3 Planet

The “Planet” theme of the 2030 Agenda focuses on protecting the planet through limiting climate change and encouraging more sustainable consumption and production along with the sustainable management of water resources, oceans and terrestrial biodiversity. Relying on the global indicator framework, this chapter assesses whether OECD countries are likely to achieve the SDG targets on the Planet. It shows where OECD countries are standing in terms of their current performance but also in terms of changes over time, and what part of the 2030 Agenda on the Planet currently remains unmeasurable. It also discusses some of the main impacts of the COVID-19 pandemic on the Planet targets.

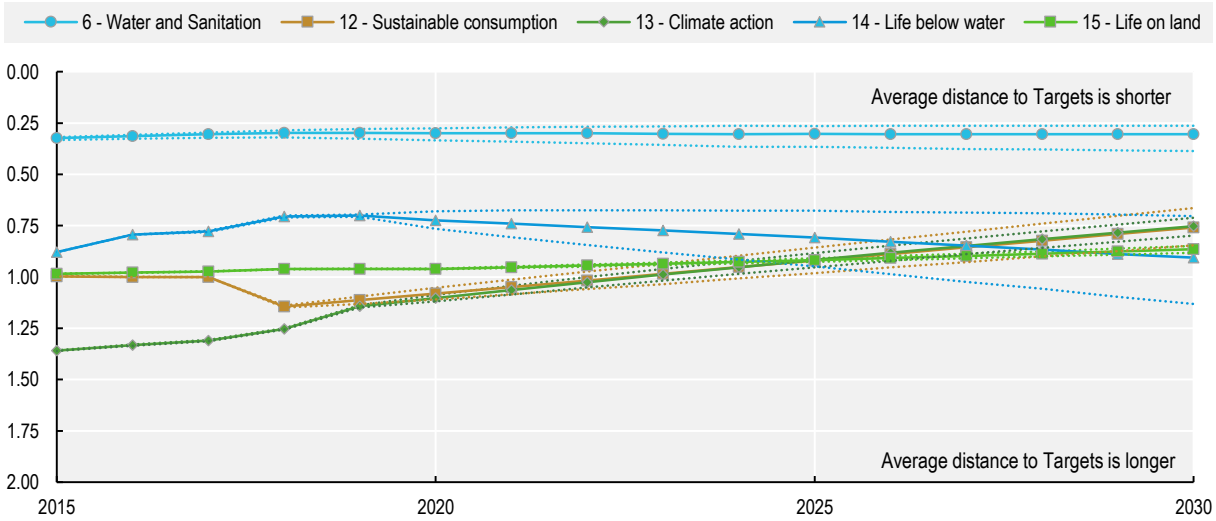
Introduction

The 2030 Agenda is a call to all countries to take action for a better and more sustainable future. At its core is a set of 17 Sustainable Development Goals balancing the three dimensions of sustainable development: economic, social and environmental. Since the adoption of the sustainable development agenda in 2015, its broad scope has often been characterised by five core themes, the "5Ps" (UN, 2015[1]): People, Planet, Prosperity, Peace and Partnerships.[1] The goals and targets belonging to the "Planet" category focus on the protection of the planet from degradation through more sustainable consumption and production (Goal 12); the sustainable management of water resources (Goal 6); oceans and marine biodiversity (Goal 14) and terrestrial biodiversity (Goal 15); and limiting climate change (Goal 13).

Making progress towards the Planet goals can also generate co-benefits that ensure advancement on inter-related goals such as food security (Brooks, 2016[2]), gender equality and women's empowerment (OECD, 2021[3]) or health, income and wealth, and work and job quality (OECD, 2021[4]). For instance, although air pollution has decreased in most OECD countries over the past two decades, it remains above WHO guidelines in most of them. This has serious consequences for people's health and mortality: in the EU for example, estimates attributed between 168 000 and 346 000 deaths to air pollution from fine particles ($PM_{2.5}$) alone in 2018 (OECD/European Union, 2020[5]). More broadly, the effects of climate change (Goal 13) and environmental degradation (Goals 14 and 15) are unevenly distributed between and within countries, meaning policies to tackle them will also have to take into account the inter-country and intra-country dynamics of inequality (Goal 10), strengthening national institutions (Goal 16) and working in partnerships (Goal 17) with various stakeholders, such as NGOs or the private sector, as well as across government.

Even before the pandemic hit, OECD countries were not on track to achieve the targets of the "Planet" goals. Figure 3.1 shows how OECD countries are on average performing on the 2030 Agenda over time. At the SDG starting block, the OECD countries[2] were closest to the targets for goals related to Water and sanitation (Goal 6), Life below water (Goal 14), Life on land (Goal 15) and Sustainable production and consumption (Goal 12); they were, however, starting from a more challenging position when it came to Climate-related targets (Goal 13). Between 2015 and 2021, OECD countries have been progressing on all goals, with the exception of Life below water (Goal 14). However, the rate of progress varies among goals, with Water and sanitation (Goal 6), Sustainable production and consumption (Goal 12) and Life on land (Goal 15) showing very little change, while Climate (Goal 13) shows stronger progress. Projecting trends up to 2030 suggests that, unless additional policies are urgently implemented, the goal on Water will be the only one that may come close to being achieved, while all the other goals are likely to remain behind – including on many targets of Goals 14 and 15, which were supposed to be met in 2020 (see overview chapter for details). To overcome some of the challenges relating to composite measures, this chapter dives into the details of the underlying targets and provides an exhaustive picture of where OECD countries stand in terms of meeting the targets.

Figure 3.1. OECD countries' average distance to SDG targets over time by goal, Planet



Note: This figure shows the average distance that OECD countries could travel towards the SDGs based on recent trends; hence these distances are based on existing policies and do not account for the additional measures that OECD countries may have introduced since the latest observation available. Distances are measured in standardised units (see the methodological annex for details), with 0 indicating that the 2030 level has already been attained. Full lines show OECD countries' average performance against all targets under the relevant goal. Dashed lines show the confidence interval (10th and 90th percentiles of estimated trends). When data are not available for specific years, these are imputed using linear interpolation between the two closest available observations. Past (i.e. before the first available year) and future (i.e. after the latest available year) trajectories are imputed using Monte Carlo simulations (see the Methodological Annex for details).
Source: All data is taken and adapted from (UNDESA, 2021[6]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg and (OECD, 2021[7]), *OECD.Stat,* https://stats.oecd.org/ (accessed on 29 October 2021).

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Many of the Planet goals lack good quality data, which hampers countries' ability to evaluate policy outcomes and determine priorities for future action. For instance, while Goal 6 is on average at a very short distance to the target, it does not include any data on irrigation. Still, this sector is the main source of water use in many countries. Goal 6 is therefore not able to provide a strong indication of water sustainability. In addition, although there is current data available on almost 70% of the targets pertaining to the Planet category, only one in three Planet category SDG targets can be monitored over time due to the limited availability of robust time-series data.

As further detailed in sections below, the reduction in economic activity induced by the pandemic in all OECD countries has led to an overall improvement of environmental conditions, highlighting the significance of human interference with the climate, ecosystems and biodiversity. For instance, the COVID-19 crisis resulted in a short-term reduction in global emissions of greenhouse gases (see Impact of the COVID-19 pandemic on Goal 13 for details and references); it also led to a temporary improvement in water quality in waterways and coastal zones (Impact of the COVID-19 pandemic on Goal 6), and to reduced pressures on biodiversity (Impact of the COVID-19 pandemic on Goal 15). Yet, in the absence of further measures these benefits will not last. At the same time, the pandemic also resulted in new sources of pollution (Impact of the COVID-19 pandemic on Goal 12), while the reduction of surveillance operations induced by mobility restrictions may have favoured illegal fishing and the killing of wildlife (Impact of the COVID-19 pandemic on Goal 14).

Goal 6 – Clean water and sanitation

Goal 6 aims at *"*ensuring availability and sustainable management of water and sanitation for all*"*. Across OECD countries, almost all residents have convenient access to drinking water and proper sanitation services, and most of them benefit from public wastewater treatment. However, it is challenging to maintain high levels of the water supply and sanitation services while preserving quality through increasingly stringent environmental and health regulations, including for new and emerging contaminants. Beyond water quality, the main challenge faced by OECD countries is to ensure sustainable management of water resources, as well as avoiding over-abstraction and degradation. This is particularly important as climate change makes water demand and availability more uncertain (OECD, 2013[8]; OECD, 2014[9]; OECD, 2017[10]). While most OECD countries face at least seasonal or local water quantity problems, overall, data used for global monitoring suggest that resources are efficiently managed, and freshwater abstraction has been largely decoupled from economic growth. Yet, OECD analysis shows that the pressures on the quantity and quality of natural resources have increased significantly over recent decades (OECD, 2017[11]) and have led to the use of groundwater beyond natural recharge in many regions, in some cases with significant negative economic and environmental impacts (OECD, 2015[12]). Furthermore, in the long run, drought and over-abstraction have led to non-negligible loss of surface water in some countries.

The pandemic has shown the importance of sanitation, hygiene and adequate access to clean water. Yet, besides some (temporary) improvement in water quality in waterways and coastal zones, the pandemic should not have a direct impact on the targets underlying Goal 6.

Assessing OECD countries' performance on Goal 6

This report uses data from the *UN Global SDG database* together with OECD sources. Yet, the starting point always remains the Global SDG Indicator Framework, curated by the IAEG-SDGs. Table 3.1 shows that data allow the monitoring of six of the eight targets underpinning Goal 6, and four of them can be assessed over time. For this goal, four data series are sourced from the OECD, and three depart from the global indicator framework. For all of them, drawing from OECD sources either provides longer time series (6.3.1, 6.4.1 and 6.4.2) or allows covering specific aspects of multifaceted targets (6.6.1). On top of indicators listed in Table 3.1, the database includes 11 additional data series under Target 6.6 and one under Target 6.a. These are considered to be mainly informative in the context of Goal 6 and are not assessed in this report (details and data for all indicators are available at https://www.oecd.org/wise/the-short-and-winding-road-to-2030-data-chapter-3-planet.xlsx).

Table 3.1. Available data series supporting the monitoring of Goal 6

Indicator code	Indicator Label	Available over time	Primary source
6.1.1	Proportion of population using safely managed drinking water services	Yes	*SDG Global Database*
6.2.1	Proportion of population practicing open defecation	Yes	*SDG Global Database*
6.2.1	Proportion of population using safely managed sanitation services	Yes	*SDG Global Database*
6.3.1	Proportion of domestic wastewater flows that are not safely treated	No	*SDG Global Database*
6.3.1	*Population not connected to public sewage treatment*	Yes	OECD
6.3.2	Proportion of groundwater bodies with good ambient water quality	No	*SDG Global Database*
6.3.2	Proportion of open water bodies with good ambient water quality	No	*SDG Global Database*
6.3.2	Proportion of bodies of water with good ambient water quality	No	*SDG Global Database*
6.3.2	Proportion of river water bodies with good ambient water quality	No	*SDG Global Database*
6.4.1	Water use efficiency (USD per cubic meter)	Yes	*SDG Global Database*

Indicator code	Indicator Label	Available over time	Primary source
6.4.1	*Freshwater abstraction per capita*	Yes	OECD
6.4.2	Water stress	Yes	OECD
6.4.2	Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	Yes	*SDG Global Database*
6.5.1	Degree of integrated water resources management implementation	No	*SDG Global Database*
6.5.2	Proportion of transboundary river and lake basins with an operational arrangement for water co-operation	No	*SDG Global Database*
6.5.2	Proportion of transboundary aquifers with an operational arrangement for water co-operation	No	*SDG Global Database*
6.5.2	Proportion of transboundary basins (river and lake basins and aquifers) with an operational arrangement for water co-operation	No	*SDG Global Database*
6.6.1	Extreme or high lake water turbidity	No	*SDG Global Database*
6.6.1	Extreme or high lake water trophic state	No	*SDG Global Database*
6.6.1	*Converted from permanent water to non-permanent water (not water or seasonal)*	No	OECD

Note: Indicators in italic are not included in the global indicator framework but are used in this report to tailor the analysis to OECD countries.

Basic access to water and sanitation, the objective of Targets 6.1 and 6.2, **has already been met in most OECD countries** (Figure 3.3, panel A). Target 6.1 focuses on *"*achieving universal and equitable access to safe and affordable drinking water*"*. In the global indicator framework, this target is monitored by the proportion of population using safely managed drinking water services (the target level was set at 97% of the population to allow for possible uncertainties). As of 2020, 25 OECD countries had already reached complete coverage, while only three (Costa Rica, Mexico and Colombia) had coverage below 90%, ranging from 81% in Costa Rica to 43% in Mexico. All OECD countries (except Switzerland, which has been stagnating at 94% of the population over the past two decades) are progressing towards universal coverage, but, with no change to current trajectories, eight countries may not be able to be at target level by 2030.

Target 6.2, focusing on *"*achieving adequate and equitable access to sanitation and hygiene for all and ending open defecation", is measured by the proportion of population using i) safely managed sanitation services and ii) a hand-washing facility with soap and water (as in the global indicator framework). Since data on hand-washing facilities from the *SDG Global Database* do not cover OECD countries, this report relies only on measures of access to sanitation services (the proportion of population using sanitation services and the proportion of population practicing open defecation).[3] All OECD countries have essentially eliminated the routine practice of open defecation and 19 OECD countries have already reached (or are close to reaching) safely managed sanitation services for all. Still, coverage of safe sanitation and hand-washing facilities is below 70% in Norway and Mexico and below 30% in Costa Rica and Colombia. While coverage is likely to remain complete or close to complete in most OECD countries, some countries have likely already reached the economic and technical limits in terms of connection to water and sanitation services and may rely on other ways of serving small and isolated settlements (OECD, 2017[10]). Otherwise, the lack of progress may prevent universal coverage rates by 2030 (Figure 3.3, panel B)[4]. For these targets, too, data gaps prevent a more comprehensive assessment.

Over the past two decades, access to wastewater treatment has improved in all OECD countries but still varies significantly across countries (Figure 3.3). Target 6.3 aims at *"*improving water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse*"*. It is to be measured by the proportion of domestic and industrial wastewater flows safely treated and the proportion of bodies of water with good ambient water quality. As concerns wastewater flows, the measurement relies on two distinct data series: the proportion of domestic wastewater flows that are not

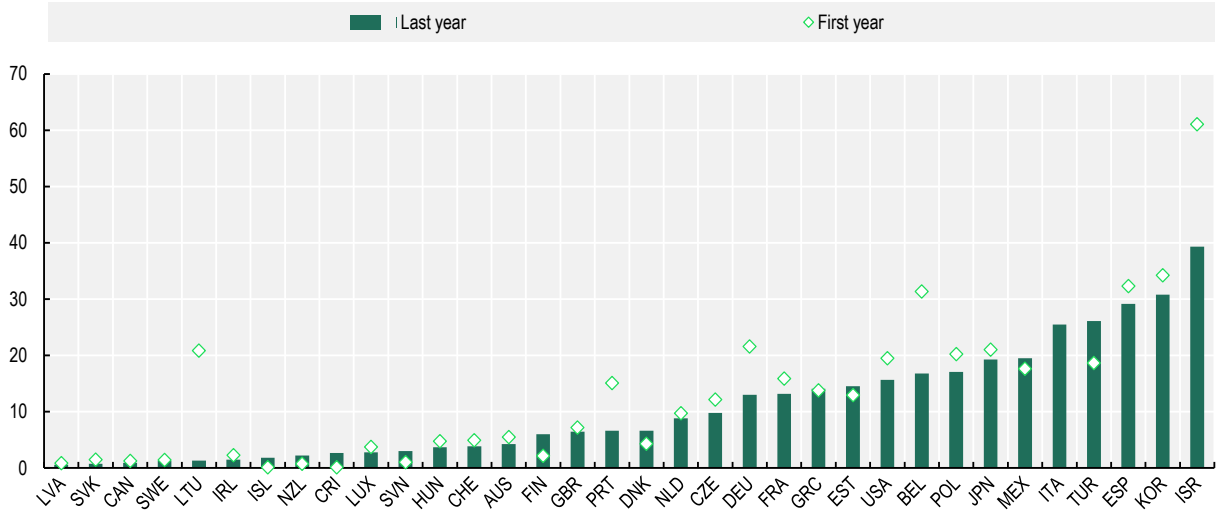
safely treated – from the *SDG Global Database*[5] – and the share of population not connected to public sewage treatment – from OECD data sources. Following the language of the target, the target levels are operationalised at 4.5% and 9.0% respectively, i.e. half the OECD median in 2015 (or closest available year). The latter shows that as of 2019, all OECD countries with available data but Turkey, Mexico, Costa Rica and Iceland[6] had over three quarter of their population connected to public sewage treatment. The first measure also provides similar results, with 23 of 38 OECD countries safely treating more than 90% of their domestic wastewater flows in 2020. Yet, five countries (Slovenia, Turkey, Mexico, Costa Rica and Colombia) had more than 30% of their domestic wastewater flows not safely treated. In addition, four indicators are used to assess the proportion of water bodies with good ambient water quality, in particular groundwater bodies, open water bodies, river water bodies and more generally all bodies of water. Overall, results show a great variety of outcomes among countries but also among types of water bodies. When the various measures are aggregated, nine OECD countries are close to reaching the target (Iceland, Lithuania, Finland, the Netherlands, Korea, Poland, Australia, Austria and the United Kingdom), while eight appear to be much further (Sweden, Denmark, New Zealand, Mexico, Germany, Japan and the United States). Unfortunately, trends can be assessed only for public sewage treatment. While progress is evident in almost all countries (Figure 3.3, panel B), the main challenge in the future will be to ensure proper financing for renewing and upgrading existing and often ageing networks and treatment plants (OECD, 2020[13]). More efforts will be needed to increase advanced wastewater treatment where economically viable and environmentally justified and to cope with new and emerging pollutants, such as pharmaceutical residues and micro-plastics.

While most OECD countries face seasonal or local water quantity problems, available data suggests that a majority of them report good performance on water use. Target 6.4 aims at *"*increasing water-use efficiency and ensure sustainable withdrawals and supply of freshwater*"*. It is monitored through measures of change in water-use efficiency and water stress. In the *SDG Global Database*, water-use efficiency is defined as the value added divided by the volume of water used. In this report, this measure is completed by the volume of freshwater abstraction per capita. The two measures provide comparable results (the rank correlation is 0.75), but freshwater abstraction per capita is better able to show different performances across countries. In the absence of an obvious benchmark, this report has set the target in comparison to the level achieved by OECD top performers in 2015 (i.e. less than 165 cubic meters per inhabitant). Based on this benchmark, per capita abstractions can be considered as high (above 1 900 cubic meters per inhabitant) in three OECD countries (Iceland, Colombia and New Zealand) but are below 740 cubic meters per inhabitant in most other countries. As shown by OECD (2020[13]), average water abstractions throughout OECD countries have been decoupled from economic and population growth, with per capita abstractions declining over the past two decades. This decline is, however, not likely to be large enough to allow many countries to reach the 165 cubic meters per inhabitant target achieved by the top performers in 2015. Only seven OECD countries (Ireland, the Czech Republic, Israel, Latvia, the Slovak Republic, Lithuania and Luxembourg) are expected to meet the target.

When it comes to water scarcity, performance also varies greatly among countries. No major water stress on available resources is considered as taking place whenever freshwater abstractions as a share of total renewable resources are below 10% (Figure 3.2). Overall, 20 OECD countries are below this threshold, while five (Italy, Turkey, Spain, Korea and Israel) have levels more than twice as high (i.e. above 25%). Since early 2000, water stress decreased in 19 OECD countries, but likely not fast enough in seven of them. When looking beyond national averages, most countries face seasonal or local water quantity problems (OECD, 2020[13]), and most of them are expected to face high water risks in the years to come (OECD, 2017[14]). Several OECD countries also have extensive arid or semi-arid regions where water availability is a constraint on economic development and human well-being.

Figure 3.2. Water stress (Target 6.4)

Freshwater abstraction as percentage of renewable resources



Note: First year refers to 1990 for Finland and the United Kingdom; 1993 for Switzerland; 1994 for Ireland; 1996 for Canada, Sweden, Iceland and Belgium; 1997 for Spain; 1998 for Portugal, Germany, Estonia, Mexico and Korea; 2000 for France, Greece, the United States, Japan, Turkey and Israel; 2001 for Australia and the Netherlands; 2005 for Costa Rica; and 1999 for otherwise. Last year refers to 1998 for Italy; 2004 for the United Kingdom; 2006 for Finland; 2009 for Ireland; 2012 for Switzerland; 2014 for Iceland and the New Zealand; 2015 for Canada, Sweden, Belgium and the United States; 2016 for Spain, Germany, Luxembourg and Japan; 2017 for Portugal, Estonia, Mexico, Korea, France, Australia and Costa Rica; and 2018 for otherwise.
Source: (OECD, 2022[15]), "Water withdrawals" (indicator), https://doi.org/10.1787/17729979-en (accessed on 29 October 2021).

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Management of water resources remains a challenge for many OECD countries.[7] Target 6.5 aims at "implementing integrated water resources management at all levels". It is monitored through a composite measure aimed at assessing the stages of development and implementation of the integrated management of water resources (ranging from 0, in the case of no implementation, to 100% for full implementation) and through a set of measures of the proportion of transboundary water with an operational arrangement for co-operation. In both cases, the target is fixed at 100%. According to available data, the first index shows that in 2020, only four OECD countries (Denmark, the Netherlands, Japan and France) were close to the target and achieved high implementation scores (i.e. above 91%), while 12 reported scores below 74% (with Mexico and Chile reporting scores below 50%) and are thus considered as far from target.[8] The second indicator shows that, in most cases, transboundary basins (rivers, lakes and aquifers) in OECD countries are regulated by an operational arrangement. However, around one-quarter of OECD members have less than 40% of their transboundary water sources covered by such agreements (in particular, the United Kingdom and Korea have no agreement at all). None of the data series included to monitor this target allow for a dynamic analysis – time series are considered as missing when there are two or fewer data points for each country.

Loss in surface water is unevenly distributed among OECD countries. Target 6.6 aims at "protecting and restoring water-related ecosystems" and is to be measured globally by measures of the change in the extent of water-related ecosystems. The indicator is multifaceted, and the *SDG Global Database* includes data on different types of freshwater ecosystems. Concretely, it provides a series of indicators informing on the *quantity* and *quality* of surface water for different types of ecosystems and at different points in time. On water quality, the data include proxy measures tracking turbidity (a measure of water clarity) and trophic state (referring to the biological productivity of the surface water body).[9] Since changes in turbidity and trophic state are indicative of degradation of a lake's environmental conditions, the natural target for these

measures are 0, i.e. no lake shows high or extreme deviations from the baseline in turbidity and trophic state. In 2019, on average across OECD countries, 33% of the lakes showed high to extreme deviations from the baseline level in turbidity. With this share ranging from 18% in Greece to 44% in Ireland, all OECD countries were at large distances from the target level of 0. On the other hand, the trophic state of the lakes was more stable, with an OECD average of 7% of total lakes showing extreme or high deviations from their trophic states in 2019. While 15 OECD countries were close to the target level of 0, the distances to target were larger in seven countries (Ireland, Colombia, Chile, the Czech Republic, United Kingdom, Norway and Costa Rica), with more than 12% of the lakes in their territories experiencing high to extreme deviations. The available data do not allow to gauge how turbidity and trophic state have varied over time.

Target 6.6 also includes measures on the extent of water surface area. While informative, this is an indirect measure of change, therefore this report relies on OECD data that capture the *actual* changes in water surface (the target level is operationalised at 0% i.e. no change in water surface). However, none of the data series allow to project trends. While 11 OECD countries lost less than 3% of their water surface from the mid-1980s to 2015, in seven of them (Japan, Costa Rica, Mexico, Colombia, Korea, Luxembourg and Australia) the loss was above 10%. Surface water is mainly lost through drought and unsustainable abstraction for irrigation (OECD, 2020[13]). While this report relies only on measures of surface loss, it is important to note that both water losses and water gains can be detrimental to biodiversity and ecosystems. Inundating areas, mainly through dam building, fragments river systems and potentially blocks migration routes (Haščič and Mackie, 2018[16]). Nor does this report capture the changes in groundwater. Yet, in addition to surface water, groundwater provides an important source of water supply for drinking, irrigation and industry, and it contributes to sustaining groundwater-dependent ecosystems, such as streams and wetlands. Pressures on the quantity and quality of this resource have increased significantly over recent decades (OECD, 2017[11]) and have led to the use of groundwater exceeding natural recharge in many regions, in some cases with significant negative economic and environmental impacts (OECD, 2015[12]).

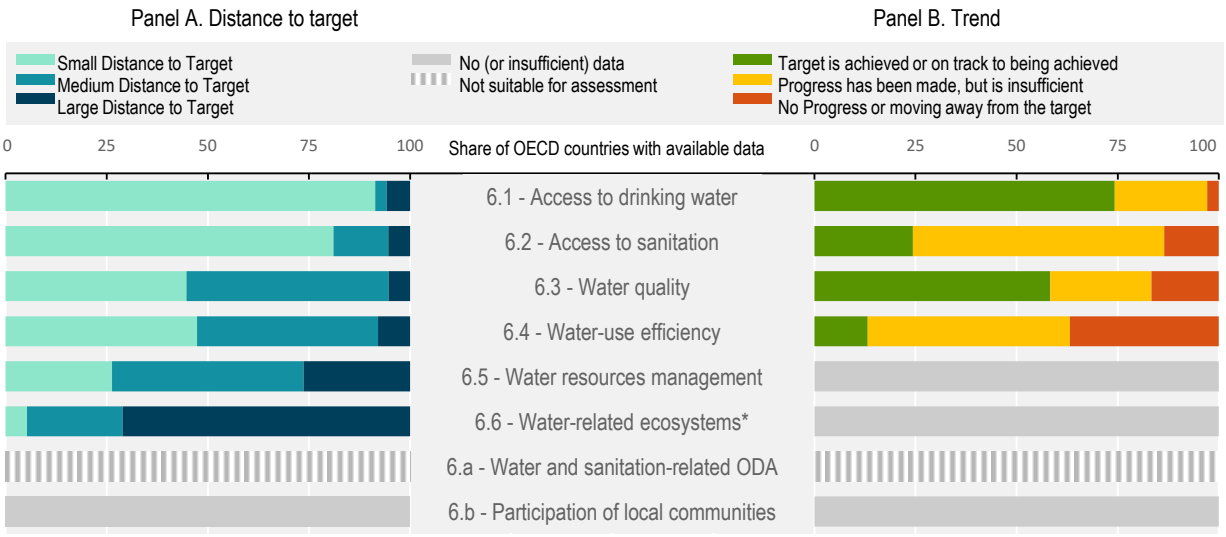
The two "means of implementation" targets under this goal (Targets 6.a and 6.b) are considered to be only informative and are not assessed in this section. As for other ODA-related targets, the indicators for Target 6.a on ODA related to water and sanitation do not have a clear normative direction. While an international benchmark has been defined for total ODA provided by donor countries (0.7% of gross national income), the ideal sectoral breakdown of this aid will depend on the needs of each recipient and the priorities of each donor. Target 6.b, which focuses on the participation of local communities in improving water and sanitation management, is not included due to lack of data. Even so, OECD data (OECD, 2021[17]) show that ODA disbursements to the water sector have been on the rise over the past two decades, from around USD 4 billion in early 2000 to more than USD 9 billion in 2019.

Summing up

Looking at country variation across the Goal 6 targets, most OECD countries provide access to drinking water and sanitation services to virtually all their residents (Targets 6.1 and 6.2), and most countries are making progress towards them. Still, challenges related to water quality, water-related ecosystems and sustainable management of water resources remain. Improving water quality and treating wastewater, while providing a high level of water and sanitation services at the same time, remains a challenge for less than one in ten OECD countries (Target 6.3). Although eight in ten OECD countries show progress in wastewater treatment (Figure 3.3, panel B), some countries have already reached their economic and technical limits and therefore need to find alternative ways to expand services to isolated settlements, such as by developing independent on-site treatment systems (OECD, 2020[13]). On water-use efficiency (Target 6.4), per capita water abstraction has decoupled from economic and population growth and is declining in most OECD countries. While levels of water stress vary among and within countries, they have also decreased since 2000, and this resource seems to be more efficiently managed today (OECD, 2020[13]). Still, the pace of decline is expected to be sufficient to reach the target by 2030 in only a few countries (Figure 3.3, panel B). Finally, seven in ten OECD countries are far from

achieving Target 6.6 on the protection of water-related ecosystems, mostly due to poor results on changes in lake water turbidity, indicating deterioration of the environmental conditions of lakes.

Figure 3.3. Distance to target and trends over time in OECD countries, by SDG target, Goal 6



Note: * refers to targets with a 2020 deadline. Panel A shows the distribution of OECD countries in terms of the distance that they need to travel to reach each SDG target. Distances are measured in standardised units (s.u.) – see the methodological annex for details. Countries' distances, based on the level of the indicators in the most recent available observation, have been grouped into three clusters: small distances (i.e. less than 0.5 s.u.), shown in light blue; medium distances (from more than 0.5 s.u. to 1.5 s.u.), shown in medium blue; and large distances (i.e. more than 1.5 s.u.), shown in dark blue. Panel B shows the distribution of OECD countries in terms of recent changes in their indicators for each target. Countries' progress, based on changes in the indicators over recent years, are grouped into three clusters: those whose recent pace of progress should be sufficient to meet the target by 2030, shown in green; those whose recent progress should be insufficient to meet the target by 2030, shown in orange; and those whose recent performance has been stagnating or moving further away from the 2030 target, shown in red – see the methodological annex for details. The figure also highlights targets with no data to assess either their current distance or their pace of progress (shown in grey). Time series are considered as missing when there are two or fewer data points for each country; indicators are considered as missing when they are unavailable for 20 OECD countries or more, or for less than three world regions – see the methodological annex for details.

Source: All data is taken and adapted from (UNDESA, 2021[6]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg and (OECD, 2021[7]), *OECD.Stat,* https://stats.oecd.org/ (accessed on 29 October 2021).

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Impact of the COVID-19 pandemic on Goal 6

The pandemic has highlighted the importance of sanitation, hygiene and adequate access to clean water to limit the spread of infection. According to the WHO, handwashing is one of the most effective actions a person can take to reduce the spread of pathogens and prevent infections, including the COVID-19 virus (WHO, 2020[18]). That said, **the pandemic should not have any significant long-term impact on the trajectories of OECD countries towards the targets underpinning Goal 6.** Early evidence suggests that the reduction in economic activity led to an improvement in water quality (Target 6.3) in a number of waterways and coastal zones (OECD, 2021[19]). However, this is likely to be a temporary phenomenon, as water pollution is expected to increase once economic activity resumes (Table 3.2). In addition, as highlighted by the World Bank (IFC, 2020[20]), the outbreak of COVID-19 may slow down investment in the water sector worldwide and thus might have an indirect impact on Goal 6 by delaying the renewal and upgrade of existing networks and treatment plants, which would have a delayed impact on wastewater treatment (Target 6.3). Finally, it may be noted that while there were labour shortfalls on perishable agricultural produce, some farmers have delayed fruit production, thus limiting their water use (the irrigation

sector uses 70% of water globally and more than 40% in many countries). Conversely, some countries, such as Israel, raised the water quota for farmers more than usual to ensure their supplies of fresh produce on local markets (OECD, 2021[21]). Therefore, the impact on water-use efficiency (Target 6.4) is mixed (Table 3.2).

According to preliminary data collected by the OECD, ODA reached its highest level ever in 2020 due in part to support for the COVID-19 crisis (OECD, 2021[22]). Many Development Assistance Committee (DAC) members indicated that they would protect ODA budgets in 2020, and several have indicated they would continue to maintain or increase them in 2021. Yet, detailed 2020 data are not available at the time of preparing this publication, and the impact of the COVID-19 pandemic on water and sanitation-related ODA (Target 6.a) remains unknown (Table 3.2).

Table 3.2. Summary impact of the COVID-19 pandemic on Goal 6 in OECD countries

	Short-term impact of the pandemic	Long-term impact of the pandemic
6.1 – Access to drinking water	none	none
6.2 – Access to sanitation	none	none
6.3 – Water quality	positive	negative
6.4 – Water-use efficiency	mixed	none
6.5 – Water resources management	none	none
6.6 – Water-related ecosystems*	none	none
6.a – Water and sanitation-related ODA		
6.b – Participation of local communities	none	none

Note: * refers to targets with a 2020 deadline. The table summarises the likely impact of the pandemic in the short-run (i.e. one to two years after the pandemic hit) and in the long-run (i.e. by 2030) on SDG targets. The overall impact is characterised through five distinct categories: “positive” if the COVID-19 pandemic has a favourable impact on the target, “negative“ if the COVID-19 pandemic has a deleterious impact on the target, “mixed“ if the impact on the target is different among countries or among the different dimensions of the target, “none” when it is not expected that the COVID-19 pandemic will have an impact, and the cell is left blank when data are not available or when available studies do not allow firm conclusions. These findings reflect OECD work on the impact of the pandemic (see https://www.oecd.org/coronavirus) as well as work conducted by other international organisations and academia.

Goal 12 – Responsible consumption and production

Goal 12 aims at "ensuring sustainable consumption and production patterns". Material resources form the physical foundation of the economy, but the use of raw materials and the related production and consumption processes have environmental, economic and social consequences in countries and beyond national borders. On the positive side, as further detailed below, OECD countries are implementing legal and institutional frameworks to guide sustainable consumption and production of these resources; the consumption of materials in OECD countries has been largely decoupled from economic and population growth, and more and more waste is being diverted from landfills and fed back into the economy through recovery and recycling. On the other side, the reduction of the domestic consumption of natural resources also reflects the substitution of domestic production by imports. Few OECD countries have exhaustive accounting tools to gauge the sustainability of tourism, and too many governments keep providing support to fossil fuel production and use. Unfortunately, the lack of ambitious targets and significant data gaps seriously limit the scope of the analysis of Goal 12.

The pandemic has significantly aggravated the challenges related to resource use and waste management. While, driven by lower demand, domestic material consumption (DMC) may shrink in the short term, it will rapidly revert to pre-crisis levels if OECD countries do not move towards a more resource-efficient and circular economy. Additional challenges could arise because of the major increases in medical waste and in demand for single-use plastics. Yet, the disruption caused by COVID-19 has also brought fuel prices and subsidy levels to record lows, which provides a golden opportunity to pursue the pricing reforms that are the only durable way to eliminate consumption subsidies.

Assessing OECD countries' performance on Goal 12

This report uses data from the *UN Global SDG database* together with OECD sources. Yet, the starting point always remains the global indicator framework, curated by the IAEG-SDGs. Table 3.3 shows that data allow the monitoring of 8 of the 11 targets underpinning Goal 12, but only three of them can be assessed over time. For this goal, two data series are sourced from the OECD. The first complements the data series sourced from the *SDG Global Database* by offering timelier data and longer time series (12.2.2). The other, while not fully aligned with the global indicator framework, allows monitoring Target 12.5 on substantially reducing waste generation, which cannot be covered using the data from the *SDG Global Database*. On top of the indicators listed in Table 3.3, the database includes two additional data series under Target 12.6, and 3 under Target 12.c. These additional indicators are considered to be mainly informative in the context of Goal 12 (details and data for all indicators are available at https://www.oecd.org/wise/the-short-and-winding-road-to-2030-data-chapter-3-planet.xlsx).

Table 3.3. Available data series supporting the monitoring of Goal 12

Indicator code	Indicator Label	Available over time	Primary source
12.1.1	Countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or target into national policies	No	*SDG Global Database*
12.1.1	Countries with policy instrument for sustainable consumption and production	No	*SDG Global Database*
12.2.2	Domestic material consumption per unit of GDP	Yes	*SDG Global Database*
12.2.2	Domestic material consumption per GDP	Yes	OECD
12.2.2	Domestic material consumption per capita	Yes	*SDG Global Database*
12.3.1	Data series on food waste per capita at the i) retail, ii) household and iii) food service levels	No	*SDG Global Database*
12.4.1	Data series on parties meeting their commitments and obligations in transmitting information as required by i) Basel Convention, ii) Stockholm Convention, iii) Rotterdam	No	*SDG Global Database*

Indicator code	Indicator Label	Available over time	Primary source
	Convention, iv) Montreal Protocol and v) Minamata Convention on hazardous waste, and other chemicals		
12.5.1	*Material recovery rate of municipal waste (recycling and composting)*	Yes	OECD
12.7.1	Number of countries implementing sustainable public procurement policies and action plans	No	*SDG Global Database*
12.8.1	Data series on the extent to which global citizenship education and education for sustainable development are mainstreamed in i) national education policies, ii) student assessment, iii) curricula and iv) teacher education	No	*SDG Global Database*
12.b.1	Implementation of standard accounting tools to monitor the economic and environmental aspects of tourism (SEEA tables)	Yes	*SDG Global Database*
12.b.1	Implementation of standard accounting tools to monitor the economic and environmental aspects of tourism (Tourism Satellite Account tables)	Yes	*SDG Global Database*

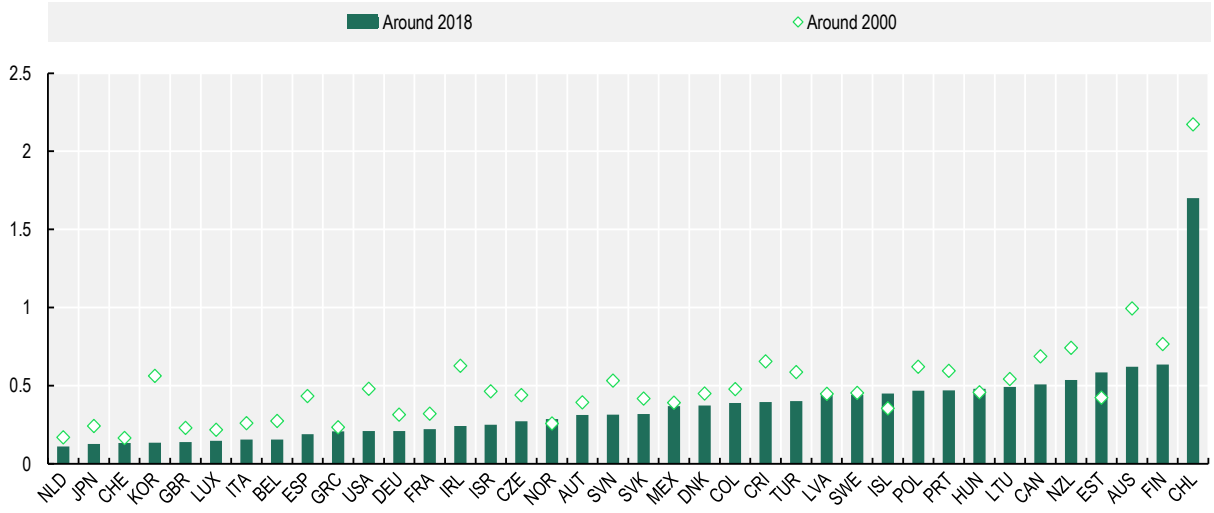
Note*:* Indicators in italic are not included in the global indicator framework but are used in this report to tailor the analysis to OECD countries.

All OECD countries have implemented legal and institutional frameworks to guide sustainable consumption and production (SCP). Target 12.1 fosters the implementation of the 10-Year Framework of Programmes on SCP Patterns, and it is assessed through binary indicators of whether countries implemented SCP national action plans or mainstreamed SCP as a priority or target into national policies, and, more generally, whether they implemented policies, instruments and mechanisms for SCP. The target level is set at 1 (i.e. the relevant measures exist) in both cases. As of 2020, 26 OECD countries had developed such institutional frameworks. Since the indicator considers only the adoption of such frameworks but not their quality or full implementation, it is not possible to judge how much real progress was made on sustainable consumption and production institutional frameworks.

OECD countries are decoupling the consumption of materials from economic and population growth. Target 12.2 focuses on the sustainable management and use of natural resources. In the global indicator framework, this measure is underpinned by indices of material footprint (not available for OECD countries so far) and measures of domestic material consumption (DMC) per unit of GDP and per capita.[10] Following the global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development, these indicators are repeated under Target 8.4. While there is an agreement on the need to reduce DMC, there is no agreement on an ideal level to be reached. To overcome this problem, the target level to be achieved has been set in this report using the best performances observed in 2015[11] (i.e. 10 tons of DMC per capita and 140 g of DMC per unit of GDP)[12]. Overall, slightly less than half of OECD countries are close to these thresholds, while a few of them report much higher levels. Regarding DMC per unit of GDP, the distance to target is found to be high (more than 0.55 kg per USD) in four countries (most notably in Chile, where it rises to 1.7 kg per USD), while for DMC per capita distances are also found to be high (i.e. above 21 tons of DMC per capita) in eight countries (Norway, Luxembourg, New Zealand, Finland, Canada, Australia, Estonia and Chile) – see Figure 3.4. Since 2000, DMC per capita decreased in around half of OECD countries, and a few of them are expected to reach a level below 10 tons of DMC per capita by 2030 (the United Kingdom, Japan, Greece, Portugal and Colombia). In some countries, however, such as the Baltic countries, Mexico and Turkey, per capita material consumption is on the rise, driven by economic growth and infrastructure development. In the vast majority of OECD countries, material productivity has been improving, reflecting efficiency gains in production processes, changes in the materials mix and the decreasing demand for materials following the 2008 financial crisis (OECD, 2020[13]). However, this development also reflects the substitution of domestic production by imports. When accounting for all materials needed to satisfy final demand in OECD countries, i.e. including materials extracted abroad and embodied in imports (i.e. a demand-based measure), progress is more modest (OECD, 2020[13]).

Figure 3.4. Domestic material consumption per GDP (Target 12.2)

Non-energy materials, kilogram per USD constant prices using 2010 base year and Purchasing Power Parities



Note: Around 2000 refers to 1998 for Japan, Korea, the United States, Israel, Mexico, Colombia, Costa Rica, Turkey, Canada, New Zealand, Australia and Chile; 2006 for Norway; 2011 for Iceland; and 2000 for otherwise. Around 2018 refers to 2017 for Japan, Korea, the United States, Israel, Mexico, Colombia, Costa Rica, Turkey, Canada, New Zealand, Australia, Chile and Iceland; 2018 for Switzerland and Norway; and 2019 for otherwise.

Source: (OECD, 2022[23]), "Material productivity" (indicator), https://doi.org/10.1787/dae52b45-en (accessed on 29 October 2021).

StatLink https://stat.link/yuz5fw

Food waste is widespread in most OECD countries, although the available data have limitations. Target 12.3 aims at "halving per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains". The target is measured by indices of food loss and food waste, but only the latter is available. This index measures food waste at both retail and consumer levels (households and food service).[13] Still, while this phenomenon is attracting growing attention, and it is widely acknowledged to contribute to Interlinked sustainability challenges such as food security, climate change and water shortages, the pattern and scale of food waste throughout the supply chain remains poorly understood. Little data are currently available on food waste, and measurement approaches have been highly variable. Therefore, results need to be interpreted with caution.[14] While results differ greatly, on average over the three different sectors, in 2019, Slovenia was the only country that can be considered close to the target while 12 countries (Portugal, Australia, Hungary, Switzerland, Turkey, Mexico, Denmark, France, Ireland, Greece, the United States and Israel) were far from the target. Available data does not allow to monitor progress towards this target over time.

There are considerable disparities across OECD countries in the management of hazardous waste and other chemicals as dictated by international agreements. Target 12.4 aims at "achieving the environmentally sound management of chemicals and wastes". Indicators proposed by the IAEG-SDGs cover both policy and output aspects. Regarding the former, the measures focus on countries' commitments and obligations in transmitting information on hazardous waste and other chemicals, as required by the Basel, Minamata, Rotterdam and Stockholm Conventions as well as the Montreal Protocol.[15] Results vary significantly between the different conventions and protocols. All OECD countries report the highest possible score (i.e. 100) on the implementation of the Montreal protocol on the substances that deplete the ozone layer, while none reach this level for the Minamata convention on mercury.[16] There are also large disparities across OECD countries. For instance, nine report high scores on four of the five conventions and protocols (Canada, Ireland, Estonia, the United Kingdom, Colombia, the Czech Republic, Belgium, Australia and Poland) while five report high scores in only one (Chile, the

United States, Israel, Iceland and Korea). Available output indicators include the generation and treatment of hazardous waste. Unfortunately, these aspects cannot be covered properly with the available data.

More and more waste is being diverted from landfills and incinerators and is feeding back into the economy through recovery and recycling. Target 12.5 calls on countries to reduce waste generation, which is measured through the national recycling rate. The target for the material recovery rate of municipal waste (recycling and composting) was set at 53% on the basis of the top performance observed among OECD countries (Austria, Belgium, Korea, Germany and Slovenia) in 2015. In 2019, 16 OECD countries were considered to be close to this target (i.e. material recovery rate is above 42%), but six countries (Greece, Japan, Turkey, Costa Rica, Mexico and Chile) were still far from the target (i.e. below 22%). The recovery of waste through recycling and composting is progressing in almost all OECD countries beside the Netherlands, Austria, Norway, Spain, Turkey and Costa Rica (where no specific trend could be identified), but only one-third of them are expected to reach the target value by 2030.[17]

Available data do not allow assessing the distances to Target 12.6. As the private sector has a critical role to play in the attainment of the SDGs, Target 12.6 specifically focuses on the practices of private sector entities. Concretely, indicator 12.6.1 counts the number of companies producing *"*sustainability reports*"*. While informative, this indicator is an absolute number and cannot be used to benchmark countries. Moreover, sustainability reporting is only the first step; ultimately the data flowing from these reports need to be used to assess the contribution of the business sector to meeting the goals and targets of the 2030 Agenda, which should provide an incentive for companies to contribute to solutions (see Box 3.1).

Box 3.1. Sustainability reporting

Sustainability reporting can provide a better understanding of how businesses affect society and the environment, it can inform policies, guide the strategic decisions of firms and investors, and encourage a "race to the top". Businesses contribute to the well-being of societies in many ways, including by influencing the current well-being of their stakeholders and through the creation as well as depletion, of economic, human, social and natural capital resources. Greater transparency and accountability on business impacts is a necessary step to hold businesses accountable for their impacts and to provide the framework conditions to allow businesses to be part of the solution.

To support the measurement and reporting of business sustainability impacts, many initiatives, standards, frameworks and principles have emerged, scattered across a range of users and topics.[1] This multitude of instruments hampers accountability and transparency, as well as market recognition of business non-financial impacts. Greater coherence of metrics of business non-financial performance with established measures of economic performance and societal progress (at national level) could better inform public policies relevant to businesses and allow businesses to benchmark their own performance. It is also important that business sustainability measurement frameworks adequately take into account the wide-ranging well-being outcomes that matter to stakeholders (Siegerink, Shinwell and Žarnic, 2022[24]).

So far, no universal framework for reporting on non-financial performance has emerged. In November, 2021, the International Financial Reporting Standards Foundation (IFRS) announced the creation of a standards board with the goal of setting a global baseline for sustainability disclosures.[2] It is understood that this International Sustainability Standards Board (ISSB) will initially focus on disclosures that are relevant from the perspective of how sustainability issues affect enterprise value. In the future, such disclosures may also capture the impacts that firm have on society and the environment. The European Commission, which is preparing to launch a first set of sustainability reporting requirements in 2022,[3]

will take a different approach, including in its standards both the sustainability impacts that are relevant for the firm, as well as for society as a whole.

Notes:
1. The Impact Management Platform provides an overview of the various steps that businesses should take to measure and manage their impacts and lists some of the key resources in this area: https://impactmanagementplatform.org/.
2. See the announcement by the IFRS Foundation: https://www.ifrs.org/news-and-events/news/2021/11/ifrs-foundation-announces-issb-consolidation-with-cdsb-vrf-publication-of-prototypes/.
3. Details here: https://www.efrag.org/Activities/2010051123028442/Non-financial-reporting-standards.

Most OECD countries already implement sustainable public procurement policies, which is the subject of Target 12.7. At global level, the IAEG-SDGs suggested to monitor this target through an index measuring the degree of sustainable public procurement policies and the implementation of action plans. In 2020, 23 OECD countries implemented sustainable public procurement policies and action plans and are therefore considered to be meeting the target. As stressed for other targets relying on binary measures, trends cannot be assessed.

Despite the paucity of data, early estimates suggest a great diversity of outcomes among OECD countries when it comes to education for sustainable development. As emphasised in the 2030 Agenda, education is also key in ensuring that youth become engaged citizens and participate in society. In particular, Target 12.8 aims at *"*ensuring that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature*"*. It is monitored by measures on the extent to which i) global citizenship education and ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment. For all four measures, the target levels are 1 (i.e. the highest score possible). Technical work led by the UNESCO Institute for Statistics (UIS) and supported by the OECD is underway to produce instruments for measuring this indicator. Early results suggest that in 2020, among the 23 OECD countries for which some data are available, a few countries, such as France, Spain, Germany and Latvia, were already mainstreaming global citizenship education and education for sustainable development at three or more levels. Conversely, some countries, such as Canada, Austria, Denmark, the Slovak Republic, the Czech Republic, the United Kingdom and New Zealand, seem to be much further from achieving Target 12.8. Yet, the limited data availability and the stark differences among the different domains may limit this assessment. For instance, while 13 OECD countries can be considered as close to target when focusing on national education policies, the same is true for six countries on teacher education and only one (France) for curricula.

The distances to Target 12.a cannot be assessed for OECD countries. Target 12.a focuses on the support to developing countries in strengthening their scientific and technological capacity to move towards more sustainable patterns of consumption and production. It is monitored through an indicator of the installed renewable energy-generating capacity per capita. Following the global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development, this indicator is repeated under Target 7.b. This indicator focuses on developing countries and, as such, the target cannot be assessed for OECD countries.

Few OECD countries have exhaustive accounting tools to gauge the sustainability of tourism. Target 12.b aims at *"*developing and implementing tools to monitor sustainable development impacts for sustainable tourism*"*. Concretely, the target is measured through the degree of implementation of the Tourism Satellite Account (TSA) and the System of Environmental and Economic Accounts (SEEA) tables considered most relevant and feasible for monitoring sustainability in tourism (seven TSA tables and four SEEA tables). In 2018, while nine OECD countries have implemented all the seven TSA tables, only one has already implemented the four required SEEA tables (the Netherlands). Overall, only five OECD countries show a high implementation of both accounting tools (Australia, Colombia, Denmark, Mexico and

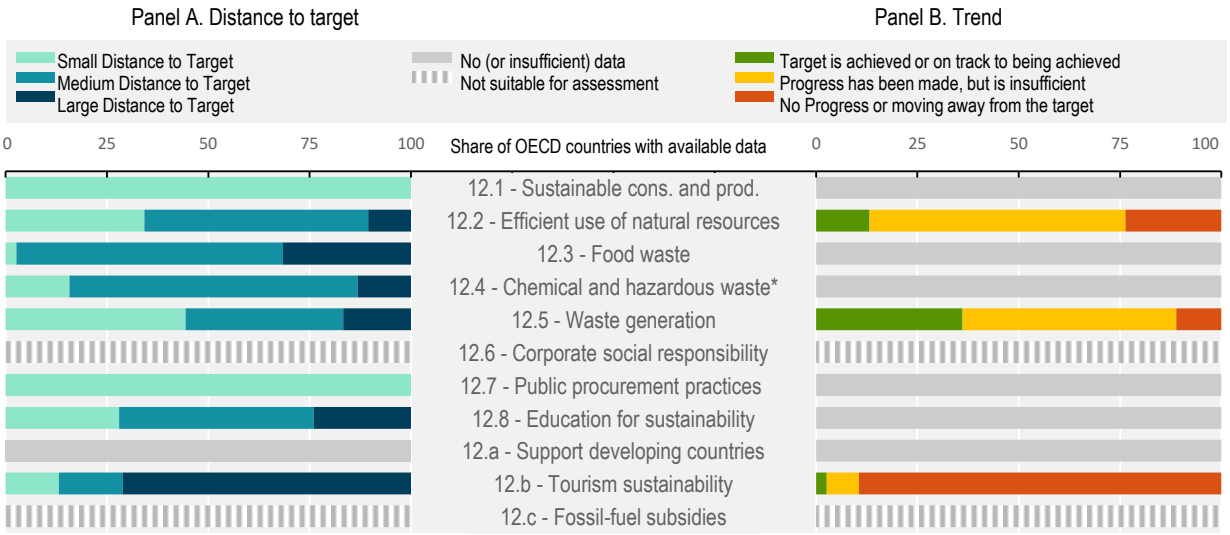
the Netherlands), while four report poor implementation of both (Greece, Italy, Costa Rica and Korea). Over time, implementation is progressing in some countries, but at very diverse rates. Overall, however, nine out of ten OECD countries are unlikely to make progress towards the target.

Many governments continue to provide financial support for the production and use of fossil fuels. As stressed by OECD (2021[25]), this undermines the effectiveness of environmental policies and can impose strains on government budgets. Target 12.c calls on countries to *"*rationalize inefficient fossil-fuel subsidies*"* and is tracked through measures of fossil-fuel subsidies. While very informative, this measure may not be suitable for cross-country comparison.[18] Therefore, it is not used to gauge progress in this report. However, work from the OECD and the International Energy Agency (OECD/IEA, 2021[26]) shows that, despite the 2009 G20 pledge to gradually phase out inefficient fossil fuel subsidies, major economies still support the production and consumption of coal, oil and natural gas with hundreds of billions of US dollars each year. Overall, total support in OECD Member countries has remained similar to 2010 levels, at around USD 100 billion, having increased substantially to 2013 then receded in the interim (OECD, 2021[27]).

Summing up

Overall, data gaps prevent a comprehensive assessment of OECD countries' progress towards Goal 12 on ensuring sustainable production and consumption patterns, but available data suggest a mixed picture. On the policy dimension, most OECD countries have implemented legal and institutional frameworks to guide sustainable consumption and production (Target 12.1) as well as sustainable public procurement policies and action plans (Target 12.7), see Figure 3.5, panel A. Yet, results vary significantly when it comes to ensuring environmentally sound management of hazardous wastes and other chemicals in line with the relevant international agreements (Target 12.4). Output measures suggest more mitigated results. On the one hand, more than half of OECD countries show declining trends in domestic material consumption (Target 12.2), and nearly all of them have put significant effort into reducing waste generation through material recovery and recycling (Target 12.5) – see Figure 3.5, panel B. On the other hand, domestic material consumption is reducing slowly, and part of this reduction actually reflects the substitution of domestic production by imports. In addition, despite increasing amounts of materials being fed back into the economy, much is lost to the economy or recycled into low-value products (OECD, 2020[13]). Finally, almost all OECD countries generate high levels of food waste (Target 12.3).

Figure 3.5. Distance to target and trends over time in OECD countries, by SDG target, Goal 12



Note: * refers to targets with a 2020 deadline. Panel A shows the distribution of OECD countries in terms of the distance that they need to travel to reach each SDG target. Distances are measured in standardised units (s.u.) – see the methodological annex for details. Countries' distances, based on the level of the indicators in the most recent available observation, have been grouped into three clusters: small distances (i.e. less than 0.5 s.u.), shown in light blue; medium distances (from more than 0.5 s.u. to 1.5 s.u.), shown in medium blue; and large distances (i.e. more than 1.5 s.u.), shown in dark blue. Panel B shows the distribution of OECD countries in terms of recent changes in their indicators for each target. Countries' progress, based on changes in the indicators over recent years, are grouped into three clusters: those whose recent pace of progress should be sufficient to meet the target by 2030, shown in green; those whose recent progress should be insufficient to meet the target by 2030, shown in orange; and those whose recent performance has been stagnating or moving further away from the 2030 target, shown in red – see the methodological annex for details. The figure also highlights targets with no data to assess either their current distance or their pace of progress (shown in grey). Time series are considered as missing when there are two or fewer data points for each country; indicators are considered as missing when they are unavailable for 20 OECD countries or more, or for less than three world regions – see the methodological annex for details.

Source: All data is taken and adapted from (UNDESA, 2021[6]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg and (OECD, 2021[7]), *OECD.Stat,* https://stats.oecd.org/ (accessed on 29 October 2021).

StatLink https://stat.link/t24vdk

Impact of the COVID-19 pandemic on Goal 12

Domestic material consumption (DMC) levels may well shrink during the pandemic before reverting to pre-crisis levels. The pandemic has led governments and companies to take exceptional measures to contain the spread of the virus and protect the lives of residents and workers. These measures have highly disrupted global production and supply chain systems and will likely lead to a sharp decline in the consumption of raw materials (Target 12.2) in the short term – see Table 3.4. However, this one-off decline is not likely to have a long-term impact on DMC levels unless structural changes lead to consumption patterns that fall consistently below pre-pandemic levels.

Waste management challenges (Target 12.5) **have increased significantly** as a result of the pandemic, as governments have had to cope with major increases in medical waste (due mostly to disposable personal protective equipment), mounting demand for single-use plastics (for groceries, food delivery, health care and e-commerce packaging), reduced recycling capacity and a collapse of the market price for recycled plastics. With many governments mandating masks for large segments of the general population, the use of disposable medical masks has skyrocketed, creating significant waste management and environmental challenges (OECD, 2020[28]). In addition, in the short term, the pandemic has resulted in cutbacks in waste management programmes in some OECD countries (Zambrano-Monserrate, Ruano and Sanchez-Alcalde, 2020[29]).

As noted above, while preliminary data suggest that ODA reached its highest level ever in 2020, detailed figures on 2020 data are not available at the time of drafting this publication, and the impact of the COVID-19 pandemic on ODA support to strengthen scientific and technological capacity (Target 12.a) remains unknown (Table 3.4).

Tourism is probably one of the sectors hardest hit by the coronavirus pandemic. Early estimates suggest that international tourism may have fallen by around 80% in 2020, and the outlook remains highly uncertain (OECD, 2021[30]). While destinations that rely heavily on international, business and events tourism are particularly struggling, domestic tourism has restarted and is helping to mitigate the impact on jobs and businesses in some destinations. Yet, the crisis sometimes has appeared to be an opportunity to rethink the tourism system. For instance, some destinations have been using the crisis as an opportunity to revamp their tourism development model, and the decline in tourism has not always been unwelcome – particularly in cities previously experiencing "over-tourism" (OECD, 2020[31]). Still, Target 12.b aims at *"*developing and implementing tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products*"*, and therefore, the pandemic is not likely to have a direct impact on Target 12.b (Table 3.4).

The fall in both fossil fuel prices and consumption caused by the COVID-19 pandemic brought down global subsidies for fossil fuel consumption in 2020 (IEA, 2020[32]) (Target 12.c). The lockdowns and economic slump have brought market-based fuel prices closer to the low end-user prices that prevail in many countries, decreasing the value of the subsidy per unit of consumption. Lower fossil fuel consumption in many countries due to reductions in transport activity has further reduced support. Therefore, the fall is largely due to declining fuel prices and consumption rather than to a favourable policy change and will not be sustained given the steep increase of oil prices in 2021, unless reform of support measures is undertaken. The IEA estimates that consumption subsidies will more than double in 2021 due to higher fuel prices and energy use, coupled with hesitancy on fossil fuel pricing reforms (OECD, 2021[33]).

Table 3.4. Summary impact of the COVID-19 pandemic on Goal 12 in OECD countries

	Short-term impact of the pandemic	Long-term impact of the pandemic
12.1 – Sustainable consumption and production	none	none
12.2 – Efficient use of natural resources	positive	none
12.3 – Food waste		
12.4 – Chemical and hazardous waste*	none	none
12.5 – Waste generation	negative	none
12.6 – Corporate social responsibility	none	none
12.7 – Public procurement practices	none	none
12.8 – Education to sustainability	none	none
12.a – Support developing countries		
12.b – Tourism sustainability	none	none
12.c – Fossil-fuel subsidies	positive	

Note: * refers to targets with a 2020 deadline. The table summarises the likely impact of the pandemic in the short-run (i.e. one to two years after the pandemic hit) and in the long-run (i.e. by 2030) on SDG targets. The overall impact is characterised through five distinct categories: "positive" if the COVID-19 pandemic has a favourable impact on the target, "negative" if the COVID-19 pandemic has a deleterious impact on the target, "mixed" if the impact on the target is different among countries or among the different dimensions of the target, "none" when it is not expected that the COVID-19 pandemic will have an impact, and the cell is left blank when data are not available or when available studies do not allow firm conclusions. These findings reflect OECD work on the impact of the pandemic (see https://www.oecd.org/coronavirus) as well as work conducted by other international organisations and academia.

Goal 13 – Climate action

Goal 13 commits countries to *"*taking urgent action to combat climate change and its impacts*"*. Emissions of greenhouse gases from human activities disturb the radiative energy balance of the earth-atmosphere system. They exacerbate the natural greenhouse effect, leading to temperature changes and other disruptions of the Earth's climate. Climate change is of global concern; it threatens ecosystems and biodiversity and affects water resources, human settlements and the frequency and scale of extreme weather events, with significant consequences for food production, human well-being, socio-economic activities and economic output. At national level, despite some progress achieved in decoupling greenhouse gas emissions from population and GDP growth, emissions are still rising in some OECD countries.

The COVID-19 crisis resulted in only a short-term reduction in global emissions of greenhouse gases and will not contribute significantly to emissions reductions by 2030 unless countries pursue an economic recovery that incorporates ambitious measures towards carbon neutrality.

Assessing OECD countries' performance on Goal 13

This report uses data from the *SDG Global Database* together with OECD sources. Yet, the starting point always remains the global indicator framework, curated by the IAEG-SDGs. Table 3.5 shows that data allow the monitoring of three of the five targets underpinning Goal 13, but only one of them can be assessed over time. For this goal, one indicator sourced from the OECD complements the *SDG Global Database* to provide data on all OECD countries (13.2.2). On top of the indicators listed in Table 3.5, the database includes an additional data series on bilateral climate-related ODA under Target 13.a. This indicator provides contextual information for Goal 13 (details and data for all indicators are available at https://www.oecd.org/wise/the-short-and-winding-road-to-2030-data-chapter-3-planet.xlsx).

Table 3.5. Available data series supporting the monitoring of Goal 13

Indicator code	Indicator Label	Available over time	Primary source
13.1.1	Number of deaths and missing persons attributed to disasters per 100 000 population	No	*SDG Global Database*
13.1.1	Number of directly affected persons attributed to disasters per 100 000 population	No	*SDG Global Database*
13.1.2	Score of adoption and implementation of national DRR strategies in line with the Sendai Framework	No	*SDG Global Database*
13.1.3	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	No	*SDG Global Database*
13.2.2	Greenhouse gas emissions, intensities per unit of GDP	Yes	OECD
13.2.2	Total greenhouse gas emissions without LULUCF for Annex I Parties	Yes	*SDG Global Database*
13.3.1	Data series on the extent to which global citizenship education and education for sustainable development are mainstreamed in i) national education policies, ii) curricula, iii) student assessment and iv) teacher education	No	*SDG Global Database*

Note*:* Indicators in italic are not included in the global indicator framework but are used in this report to tailor the analysis to OECD countries. LULUCF stands for land use, land use change and forestry.

When it comes to the planet's resilience to shocks and disasters, distance to target varies greatly among OECD countries (and specific indicators). Target 13.1 calls on countries to *"*strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries*"*. Four data series are available to assess OECD countries' current performance on Target 13.1: i) the score of adoption and implementation of national disaster risk reduction strategies (DRR) in line with the Sendai Framework, ii) the proportion of local governments that adopt and implement local DRR strategies in line

with national DRR strategies, iii) the number of directly affected persons attributed to disasters, and iv) the number of deaths and missing persons directly attributed to disasters. Following the global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development, these indicators are repeated under Targets 1.5, 11.5 and 11.b. Target levels have been set at 1, which is the highest score, for the first two indicators relating to DRR strategies, and 0 for the other indicators, since everyone should be protected from disasters. Overall, most OECD countries are at a rather short distance to the target, but available data neither allow covering all aspects of the target nor gauging progress over time. Disasters cost lives and disrupt socio-economic activities and livelihoods, causing important economic costs each time they occur. Available data show that on average among OECD countries, natural disasters directly affected 557 persons per 100 000 inhabitants, and less than 1 person per 100 000 inhabitants died or went missing due to disasters in 2018. While significant, the economic loss associated with such events is not included under this target – see People and Prosperity chapters (Targets 1.5 and 13.1) for details. In addition, given the nature and the volatility of the indicator, careful interpretation is needed. Furthermore, in the last 30 years, the number of disasters has significantly increased across OECD Member countries (OECD, 2017[34]). On policy indicators, as of 2019, around half of OECD countries have already adopted DRR strategies at both national and local levels. However, at the national level, 11 OECD countries (including Sweden, Iceland, Canada, Ireland, Portugal, the Slovak Republic, the Netherlands, Israel, Italy, Turkey and Denmark) are at a large distance to the target, with a score on the adoption and implementation of DRR strategies below 0.5 (1 being full adoption and implementation).[19]

Box 3.2. IPAC

In the context of the 2021 OECD Ministerial Council Meeting, the OECD announced the creation of the International Programme for Action on Climate (IPAC), led by France.

The objective of IPAC is to offer participating countries a new steering instrument, complementary to and consistent with the United Nations Framework Convention on Climate Change (UNFCCC) and the 2015 Paris Agreement, to pursue progress towards the transition to the net-zero greenhouse gas emissions goal and a more resilient economy by mid-century, thanks to a precise evaluation of countries' actions and the sharing of good practices.

IPAC leverages the OECD's proven working methods to develop evidence-based analysis and the sharing of good practices and results, building on existing data and indicators, policy tools, advice and guidance developed by the OECD family, including the International Energy Agency (IEA), the International Transport Forum (ITF) and the Nuclear Energy Agency (NEA).

The IPAC programme has four pillars:

- An Annual Climate Action Monitor, building on a set of commonly agreed climate-related indicators, which will provide a digest of countries' progress towards their climate policy objectives, their alignment with the Paris Agreement goals and examples of good practices.
- A dashboard of climate-related indicators. A small number of indicators will be used for benchmarking national efforts and performances, and a broader set of indicators will complement the analysis. This will allow for a tailored assessment of countries' progress against national and international objectives in a timely manner.
- Concise country notes with targeted policy advice, informed by the set of climate-related indicators. The country notes will take into account countries' economic structure and specific social and geographical factors.

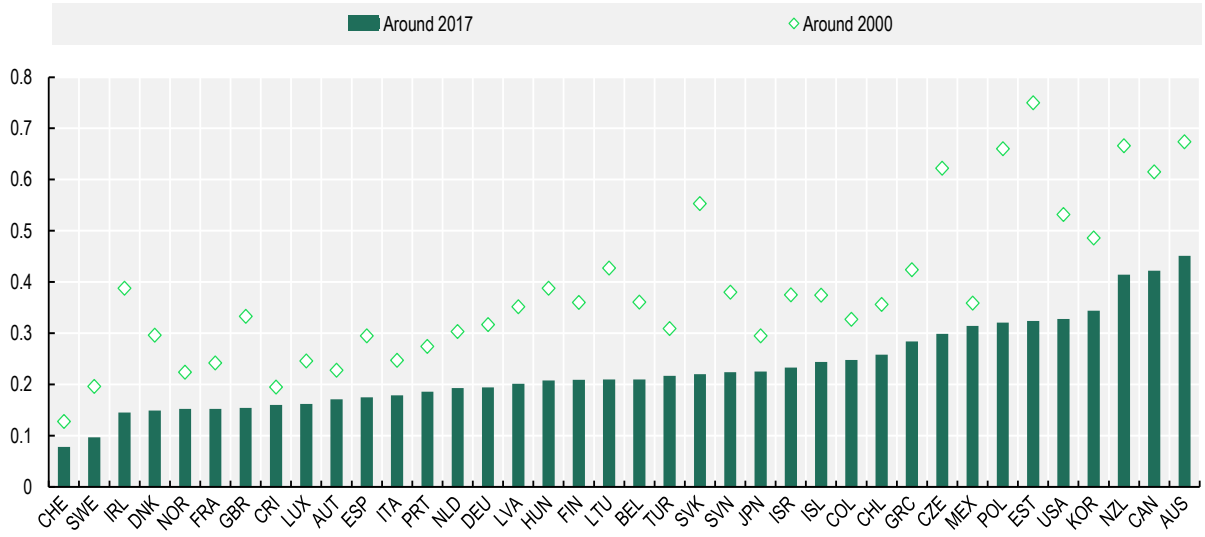
- An interactive platform for dialogue and mutual learning across countries. The platform will provide online discussion among countries using a dedicated Community site.

The IPAC initiative seeks to be broader than OECD membership. It will be open to OECD Key Partners, the six prospective OECD members and G20 countries. IPAC will be funded by voluntary contributions (more info are available at: https://www.oecd.org/climate-action/ipac/).

Despite some progress achieved in decoupling greenhouse gas (GHG) emissions from population and GDP growth, emissions are hardly decreasing. There is today agreement on the critical need to reduce GHG emissions and achieve net-zero CO_2 emissions by 2050 to give the world a chance of limiting the global temperature rise to 1.5°C, as required by the Paris Agreement. Target 13.2, which calls on countries to *"*integrate climate change measures into national policies, strategies and planning*"*, is measured in the global indicator framework by a policy indicator assessing "nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications*"* and measures of GHG emissions. On the latter, ideally, targets would be nationally determined and proportionate so as to recognise the different starting positions, circumstances and opportunities that face countries on their way towards net zero emissions. Yet, given the comparative nature of this report, it is key to go beyond nationally determined contributions (NDCs) and propose a common target level of emissions per capita.[20] It is likely that using the lowest emissions observed in 2015 would allow to provide targets that would allow achieving net-zero CO_2 emissions by 2050. In order to overcome this absence of target in a critical area, the current report suggests to aim at halving 2015 levels.[21] As detailed by the OECD (2021[25]), emission intensities per unit of GDP and per capita decreased since 2005 in almost all OECD countries, revealing an overall decoupling from economic growth (Figure 3.6). Yet, overall progress is insufficient, and only five countries are expected to reach the targeted level by 2030 (Figure 3.7, panel B). GHG emissions of OECD countries peaked in 2007 and have been declining in most OECD countries since then (OECD, 2021[25]). This fall can, however, be partly attributed to a slowdown in economic activity following the 2008 economic crisis, as well as to strengthened climate policies and changing patterns of energy consumption. Using more advanced forecasting tools and taking into account the effects of nationally determined contributions confirms that total GHG emissions are expected to be 16% above 2010 levels by 2030, whereas a 45% reduction would be needed to be consistent with the 1.5°C emissions pathway (UNFCCC, 2021[35]).

Figure 3.6. Greenhouse gas emissions (Target 13.2)

Intensities per unit of GDP, USD at 2015 PPPs



Note: Around 2000 refers to 1995 for Colombia; 1996 for Mexico; 1999 for Chile and Korea; 2005 for Costa Rica; and 2000 for otherwise. Around 2017 refers to 2014 for Colombia; 2015 for Costa Rica and Mexico; 2018 for Israel, Korea and Chile; and 2019 for otherwise.
Source: (OECD, 2022[36]), "Greenhouse gas emissions: Total GHG excluding LULUCF per unit of GDP", *OECD Environment Statistics (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=AIR_GHG (accessed on 29 October 2021).

StatLink https://stat.link/p786if

Despite the paucity of data, early estimates suggest a great diversity of outcomes among OECD countries when it comes to education for sustainable development. As emphasised in the 2030 Agenda, education is also key in ensuring that youth become engaged citizens and participate in society. In particular, Target 13.3 aims at "improving education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning". In the global indicator framework, indicator 13.3.1 measures the extent to which i) global citizenship education and ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment, for all of which the target levels refer to 1 (i.e. the highest score possible) in this report. Following the global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development, this indicator is repeated under Targets 4.7 and 12.8. Technical work led by the UNESCO Institute for Statistics (UIS) and supported by the OECD is underway to produce instruments for measuring this indicator. Early results suggest that in 2020, among the 23 OECD countries for which some data are available, a few countries, such as France, Spain, Germany and Latvia, are already mainstreaming global citizenship education and education for sustainable development at three or more levels. Conversely, other countries, such as Canada, Austria, Denmark, the Slovak Republic, the Czech Republic, the United Kingdom and New Zealand, seem to be much further from achieving Target 13.3. Yet, the limited data availability and the stark differences among the different domains may limit this assessment. For instance, while 13 OECD countries can be considered as close to target when focusing on national education policies, the same is true for six countries on teacher education and only one (France) for curricula.

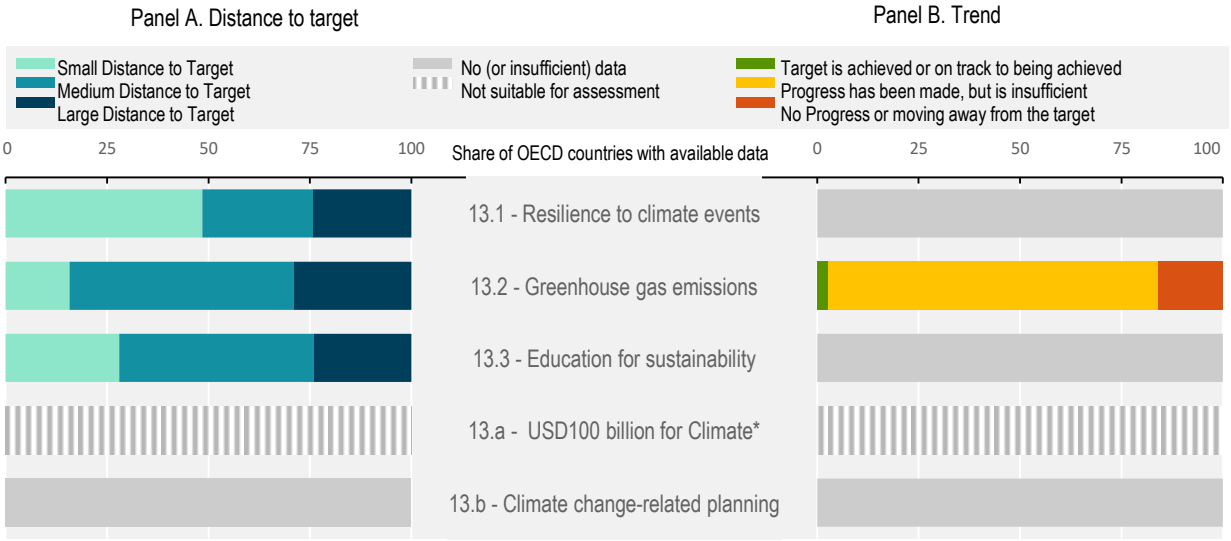
Although finance for climate action has been increasing, it remains well below the USD 100 billion target. At the 15th Conference of Parties (COP15) of the UNFCCC in Copenhagen in 2009, the developed countries committed to a collective goal of mobilising USD 100 billion per year by 2020 for climate action in developing countries, in the context of meaningful mitigation actions and transparency on

implementation (UNFCCC, 2010[37]). In 2015, this target had been incorporated in the 2030 Agenda (Target 13.a). Since then, total climate finance provided and mobilised by the developed countries has increased, reaching USD 79.6 billion in 2019 from USD 58.5 billion in 2016 (OECD, 2021[38]). A one-year jump of more than USD 20 billion would, therefore, be required to meet the USD 100 billion goal for 2020. At COP26, countries reaffirmed the duty to fulfil the USD 100 billion commitment and conveyed a call to double the provision of finance by developed countries for climate adaptation by 2025 (based on current flows of circa USD 20 billion, that would imply reaching USD 40 billion by mid-century).

Summing up

Overall, despite significant progress, climate action remains insufficient across OECD countries. Climate change is increasingly affecting human lives, biodiversity, ecosystems and national economies. Against this backdrop, the challenge is to curb GHG emissions and to build resilience to climate change-related risks. In terms of resilience to natural disasters, around half of OECD countries can be considered to be close to target, with DRR strategies implemented at national and local levels and with relatively moderate losses from natural disasters (Figure 3.7, panel A). However, the picture may be more nuanced, as data gaps hamper the assessment. While OECD countries historically account for the largest share of global emissions, they have recently decoupled emissions from economic and population growth. Therefore, emission intensities (per capita and per unit of GDP) have been decreasing in most OECD countries since 2005 (OECD, 2021[25]). Still, such reductions are insufficient and vary significantly across OECD countries (Target 13.2) – see Figure 3.7. Moreover, the downward trend in overall emissions may reverse due to recent increases in energy use and CO_2-related emissions (OECD, 2021[25]). Besides the targets on emissions and resilience, Target 13.3 aims at improving education about climate change, but on this front performances greatly vary among OECD countries.

Figure 3.7. Distance to target and trends over time in OECD countries, by SDG target, Goal 13



Note: * refers to targets with a 2020 deadline. Panel A shows the distribution of OECD countries in terms of the distance that they need to travel to reach each SDG target. Distances are measured in standardised units (s.u.) – see the methodological annex for details. Countries' distances, based on the level of the indicators in the most recent available observation, have been grouped into three clusters: small distances (i.e. less than 0.5 s.u.), shown in light blue; medium distances (from more than 0.5 s.u. to 1.5 s.u.), shown in medium blue; and large distances (i.e. more than 1.5 s.u.), shown in dark blue. Panel B shows the distribution of OECD countries in terms of recent changes in their indicators for each target. Countries' progress, based on changes in the indicators over recent years, are grouped into three clusters: those whose recent pace of progress should be sufficient to meet the target by 2030, shown in green; those whose recent progress should be insufficient to meet the target by 2030, shown in orange; and those whose recent performance has been stagnating or moving further away from the 2030 target, shown in red – see the methodological annex for details. The figure also highlights targets with no data to assess either their current distance or their pace of progress (shown in grey). Time series are considered as missing when there are two or fewer data points for each country; indicators are considered as missing when they are unavailable for 20 OECD countries or more, or for less than three world regions – see the methodological annex for details.

Source: All data is taken and adapted from (UNDESA, 2021[6]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg and (OECD, 2021[7]), *OECD.Stat,* https://stats.oecd.org/ (accessed on 29 October 2021).

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Impact of the COVID-19 pandemic on Goal 13

Target 13.1 on resilience towards environmental shocks includes measures of both the policy stance and impact of disasters. As the indicators of the impact of shocks on mortality and GDP should encompass economic, social and environmental shocks, the excess mortality induced by the COVID-19 pandemic will dramatically impact the second part of the target. More generally, however, it is key to underline that preventing crises such as the one associated to the ongoing pandemic lies at the heart of the 2030 Agenda. In particular, this target includes an indicator on risk reduction (a score based on adoption and implementation of "national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030"), which cover the risks of epidemics and pandemics.[22]

The COVID-19 crisis has resulted in a short-term reduction in global GHG emissions, but this reduction is largely insufficient to meet targets by 2030 (Target 13.2) – see Table 3.6. According to the IEA (IEA, 2020[39]), global energy-related CO_2 emissions decreased by about 6% in 2020. The COVID-19 crisis triggered the largest annual drop in global energy-related CO_2 emissions since the Second World War – around twice as large as the combined total of all previous reductions since then. However, carbon dioxide can stay in the air for centuries, and despite lower CO_2 emissions, atmospheric concentrations of these gases have continued to increase during the pandemic (NOAA, 2021[40]). In addition, the overall decline in emissions masks significant variations depending on the region – reductions were estimated to

be larger in advanced economies than in emerging market and developing economies – and the time of year – after hitting a low in April, global emissions rebounded strongly (IEA, 2020[39]). Recent data show that global emissions were 2% higher in December 2020 than they were in the same month of the previous year. Across countries, variations are also significant and largely mirror the stringency of COVID-19-related measures. While 2020 marked the largest absolute decline in global CO_2 emissions in history, the evidence of a rapid rebound in energy demand and emissions in many economies underscores the risk that CO_2 emissions are likely increase significantly in 2021. Global GHG emissions are projected to significantly decline by 2030 only if COVID-19 recovery packages are used to accelerate the transition to net zero emissions (IEA, 2020[41]).Further, and as highlighted by the OECD (IEA, 2020[39]), policy uncertainty about the journey towards net-zero carbon emissions is hindering investment in clean energy and infrastructure. The longer governments wait, the greater the risks of an abrupt transition in which energy prices are higher and more volatile. Inaction therefore increases the risks to people's living standards and may undermine public support for the energy transition.

Due to time lags in official reporting, the climate finance planned and mobilised by developed countries in 2020 will not be available before 2022 (Target 13.a). According to preliminary data collected by the OECD, ODA reached its highest level ever in 2020 due in part to support for the COVID-19 crisis (OECD, 2021[22]). Many DAC members indicated that they would protect ODA budgets in 2020, and several have indicated they would continue to maintain or increase them in 2021. Yet, detailed figures on 2020 data are not available at the time of preparing this publication and the impact of the COVID-19 pandemic on sectoral ODA remains unknown.

Table 3.6. Summary impact of the COVID-19 pandemic on Goal 13 in OECD countries

	Short-term impact of the pandemic	Long-term impact of the pandemic
13.1 – Resilience to climate events	negative	none
13.2 – Greenhouse gas emissions	positive	none
13.3 – Education for sustainability	none	none
13.a – USD 100 billion for climate*		

Note: * refers to targets with a 2020 deadline. The table summarises the likely impact of the pandemic in the short-run (i.e. one to two years after the pandemic hit) and in the long-run (i.e. by 2030) on SDG targets. The overall impact is characterised through five distinct categories: "positive" if the COVID-19 pandemic has a favourable impact on the target, "negative" if the COVID-19 pandemic has a deleterious impact on the target, "mixed" if the impact on the target is different among countries or among the different dimensions of the target, "none" when it is not expected that the COVID-19 pandemic will have an impact, and the cell is left blank when data are not available or when available studies do not allow firm conclusions. These findings reflect OECD work on the impact of the pandemic (see https://www.oecd.org/coronavirus) as well as work conducted by other international organisations and academia.

Goal 14 – Life below water

Goal 14 calls on countries to "conserve and sustainably use the oceans, seas and marine resources for sustainable development". Oceans are a shared global resource. Ocean-related industries in many countries have expanded with insufficient consideration for the environment, risking the natural resources and essential marine ecosystem services on which economies and the well-being of people depend. While efforts to reduce nutrient inputs into coastal zones and to expand marine protected areas are showing progress in some countries, acidification, marine debris and eutrophication are direct threats to life below water, while overfishing, illegal, unregulated and unreported fishing and aquaculture practices can place further stress on marine ecosystems.

As detailed in the subsection on the Impact of the COVID-19 pandemic on Goal 14, the COVID-19 pandemic has introduced new sources of marine pollution and led to the reduction of surveillance operations due to travel restrictions, which may have favoured illegal, unregulated and unreported fishing. Still, the global lockdown measures used to curb the spread of the coronavirus pandemic also have, to a certain degree, wreaked havoc on the fishing, tourism and maritime transport industries. This drastic reduction in human activities may however ultimately offer a chance for the oceans to recuperate if recovery measures ensure more responsible use and progress towards the restoration of the ocean, seas and coasts. Otherwise, in the absence of further measures, these (limited) benefits will not last. Overall, the implications of the pandemic on human interaction with the ocean are still to be fully assessed.

Assessing OECD countries' performance on Goal 14

This report uses data from the *SDG Global Database* together with OECD sources. Yet, the starting point always remains the global indicator framework, curated by the IAEG-SDGs. Table 3.7 shows that data allow the monitoring of five of the ten targets underpinning Goal 14, but only two of them can be assessed over time. For this goal, two indicators sourced from the OECD complement the *SDG Global Database*. One aligns with the global indicator framework. Drawing from OECD sources allows providing longer time series and tracking progress over time (14.5.1). In the other case, relying on OECD sources allows monitoring an indicator for which data are not available for most OECD countries (14.4.1). On top of the indicators listed in Table 3.7, the database includes two additional data series under Targets 14.1 and 14.7. These indicators provide contextual information about Target 14.1 (details and data for all indicators are available at https://www.oecd.org/wise/the-short-and-winding-road-to-2030-data-chapter-3-planet.xlsx).

Table 3.7. Available data series supporting the monitoring of Goal 14

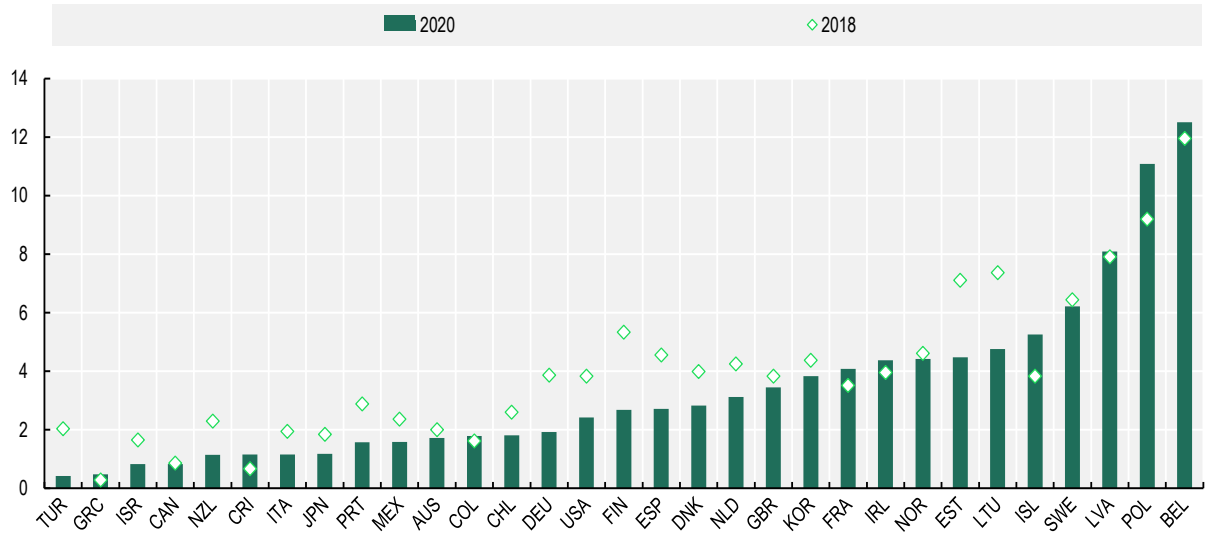
Indicator code	Indicator Label	Available over time	Primary source
14.1.1	Chlorophyll-a deviations	Yes	*SDG Global Database*
14.1.1	Extreme or high chlorophyll-a anomaly	No	*SDG Global Database*
14.1.1	Beach litter per square kilometre	No	*SDG Global Database*
14.4.1	*Aggregated indicator for policies and practices against illegal, unreported and unregulated (IUU) fishing*	No	OECD
14.5.1	Coverage of protected areas in relation to marine areas (exclusive economic zone)	No	*SDG Global Database*
14.5.1	Average proportion of marine key biodiversity areas (KBAs) covered by protected areas	Yes	*SDG Global Database*
14.5.1	Protected areas as a share of the exclusive economic zone	Yes	OECD
14.6.1	Progress by countries in the degree of implementation of international instruments aiming to combat IUU fishing	No	*SDG Global Database*
14.b.1	Degree of application of a legal/regulatory/policy/institutional framework which recognises and protects access rights for small-scale fisheries	No	*SDG Global Database*

Note: Indicators in italic are not included in the global indicator framework but are used in this report to tailor the analysis to OECD countries.

While efforts to reduce nutrient inputs into coastal zones are showing success in some countries, marine debris and algal blooms indicate that marine pollution continues to be a challenge. Target 14.1 on marine pollution has two main dimensions: marine debris and nutrient pollution. As highlighted by the UN (2021[42]), knowledge gaps remain with regard to both recognised and emerging pollutants, and in several regions capacity gaps remain in applying consistent, coherent policies and related enforcement to prevent and control inputs of pollutants into the ocean. Marine debris is monitored through the amount of beach litter per square km (log value). Ideally, there should be no debris on beaches, but given the limitations of the data (beach litter data are derived from citizen-generated data before being modelled), the threshold was set at 20 debris per square km to allow some degree of flexibility. Still, no OECD country has reached or even come close to this threshold in 2019 (or closest year available). Beach litter is estimated to be lower in Ireland (440 debris per square km) and to exceed 1 000 000 debris per square km in Mexico, Estonia, Costa Rica, Chile and Israel. On the other hand, marine pollution includes two measures of nutrient pollution based on observed variations of chlorophyll-a concentration.[23] The two measures are highly correlated (0.74). Overall, six OECD countries are at a large distance from targets on both indicators (Latvia, Sweden, Norway, Iceland, Poland and Belgium), while eight are at a short distance on both indicators (Turkey, Greece, Italy, Costa Rica, Japan, Israel, Mexico and Canada). The index of Chlorophyll-a deviation is the only measure that allows assessing progress on nutrient inputs on coastal zones over time. It shows that chlorophyll-a anomalies in countries' exclusive economic zones are decreasing in half of OECD countries (Figure 3.8), but two (Greece and Turkey) are on a path of getting back to the baseline value from 2000-04 (Figure 3.9, panel B).

Figure 3.8. Chlorophyll-a anomaly (Target 14.1)

Remote sensing, extreme or high frequency Chlorophyll-a concentration as percentage of national exclusive economic zones



Source: (UNDESA, 2021[6]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg (accessed on 29 October 2021).

StatLink https://stat.link/o9jtb2

No data are available to assess Target 14.2. Despite the 2020 deadline for Target 14.2 on the management and protection of marine and coastal ecosystems, the indicator attached to this target (proportion of the national exclusive economic zone managed using ecosystem-based approaches) is still missing from the *SDG Global Database*.

Despite the scarcity of data, available measures show a decrease in marine acidity in all OECD countries with available data. Target 14.3 aims at *"*minimizing and addressing the impacts of ocean acidification*"*. At the time of drafting this report, marine acidity measures were available in 17 different OECD countries (Australia, Belgium, Canada, Chile, Finland, France, Iceland, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Spain, United Kingdom and United States) and thus does not allow to provide a comparative assessment. Still, available data show a consistent decrease in the pH of oceans in almost all countries where there is monitoring.

Illegal, unregulated and unreported fishing (IUU) undermines the effectiveness of management of life below water and threatens the sustainability of fishing stocks. Target 14.4 aims at *"*regulating harvesting and end overfishing, IUU and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics*"* by 2020. For global monitoring, this target is meant to be tracked by an indicator of the "proportion of fish stocks within biologically sustainable levels*",* but available data cover only 10 OECD countries and do not allow assessing the distances to target. To overcome this lack of coverage, in this report the target is assessed through an aggregate index of IUU fishing developed by the OECD (see Hutniczak, Delpeuch and Leroy (2019[43]) for details). This index is based on policy indicators and investigates the extent to which countries meet their responsibilities in the different dimensions of government intervention in relation to IUU fishing. Therefore, it allows capturing only one of the many facets of Target 14.4: whether OECD countries have legal frameworks in place to address IUU fishing. The indicator shows that the average up-take of best practices is around 80% (the target is set at 100% of best practices put in place), with large variations between the different dimensions of the index. The OECD (2020[44]) reports that some areas remain insufficiently implemented (transparency over vessel registration and authorisation processes; stringency of transhipment regulation; and market measures aimed at increasing traceability and closing access to markets and fisheries services to IUU fishing operators). At country level, the average up-take is above 95% only in Mexico but below 85% in most countries, and even 75% in Korea, Chile, Costa Rica, Colombia and Turkey. The OECD (2020[44]) has shown that there has been progress since 2005 in all areas of government intervention against IUU fishing.

By the end of 2020, two in three OECD countries had expanded their marine protected areas (MPAs)[24] beyond 10% of their exclusive economic zone, as agreed in both Aichi Target 11 of the Convention on Biological Diversity (CBD) and the Sustainable Development Goals. Target 14.5 commits countries to *"*conserving at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information*"* by 2020. MPAs have been receiving increasing attention from policy makers as a policy instrument for biodiversity conservation and the sustainable use of marine resources. Over the past two decades, all OECD countries increased their protected areas, but stricter marine reserves and no-take zones (marine "sanctuaries") are still rare. Beyond MPA coverage, for which the target level is 10% in line with the wording of the 2030 Agenda, the *SDG Global Database* includes an additional measure capturing the proportion of "marine key biodiversity areas" covered by protected areas. In this case, as no quantified target has yet been identified, the distance is measured relative to the best performances among OECD countries observed in 2015 (for Estonia, Latvia, the Netherlands and Belgium, more than 93% of marine KBAs are protected). Overall, this indicator shows that in 2020, 12 OECD countries (all European) protect more than 81% of their marine key biodiversity areas (and are thus considered at a short distance to the target), while nine of them protect less than half of their marine KBAs (Costa Rica, New Zealand, Korea, Canada, the United States, Chile, Iceland, Turkey and Israel). In addition, similarly to what is reported more generally for MPAs, the share of marine KBAs that are protected has been growing in all OECD countries. Yet, pressures on oceans do not stop with national boundaries, and only 1% of marine areas beyond national jurisdictions have been protected so far (UN, 2021[42]).

While the indicator for global monitoring suggests that all OECD countries have implemented international instruments aiming to combat illegal, unreported and unregulated fishing, the WTO negotiations called for by Target 14.6 are still ongoing, and the 2020 deadline was missed. Target 14.6 calls to "prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation". Therefore, the primary objective of this target was to conclude negotiations at the WTO by 2020. These negotiations were still ongoing at the time of drafting this report. Still, beyond the negotiations, the IAEG-SDGs suggested that this target be monitored primarily through an indicator on *"*the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing*",* with scores ranging from 1 to 5 (the maximum score is the target level). While in 2020 virtually all OECD countries implemented the different international instruments, only Mexico, Costa Rica, Norway and Turkey failed to reach the highest possible score.

The indicators underpinning targets 14.7 and 14.a are not suitable for assessing OECD countries. Target 14.7 aims at increasing the economic benefits from the sustainable use of marine resources and is monitored through an indicator of the value added of sustainable marine capture fisheries as a proportion of GDP. However, it explicitly targets Small Island Developing States and least developed countries and is thus not considered relevant for OECD countries. Similarly, Target 14.a, which is defined as national ocean science expenditure as a share of total research and development funding, is not considered to be suitable for comparative assessments, as the ideal sectoral breakdown of research and development is likely to depend on the needs, priorities and expertise of each country.

Most OECD countries grant small-scale artisanal fishers access to marine resources and markets. Target 14.b focuses on *"*providing access for small-scale artisanal fishers to marine resources and markets*"* and is assessed through a policy indicator that measures the degree of application of a legal/regulatory/policy/institutional framework that recognises and protects access rights for small-scale fisheries (the level of implementation is lowest at 1 and highest at 5, which is therefore the target level in this report). While all OECD countries besides Korea and New Zealand had a relatively high degree of the application of frameworks in 2020, the high homogeneity of scores penalises the countries that do not reach the maximum score. Thus, only six OECD countries are considered to be at a short distance from the target (Costa Rica, Chile, Mexico, Colombia, Japan and Turkey). Available data do not allow assessing progress over time.

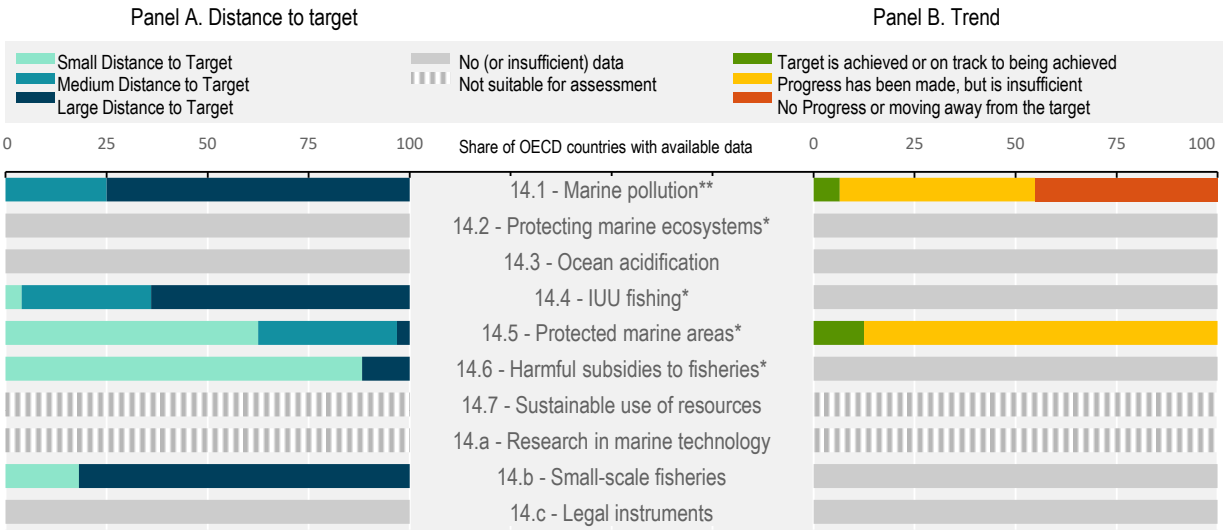
The distances to Target 14.c are not assessed due to insufficient data. Target 14.c aims at *"*enhancing the conservation and sustainable use of oceans and their resources*"*. It is monitored through policy indicators measuring the degree of implementation of ocean-related instruments, such as the United Nations Convention on the Law of the Sea, but this measure does not cover enough OECD countries to be included in the analysis presented in this report.

Summing up

Overall, despite progress in some OECD countries, the pressures on marine ecosystems keep growing. Although more than half of OECD countries are reducing nutrient pollution in their exclusive economic zone, the pace of progress is insufficient to significantly reduce marine pollution Figure 3.9, panel B). While nutrient pollution favour algal blooms and eutrophication, the high levels of marine debris are adding an extra pressure to life below water (Target 14.1). On a more positive side, both the shares of marine areas and marine KBAs that are protected is expanding in all OECD countries. Yet, while two in three OECD countries have been able to expand their marine protected areas beyond 10% of their exclusive economic zone (Target 14.5), most of them are not able to protect enough KBAs. Regarding fishing practices, the performance of OECD countries is considered to be mixed. Most countries properly

implemented the international instruments on harmful subsidies to fisheries (Target 14.6) and provided access rights for small-scale artisanal fishers to marine resources and markets (Target 14.b). In addition, most countries are underperforming in terms of the government response to illegal, unregulated and unreported fishing practices, putting the sustainability of fish stocks at risk (Target 14.4).

Figure 3.9. Distance to target and trends over time in OECD countries, by SDG target, Goal 14



Note: * refers to targets with a 2020 deadline. ** refers to targets with a 2025 deadline. Panel A shows the distribution of OECD countries in terms of the distance that they need to travel to reach each SDG target. Distances are measured in standardised units (s.u.) – see the methodological annex for details. Countries' distances, based on the level of the indicators in the most recent available observation, have been grouped into three clusters: small distances (i.e. less than 0.5 s.u.), shown in light blue; medium distances (from more than 0.5 s.u. to 1.5 s.u.), shown in medium blue; and large distances (i.e. more than 1.5 s.u.), shown in dark blue. Panel B shows the distribution of OECD countries in terms of recent changes in their indicators for each target. Countries' progress, based on changes in the indicators over recent years are grouped into three clusters: those whose recent pace of progress should be sufficient to meet the target by 2030, shown in green; those whose recent progress should be insufficient to meet the target by 2030, shown in orange; and those whose recent performance has been stagnating or moving further away from the 2030 target, shown in red – see the methodological annex for details. The figure also highlights targets with no data to assess either their current distance or their pace of progress (shown in grey). Time series are considered as missing when there are two or fewer data points for each country; indicators are considered as missing countries or more, or for less than three world regions – see the methodological annex for details.

Source: All data is taken and adapted from (UNDESA, 2021[6]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg and (OECD, 2021[7]), *OECD.Stat,* https://stats.oecd.org/ (accessed on 29 October 2021).

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Impact of the COVID-19 pandemic on Goal 14

Lockdowns and changes in consumption behaviours have generated new sources of plastics that may end in the oceans and directly contribute to marine pollution (Target 14.1) if wastes are not treated properly. As underscored in the section above focusing on Goal 12, waste management challenges have increased significantly with the pandemic. The extensive use of disposable personal protective equipment (in particular facemasks) has become a common tool to prevent the spread of the virus, with many jurisdictions mandating the wearing of masks in public. In addition, containment measures have led to an increased demand for single-use plastics (packaging for groceries, food delivery, health care and e-commerce) that, when discarded, can be transported to the sea by wind or rainwater, making oceans the end point for a vast amount of waste. It is therefore quite likely that the crisis will lead to a significant increase of marine debris in the years to come if this waste is not treated properly. By the end of 2020, beach surveys already showed that the number of masks entering the environment was staggering

(Phelps Bondaroff and Cooke, 2020[45]). On a more positive note, COVID-19 prevention measures that restricted people's movement have led to a significant (but temporary) decrease in the amount of marine litter on beaches (Okuku et al., 2021[46]; Soto et al., 2021[47]). The short-term impact of the pandemic on distances to target is thus summarised as mixed in Table 3.8.

While the reduction of CO_2 emissions might provide a chance to slow down ocean acidification (Target 14.3), the benefits will not last unless significant measures are put in place. As highlighted in the previous section, the pandemic and its associated containment measures have led to a 6% drop in annual fossil-fuel CO_2 emissions in 2020. As stressed by Diffenbaugh et al. (2020[48]), there is strong evidence that the slower growth of atmospheric CO_2 concentration would lead to a reduced ocean carbon sink and, thus, to a temporary reduction in the rate of ocean acidification (see Table 3.8). Yet, the evidence of a rapid rebound in CO_2 emissions is likely to mask this effect. In addition, the COVID pandemic has resulted in the cancellation of scientific research cruises as well as difficulties in the deployment and maintenance of moorings and buoys, leading to a potential gap in observations of ocean acidification.

By reducing compliance monitoring, the crisis associated to the pandemic is likely to lead to higher IUU fishing (Target 14.4). Travel and other restrictions adopted in response to the COVID-19 pandemic have made in-person on-board observations, at-sea inspections and other forms of surveillance more challenging. Consequently, in-person observation requirements were waived by several regional fisheries management organisations (RFMO). There is a widespread expectation among RFMO secretariats that the reduced compliance monitoring will lead to increased IUU fishing in some of these cases, but currently where and the extent to which this could be happening is unknown. The impacts of the pandemic on IUU fishing will depend on the type and the stringency of the observer requirements waived as well as on how fisheries respond to the changes in prices and costs generated by this crisis (OECD, 2021[49]).

Table 3.8. Summary impact of the COVID-19 pandemic on Goal 14

	Short-term impact of the pandemic	Long-term impact of the pandemic
14.1 – Marine pollution**	mixed	negative
14.2 – Protecting marine ecosystems*	none	none
14.3 – Ocean acidification	positive	none
14.4 – Overfishing and IUU fishing*	negative	none
14.5 – Protected marine areas*	none	none
14.6 – Harmful subsidies to fisheries*	none	none
14.7 – Sustainable use of resources	none	none
14.a – Research in marine technology		
14.b – Small-scale fisheries	none	none
14.c – Legal instruments	none	none

Note: * refers to targets with a 2020 deadline. ** refers to targets with a 2025 deadline. The table summarises the likely impact of the pandemic in the short-run (i.e. one to two years after the pandemic hit) and in the long-run (i.e. by 2030) on SDG targets. The overall impact is characterised through five distinct categories: "positive" if the COVID-19 pandemic has a favourable impact on the target, "negative" if the COVID-19 pandemic has a deleterious impact on the target, "mixed" if the impact on the target is different among countries or among the different dimensions of the target, "none" when it is not expected that the COVID-19 pandemic will have an impact, and the cell is left blank when data are not available or when available studies do not allow firm conclusions. These findings reflect OECD work on the impact of the pandemic (see https://www.oecd.org/coronavirus) as well as work conducted by other international organisations and academia.

Goal 15 – Life on land

Goal 15 calls on countries "to "protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss". Despite the 2020 deadline associated with many SDG targets that support Goal 15 as well as some encouraging developments in protecting ecosystems, threats to terrestrial biodiversity are increasing, and negative trends in nature, in ecosystem functions and in many of nature's contributions to people are projected to continue, due to the projected impacts of increasing land-/and sea-use change, the exploitation of organisms and climate change. Negative impacts arising from pollution and invasive alien species (IAS) will likely exacerbate these trends (IPBES, 2019[50]). Overall, OECD countries have made some progress in reducing these pressures. For instance, 27 OECD countries met the SDG and Aichi 2020 target to protect at least 17% of their land area, while the protection of mountains is growing almost everywhere, and policy indicators do confirm progress. Yet, despite this many pressures remain, and outcome indicators that aim at assessing the state of major species groups, as well as ecosystems, confirm that the loss of biodiversity is a growing concern shared by most countries. In addition, the measures for this goal do not cover the main drivers of terrestrial biodiversity loss, i.e. land use and land cover change, land degradation and infrastructure development (see Goal 11, Chapter 4 for details).

The COVID-19 pandemic has been a reminder of the significance of human interference with biodiversity in helping to create the conditions for pathogens to leap from animals to humans.[25] Actions taken to control the pandemic have conspicuously reduced economic activity and potentially alleviated pressures on biodiversity – at least in the short term. Yet, this reduced human disturbance was also beneficial to invasive alien species (IAS). Further, IAS also benefited from delay in conservation initiatives. In addition, by reducing compliance monitoring, the economic crisis associated to the pandemic is likely to have led to increased poaching and illegal killing of wildlife (see Impact of the COVID-19 pandemic on Goal 15).

Assessing OECD countries' performance on Goal 15

This report uses data from the *SDG Global Database* together with OECD sources. Yet, the starting point always remains the global indicator framework, curated by the IAEG-SDGs. Table 3.9 shows that data allows the monitoring of eight of the 12 targets underpinning Goal 15, but only four of them can be assessed over time. For this goal, two indicators sourced from the OECD complement the *SDG Global Database.* Under Targets 15.1 and 15.2, OECD sources allow to monitor additional aspects of the targets. On top of the indicators listed in Table 3.9, the database includes seven additional data series under Targets 15.1, 15.2, 15.8, 15.a and 15.b. These are considered to be mainly informative in the context of Goal 15 (details and data for all indicators are available at https://www.oecd.org/wise/the-short-and-winding-road-to-2030-data-chapter-3-planet.xlsx).

Table 3.9. Available data series supporting the monitoring of Goal 15

Indicator code	Indicator Label	Available over time	Primary source
15.1.2	Average proportion of Terrestrial Key Biodiversity Areas covered by protected areas	Yes	*SDG Global Database*
15.1.2	Average proportion of Freshwater Key Biodiversity Areas covered by protected areas	Yes	*SDG Global Database*
15.1.2	*Protected areas as a share of total land*	Yes	OECD
15.2.1	Forest area annual net change rate	No	*SDG Global Database*
15.2.1	Proportion of forest area under a long-term management plan	Yes	*SDG Global Database*
15.2.1	*Intensity of use of forest resources*	Yes	OECD
15.2.1	Proportion of forest area within legally established protected areas	Yes	*SDG Global Database*
15.3.1	Proportion of land that is degraded over total land area	No	*SDG Global Database*

Indicator code	Indicator Label	Available over time	Primary source
15.4.1	Average proportion of Mountain Key Biodiversity Areas covered by protected areas	Yes	*SDG Global Database*
15.4.2	Mountain Green Cover Index	No	*SDG Global Database*
15.5.1	Red List Index	Yes	*SDG Global Database*
15.6.1	Countries that have legislative, administrative and policy frameworks or measures reported through the Online Reporting System on Compliance of the International Treaty on Plant Genetic Resources for Food and Agriculture	No	*SDG Global Database*
15.6.1	Countries that are contracting Parties to the International Treaty on Plant Genetic Resources for Food and Agriculture	No	*SDG Global Database*
15.6.1	Countries that have legislative, administrative and policy frameworks or measures reported to the Access and Benefit-Sharing Clearing-House	No	*SDG Global Database*
15.6.1	Countries that are parties to the Nagoya Protocol	No	*SDG Global Database*
15.8.1	National Biodiversity Strategy and Action Plan targets alignment to Aichi Biodiversity target 9 set out in the Strategic Plan for Biodiversity 2011-2020	No	*SDG Global Database*
15.8.1	Countries with an allocation from the national budget to manage the threat of invasive alien species	No	*SDG Global Database*
15.8.1	Legislation, Regulation, Act related to the prevention of introduction and management of invasive alien species	No	*SDG Global Database*
15.9.1	Countries that established national targets in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020 in their National Biodiversity Strategy and Action Plans	No	*SDG Global Database*
15.9.1	Countries with integrated biodiversity values into national accounting and reporting systems, defined as implementation of the System of Environmental-Economic Accounting	No	*SDG Global Database*

Note: Indicators in italic are not included in the global indicator framework but are used in this report to tailor the analysis to OECD countries.

Twenty-seven OECD countries met Target 15.1 and Aichi Biodiversity Target (ABT) 11 of the Convention on Biological Diversity (CBD) to protect at least 17% of their land area by 2020 (while, as highlighted above, 20 of them also met the target to protect at least 10% of coastal and marine areas). Target 15.1 aims at "ensuring the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements" by 2020. The global indicator framework suggests tracking Target 15.1 through the proportion of forest area compared to total land area and the proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas. The analysis relies only on the second indicator, as the first indicator is considered mainly informative of the national context. While forests covered an average 36% of total land area in OECD countries in 2020, they are very unevenly distributed, ranging from less than 10% of total land in Iceland and Israel to more than two-thirds in Japan, Sweden and Finland. As detailed in OECD (2021[25]), differences in geography and ecology, pre-existing patterns of human settlement in the territory as well as political willingness explain the large variations between countries in the extent of terrestrial protected areas and the objectives of their management (from strict nature reserves where human visits, use and impacts are strictly controlled, to protected areas with sustainable use of natural resources, where ecosystems and habitats are protected together with associated cultural values and traditional natural resource management systems). Beyond protected areas, the SDG Global Database includes additional measures that capture the proportion of KBAs covered by protected areas for both Freshwater and Terrestrial areas. As it is not possible to set a specific target for this indicator, the distance is measured relative to the best performances among OECD countries observed in 2015 (95% in both cases based on the results from Ireland, Denmark and Latvia for freshwater and Lithuania, Latvia, the Czech Republic and Estonia for terrestrial areas). Both measures are highly correlated (0.90). Overall, around one-third of OECD countries (all European) are at a short distance from meeting this element of the target (i.e. more than 80% of their key biodiversity areas are protected), while another third is at a large distance from the target (i.e. less than half of key biodiversity areas are

protected). This bottom third includes all OECD non-European countries besides Japan, which is at a medium distance on both indicators.

While worldwide forests are threatened by overexploitation, fragmentation, degradation and conversion to other types of land use, the situation is less dramatic in OECD countries. Target 15.2 is based on Aichi Target 7 of the CBD and aims to *"*promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally*"* by 2020. The global indicator framework proposes a measure of progress towards sustainable forest management to monitor Target 15.2. In this report, three data series from the *SDG Global Database* and one from OECD data sources support the assessment of this target: the proportion of forest area within legally established protected areas and under a long-term management plan; the annual net change rate of forest area; and the intensity of use of forest resources. While a desirable level of achievement could be set for the latter two indicators,[26] this is not the case for the other two. These indicators are thus benchmarked against the level prevailing in the top 10% of OECD countries with the best performance in 2015.[27] Overall, the performance of OECD countries is rather mixed (Figure 3.11). Yet, a closer look suggests a more positive situation. The area of forests and wooded land has been stable or increasing almost everywhere (OECD, 2020[13]), and most OECD countries have achieved a sustainable use of their forest resources. This means that, in forests available for wood supply, most OECD countries do not over-harvest their forest resources, maintaining the intensity of use below 100%. Among 30 OECD countries for which data are available to assess trends, 27 are expected to remain below this level, whereas only Belgium, the Czech Republic and Estonia may exceed it. In addition, Israel is the only country with a negative annual net change of forest area and with a large distance to the target level. While the situation is less positive regarding the proportion of forest area that is protected (only one in five OECD countries is at a short distance from target) and under long-term management planning (only one in three OECD countries is at a short distance), most countries are making progress – more than six in ten OECD countries are on an upward trend for both indicators.

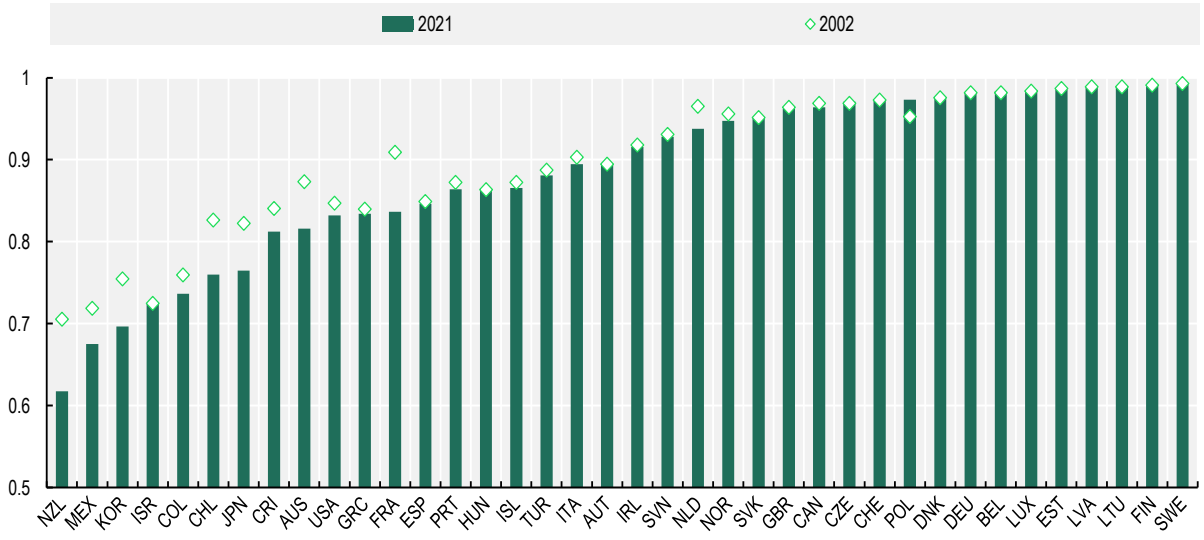
While for now, the proportion of degraded land area concerns only a few OECD countries, the picture may change as a result of climate change. Target 15.3 calls on countries to *"*combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world*"* by 2030. The target is assessed through an indicator of the proportion of land that is degraded over total land area (the target level is operationalised at 0%). The limited amount of available data[28] suggests a great variety of situations among OECD countries. Degraded land area accounts for less than 6% of total land (and thus at a short distance to target) in seven countries (Finland, Chile, Lithuania, Luxembourg, the Slovak Republic, Poland and Slovenia), while this figure rises above 16% in Spain and 30% in Portugal and Mexico. Although currently few OECD countries have critical levels of degraded land area, climate change may exacerbate the effects of land degradation and render some options for avoiding, reducing and reversing land degradation unviable (IPBES, 2018[51]).

In OECD countries, mountain areas are receiving increasing protection, and overall measures show relatively healthy ecosystems. Target 15.4 stresses the need to *"*ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development*"*. Mountain ecosystems are monitored through two indicators: the proportion of mountain KBAs that are protected, and the mountain green cover index.[29] For both indicators, there are no agreed quantitative targets to be reached, so the benchmarks have been set in terms of the highest rates observed among OECD countries in 2015 (91% based on Finland, the Slovak Republic, the Czech Republic and Poland for the former and 99.5% based on Korea for the latter). Regarding the former, in 2020, while only ten OECD countries protected more than 78% of mountain KBAs and can thus be considered to be at a short distance from target, protected areas are increasing in all of them. However, the current dynamics may be sufficient to reach (or exceed) the target level in only five of these countries (the top four performers from 2015 plus France). The second indicator, which is defined by measuring the

changes in green vegetation in mountain areas, reveals that a vast majority of OECD countries report rather high scores. However, these indicators should be interpreted with care; while informing on protected areas and on the potential pressures on ecosystems and biodiversity, they do not assess the direct state of mountain wildlife.

The pressures on biodiversity are increasing almost everywhere, and very few OECD countries are showing progress (see Figure 3.10). Target 15.5 reinforces Aichi Target 12 of the CBD and urges countries to *"*take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species*"*. It is assessed through the Red List index,[30] which ranges from 0 (all species have gone extinct) to 1 (no species are expected to go extinct in the near future). This report operationalises the target level at 1, meaning that no species is known to be at risk of extinction. On average in 2021, OECD countries had a score of 0.89. Yet, this average masks large variations between countries. For instance, while 15 OECD countries have scores of 0.95 or above (and are thus considered to be at a short distance from the target), 13 have a score below 0.85 (and are thus considered to be at a large distance from the target). Distances are particularly large (with scores below 0.75) in five countries (New Zealand, Mexico, Korea, Israel and Colombia). In addition, out of the 38 OECD countries, only ten show some progress over the past 25 years (Lithuania, Luxembourg, Belgium, Germany, Poland, the Czech Republic, the Slovak Republic, Austria, Israel and Hungary), but none at a sufficiently fast pace to reach the target by 2030.

Figure 3.10. Red List index (Target 15.5)



Note: Based on the IUCN Red List of Threatened Species, the Red List Index is an indicator of the extinction risk across groups of species. The index value ranges from 1, equating to all species qualifying as Least Concern (i.e. not expected to become extinct in the near future), to 0, equating to all species are categorised as "Extinct".
Source: (UNDESA, 2021[6]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg (accessed on 29 October 2021).

StatLink https://stat.link/m4djvr

Access to genetic resources varies greatly among countries. Target 15.6, which aims to *"*promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed*"*, is monitored through four policy indicators assessing the existence of a legislative, administrative and policy framework or measures to report to: i) the Access and Benefit-Sharing Clearing-House, ii) the Online Reporting System on Compliance of the International Treaty on Plant Genetic Resources for Food and Agriculture, being party to iii) the Nagoya Protocol and to iv) the International Treaty on Plant Genetic Resources for Food and

Agriculture. These four indicators are all binary, with 0 when the measure does not exist and 1 when the measure exists (for all of them, the target level is set to 1). Overall, total scores range between 4 (all measures already exist) in ten OECD countries (Switzerland, the United Kingdom, the Netherlands, Germany, Denmark, Finland, Norway, Japan, Sweden and Spain) to 0 (no measure already exists) in Israel and New Zealand. Distances to the target are also considered to be large in Colombia, Iceland, Lithuania and Turkey, where only one of the four measures has already been implemented.

The distances to Targets 15.7 and 15.c cannot be assessed as no data are available. Pressures on biodiversity can be physical (e.g. habitat alteration and fragmentation through changes in land use and sea use, changes in land cover, over-exploitation of natural resources), chemical (toxic contamination, acidification, oil spills, other pollution from human activities) or biological (the alteration of population dynamics and species structure through invasive alien species), and climate change is projected to become an increasingly important direct driver of changes in nature (IPBES, 2019[50]). Yet, pressures on biodiversity can also be commercial, in particular through the use of wildlife resources. Therefore, Goal 15 includes targets on the poaching and trafficking of protected species of flora and fauna: Targets 15.7 and 15.c. Both aim at measuring the proportion of traded wildlife that was poached or illicitly trafficked. However, no data are available to assess the performance of OECD countries in this field.

All OECD countries have adopted national legislation relevant to the prevention or control of invasive alien species. Target 15.8 calls on countries to "introduce measures to prevent the introduction and significantly reduce the impact of IAS on land and water ecosystems and control or eradicate the priority species" by 2020. The global indicator framework focuses on the adoption of relevant national legislation and the provision of adequate resources for the prevention or control of IAS. Therefore, three binary indicators underpin this target: i) the existence of National Biodiversity Strategy and Action Plan targets alignment to ABT 9, ii) countries with an allocation from the national budget to manage the threat of invasive alien species, iii) the existence of Legislation, Regulation, Act related to the prevention of introduction and management of IAS (for all countries, the target level was set to 1, i.e. the measure had been implemented already). This report also includes an extra data series on the recipients of global funding for projects related to IAS management, but it is considered to be informative, providing insights on resources to combat IAS. Overall, most OECD countries report a high level of compliance. In 2020, all of them had already adopted relevant national legislation, and only four OECD countries (Iceland, Israel, Latvia and Italy) had not aligned their IAS -related targets with global targets. Yet, nine countries (Chile, the Slovak Republic, Greece, the Czech Republic, Luxembourg, Colombia, Israel, Italy and Austria) did not make allocations from their national budgets to IAS management. Global funding complemented resources from national budgets in Turkey and Mexico, but it was the only resource in Chile. As these indicators are binary policy measures, they are not assessed over time.

Policy indicators confirm that, despite some encouraging developments in measurement, biodiversity outcomes remain under threat. Target 15.9, on "integrating ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts" by 2020, is monitored by two policy indicators: i) status of national targets in accordance with ABT and ii) integration of biodiversity values into national accounting and reporting systems.[31] Regarding the former, evidence confirms the insights from other targets and statements on biodiversity from international organisations (Secretariat of the Convention on Biological Diversity, 2020[52]; OECD, 2020[13]): out of the 26 OECD countries that have national targets reflecting ABT,[32] one OECD country (Chile) is not progressing, 17 OECD countries are progressing at "insufficient pace" and only eight of them are on track to achieve national targets (but in none of them is progress on track to exceed these). On the measurement side, according to the *SDG Global Database*, all OECD countries have integrated biodiversity values into national accounting and reporting systems following the System of Environmental-Economic Accounting.

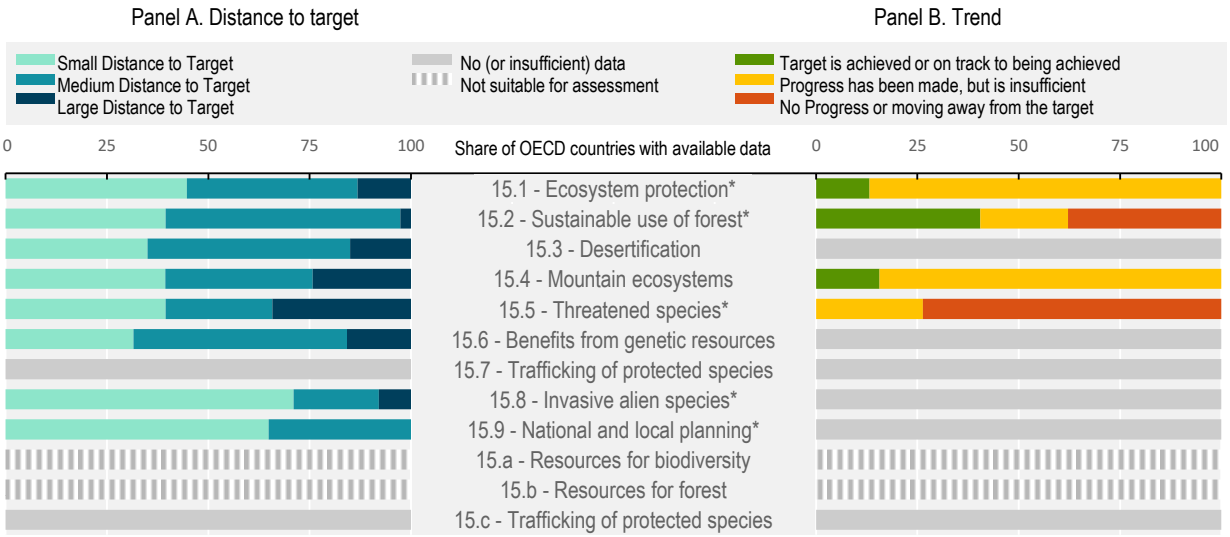
Distances to target cannot be computed for two of the three "means of implementation" targets under this goal: Target 15.a, on mobilising resources to conserve and sustainably use biodiversity and ecosystems (monitored through data on ODA that focus on conservation and sustainable use of

biodiversity and on the revenue generated and the finance mobilised from biodiversity-relevant economic instruments) and **Target 15.b,** on mobilising resources on sustainable forest management and providing adequate incentives to developing countries to advance such management, including for conservation and reforestation (monitored through the same indicators as Target 15.a). Yet, as mentioned for other aid-related targets, the best sectoral breakdown of ODA depends on the needs of each recipient and the priorities of each donor (if total ODA is kept constant, an increase in a specific area would imply a reduction in other sectors of ODA). Therefore, these indicators are considered as informative and are not used in this report to benchmark countries' performance. For instance, on biodiversity-relevant economic instruments (including taxes, fees and charges, tradable permit schemes and biodiversity-relevant positive subsidies), the OECD's Policy Instruments for the Environment (PINE) database shows that while the use of biodiversity-relevant economic instruments has increased since 1980, there has been a general plateau since 2010, and instruments remain underutilised (OECD, 2020[53]).

Summing up

The deadline for many targets that support Goal 15 passed in 2020, without most OECD countries making sufficient progress to halt biodiversity loss. Yet, on some fronts, OECD countries did make considerable progress. For instance, the proportion of protected areas has increased to levels above 17% of national land area in more than two-thirds of OECD countries, meeting Aichi target 11 of the CBD (SDG Target 15.1). The coverage of key freshwater and terrestrial biodiversity areas (Target 15.1) and of mountain key biodiversity areas (Target 15.4) are also progressing everywhere, but at an insufficient rate for most countries (Figure 3.11, panel B). In addition, although most OECD countries are considered to use forest resources in a sustainable way, some still have long distances to travel to achieve the legal protection and long-term management planning of forest areas as called for by Target 15.2. On policy indicators, the picture is more nuanced. On the one hand, around seven in ten OECD countries are close to Targets 15.8 (on the introduction of measures to prevent invasive alien species) and 15.9 (on the integration of biodiversity values into national and local planning and alignment of national biodiversity targets with global targets). On the other hand, there are large disparities among OECD countries when it comes to the existence of measures to share information on the benefits from genetic resources (Target 15.6). In any case, pressures on biodiversity and land resources continue. The risk of species extinction is increasing in two-thirds of OECD countries (Target 15.5), most of which also report rather high levels of land degradation (Target 15.3, Figure 3.11, panel A), which is a major factor threatening biodiversity and ecosystem services (IPBES, 2018[51]).

Figure 3.11. Distance to target and trends over time in OECD countries, by SDG target, Goal 15



Note: * refers to targets with a 2020 deadline. Panel A shows the distribution of OECD countries in terms of the distance that they need to travel to reach each SDG target. Distances are measured in standardised units (s.u.) – see the methodological annex for details. Countries' distances, based on the level of the indicators in the most recent available observation, have been grouped into three clusters: small distances (i.e. less than 0.5 s.u.), shown in light blue; medium distances (from more than 0.5 s.u. to 1.5 s.u.), shown in medium blue; and large distances (i.e. more than 1.5 s.u.), shown in dark blue. Panel B shows the distribution of OECD countries in terms of recent changes in their indicators for each target. Countries' progress, based on changes in the indicators over recent years, are grouped into three clusters: those whose recent pace of progress should be sufficient to meet the target by 2030, shown in green; those whose recent progress should be insufficient to meet the target by 2030, shown in orange; and those whose recent performance has been stagnating or moving further away from the 2030 target, shown in red – see the methodological annex for details. The figure also highlights targets with no data to assess either their current distance or their pace of progress (shown in grey). Time series are considered as missing when there are two or fewer data points for each country; indicators are considered as missing when they are unavailable for 20 OECD countries or more, or for less than three world regions – see the methodological annex for details.

Source: All data is taken and adapted from (UNDESA, 2021[6]), *SDG Global Database*, https://unstats.un.org/sdgs/unsdg and (OECD, 2021[7]), *OECD.Stat,* https://stats.oecd.org/ (accessed on 29 October 2021).

StatLink https://stat.link/pte6gb

Impact of the COVID-19 pandemic on Goal 15

The pandemic has been a reminder of the significance of human interference with biodiversity in creating the conditions for pathogens to leap from animals to humans. Deforestation, habitat degradation and fragmentation, agriculture intensification, wildlife trade and climate change have all played a role in the development of zoonotic diseases. While the origin of the pandemic is still to be understood (Bloom et al., 2021[54]), many deadly pathogens in recent memory – Ebola, HIV, dengue, SARS, MERS, Zika, West Nile – have made this interspecies leap (OECD, 2020[28]).

Targets 15.1 to 15.4 focus on different aspects of legislation or legislative measures to conserve and use ecosystems sustainably and thus are not likely to be directly impacted by the pandemic (Table 3.10). As many parliaments have taken different steps to narrow the overall legislative agenda (HDP and SDC, 2021[55]) so as to prioritise legislation with a primary focus on COVID-19, the health crisis might have slowed progress in introducing new legislation and implementing existing legislation in many countries by redirecting policy priorities.

Actions taken to control the COVID-19 pandemic have conspicuously reduced economic activity and potentially alleviated pressures on biodiversity (Target 15.5). The worldwide lockdowns induced by the pandemic provided an unprecedented opportunity to understand how large-scale shifts in human activities impact wildlife. Research shows that animal behaviours can change rapidly in response to newly

favourable conditions (Manenti et al., 2020[56]; Derryberry et al., 2020[57]). For instance, the reduction of human disturbance allowed wildlife to exploit new habitats and increase their daily activity; it also promoted species richness in temporarily less-disturbed habitats, improved the breeding success of aerial insectivorous birds, and reduced the road-killing of amphibians and reptiles. Yet, it will be some time before the full impact of COVID-19 on biodiversity is known. Few data are already available, and even when they are, the long-term implications are difficult to determine (OECD, 2021[58]).

On the other hand, the pandemic may have also allowed the increased poaching and illegal killing of wildlife (Targets 15.7 and 15.c). While the changes in human activity may benefit biodiversity conservation in some ways, the impacts of COVID-19 on conservation may have been negative overall. For instance, the crisis may lead to reduced funding for environmental protection, restrictions on the operations of conservation agencies, and greater human threats to nature (Lindsey et al., 2020[59]; Manenti et al., 2020[56]).

The lower human disturbance linked to lockdown was also beneficial for invasive alien species (IAS) (Target 15.8). In some areas, the COVID-19 lockdown interrupted activities for the control of IAS, and thus hampered conservation activities targeting threatened species. For instance, Italy saw an increase in the daytime activity of the Eastern cottontail (Sylvilagus floridanus), an IAS introduced to Italy from North America (Manenti et al., 2020[56]).

Table 3.10. Summary impact of the COVID-19 pandemic on Goal 15 in OECD countries

	Short-term impact of the pandemic	Long-term impact of the pandemic
15.1 – Terrestrial ecosystems*	none	none
15.2 – Sustainable use of forest*	none	none
15.3 – Desertification	none	none
15.4 – Mountain ecosystems	none	none
15.5 – Biodiversity*	positive	none
15.6 – Benefits from genetic resources	none	none
15.7 – Trafficking of protected species	negative	none
15.8 – Invasive alien species*	negative	none
15.9 – National and local planning*	none	none
15.a – Resources for biodiversity		
15.b – Resources for forest		
15.c – Trafficking of protected species	negative	none

Note: * refers to targets with a 2020 deadline. The table summarises the likely impact of the pandemic in the short-run (i.e. one to two years after the pandemic hit) and in the long-run (i.e. by 2030) on SDG targets. The overall impact is characterised through five distinct categories: “positive” if the COVID-19 pandemic has a favourable impact on the target, “negative“ if the COVID-19 pandemic has a deleterious impact on the target, “mixed“ if the impact on the target is different among countries or among the different dimensions of the target, “none” when it is not expected that the COVID-19 pandemic will have an impact, and the cell is left blank when data are not available or when available studies do not allow firm conclusions. Those findings reflect OECD work on the impact of the pandemic (see https://www.oecd.org/coronavirus) as well as work conducted by other international organisations and academia.

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Notes

[1] The preamble of the 2030 Agenda starts by saying that it is "a plan of action for People, Planet and Prosperity [that] also seeks to strengthen universal Peace [with] all countries and all stakeholders, acting in collaborative Partnership". Yet, no official mapping between the 5Ps and the SDG goals and targets has been endorsed. The mapping proposed here was first proposed by the United Nations (UN, 2015[1]), but it should not be considered as binding, as the SDGs are integrated and indivisible and some goals might relate to more than one P.

[2] The aggregation at goal level assumes equal weights among the data series measuring the same SDG indicator and equal weights among the indicators measuring the same target. "OECD average" refers to the unweighted average.

[3] To allow for measurement errors, the target levels are operationalised at 97% for the proportion of population using safely managed sanitation services and at 3% for the proportion of population practicing open defecation.

[4] The very high rates of coverage and the absence of obvious trends create some noise in the measurement and may explain why complete coverage would not be expected by 2030 in some countries.

[5] To make the indicator (and the target level) consistent with the label of the Target 6.3, the indicator from the *SDG Global Database* was reversed so that it now reads *"*proportion of domestic wastewater flows that are not safely treated".

[6] Timeliness of the data may impact this assessment. The latest year available is 1999 for Iceland and 2010 for Mexico. In addition, data is not available for Italy and New Zealand.

[7] Beyond the 2030 Agenda, since 2016, the OECD Council Recommendation on water offers an international standard that provides high-level policy guidance on the management of water resources and the delivery of water services. In addition to crosscutting general principles, it focuses on managing water quantity, improving water quality, managing water risks and disasters, ensuring good water governance and ensuring finance, investment and pricing for water and water services.

[8] The responsibility for implementing integrated watershed management in Canada is under provincial/territorial jurisdiction. Each province and territory in Canada has developed unique approaches or governance models to guide decision making in that regard. Therefore, the measure is not available for Canada.

[9] The data represent the number of lakes affected by a degradation of their environmental conditions (i.e. showing a deviation in turbidity and trophic state from the baseline) relative to the total number of lakes in a country. In order to calculate deviations in turbidity and trophic state, baseline data was produced, comprised of monthly averages of observations between 2006 and 2010. Based on these five years of data, averages for each month of the year were calculated. For 2017, 2018 and 2019, monthly deviations from the baseline were then calculated with the following equation: (Month average – Month baseline) / Month baseline x 100. For each lake, a count was made of the number of valid observations and the number of months with monthly deviations, falling into one of the following value ranges: 0-25% (low), 25-50% (medium), 50-75% (high), 75-100% (extreme). This report includes the share of lakes with high or extreme levels of deviation in turbidity and trophic state.

[10] Data from the OECD and from the *SDG Global Database* may differ. *Global SDG Database* relies on the *Global Material Flows Database* from the UN Environment Program (International Resource Panel) while OECD data relies on Eurostat for EU member states. Harmonisation with Eurostat data is underway. Therefore, it should be borne in mind that the data should be interpreted with caution and that the time series presented here may change in future as work on methodologies for material flows accounting progresses.

[11] In 2015, the countries with the lowest DMC per capita were Costa Rica, Colombia, Japan and the United Kingdom, while the Netherlands, Japan and the United Kingdom reported the lowest levels of DMC per unit of GDP.

[12] Beyond the total amount of DMC, the nature of the materials consumed may also play a role in the sustainability of consumption patterns. For instance, the natural and social impact induced by extracting one tone of an industrial mineral such as phosphate is likely to be different from the effect induced by cutting trees to obtain the same amount of wood. Similarly, national circumstances and availability of materials may also play a role in shaping sustainability.

[13] As the 2030 Agenda aims at *halving* per capita food waste, the target levels are set at 38 tons for household level, 13 tons for food service level and 6 tons for retail level i.e. half the OECD median in 2015 (or closest available year).

[14] Available data suggests that seven OECD countries report high-quality data compatible with SDG 12.3.1(b) in all three sectors (household, retail and food service): Australia, Austria, Denmark, Germany, Sweden, the United Kingdom and the United States. Conversely, estimates for 10 OECD countries are associated with a low (or very low) confidence: Chile, Costa Rica, the Czech Republic, Iceland, Latvia, Lithuania, Portugal, Korea, the Slovak Republic and Turkey. Overall, 24% of estimates are classified as a high confidence estimate, 31% as medium confidence, 32% as low confidence and 11% as very low confidence.

[15] The Basel Convention focuses on the Control of Transboundary Movements of Hazardous Wastes and their Disposal; the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade; the Stockholm Convention on Persistent Organic Pollutants; the Montreal Protocol on Substances that Deplete the Ozone Layer; and the Minamata Convention on Mercury.

[16] To be considered as having implemented the Minamata Convention, countries are required to submit by December 2021 national reports on the measures taken to implement the provisions of the Convention, on the effectiveness of such measures, and on possible challenges in meeting the objectives of the Convention.

[17] Although available data do not allow to derive a clear assessment of trends in Austria and the Netherlands, they have already reached the target level (with material recovery rates of municipal waste of 59% and 57% in 2019, respectively).

[18] Data used include direct budgetary transfers and tax expenditures that may provide a benefit or preference for fossil-fuel production or consumption relative to alternatives. Unlike direct budgetary expenditures, where outlays can be measured, tax expenditures are estimates of the fiscal revenue that is foregone due to a particular feature of the tax system that reduces a tax rate relative to a benchmark tax rate. It is important to note that definitions of tax expenditures, and the benchmarks used to estimate their size, are nationally determined. Therefore, tax expenditure estimates require caution when used for international comparability of fossil-fuel support. In addition, higher amounts can also be due to better transparency.

[19] While Italy scored 40% on the adoption and implementation of national DRR strategies in line with the Sendai Framework, another ten countries (Canada, Denmark, Iceland, Ireland, Israel, the Netherlands, the Slovak Republic, Sweden, Turkey and Portugal) have a score of 0%. Yet some of these data has not followed an official validation process and may be subject to revision at a later date, for instance, according to the Canada SDG hub, this score is 100% in Canada.

[20] This report defines end values with the purpose of shedding light on the trends in OECD countries towards achieving the SDGs. The OECD recognises that the definition of end values by a country is a political process based on the knowledge of the contextual strengths and challenges and should be accompanied by a consultative process with local stakeholders. For this reason, it should be kept in mind that the end values defined in this framework are just a means to exemplify how the SDG indicators can be used to inform policy makers. These end values do not correspond to any political decision or prioritisation process of any subnational government, hence they should not be regarded as a rule or as a hard policy recommendation.

[21] In the 2020 Emissions Gap Report (UNEP, 2020[60]), UNEP estimates that by 2030 global greenhouse gas emissions would need to be around half of 2015 levels to limit a global temperature increase to below 1.5°C by 2100. This class of scenarios is consistent with the scenarios in IPCC SR1.5°C that limit warming to 1.5°C with no or limited overshoot. Some caveats remain, suggesting that this target is not ambitious enough. First, it is based on a global estimate, and halving GHG emissions could probably be judged as insufficient for OECD countries, as richer nations have historically emitted the bulk of global GHGs. Second, the target is defined in absolute levels, not per capita nor per unit of GDP (for comparison purposes, data series included here are measures of intensities). It nevertheless offers a useful benchmark to gauge achievement and progress.

[22] “Enhanced work to reduce exposure and vulnerability, thus preventing the creation of new disaster risks, and accountability for disaster risk creation are needed at all levels. More dedicated action needs to be focused on tackling underlying disaster risk drivers, such as the consequences of […] pandemics and epidemics.” (United Nations Office for Disaster Risk Reduction, 2015[61])

[23] Chlorophyll-a is a widely used proxy for measuring phytoplankton biomass. By being predominantly affected by changes in nutrient availability, through either natural (e.g. turbulent ocean mixing) or anthropogenic (e.g. agricultural runoff) processes, changes in phytoplankton biomass are a key measure

of anthropogenic pressures on coastal waters. Indices of chlorophyll-a deviations measure the percentage of an exclusive economic zone area where measures of chlorophyll-a deviate by more than 50% from the baseline. This indicator is complemented by intra-annual coastal zone chlorophyll-a anomalies defined as the number of days a pixel is calculated to have a high (deviation greater than 50%) anomaly based on the number of days of acceptable data. In both cases, the target value is set at 0.

[24] Though no single definition exists, MPAs are generally described as any defined area within or adjacent to the marine environment which has been reserved by legislation or other effective means so that its marine and/or coastal biodiversity enjoys a higher level of protection than its surroundings.

[25] While the origin of the pandemic is still to be understood (Bloom et al., 2021[54]), many deadly pathogens in recent memory – Ebola, HIV, dengue, SARS, MERS, Zika, West Nile – have taken interspecies leaps (OECD, 2020[28]).

[26] Regarding the intensity of use of forest resources, it is desirable that countries maintain the use intensity below 100% in order to not over-harvest their forest resources, and the Aichi target 5 clearly spells out that, "By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where ***feasible brought close to zero***, and degradation and fragmentation is significantly reduced". On the other hand, the target level for the annual net change rate of forest area is operationalised at 0%, as Target 15.2 sets the target of *halting* deforestation.

[27] For the proportion of forest area under a long-term management plan, the target level is 100%, and the best performances as of 2015 were observed in Turkey, Lithuania, Japan, Latvia, the Slovak Republic, the Czech Republic, Hungary and Finland. For the proportion of forest area within legally established protected areas, the target level (36%) is benchmarked against the performances of Costa Rica, Spain and the Netherlands in 2015.

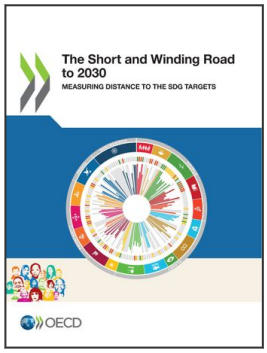
[28] Available data series cover only 20 of the 38 OECD countries and do not provide time series despite the focus on land degradation *neutrality,* which requires a dynamic analysis.

[29] The green coverage of mountain areas is generally positively correlated with their state of health and therefore with their capacity to fulfil their ecosystem roles.

[30] Based on the IUCN Red List of Threatened Species, the Red List Index is an indicator of the changing state of global biodiversity. It defines the conservation status of major species groups and measures trends in extinction risk over time. By conducting conservation assessments at regular intervals, changes in the threat status of species in a taxonomic group can be used to monitor trends in extinction risk.

[31] The first indicator includes five levels: 0 (no national target reflecting ABT 2), 1 (national target reflecting ABT 2 exists, but moving away from it), 2 (national target reflecting ABT 2 exists, but no progress), 3 (national target reflecting ABT 2 exists and progress is there, but at an insufficient rate) and 4 (national target reflecting ABT 2 exists and progress is on track to achieve it). The target level for this indicator is the highest score, 4. The second indicator is a binary measure, for which the target level is 1 (i.e. biodiversity values are integrated into the national accounting and reporting system).

[32] In 2020, 11 OECD countries did not have national targets reflecting ABT: Ireland, Iceland, Colombia, Slovenia, the Netherlands, Luxembourg, Norway, Denmark, Australia, Lithuania and the Czech Republic.



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