to track COVID’s impact was often unavailable.

At SDSN TReNDS, we bring together leading minds from across the global scientific, development, public, and private sector data communities to develop and pilot new research and engage in substantive conversations about new methods and approaches to producing and using data to support effective policymaking. The network collaborates across disciplines and advises multiple governments worldwide on how to navigate new opportunities for better evidence-based decisions. Here is a sample of what we are working on to support countries in building back better post-COVID:

- **Improving Local Data:** In Colombia, we brought together experts to use satellite imagery, mobile data, and national surveys to produce multi-dimensional poverty measures to better target the country’s poverty reduction strategies. By the end of 2020, Colombia’s NSO began measuring poverty in regions with the highest poverty rates. To begin replicating this success and foster capacity-building, TReNDS organized workshops in South America to raise awareness of the data underlying these measures to create timely and local area population estimates. This in-country work would not have been possible without TReNDS’ efforts to create the POPGRID Data Collaborative to accelerate the development and use of high-quality georeferenced data on population, human settlements, and infrastructure. TReNDS’ new report on behalf of POPGRID, *Leaving No One Off the Map*, highlights how data produced by this collaborative can be used for infectious disease response (TReNDS, 2020).

Box 4. Data gaps during COVID-19 and lessons learned for building stronger local and global data systems (continued)

- **Strengthening Data Governance:** TRENDS' goal is to foster data that will be used for decisions. Through our collaborations, we realized that trusted, relevant, and quality data will not happen by itself, and balancing safeguards in data use with incentives for innovations requires careful oversight. As such, TRENDS is working with other global partners to design improvements in data governance. Our recently published *Towards a Framework for Governing Innovation: Fostering Trust in the Use of Non-traditional Data Sources* is the first in a series of papers charting the path ahead (TRENDS et al., 2021).
- **Preparing for the Next Pandemic:** As a global research network, TRENDS works hard to convene leading experts to share their knowledge and latest work. This includes recent events, such as *How to Use Data to Build Back Better Post-COVID*, co-hosted with Apolitical. We are also convening our expert member group around critical topics, such as citizen science and environment data, enhancing private sector engagement, and fostering greater collaborations across researchers in the Global North and South, to develop a work program to maximize TRENDS' impact in the years ahead. In all topics, a special emphasis will be placed on social inclusivity to ensure no one is left behind.

The Gates hope that living through the pandemic will lead to long-term change in the way people think about health, and that people in rich countries see investments in global health as beneficial not only for low-income countries, but for everyone. At SDSN TRENDS, we hope our actions will ensure that people are thinking the same thing about data and information.