GLOBAL COMMONS STEWARDSHIP INDEX 2021

SAFEGUARDING THE SHARED RESOURCES OF THE PLANET

SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK
A GLOBAL INITIATIVE FOR THE UNITED NATIONS

Yale Center for Environmental Law & Policy

CENTER FOR GLOBAL COMMONS

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Executive Summary

In August 2020, the University of Tokyo established the Center for the Global Commons (CGC) to support the sustainable management of the Global Commons in line with the Planetary Boundaries framework (Steffen et al., 2015). The CGC seeks to equip stakeholders with the knowledge, policy framing, processes, tools – and most importantly quantitative indicators – to identify the sources of impacts that degrade the Global Commons and thus to be in a position to reverse them.

Sustainable management of the Global Commons requires data and metrics to guide better policies. To this end, the Center for Global Commons and its partners present the 2021 Global Commons Stewardship (GCS) Index, which assesses both countries' domestic impacts on the Global Commons and the impacts embodied in trade and consumption (so-called "international spillovers"). The GCS Index aims to inform policymaking to reduce negative impacts on the Global Commons and to accelerate the implementation of the Paris Climate Change Agreement and the Sustainable Development Goals (SDGs), adopted by all UN Member States in 2015. This Index is the successor to the Pilot GCS Index, which was released at the 2020 Tokyo Forum.

Five major principles guide the design of the GCS Index. First, it uses a framework that integrates multiple dimensions of the Global Commons into a comprehensive assessment of impacts. Second, the Index tracks impacts within territorial borders and transboundary impacts, or spillovers embodied in traded goods and services. Third, it estimates the distance to pre-defined sustainability thresholds for all metrics in the Index to quantify and compare priorities within and across countries. Fourth, the Index focuses on outcome-based measures of environmental impacts at the country level, leaving out policies and input measures or measures of access to resources such as access to drinking water and sanitation. Fifth, the Index relies on data that are fresh, high-quality, and can be updated regularly. A detailed working paper and a chapter in the OECD-JRC publication on transboundary impacts explain the rationale and construction of the GCS Index (Lafortune et al., 2021; Wendling et al., 2021).

The 2021 GCS Index provides scores for 100 entities: 99 countries and the European Union (EU27). The organization of the Index is structured around two major pillars: domestic impacts and international spillovers. There are six impact categories: Aerosols, Greenhouse Gas (GHG) Emissions, Terrestrial Biodiversity Loss, Marine Biodiversity Loss, Nutrient Cycle disruptions, and Water Cycle disruptions. This year's edition includes 33 indicators using data from official sources and scientific research. Based on a decision tree presented in the methodology section, and building on methods used by the SDSN (Sachs et al, 2021) and the OECD (2019, Table 3.1) aspirational sustainability thresholds are set for 2030 (interim) and 2050 (more ambitious) to evaluate whether the pace of progress is sufficient to achieve transformational objectives. Scores and dashboards are presented in proportional terms that allow comparison across countries with very different sizes, usually in per capita units, and also in absolute terms to identify which countries are having the greatest absolute impacts on the Global Commons. Results presented this

year are based on data collected largely pre-COVID-19. The methodology section summarizes the various steps for constructing the GCS Index.

This year's GCS Index generates five key findings:

1. **Major transformations are urgently needed in all countries to address negative impacts on the Global Commons generated by unsustainable production and consumption.** No country obtains a perfect score, in either proportional or absolute terms, in this year's GCS Index. Based on the extrapolation of annual growth rates over the past five years, the pace of progress is too slow, and no country is on track to achieve all the GCS Index threshold values by 2030 and 2050. Beyond rhetoric and pledges, it is urgent to act now to mobilize the international policy response and financing needed to protect the Global Commons.

2. **Rich countries generate the largest share of the international spillovers that need to be addressed.** Trade is an important source of income and prosperity in many countries, yet unsustainable supply chains also drive environmental degradation such as deforestation, rising GHG emissions, and other adverse effects. The GCS Index country profiles and analyses aim to support international efforts to accelerate the alignment of supply chains with the SDGs and objectives of the Paris Climate Change Agreement.

3. **Ambitious actions to protect and restore the Global Commons domestically and internationally must go hand-in-hand with efforts to improve living standards everywhere.** The GCS Index focuses on measuring countries' impacts on the Global Commons and calls for transformation of the energy, production, and consumption systems consistent with the requirements for a sustainable global economy. Such transformations can only be achieved if they also support improved living standards, including for the most vulnerable groups, in developed and developing countries alike. Our results show that, over the last decade, the EU27 managed to "decouple" economic progress (measured by GDP growth) from increased CO_2 emissions for most years. Yet the pace of the decline in CO_2 emissions must accelerate to achieve net-Zero by 2050, and further efforts are needed to decouple socio-economic progress from negative impacts on the Global Commons embodied into EU's trade. To avoid accusations of protectionism," border adjustment mechanisms and other measures to strengthen policy coherence must be accompanied by long-term financing and technical coöperation to support environmental, economic, and social progress in developing countries and promote a "just transition" domestically and internationally. The new Just Transition for South Africa partnership announced at COP26, whereby the UK, United States, France, Germany, and the EU promised $8.5 billion to help South Africa shift from its current dependence on fossil fuels to a clean and renewable electricity system, might lead the way for new forms of coöperation between developed and developing countries.

4. **G20 countries bear a special responsibility in reforming the governance of the Global Commons.** G20 countries include about 63% of the world's population and 87% of gross world output. In absolute terms, G20 countries generate most of the negative impacts on the Global Commons both domestically and internationally. These countries bear a special responsibility in addressing negative impacts on the Global Commons nationally through ambitious policies and investments. Internationally, they should also strengthen the governance of the Global Commons, including through financial mechanisms and technical coöperation to support the sustainability transition in poorer countries and adaptation in countries that are particularly vulnerable to the consequences of climate change.

5. **Persistent data gaps and limitations should be addressed for more real-time and forward-looking monitoring of countries' impacts on the Global Commons.** We find four priorities for the global research agenda on monitoring environmental impacts: (1) more comprehensive and timely data to assess impacts embodied into international supply chains; (2) estimates of physical flows of pollutants in air and water (not covered in this year's GCS Index); (3) tools for tracking key policies and their projected impacts to gauge countries' ambition and efforts to address domestic and spillover impacts on the Global Commons; and (4) more granular assessments looking at impacts embodied in specific supply chains and commodities (*e.g.* food, textile, construction, *etc.*) to inform the governance and alignment of key sectors, industries, and businesses with the SDGs and Paris Climate Change Agreement. These are important research priorities that we aim to help address as part of the GCS Index in the coming years.

Abbreviations

CBA	Consumption-based accounting
CEDS	Community Emissions Data System
CGC	Center for Global Commons
CH_4	Methane
CO_2	Carbon dioxide
CO_2-eq.	Carbon dioxide equivalents
COVID-19	Coronavirus disease 2019
CSIRO	Commonwealth Scientific and Industrial Research Organisation (Australia)
EE-MRIO	Environmentally-Extended Multi-regional Input-Output
EEZ	Exclusive economic zone
EIA	Energy Information Administration (US)
EU27	European Union
FAO	Food and Agriculture Organization (UN)
F-gas	Fluorinated gas
G20	Group of Twenty
GCS	Global Commons Stewardship
GHG	Greenhouse gas
HFC	Hydrofluorocarbon
IFA	International Fertilizer Industry Association
IFI	Institute for Future Initiatives
IPCC	Intergovernmental Panel on Climate Change
ISIC	International Standard Industrial Classification of All Economic Activities
IUCN	International Union for Conservation of Nature
JRC	Joint Research Centre (EU)
KBA	Key Biodiversity Areas
LAC	Latin America & the Caribbean
MENA	Middle East & North Africa
METI	Ministry of Economy, Trade, and Industry (Japan)
MRIO	Multi-regional Input-Output
N_2O	Nitrous oxide
NO_X	Nitrogen oxides
ODS	Ozone depleting substances
OECD	Organisation for Economic Co-operation and Development
PBA	Production-based accounting
PDF	Potentially Disappeared Fraction of species
PFC	Perfluorocarbons
PIK	Potsdam Institute for Climate Impact Research
SDGs	Sustainable Development Goals
SDSN	Sustainable Development Solutions Network
SF_6	Sulfur hexafluoride
SO_2	Sulfur dioxide
UNEP	United Nations Environment Programme
UNFCCC	UN Framework Convention on Climate Change
WCMC	World Conservation Monitoring Centre (UN)
WRI	World Resources Institute
WTO	World Trade Organization

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1. The Global Commons Stewardship Index

Scientific evidence is clear: unsustainable resource use, destruction of nature, and pollution are changing the climate and other critical Earth systems. More frequent droughts and heatwaves, more severe hurricanes or typhoons, accelerating sea level rise, major disturbances to agriculture, unprecedented coral bleaching, and the collapse of major fisheries are strong signals. By damaging the Global Commons, humanity has the power to undermine life on earth as we have known it for millennia (IPCC, 2021). Major and rapid transformations of energy, production, and consumption systems are needed. These transformations should be supported by sound policies and financing and informed by robust data and statistics.

The Global Commons Stewardship (GCS) Index is a composite of the latest breakthroughs in sustainability indicators, focusing attention on how countries are affecting the Global Commons both within their borders and through transnational spillovers. The metrics presented here empower policymakers and other stakeholders to prioritize environmental agendas, seek out innovative strategies for addressing threats, and track progress toward sustainability goals. Compared with other existing initiatives, we highlight countries' impacts on the Global Commons not only domestically but also internationally through consumption and trade (so called "spillover effects"). The Index aims to inform actions to achieve major international agreements, including the Sustainable Development Goals (SDGs), the Paris Climate Change Agreement, and the Convention on Biological Diversity.

As a composite index, the GCS Index aggregates a comprehensive set of environmental indicators to provide an integrated summary of multiple impacts. The aggregated scores highlight countries' major challenges and provide a scorecard of which countries bear the greatest responsibility for impacts to the Global Commons. Headline results invite further exploration of disaggregated scores, by impact category and individual indicators, which then drives the search for best practices, recasts sustainability strategies, and generates political momentum.

Building the GCS Index presents major conceptual and methodological challenges. For the best practices of composite indexing, we rely on established methodologies (Nardo et al., 2008) and the depth of our experience with the Environmental Performance Index (Wendling et al., 2020), the Sustainable Development Report (Sachs et al., 2021), and the Pilot GCS Index (SDSN et al., 2020; Wendling et al., 2021). For measuring stewardship of the Global Commons, we are also guided by five principles and objectives:

1. Provide a comprehensive multi-dimensional assessment of environmental impacts on Global Commons: Using an integrated framework, the GCS Index tracks countries' overall impacts on the Global Commons, especially in the areas of climate change, biodiversity, pollution, and natural resource use. The GCS Index framework builds on regular exchanges with the CGC and consortium members.

2. Track transboundary spillovers: The GCS Index tracks a country's environmental impacts within its borders as well as transboundary impacts generated through trade. In particular, we use Multi-Region Input-Output tables (MRIOs) to track where international spillovers occur along the supply chains of final products.

3. Estimate distance to pre-defined sustainability thresholds: To quantify and compare priorities within and across countries, the GCS Index computes a country's distance to time-bound thresholds. We draw on the latest science, internationally agreed upon targets (including the SDGs and the objectives of the Paris Climate Change Agreement), and relative impacts across countries to determine suitable time-bound thresholds that countries need to achieve to ensure sound stewardship of the Global Commons.

4. Focus on outcome metrics: The GCS Index focuses on outcome-based measures of environmental impacts, as opposed to input-based measures (*e.g.*, climate finance, or policy intentions like the adoption of international and national climate policies) and it does not track access to resources (*e.g.*, water). We consider both official metrics produced by national and international statistical offices and, where necessary, unofficial metrics from high-quality sources. Appendix A (Section 3) describes all indicators included in the GCS Index.

5. Use timely data and regular updates: The GCS Index uses the most recent data available and works with data providers to reduce lags in publishing new data. We plan to update the GCS Index regularly.

Annual versions of the GCS Index will allow us to improve with every iteration. This inaugural edition of the Index is still a work in progress. As described in this report, there are persistent data gaps, including the absence of time-series data and data lags. For example, the data used in the GCS Index do not reflect impacts from the COVID-19 pandemic. Scientific advances and improvements in global data systems will help to close these gaps in future versions of the Index. The definition of sustainability thresholds will also be refined as new global targets, conventions and treaties emerge and through further consultation with scientists and experts.

We also welcome feedback and critiques from experts and users who can offer constructive suggestions for improving the methods we use in every step of the construction of the Index – including how to best communicate our findings. Over time, we expect to move toward a more robust and powerful tool. Comments and feedback can be submitted at GCSIndex@unsdsn.org.

2. Construction

Our methodology, described in more detail in Appendix A, follows the best practices of composite indexing (Nardo et al., 2008). In this section, we provide a general overview of the organization and composition of the GCS Index.

The GCS Index tracks the *impacts* of countries on the Global Commons. It does not track the state of the Global Commons or the vulnerability of countries to Climate Change. We categorize

these impacts in six sub-pillars: aerosol emissions, greenhouse gas (GHG) emissions, biodiversity loss in terrestrial and marine biomes, disruptions to the water and nutrient cycles. Two pillars further divide the indicators between those that measure impacts that occur entirely within territorial borders (Domestic) and those that measure impacts that cross boundaries (Spillover). In this report, international spillovers include impacts embodied in traded goods and services. Figure 1 illustrates the conceptual framework for how we organize the metrics.

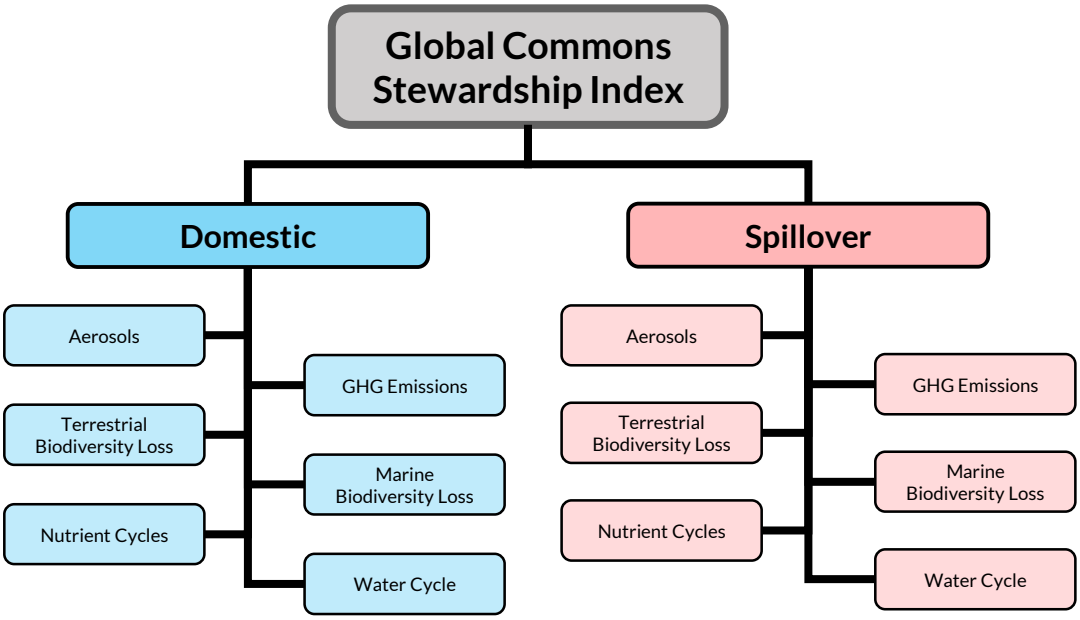


Figure 1. Conceptual framework of categories within the Global Commons Stewardship Index

We identify a total of 33 indicators from a variety of sources – 22 domestic indicators and 11 spillover indicators (Table 1). As described in the methodology (Appendix A), the indicators are globally relevant, valid and reliable, up to date, collected according to internationally approved methods, and available for a large range of countries.

To provide a composite index that is useful for the widest audience, we include a broad selection of countries. Two major factors determine whether a country is meaningfully impacting the Global Commons: wealth and population. We have therefore included countries that are either in the top half of income classifications or have populations less than 100 million, and we have excluded countries with populations below 1 million or for whom there are insufficient data. Our analysis covers 99 countries and the European Union. We present our results in two forms: Proportional metrics that have been standardized to allow cross-country comparisons, for example, dividing by population, and Absolute metrics that use raw values, highlighting which countries have the greatest impacts to the Global Commons.

Every metric is re-scaled to produce a score of 1–100, where 1 indicates that countries are failing to mitigate their impacts and 100 means countries have met or exceeded a sustainable threshold. We aggregate the scores on individual metrics into sub-pillar scores and then into pillar scores.

Color-coded dashboards help to identify the severity of each country's impacts on the Global Commons. For those indicators that have time-series, we also analyze the trajectories and provide a projection of whether countries are on- or off-track to meet sustainability thresholds by 2050.

Even as an improvement over the Pilot GCS Index, this report on the 2021 GCS Index describes a work in progress. Further iterations of the Index will include refinements of the data, methods, and presentation of the results.

Table 1. Indicators included in the 2021 Global Commons Stewardship Index

Sub-pillar	Indicator	Spillover
Aerosols	SO_2 emissions	✓
	NO_X emissions	✓
	Black Carbon emissions	✓
GHG Emissions	Greenhouse Gas emissions	✓
	CO_2 emissions embodied in fossil fuel exports	
Terrestrial Biodiversity	Unprotected terrestrial Key Biodiversity Areas	
	Unprotected freshwater Key Biodiversity Areas	
	Land use biodiversity loss	✓
	Freshwater biodiversity threats	✓
	Permanent deforestation	
	Red List Index of species survival	
	Biodiversity Habitat Index	
Marine Biodiversity	Unprotected marine Key Biodiversity Areas	
	Marine biodiversity threats	✓
	Fish caught from overexploited or collapsed fish stocks	
	Fish caught by trawling	
Nutrient Cycles	Sustainable Nitrogen Management Index	
	Nitrogen surplus	✓
	Phosphorus fertilizer	✓
Water Cycle	Scarce water consumption	✓
	Water stress of crops	✓
	Freshwater withdrawal	

Note: All indicators listed are included in the Domestic pillar; only those indicators with a ✓ are included in the Spillover pillar.

3. Stewardship of the Global Commons

Gauging countries' stewardship of the Global Commons requires categorizing the various ways in which they impact the environment. In the GCS Index, we use six sub-pillars, shown in Figure 2 to summarize the indicators of how countries are protecting or harming the Global Commons. Rather than measuring the state of the Global Commons themselves, the GCS Index accounts for the influence countries have over our shared resources. Drawing on the broader work of the Center for Global Commons and the Global Commons Alliance, Figure 2 maps the means and extent to which each sub-pillar impacts the Global Commons, providing a comprehensive assessment of the levers for keeping the Earth in a safe operating space.

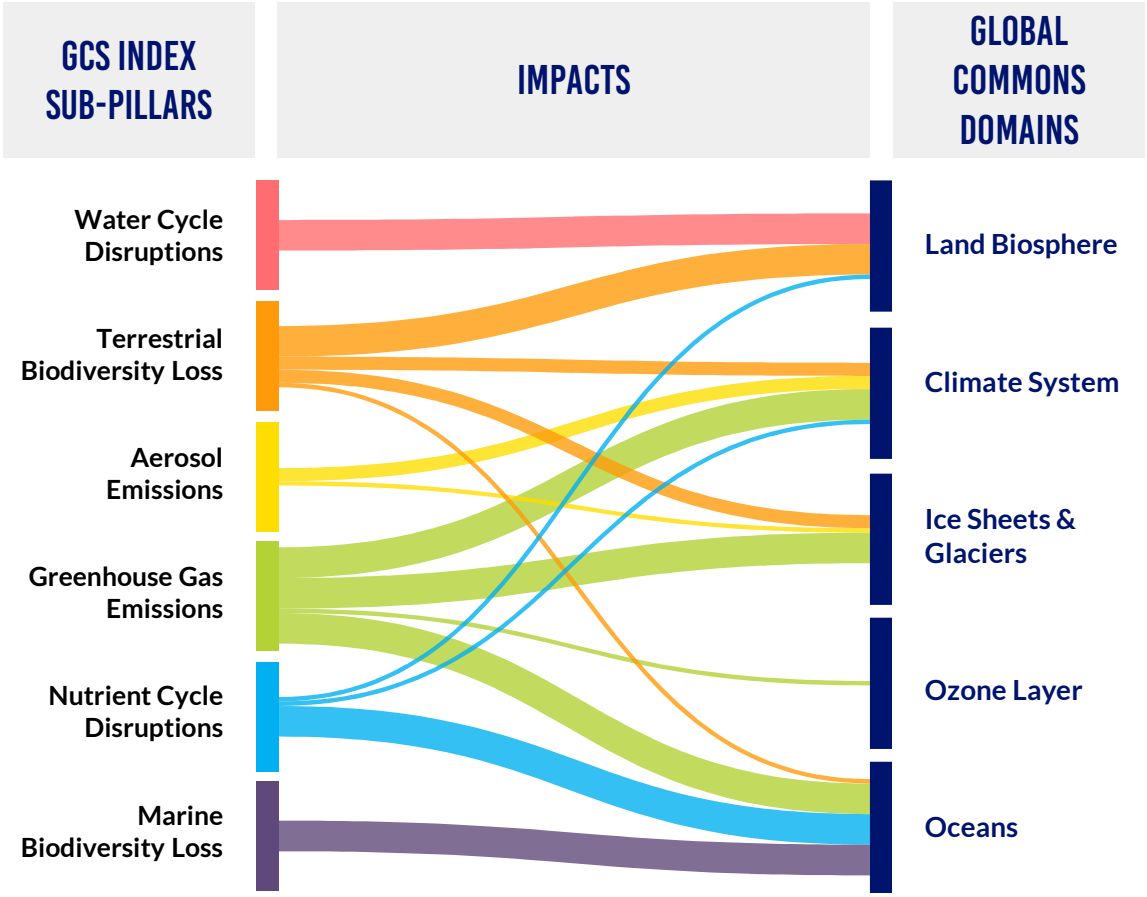


Figure 2. Illustration of the impacts of GCS Index sub-pillars on the Global Commons.

Note: The width of the lines denotes the degree of impact: (thick) direct, significant impact, (medium) moderate impact, and (thin) indirect or limited impact.

Tracing the impacts of the sub-pillars to the Global Commons relies on an understanding of the underlying Earth System Science, including the relative magnitude of how influential different impacts are. Some sub-pillars are straightforward. Disruptions to the Water Cycle have obvious impacts to the Land Biosphere, as the diversion of water resources have adverse effects on terrestrial and freshwater ecosystems – in addition to the increased risks of flooding and droughts from climate change (Poff & Zimmerman, 2010; Reid et al., 2019). Marine biodiversity is a major

component of the Oceans and the ecosystem services that this Global Common provides, and biodiversity loss, as through over-harvesting or other threats, necessarily constitutes a major threat.

Greenhouse Gas (GHG) Emissions have diverse impacts on the Global Commons. Most directly, increased atmospheric concentrations of GHGs disrupts the Climate System, with subsequent threats to Ice Sheets & Glaciers. Carbon dioxide poses the additional threat of diffusing into the Oceans, increasing ocean acidification (Doney et al., 2009). Many ozone depleting substances are also potent GHGs, though these account for a small fraction of total GHG emissions and are emitted by a very small number of countries (Chipperfield et al., 2020; IPCC, 2013).

Terrestrial Biodiversity Loss harms the Land Biosphere, both through the direct loss of habitat but also weakening of ecosystems, including loss of genetic biodiversity (Cardinale, 2012; Hooper et al., 2012). Terrestrial ecosystems are also major fluxes in the carbon cycle, especially in forests, and losses of these ecosystems contribute significantly to increased concentrations of CO_2 in the atmosphere (Shukla et al., 2019), ocean acidification, further climate breakdown, and the subsequent threats to Ice Sheets & Glaciers.

Disruptions to Nutrient Cycles, especially nitrogen and phosphorus, also harm the Global Commons. The most prevalent fluxes are in the form of run-off from agricultural production, which pollute freshwater ecosystems and eventually harm marine ecosystems through anoxic dead zones and other perturbations of food webs (FAO 2016; Lassaletta et al., 2016; MacDonald et al., 2011; Peñuelas et al., 2013). The nitrogen cycle is also disturbed through the emissions of N_2O, a GHG (IPCC, 2013).

Aerosol Emissions have impacts on the Climate System and Ice Sheets & Glaciers. Black Carbon, while not technically a GHG, is recognized as a climate pollutant and a substantial factor in global warming (Bond et al., 2013; IPCC, 2013). Deposition of particulate matter on Ice Sheets & Glaciers also decreases the albedo, leading to more melting and further exposure of darker surfaces in an accelerating feedback loop (Levitsky, 2011; Ramanathan & Carmichael, 2008).

While attempting to capture as many impacts as possible, the current scheme is incomplete. Fully accounting for all drivers of the state of the Global Commons requires more indicators than are currently available, some of which lie beyond the categories outlined in Figure 2. The health of the Ozone layer, for example, also depends on the emissions of other substances not captured in national GHG inventories. The GCS Index classification of indicators is useful not just for measuring impacts to the Global Commons but also for highlighting areas where the Global Commons Alliance must work with partners to increase data availability. Appendix A (Section 3.2.3) lists major indicator gaps.

4. Results

4.1 Proportional results

Table 2 presents the results for the 99 countries and the European Union in the 2021 GCS Index in proportional terms. We present scores, dashboards, and trajectories for the Domestic and Spillover pillars, with additional analysis of overall impacts to the Global Commons. Results can be further disaggregated by sub-pillar, as shown in Table 3, contrasting the Domestic and Spillover impacts. The Country Profiles in Appendix B summarize all the data used in constructing the aggregate ratings.

The two pillars included in the GCS Index, Domestic and Spillovers, capture different aspects of environmental impacts on the Global Commons. Figure 3 shows no statistically significant correlation between the two pillar scores ($r = 0.14$). Some countries, like Australia, Canada, Saudi Arabia, and the United States, score poorly on both pillars, whereas other countries have a greater contrast. Switzerland, for example, generates relatively limited impacts on the Global Commons within its borders but imports massive negative impacts through trade. In GHGs, for example, Switzerland emits annually 5.7 tonnes of CO_2-eq. per person domestically, but imports 12 tonnes of CO_2-eq. per person embodied in the products and services it consumes. In such countries, spillovers can account for a large share of the total impact on the Global Commons. China, India, and Indonesia perform rather poorly domestically but generate fewer spillover impacts, as they produce many goods and services that are ultimately consumed elsewhere in the world.

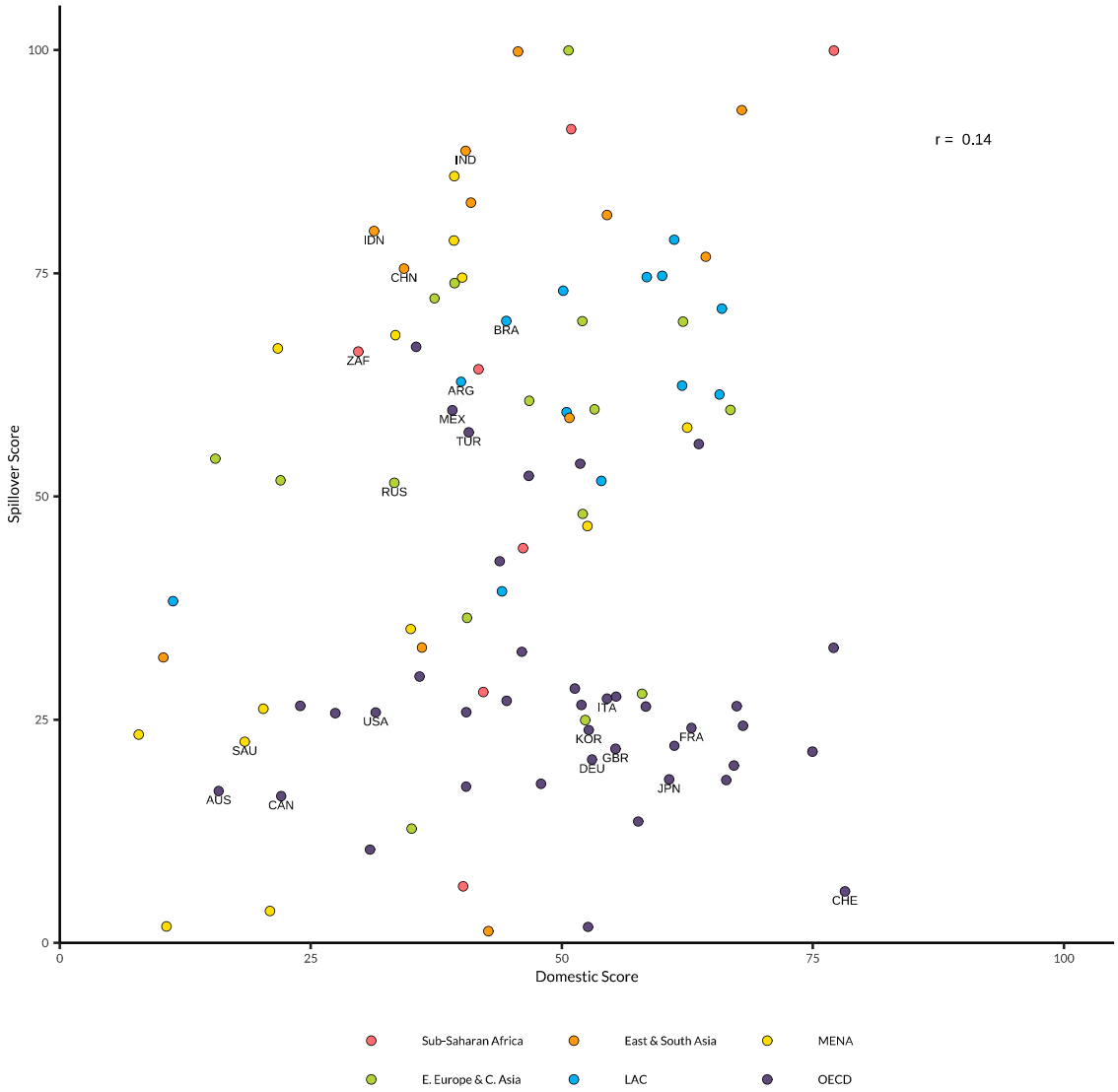


Figure 3. Comparison of Domestic and Spillover scores, in proportional terms.

Note: G20 countries labeled with three-letter country codes. *MENA* = Middle East & North Africa, *LAC* = Latin America & Caribbean.

Table 2. Country scores, rankings, and trajectories in the 2021 GCS Index in proportional terms.

Country	Overall	Domestic	Spillover
Albania	→	52.0 →	69.6 →
Algeria	→	40.1 →	74.5 →
Argentina	→	40.0 →	62.8 ↓
Armenia	→	62.1 ↓	69.6 →
Australia	→	15.8 →	17.0 →
Austria	→	47.9 →	17.8 →
Azerbaijan	→	37.3 →	72.2 →
Bahrain	→	35.0 →	35.1 →
Bangladesh	→	67.9 →	93.3 →
Belarus	↓	50.7 →	99.9 ↓
Belgium	→	66.4 →	18.2 →
Bosnia & Herzegovina	→	39.3 →	73.9 ↗
Botswana	→	42.2 →	28.1 →
Brazil	→	44.5 →	69.7 ↗
Brunei Darussalam	→	10.3 →	32.0 →
Bulgaria	→	46.8 →	60.7 →
Canada	→	22.0 →	16.4 →
Chile	→	43.8 →	42.7 →
China	→	34.3 →	75.5 ↓
Colombia	→	35.5 →	66.8 →
Costa Rica	→	63.6 →	55.9 →
Croatia	→	52.1 →	48.0 →
Cuba	→	58.5 →	74.6 →
Cyprus	→	58.0 →	27.9 →
Czech Republic	→	46.0 →	32.6 →
Denmark	→	67.1 →	19.9 →
Dominican Republic	→	65.9 →	71.0 ↗
Ecuador	→	60.0 →	74.7 →
Egypt	↗	39.3 →	85.9 ↗
Estonia	→	51.3 →	28.5 →

Country	Overall	Domestic	Spillover
Ethiopia	↗	77.1 →	99.9 ↑
European Union	→	23.9 →	26.5 →
Finland	→	68.0 →	24.3 →
France	→	62.9 →	24.1 →
Gabon	→	41.7 ↗	64.2 →
Germany	→	53.0 →	20.5 →
Greece	→	44.5 →	27.1 →
Guatemala	↗	61.2 →	78.7 ↗
Hungary	→	51.8 →	53.7 →
Iceland	→	40.5 ↗	17.5 →
India	→	40.4 →	88.7 ↗
Indonesia	→	31.3 ↓	79.7 ↗
Iran	→	33.4 →	68.1 →
Iraq	→	39.3 →	78.7 →
Ireland	→	61.2 →	22.1 →
Israel	→	35.8 →	29.8 →
Italy	→	54.5 →	27.4 →
Jamaica	→	62.0 →	62.4 →
Japan	→	60.7 →	18.3 →
Jordan	↗	62.5 ↗	57.7 →
Kazakhstan	→	15.5 →	54.2 →
Korea, Rep.	→	52.7 →	23.8 →
Kuwait	→	20.9 →	3.6 →
Latvia	→	77.1 →	33.1 →
Lebanon	→	52.5 →	46.7 →
Libya	→	21.7 →	66.6 ↓
Lithuania	→	67.4 →	26.5 →
Luxembourg	→	52.6 →	1.8 →
Malaysia	→	36.1 →	33.1 →
Malta	→	52.3 →	25.0 →

Table 2. (cont'd) Country scores, rankings, and trajectories in the 2021 GCS Index in proportional terms.

Country	Overall	Domestic	Spillover
Mauritius	→	40.2 →	6.3 →
Mexico	→	39.1 →	59.7 →
Montenegro	→	35.0 →	12.8 ↗
Namibia	→	46.1 →	44.2 →
Netherlands	→	57.6 →	13.6 →
New Zealand	→	27.4 →	25.7 →
Nigeria	→	50.9 →	91.1 →
North Macedonia	→	53.3 →	59.7 ↗
Norway	→	30.9 →	10.4 →
Oman	→	20.3 →	26.2 →
Pakistan	↗	45.6 →	99.8 ↑
Panama	→	53.9 →	51.7 →
Paraguay	→	50.5 →	59.5 →
Peru	→	50.1 →	73.0 →
Philippines	→	54.5 →	81.5 →
Poland	→	46.7 →	52.3 →
Portugal	→	52.0 →	26.6 →
Qatar	→	7.9 →	23.3 →
Romania	→	66.8 →	59.7 →
Russia	→	33.3 →	51.5 →

Country	Overall	Domestic	Spillover
Saudi Arabia	→	18.4 →	22.5 →
Serbia	→	40.6 →	36.4 ↗
Singapore	→	42.7 →	1.3 →
Slovak Republic	→	58.4 →	26.5 →
Slovenia	→	55.4 →	27.6 →
South Africa	→	29.7 →	66.2 ↗
Spain	→	40.5 →	25.8 →
Sri Lanka	→	64.3 →	76.8 →
Sweden	→	75.0 →	21.4 →
Switzerland	→	78.2 ↗	5.8 →
Thailand	→	50.8 →	58.8 →
Trinidad & Tobago	→	11.3 →	38.3 →
Turkey	→	40.7 →	57.2 ↗
Turkmenistan	→	22.0 ↓	51.8 →
United Arab Emirates	→	10.6 →	1.8 ↓
United Kingdom	→	55.3 ↗	21.7 →
United States	→	31.5 →	25.8 →
Uruguay	→	44.0 →	39.4 →
Venezuela	→	65.7 ↗	61.4 ↓
Vietnam	→	40.9 ↓	82.9 →

Dashboard	Score	Impacts on the Global Commons
	95–100	None or limited
	90–95	Low
	80–90	Medium-low
	70–80	Medium-high
	50–70	High
	30–50	Very High
	0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Table 3. Domestic and Spillover scores for the sub-pillars, in proportional terms.

	Aerosols		GHG Emissions		Terrestrial Biodiversity		Marine Biodiversity		Nutrient Cycles		Water Cycle	
Country	**Domestic**	**Spillover**	**Domestic**	**Spillover**	**Domestic**	**Spillover**	**Domestic**	**Spillover**	**Domestic**	**Spillover**	**Domestic**	**Spillover**
Albania	93.3 ↗	92.1 ↗	77.1 ↓	48.9 →	32.6 →	90.8 ↓	19.2 ↓	95.7	50.8 →	85.0 →	48.0 →	58.4 →
Algeria	65.3 →	94.5 →	25.3 ↓	61.9 →	37.6 →	94.9 →	68.7 ↓	99.6	74.2 ↓	89.7 ↓	26.0 →	45.6 →
Argentina	75.2 ↗	86.0 ↗	39.1 →	41.4 ↓	51.1 →	90.6 ↓	38.6 ↓	96.8	14.9 →	61.1 ↓	48.7 →	60.6 ↓
Armenia	86.3 →	92.7 →	81.4 ↓	48.7 →	50.6 →	97.5 ↗		99.5	70.0 ↓	92.8 ↓	24.6 →	47.7 →
Australia	24.7 →	3.1 ↗	4.7 →	16.2 →	29.3 ↓	67.0 →	21.7 →	29.3	40.8 ↓	8.1 ↓	32.4 →	32.7 →
Austria	88.0 ↑	33.7 →	26.4 →	6.1 →	65.4 ↓	63.3 →		93.6	59.6 ↓	5.3 ↓	68.4 ↗	24.3 →
Azerbaijan	88.8 →	91.7 ↓	21.0 ↓	51.6 ↓	49.4 →	98.0 →		99.9	81.9 →	92.5 ↓	22.6 →	54.8 ↓
Bahrain	50.6 →	59.6 ↓	28.6 →	25.8 →	31.5 →	80.1 →	21.1 →	99.4	70.0 →	8.2 ↓	36.4 ↗	30.1 →
Bangladesh	97.7 ↓	99.2 →	100 ↓	86.5 ↓	28.7 →	99.9 ↓	66.7 ↓	100	49.5 →	97.3 →	59.4 →	88.5 ↓
Belarus	73.1 →	100 ↓	55.8 ↓	100 ↓	70.9 →	100 ↓		99.9	15.4 →	99.7 ↓	64.7 →	100 ↓
Belgium	89.2 ↑	43.1 →	58.1 →	10.4 →	76.0 ↗	19.1 →	90.5 →	78.9	63.1 →	6.0 ↓	46.4 →	21.0 →
Bosnia & Herz.	17.3 →	95.0 ↗	32.8 ↓	53.8 →	30.9 →	86.1 ↑	99.6	100	32.5 →	83.1 →	85.7 →	71.5 ↗
Botswana	41.0 →	24.2 ↓	38.8 →	14.8 ↓	66.3 →	47.1 →		56.6	19.5 ↓	29.4 ↓	73.4 ↗	45.3 →
Brazil	80.1 ↗	94.6 ↑	50.4 →	51.9 →	28.5 ↓	96.7 ↗	76.2 →	97.2	10.2 ↓	55.4 →	71.6 →	69.2 ↗
Brunei Darussalam	14.2 ↓	52.2 →	1.0 ↓	18.3 →	60.9 →	79.9 →	31.1 ↓	96.1	19.7 →	8.6 →	75.4 ↗	38.6 →
Bulgaria	85.5 ↑	86.7 →	39.5 →	38.4 →	70.3 →	85.6 ↓	21.5 →	97.9	65.6 →	73.3 ↓	40.0 ↓	48.8 →
Canada	33.0 →	47.4 →	9.6 ↓	8.1 →	62.6 ↓	48.1 →	55.3 →	18.5	5.5 ↓	6.6 ↓	65.7 ↗	25.8 →
Chile	47.8 ↓	79.9 ↗	36.1 →	31.9 ↓	57.4 ↓	86.4 ↑	58.5 ↗	96.6	56.3 →	8.6 ↓	28.9 →	51.6 ↗
China	75.4 ↗	95.4 ↓	38.2 ↓	57.3 ↓	38.9 ↓	90.6 ↓	31.5 ↓	96.1	13.5 →	87.5 ↓	29.1 ↓	67.4 ↓
Colombia	89.1 ↗	88.2 ↑	15.6 ↓	48.5 →	26.5 ↓	90.8 ↓	60.2 →	95.5	45.3 →	66.8 ↓	68.1 →	57.8 ↓

Table 3. (cont'd) Domestic and Spillover scores for the sub-pillars, in proportional terms.

	Aerosols		GHG Emissions		Terrestrial Biodiversity		Marine Biodiversity		Nutrient Cycles		Water Cycle	
Country	**Domestic**	**Spillover**	**Domestic**	**Spillover**	**Domestic**	**Spillover**	**Domestic**	**Spillover**	**Domestic**	**Spillover**	**Domestic**	**Spillover**
Costa Rica	86.5 ↗	83.8 →	83.5 ↓	37.3 ↓	33.5 ↓	80.7 ↓	63.4 ↓	77.6	43.1 →	52.4 ↓	66.7 →	54.1 →
Croatia	85.8 ↗	81.1 →	36.9 ↓	28.7 →	35.7 →	74.7 ↑	51.7 →	95.7	73.9 →	37.4 ↓	77.5 →	42.9 ↗
Cuba	69.5 ↓	94.7 ↗	78.2 ↗	54.5 →	26.4 ↓	95.6 →	83.8 →	98.5	52.9 →	86.9 ↓	40.7 ↓	65.2 →
Cyprus	84.7 ↗	62.9 ↗	76.6 ↓	16.6 →	57.0 →	82.6 →	53.4 →	73.4	53.2 →	8.0 →	23.8 →	20.1 →
Czech Republic	81.7 ↗	62.3 →	23.0 →	19.2 →	80.4 →	81.6 →		95.2	62.2 ↓	8.1 ↓	62.4 →	35.4 →
Denmark	86.4 ↗	33.4 →	60.5 →	7.1 →	76.5 →	78.4 →	73.7 →	93.1	69.5 →	5.9 ↓	52.3 →	27.8 →
Dominican Republic	79.1 →	94.9 ↑	79.4 ↓	52.1 →	48.7 →	89.6 ↑	94.3 ↗	92.7	54.2 ↓	83.6 →	39.8 →	59.6 →
Ecuador	81.0 ↗	92.7 ↓	70.1 ↗	56.2 ↓	27.8 →	95.7 ↗	75.4 ↓	97.7	54.5 →	80.3 ↓	57.0 →	68.2 ↓
Egypt, Arab Rep.	88.0 ↗	98.0 ↑	43.9 ↓	73.5 ↗	67.6 →	96.8 ↑	50.9 →	99.1	68.2 →	94.7 →	3.4 →	77.2 →
Estonia	13.9 →	57.2 →	46.3 →	13.6 →	85.8 →	84.6 →	97.5 ↑	93.6	59.3 ↓	8.1 ↓	66.4 ↓	32.4 →
Ethiopia	90.3 →	100 ↑	100 ↑	100 ↑	48.3 →	100 ↑		99.9	74.8 ↗	99.5 ↗	56.4 →	100 ↑
European Union	89.0 ↑	57.5 →	7.3 →	16.0 →	56.8 ↓	58.9 →	53.9 ↓	75.2	15.4 ↓	7.3 ↓	36.7 →	25.1 →
Finland	74.4 ↗	37.4 →	56.4 →	11.7 →	85.3 ↓	67.6 →	88.3 ↗	93.6	64.9 ↓	7.4 ↓	64.1 ↑	30.3 →
France	92.0 ↑	59.0 →	51.6 →	16.0 →	66.2 →	36.5 →	81.1 →	60.0	66.0 →	7.1 ↓	49.6 →	24.4 →
Gabon	17.5 →	87.5 →	58.2 ↑	47.4 →	35.3 →	71.7 ↑	17.6 →	94.8	58.8 →	78.3 ↓	86.0 ↑	50.1 →
Germany	91.5 ↑	45.1 →	28.7 →	11.6 →	75.3 →	41.8 →	75.2 →	74.5	67.8 →	5.8 ↓	55.0 →	18.6 →
Greece	83.5 ↗	59.8 ↗	43.1 ↓	16.1 →	37.3 ↓	66.5 →	42.0 →	83.3	72.1 →	7.5 →	20.1 →	22.0 ↗
Guatemala	50.4 →	96.0 ↗	86.9 ↓	61.9 →	23.1 ↓	94.4 ↑	71.5 →	93.3	55.0 →	87.1 →	78.1 ↗	75.2 ↑
Hungary	89.5 ↗	78.8 →	29.5 ↓	29.0 →	65.5 →	91.0 →		97.5	73.7 ↓	60.6 ↓	68.3 ↗	48.8 →
Iceland	17.5 ↗	37.3 →	38.1 →	4.5 →	57.2 →	77.5 →	15.9 →	100	80.3 →	6.8 →	98.7 ↑	24.5 →

Table 3. (cont'd) Domestic and Spillover scores for the sub-pillars, in proportional terms.

	Aerosols		GHG Emissions		Terrestrial Biodiversity		Marine Biodiversity		Nutrient Cycles		Water Cycle	
Country	Domestic	Spillover	Domestic	Spillover	Domestic	Spillover	Domestic	Spillover	Domestic	Spillover	Domestic	Spillover
India	87.1 →	98.2 ↑	60.5 ↓	82.3 ↑	38.5 ↓	98.5 ↑	36.7 ↓	99.6	12.9 ↓	95.7 ↓	24.8 →	71.8 ↗
Indonesia	70.7 ↓	96.9 ↗	19.0 ↓	65.3 ↗	15.4 ↓	96.7 →	50.5 →	98.1	45.6 →	83.1 →	41.7 ↓	69.4 ↗
Iran, Islamic Rep.	52.8 →	90.9 ↗	25.0 ↓	50.6 →	63.8 →	94.7 ↑	85.8 ↗	98.5	61.0 →	82.8 ↓	4.9 →	43.6 ↗
Iraq	60.7 →	92.7 ↓	52.8 ↓	62.1 ↓	34.7 →	98.9 ↑	20.6 ↓	99.5	71.5 ↓	94.6 ↓	14.3 →	63.0 →
Ireland	88.6 ↑	47.4 →	35.0 →	8.8 →	75.3 ↓	72.3 →	80.6 ↗	91.5	89.3 →	6.2 ↓	72.3 ↓	27.0 →
Israel	28.5 →	46.3 ↗	36.1 →	19.7 →	48.1 →	63.7 →	28.8 →	97.2	66.8 →	7.7 →	22.0 →	30.2 →
Italy	94.7 ↑	57.7 ↗	44.3 →	18.5 →	64.6 ↓	58.7 →	46.8 →	72.8	72.0 →	7.4 →	39.2 →	22.3 ↗
Jamaica	68.5 ↓	90.0 →	85.7 ↓	42.0 →	35.9 ↓	90.6 →	50.9 →	77.8	56.4 ↓	71.7 ↓	57.7 ↗	56.2 ↓
Japan	88.3 ↗	40.6 →	50.7 →	14.3 →	67.3 ↓	45.6 →	50.6 →	8.5	71.3 →	7.1 →	60.1 ↗	34.2 →
Jordan	84.1 ↗	90.9 ↑	62.7 ↑	43.6 →	49.2 →	91.0 →	99.4	81.6	77.7 →	71.6 →	29.6 →	26.6 →
Kazakhstan	3.9 →	78.2 →	8.1 ↓	27.7 →	40.7 →	94.3 ↓		98.4	73.8 ↗	73.2 →	25.4 →	47.3 →
Korea, Rep.	80.1 →	51.5 →	40.3 ↓	12.8 →	55.1 ↓	61.4 →	51.6 ↓	61.0	73.3 →	7.2 →	47.6 →	26.2 →
Kuwait	3.6 →	5.6 →	20.6 →	2.3 →	61.6 →	4.5 →	69.1 →	66.5	78.0 →	1.0 →	3.5 →	1.0 →
Latvia	70.7 ↓	64.9 →	69.0 ↓	17.7 →	86.3 ↓	90.4 ↑	98.1 →	99.8	64.8 ↓	8.3 ↓	92.3 ↗	39.2 ↗
Lebanon	64.6 ↓	85.8 ↑	80.5 ↑	35.8 →	33.3 ↗	77.7 →	51.6 →	78.6	65.5 →	45.6 →	19.0 →	18.0 →
Libya	34.7 ↓	72.7 ↓	21.6 ↓	50.0 ↓	35.1 →	95.4 →	23.9 →	99.5	69.1 ↗	77.7 ↓	2.4 →	49.8 →
Lithuania	75.2 →	53.3 →	60.6 ↓	11.8 →	81.0 →	86.1 →	71.6 ↓	88.6	49.5 ↓	7.8 →	84.2 ↗	31.3 ↓
Luxembourg	77.3 ↑	1.0 →	30.7 →	1.0 →	68.6 →	1.0 ↓		41.1	65.4 →	1.0 →	84.9 →	1.9 →
Malaysia	60.0 →	72.3 →	16.9 ↓	25.3 ↓	23.0 ↓	66.8 →	46.5 →	79.8	77.5 →	7.3 ↓	82.2 ↗	27.5 →
Malta	96.2 ↑	50.9 →	64.6 ↓	12.5 →	34.2 ↗	81.4 ↓	27.9 →	92.1	63.3 →	6.5 ↓	39.9 →	22.0 →

Table 3. (cont'd) Domestic and Spillover scores for the sub-pillars, in proportional terms.

	Aerosols		GHG Emissions		Terrestrial Biodiversity		Marine Biodiversity		Nutrient Cycles		Water Cycle	
Country	Domestic	Spillover	Domestic	Spillover	Domestic	Spillover	Domestic	Spillover	Domestic	Spillover	Domestic	Spillover
Mauritius	53.2 ↓	51.3 →	74.2 ↓	16.2 ↓	18.7 ↓	1.0 →	6.8 →	1.0	51.4 →	5.5 ↓	64.6 ↓	3.5 →
Mexico	77.2 ↗	91.3 ↗	28.3 →	41.0 →	21.8 ↓	92.1 ↗	74.9 →	95.9	50.2 ↓	43.0 →	32.5 →	55.8 →
Montenegro	68.8 ↗	45.9 ↗	31.3 ↓	22.7 →	17.9 →	8.0 ↑	17.2 →	1.0	54.0 →	8.3 →	61.1 ↗	26.8 ↗
Namibia	16.7 →	53.7 ↓	75.0 ↑	23.1 →	40.6 →	68.3 →	24.5 →	75.1	46.9 ↓	61.2 ↓	79.6 ↗	50.6 ↗
Netherlands	94.2 ↑	26.4 →	40.2 →	6.2 →	72.7 →	32.4 ↑	59.0 →	76.2	66.2 ↓	3.5 ↓	58.2 →	14.7 →
New Zealand	58.1 →	44.6 →	24.1 →	13.4 →	9.2 →	74.0 →	11.6 ↓	65.4	69.2 →	8.1 ↓	50.3 →	33.1 →
Nigeria	85.3 →	98.9 ↗	46.4 ↑	81.3 ↓	38.0 →	99.5 ↗	29.4 →	99.3	67.2 ↓	97.8 ↓	67.5 ↗	87.5 ↓
North Macedonia	79.4 ↑	81.4 ↗	54.0 ↓	38.0 →	34.2 →	88.5 ↑		96.4	69.2 →	62.5 →	41.4 →	54.5 ↗
Norway	73.8 ↑	26.1 →	5.9 ↓	2.4 →	79.1 →	43.2 →	64.6 →	62.1	56.5 →	4.0 ↓	83.3 ↗	16.9 →
Oman	13.3 →	65.8 →	7.2 →	22.0 →	50.8 →	73.2 →	45.0 ↗	88.0	75.8 ↗	8.5 →	19.6 →	5.3 →
Pakistan	84.7 →	100 ↑	80.1 ↓	100 ↑	61.3 →	99.8 ↑	55.0 →	100	12.9 ↓	98.9 ↗	13.2 →	100 ↑
Panama	75.4 →	81.5 →	75.5 ↓	34.6 →	23.8 ↓	80.7 →	23.5 ↗	65.2	57.1 →	47.2 →	81.7 ↗	49.9 →
Paraguay	73.7 ↓	89.4 ↗	65.5 →	45.7 →	30.7 ↓	88.5 →		96.2	18.5 ↓	28.8 ↓	80.5 ↗	65.4 ↗
Peru	63.1 →	94.1 ↗	35.3 ↓	53.0 →	42.7 →	94.4 ↓	82.0 ↗	99.0	65.7 →	76.7 ↓	52.4 ↓	68.6 →
Philippines	93.2 ↓	97.2 ↗	43.1 ↓	65.0 ↗	35.6 ↓	98.3 ↓	71.7 ↗	98.1	68.2 ↓	90.3 ↓	53.3 →	75.0 ↗
Poland	74.9 →	79.8 →	25.5 ↓	29.5 →	79.6 →	89.0 →	55.4 →	98.0	57.7 →	52.7 →	53.0 ↗	44.8 →
Portugal	90.0 ↗	66.9 →	64.6 ↓	20.2 →	58.2 ↓	51.1 →	26.4 →	47.7	49.5 →	6.7 ↓	32.0 →	24.5 →
Qatar	1.0 →	64.6 →	1.0 →	20.5 →	59.5 →	62.8 →	72.7 →	92.0	60.8 →	7.5 →	20.0 →	3.4 →
Romania	89.2 ↗	85.0 ↗	50.0 ↓	37.1 →	68.0 →	91.8 →	96.8 →	98.4	75.6 →	69.3 →	61.9 ↓	46.8 →
Russian Federation	48.6 →	77.1 ↓	10.9 ↓	35.5 →	63.3 →	89.2 ↑	58.1 →	95.3	61.6 →	47.1 ↗	61.4 ↗	29.8 →

Table 3. (cont'd) Domestic and Spillover scores for the sub-pillars, in proportional terms.

	Aerosols		GHG Emissions		Terrestrial Biodiversity		Marine Biodiversity		Nutrient Cycles		Water Cycle	
Country	Domestic	Spillover	Domestic	Spillover	Domestic	Spillover	Domestic	Spillover	Domestic	Spillover	Domestic	Spillover
Saudi Arabia	2.3 ↗	65.7 →	20.0 →	19.5 →	52.6 →	61.4 →	60.9 →	52.8	79.0 ↑	7.5 →	2.9 →	5.2 →
Serbia	17.5 →	72.1 ↗	35.9 ↓	36.9 →	52.5 →	13.6 ↑		27.8	72.2 ↗	58.9 →	55.3 →	38.5 ↗
Singapore	44.6 →	1.0 →	59.7 ↑	1.0 →	25.1 →	1.0 →	35.0 →	1.0	26.1 →	1.0 →	59.6 ↗	7.8 →
Slovak Republic	90.1 ↑	52.2 →	35.5 →	11.8 →	75.8 →	78.9 →		89.0	77.5 ↓	7.3 ↓	76.0 ↗	36.1 →
Slovenia	84.4 ↗	59.4 →	40.1 →	15.9 →	40.8 →	51.9 ↑	68.0 ↓	93.2	66.3 →	7.2 →	75.7 ↗	30.7 →
South Africa	18.0 ↓	88.8 ↗	17.9 →	47.0 →	29.0 →	86.3 ↑	64.6 →	92.8	73.9 →	71.8 →	33.2 →	58.6 ↗
Spain	90.2 ↑	60.8 ↗	38.4 →	17.2 →	52.7 ↓	57.7 →	60.0 →	42.3	47.0 ↓	7.8 ↓	9.3 →	27.5 →
Sri Lanka	68.6 ↓	94.2 ↗	100 ↓	59.9 ↓	29.1 →	98.6 ↑	79.8 ↗	91.1	63.3 →	88.1 →	36.3 →	67.0 ↗
Sweden	90.4 ↑	47.5 →	71.5 →	7.7 →	79.7 →	74.2 →	64.7 →	92.6	75.8 →	6.8 ↓	75.3 ↗	25.8 →
Switzerland	97.9 ↑	1.0 →	79.0 ↗	3.1 →	66.7 →	33.6 →		51.3	73.1 →	1.0 ↓	76.4 ↗	17.1 →
Thailand	64.0 ↓	85.4 →	50.1 →	36.7 ↓	50.2 →	75.2 →	59.0 ↓	95.1	45.2 →	66.1 ↓	40.5 →	56.5 →
Trinidad & Tobago	44.9 →	65.7 ↓	1.0 →	28.5 ↓	30.6 ↓	83.8 ↑	41.2 ↓	91.1	22.2 →	8.9 ↓	61.9 ↗	38.5 →
Turkey	68.1 ↗	85.6 ↗	49.1 ↓	38.8 →	28.2 →	90.7 ↑	26.7 →	98.9	54.8 →	67.7 →	25.0 →	30.9 ↗
Turkmenistan	12.8 ↓	76.0 →	21.9 ↓	27.4 ↓	48.4 →	93.3 →		99.3	72.1 ↓	83.4 ↓	5.3 →	31.2 →
U.A.E.	2.7 →	1.0 ↓	4.4 →	1.0 ↓	58.5 →	1.0 ↓	65.9 ↓	9.1	43.6 ↗	1.0 ↓	2.8 →	10.2 ↓
United Kingdom	94.1 ↑	37.1 →	30.9 →	10.1 →	68.0 →	63.7 →	76.4 ↗	80.5	68.2 →	6.9 ↓	66.8 ↗	25.0 →
United States	78.0 ↑	46.0 →	16.5 →	15.1 →	58.5 ↓	58.1 →	72.0 →	58.9	16.5 →	8.0 ↓	28.4 →	34.9 →
Uruguay	62.5 →	78.1 →	65.3 ↓	28.6 ↓	43.7 ↓	77.5 ↑	20.3 ↓	95.6	17.9 ↓	7.3 ↓	62.4 →	50.1 ↗
Venezuela, RB	85.4 ↑	74.0 ↓	62.8 ↑	45.8 ↓	62.8 ↓	90.4 ↓	69.7 ↗	95.8	53.9 →	51.3 ↓	68.2 ↗	55.2 ↓
Vietnam	77.1 ↓	97.0 ↑	43.4 ↓	64.5 →	27.2 →	97.0 ↓	21.8 ↓	99.6	48.0 →	93.9 ↓	45.4 →	83.3 →

4.2 Absolute results

Table 4 lists the 20 countries with the greatest absolute impacts on the Global Commons, generally the relatively large countries, by population or wealth. The five entities with the worst impacts are China, the United States, the EU27, Japan, and India. Eighteen of the 20 top contributors are part of the G20, who bear a special responsibility in safeguarding the Global Commons as its member countries represent two-thirds of the world's population and 85% of global GDP.

Table 4. Bottom 20 countries in the 2021 GCS Index in absolute terms.

Country	Overall		Domestic		Spillover	
Iran	→		33.4	→	58.7	→
Turkey	→		36.1	→	47.8	→
Spain	→		44.0	→	37.6	→
Korea, Rep.	→		49.3	→	32.5	→
Italy	→		48.2	→	31.2	→
France	→		55.5	→	25.6	→
Mexico	→		29.6	→	47.1	→
Saudi Arabia	→		34.4	→	38.5	→
Canada	→		36.7	→	35.1	→
Australia	→		23.0	→	50.6	→
United Kingdom	→		48.7	→	23.0	→
Brazil	→		24.1	→	43.2	→
Indonesia	→		12.1	↓	52.8	→
Germany	→		45.4	→	11.6	→
Russian Federation	→		16.3	→	26.3	→
India	→		4.4	↓	30.6	→
Japan	→		46.2	→	1.3	→
European Union	→		9.1	↓	1.0	→
United States	→		7.8	→	1.0	→
China	↓		4.5	↓	1.0	↓

4.3 Dashboards

To simplify international impacts further, countries can be categorized using our dashboard classifications, as summarized in Table 5. Overall, the GCS Index finds no countries score well in either proportional or absolute terms. Only a handful of countries have no or low levels of negative impacts in the Spillover pillar in proportional terms, and in absolute terms, 15% of our countries show similar impacts in absolute terms. Across all scores, a majority of countries have high negative impacts to the Global Commons or worse.

Table 5. Number of countries within each dashboard category in the 2021 GCS Index.

Dashboard Score	Impacts on the Global Commons	Proportional			Absolute		
		Overall	Domestic	Spillover	Overall	Domestic	Spillover
95–100	None or limited	0	0	3	0	0	10
90–95	Low	0	0	2	0	1	4
80–90	Medium-low	1	0	4	16	5	23
70–80	Medium-high	3	4	12	20	15	23
50–70	High	33	43	26	38	36	21
30–50	Very High	41	38	12	18	34	11
0–30	Extreme	22	15	41	8	9	8

4.4 Trajectories

To show whether countries are on- or off-track, we project historical impacts into the future for all indicators with available data and assess which countries will succeed at meeting interim sustainability thresholds by 2030 and more ambitious thresholds by 2050. As one example, the 2050 sustainability thresholds for GHG emissions was set to 2 tonnes CO_2-eq. by 2050 (UNEP, 2020), with an interim threshold of 4.3 2 tonnes CO_2-eq. by 2030. Table 6 shows that the pace of progress is currently too slow, which echoes the findings presented in other major international studies (Boehm et al., 2021).

Table 6. Number of countries with each trajectory in the 2021 GCS Index.

Arrow	Meaning	Proportional			Absolute		
		Overall	Domestic	Spillover	Overall	Domestic	Spillover
↑	Projected to meet 2050 Threshold	0	0	2	0	0	4
↗	Projected to meet only 2030 Threshold	5	6	12	14	9	23
→	Insufficient progress toward thresholds	94	90	80	82	80	65
↓	Trajectory headed in wrong direction	1	4	6	4	11	8

4.5 Regional impacts

Comparing scores on the GCS Index also helps to distinguish how impacts vary by region. Six aggregate groups of countries illustrate the different burdens globally: OECD, Eastern Europe & Central Asia, Middle East & North Africa, East & South Asia, Latin America & the Caribbean, and Sub-Saharan Africa. Figure 4 shows population-weighted averages for these six regions.

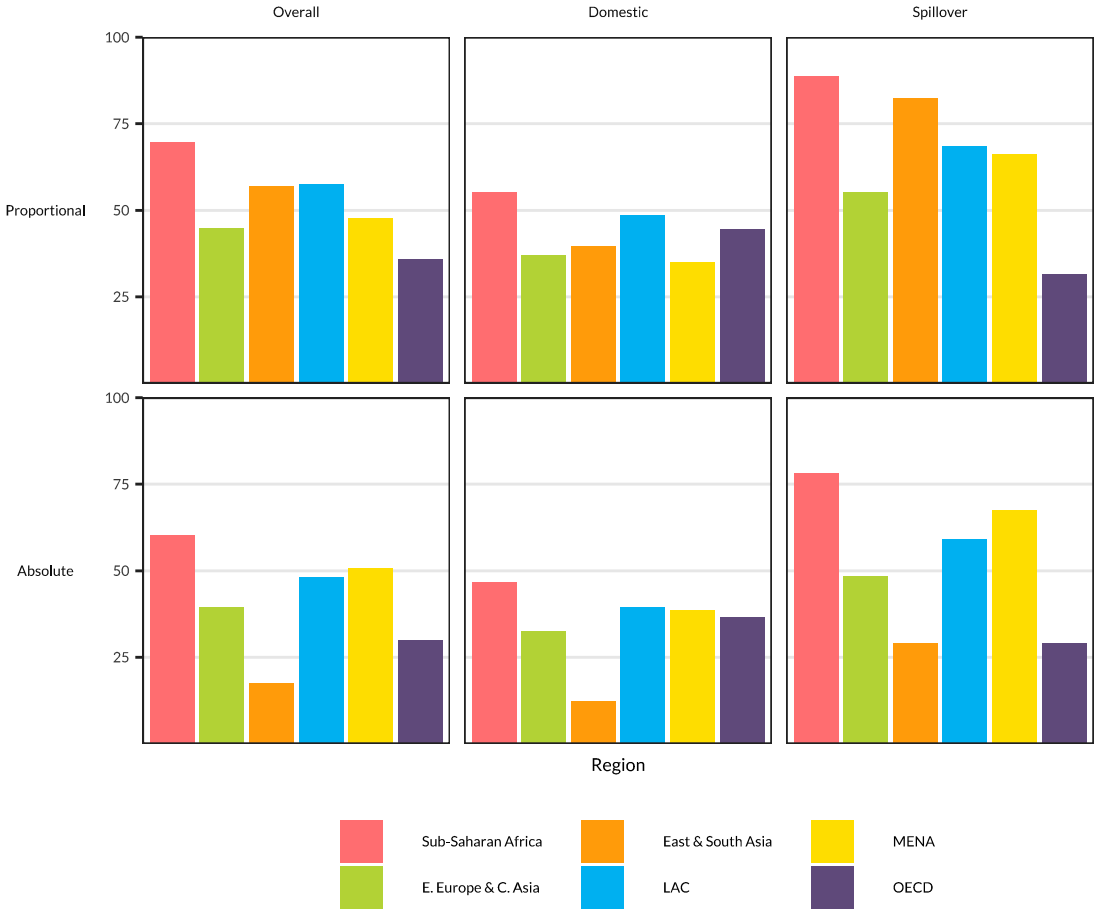


Figure 4. Regional scores (population-weighted averages).

Note: *MENA* = Middle East & North Africa, *LAC* = Latin America & Caribbean.

Among the regions, the OECD stands out for its lower spillover scores – and higher negative impacts on the Global Commons. In proportional terms, no other region scores lower, and in absolute terms, only countries in East & South Asia have greater negative spillover impacts. That latter region, dominated by China and India, has the greatest negative absolute impacts on the Global Commons, and the higher scores in proportional terms should be interpreted in light of many indicators being standardized by population. Sub-Saharan Africa generates fewer negative impacts to the Global Commons, partly due to lower levels of production and consumption and other regions.

4.6 Explaining spillover impacts

There is, overall, a strong correlation between trade intensity and negative international spillovers (see Figure 5). Yet, some countries with relatively high merchandise imports manage to perform better than others and generate fewer negative spillovers. This suggests that demand and supply side policies may help reduce environmental impacts embodied in trade. A detailed understanding of the specific supply chains responsible for such spillover effects can help curb these negative impacts on the Global Commons and help strengthen the governance and alignment of specific sectors and industries to the objectives of the SDGs and Paris Climate Agreement. This year's GCS Index includes specific country feature for Japan and the EU27.

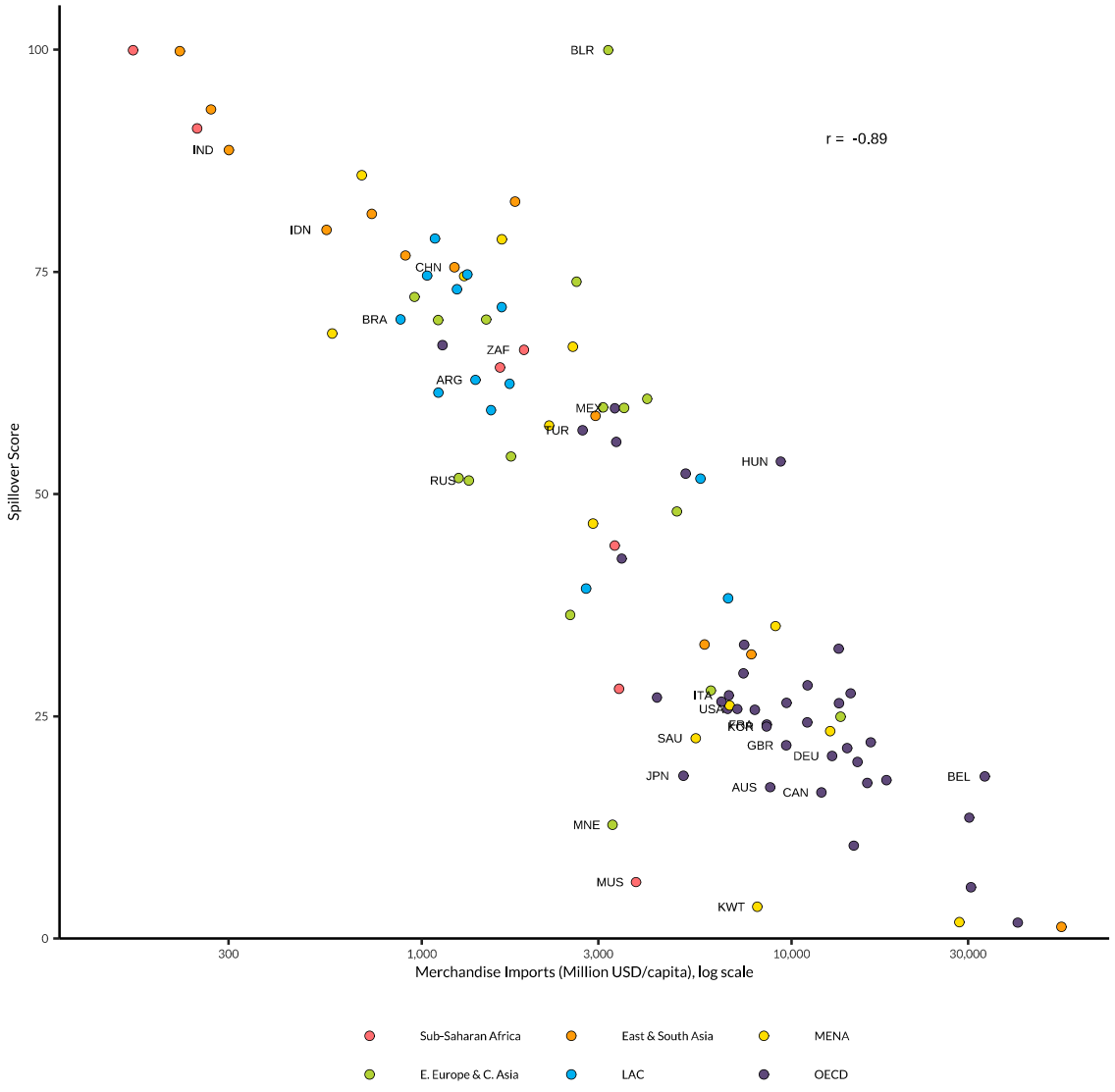


Figure 5. Relationship between Spillover score, in proportional terms, and imports.

Source: Merchandise imports and population from the World Bank (2021)
Note: G20 countries labeled with three-letter country codes. *MENA* = Middle East & North Africa, *LAC* = Latin America & Caribbean.

5. Key findings

This year's GCS Index generates five key findings:

1. **Major transformations are urgently needed in all countries to address negative impacts on the Global Commons generated by unsustainable production and consumption.** No country obtains a perfect score, in proportional or absolute terms, in this year's GCS Index. Based on the extrapolation of annual growth rates over the past five years, the pace of progress is too slow, and no country is on track to achieve all the GCS Index threshold values by 2030 and 2050. In general, lower-income countries tend to score better than higher-income countries on the GCS Index in part due to lower levels of production and consumption. In proportional terms, Bangladesh, Ethiopia, Guatemala, and Sri Lanka are the only countries which rank in the top 20 countries worldwide on both the domestic and spillover pillars. Beyond rhetoric and pledges, it is urgent to act now to mobilize the international policy response and financing needed to protect the Global Commons.

2. **Rich countries generate the largest share of the international spillovers that need to be addressed.** Trade is an important source of income and prosperity in many countries, yet unsustainable supply chains also drive environmental degradation such as deforestation, rising GHG emissions, and other adverse effects. Prominent examples are deforestation and biodiversity loss, which are driven by trade in timber, palm oil, coffee, rubber, soy, and other commodities. Building on established methods, including extended Multi-Regional Input-Output tables, the GCS Index highlights the negative impacts generated by high-income countries in terms of embodied imports of GHG, land degradation, water-scarcity, air pollution, and other impacts on the Global Commons (see Figure 6). On average, domestic GHG emissions in high-income countries amount to 13.7 tonnes per capita CO_2-eq and embodied imports of GHG amount to about 7 tonnes per capita. The GCS Index country profiles and analyses aim to support international efforts to accelerate the alignment of supply chains with the SDGs and the objectives of the Paris Climate Change Agreement.

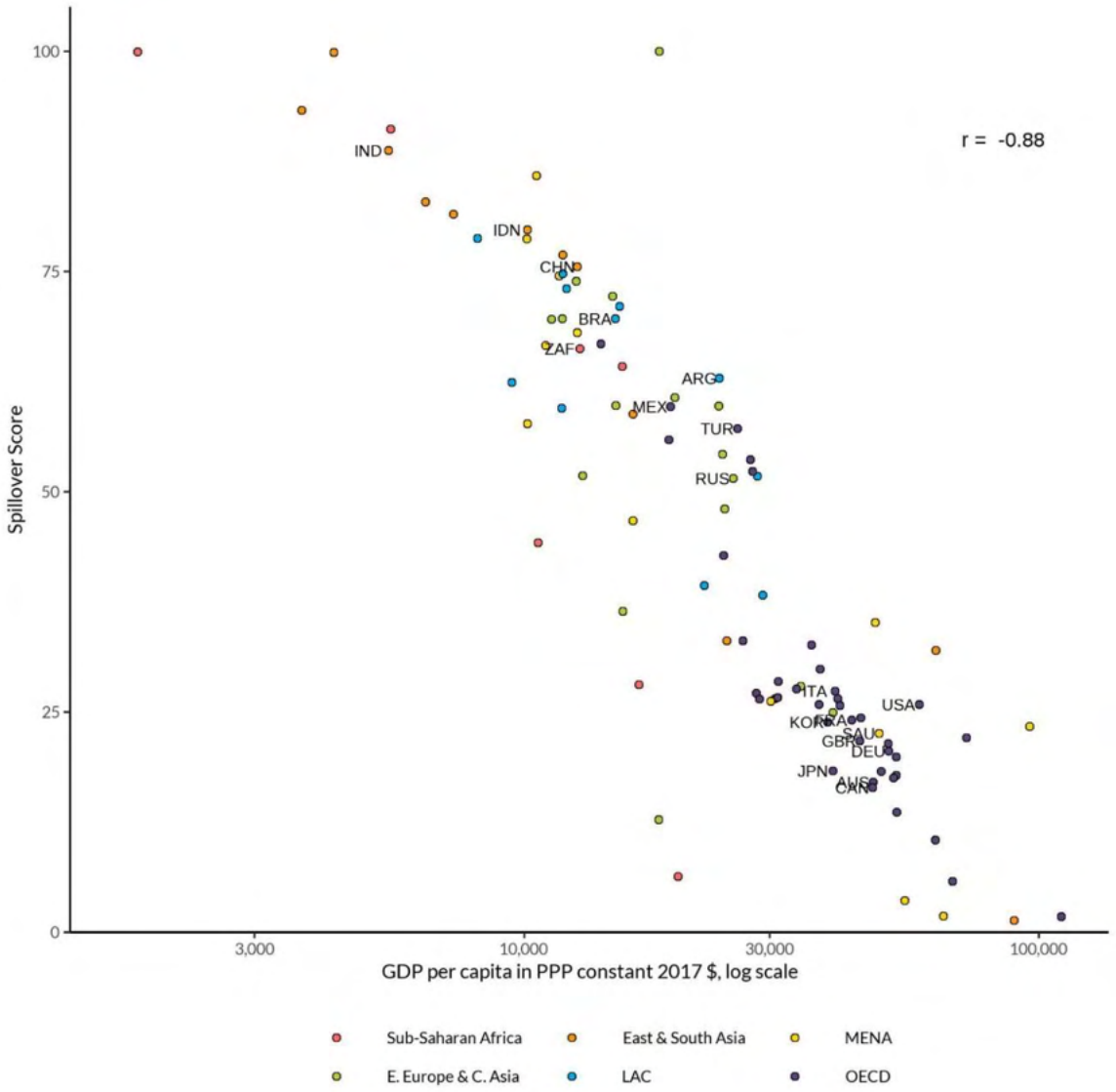


Figure 6. Comparison of Spillover scores, in proportional terms, to GDP per capita.

Source: GDP and population data from the World Bank.
Note: G20 countries labeled with three-letter country codes. *MENA* = Middle East & North Africa, *LAC* = Latin America & Caribbean.

3. **Ambitious actions to protect and restore the Global Commons domestically and internationally must go hand-in-hand with efforts to improve living standards everywhere.** The GCS Index focuses on measuring countries' impacts on the Global Commons and calls for transformation of the energy, production, and consumption systems consistent with the requirements for a sustainable global economy. Such transformations can only be achieved if they also support improved living standards, including for the most vulnerable groups, in developed and developing countries alike. Our results show that, over the last decade, the EU27 managed to "decouple" economic progress (measured by GDP growth) from increased CO_2 emissions for most years (see Figure 7). Yet the pace of the decline in CO_2 emissions must accelerate to achieve net-Zero by 2050, and further efforts are needed to decouple socio-economic progress from negative impacts on the Global Commons embodied into EU's trade. To avoid accusations of protectionism," border adjustment mechanisms and other measures to strengthen policy coherence must be accompanied by long-term financing and technical coöperation to support environmental, economic, and social progress in developing countries and promote a "just transition" domestically and internationally. The new Just Transition for South Africa partnership announced at COP26, whereby the UK, United States, France, Germany, and the EU promised $8.5 billion to help South Africa shift from its current dependence on fossil fuels to a clean and renewable electricity system, might lead the way for new forms of coöperation between developed and developing countries.

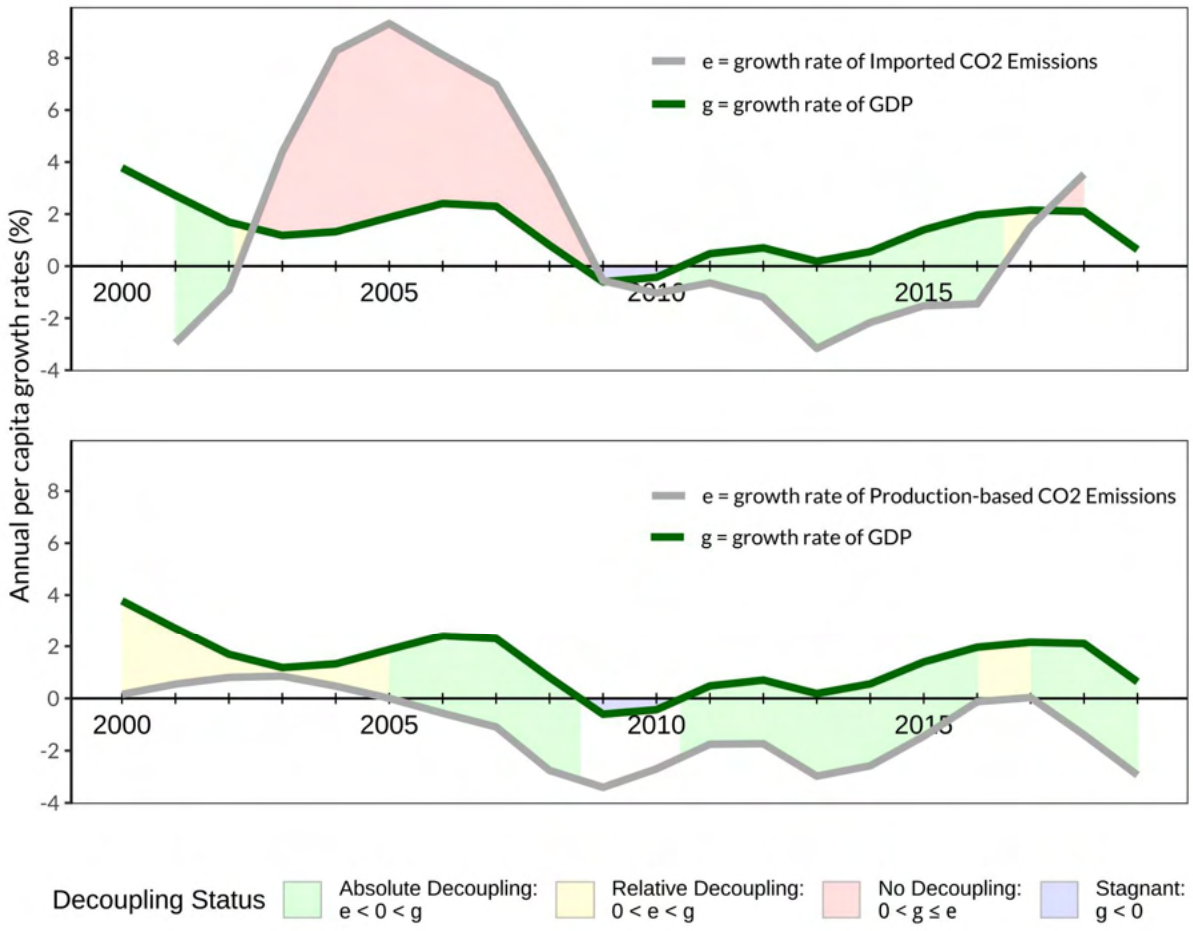


Figure 7. Decoupling between growth in socio-economic progress (GDP) and negative environmental impacts (imported and domestic CO_2 emissions), EU27, 2000–2019.

Note: Three-years moving averages. Domestic emissions are equivalent to production-based.
Source: Authors' calculations, based on Industrial-Ecology (IE) Lab and World Bank.

4. **G20 countries bear a special responsibility in reforming the governance of the Global Commons.** G20 countries include about 63% of the world's population and 87% of gross world output. In absolute terms, G20 countries generate most of the negative impacts on the Global Commons both domestically and internationally (see Table 4). These countries bear a special responsibility in addressing negative impacts on the Global Commons nationally through ambitious policies and investments. Internationally, they should also strengthen the governance of the Global Commons, including through financial mechanisms and technical coöperation to support the sustainability transition in poorer countries and adaptation in countries that are particularly vulnerable to the consequences of climate change.

5. **Persistent data gaps and limitations should be addressed for more real-time and forward-looking monitoring of countries' impacts on the Global Commons.** We find four priorities for the global research agenda on monitoring environmental impacts: (1) more comprehensive and timely data to assess impacts embodied into international supply chains; (2) estimates of physical flows of pollutants in air and water (not covered in this year's GCS Index); (3) tools for tracking key policies, *e.g.*, investments, subsidies, policies, strategies, laws, *etc.*, and their projected impacts to gauge countries' ambition and efforts to address domestic and spillover impacts on the Global Commons; and (4) more granular assessments looking at impacts embodied into specific supply chains (*e.g.*, food, textile, construction, *etc.*) and commodities (*e.g.*, coffee, soy, cocoa, cobalt, *etc.*) to inform the governance and alignment of key sectors, industries, and businesses with the SDGs and Paris Climate Change Agreement. These are important research priorities that we aim to help address as part of the GCS Index in the coming years.

6. Country features

Beyond a broad index that synthesizes data on a large number of countries, this report also provides a deeper exploration of the results for Japan and the European Union. These country features illustrate how trade data can trace spillover impacts along supply chains to reveal negative impacts on the Global Commons – and suggest opportunities for making trade relationships greener and more resilient. We focus on Japan and the EU27 given their importance in global trade and the large negative impacts each makes to the Global Commons.

In the features to follow, we provide data and analyses that situate these countries' impacts within a global context. We begin by analyzing how these countries compare with other world regions, in both absolute and proportional terms, distinguishing them as highly influential actors on the Global Commons. We also provide a more detailed analysis for the countries using five of the 33 indicators: black carbon emissions; greenhouse gas emissions; land-use related biodiversity loss of crops, pastures, and forestry; nitrogen surplus; and water stress of crops.

Understanding why countries score as they do on international spillovers requires an exploration of the trade relationships – by partners and products – that drive the importation of embodied impacts. Multi-Region Input-Output (MRIO) tables, which track flows between countries along supply chains, allow for the calculation of the values of spillover indicators – and the identification of specific trade relationships behind the numbers. We present the flow of impacts into Japan and the EU27 according to the countries wherein these impacts occur, the foreign industries generating the impacts at the beginning of the supply chain, and the final products purchased domestically by households, governments, and investments in fixed capital assets.

Identifying trade relationships that drive international spillovers is an essential first step in launching multilateral approaches to governing the Global Commons. Data on embodied impacts provide critical guidance on how to adopt ambitious policies, targets, and roadmaps and on how to engage stakeholders from the private sector, non-governmental organizations, and governments at the international, national, and sub-national levels.

Recent policy developments and measures adopted in both Japan and the EU27 (see Boxes 1 & 2) may help accelerate the transformation toward more sustainable consumption and production. OECD and G20 countries can play a pivotal role in promoting the adoption of regulations that support more sustainable supply chains and business conduct – but also in supporting the transition toward more sustainable production and energy systems in low-income and middle-income countries through financial support and knowledge sharing.

6.1 Japan

6.1.1 Index results

As with other OECD and G20 countries, Japan generates significant negative impacts on the Global Commons. As the 11th most populated country in the world and the 3rd largest economy, Japan is highly integrated into global value chains. Overall, Japan ranks 75th out of the 100 countries covered in this year's GCS Index in proportional terms – and 97th in absolute terms, just above the EU27, the United States, and China. Japan's impacts are worse than its peers, whether among East & South Asian countries or OECD member countries (see Figure 8). Low scores in Greenhouse Gas Emissions and Marine Biodiversity Loss explain much of the overall results.

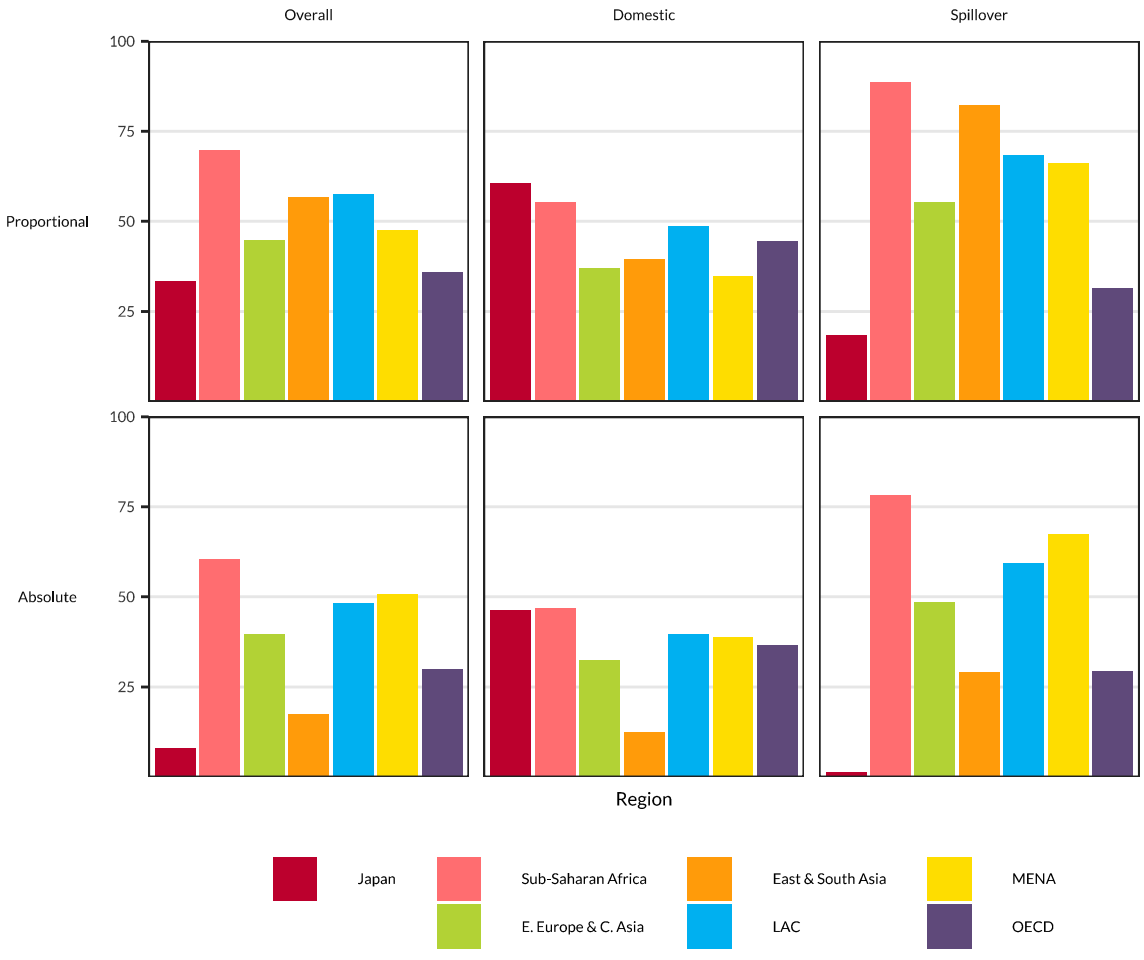


Figure 8. Scores for Japan and world regions (population-weighted averages).

Note: *MENA* = Middle East & North Africa, *LAC* = Latin America & Caribbean

The trajectories for all pillars and sub-pillars forecast insufficient progress toward thresholds, except domestically for Aerosols and Water Cycle (see Table 7). Terrestrial Biodiversity Loss impacts, by contrast, are actually projected to worsen by 2050.

Table 7. Proportional trajectories for pillar and sub-pillar scores for Japan.

	Domestic	Spillover
Overall	→	→
Aerosols	↗	→
GHG Emissions	→	→
Terrestrial Biodiversity	↓	→
Marine Biodiversity	→	–
Nutrient Cycles	→	→
Water Cycle	↗	→

Japan scores particularly poorly on the Spillover pillar and on metrics that track countries' impacts embodied in traded goods and services (see Figure 9). With a score of 18.3, Japan ranks 86th on this pillar, in proportional terms. Domestically, GHG emissions in Japan were about 11 tonnes of CO_2-eq per capita in 2015, but elsewhere in the world, an additional 7 tonnes of CO_2-eq were emitted elsewhere to satisfy Japan's consumption of goods and services in 2015 – approximately 49% of its total CO_2 footprint. Japan also generates large spillover impacts in terms of marine biodiversity threats (measured by the number of marine species threatened embodied in goods and commodities to satisfy Japan's consumption), nitrogen surplus (a proxy for agricultural pollution), excess nitrogen from crop production, and phosphorus fertilizer applied to erodible soils. Based on the last five years of available data, Japan has made weak or no progress in reducing climate and biodiversity spillover impacts.

With respect to the five indicators we use to explore impacts at a more granular level, Japan scores relatively poorly (see Table 8). The scores illustrate extreme negative impacts for all indicators in absolute terms and high to extreme negative impacts in proportional terms.

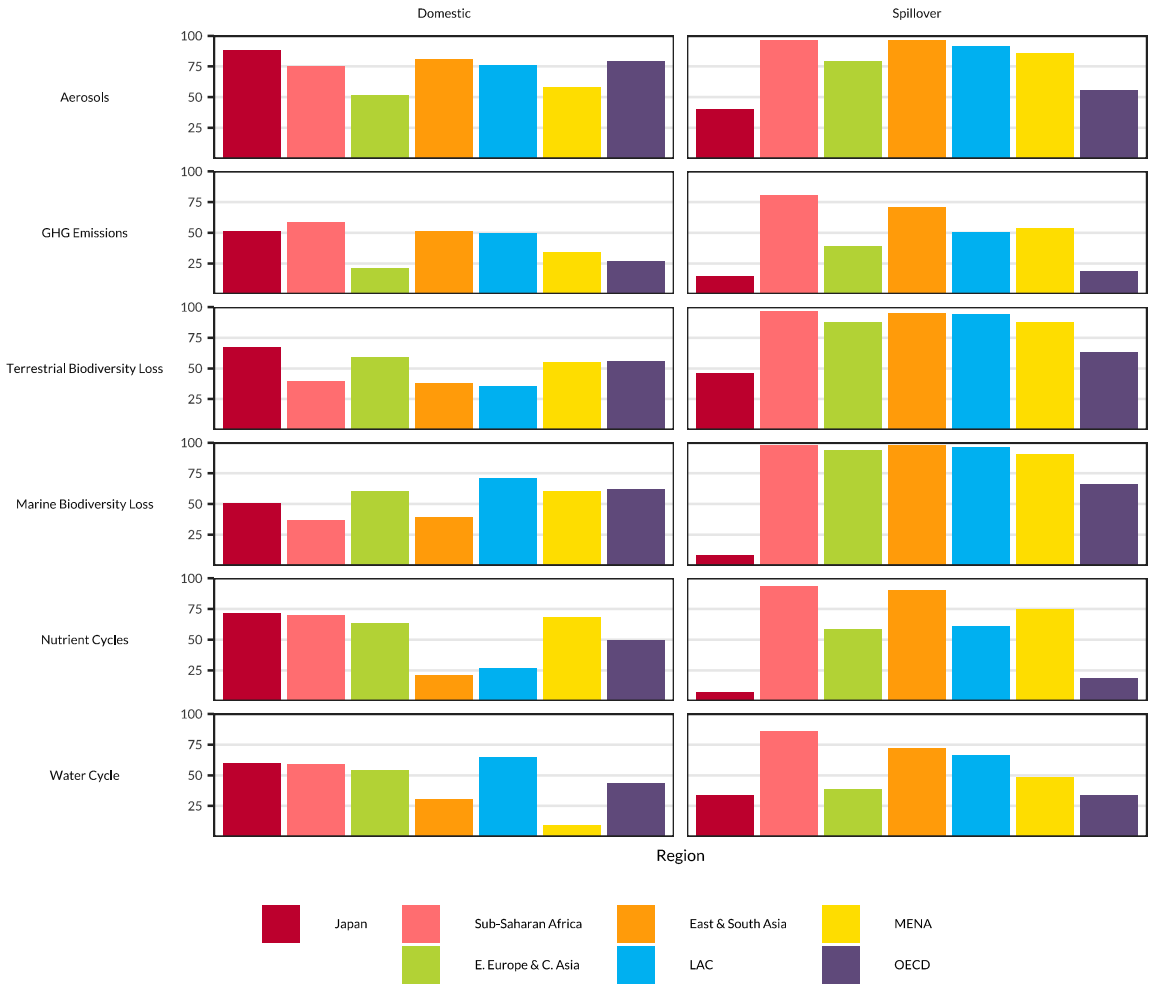


Figure 9. Sub-pillar scores for Japan and world regions (population-weighted averages).

Note: *MENA* = Middle East & North Africa, *LAC* = Latin America & Caribbean.

Table 8. Indicator values for Japan and world regions (population-weighted averages) for five Spillover indicators.

Proportional terms	**Black Carbon** kg/capita	**GHG Emissions** t CO_2-eq./capita	**Land use biodiversity loss** global PDF/capita	**Nitrogen Surplus** kg/capita	**Water Stress of Crops** m^3 H_2O-eq/capita
Japan	0.8	6.8	1.4E-11	12.0	2,372.3
Sub-Saharan Africa	0.1	0.4	1.4E-12	0.6	319.3
E. Europe & C. Asia	0.3	2.3	3.8E-12	3.7	2,564.2
East & South Asia	0.1	0.6	2.3E-12	1.0	402.5
LAC	0.1	1.2	3.5E-12	4.6	638.1
MENA	0.3	1.8	6.9E-12	3.3	3,253.4
OECD	0.7	5.9	1.3E-11	9.4	3,794.2

Absolute terms	**Black Carbon** Gg	**GHG Emissions** Tg CO_2-eq.	**Land use biodiversity loss** global PDF	**Nitrogen Surplus** Gg	**Water Stress of Crops** Bio m^3 H_2O-eq.
Japan	107.9	870.7	1.8E-03	1,526.4	301.6
Sub-Saharan Africa	5.4	35.7	7.7E-05	44.8	26.3
E. Europe & C. Asia	24.1	215.8	3.6E-04	408.2	275.4
East & South Asia	58.7	540.5	2.6E-03	870.9	355.0
LAC	13.9	130.9	2.4E-04	723.4	58.1
MENA	7.8	57.9	2.3E-04	86.5	94.2
OECD	88.6	779.2	1.9E-03	1,150.1	427.9

Note: *PDF* = potentially disappeared fraction of species, *MENA* = Middle East & North Africa, *LAC* = Latin America & Caribbean

6.1.2 Contribution analysis

Figure 10 shows the distribution of spillover impacts for Japan by region of origin. Most of the spillover impacts for GHG emissions, black carbon emissions, nitrogen surplus, water stress of crops, and land use biodiversity loss, occur in East & South Asia, with impacts in other OECD countries a distant second.

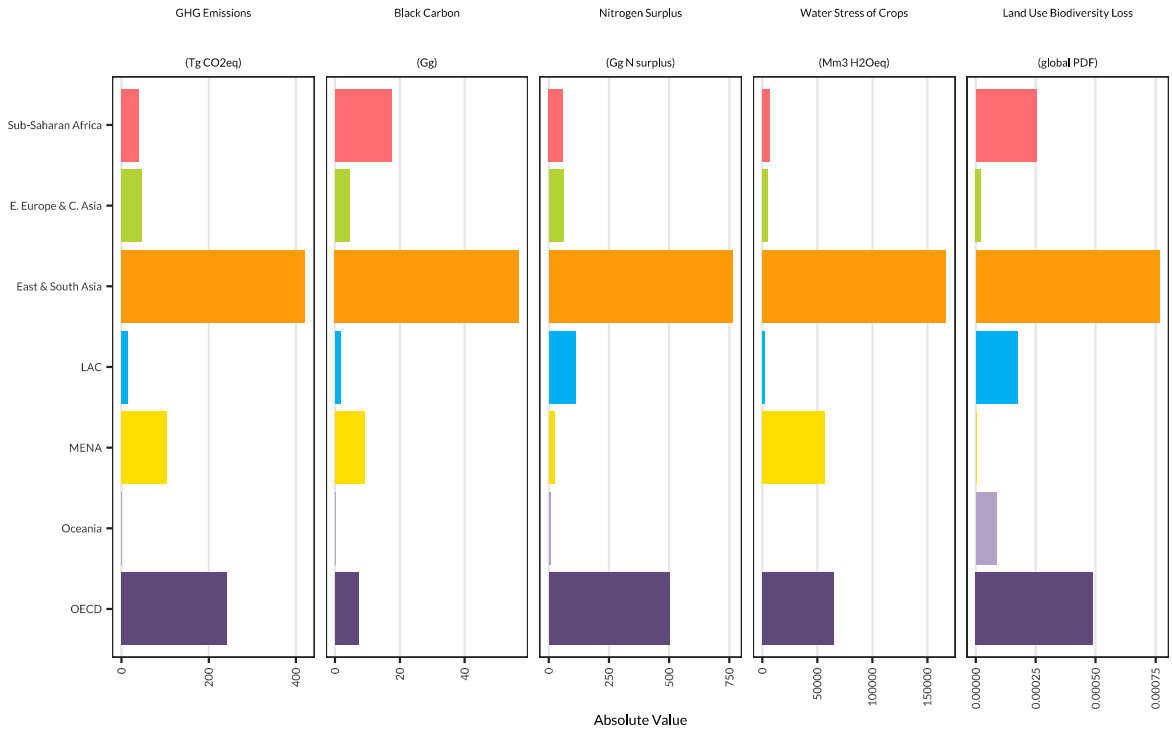


Figure 10. Spillover impacts on world regions from Japan's final demand, in absolute terms.

Note: *MENA* = Middle East & North Africa, *LAC* = Latin America & Caribbean

Geographic origins of spillover impacts can be disaggregated even further by country, as shown in Figure 11. Percentage of Japan's spillover impacts by country where impact occurs.. For three indicators, GHG emissions, nitrogen surplus, and water stress of crops, the dominant source of impacts is China. For land use biodiversity loss, Australia is the primary country in which embodied impacts occur, followed by China, Brazil, and the United States.

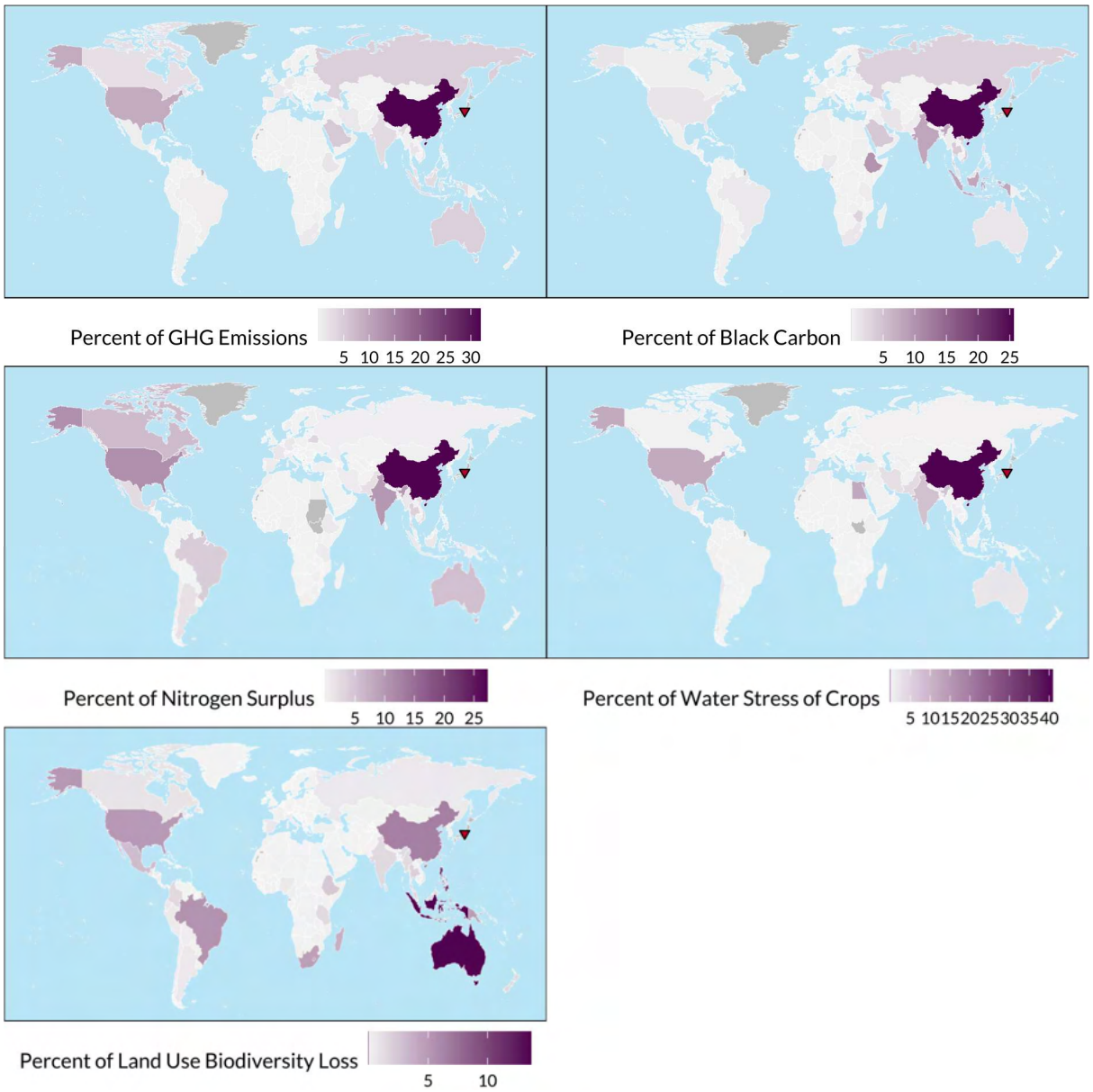


Figure 11. Percentage of Japan's spillover impacts by country where impact occurs.

After identifying trade partners that generate the greater share of environmental impacts, it is then important to understand which industries are responsible. Figure 12 illustrates the top industries in foreign countries that generate negative impacts embodied in final products. The Petroleum, Food & Beverages, Textiles, and Mining & Quarrying sectors in producing countries are responsible for more than half of the GHGs emitted abroad to satisfy Japan's consumption. Embodied black carbon emissions are connected to consumption of final products: Transportation (18%), Agriculture (10%), and Petroleum (10%). The Agricultural sector is largely dominant, approximating 100% of the total impacts generated for nitrogen surplus, water stress of crops, and land use biodiversity loss.

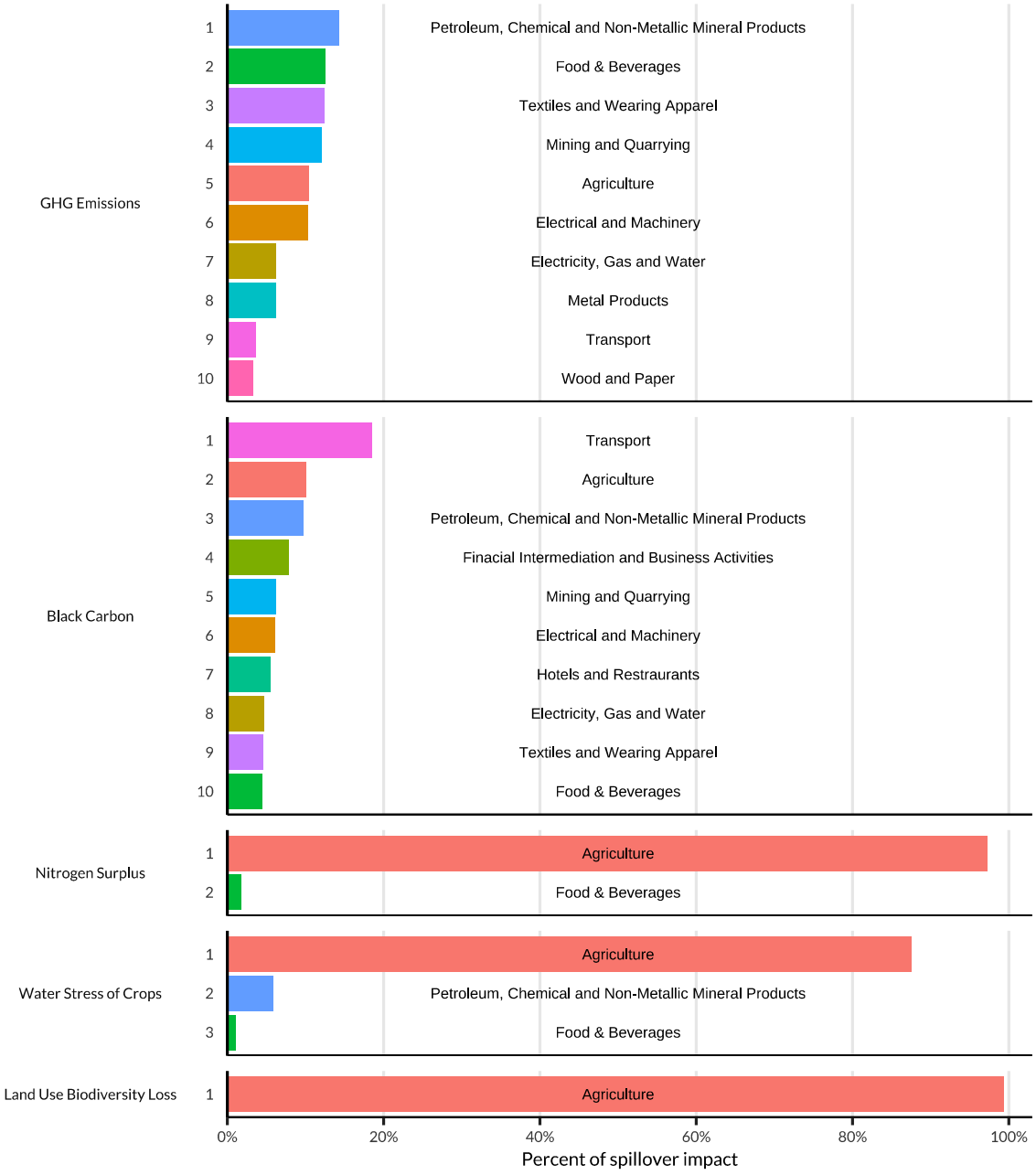


Figure 12. Spillover impacts from Japan's final demand by top source industries in foreign countries.

Supply chains provide information on sectors and industries in Japan responsible for consuming the negative environmental impacts generated abroad. Figure 13 shows the top ten final products consumed that are driving spillover impacts in foreign countries. Two industries stand out: Food & Beverages, especially for nitrogen surplus, water stress, and land use biodiversity loss; and Electrical & Machinery, especially for GHG emissions and black carbon.

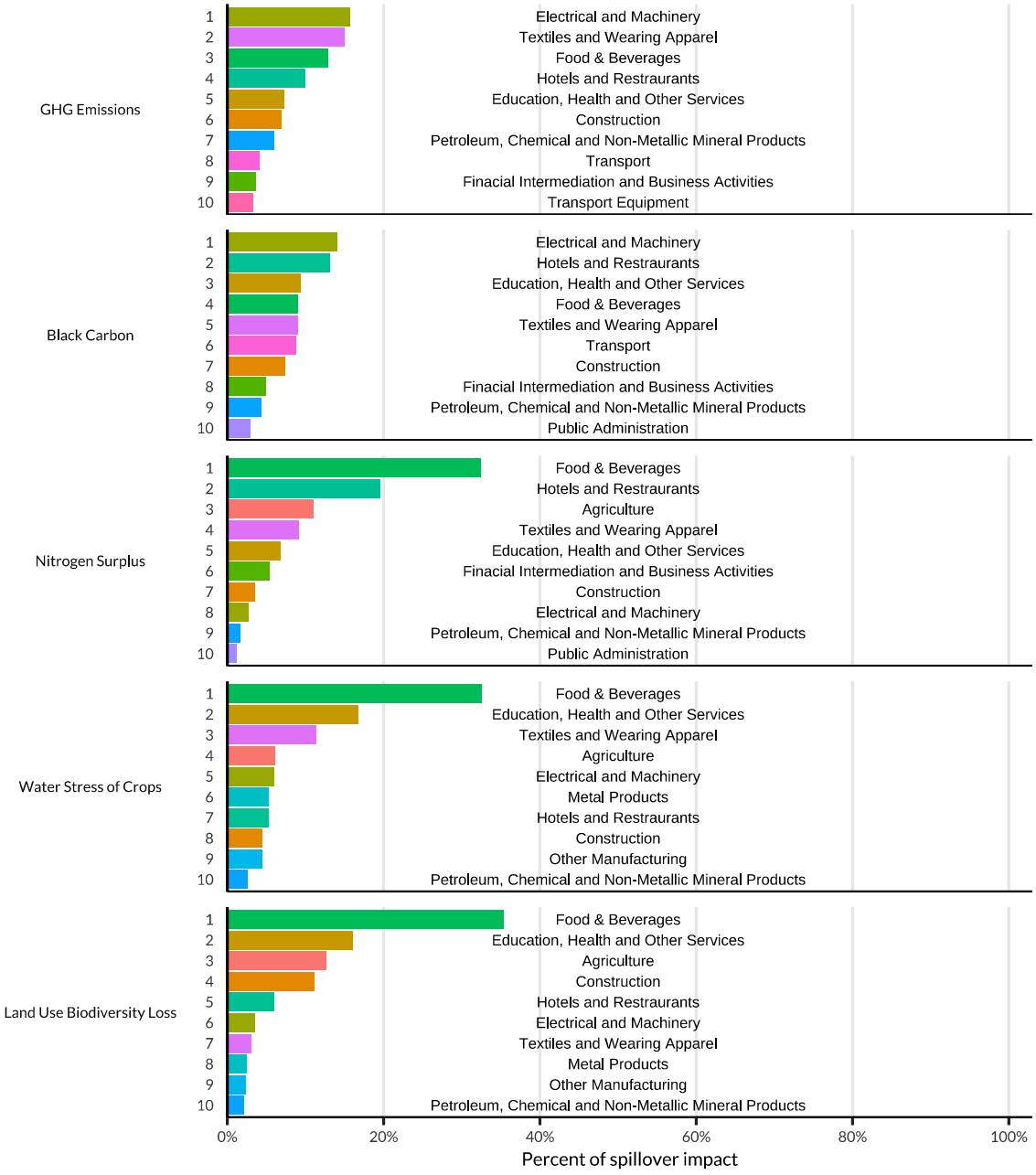


Figure 13. Spillover impacts from Japan's final demand by top ten final products consumed.

Box 1. Recent Policy Developments in Japan

- Japan adopted an amendment setting a goal of net-zero carbon by 2050 in the Act on Promotion of Global Warming Countermeasures (Act No. 54 of 2021), which was enacted in the 204th session of the Diet (National Assembly). This amendment places the goals of the Paris Climate Change Agreement in the Japanese legal framework, including a government declaration to realize carbon neutrality by 2050.
- To align the nation's new Basic Energy Plan with the updated 2030 climate target, the Japanese Ministry of Economy Trade and Industry (METI) has proposed a revised electricity mix target for 2030 of 36–38% renewable electricity (previously 22–24%), 20–22% nuclear (unchanged), 20% gas (previously 2%), and 19% coal (previously 26%) (METI, 2021).
- Other initiatives include the Global Warming Tax, which has been in place since 2016 with a low-cost environmental tax of ¥289 (about US$ 2.60) per tonne of CO_2.
- The Cabinet approved the National Biodiversity Strategy of Japan (2012–2020) in September 2012, following two major events: the adoption of the Strategic Plan for Biodiversity (2011–2020) at COP-10 in Nagoya, which included the Aichi Biodiversity Targets, and the Great East Japan Earthquake in March 2011. Japan has taken further legal action to conserve biodiversity through the adoption of the Natural Parks Law, the Nature Conservation Law, and the Law for the Conservation of Endangered Species of Wild Fauna and Flora.

6.2 European Union

6.2.1 Index results

Considering the size of its economy and its population, the European Union intuitively generates significant negative impacts on the Global Commons. The EU27 represents about 16% of world GDP and 6% of the world population. Although 63% of the Union's trade takes place within the bloc, it is also integrated into larger international supply chains. Overall, the EU27 ranks 85th out of the 100 entities covered in this year's GCS Index in proportional terms – and 98th in absolute terms, just above the United States and China. The Union's impacts on the Global Commons are worse than any other region in the world (see Figure 14). Low scores in Greenhouse Gas Emissions, Nutrient Cycles, and Water Cycle explain much of the overall results.

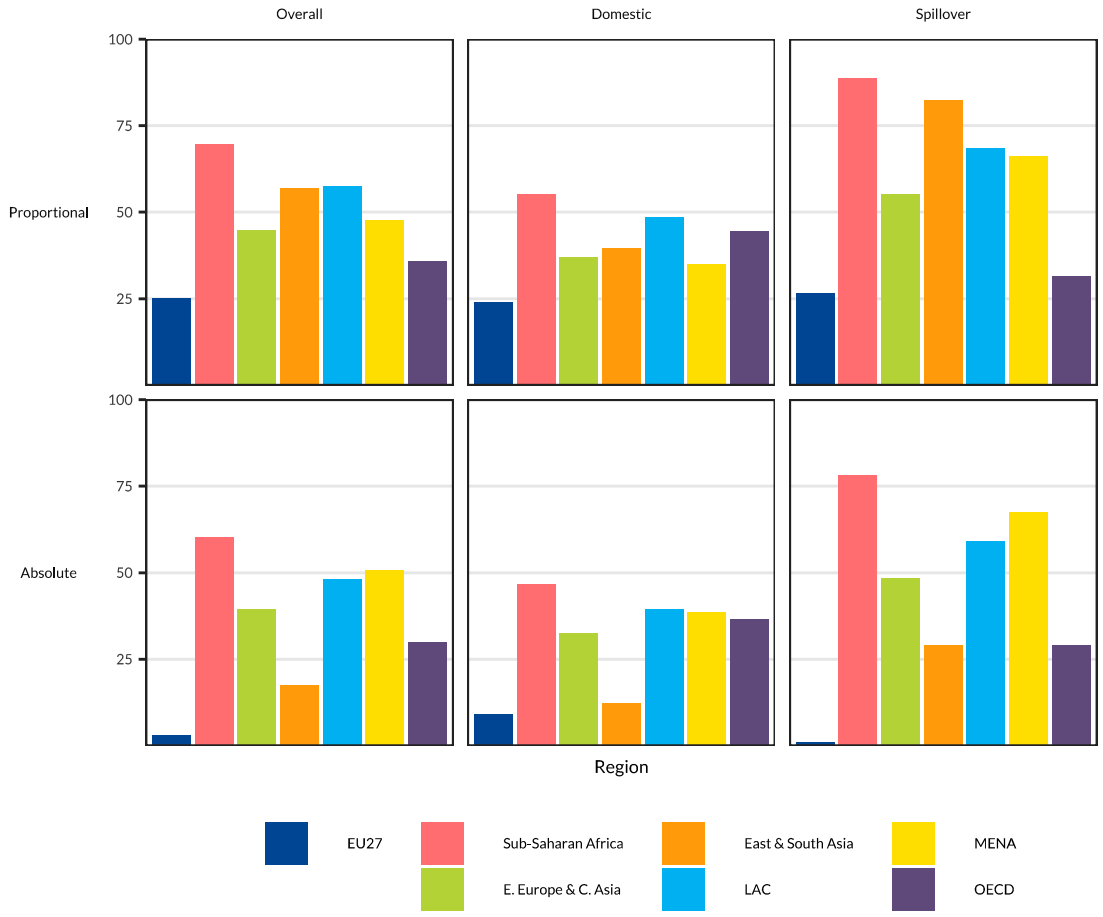


Figure 14. Scores for the EU27 and world regions (population-weighted averages).

Note: *MENA* = Middle East & North Africa, *LAC* = Latin America & Caribbean

The trajectories for both pillars forecast insufficient progress toward thresholds in proportional terms (see Table 9). Only in Aerosols does the EU27 seem to be progressing toward 2030 and 2050 thresholds, yet this is limited to domestic impacts. For Terrestrial Biodiversity Loss, Marine Biodiversity Loss, and Nutrient Cycles, the situation is projected to worsen domestically.

Table 9. Proportional trajectories for pillar and sub-pillar scores for the EU27.

	Domestic	Spillover
Overall	→	→
Aerosols	↑	→
GHG Emissions	→	→
Terrestrial Biodiversity	↓	→
Marine Biodiversity	↓	–
Nutrient Cycles	↓	↓
Water Cycle	→	→

As shown in Figure 15, the EU27 generates extreme negative impacts in both the Domestic and the Spillover pillars. With scores of 23.9 and 26.5, respectively, the EU27 ranks 88th for its domestic impacts and 68th for its spillover impacts, in proportional terms. Domestically, GHG emissions in the European Union were about 9.0 tonnes of CO_2-eq. *per capita* in 2015. Elsewhere in the world, an additional 6.3 tonnes of CO_2-eq. were emitted elsewhere to satisfy European consumption of goods and services in 2015 – approximately 40% of its total CO_2 footprint. The EU27 also generates large domestic and spillover impacts in terms of phosphorus fertilizer (applied to erodible soils) and water stress due to crops. Based on the last five years of available data, the EU27 has made weak or no progress in reducing climate and biodiversity spillover impacts (Table 9).

With respect to the five indicators we use to explore impacts at a more granular level, the EU27 scores relatively poorly (see Table 10). The scores illustrate extreme negative impacts for all indicators in absolute terms and high to extreme negative impacts in proportional terms. The EU27 ranks 99th on the Spillover pillar in absolute terms, just above the United States. For all the indicators, Europe generates higher impacts than any other region, with values far above the OECD average.

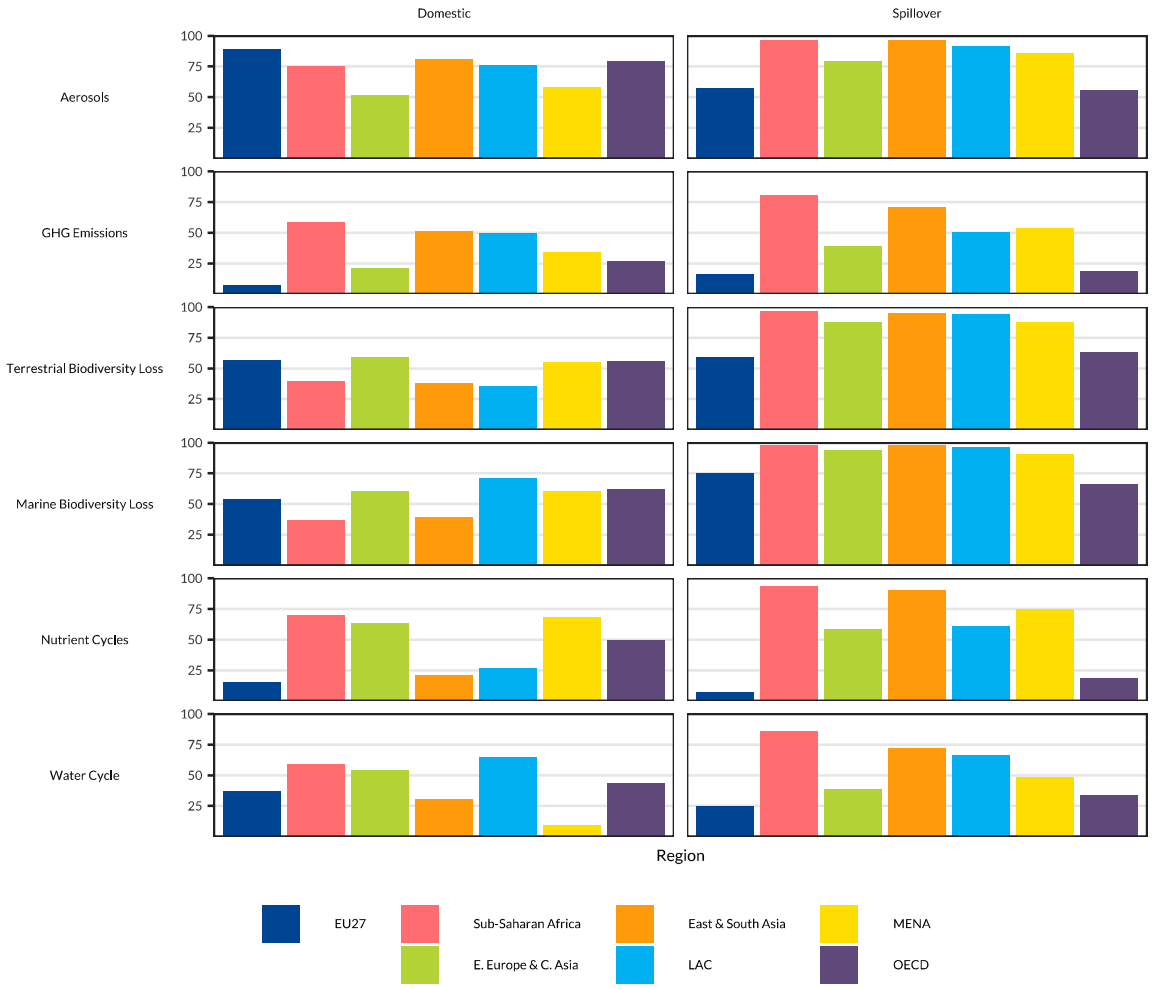


Figure 15. Sub-pillar scores for the EU27 and world regions (population-weighted averages).

Note: *MENA* = Middle East & North Africa, *LAC* = Latin America & Caribbean

Table 10. Indicator values for the EU27 and world regions (population-weighted averages) for five Spillover indicators.

Proportional terms	**Black Carbon** kg/capita	**GHG Emissions** t CO_2-eq./capita	**Land use biodiversity loss** global PDF/capita	**Nitrogen Surplus** kg/capita	**Water Stress of Crops** m^3 H_2O-eq/capita
EU27	0.7	6.3	1.3E-11	11.2	5,402.5
Sub-Saharan Africa	0.1	0.4	1.4E-12	0.6	319.3
E. Europe & C. Asia	0.3	2.3	3.8E-12	3.7	2,564.2
East & South Asia	0.1	0.6	2.3E-12	1.0	402.5
LAC	0.1	1.2	3.5E-12	4.6	638.1
MENA	0.3	1.8	6.9E-12	3.3	3,253.4
OECD	0.7	5.9	1.3E-11	9.4	3,794.2

Absolute terms	**Black Carbon** Gg	**GHG Emissions** Tg CO_2-eq.	**Land use biodiversity loss** global PDF	**Nitrogen Surplus** Gg	**Water Stress of Crops** Bio m^3 H_2O-eq.
EU27	301.6	2801.2	5.6E-03	4,994.6	2,401.9
Sub-Saharan Africa	5.4	35.7	7.7E-05	44.8	26.3
E. Europe & C. Asia	24.1	215.8	3.6E-04	408.2	275.4
East & South Asia	58.7	540.5	2.6E-03	870.9	355.0
LAC	13.9	130.9	2.4E-04	723.4	58.1
MENA	7.8	57.9	2.3E-04	86.5	94.2
OECD	88.6	779.2	1.9E-03	1,150.1	427.9

Note: *PDF* = potentially disappeared fraction of species, *MENA* = Middle East & North Africa, *LAC* = Latin America & Caribbean

6.2.2 Contribution analysis

Figure 16 shows the distribution of spillover impacts for the EU27 by region of origin. Most of the spillover impacts for GHG emissions, black carbon emissions, nitrogen surplus, and land use biodiversity loss occur in East & South Asia. For water stress of crops, most impacts occur in the Middle East & North Africa. It is interesting to notice that three regions are highly impacted by land biodiversity loss because of European consumption: Sub-Saharan Africa, East & South Asia, and Latin America & the Caribbean.

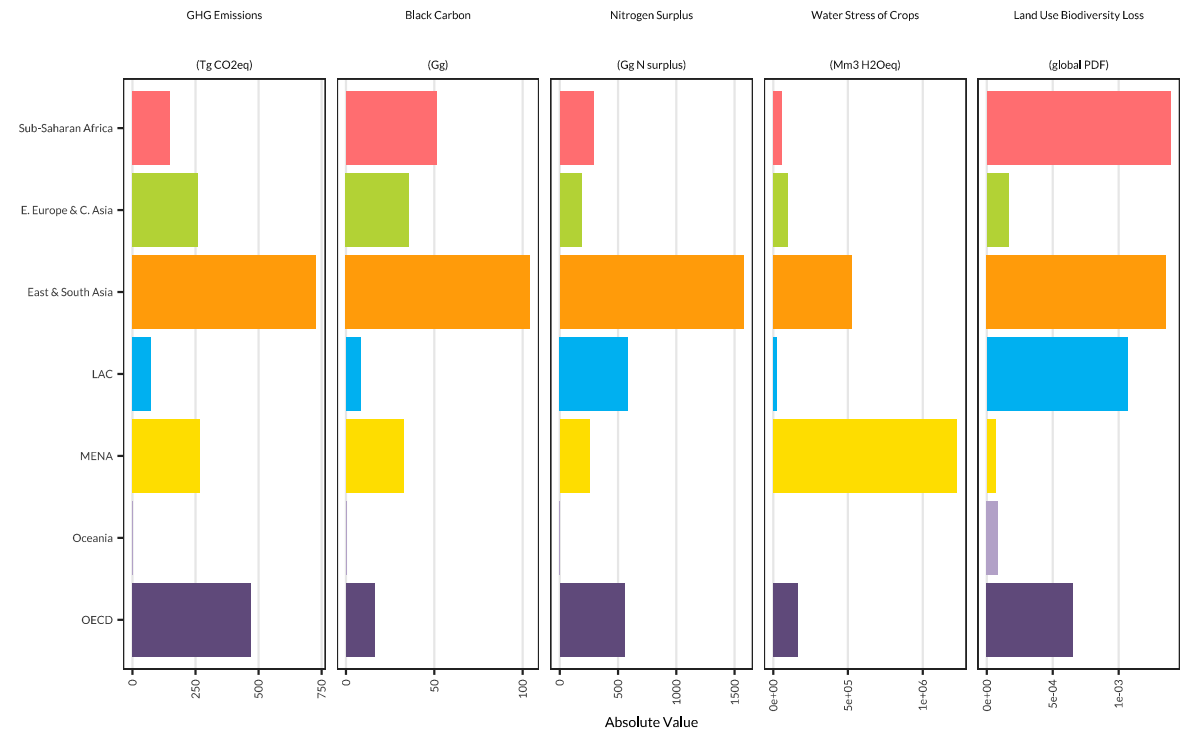


Figure 16. Spillover impacts on world regions from the EU27's final demand, in absolute terms.

Note: *MENA* = Middle East & North Africa, *LAC* = Latin America & Caribbean

Geographic origins of spillover impacts can be disaggregated even further by country, as shown in Figure 17. Percentage of the EU27's spillover impacts by country where impact occurs.. For GHG emissions, the dominant sources of impacts are China, the Russian Federation, and the United States, which are the main trade partners for European imports. For nitrogen surplus, India, China, and Brazil are the primary countries in which embodied impacts occur. The spillover metric for water stress of crops leads us to Egypt. Finally, imported land-use related biodiversity loss from crops, pastures, and forestry mainly takes place in Madagascar, Indonesia, and Brazil.

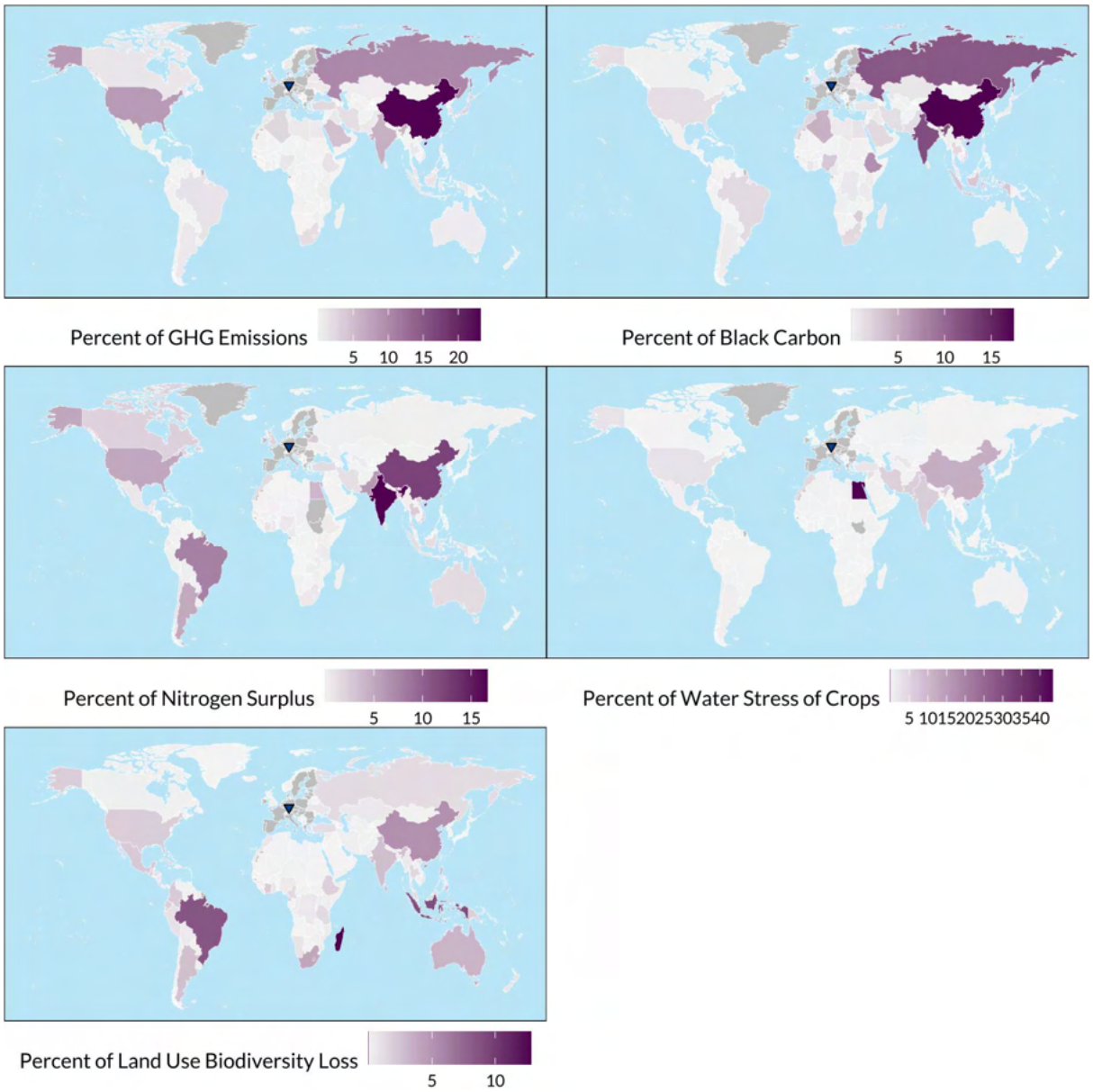


Figure 17. Percentage of the EU27's spillover impacts by country where impact occurs.

After identifying trade partners that generate the greater share of environmental impacts, it is then important to understand which industries are responsible. Figure 18 illustrates the top industries in foreign countries that generate negative impacts, and Figure 19 shows the top ten final products consumed that are driving spillover impacts in foreign countries. The Petroleum, Mining & Quarrying, Electrical & Machinery, and Metal Products sectors in producing countries are responsible for about half of the GHGs emitted abroad to satisfy European consumption. Embodied black carbon emissions are connected to the consumption of final products: Transportation (20%), Petroleum (10%), and Agriculture (10%). The Agriculture sector dominates for the remaining three indicators.

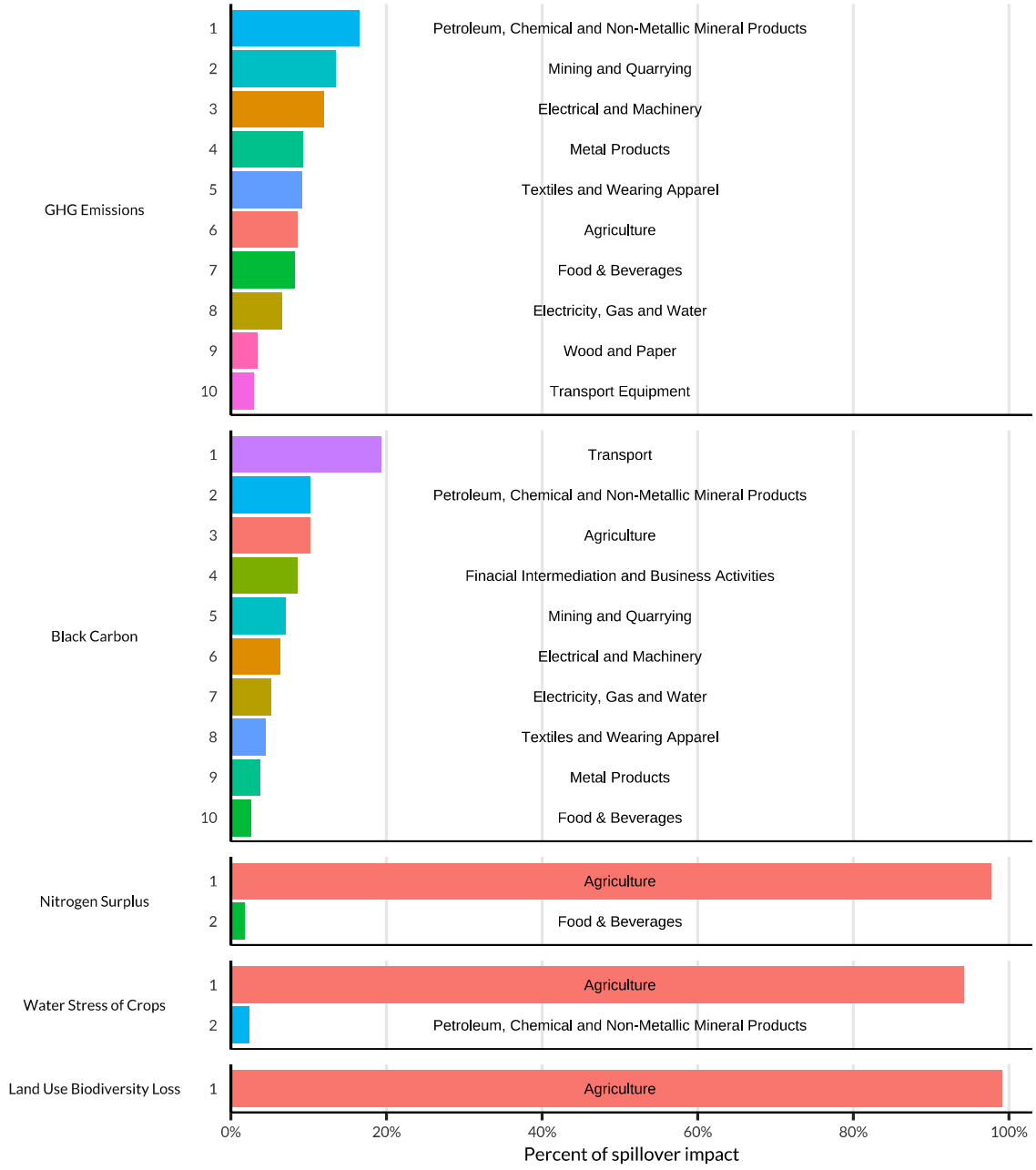


Figure 18. Spillover impacts from the EU27's final demand by top source industries in foreign countries.

Supply chains provide information on sectors and industries in the EU27 responsible for consuming the negative environmental impacts generated abroad. On the one hand, for GHG emissions and black carbon, around one-third of the impact for each metric is generated through the final demand of products from Electrical & Machinery, Textiles, and Food & Beverages. For nitrogen surplus, water stress of crops, and land use biodiversity loss, Food & Beverages and Agriculture sectors stand out. The EU27 is the third-largest importer of food products in the world, which explains the predominance of the food-related sectors in all five indicators.

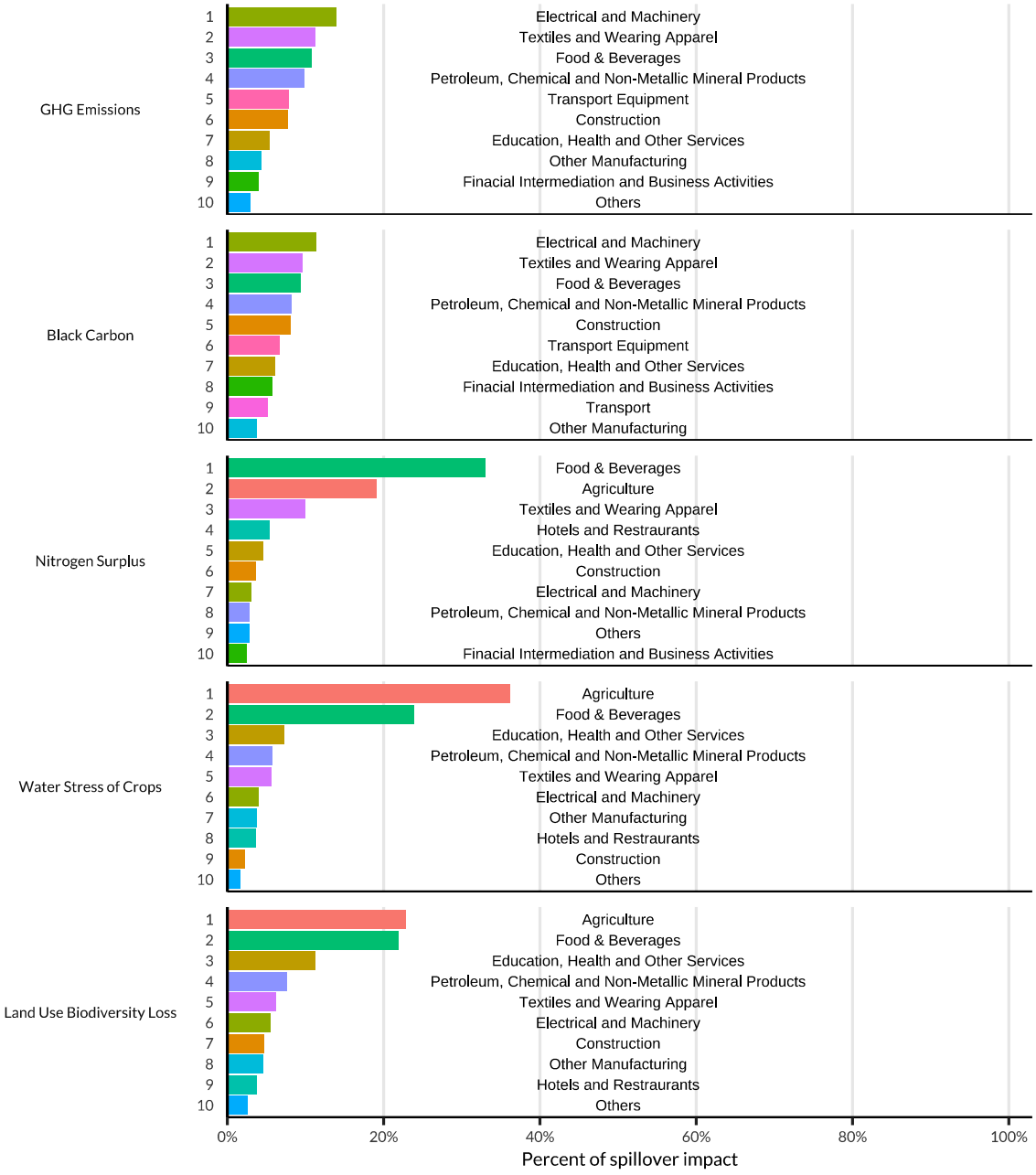


Figure 19. Spillover impacts from the EU27's final demand by top ten products consumed.

Box 2. Recent Policy Developments in the European Union

- The European Green Deal launched in 2019, aiming to make the EU the first climate-neutral continent in the world (European Commission, 2021b). The European Climate Law, which entered into force in July 2021, writes into law the goal set out in the European Green Deal for Europe's economy and society to become climate-neutral by 2050 (European Commission, 2021c). The law also sets the intermediate target of reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels.
- Several other policies, action plans, strategies, and tools aim to support the EU's transformations toward a decarbonized economy and more sustainable consumption and production. These include, but are not limited to, the Circular Economy Action Plan; Farm-To-Fork Strategy; Zero Pollution for Air, Water and Soil Action Plan; EU Taxonomy for Sustainable Activities; EU Biodiversity Strategy for 2030, and others.
- Trade outside the EU is an exclusive responsibility of the European Union. In her Political Guidelines (Directorate-General for Communication (European Commission) & Leyen, 2019), the current President of the European Commission Ursula von der Leyen stated that, *"*Trade is not an end in itself. It is a means to deliver prosperity at home and to export our values across the world. I will ensure that every new agreement concluded will have a dedicated sustainable development chapter.*"*
- The European Commission released its report, "Trade Policy Review - An Open, Sustainable, and Assertive Trade Policy," in February 2021 (European Commission, 2021e). This document emphasizes the need to, "seek commitments from G20 partners on climate neutrality; strengthen coöperation on other aspects of the green deal such as biodiversity, sustainable food policy, pollution and the circular economy; and propose to make the respect of the Paris agreement an essential element in all future agreements."
- The European Commission also proposed the introduction of a Carbon Border Adjustment Mechanism, to be applied first to a few selected items, with the number of products covered gradually expanding, in accordance with WTO standards (European Commission, 2021a).
- Also in July of 2021, the European Commission published a new EU27 Forest policy, reaffirming its commitment to ensuring that products sold on the EU27 market – whether produced in the EU27 or from other countries – do not contribute to global deforestation (European Commission, 2021d).
- The upcoming EU27 Due Diligence law, the "Sustainable corporate governance directive," could reinforce the sustainability of the EU's trade, including environmental implications embedded in supply chains (European Commission, 2020).

Appendix A: Methodology

This appendix contains the methodology for the 2021 GCS Index. The general mechanics of composite indexing are described in Nardo et al. (2008). We describe our data, methods, assumptions, and other choices in order to provide transparency about the results and to invite feedback and critiques from researchers and other stakeholders. Future iterations of this Index will incorporate constructive suggestions for improvement.

1. Conceptual framework

Measuring countries' impacts on the Global Commons requires many indicators, and building a coherent narrative requires organizing these indicators. The GSC Index is a composite index, with a hierarchy of indicators, sub-pillars, and pillars within the overall Index (see Figure 1). This section explains the logic of the Index hierarchy.

1.1 Pillars

Focusing on the Global Commons means contrasting domestic environmental impacts with the extra-territorial environmental impacts resulting from transboundary issues, especially impacts embodied in traded goods and services. We therefore divide the GCS Index into two pillars as shown in Figure 1: domestic, which covers impacts to the Global Commons that occur within countries' territorial boundaries, and spillover, which covers environmental impacts that occur beyond territorial boundaries.

1.2 Sub-pillars

As discussed in Section 3, the 2021 GCS Index seeks to categorize available data on impacts to the Global Commons in thematically coherent sub-pillars (see Figure 1). These categories reflect Earth system science as well as levers for policymaking. Measuring countries' impacts on these commons often entails crossing causal pathways. Emissions of CO_2, for example, contribute to both climate change and ocean acidification. Our sub-pillars also reflect the current state of data availability. Despite the importance of the ozone layer, we could identify virtually no indicators on impacts to stratospheric ozone that satisfy our inclusion criteria. Alternative categorizations are possible, especially if future research closes important gaps in the available data. Our scheme, however, is meant to provide a recognizable and useful framework for a broad audience. We have grouped our indicators into six sub-pillars: Aerosols, GHG Emissions, Terrestrial and Marine Biodiversity Loss, and disruptions to the Nutrient and Water Cycles.

2. Spillover calculations

2.1 Environmental accounting

Two major accounting methods (Peters & Hertwich, 2008) exist for attributing environmental impacts across countries: production-based accounting (PBA) and consumption-based accounting (CBA). PBA examines the domestic emissions and impacts which take place within a country due to production and use of products. CBA accounts for impacts that occur along the global supply chains of final products in order to satisfy a country's final demand. Final demand includes final consumption (household and government expenditures) as well as investment in fixed capital assets. There are several ways to approach these calculations; one useful calculation is shown below.

> **Production** = domestic production for domestic final demand + domestic production for exports + use phase
>
> **Consumption** = domestic production for domestic final demand + imports embodied in domestic final demand + use phase

As illustrated in Figure 20, both methods include use-phase emissions associated with households and government consumption, *e.g.*, tailpipe emissions from driving personal vehicles or combustion emissions from home heating and cooking. The "imports embodied in domestic final demand" dimension refers to the creation of goods and services in foreign countries along the supply chain for a final product consumed domestically. For instance, the environmental impacts of producing bananas in India for export to Iran would be attributed to Iran. This metric also captures more complex situations, such as attributing to the US the impacts of creating tires in Mexico that are imported by the US and installed on cars sold to consumers in the US.

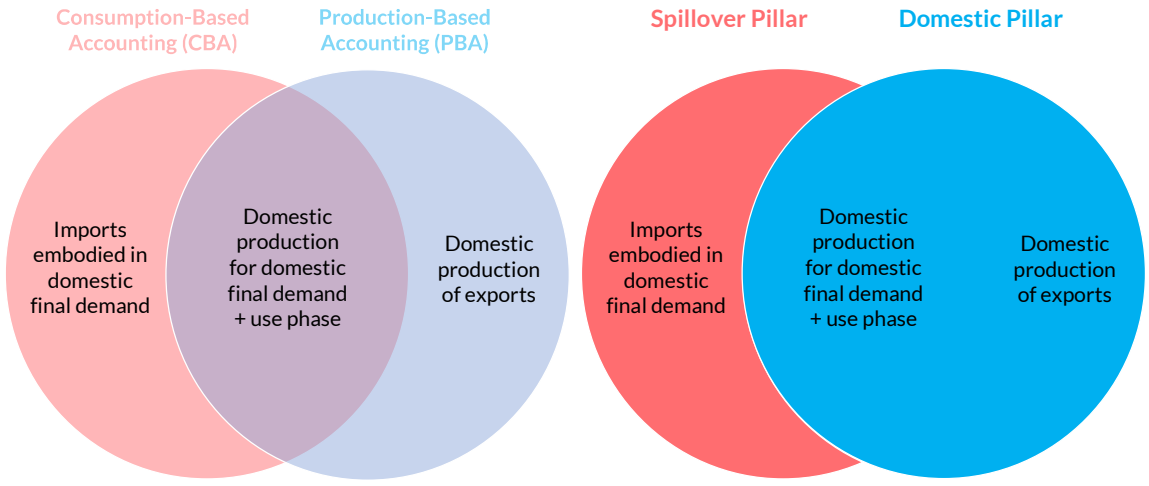


Figure 20. Consumption- and Production-based accounting (left) versus GCS Index Domestic and Spillover accounting (right).

Figure 20 shows how the two accounting frameworks overlap: There is typically a high level of correlation between impacts measured by PBA and CBA. To avoid double-counting the portion of impacts labeled, "domestic production for domestic final demand and use phase," the GCS Index does not use straightforward CBA estimates. Instead, while the Domestic pillar is equivalent to PBA, the Spillover pillar isolates "imports embodied in domestic final demand," making importing countries accountable for negative environmental impacts generated abroad. Overall, at the country-level, the most significant component is domestic production for domestic final demand, which accounted for roughly 74% of global GHG emissions in 2015.

PBA is the most commonly used framework. Under the Paris Climate Change Agreement, the methods used to track the evolution of GHG emissions as part of the National Inventory Report of the Intergovernmental Panel on Climate Change (IPCC) and the UN Framework Convention on Climate Change (UNFCCC) focus, for practical reasons, on PBA (Afionis et al., 2017). Methods used to generate PBA estimates of CO_2 emissions (or other types of impacts) are rather straightforward. By contrast, CBA relies on more complex input-output matrices and sophisticated modeling techniques, and, therefore, it is generally more subject to debates among experts than PBA.

Yet there is a crucial need to better integrate CBA within monitoring and policy frameworks, including in tracking and reducing GHG emissions (Kander et al., 2015). CBA incorporates carbon leakages and attributes them to the countries that externalize CO_2 emissions. While PBA rightfully emphasizes the principle of "product liability," which states that producers are responsible for the quality and safety of their products, CBA emphasizes the responsibility of consumers and international trade policies and agreements. In the contexts of the SDGs and Agenda 2030, domestic decarbonization should not be achieved by outsourcing certain high-emitting sectors to other countries, such as cement or steel, and then re-importing the final production (Sachs et al., 2017; Schmidt-Traub et al., 2019).

The GCS Index uses both accounting methods. The Domestic pillar makes use of indicators calculated using PBA or related approaches. Doing so underlines the need for countries to take domestic actions in order to clean their industries and implement effective strategies to curb negative impacts on the Global Commons. The Spillover pillar, by contrast, uses indicators calculated using CBA and attributes negative impacts to importing countries. Poor scores on the Spillover pillar highlight areas where countries need to take further actions related to consumption and also to closely monitor trade relationships that might generate negative impacts abroad.

2.2 Impact matrices

Calculations using MRIO models can provide us with a matrix of impacts. Along the rows of these matrices are the countries where the impacts occurred, in which, for instance, a factory released pollution while making a part. Along the columns are the countries which purchased the final goods and services, for instance, where a homeowner purchased a laptop incorporating a part made abroad. The arrows in the matrix indicate the flow from the Country of Impact to the Country of Final Demand. Note that there may be several steps along the supply chain between the first Country of Impact and the Country of Final Demand; the arrow does not necessarily represent direct imports. Consider a world with three countries trading with each other: A part made in a factory in Country A could be assembled into a laptop in Country B before it is imported into Country C.

We can evaluate this matrix from several perspectives. The boxes along the diagonal of the matrix represent "domestic production for domestic final demand + use phase." The off-diagonal boxes could be considered from the perspective of the producer (Country of Impact) or the final product importer (Country of Final Demand).

In the first perspective, we can calculate CBA impacts. The CBA impacts are the column sums, representing the impacts that are driven by final demand. These impacts include the "domestic production for domestic final demand + use phase" and "imports embodied in domestic final demand." Therefore, the sum of $A \rightarrow A$, $B \rightarrow A$, and $C \rightarrow A$ is CBA_A, as shown in Table 11Table 11. Matrix of impacts, CBA perspective..

Table 11. Matrix of impacts, CBA perspective.

Country of Impact \ Country of Final Demand	A	B	C
A	$A \rightarrow A$	$A \rightarrow B$	$A \rightarrow C$
B	$B \rightarrow A$	$B \rightarrow B$	$B \rightarrow C$
C	$C \rightarrow A$	$C \rightarrow B$	$C \rightarrow C$
Sum	CBA_A	CBA_B	CBA_C

Legend:

Domestic production for domestic final demand + use phase
Imports embodied in domestic final demand
Domestic production of exports
Domestic Pillar
Spillover Pillar

The PBA impacts are the sums across the rows, representing the impacts that occur within that country due to production and use of products. Taking the perspective of the exporter (the Country of Impact), the off-diagonal boxes represent "domestic production of exports." The row sum of $A \rightarrow A$, $A \rightarrow B$, and $A \rightarrow C$ is PBA_A, as shown in Table 12. The Domestic pillar in the GCS Index is equivalent to PBA for the indicators calculated using MRIO models.

Table 12. Matrix of impacts, PBA and Domestic Pillar perspective.

Country of Impact \ Country of Final Demand	A	B	C	Sum
A	A → A	A → B	A → C	$Domestic_A$ = PBA_A
B	B → A	B → B	B → C	$Domestic_B$ = PBA_B
C	C → A	C → B	C → C	$Domestic_C$ = PBA_C

Lastly, we can focus on the off-diagonal boxes to calculate the Spillover pillar. In this perspective, the Country of Final Demand is said to drive the impacts which occurred elsewhere. Thus, the purchase of a laptop in Country C results in a spillover impacts in Country A where a part was made and in Country B where the laptop was assembled. Here, the sum of just $B \rightarrow A$ and $C \rightarrow A$ is $Spillover_A$, as shown in Table 13.

Table 13. Matrix of impacts, Spillover perspective.

Country of Impact \ Country of Final Demand	A	B	C
A		A → B	A → C
B	B → A		B → C
C	C → A	C → B	
Sum	$Spillover_A$	$Spillover_B$	$Spillover_C$

2.3 Matrix calculations

There are several key matrices in MRIO analysis. Data needed to compile the monetary MRIO matrices are derived from national statistical offices and trade statistics. Balancing techniques are then applied to misaligned data so that the model is internally consistent. In this work, we use the Full Eora MRIO model for spillover indicators not calculated by other research groups.

The square intermediate demand matrix, $\boldsymbol{T}$, shows the expenditures between and within product sectors in a given year. The rows of $\boldsymbol{T}$ list products, i, from countries, r, that are used to make products, j, in countries, s, across the columns. For instance, $\boldsymbol{T}$ estimates that the UK restaurant sector purchased $1.05 million of US grain products in 2015.

The final demand matrix, $\boldsymbol{Y}$, includes components, d of the expenditures on final products by households and governments, as well as investments in equipment, structures, and intellectual property products by households (real estate), businesses, and governments. The matrix $\boldsymbol{Y}$ estimates that Brazilians invested $12.8 billion in Brazilian trucks and busses in 2015. We find the total final demand per for each Country of Final Demand, s, summing over the components d.

$$\boldsymbol{Y}_s = \sum_d \boldsymbol{Y}_{s,d}$$

The combined row sums of the intermediate $\boldsymbol{T}$ and final demand $\boldsymbol{Y}$ matrices is total output, $\boldsymbol{x}$.

$$\boldsymbol{x} = \boldsymbol{T} + \boldsymbol{Y}$$

The intermediate demand matrix $\boldsymbol{T}$ is normalized by the total output $\boldsymbol{x}$ to create $\boldsymbol{A}$, the direct requirements matrix. The columns in $\boldsymbol{A}$ have technical coefficients, which are effectively 'recipes' showing how many units of an input product i from region r are directly needed to produce one unit of output of a final product j in region s. For instance, producing 1 unit of knitted apparel in Japan directly requires 0.035 units of Japanese knitting fabrics, 0.027 units of Chinese knitting mills, 0.010 units of Italian textiles, and so on.

$$\boldsymbol{A} = \boldsymbol{T}\hat{\boldsymbol{x}}^{-1}$$

The Leontief inverse, $\boldsymbol{L}$, or total requirements matrix, takes another step and quantifies the indirect inputs needed across the entire supply chain. For instance, while $\boldsymbol{A}$ shows how much petroleum is a direct input into truck transportation, $\boldsymbol{L}$ would additionally include the petroleum needed along the supply chain to create other goods and services used by truck transportation. Note that total output $\boldsymbol{x} = \boldsymbol{LY}$.

$$\boldsymbol{L} = (\boldsymbol{I} - \boldsymbol{A})^{-1}$$

Extensions with direct environmental impact data, $\boldsymbol{Q}$, are appended to MRIO tables, making them "environmentally-extended" (EE-MRIO). These data could be derived from national statis-

tics or third-party databases. These data may be very disaggregated, and therefore characterization factors, $\boldsymbol{C}$, are applied. For instance, raw values of GHG emissions can all be converted to global warming potentials by multiplying a matrix of CO_2 equivalencies, *e.g.*, 1 kg of methane becomes 25 kg CO_2-eq. (following IPCC AR4).

The subset $\boldsymbol{Q_T}$ are impacts from production and the subset $\boldsymbol{Q_Y}$ are impacts from use of final products. Summing both per Country of Impact, $\boldsymbol{r}$, is the PBA approach, which is equivalent to the Domestic Pillar.

$$Domestic_r = \boldsymbol{CQ}_{T_r} + \boldsymbol{CQ}_{Y_r}$$

To derive spillover estimates, it is critical that the extension data distinguish the production of which product *i* in region *r* directly creates the environmental impact. A common challenge is that the classification of products in environmental data differs from the classification in MRIO tables, and therefore allocation procedures must be applied to distribute the impacts across the products.

The impact per unit output, $\boldsymbol{q}$, is found by normalizing $\boldsymbol{Q_T}$ by the total output, $\boldsymbol{x}$, just as was done before with matrices $\boldsymbol{T}$ and $\boldsymbol{A}$. Note that the use phase impacts are not included in the Spillover pillar, because they do not happen abroad, but instead happen domestically in the Country of Final Demand.

$$\boldsymbol{Cq} = \boldsymbol{CQ}_T\hat{\boldsymbol{x}}^{-\boldsymbol{1}}$$

In order to distinguish by Country of Impact for spillover analyses, the impacts are diagonalized. It is necessary to perform this step separately for each impact, *c*, considered, creating an array of matrices. The columns of $\boldsymbol{Y}$ already distinguish the Country of Final Demand. The total footprint matrix, $\boldsymbol{F_c}$, is found by multiplying the impact per output of products made in the Country of Impact, $\widehat{\boldsymbol{Cq}}_{\boldsymbol{c}}$, by the total output needed to satisfy final demand for those products, $\boldsymbol{LY}_s$.

$$\boldsymbol{F}_c = \widehat{\boldsymbol{Cq}}_c\boldsymbol{LY}_s$$

In order to separate the spillover footprint from the total footprint, the domestic production for domestic final demand is set to zero. This is done by element-wise multiplying the total footprint with a matrix of 1s with 0s across the diagonal, since domestic impacts for domestic final demand are in the diagonal.

$$Spillover_{c,r,s,i,j} = \boldsymbol{F}_c \times (\boldsymbol{1} - \boldsymbol{I})$$

Finally, the spillover impacts per impact, *c*, Country of Impact, *r,* and Country of Final Demand, *s*, are found by taking sums over products *i* and *j*.

$$Spillover_{c,r,s} = \sum_{i,j} Spillover_{c,r,s,i,j}$$

3. Data selection

3.1 Inclusion criteria

With a wide variety of environmental data on impacts to the Global Commons, the GCS Index requires some criteria for selecting appropriate indicators for a composite index. The data we use come from a variety of sources, including international agencies, academia, and non-governmental organizations. The indicator selection will evolve over time as new data and statistics become available.

We selected data for inclusion based on five selection criteria:

1. **Global relevance and applicability to a broad range of country settings:** The indicators should be relevant and allow for direct comparison of impacts across countries. In particular, they should allow for the definition of quantitative thresholds that signify goal achievement.
2. **Statistical adequacy:** The indicators selected should represent valid and reliable measures.
3. **Timeliness:** The indicators selected should be up-to-date and published on a reasonably prompt schedule.
4. **Data quality:** Data series should represent the best available measure for a specific issue and be collected according to methods either peer-reviewed by the academic community or endorsed by an international organization or other reputable sources.
5. **Country coverage:** Data should be available for a large range of countries.

3.2 Indicators

After careful review of available sources, we identified 33 indicators that met our inclusion criteria and could be assembled with the necessary expedience, summarized in the Tables below. We also acknowledge that there are gaps in how we measure impacts to the Global Commons, either because there are data sources unknown to us or because further research is needed. We welcome suggestions for additional datasets that meet our inclusion criteria for incorporation into future versions of the GCS Index.

3.2.1 Domestic indicators

For the Domestic pillar we present 22 indicators that meet our selection criteria (Table 14). Aerosol indicators consist of emissions of sulfur dioxide (SO_2), nitrogen oxides (NO_X), and black carbon. GHG Emissions are a combination of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases (F-gases) – the latter three converted to CO_2-equivalents. We also include a measure of GHG emissions embodied in exported fossil fuels.

Terrestrial Biodiversity Loss is our most expansive sub-pillar, with indicators on terrestrial and freshwater protection, as measured by the percentage of a country's Key Biodiversity Areas (KBA) (BirdLife International, 2019) that are not in protected areas. These KBA indicators are

the only measures in the current indicator set that track policy intentions and not outcomes. Human activities also impact species in terrestrial and freshwater ecosystems whose conservation status is threatened. As a biome of critical importance for many ecosystem services, we include a measure of permanent deforestation. Two additional indicators provide a more holistic picture of biodiversity loss: the Red List Index and the Biodiversity Habitat Index.

For Marine Biodiversity Loss, we also include measures of unprotected KBAs and threats to species. As a classic example of the commons, we include measurements of fish stocks, with a status indicator of percentage of catches that come from over-exploited or collapsed stocks and a measure of percentage of catches that use trawling or longlines, especially destructive fishing gear. Impacts to the Nutrient Cycles are largely driven by agriculture. We use the Sustainable Nitrogen Management Index (Zhang & Davidson, 2019), a measure of nitrogen surplus, and a measure of phosphorus used as fertilizer. Water Cycle disruptions include consumption of scarce water resources, water stress due to crops, and freshwater withdrawal as a proportion of available freshwater resources.

3.2.2 Spillover indicators

The 11 indicators in the Spillover pillar (Table 15) are derived from CBA (isolating the imported for final demand dimension) using MRIO tables that link traded goods with environmental and biodiversity impacts. These derivations are only possible for those datasets in which impacts can be mapped onto the economic sectors described in the MRIO models. The Spillover indicators include all of the Aerosol emissions; GHG emissions; threats to terrestrial, freshwater, and marine species; nitrogen surplus and phosphorus fertilizer; and scarce water consumption and water stress due to crops.

Table 14. Domestic indicators in the 2021 GCS Index.

Indicator	Description	Data Source	Citation
Aerosols			
Domestic SO_2 emissions	SO_2 emissions embodied in domestic production of goods and services for domestic consumption and export.	CEDS v_2021_04_21	Hoesly et al. (2018); O'Rourke et al. (2021)
Domestic NO_X emissions	Nitrogen oxides (NO_X) emissions embodied in domestic production of goods and commodities for domestic consumption and export.	CEDS v_2021_04_21	Hoesly et al. (2018); O'Rourke et al. (2021)
Domestic Black Carbon emissions	Black carbon emissions embodied in domestic production of goods and services for domestic consumption and export.	CEDS v_2021_04_21	Hoesly et al. (2018); O'Rourke et al. (2021)
GHG Emissions			
Domestic GHG emissions	Greenhouse gas emissions (CO_2, CH_4, N_20, F-Gasses (HFCs, PFCs, SF_6)) in CO_2 equivalent embodied in domestic production for domestic consumption and exports.	PIK PRIMAP-HIST v2.3.1	Gütschow et al. (2021)
CO_2 emissions embodied in fossil fuel exports	CO_2 emissions embodied in the exports of coal, gas, and oil. Calculated using a 5-year average of fossil fuel exports and converting exports into their equivalent CO_2 emissions. Exports for each fossil fuel are capped at the country's level of production.	UN Comtrade; EIA	UN Comtrade (2020); EIA (2020)

Indicator	Description	Data Source	Citation
Terrestrial Biodiversity Loss			
Mean area that is not protected in terrestrial sites important to biodiversity	The mean percentage area of terrestrial Key Biodiversity Areas (sites that are important for the global persistence of biodiversity) that is not covered by protected areas and remains at risk.	Birdlife International	BirdLife International (2019)
Mean area that is not protected in freshwater sites important to biodiversity	The mean percentage area of freshwater Key Biodiversity Areas (sites that are important for the global persistence of biodiversity) that is not covered by protected areas and remains at risk.	Birdlife International	BirdLife International (2019)
Land-use related biodiversity loss of crops, pastures, and forestry	Fraction of global species that are committed to extinction as a result of domestic anthropogenic land use for crops, pasture, and forestry, for domestic consumption and export.	Cabernard & Pfister (2021)	Cabernard & Pfister (2021)
Freshwater biodiversity threats embodied in domestic production	Number of freshwater species threatened as a result of domestic production of goods and services for domestic consumption and export.	IUCN, BirdLife International	Lenzen et al. (2012); Peterson, et al. (2020)
Permanent deforestation (5-year average)	Permanent deforestation as a 5-year average. Permanent deforestation refers to tree cover removal for urbanization, commodity production, and certain types of small-scale agriculture. It does not include temporary forest loss due to the forestry sector or wildfires.	Global Forest Watch	Curtis et al (2018)
Red List Index of species survival	The change in aggregate extinction risk across groups of species. The index is based on genuine changes in the number of species in each category of extinction risk on the IUCN Red List of Threatened Species.	IUCN, BirdLife International	IUCN (2020)

Indicator	Description	Data Source	Citation
Biodiversity Habitat Index	Estimates the effects of habitat loss, degradation, and fragmentation on the expected retention of terrestrial biodiversity. CSIRO calculates this index from remote sensing data and other studies of ecological diversity. A score of 100 indicates that a country has experienced no habitat loss or degradation, and a score of 0 indicates complete habitat loss.	CSIRO	
Marine Biodiversity Loss			
Mean area that is not protected in marine sites important to biodiversity	The mean percentage area of marine Key Biodiversity Areas (sites that are important for the global persistence of biodiversity) that is not covered by protected areas and remains at risk.	Birdlife International	BirdLife International (2019)
Marine biodiversity threats embodied in domestic production	Number of marine species threatened as a result of domestic production of goods and services for domestic consumption and export.	IUCN, BirdLife International	Lenzen et al. (2012); Peterson, et al. (2020)
Fish caught from overexploited or collapsed fish stocks	The percentage of a country's total catch, within its exclusive economic zone (EEZ), that is comprised of taxa that are overexploited or collapsed.	Sea Around Us	Pauly et al. (2020)
Fish caught by trawling	The percentage of a country's total fish catch caught by trawling, a method of fishing in which industrial fishing vessels drag large nets (trawls) along the seabed.	Sea Around Us	Pauly et al. (2020)

Indicator	Description	Data Source	Citation
Nutrient Cycle Disruptions			
Sustainable Nitrogen Management Index	The Sustainable Nitrogen Management Index is a one-dimensional ranking score that combines two efficiency measures in crop production: Nitrogen Use Efficiency and land use efficiency (crop yield).	FAOSTAT	Zhang & Davidson (2019)
Domestic Nitrogen surplus	Excess nitrogen embodied in domestic production of crops for domestic consumption and export	Vishwakarma et al. (2021)	Vishwakarma et al. (2021)
Domestic Phosphorus fertilizer	Phosphorus fertilizer applied to erodible soils embodied in domestic production of goods and services for domestic consumption and export.	FAOSTAT, IFA	FAO (2021); IFA (2021); Heffer et al. (2017)
Water Cycle Disruptions			
Domestic scarce water consumption	Volume of scarce water embodied in domestic production of goods and services for domestic consumption and export.	AQUASTAT, Eora	Lenzen et al. (2013); Hoekstra & Mekonnen (2012); FAO (2020)
Domestic water stress of crops	Volume of blue water use embodied in domestic production of crops for domestic consumption and export, weighted by water stress.	Cabernard & Pfister (2021)	Cabernard & Pfister (2021)

Indicator	Description	Data Source	Citation
Domestic freshwater withdrawal	The level of water stress: freshwater withdrawal as a proportion of available freshwater resources is the ratio between total freshwater withdrawn by all major sectors and total renewable freshwater resources, after taking into account environmental water requirements. Main sectors, as defined by ISIC standards, include agriculture; forestry and fishing; manufacturing; electricity industry; and services. This indicator is also known as water withdrawal intensity.	AQUASTAT	FAO (2020)

Table 15. Spillover indicators in the 2021 GCS Index.

Indicator	Description	Data Source	Citation
Aerosols			
Foreign SO_2 emissions embodied in final consumption	SO_2 emissions occurring in foreign countries and embodied in domestic final consumption.	CEDS v_2021_04_21	Hoesly et al. (2018); O'Rourke et al. (2021)
Foreign NO_X emissions embodied in final consumption	Nitrogen oxides (NOx) emissions occurring in foreign countries and embodied in domestic final consumption.	CEDS v_2021_04_21	Hoesly et al. (2018); O'Rourke et al. (2021)
Foreign Black Carbon emissions embodied in final consumption	Black carbon emissions occurring in foreign countries and embodied in domestic final consumption.	CEDS v_2021_04_21	Hoesly et al. (2018); O'Rourke et al. (2021)
GHG Emissions			
Foreign GHG emissions embodied in final consumption	Greenhouse gas emissions (CO_2, CH_4, N_20, F-Gasses (HFCs, PFCs, SF_6)) in CO_2 equivalent occurring in foreign countries and embodied in domestic final consumption.	PIK PRIMAP-HIST v2.3.1	Gütschow et al. (2021)
Terrestrial Biodiversity Loss			
Foreign Land-use related biodiversity loss of crops, pastures, and forestry embodied in final consumption	Fraction of global species that are committed to extinction as a result of anthropogenic land use for crops, pasture, and forestry in foreign countries, embodied in domestic final consumption.	Cabernard & Pfister (2021)	Cabernard & Pfister (2021)

Indicator	Description	Data Source	Citation
Freshwater Biodiversity Threats embodied in imports of final products	Number of freshwater species threatened as a result of imports of final products for domestic final consumption.	IUCN, BirdLife International	Lenzen et al. (2012); Peterson, et al. (2020)
Marine Biodiversity Loss			
Marine Biodiversity Threats embodied in imports of final products	Number of marine species threatened as a result of imports of final products for domestic final consumption.	IUCN, BirdLife International	Lenzen et al. (2012); Peterson, et al. (2020)
Nutrient Cycle Disruptions			
Foreign Nitrogen surplus embodied in final consumption	Excess nitrogen from crop production occurring in foreign countries and embodied in domestic final consumption.	Vishwakarma et al. (2021)	Vishwakarma et al. (2021)
Foreign Phosphorus fertilizer embodied in final consumption	Phosphorus fertilizer applied to erodible soils in foreign countries and embodied in domestic final consumption.	FAOSTAT, IFA	FAO (2021); IFA (2021); Heffer et al. (2017)
Water Cycle Disruptions			
Foreign Scarce water consumption embodied in final consumption	Volume of scarce water occurring in foreign countries and embodied in domestic final consumption.	AQUASTAT, Eora	Lenzen et al. (2013); Hoekstra & Mekonnen (2012); FAO (2020)
Foreign Water stress of crops embodied in final consumption	Volume of blue water use occurring in foreign countries and embodied in domestic final consumption, weighted by water stress	Cabernard & Pfister (2021)	Cabernard & Pfister (2021)

3.2.3 Data gaps

Despite an extensive data search and expert consultations, there are many impacts to the Global Commons for which appropriate metrics are unknown or unavailable to the research team. Some datasets are excluded by our inclusion criteria (see Section 3.1 of this Appendix), and some are yet to be developed by scientific researchers. These persistent data gaps limit the comprehensiveness of the 2021 GCS Index, and our results should be interpreted in light of these limitations. Future versions of the Index will work with the scientific community and national and international organizations to close these gaps, with the following being of special note:

- GHG Emissions
    - CO_2 fluxes from anthropogenic land use change, including those fluxes embodied in trade
- Terrestrial Biodiversity Loss
    - Trade in endangered species
    - Functional biodiversity loss
    - Forest cover loss embodied in trade
    - Loss of intact areas and wilderness, including those losses attributable to trade
- Marine Biodiversity Loss
    - Fish stock depletion embodied in trade, including overfishing in international waters
    - Coastal pollution, especially of plastics, including those releases embodied in trade
- Nutrient Cycles
    - Phosphorus application standardized by agricultural need
    - Hypoxia attributable to sources, including eutrophication embodied in trade
- Water Cycle
    - Water use disaggregated at the basin level
    - Groundwater depletion, including embodied in trade
- Stratospheric Ozone Depletion
    - Unreported or illegal production of ozone depleting substances (ODS), including those ODS embodied in trade
    - Mitigation of ODS in existing products or temporary storage
- Novel entities
    - Toxic pesticides, including those embodied in trade
- Physical flows of pollutants across country boundaries in air and water.

4. Country coverage

The GCS Index seeks to provide information on the widest set of countries for which an assessment of impacts to the Global Commons would be useful. We operate within three constraints: data availability, wealth, and population. Countries for which there are insufficient data are necessarily absent from our results. Impacts, both domestic and spillover, are typically most pronounced in countries with very active economies and large populations. Our sample begins with all members of the OECD and the G20. We further include all countries classified by the World Bank as having "High Income" or "Upper Middle Income." Based on population, we further include countries with populations greater than 100 million, regardless of income, and we exclude very small countries with populations less than 1 million. In total, the 2021 GCS Index includes 99 countries and the EU27.

Albania	Denmark	Kazakhstan	Poland
Algeria	Dominican Republic	Korea, Rep.	Portugal
Argentina	Ecuador	Kuwait	Qatar
Armenia	Egypt	Latvia	Romania
Australia	Estonia	Lebanon	Russian Federation
Austria	Ethiopia	Libya	Saudi Arabia
Azerbaijan	European Union	Lithuania	Serbia
Bahrain	Finland	Luxembourg	Singapore
Bangladesh	France	Malaysia	Slovak Republic
Belarus	Gabon	Malta	Slovenia
Belgium	Germany	Mauritius	South Africa
Bosnia & Herzegovina	Greece	Mexico	Spain
Botswana	Guatemala	Montenegro	Sri Lanka
Brazil	Hungary	Namibia	Sweden
Brunei Darussalam	Iceland	Netherlands	Switzerland
Bulgaria	India	New Zealand	Thailand
Canada	Indonesia	Nigeria	Trinidad & Tobago
Chile	Iran	North Macedonia	Turkey
China	Iraq	Norway	Turkmenistan
Colombia	Ireland	Oman	United Arab Emirates
Costa Rica	Israel	Pakistan	United Kingdom
Croatia	Italy	Panama	United States
Cuba	Jamaica	Paraguay	Uruguay
Cyprus	Japan	Peru	Venezuela
Czech Republic	Jordan	Philippines	Vietnam

5. Indicator construction

5.1 Standardization

We present the indicators in two forms: *proportional* and *absolute*. Proportional indicators are standardized to allow cross-country comparison, regardless of country size. We standardize most metrics by population rather than GDP. Population sizes tend to be more stable over time, and the MRIO databases from which the CBA indicators are calculated with GDP as a denominator.

Absolute indicators present unstandardized metrics of environmental impacts. While the proportional indicators emphasize that governments and citizens in small countries can strengthen policies and actions for sustainable development, the absolute indicators emphasize the efforts and leadership needed from large countries who have the greatest global impacts. This two-track approach reflects the growing trend in the field of industrial ecology, where researchers tend to present both *per capita* and absolute results in peer-reviewed papers (*e.g.*, Lenzen et al., 2018).

5.2 Rescaling

To make the data comparable across indicators, we rescale each variable between 1 and 100, with 1 being the lowest bound denoting worst impacts and 100 denoting thresholds met or surpassed. We truncate each dataset so that all countries exceeding the threshold score no more than 100 and all countries falling below the lowest bound score 1.

We select the sustainability thresholds, or upper bounds, using a decision tree reflecting the approach used by the SDSN (Sachs et al., 2021) and the OECD (2019, Table 3.1) to compute distance to SDG targets (see Figure 21). Optimally, sustainability thresholds set for each indicator should be based on international agreements such as the SDGs and Paris Climate Change Agreement. When such a target is not available, we rely on scientific inputs and expert judgment. Finally, if none of these two options are available, the upper bound is based on the average of top performing countries. A public consultation was organized in October 2021 to collect feedback from experts on the indicator selection and sustainability thresholds assigned. We welcome further comments and feedback at GCSIndex@unsdsn.org.

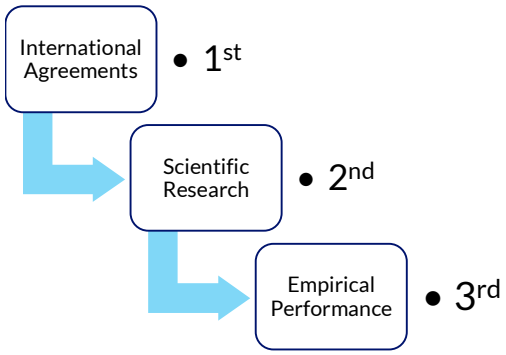


Figure 21. Hierarchy of sources for thresholds.

Three indicators illustrate this decision tree for threshold selection. First, international agreements, especially the Paris Climate Change Agreement, seek to limit global warming to below 1.5°C. Meeting this goal requires limiting per capita emissions of GHG to 2.0–2.5 tonnes CO_2-eq. by 2030 (UNEP, 2020). Considering the upper end of that range as a generous target, we set our 2050 threshold two decades later at the lower end: 2 tonnes CO_2-eq. per capita. Second, the Sustainable Nitrogen Management Index (Zhang & Davidson, 2019) is a novel indicator, and therefore unlikely to have yet been incorporated into international agreements. Based upon the logic of the underlying scientific research, the optimal value on a unitless scale is zero. Third, neither international agreements nor scientific research offers strict guidance on the target for water stress from crops. For this indicator, we selected the 2.5^{th}-percentile of all observed values as the threshold.

We rescale all indicators using a distance-to-target technique described by the following equation.

$$\textit{Indicator Score} = (X - L) / (U - L) \times 99 + 1$$

where X is a raw data value and U and L denote the upper and lower bounds, respectively. Our selection of bounds ensures that for all rescaled variables, higher values indicate better mitigation of impacts on the global commons (Table 16). Thus, a country that scores 50 on an indicator is halfway toward achieving the optimum value. A country with a score of 75 has covered three-quarters of the distance from the lower to the upper bound.

5.3 Transformation

One of the best practices in composite indexing is inspecting metrics for skewness and mitigating its effects. Skewed data are distributed with many countries at one end of the spectrum of values and fewer countries spread into the opposite end. Such datasets pose problems on both empirical and theoretical grounds. When thresholds are selected by percentiles (see previous section), outliers can bias the scale by drawing thresholds into extreme ranges (see Nardo et al., 2008). Aggregating skewed datasets can also give undue emphasis to indicators with relatively small variation in scores among the clustered observations. On theoretical grounds, skewness also obscures differentiation between nations, reducing the usefulness of the indicator (see Wendling et al., 2020, pp. 171–172). Based upon statistical examination of our underlying datasets, it is warranted to transform certain indicators through a natural logarithmic normalization, namely, all indicators used in the GHG Emissions and Water Cycle sub-pillars, within both the Domestic and Spillover pillars. Data were transformed prior to scaling, and the thresholds were likewise also transformed.

Table 16. Thresholds used to rescale indicators in the 2021 GCS Index on a 1–100 scale.

		Proportional			Absolute	
Indicator	**Unit**	**Upper Bound**	**Lower Bound**	**Unit**	**Upper Bound**	**Lower Bound**
Domestic SO_2 emissions	kg/capita	0.6 [a]	53.8 [c]	Gg	3.9 [a]	4,936.8 [e]
Domestic NO_X emissions	kg/capita	5.0 [a]	47.4 [d]	Gg	8.7 [a]	7,679.3 [e]
Domestic Black Carbon emissions	kg/capita	0.2 [a]	2.3 [d]	Gg	0.3 [a]	269.3 [e]
Domestic GHG emissions	tonnes/capita	2.0 [g]	44.2 [d]	Tg	5.5 [a]	3,829.3 [e]
CO_2 emissions embodied in fossil fuel exports	kg/capita	0.0 [a]	6,587.0 [d]	Gg	0.0 [a]	513,788.7 [e]
Area that is not protected in terrestrial biodiversity sites	%	5.1 [a]	100 [f]	%	5.1 [a]	100 [f]
Area that is not protected in freshwater biodiversity sites	%	1.8 [a]	100 [f]	%	1.8 [a]	100 [f]
Land-use related biodiversity loss of crops, pastures, and forestry	global PDF / capita	6.2E-14 [a]	6.8E-11 [c]	global PDF	1.3E-07 [a]	8.3E-03 [e]
Freshwater biodiversity threats embodied in domestic production	per M people	0.00 [a]	5.36 [c]	number	0.0 [a]	248.4 [e]
Permanent deforestation (5-year average)	%	0.0 [f]	0.5 [c]	hectare	0.0 [a]	344,059.1 [e]
Red List Index of species survival	scale 0 to 1	1.0 [e]	0.62 [a]	scale 0 to 1	1.0 [e]	0.6 [a]
Biodiversity Habitat Index	scale 0 to 1	1.0 [f]	0.31 [a]	scale 0 to 1	1.0 [f]	0.3 [a]
Area that is not protected in marine sites important to biodiversity	%	2.3 [a]	100 [f]	%	2.3 [a]	100 [f]
Marine biodiversity threats embodied in domestic production	per M people	0.01 [a]	7.17 [d]	number	0.0 [a]	272.7 [e]
Fish caught from overexploited or collapsed fish stocks by EEZ	%	1.2 [f]	69.6 [e]	%	1.2 [f]	69.6 [e]
Fish caught by trawling	%	0 [f]	60.5 [d]	%	0 [f]	60.5 [d]
Sustainable Nitrogen Management Index	scale 0–1.4	0.0 [f]	1.30 [e]	scale 0–1.4	0.0 [f]	1.30 [e]
Domestic Nitrogen surplus	kg/capita	0.1 [a]	43.2 [d]	Gg	0.2 [a]	7,376.1 [e]

Table 16. (cont'd) Thresholds used to rescale indicators in the 2021 GCS Index on a 1–100 scale.

		Proportional			Absolute	
Indicator	**Unit**	**Upper Bound**	**Lower Bound**	**Unit**	**Upper Bound**	**Lower Bound**
Domestic Phosphorus fertilizer	g/capita	0.0 [a]	143.4 [d]	kt	232.0 [a]	4,860,257.7 [e]
Domestic scarce water consumption	m^3/capita	0.1 [a]	499.5 [d]	M m^3	0.0 [a]	59,577.9 [e]
Domestic water stress of crops	m^3/capita	5.7 [a]	20,582.3 [e]	M m^3	4.5 [a]	4,246,897.8 [e]
Domestic freshwater withdrawal	% total renew. water	0.9 [a]	822.9 [d]	B m^3	0.1 [a]	444.3 [e]
Foreign SO_2 emissions embodied in imports	kg/capita	0.3 [a]	26.8 [d]	Gg	5.9 [a]	2,364.6 [e]
Foreign NO_X emissions embodied in imports	kg/capita	0.4 [a]	51.3 [d]	Gg	8.3 [a]	3,205.2 [e]
Foreign Black Carbon emissions embodied in imports	kg/capita	0.0 [a]	1.8 [d]	Gg	0.4 [a]	107.5 [e]
Foreign GHG emissions embodied in imports	tonnes/capita	0.1 [a]	13.3 [e]	Tg	2.5 [a]	870.7 [e]
Foreign Land-use related biodiversity loss of crops, pastures, and forestry embodied in imports	global PDF / capita	2.4E-13 [a]	4.2E-11 [d]	global PDF	4.3E-06 [a]	1.8E-03 [e]
Freshwater biodiversity threats embodied in imports	per M people	0.00 [a]	0.85 [d]	number	0.0 [a]	75.5 [e]
Marine biodiversity threats embodied in imports	per M people	0.00 [a]	1.09 [e]	number	0.0 [a]	61.5 [e]
Foreign Nitrogen surplus embodied in imports	kg/capita	0.1 [a]	23.7 [d]	Gg	2.5 [a]	1,526.4 [e]
Foreign Phosphorus fertilizer embodied in imports	g/capita	0.1 [a]	2,352.5 [b]	kt	1.1 [a]	564.2 [e]
Foreign Scarce water consumption embodied in imports	m^3/capita	0.4 [a]	194.5 [e]	M m^3	12.4 [a]	7,109.9 [e]
Foreign Water stress of crops embodied in imports	m^3/capita	125.1 [a]	23,712.2 [e]	M m^3	1,195.8 [a]	536,927.8 [e]

Note: *PDF* = potentially disappeared fraction of species; *EEZ* = exclusive economic zone
Rationale for bounds: *a* = 2.5th-percentile, *b* = 90th-percentile, *c* = 92.5th-percentile, *d* = 95th-percentile, *e* = 97.5th-percentile, *f* = technical bound, *g* = international target

6. Weighting & Aggregation

Aggregating individual indicator scores to the levels of sub-pillars and pillars requires two choices. The first choice is to select how to weight each subcomponent. Within the sub-pillars, we weight each indicator equally, for the sake of simplicity. Within each pillar, we give the greatest weight, one-third of the total, to GHG Emissions, in recognition of the urgent importance of this impact on the Global Commons. The balance of the weight is distributed equally across the remaining five sub-pillars.

The second choice is the method of aggregation. While we used arithmetic means for the Pilot GCS Index, our subsequent analysis (Wendling et al., 2021) showed that this method allows countries to balance low scores on some indicators with high scores in others. This effect would be warranted if the indicators are compensatory, but on both theoretical and empirical grounds, this assumption is not warranted. Therefore, we use geometric means in the 2021 GCS Index, a method that results in a steeper penalty for low scores in any of the indicators.

Unlike most composite indices, the 2021 GCS Index does not provide a top-level, overall score for each country across the two pillars. The utility of the Index comes from considering each pillar by itself as it relates to multilateral stewardship of the Global Commons – or from highlighting the *contrasts* between the scores in each pillar. Aggregating these scores, then, obscures the lessons, inquiries, and discussions we wish to promote. Like a stereograph, the domestic and spillover scores are best presented side-by-side, to be merged only in the mind of the reader, who will then perceive them with greater depth.

7. Missing data

Data for our indicators may be missing for two reasons. First, data may not be applicable for a country due to its geography. For example, landlocked countries will have no indicators on marine resources. In these cases, no score is recorded, and the indicator and sub-pillar will receive no weight in the aggregation step. For spillover scores, however, even landlocked countries may import environmental impacts to Marine Biodiversity Loss, and so no such materiality filter is applied to these spillover indicators. Second, our data sources may fail to report relevant data. In these cases, missing values are imputed using the population-weighted mean of the other countries in a given region. The only exception is the European Union: When observations are not available from, or computable from, original datasets, missing values are calculated from the population-weighted averages of the member states. We note here that there are some indicators for which we do not yet have absolute values. In these cases, the proportional values are used in both the absolute and proportional versions.

8. Dashboards

For ease of communicating the results, we provide a dashboard color for each score and for overall impacts. These colors classify countries on an ordinal scale by how seriously they are impacting the Global Commons (see Table 17).

Table 17. Legend for dashboard categories and trajectories in the 2021 GCS Index.

Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward threshold
↓	Trajectory headed in wrong direction

9. Trajectories

Because the 2021 GCS Index uses time-bound thresholds, this report includes an assessment of the trajectories of countries' impacts. The scores provide a snapshot of the level of impacts based on the most recent year of data, but we also calculate an annual average growth rate over the past five years of data. Projecting these growth rates into the future, we can determine whether countries are on- or off-track to meet sustainability threshold. We classify impacts into four categories (Table 17).

Interim thresholds are based on aggregate global impacts in proportional terms. Given the most recent levels of impact, we calculate the average annual growth rate for the world as a whole to meet the 2050 threshold. The interim threshold is then the projected value in the year 2030, which coïncides with the target date for many of the SDGs.

Even if a country is currently meeting the interim or 2050 threshold, we categorize their trajectory as being off-track if it is trending in the wrong direction. This would allow a country with a "green" dashboard to still receive a ↓ trajectory. We aggregate trajectories from indicators to higher levels using the methods described in Sachs et al. (2019, pp. 46–47).

Appendix B: Country Profiles

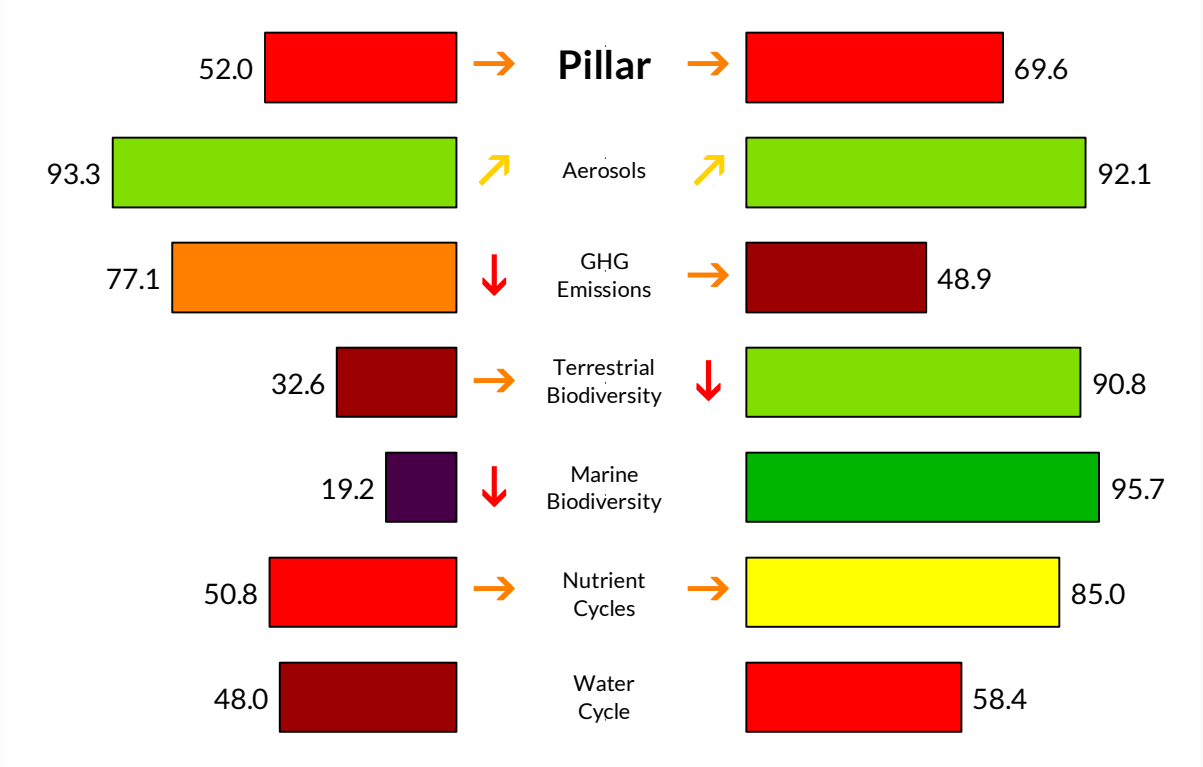
Albania

Eastern Europe & Central Asia

Population [millions]	2.8	**GDP** [$, billions]	37.7
Land area [km^2, thousands]	2,877.5	**GDP** per capita	13,295

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



Note: All results shown in proportional terms.

The Global Commons Stewardship Index is a production of the Sustainable Development Solutions Network, the Yale Center for Environmental Law & Policy, and the Center for Global Commons at the University of Tokyo.

Dashboard Score	Impacts on the Global Commons
95–100	None or limited
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70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Albania

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	4.04	kg/capita	93.5	↓	11.54	Gg	2019
SO_2 emissions – Spillover	2.87	kg/capita	90.2	↑	8.27	Gg	2015
NO_X emissions – Domestic	8.19	kg/capita	92.5	↗	23.37	Gg	2019
NO_X emissions – Spillover	3.73	kg/capita	93.5	↗	10.75	Gg	2015
Black Carbon emissions – Domestic	0.33	kg/capita	93.8	↑	0.95	Gg	2019
Black Carbon emissions – Spillover	0.14	kg/capita	92.7	↑	0.41	Gg	2015
GHG Emissions							
GHG emissions – Domestic	3.30	tonnes/capita	83.9	↓	9.43	Tg	2019
GHG emissions – Spillover	1.22	tonnes/capita	48.9	→	3.51	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	70.9		0.01	Gg	2016
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	42.82	%	60.7	→	42.82	%	2019
Unprotected freshwater sites	7.33	%	94.4	↓	7.33	%	2019
Land-use biodiversity loss – Domestic	9.06E-12	global PDF/capita	86.9	→	2.61E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.37E-12	global PDF/capita	97.3	↓	3.96E-06	global PDF	2015
Freshwater biodiversity threats – Domestic	5.43	per M people	1.0		15.64	number	2018
Freshwater biodiversity threats – Spillover	0.13	per M people	84.7		0.39	number	2018
Permanent deforestation	5.13E-04	%	99.9	↓	3.02	hectare	2020
Red List Index of species survival	0.84	scale 0–1	59.9	↓	0.84	scale 0–1	2019
Biodiversity Habitat Index	0.40	scale 0–1	13.1		0.40	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	29.30	%	72.7	→	29.30	%	2019
Marine biodiversity threats – Domestic	0.14	per M people	98.1		0.41	number	2018
Marine biodiversity threats – Spillover	0.05	per M people	95.7		0.14	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	84.35	%	1.0	↓	84.35	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.83	scale 0–1.4	37.2	→	0.83	scale 0–1.4	2015
Nitrogen surplus – Domestic	21.26	kg/capita	51.3	↓	61.24	Gg	2015
Nitrogen surplus – Spillover	1.41	kg/capita	94.6	→	4.05	Gg	2015
Phosphorus fertilizer – Domestic		g/capita				kt	
Phosphorus fertilizer – Spillover	562.54	g/capita	76.3	→	1.62	kt	2015
Water Cycle							
Scarce water consumption – Domestic	3.65	m^3/capita	54.6	→	10.51	B m^3	2015
Scarce water consumption – Spillover	7.52	m^3/capita	52.0	→	21.67	M m^3	2015
Water stress of crops – Domestic	2,005.21	m^3/capita	29.1	→	5,776.42	M m^3	2015
Water stress of crops – Spillover	776.62	m^3/capita	65.5	↓	2,237.20	M m^3	2015
Feshwater withdrawal	7.14	% renew. H_20	69.5		1.19	% renew. H_20	2017

The Global Commons Stewardship Index is a production of SDSN, Yale University, and the University of Tokyo.

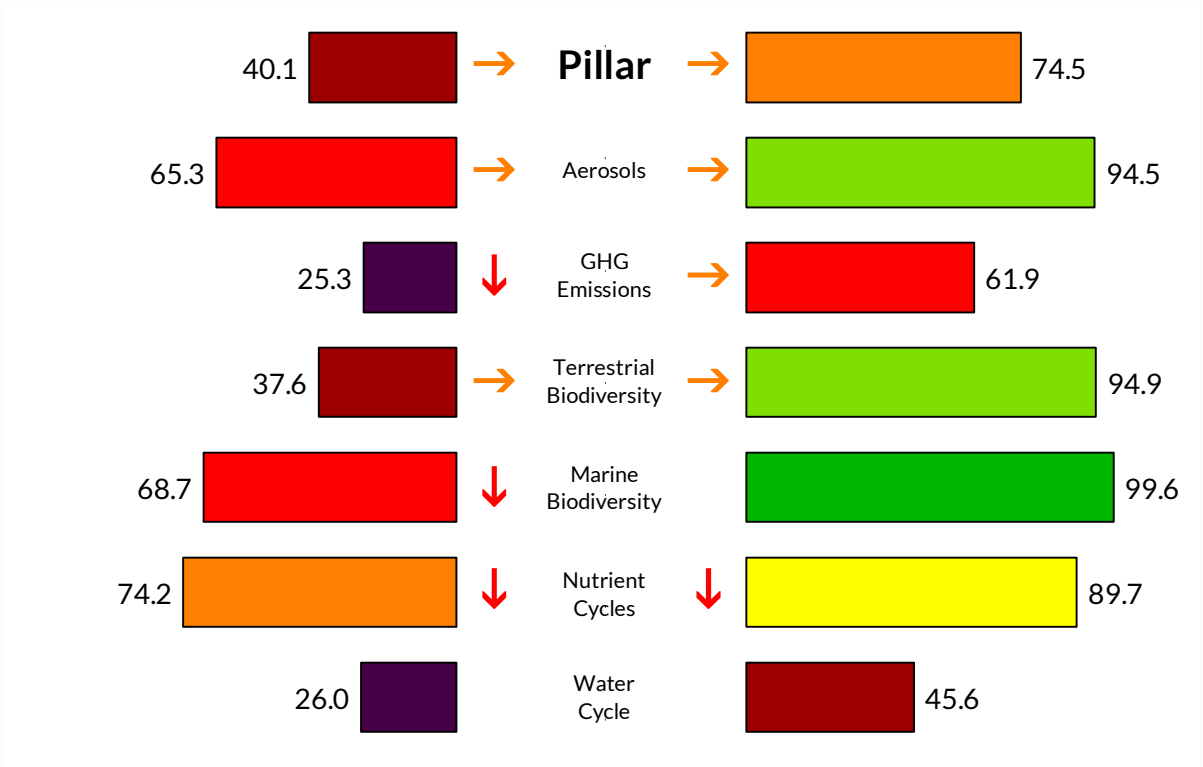
Algeria

Middle East & North Africa

Population [millions]	43.9	**GDP** [$, billions]	468.0
Land area [km^2, thousands]	231,666.1	**GDP** per capita	10,672

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Algeria

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.54	kg/capita	98.2	↗	66.46	Gg	2019
SO_2 emissions – Spillover	2.02	kg/capita	93.4	→	80.29	Gg	2015
NO_X emissions – Domestic	11.32	kg/capita	85.2	→	487.16	Gg	2019
NO_X emissions – Spillover	3.46	kg/capita	94.1	↓	137.58	Gg	2015
Black Carbon emissions – Domestic	1.61	kg/capita	33.2	→	69.29	Gg	2019
Black Carbon emissions – Spillover	0.08	kg/capita	96.2	↗	3.21	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.33	tonnes/capita	63.2	↓	272.42	Tg	2019
GHG emissions – Spillover	0.64	tonnes/capita	61.9	→	25.23	Tg	2015
CO_2 emissions embodied in fossil fuel exports	941.06	kg/capita	10.2		38,949.55	Gg	2017
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	83.37	%	18.4	↓	83.37	%	2019
Unprotected freshwater sites	81.25	%	19.9	↓	81.25	%	2019
Land-use biodiversity loss – Domestic	9.47E-13	global PDF/capita	98.7	↑	3.76E-05	global PDF	2015
Land-use biodiversity loss – Spillover	3.64E-12	global PDF/capita	91.9	→	1.45E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.16	per M people	97.0		6.86	number	2018
Freshwater biodiversity threats – Spillover	0.02	per M people	98.0		0.80	number	2018
Permanent deforestation	4.92E-01	%	6.0	↓	4,041.41	hectare	2020
Red List Index of species survival	0.90	scale 0–1	77.1	↓	0.90	scale 0–1	2019
Biodiversity Habitat Index	0.75	scale 0–1	65.6		0.75	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	51.07	%	50.6	↓	51.07	%	2019
Marine biodiversity threats – Domestic	0.58	per M people	92.0		24.66	number	2018
Marine biodiversity threats – Spillover	0.00	per M people	99.6		0.19	number	2018
Fish stocks: overexploited or collapsed	19.59	%	73.4	↓	19.59	%	2018
Fish caught by trawling	21.39	%	65.2	↓	21.39	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.71	scale 0–1.4	46.7	→	0.71	scale 0–1.4	2015
Nitrogen surplus – Domestic	1.44	kg/capita	96.8	↓	57.06	Gg	2015
Nitrogen surplus – Spillover	0.94	kg/capita	96.6	↓	37.38	Gg	2015
Phosphorus fertilizer – Domestic		g/capita				kt	
Phosphorus fertilizer – Spillover	398.16	g/capita	83.2	→	15.82	kt	2015
Water Cycle							
Scarce water consumption – Domestic	54.67	m^3/capita	25.1	↓	2,171.80	B m^3	2015
Scarce water consumption – Spillover	6.70	m^3/capita	53.8	→	266.08	M m^3	2015
Water stress of crops – Domestic	2,541.01	m^3/capita	26.3	→	100,949.36	M m^3	2015
Water stress of crops – Spillover	3,230.08	m^3/capita	38.6	→	128,324.49	M m^3	2015
Feshwater withdrawal	137.86	% renew. H_20	26.8		9.80	% renew. H_20	2017

The Global Commons Stewardship Index is a production of SDSN, Yale University, and the University of Tokyo.

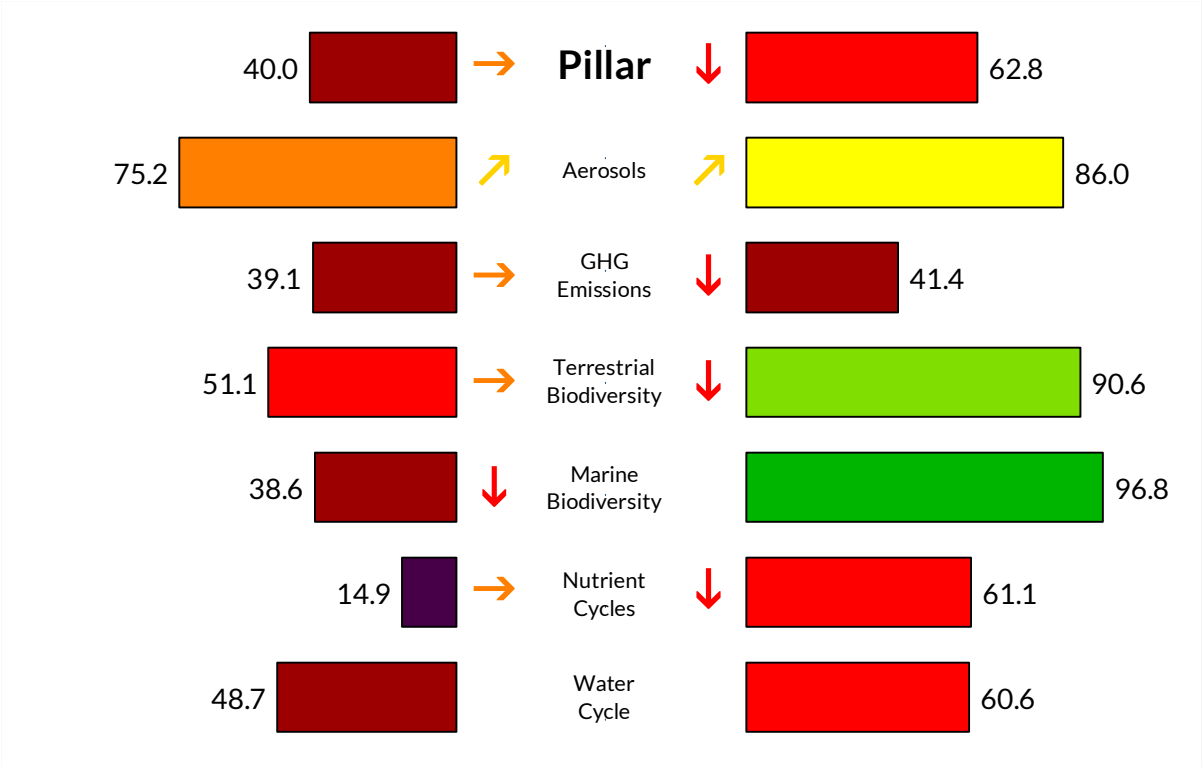
Argentina

Latin America & the Caribbean

Population [millions]	45.4	**GDP** [$, billions]	893.0
Land area [km^2, thousands]	278,647.5	**GDP** per capita	19,680

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Argentina

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	2.42	kg/capita	96.5	↑	108.72	Gg	2019
SO_2 emissions – Spillover	4.44	kg/capita	84.4	↑	191.45	Gg	2015
NO_X emissions – Domestic	22.96	kg/capita	58.0	→	1,031.85	Gg	2019
NO_X emissions – Spillover	7.46	kg/capita	86.3	→	321.79	Gg	2015
Black Carbon emissions – Domestic	0.71	kg/capita	75.9	→	31.93	Gg	2019
Black Carbon emissions – Spillover	0.24	kg/capita	87.4	→	10.19	Gg	2015
GHG Emissions							
GHG emissions – Domestic	7.98	tonnes/capita	55.8	→	358.40	Tg	2019
GHG emissions – Spillover	1.77	tonnes/capita	41.4	↓	76.44	Tg	2015
CO_2 emissions embodied in fossil fuel exports	24.25	kg/capita	27.4		1,089.93	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	68.20	%	34.2	→	68.20	%	2019
Unprotected freshwater sites	56.27	%	45.1	→	56.27	%	2019
Land-use biodiversity loss – Domestic	2.44E-11	global PDF/capita	64.6	→	1.05E-03	global PDF	2015
Land-use biodiversity loss – Spillover	6.40E-12	global PDF/capita	85.3	↓	2.76E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.21	per M people	96.2		9.17	number	2018
Freshwater biodiversity threats – Spillover	0.03	per M people	96.3		1.51	number	2018
Permanent deforestation	3.39E-01	%	35.2	→	130,075.56	hectare	2020
Red List Index of species survival	0.86	scale 0–1	65.4	↓	0.86	scale 0–1	2019
Biodiversity Habitat Index	0.59	scale 0–1	41.4		0.59	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	59.47	%	42.1	→	59.47	%	2019
Marine biodiversity threats – Domestic	0.78	per M people	89.4		34.39	number	2018
Marine biodiversity threats – Spillover	0.04	per M people	96.8		1.58	number	2018
Fish stocks: overexploited or collapsed	60.99	%	13.4	↓	60.99	%	2018
Fish caught by trawling	34.37	%	43.9	→	34.37	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.32	scale 0–1.4	76.5	→	0.32	scale 0–1.4	2015
Nitrogen surplus – Domestic	50.01	kg/capita	1.0	↓	2,156.92	Gg	2015
Nitrogen surplus – Spillover	2.76	kg/capita	88.9	↓	118.83	Gg	2015
Phosphorus fertilizer – Domestic		g/capita				kt	
Phosphorus fertilizer – Spillover	1,379.86	g/capita	41.9	↓	59.52	kt	2015
Water Cycle							
Scarce water consumption – Domestic	5.20	m^3/capita	50.8	→	224.40	B m^3	2015
Scarce water consumption – Spillover	4.60	m^3/capita	59.7	→	198.43	M m^3	2015
Water stress of crops – Domestic	2,053.11	m^3/capita	28.8	→	88,554.77	M m^3	2015
Water stress of crops – Spillover	962.76	m^3/capita	61.5	↓	41,525.90	M m^3	2015
Feshwater withdrawal		% renew. H_20			37.69	% renew. H_20	

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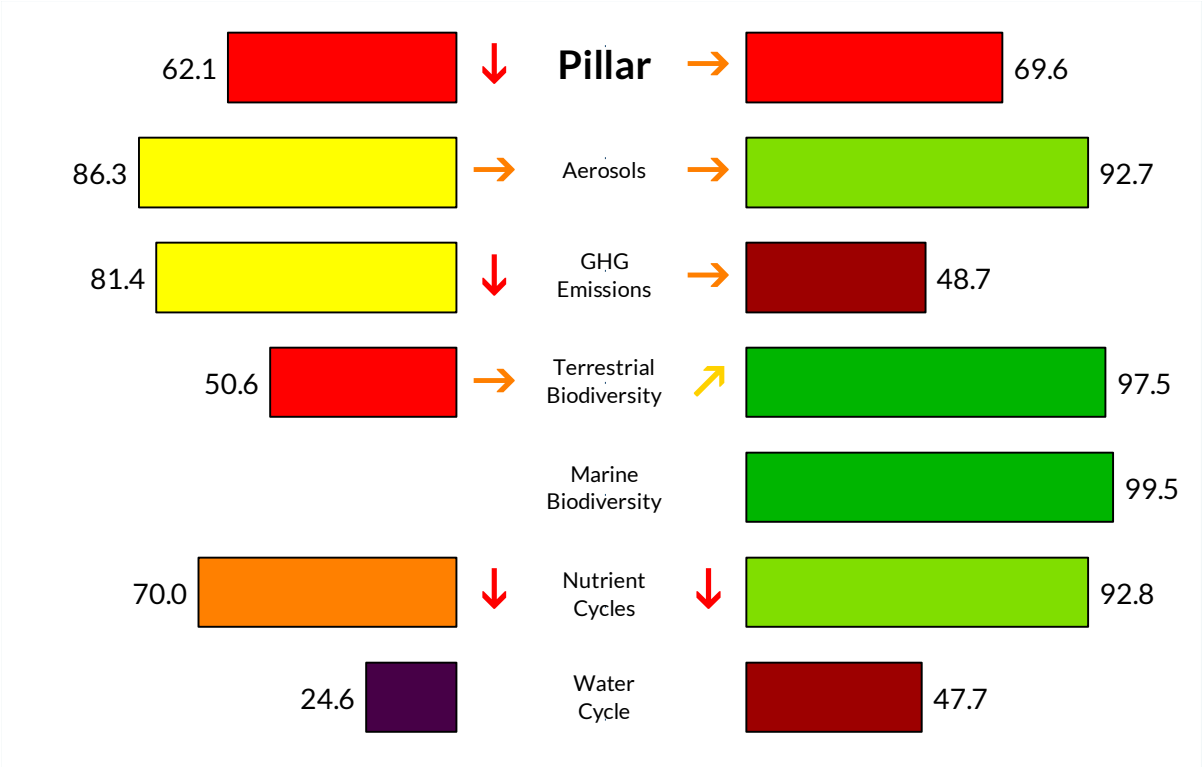
Armenia

Eastern Europe & Central Asia

Population [millions]	3.0	**GDP** [$, billions]	37.3
Land area [km^2, thousands]	2,968.4	**GDP** per capita	12,593

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
↑	Projected to meet 2050 Threshold
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Armenia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	18.02	kg/capita	67.5	↓	53.29	Gg	2019
SO_2 emissions – Spillover	2.61	kg/capita	91.2	→	7.65	Gg	2015
NO_X emissions – Domestic	6.97	kg/capita	95.3	↓	20.62	Gg	2019
NO_X emissions – Spillover	2.65	kg/capita	95.6	→	7.76	Gg	2015
Black Carbon emissions – Domestic	0.21	kg/capita	99.7	↑	0.61	Gg	2019
Black Carbon emissions – Spillover	0.17	kg/capita	91.3	→	0.49	Gg	2015
GHG Emissions							
GHG emissions – Domestic	3.57	tonnes/capita	81.4	↓	10.57	Tg	2019
GHG emissions – Spillover	1.23	tonnes/capita	48.7	→	3.59	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	78.45	%	23.5	↓	78.45	%	2019
Unprotected freshwater sites	73.20	%	28.0	↓	73.20	%	2019
Land-use biodiversity loss – Domestic	1.14E-11	global PDF/capita	83.5	→	3.34E-05	global PDF	2015
Land-use biodiversity loss – Spillover	2.29E-12	global PDF/capita	95.1	↗	6.70E-06	global PDF	2015
Freshwater biodiversity threats – Domestic	0.07	per M people	98.8		0.20	number	2018
Freshwater biodiversity threats – Spillover	0.00	per M people	99.9		0.01	number	2018
Permanent deforestation	0.00E+00	%	100.0	↓	0.00	hectare	2020
Red List Index of species survival	0.85	scale 0–1	61.5	↓	0.85	scale 0–1	2019
Biodiversity Habitat Index	0.48	scale 0–1	25.3		0.48	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.01	per M people	99.5		0.02	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.59	scale 0–1.4	55.7	↓	0.59	scale 0–1.4	2015
Nitrogen surplus – Domestic	4.51	kg/capita	89.8	↓	13.20	Gg	2015
Nitrogen surplus – Spillover	0.75	kg/capita	97.3	↓	2.21	Gg	2015
Phosphorus fertilizer – Domestic		g/capita				kt	
Phosphorus fertilizer – Spillover	275.72	g/capita	88.4	→	0.81	kt	2015
Water Cycle							
Scarce water consumption – Domestic	47.05	m^3/capita	26.8	→	137.63	B m^3	2015
Scarce water consumption – Spillover	12.83	m^3/capita	43.6	→	37.55	M m^3	2015
Water stress of crops – Domestic	6,898.85	m^3/capita	14.2	→	20,183.00	M m^3	2015
Water stress of crops – Spillover	1,576.84	m^3/capita	52.2	→	4,613.14	M m^3	2015
Feshwater withdrawal	57.80	% renew. H_20	39.3		2.87	% renew. H_20	2017

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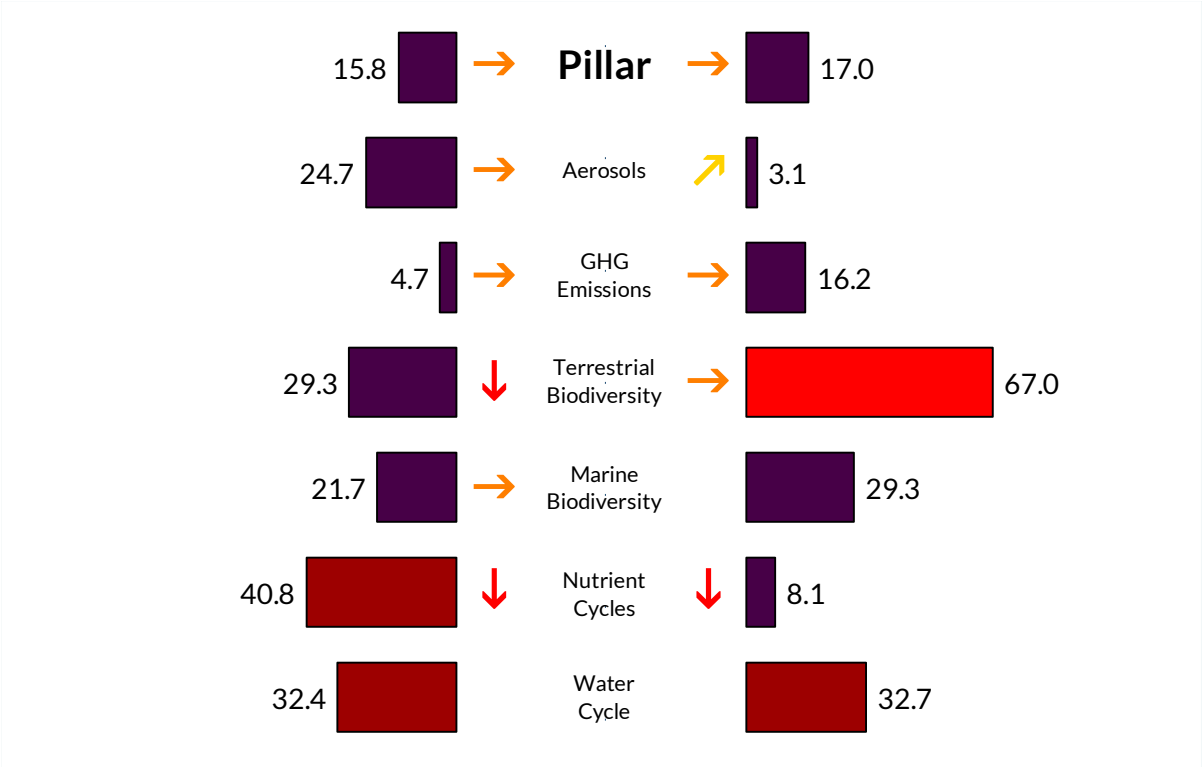
Australia

OECD

Population [millions]	25.7	**GDP** [$, billions]	1,250.0
Land area [km^2, thousands]	771,652.6	**GDP** per capita	48,663

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Australia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	42.22	kg/capita	22.5	→	1,070.82	Gg	2019
SO_2 emissions – Spillover	26.80	kg/capita	1.0	↑	638.22	Gg	2015
NO_X emissions – Domestic	43.27	kg/capita	10.7	→	1,097.49	Gg	2019
NO_X emissions – Spillover	53.32	kg/capita	1.0	→	1,269.80	Gg	2015
Black Carbon emissions – Domestic	1.00	kg/capita	62.4	→	25.24	Gg	2019
Black Carbon emissions – Spillover	1.26	kg/capita	29.6	→	29.91	Gg	2015
GHG Emissions							
GHG emissions – Domestic	22.89	tonnes/capita	22.0	→	580.58	Tg	2019
GHG emissions – Spillover	6.23	tonnes/capita	16.2	→	148.42	Tg	2015
CO_2 emissions embodied in fossil fuel exports	42,218.07	kg/capita	1.0		1,070,892.88	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	44.32	%	59.1	→	44.32	%	2019
Unprotected freshwater sites	62.32	%	39.0	→	62.32	%	2019
Land-use biodiversity loss – Domestic	1.64E-10	global PDF/capita	1.0	→	3.90E-03	global PDF	2015
Land-use biodiversity loss – Spillover	1.37E-11	global PDF/capita	67.9	→	3.26E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	4.03	per M people	25.7		100.22	number	2018
Freshwater biodiversity threats – Spillover	0.29	per M people	66.0		7.31	number	2018
Permanent deforestation	4.70E-02	%	91.0	↓	18,562.23	hectare	2020
Red List Index of species survival	0.82	scale 0–1	55.0	↓	0.82	scale 0–1	2019
Biodiversity Habitat Index	0.73	scale 0–1	62.7		0.73	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	36.84	%	65.0	→	36.84	%	2019
Marine biodiversity threats – Domestic	18.21	per M people	1.0		453.38	number	2018
Marine biodiversity threats – Spillover	0.78	per M people	29.3		19.46	number	2018
Fish stocks: overexploited or collapsed	38.78	%	45.6	→	38.78	%	2018
Fish caught by trawling	15.74	%	74.5	→	15.74	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.63	scale 0–1.4	52.4	→	0.63	scale 0–1.4	2015
Nitrogen surplus – Domestic	29.22	kg/capita	33.0	↓	695.96	Gg	2015
Nitrogen surplus – Spillover	8.32	kg/capita	65.5	↓	198.11	Gg	2015
Phosphorus fertilizer – Domestic		g/capita				kt	
Phosphorus fertilizer – Spillover	4,649.94	g/capita	1.0	↓	110.74	kt	2015
Water Cycle							
Scarce water consumption – Domestic	15.76	m^3/capita	38.7	→	375.22	B m^3	2015
Scarce water consumption – Spillover	31.72	m^3/capita	29.4	→	755.35	M m^3	2015
Water stress of crops – Domestic	8,037.36	m^3/capita	12.4	→	191,417.66	M m^3	2015
Water stress of crops – Spillover	3,642.56	m^3/capita	36.4	→	86,751.09	M m^3	2015
Feshwater withdrawal	6.41	% renew. H_20	71.0		15.94	% renew. H_20	2017

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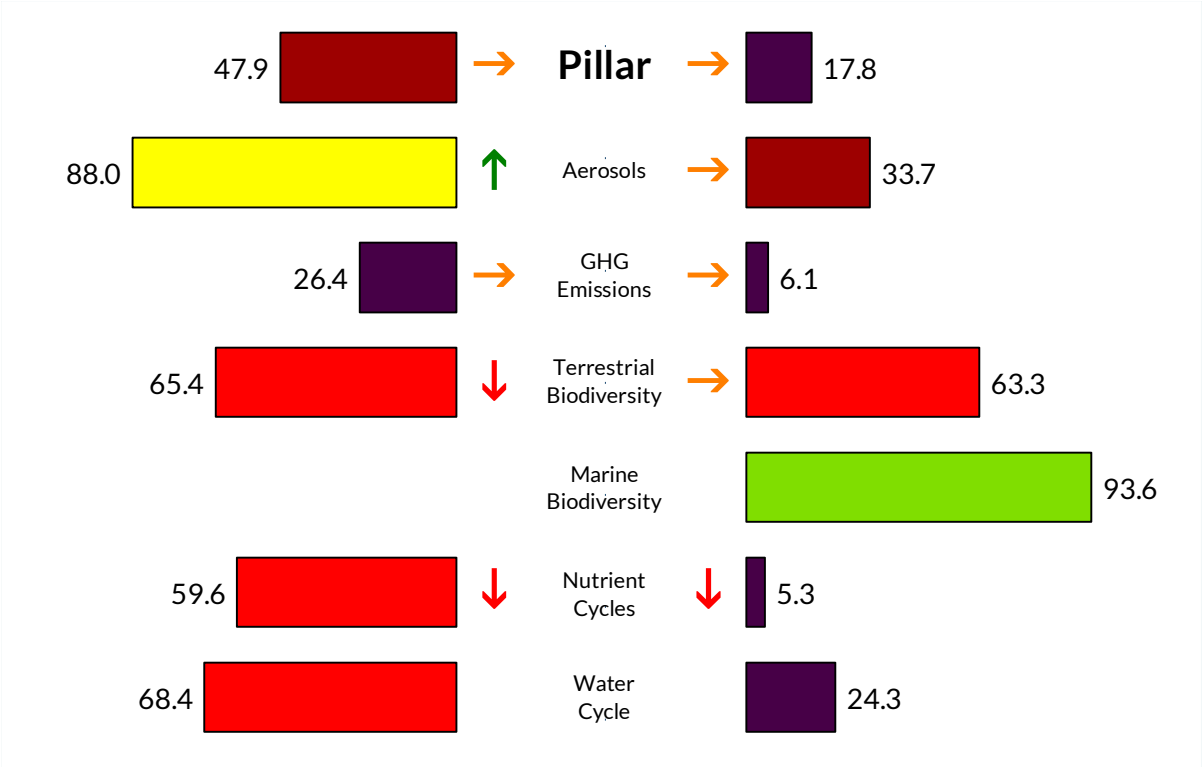
Austria

OECD

Population [millions]	8.9	**GDP** [$, billions]	463.0
Land area [km^2, thousands]	8,379.6	**GDP** per capita	51,922

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

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Austria

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.40	kg/capita	98.4	↑	12.43	Gg	2019
SO_2 emissions – Spillover	20.99	kg/capita	22.7	→	181.39	Gg	2015
NO_X emissions – Domestic	14.25	kg/capita	78.3	↑	126.55	Gg	2019
NO_X emissions – Spillover	32.61	kg/capita	37.3	→	281.88	Gg	2015
Black Carbon emissions – Domestic	0.45	kg/capita	88.3	↑	3.99	Gg	2019
Black Carbon emissions – Spillover	0.98	kg/capita	45.1	→	8.49	Gg	2015
GHG Emissions							
GHG emissions – Domestic	11.52	tonnes/capita	44.0	→	102.30	Tg	2019
GHG emissions – Spillover	10.31	tonnes/capita	6.1	→	89.14	Tg	2015
CO_2 emissions embodied in fossil fuel exports	283.90	kg/capita	15.8		2,521.01	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	32.66	%	71.3	→	32.66	%	2019
Unprotected freshwater sites	28.78	%	72.8	→	28.78	%	2019
Land-use biodiversity loss – Domestic	1.50E-11	global PDF/capita	78.3	↓	1.29E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.37E-11	global PDF/capita	67.9	→	1.18E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	2.80	per M people	48.3		24.90	number	2018
Freshwater biodiversity threats – Spillover	0.35	per M people	59.0		3.15	number	2018
Permanent deforestation	3.32E-03	%	99.4	↓	144.35	hectare	2020
Red List Index of species survival	0.89	scale 0–1	74.6	→	0.89	scale 0–1	2019
Biodiversity Habitat Index	0.55	scale 0–1	35.1		0.55	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.07	per M people	93.6		0.63	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.39	scale 0–1.4	71.1	↓	0.39	scale 0–1.4	2015
Nitrogen surplus – Domestic	10.49	kg/capita	76.0	↓	90.70	Gg	2015
Nitrogen surplus – Spillover	17.15	kg/capita	28.4	↓	148.23	Gg	2015
Phosphorus fertilizer – Domestic		g/capita				kt	
Phosphorus fertilizer – Spillover	6,490.19	g/capita	1.0	→	56.09	kt	2015
Water Cycle							
Scarce water consumption – Domestic	1.28	m^3/capita	66.1	↗	11.03	B m^3	2015
Scarce water consumption – Spillover	61.95	m^3/capita	18.9	→	535.45	M m^3	2015
Water stress of crops – Domestic	43.90	m^3/capita	75.3	↗	379.44	M m^3	2015
Water stress of crops – Spillover	4,782.26	m^3/capita	31.2	→	41,331.67	M m^3	2015
Feshwater withdrawal	10.13	% renew. H_20	64.4		3.49	% renew. H_20	2002

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Azerbaijan

Eastern Europe & Central Asia

Population [millions]	10.1	**GDP** [$, billions]	139.0
Land area [km^2, thousands]	8,637.1	**GDP** per capita	13,749

Overall impact on the Global Commons and trajectory: **High** →

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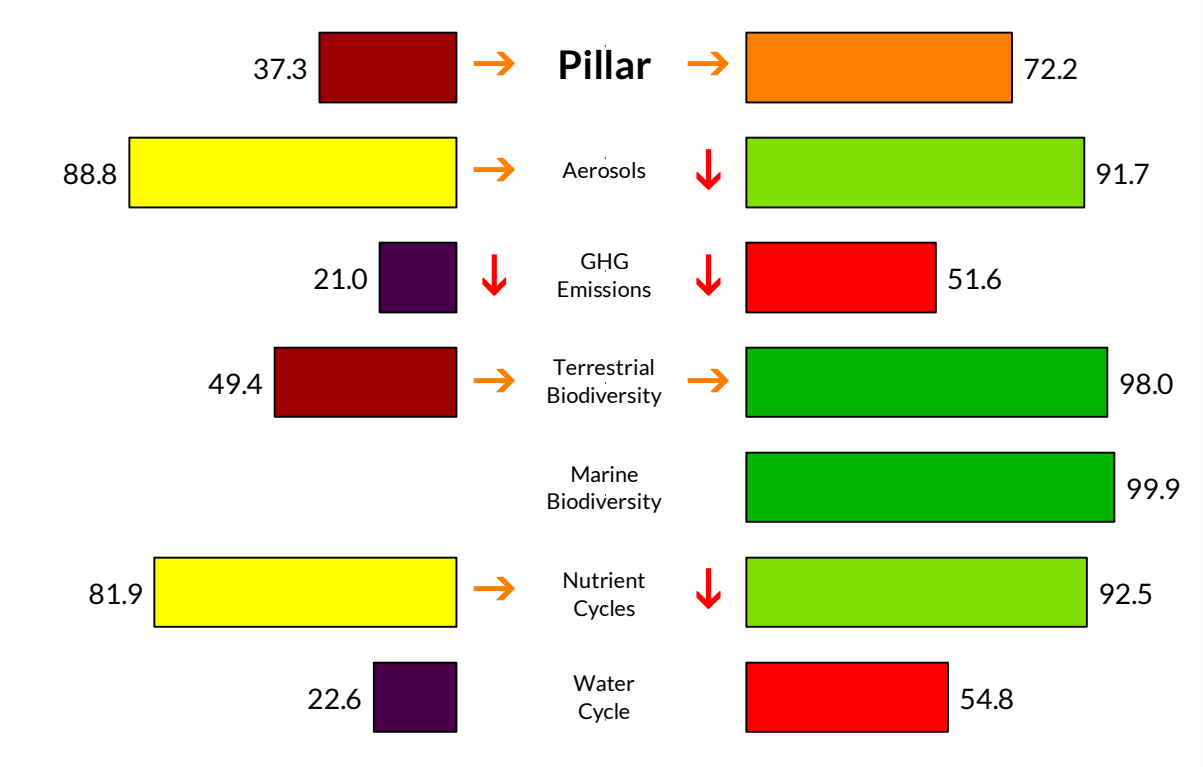

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Trajectories based upon 5-year average annual growth rates.

Azerbaijan

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	2.92	kg/capita	95.6	↑	29.27	Gg	2019
SO_2 emissions – Spillover	3.13	kg/capita	89.3	↓	30.22	Gg	2015
NO_X emissions – Domestic	8.48	kg/capita	91.8	↓	85.03	Gg	2019
NO_X emissions – Spillover	3.78	kg/capita	93.4	↓	36.45	Gg	2015
Black Carbon emissions – Domestic	0.63	kg/capita	79.8	↓	6.28	Gg	2019
Black Carbon emissions – Spillover	0.15	kg/capita	92.3	↓	1.43	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.05	tonnes/capita	64.6	↓	60.69	Tg	2019
GHG emissions – Spillover	1.06	tonnes/capita	51.6	↓	10.27	Tg	2015
CO_2 emissions embodied in fossil fuel exports	1,901.54	kg/capita	6.9		19,224.79	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	63.39	%	39.2	↓	63.39	%	2019
Unprotected freshwater sites	85.47	%	15.6	↓	85.47	%	2019
Land-use biodiversity loss – Domestic	1.01E-11	global PDF/capita	85.3	→	9.78E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.60E-12	global PDF/capita	96.7	→	1.55E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.74	per M people	86.4		7.34	number	2018
Freshwater biodiversity threats – Spillover	0.01	per M people	99.2		0.09	number	2018
Permanent deforestation	7.64E-04	%	99.9	↓	8.27	hectare	2020
Red List Index of species survival	0.91	scale 0–1	79.4	→	0.91	scale 0–1	2019
Biodiversity Habitat Index	0.44	scale 0–1	20.1		0.44	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.00	per M people	99.9		0.02	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.58	scale 0–1.4	56.7	→	0.58	scale 0–1.4	2015
Nitrogen surplus – Domestic	1.30	kg/capita	97.1	↓	12.50	Gg	2015
Nitrogen surplus – Spillover	0.72	kg/capita	97.5	↓	6.98	Gg	2015
Phosphorus fertilizer – Domestic	0.07	g/capita	100.0	↑	530.00	kt	2019
Phosphorus fertilizer – Spillover	291.12	g/capita	87.8	↓	2.81	kt	2015
Water Cycle							
Scarce water consumption – Domestic	65.58	m^3/capita	23.1	→	632.79	B m^3	2015
Scarce water consumption – Spillover	6.64	m^3/capita	53.9	↓	64.09	M m^3	2015
Water stress of crops – Domestic	7,880.69	m^3/capita	12.6	→	76,043.50	M m^3	2015
Water stress of crops – Spillover	1,311.23	m^3/capita	55.7	↓	12,652.50	M m^3	2015
Feshwater withdrawal	56.42	% renew. H_20	39.7		12.78	% renew. H_20	2017

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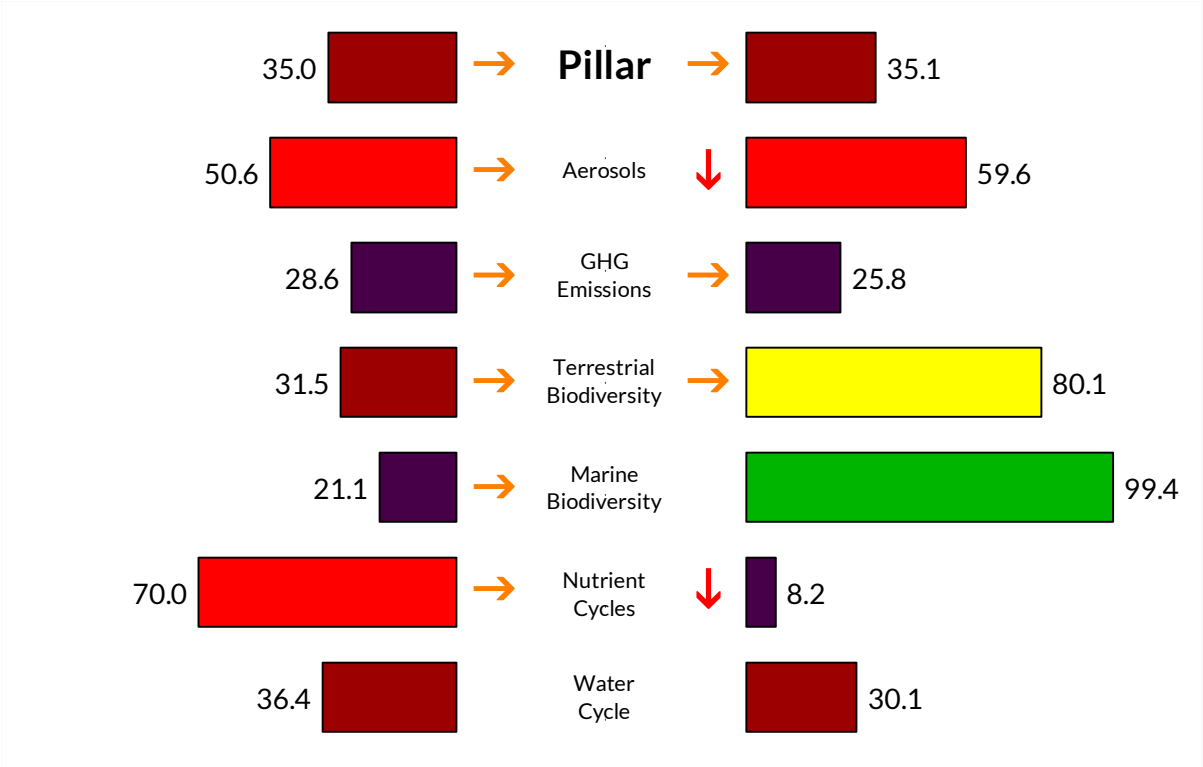
Bahrain

Middle East & North Africa

Population [millions]	1.7	**GDP** [$, billions]	69.7
Land area [km^2, thousands]	66.8	**GDP** per capita	40,933

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Bahrain

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	25.27	kg/capita	54.0	→	41.48	Gg	2019
SO_2 emissions – Spillover	12.57	kg/capita	54.1	↓	17.24	Gg	2015
NO_X emissions – Domestic	32.52	kg/capita	35.7	→	53.38	Gg	2019
NO_X emissions – Spillover	20.27	kg/capita	61.3	↓	27.81	Gg	2015
Black Carbon emissions – Domestic	0.90	kg/capita	67.1	→	1.47	Gg	2019
Black Carbon emissions – Spillover	0.65	kg/capita	63.8	→	0.90	Gg	2015
GHG Emissions							
GHG emissions – Domestic	33.95	tonnes/capita	9.4	→	55.72	Tg	2019
GHG emissions – Spillover	3.87	tonnes/capita	25.8	→	5.30	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	87.0		0.00	Gg	2018
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	100.00	%	1.0	↓	100.00	%	2019
Unprotected freshwater sites		%				%	
Land-use biodiversity loss – Domestic	9.30E-14	global PDF/capita	100.0	↑	1.28E-07	global PDF	2015
Land-use biodiversity loss – Spillover	1.49E-11	global PDF/capita	65.0	→	2.04E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.00	per M people	100.0		0.00	number	2018
Freshwater biodiversity threats – Spillover	0.01	per M people	98.6		0.02	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.84	scale 0–1	60.6	↓	0.84	scale 0–1	2019
Biodiversity Habitat Index	0.70	scale 0–1	57.2		0.70	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	100.00	%	1.0	↓	100.00	%	2019
Marine biodiversity threats – Domestic	0.45	per M people	93.8		0.71	number	2018
Marine biodiversity threats – Spillover	0.01	per M people	99.4		0.01	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.87	scale 0–1.4	34.3	↓	0.87	scale 0–1.4	2015
Nitrogen surplus – Domestic	0.04	kg/capita	100.0	↓	0.06	Gg	2015
Nitrogen surplus – Spillover	8.02	kg/capita	66.8	↓	11.01	Gg	2015
Phosphorus fertilizer – Domestic	0.01	g/capita	100.0	↑	70.34	kt	2019
Phosphorus fertilizer – Spillover	3,262.80	g/capita	1.0	→	4.48	kt	2015
Water Cycle							
Scarce water consumption – Domestic	20.18	m^3/capita	36.0	→	27.69	B m^3	2015
Scarce water consumption – Spillover	34.50	m^3/capita	28.1	→	47.32	M m^3	2015
Water stress of crops – Domestic	210.59	m^3/capita	56.3	↗	288.90	M m^3	2015
Water stress of crops – Spillover	4,554.32	m^3/capita	32.1	→	6,247.86	M m^3	2015
Feshwater withdrawal		% renew. H_20			0.15	% renew. H_20	

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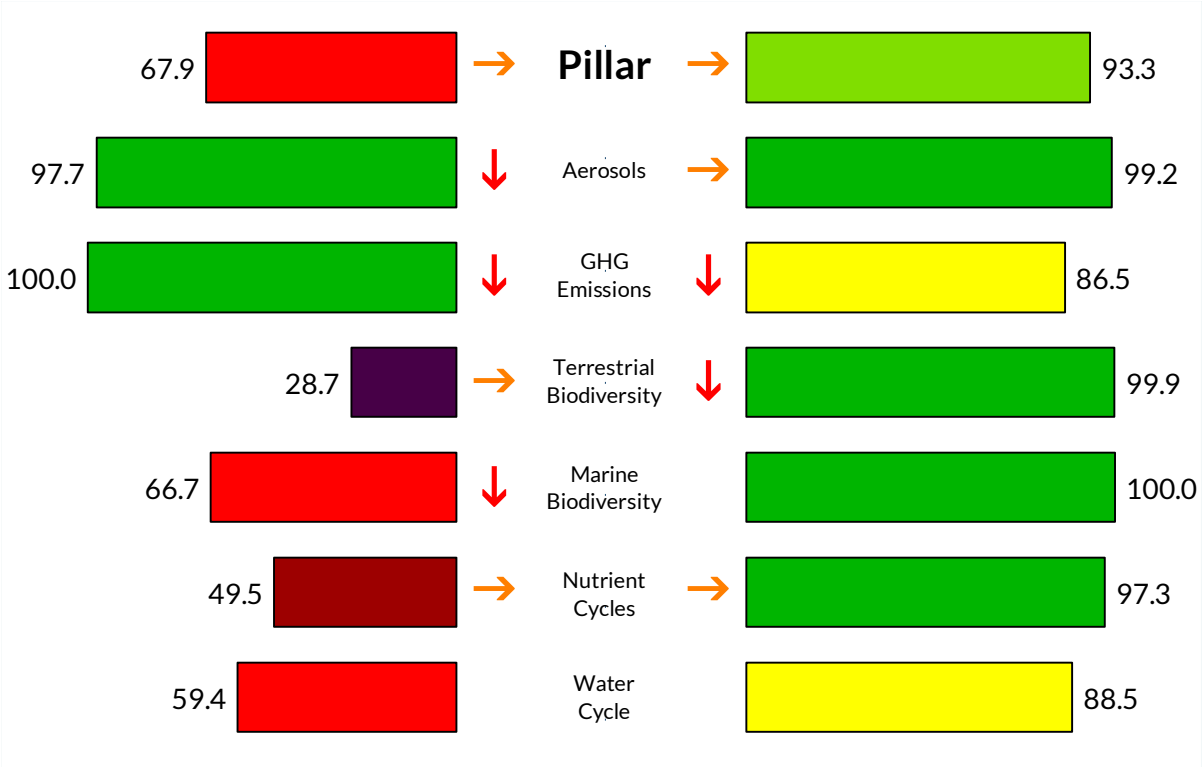
Bangladesh

East & South Asia

Population [millions]	164.7	**GDP** [$, billions]	793.0
Land area [km^2, thousands]	14,030.3	**GDP** per capita	4,815

Overall impact on the Global Commons and trajectory: **Medium-high** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
↑	Projected to meet 2050 Threshold
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Trajectories based upon 5-year average annual growth rates.

Bangladesh

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.73	kg/capita	97.8	↓	282.45	Gg	2019
SO_2 emissions – Spillover	0.53	kg/capita	99.0	↓	83.18	Gg	2015
NO_X emissions – Domestic	4.95	kg/capita	100.0	↓	807.38	Gg	2019
NO_X emissions – Spillover	0.60	kg/capita	99.6	↓	93.73	Gg	2015
Black Carbon emissions – Domestic	0.30	kg/capita	95.3	↓	49.09	Gg	2019
Black Carbon emissions – Spillover	0.03	kg/capita	98.9	↗	5.14	Gg	2015
GHG Emissions							
GHG emissions – Domestic	1.41	tonnes/capita	100.0	↓	229.94	Tg	2019
GHG emissions – Spillover	0.19	tonnes/capita	86.5	↓	29.02	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	56.35	%	46.6	↓	56.35	%	2019
Unprotected freshwater sites	100.00	%	1.0	↓	100.00	%	2019
Land-use biodiversity loss – Domestic	1.34E-12	global PDF/capita	98.1	↑	2.09E-04	global PDF	2015
Land-use biodiversity loss – Spillover	2.85E-13	global PDF/capita	99.9	↓	4.46E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.03	per M people	99.5		4.91	number	2018
Freshwater biodiversity threats – Spillover	0.00	per M people	100.0		0.22	number	2018
Permanent deforestation	2.82E-01	%	46.0	↓	6,260.08	hectare	2020
Red List Index of species survival	0.76	scale 0–1	37.3	↓	0.76	scale 0–1	2019
Biodiversity Habitat Index	0.45	scale 0–1	20.5		0.45	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	74.15	%	27.2	↓	74.15	%	2019
Marine biodiversity threats – Domestic	0.02	per M people	99.8		3.02	number	2018
Marine biodiversity threats – Spillover	0.00	per M people	100.0		0.09	number	2018
Fish stocks: overexploited or collapsed	3.23	%	97.0	↓	3.23	%	2018
Fish caught by trawling	15.40	%	75.0	→	15.40	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.67	scale 0–1.4	49.2	→	0.67	scale 0–1.4	2015
Nitrogen surplus – Domestic	9.47	kg/capita	78.4	↓	1,479.87	Gg	2015
Nitrogen surplus – Spillover	0.29	kg/capita	99.3	↓	45.28	Gg	2015
Phosphorus fertilizer – Domestic	99.14	g/capita	31.6	↓	760,380.00	kt	2019
Phosphorus fertilizer – Spillover	110.19	g/capita	95.4	→	17.22	kt	2015
Water Cycle							
Scarce water consumption – Domestic	1.55	m^3/capita	64.0	↓	241.92	B m^3	2015
Scarce water consumption – Spillover	1.02	m^3/capita	83.3	↓	159.66	M m^3	2015
Water stress of crops – Domestic	40.05	m^3/capita	76.4	↑	6,258.27	M m^3	2015
Water stress of crops – Spillover	171.79	m^3/capita	94.0	↓	26,843.84	M m^3	2015
Feshwater withdrawal		% renew. H_20			35.87	% renew. H_20	

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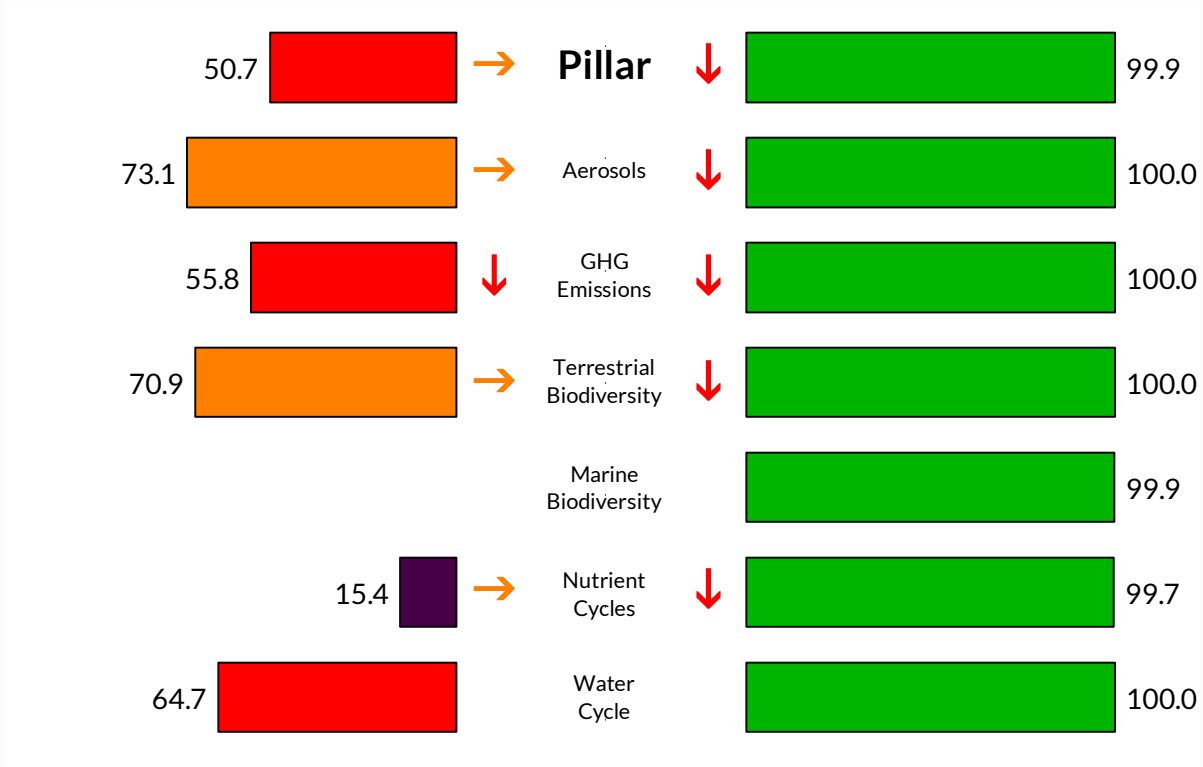
Belarus

Eastern Europe & Central Asia

Population [millions]	9.4	**GDP** [$, billions]	180.0
Land area [km^2, thousands]	20,645.0	**GDP** per capita	19,151

Overall impact on the Global Commons and trajectory: **Medium-high** ↓

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

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Belarus

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	7.31	kg/capita	87.5	→	68.80	Gg	2019
SO_2 emissions – Spillover	0.07	kg/capita	100.0	↓	0.71	Gg	2015
NO_X emissions – Domestic	18.33	kg/capita	68.8	→	172.67	Gg	2019
NO_X emissions – Spillover	0.08	kg/capita	100.0	↓	0.75	Gg	2015
Black Carbon emissions – Domestic	0.94	kg/capita	64.9	↓	8.86	Gg	2019
Black Carbon emissions – Spillover	0.01	kg/capita	100.0	↓	0.07	Gg	2015
GHG Emissions							
GHG emissions – Domestic	12.11	tonnes/capita	42.4	↓	114.03	Tg	2019
GHG emissions – Spillover	0.03	tonnes/capita	100.0	↓	0.30	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	73.5		0.01	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	52.92	%	50.1	↓	52.92	%	2019
Unprotected freshwater sites	46.69	%	54.7	↓	46.69	%	2019
Land-use biodiversity loss – Domestic	1.81E-12	global PDF/capita	97.5	↗	1.71E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.07E-13	global PDF/capita	100.0	↓	1.02E-06	global PDF	2015
Freshwater biodiversity threats – Domestic	0.06	per M people	98.9		0.56	number	2018
Freshwater biodiversity threats – Spillover	0.00	per M people	100.0		0.02	number	2018
Permanent deforestation	1.60E-03	%	99.7	↓	152.11	hectare	2020
Red List Index of species survival	0.97	scale 0–1	95.7	↑	0.97	scale 0–1	2019
Biodiversity Habitat Index	0.55	scale 0–1	35.8		0.55	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.00	per M people	99.9		0.01	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.79	scale 0–1.4	39.9	→	0.79	scale 0–1.4	2015
Nitrogen surplus – Domestic	48.61	kg/capita	1.0	→	461.31	Gg	2015
Nitrogen surplus – Spillover	0.03	kg/capita	100.0	↓	0.33	Gg	2015
Phosphorus fertilizer – Domestic	11.50	g/capita	92.1	↗	88,235.00	kt	2019
Phosphorus fertilizer – Spillover	14.75	g/capita	99.4	↓	0.14	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.82	m^3/capita	70.9	↗	7.80	B m^3	2015
Scarce water consumption – Spillover	0.20	m^3/capita	100.0	↓	1.90	M m^3	2015
Water stress of crops – Domestic	342.57	m^3/capita	50.5	↓	3,250.89	M m^3	2015
Water stress of crops – Spillover	32.85	m^3/capita	100.0	↓	311.77	M m^3	2015
Feshwater withdrawal	4.60	% renew. H_20	75.8		1.40	% renew. H_20	2017

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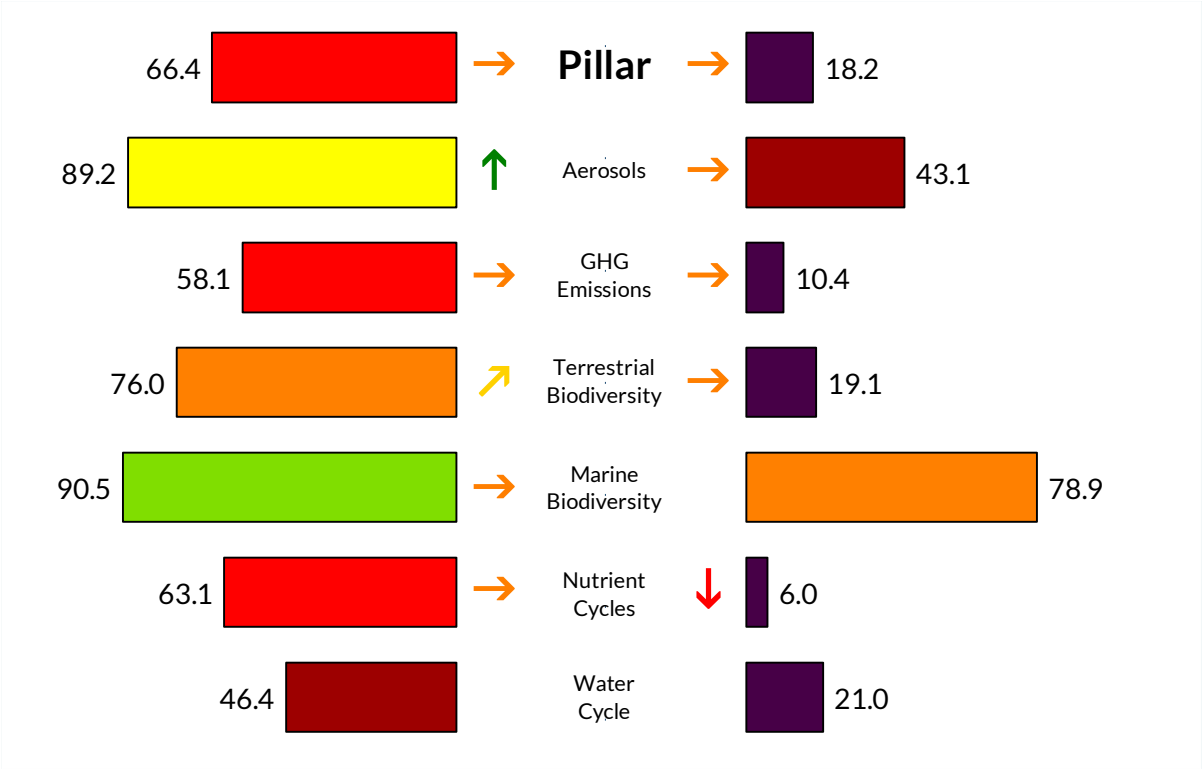
Belgium

OECD

Population [millions]	11.6	**GDP** [$, billions]	557.0
Land area [km^2, thousands]	3,065.3	**GDP** per capita	48,200

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
↑	Projected to meet 2050 Threshold
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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Belgium

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	3.07	kg/capita	95.3	↗	35.27	Gg	2019
SO_2 emissions – Spillover	16.97	kg/capita	37.7	→	191.29	Gg	2015
NO_X emissions – Domestic	13.63	kg/capita	79.8	↑	156.60	Gg	2019
NO_X emissions – Spillover	29.28	kg/capita	43.8	→	330.14	Gg	2015
Black Carbon emissions – Domestic	0.34	kg/capita	93.3	↑	3.94	Gg	2019
Black Carbon emissions – Spillover	0.92	kg/capita	48.5	→	10.41	Gg	2015
GHG Emissions							
GHG emissions – Domestic	11.72	tonnes/capita	43.4	→	134.66	Tg	2019
GHG emissions – Spillover	8.35	tonnes/capita	10.4	→	94.09	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	77.7		0.01	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	15.85	%	88.8	↗	15.85	%	2019
Unprotected freshwater sites	6.98	%	94.8	↑	6.98	%	2019
Land-use biodiversity loss – Domestic	1.23E-12	global PDF/capita	98.3	↗	1.38E-05	global PDF	2015
Land-use biodiversity loss – Spillover	3.10E-11	global PDF/capita	26.6	→	3.49E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.01	per M people	99.8		0.14	number	2018
Freshwater biodiversity threats – Spillover	0.74	per M people	13.7		8.52	number	2018
Permanent deforestation	3.72E-02	%	92.9	↓	331.27	hectare	2020
Red List Index of species survival	0.99	scale 0–1	99.4	↑	0.99	scale 0–1	2019
Biodiversity Habitat Index	0.44	scale 0–1	19.2		0.44	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	8.34	%	93.9	↓	8.34	%	2019
Marine biodiversity threats – Domestic	0.00	per M people	100.0		0.03	number	2018
Marine biodiversity threats – Spillover	0.23	per M people	78.9		2.68	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	12.97	%	79.0	↗	12.97	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.72	scale 0–1.4	45.4	→	0.72	scale 0–1.4	2015
Nitrogen surplus – Domestic	19.11	kg/capita	56.2	→	215.49	Gg	2015
Nitrogen surplus – Spillover	15.22	kg/capita	36.5	↓	171.62	Gg	2015
Phosphorus fertilizer – Domestic	2.50	g/capita	98.3	↓	19,159.00	kt	2019
Phosphorus fertilizer – Spillover	6,365.28	g/capita	1.0	↓	71.76	kt	2015
Water Cycle							
Scarce water consumption – Domestic	11.66	m^3/capita	42.0	→	131.47	B m^3	2015
Scarce water consumption – Spillover	55.74	m^3/capita	20.6	↓	628.37	M m^3	2015
Water stress of crops – Domestic	119.07	m^3/capita	63.2	↓	1,342.40	M m^3	2015
Water stress of crops – Spillover	8,057.67	m^3/capita	21.4	→	90,843.71	M m^3	2015
Feshwater withdrawal	65.11	% renew. H_20	37.6		3.99	% renew. H_20	2012

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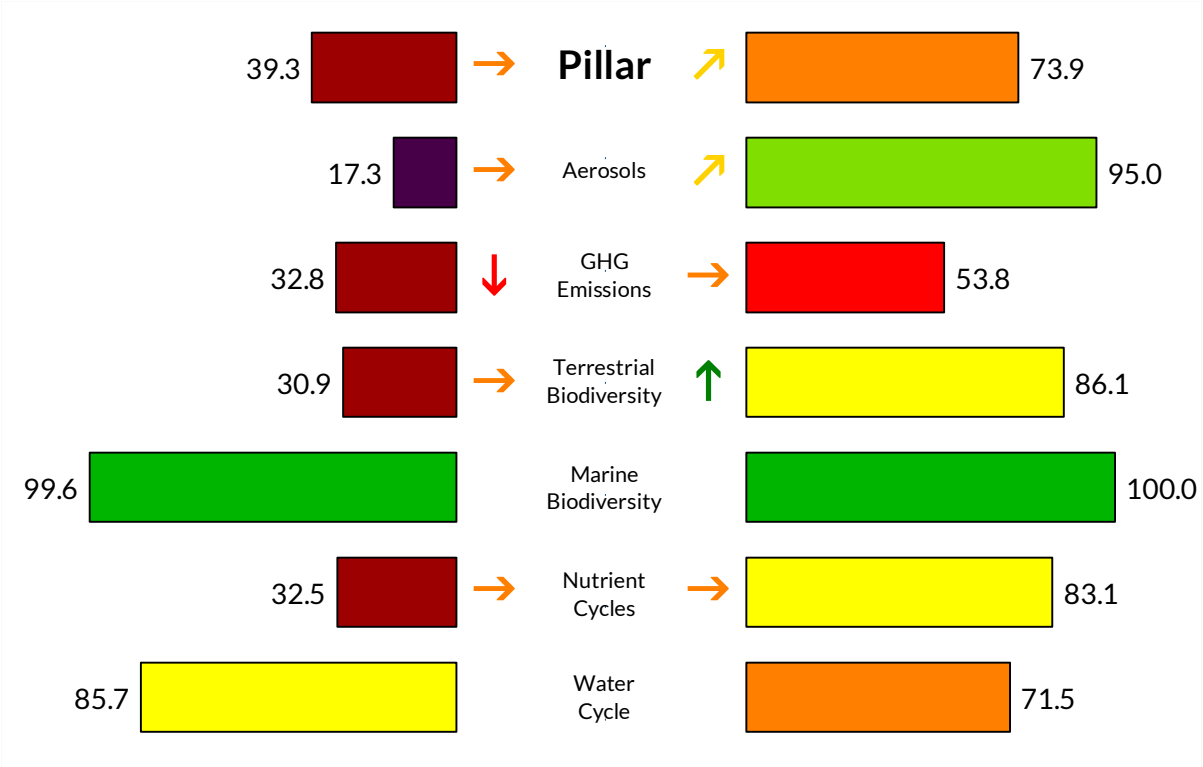
Bosnia & Herzegovina

Eastern Europe & Central Asia

Population [millions]	3.3	**GDP** [$, billions]	47.0
Land area [km^2, thousands]	5,106.6	**GDP** per capita	14,340

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Bosnia & Herzegovina

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	97.08	kg/capita	1.0	↓	320.47	Gg	2019
SO_2 emissions – Spillover	1.69	kg/capita	94.6	↑	5.80	Gg	2015
NO_X emissions – Domestic	21.11	kg/capita	62.3	↓	69.69	Gg	2019
NO_X emissions – Spillover	2.89	kg/capita	95.2	↗	9.92	Gg	2015
Black Carbon emissions – Domestic	0.56	kg/capita	82.8	↑	1.86	Gg	2019
Black Carbon emissions – Spillover	0.10	kg/capita	95.1	↗	0.34	Gg	2015
GHG Emissions							
GHG emissions – Domestic	9.79	tonnes/capita	49.2	↓	32.32	Tg	2019
GHG emissions – Spillover	0.95	tonnes/capita	53.8	→	3.26	Tg	2015
CO_2 emissions embodied in fossil fuel exports	79.43	kg/capita	21.8		262.19	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	81.82	%	20.0	↓	81.82	%	2019
Unprotected freshwater sites	33.33	%	68.2	↓	33.33	%	2019
Land-use biodiversity loss – Domestic	3.35E-12	global PDF/capita	95.2	↗	1.15E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.26E-12	global PDF/capita	97.6	↑	4.33E-06	global PDF	2015
Freshwater biodiversity threats – Domestic	5.36	per M people	1.0		17.81	number	2018
Freshwater biodiversity threats – Spillover	0.21	per M people	76.0		0.69	number	2018
Permanent deforestation	1.29E-04	%	100.0	↓	3.33	hectare	2020
Red List Index of species survival	0.90	scale 0–1	77.4	→	0.90	scale 0–1	2019
Biodiversity Habitat Index	0.49	scale 0–1	26.8		0.49	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic	0.06	per M people	99.2		0.21	number	2018
Marine biodiversity threats – Spillover	0.00	per M people	100.0		0.00	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.00	scale 0–1.4	23.9	↓	1.00	scale 0–1.4	2015
Nitrogen surplus – Domestic	37.26	kg/capita	14.5	↓	127.79	Gg	2015
Nitrogen surplus – Spillover	1.53	kg/capita	94.1	→	5.25	Gg	2015
Phosphorus fertilizer – Domestic	1.21	g/capita	99.2	↗	9,304.17	kt	2019
Phosphorus fertilizer – Spillover	633.78	g/capita	73.3	→	2.17	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.17	m^3/capita	87.8	↓	0.60	B m^3	2015
Scarce water consumption – Spillover	3.62	m^3/capita	63.5	→	12.41	M m^3	2015
Water stress of crops – Domestic	18.75	m^3/capita	85.5	↗	64.29	M m^3	2015
Water stress of crops – Spillover	348.71	m^3/capita	80.7	↑	1,195.84	M m^3	2015
Feshwater withdrawal	2.66	% renew. H_20	83.7		0.40	% renew. H_20	2017

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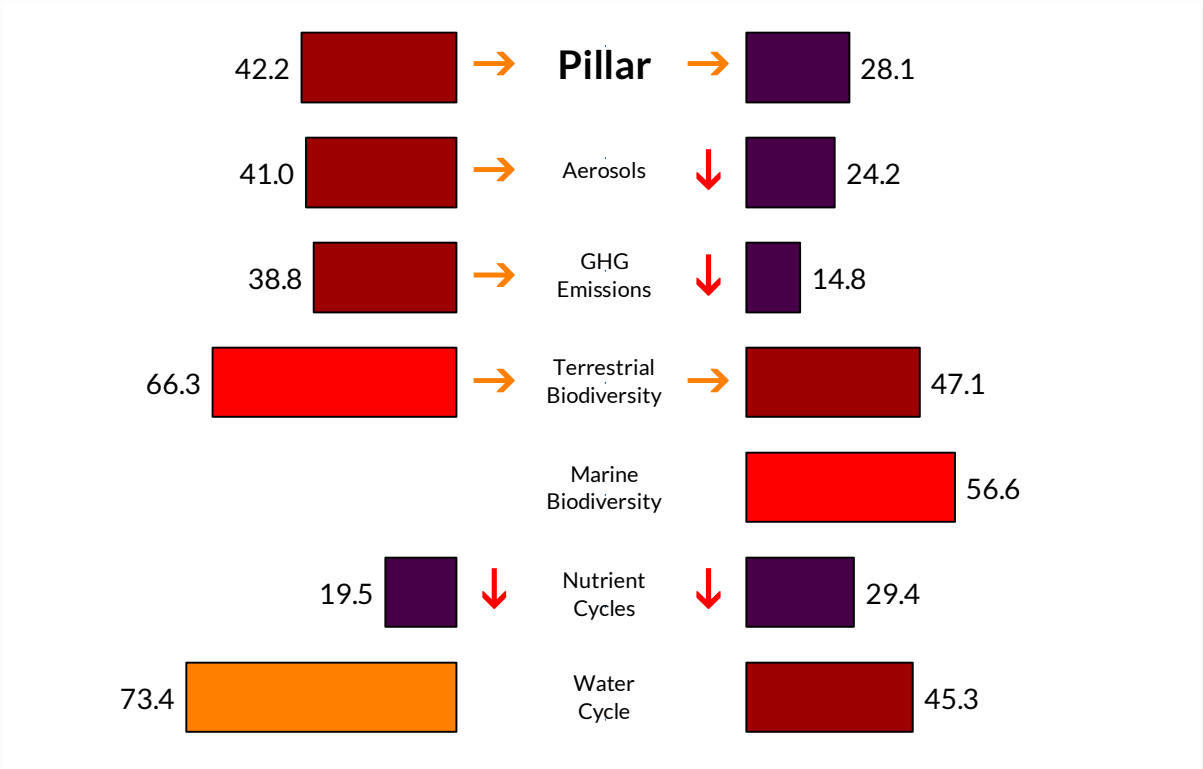
Botswana

Africa

Population [millions]	2.4	**GDP** [$, billions]	37.7
Land area [km^2, thousands]	58,086.0	**GDP** per capita	16,040

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



Note: All results shown in proportional terms.

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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Botswana

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	31.00	kg/capita	43.4	→	71.41	Gg	2019
SO_2 emissions – Spillover	25.70	kg/capita	5.1	↓	54.50	Gg	2015
NO_X emissions – Domestic	21.34	kg/capita	61.8	→	49.17	Gg	2019
NO_X emissions – Spillover	18.56	kg/capita	64.7	↓	39.36	Gg	2015
Black Carbon emissions – Domestic	1.77	kg/capita	25.6	→	4.08	Gg	2019
Black Carbon emissions – Spillover	1.02	kg/capita	43.0	↓	2.16	Gg	2015
GHG Emissions							
GHG emissions – Domestic	5.04	tonnes/capita	70.4	→	11.61	Tg	2019
GHG emissions – Spillover	6.67	tonnes/capita	14.8	↓	14.15	Tg	2015
CO_2 emissions embodied in fossil fuel exports	87.10	kg/capita	21.4		204.82	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	48.91	%	54.3	↓	48.91	%	2019
Unprotected freshwater sites	47.88	%	53.5	↓	47.88	%	2019
Land-use biodiversity loss – Domestic	3.64E-11	global PDF/capita	47.1	→	7.73E-05	global PDF	2015
Land-use biodiversity loss – Spillover	2.72E-11	global PDF/capita	35.5	→	5.78E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	1.69	per M people	68.9		3.80	number	2018
Freshwater biodiversity threats – Spillover	0.32	per M people	62.5		0.73	number	2018
Permanent deforestation	0.00E+00	%	100.0		0.00	hectare	2020
Red List Index of species survival	0.98	scale 0–1	97.3	↓	0.98	scale 0–1	2019
Biodiversity Habitat Index	0.73	scale 0–1	61.3		0.73	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.48	per M people	56.6		1.08	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.30	scale 0–1.4	1.0	↓	1.30	scale 0–1.4	2015
Nitrogen surplus – Domestic	11.06	kg/capita	74.7	↓	23.46	Gg	2015
Nitrogen surplus – Spillover	3.06	kg/capita	87.6	↓	6.50	Gg	2015
Phosphorus fertilizer – Domestic	0.22	g/capita	99.9	↓	1,672.43	kt	2019
Phosphorus fertilizer – Spillover	2,141.98	g/capita	9.9	↓	4.54	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.32	m^3/capita	81.2	↗	0.68	B m^3	2015
Scarce water consumption – Spillover	19.74	m^3/capita	36.9	↓	41.87	M m^3	2015
Water stress of crops – Domestic	225.82	m^3/capita	55.5	↗	478.91	M m^3	2015
Water stress of crops – Spillover	1,315.83	m^3/capita	55.6	↑	2,790.51	M m^3	2015
Feshwater withdrawal	2.02	% renew. H_20	87.7		0.19	% renew. H_20	2017

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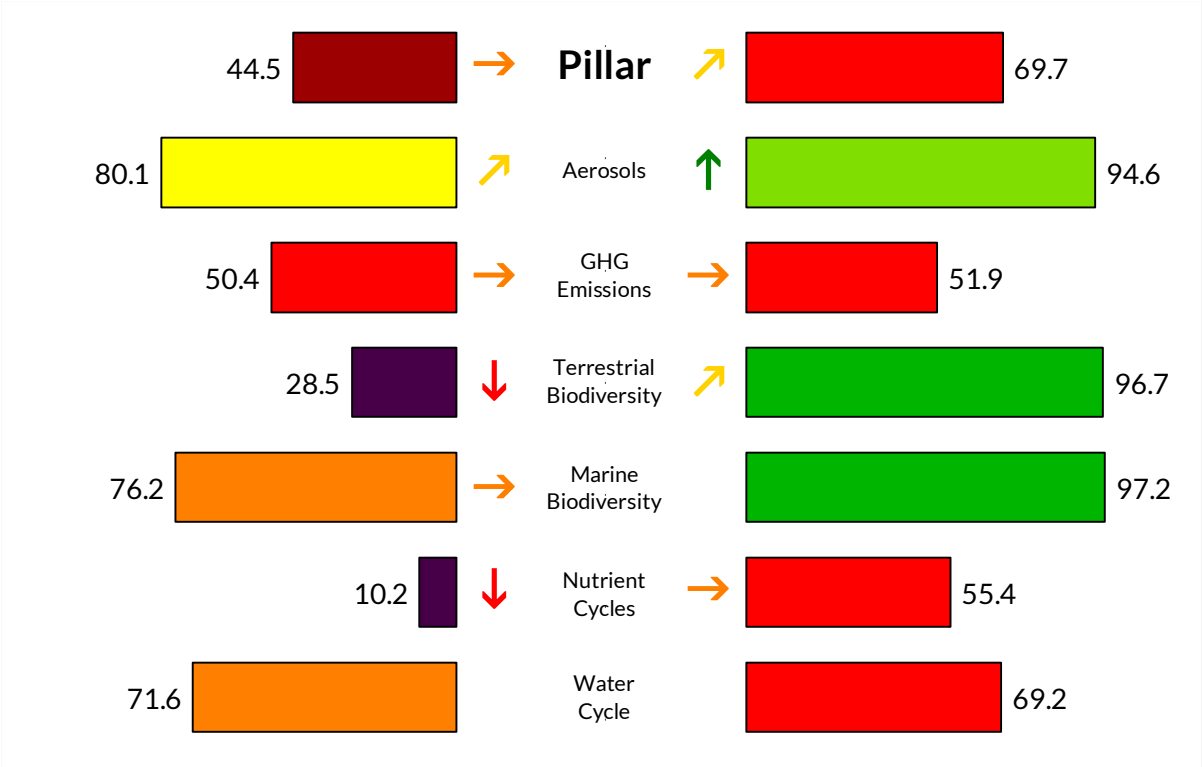
Brazil

Latin America & the Caribbean

Population [millions]	212.6	**GDP** [$, billions]	2,990.0
Land area [km^2, thousands]	855,200.5	**GDP** per capita	14,067

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
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↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Brazil

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	7.21	kg/capita	87.6	→	1,522.17	Gg	2019
SO_2 emissions – Spillover	1.96	kg/capita	93.6	↑	401.72	Gg	2015
NO_X emissions – Domestic	14.68	kg/capita	77.3	↑	3,098.61	Gg	2019
NO_X emissions – Spillover	2.75	kg/capita	95.4	↑	562.41	Gg	2015
Black Carbon emissions – Domestic	0.71	kg/capita	75.8	↗	150.19	Gg	2019
Black Carbon emissions – Spillover	0.11	kg/capita	94.7	↗	21.75	Gg	2015
GHG Emissions							
GHG emissions – Domestic	5.81	tonnes/capita	65.9	→	1,227.09	Tg	2019
GHG emissions – Spillover	1.04	tonnes/capita	51.9	→	213.39	Tg	2015
CO_2 emissions embodied in fossil fuel exports	2.30	kg/capita	38.5		485.03	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	57.24	%	45.6	→	57.24	%	2019
Unprotected freshwater sites	79.18	%	22.0	↓	79.18	%	2019
Land-use biodiversity loss – Domestic	6.64E-11	global PDF/capita	3.5	→	1.36E-02	global PDF	2015
Land-use biodiversity loss – Spillover	1.64E-12	global PDF/capita	96.6	↗	3.36E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.29	per M people	94.7		60.67	number	2018
Freshwater biodiversity threats – Spillover	0.03	per M people	96.8		6.19	number	2018
Permanent deforestation	4.57E-01	%	12.6	↓	2,278,455.65	hectare	2020
Red List Index of species survival	0.90	scale 0–1	76.4	↓	0.90	scale 0–1	2019
Biodiversity Habitat Index	0.63	scale 0–1	47.5		0.63	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	42.78	%	59.0	→	42.78	%	2019
Marine biodiversity threats – Domestic	0.60	per M people	91.7		126.42	number	2018
Marine biodiversity threats – Spillover	0.03	per M people	97.2		6.43	number	2018
Fish stocks: overexploited or collapsed	14.10	%	81.3	→	14.10	%	2018
Fish caught by trawling	14.41	%	76.6	→	14.41	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.50	scale 0–1.4	62.2	↓	0.50	scale 0–1.4	2015
Nitrogen surplus – Domestic	36.07	kg/capita	17.3	↓	7,376.14	Gg	2015
Nitrogen surplus – Spillover	6.32	kg/capita	74.0	↓	1,291.54	Gg	2015
Phosphorus fertilizer – Domestic	633.70	g/capita	1.0	↓	4,860,257.74	kt	2019
Phosphorus fertilizer – Spillover	1,389.11	g/capita	41.5	→	284.03	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.48	m^3/capita	76.7	↗	98.36	B m^3	2015
Scarce water consumption – Spillover	3.79	m^3/capita	62.7	↗	775.63	M m^3	2015
Water stress of crops – Domestic	174.71	m^3/capita	58.6	↓	35,724.27	M m^3	2015
Water stress of crops – Spillover	438.64	m^3/capita	76.3	↑	89,688.59	M m^3	2015
Feshwater withdrawal	3.11	% renew. H_20	81.5		65.68	% renew. H_20	2017

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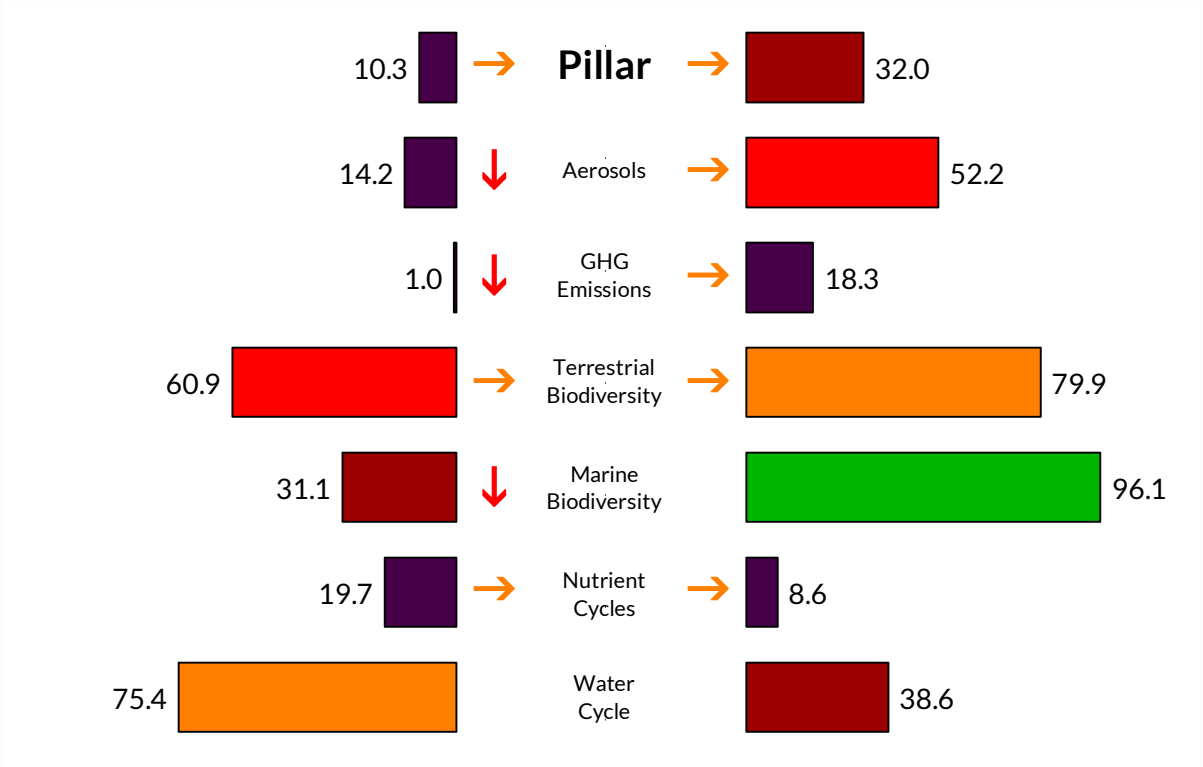
Brunei Darussalam

East & South Asia

Population [millions]	0.4	**GDP** [$, billions]	27.2
Land area [km^2, thousands]	580.8	**GDP** per capita	62,244

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Brunei Darussalam

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	30.49	kg/capita	44.3	↓	13.21	Gg	2019
SO_2 emissions – Spillover	14.98	kg/capita	45.1	→	6.21	Gg	2015
NO_X emissions – Domestic	20.02	kg/capita	64.9	→	8.67	Gg	2019
NO_X emissions – Spillover	20.58	kg/capita	60.7	→	8.54	Gg	2015
Black Carbon emissions – Domestic	3.62	kg/capita	1.0	→	1.57	Gg	2019
Black Carbon emissions – Spillover	0.86	kg/capita	52.1	→	0.36	Gg	2015
GHG Emissions							
GHG emissions – Domestic	44.17	tonnes/capita	1.0	↓	19.14	Tg	2019
GHG emissions – Spillover	5.61	tonnes/capita	18.3	→	2.33	Tg	2015
CO_2 emissions embodied in fossil fuel exports	39,474.11	kg/capita	1.0		17,103.97	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	58.34	%	44.5	↓	58.34	%	2019
Unprotected freshwater sites	50.00	%	51.4	↓	50.00	%	2019
Land-use biodiversity loss – Domestic	1.26E-11	global PDF/capita	81.7	→	5.25E-06	global PDF	2015
Land-use biodiversity loss – Spillover	1.46E-11	global PDF/capita	65.8	→	6.05E-06	global PDF	2015
Freshwater biodiversity threats – Domestic	0.06	per M people	98.9		0.03	number	2018
Freshwater biodiversity threats – Spillover	0.03	per M people	97.1		0.01	number	2018
Permanent deforestation	1.37E-01	%	73.8	→	723.79	hectare	2020
Red List Index of species survival	0.82	scale 0–1	55.5	↓	0.82	scale 0–1	2019
Biodiversity Habitat Index	0.59	scale 0–1	41.3		0.59	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	94.55	%	6.5	↓	94.55	%	2019
Marine biodiversity threats – Domestic	0.26	per M people	96.5		0.11	number	2018
Marine biodiversity threats – Spillover	0.04	per M people	96.1		0.02	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	31.94	%	47.9	↓	31.94	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.37	scale 0–1.4	1.0	→	1.37	scale 0–1.4	2015
Nitrogen surplus – Domestic	10.34	kg/capita	76.4	↓	4.29	Gg	2015
Nitrogen surplus – Spillover	6.13	kg/capita	74.7	↓	2.54	Gg	2015
Phosphorus fertilizer – Domestic	0.03	g/capita	100.0	↑	232.00	kt	2019
Phosphorus fertilizer – Spillover	3,066.65	g/capita	1.0	→	1.27	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.03	m^3/capita	100.0	↑	0.01	B m^3	2015
Scarce water consumption – Spillover	20.51	m^3/capita	36.3	→	8.51	M m^3	2015
Water stress of crops – Domestic	0.14	m^3/capita	100.0	↓	0.06	M m^3	2015
Water stress of crops – Spillover	2,828.19	m^3/capita	41.1	→	1,173.45	M m^3	2015
Feshwater withdrawal		% renew. H_20			0.09	% renew. H_20	

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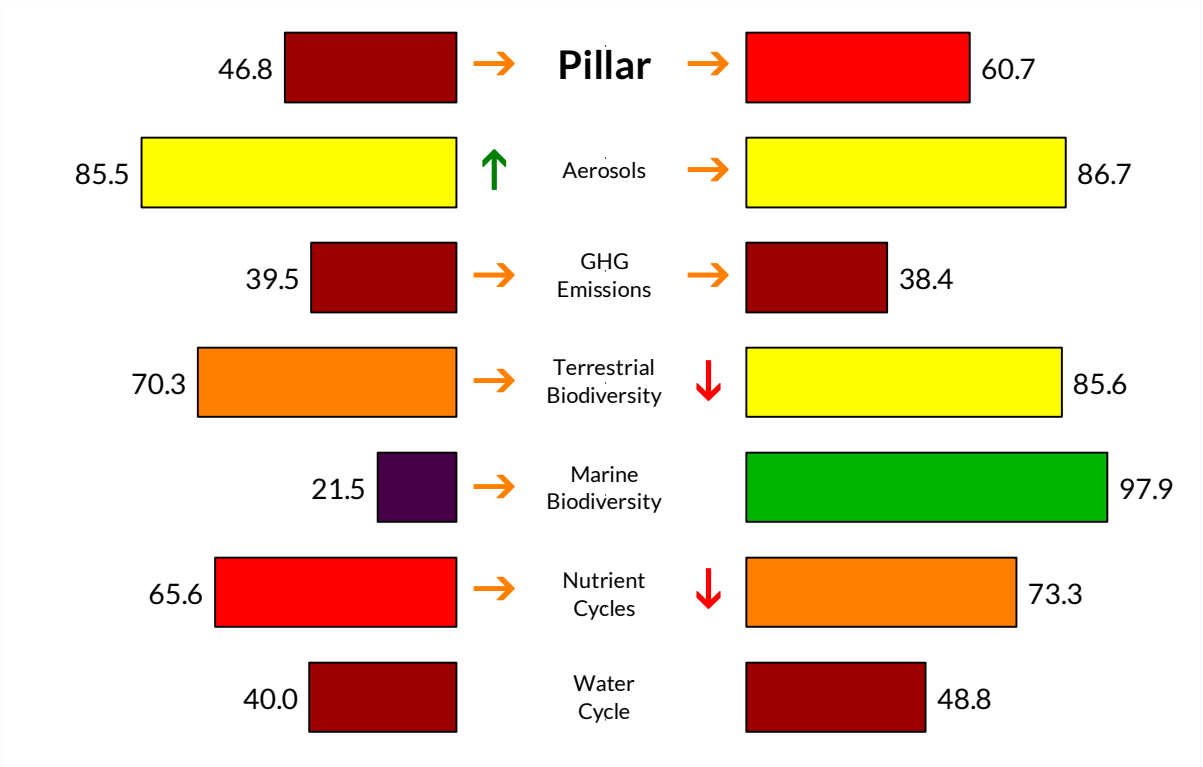
Bulgaria

Eastern Europe & Central Asia

Population [millions]	6.9	**GDP** [$, billions]	155.0
Land area [km^2, thousands]	11,205.6	**GDP** per capita	22,375

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
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Trajectories based upon 5-year average annual growth rates.

Bulgaria

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	10.05	kg/capita	82.4	↑	70.09	Gg	2019
SO_2 emissions – Spillover	4.48	kg/capita	84.2	→	32.15	Gg	2015
NO_X emissions – Domestic	10.95	kg/capita	86.0	↑	76.37	Gg	2019
NO_X emissions – Spillover	5.89	kg/capita	89.3	→	42.28	Gg	2015
Black Carbon emissions – Domestic	0.45	kg/capita	88.3	↑	3.12	Gg	2019
Black Carbon emissions – Spillover	0.25	kg/capita	86.7	→	1.78	Gg	2015
GHG Emissions							
GHG emissions – Domestic	8.25	tonnes/capita	54.7	→	57.52	Tg	2019
GHG emissions – Spillover	2.06	tonnes/capita	38.4	→	14.78	Tg	2015
CO_2 emissions embodied in fossil fuel exports	19.00	kg/capita	28.6		132.54	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	12.50	%	92.3	↓	12.50	%	2019
Unprotected freshwater sites	8.52	%	93.2	↓	8.52	%	2019
Land-use biodiversity loss – Domestic	9.25E-12	global PDF/capita	86.6	→	6.64E-05	global PDF	2015
Land-use biodiversity loss – Spillover	4.77E-12	global PDF/capita	89.2	↓	3.42E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	2.02	per M people	62.7		14.26	number	2018
Freshwater biodiversity threats – Spillover	0.15	per M people	82.2		1.09	number	2018
Permanent deforestation	3.42E-05	%	100.0	↑	1.35	hectare	2020
Red List Index of species survival	0.94	scale 0–1	87.9	↗	0.94	scale 0–1	2019
Biodiversity Habitat Index	0.45	scale 0–1	20.7		0.45	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	0.27	%	100.0	↓	0.27	%	2019
Marine biodiversity threats – Domestic	0.03	per M people	99.7		0.20	number	2018
Marine biodiversity threats – Spillover	0.02	per M people	97.9		0.16	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	62.89	%	1.0	→	62.89	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.52	scale 0–1.4	61.0	→	0.52	scale 0–1.4	2015
Nitrogen surplus – Domestic	21.93	kg/capita	49.8	→	157.41	Gg	2015
Nitrogen surplus – Spillover	2.37	kg/capita	90.5	↓	17.04	Gg	2015
Phosphorus fertilizer – Domestic	10.01	g/capita	93.1	↓	76,780.94	kt	2019
Phosphorus fertilizer – Spillover	964.83	g/capita	59.4	→	6.93	kt	2015
Water Cycle							
Scarce water consumption – Domestic	15.55	m^3/capita	38.8	↓	111.64	B m^3	2015
Scarce water consumption – Spillover	10.85	m^3/capita	46.2	→	77.90	M m^3	2015
Water stress of crops – Domestic	996.65	m^3/capita	37.6	↓	7,153.93	M m^3	2015
Water stress of crops – Spillover	1,639.51	m^3/capita	51.4	→	11,768.39	M m^3	2015
Feshwater withdrawal	41.82	% renew. H_20	44.0		5.66	% renew. H_20	2017

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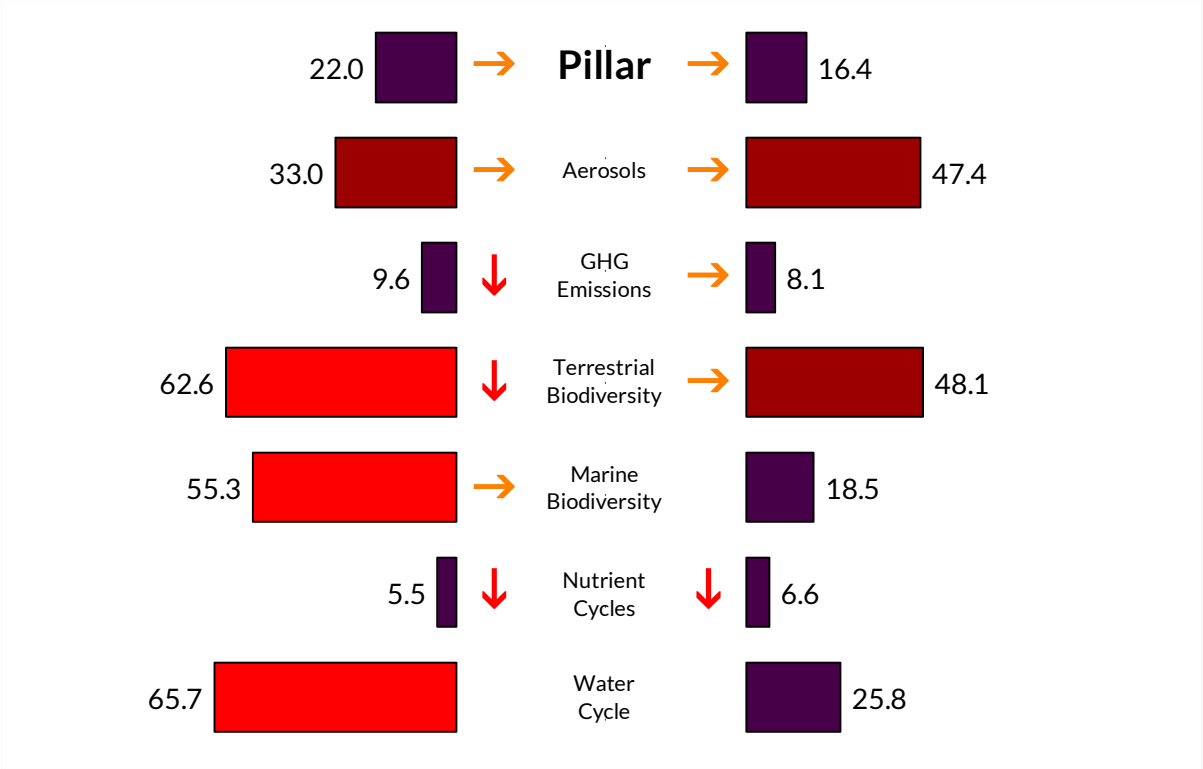
Canada

OECD

Population [millions]	38.0	**GDP** [$, billions]	1,740.0
Land area [km^2, thousands]	994,226.1	**GDP** per capita	45,783

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Canada

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	21.54	kg/capita	61.0	→	809.87	Gg	2019
SO_2 emissions – Spillover	17.06	kg/capita	37.3	→	609.26	Gg	2015
NO_X emissions – Domestic	44.86	kg/capita	7.0	→	1,686.51	Gg	2019
NO_X emissions – Spillover	26.87	kg/capita	48.5	↓	959.42	Gg	2015
Black Carbon emissions – Domestic	0.54	kg/capita	84.1	↗	20.18	Gg	2019
Black Carbon emissions – Spillover	0.74	kg/capita	58.9	→	26.35	Gg	2015
GHG Emissions							
GHG emissions – Domestic	21.38	tonnes/capita	24.2	↓	803.60	Tg	2019
GHG emissions – Spillover	9.37	tonnes/capita	8.1	→	334.48	Tg	2015
CO_2 emissions embodied in fossil fuel exports	3,617.82	kg/capita	3.8		137,496.05	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	71.86	%	30.4	→	71.86	%	2019
Unprotected freshwater sites	78.89	%	22.3	→	78.89	%	2019
Land-use biodiversity loss – Domestic	8.81E-12	global PDF/capita	87.3	↓	3.15E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.60E-11	global PDF/capita	62.4	→	5.72E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.58	per M people	89.4		21.32	number	2018
Freshwater biodiversity threats – Spillover	0.54	per M people	37.0		20.10	number	2018
Permanent deforestation	2.88E-03	%	99.5	↓	12,118.95	hectare	2020
Red List Index of species survival	0.97	scale 0–1	94.7	↓	0.97	scale 0–1	2019
Biodiversity Habitat Index	0.82	scale 0–1	75.8		0.82	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	67.03	%	34.4	→	67.03	%	2019
Marine biodiversity threats – Domestic	0.20	per M people	97.3		7.51	number	2018
Marine biodiversity threats – Spillover	0.90	per M people	18.5		33.43	number	2018
Fish stocks: overexploited or collapsed	36.28	%	49.2	→	36.28	%	2018
Fish caught by trawling	26.46	%	56.9	↓	26.46	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.47	scale 0–1.4	64.8	↓	0.47	scale 0–1.4	2015
Nitrogen surplus – Domestic	43.20	kg/capita	1.0	↓	1,542.28	Gg	2015
Nitrogen surplus – Spillover	13.67	kg/capita	43.0	↓	488.10	Gg	2015
Phosphorus fertilizer – Domestic	141.07	g/capita	2.6	↓	1,082,000.00	kt	2019
Phosphorus fertilizer – Spillover	6,588.45	g/capita	1.0	→	235.23	kt	2015
Water Cycle							
Scarce water consumption – Domestic	1.30	m^3/capita	65.9	↗	46.36	B m^3	2015
Scarce water consumption – Spillover	52.69	m^3/capita	21.5	↓	1,881.12	M m^3	2015
Water stress of crops – Domestic	245.47	m^3/capita	54.5	↗	8,764.06	M m^3	2015
Water stress of crops – Spillover	4,852.13	m^3/capita	31.0	→	173,235.24	M m^3	2015
Feshwater withdrawal	3.67	% renew. H_20	79.1		35.60	% renew. H_20	2017

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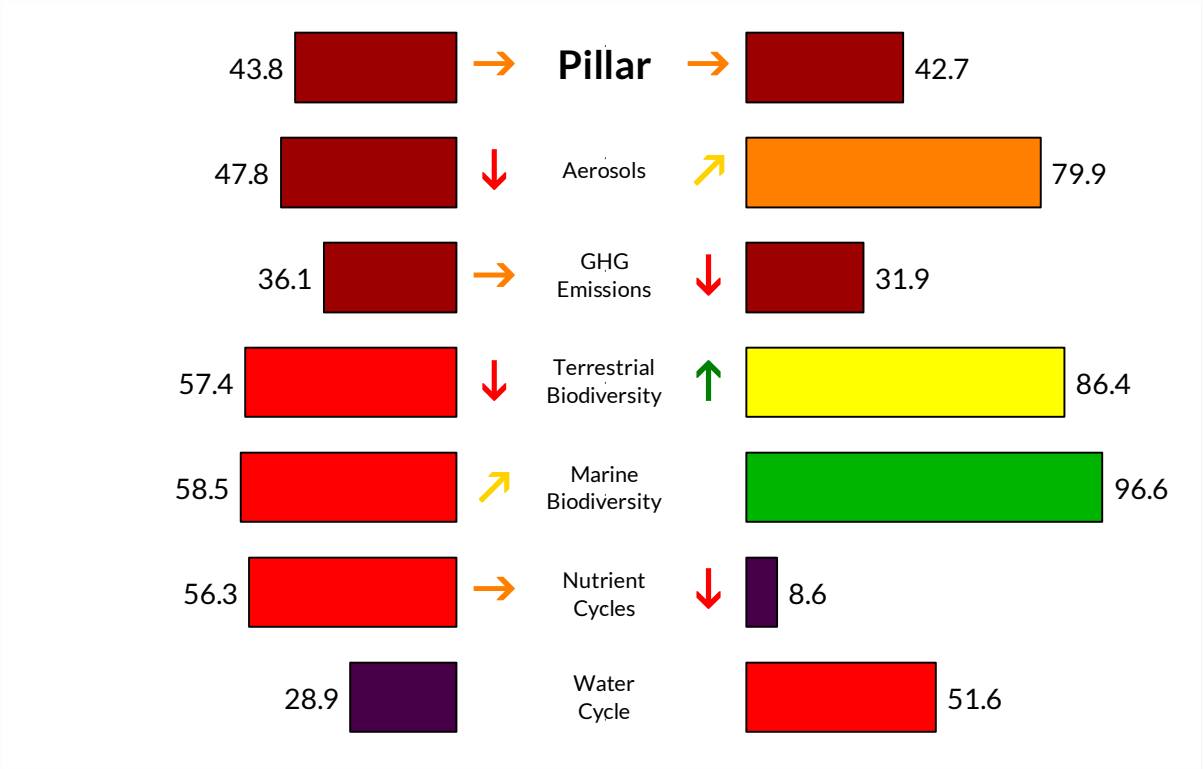
Chile

OECD

Population [millions]	19.1	**GDP** [$, billions]	446.0
Land area [km^2, thousands]	75,899.6	**GDP** per capita	23,331

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Chile

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	27.40	kg/capita	50.1	→	519.37	Gg	2019
SO_2 emissions – Spillover	6.39	kg/capita	77.1	↑	114.86	Gg	2015
NO_X emissions – Domestic	25.71	kg/capita	51.6	↓	487.28	Gg	2019
NO_X emissions – Spillover	10.79	kg/capita	79.8	→	193.83	Gg	2015
Black Carbon emissions – Domestic	1.42	kg/capita	42.2	→	26.91	Gg	2019
Black Carbon emissions – Spillover	0.32	kg/capita	82.8	→	5.68	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.30	tonnes/capita	63.3	→	119.42	Tg	2019
GHG emissions – Spillover	2.84	tonnes/capita	31.9	↓	51.06	Tg	2015
CO_2 emissions embodied in fossil fuel exports	102.28	kg/capita	20.6		1,915.57	Gg	2018
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	65.78	%	36.7	→	65.78	%	2019
Unprotected freshwater sites	64.68	%	36.6	↓	64.68	%	2019
Land-use biodiversity loss – Domestic	1.02E-11	global PDF/capita	85.3	→	1.83E-04	global PDF	2015
Land-use biodiversity loss – Spillover	7.53E-12	global PDF/capita	82.6	↑	1.35E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.42	per M people	92.3		7.80	number	2018
Freshwater biodiversity threats – Spillover	0.09	per M people	90.3		1.60	number	2018
Permanent deforestation	1.53E-02	%	97.1	↓	3,175.71	hectare	2020
Red List Index of species survival	0.75	scale 0–1	36.1	↓	0.75	scale 0–1	2019
Biodiversity Habitat Index	0.68	scale 0–1	55.2		0.68	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	72.93	%	28.4	→	72.93	%	2019
Marine biodiversity threats – Domestic	2.14	per M people	70.6		40.02	number	2018
Marine biodiversity threats – Spillover	0.04	per M people	96.6		0.71	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	0.20	%	100.0	↑	0.20	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.78	scale 0–1.4	40.8	→	0.78	scale 0–1.4	2015
Nitrogen surplus – Domestic	22.13	kg/capita	49.3	↓	397.73	Gg	2015
Nitrogen surplus – Spillover	6.26	kg/capita	74.2	↓	112.45	Gg	2015
Phosphorus fertilizer – Domestic	16.25	g/capita	88.8	↗	124,649.89	kt	2019
Phosphorus fertilizer – Spillover	2,360.98	g/capita	1.0	→	42.43	kt	2015
Water Cycle							
Scarce water consumption – Domestic	12.56	m^3/capita	41.2	↓	225.77	B m^3	2015
Scarce water consumption – Spillover	8.81	m^3/capita	49.5	→	158.23	M m^3	2015
Water stress of crops – Domestic	11,607.56	m^3/capita	7.9	→	208,580.41	M m^3	2015
Water stress of crops – Spillover	1,453.55	m^3/capita	53.7	↑	26,119.27	M m^3	2015
Feshwater withdrawal	5.15	% renew. H_20	74.2		35.36	% renew. H_20	1992

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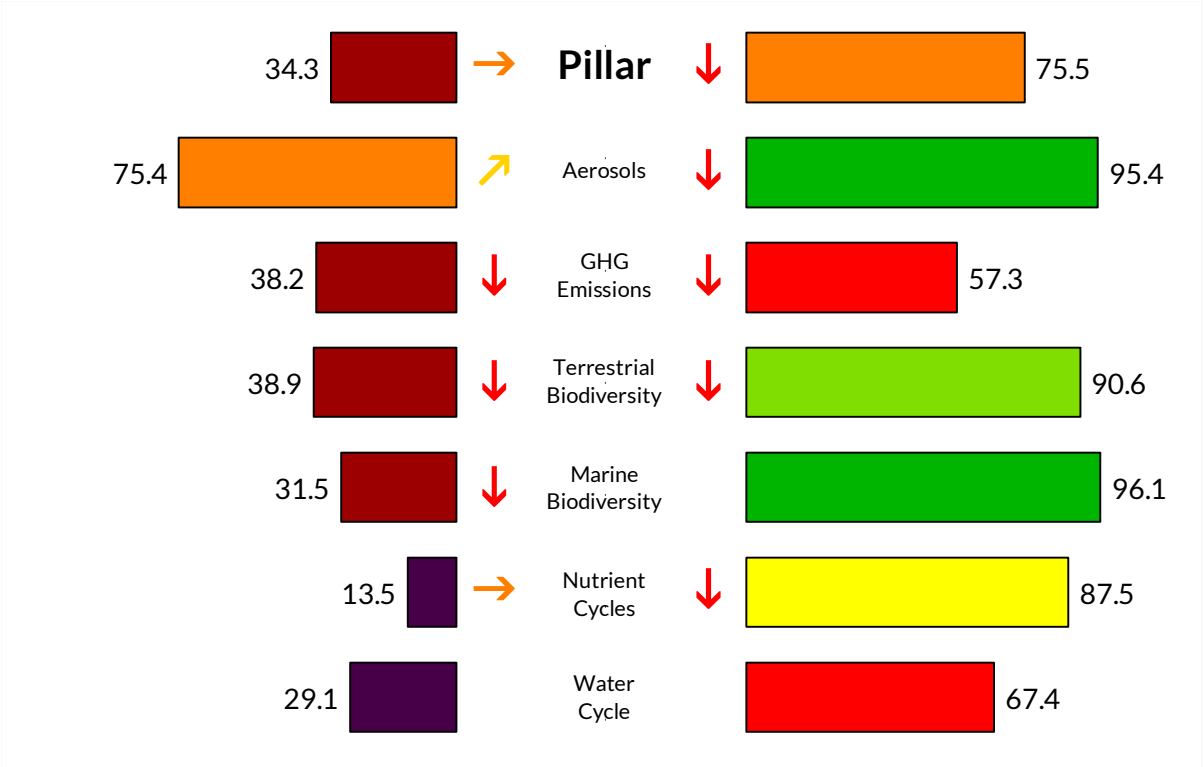
China

East & South Asia

Population [millions]	1,402.1	**GDP** [$, billions]	23,000.0
Land area [km^2, thousands]	940,001.9	**GDP** per capita	16,404

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

China

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	8.68	kg/capita	84.9	↑	12,137.90	Gg	2019
SO_2 emissions – Spillover	1.96	kg/capita	93.6	→	2,692.93	Gg	2015
NO_X emissions – Domestic	16.19	kg/capita	73.8	→	22,635.85	Gg	2019
NO_X emissions – Spillover	2.34	kg/capita	96.3	↓	3,205.25	Gg	2015
Black Carbon emissions – Domestic	0.87	kg/capita	68.4	→	1,212.82	Gg	2019
Black Carbon emissions – Spillover	0.08	kg/capita	96.3	↓	107.51	Gg	2015
GHG Emissions							
GHG emissions – Domestic	9.56	tonnes/capita	50.0	↓	13,362.69	Tg	2019
GHG emissions – Spillover	0.80	tonnes/capita	57.3	↓	1,094.17	Tg	2015
CO_2 emissions embodied in fossil fuel exports	16.73	kg/capita	29.2		23,384.75	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	90.07	%	11.4	→	90.07	%	2019
Unprotected freshwater sites	90.55	%	10.5	→	90.55	%	2019
Land-use biodiversity loss – Domestic	5.33E-12	global PDF/capita	92.3	↓	7.31E-03	global PDF	2015
Land-use biodiversity loss – Spillover	4.07E-12	global PDF/capita	90.9	↓	5.57E-03	global PDF	2015
Freshwater biodiversity threats – Domestic	0.17	per M people	96.8		248.36	number	2018
Freshwater biodiversity threats – Spillover	0.08	per M people	90.4		120.55	number	2018
Permanent deforestation	8.04E-03	%	98.5	↓	12,414.77	hectare	2020
Red List Index of species survival	0.74	scale 0–1	32.5	↓	0.74	scale 0–1	2019
Biodiversity Habitat Index	0.58	scale 0–1	39.5		0.58	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	91.72	%	9.4	↓	91.72	%	2019
Marine biodiversity threats – Domestic	0.09	per M people	98.9		126.83	number	2018
Marine biodiversity threats – Spillover	0.04	per M people	96.1		61.53	number	2018
Fish stocks: overexploited or collapsed	25.52	%	64.8	↓	25.52	%	2018
Fish caught by trawling	51.10	%	16.4	↓	51.10	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.69	scale 0–1.4	47.7	→	0.69	scale 0–1.4	2015
Nitrogen surplus – Domestic	21.32	kg/capita	51.2	↓	29,229.41	Gg	2015
Nitrogen surplus – Spillover	1.22	kg/capita	95.4	↓	1,672.14	Gg	2015
Phosphorus fertilizer – Domestic	1,332.60	g/capita	1.0	→	10,220,624.26	kt	2019
Phosphorus fertilizer – Spillover	470.92	g/capita	80.2	↓	645.73	kt	2015
Water Cycle							
Scarce water consumption – Domestic	20.64	m^3/capita	35.7	→	28,308.10	B m^3	2015
Scarce water consumption – Spillover	5.19	m^3/capita	57.8	↓	7,109.94	M m^3	2015
Water stress of crops – Domestic	6,001.90	m^3/capita	15.9	↓	8,229,922.27	M m^3	2015
Water stress of crops – Spillover	391.57	m^3/capita	78.5	↓	536,927.78	M m^3	2015
Feshwater withdrawal	43.81	% renew. H_20	43.3		594.20	% renew. H_20	2012

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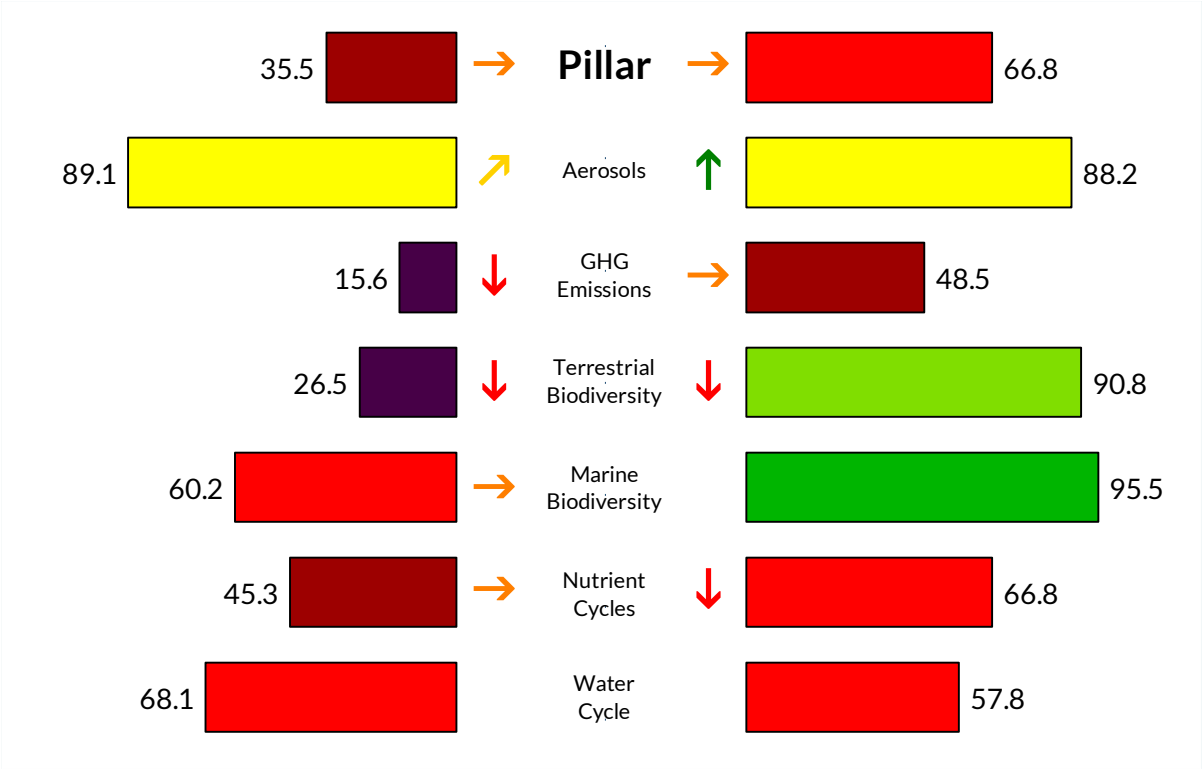
Colombia

OECD

Population [millions]	50.9	**GDP** [$, billions]	684.0
Land area [km^2, thousands]	114,403.8	**GDP** per capita	13,443

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
↑	Projected to meet 2050 Threshold
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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Colombia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	3.71	kg/capita	94.1	↗	186.91	Gg	2019
SO_2 emissions – Spillover	4.21	kg/capita	85.2	↑	200.28	Gg	2015
NO_X emissions – Domestic	9.61	kg/capita	89.2	↗	483.54	Gg	2019
NO_X emissions – Spillover	6.95	kg/capita	87.3	↑	330.12	Gg	2015
Black Carbon emissions – Domestic	0.53	kg/capita	84.2	↑	26.90	Gg	2019
Black Carbon emissions – Spillover	0.15	kg/capita	92.4	↗	7.02	Gg	2015
GHG Emissions							
GHG emissions – Domestic	4.18	tonnes/capita	76.4	↓	210.37	Tg	2019
GHG emissions – Spillover	1.24	tonnes/capita	48.5	→	59.05	Tg	2015
CO_2 emissions embodied in fossil fuel exports	4,137.10	kg/capita	3.2		208,259.13	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	57.11	%	45.8	→	57.11	%	2019
Unprotected freshwater sites	52.56	%	48.8	→	52.56	%	2019
Land-use biodiversity loss – Domestic	1.25E-10	global PDF/capita	1.0	→	5.92E-03	global PDF	2015
Land-use biodiversity loss – Spillover	5.25E-12	global PDF/capita	88.0	↓	2.49E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	1.73	per M people	68.0		86.09	number	2018
Freshwater biodiversity threats – Spillover	0.06	per M people	93.7		2.77	number	2018
Permanent deforestation	2.58E-01	%	50.6	↓	211,280.65	hectare	2020
Red List Index of species survival	0.73	scale 0–1	31.5	↓	0.73	scale 0–1	2019
Biodiversity Habitat Index	0.56	scale 0–1	37.7		0.56	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	43.62	%	58.2	↓	43.62	%	2019
Marine biodiversity threats – Domestic	1.34	per M people	81.5		66.65	number	2018
Marine biodiversity threats – Spillover	0.05	per M people	95.5		2.50	number	2018
Fish stocks: overexploited or collapsed	51.12	%	27.7	→	51.12	%	2018
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.06	scale 0–1.4	19.2	↓	1.06	scale 0–1.4	2015
Nitrogen surplus – Domestic	16.72	kg/capita	61.7	→	794.65	Gg	2015
Nitrogen surplus – Spillover	2.81	kg/capita	88.7	↓	133.38	Gg	2015
Phosphorus fertilizer – Domestic	30.64	g/capita	78.9	↗	234,974.24	kt	2019
Phosphorus fertilizer – Spillover	1,182.43	g/capita	50.2	↓	56.19	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.41	m^3/capita	78.6	↓	19.33	B m^3	2015
Scarce water consumption – Spillover	5.77	m^3/capita	56.2	→	274.01	M m^3	2015
Water stress of crops – Domestic	39.76	m^3/capita	76.5	↗	1,889.55	M m^3	2015
Water stress of crops – Spillover	1,074.36	m^3/capita	59.4	↓	51,054.07	M m^3	2015
Feshwater withdrawal		% renew. H_20			11.77	% renew. H_20	

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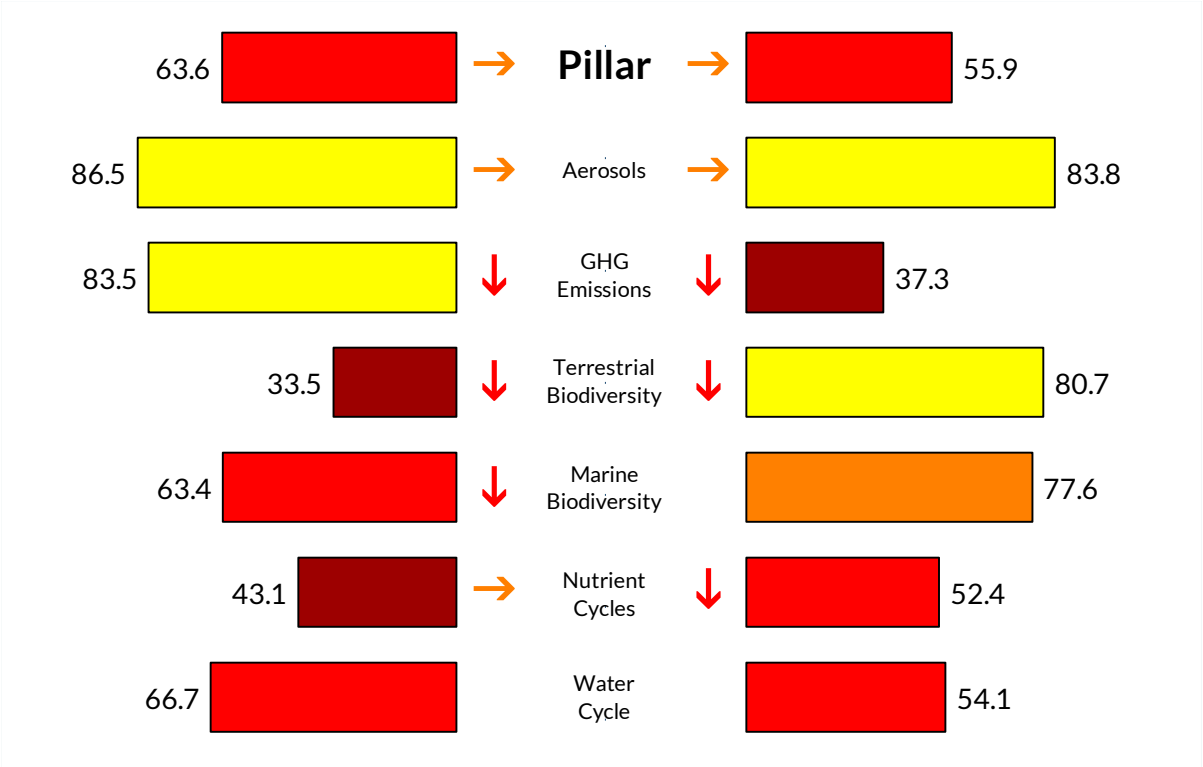
Costa Rica

OECD

Population [millions]	5.1	**GDP** [$, billions]	100.0
Land area [km^2, thousands]	5,150.1	**GDP** per capita	19,630

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Costa Rica

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.99	kg/capita	97.3	↗	10.04	Gg	2019
SO_2 emissions – Spillover	5.08	kg/capita	82.0	→	24.61	Gg	2015
NO_X emissions – Domestic	10.14	kg/capita	87.9	↓	51.18	Gg	2019
NO_X emissions – Spillover	8.76	kg/capita	83.7	↓	42.49	Gg	2015
Black Carbon emissions – Domestic	0.71	kg/capita	75.7	→	3.60	Gg	2019
Black Carbon emissions – Spillover	0.26	kg/capita	85.8	→	1.28	Gg	2015
GHG Emissions							
GHG emissions – Domestic	3.35	tonnes/capita	83.5	↓	16.90	Tg	2019
GHG emissions – Spillover	2.17	tonnes/capita	37.3	↓	10.51	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	60.21	%	42.5	→	60.21	%	2019
Unprotected freshwater sites	62.34	%	39.0	↓	62.34	%	2019
Land-use biodiversity loss – Domestic	6.55E-11	global PDF/capita	4.8	→	3.18E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.38E-11	global PDF/capita	67.7	↓	6.67E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	1.04	per M people	80.9		5.18	number	2018
Freshwater biodiversity threats – Spillover	0.04	per M people	96.1		0.18	number	2018
Permanent deforestation	1.31E-01	%	74.9	↓	5,076.96	hectare	2020
Red List Index of species survival	0.82	scale 0–1	53.4	↓	0.82	scale 0–1	2019
Biodiversity Habitat Index	0.43	scale 0–1	18.6		0.43	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	51.34	%	50.3	→	51.34	%	2019
Marine biodiversity threats – Domestic	2.48	per M people	65.8		12.39	number	2018
Marine biodiversity threats – Spillover	0.25	per M people	77.6		1.24	number	2018
Fish stocks: overexploited or collapsed	36.57	%	48.8	↓	36.57	%	2018
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.09	scale 0–1.4	17.2	↓	1.09	scale 0–1.4	2015
Nitrogen surplus – Domestic	23.03	kg/capita	47.2	→	111.66	Gg	2015
Nitrogen surplus – Spillover	4.30	kg/capita	82.4	→	20.85	Gg	2015
Phosphorus fertilizer – Domestic	2.01	g/capita	98.6	↗	15,391.11	kt	2019
Phosphorus fertilizer – Spillover	1,584.90	g/capita	33.3	↓	7.68	kt	2015
Water Cycle							
Scarce water consumption – Domestic	1.68	m^3/capita	63.1	↓	8.14	B m^3	2015
Scarce water consumption – Spillover	6.62	m^3/capita	54.0	↓	32.10	M m^3	2015
Water stress of crops – Domestic	150.98	m^3/capita	60.4	↗	731.91	M m^3	2015
Water stress of crops – Spillover	1,410.58	m^3/capita	54.3	→	6,838.19	M m^3	2015
Feshwater withdrawal	3.99	% renew. H_20	77.9		3.19	% renew. H_20	2012

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Croatia

Eastern Europe & Central Asia

Population [millions]	4.0	**GDP** [$, billions]	107.0
Land area [km^2, thousands]	5,691.0	**GDP** per capita	26,438

Overall impact on the Global Commons and trajectory: **High** →

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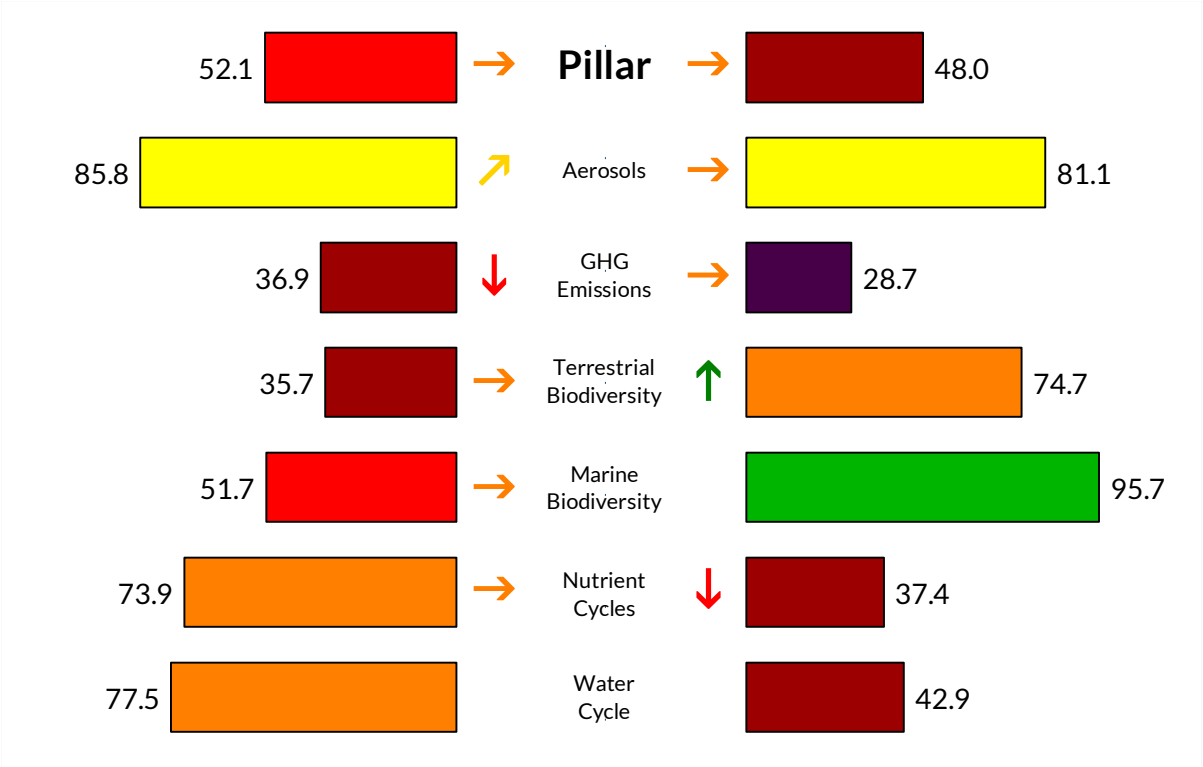

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Trajectories based upon 5-year average annual growth rates.

Croatia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	2.46	kg/capita	96.5	↑	10.01	Gg	2019
SO_2 emissions – Spillover	6.15	kg/capita	78.0	→	25.87	Gg	2015
NO_X emissions – Domestic	11.55	kg/capita	84.6	↑	46.96	Gg	2019
NO_X emissions – Spillover	8.99	kg/capita	83.3	→	37.77	Gg	2015
Black Carbon emissions – Domestic	0.68	kg/capita	77.3	→	2.76	Gg	2019
Black Carbon emissions – Spillover	0.33	kg/capita	82.2	→	1.38	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.38	tonnes/capita	62.9	↓	25.95	Tg	2019
GHG emissions – Spillover	3.34	tonnes/capita	28.7	→	14.06	Tg	2015
CO_2 emissions embodied in fossil fuel exports	82.51	kg/capita	21.6		335.44	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	23.51	%	80.8	↓	23.51	%	2019
Unprotected freshwater sites	14.31	%	87.4	↓	14.31	%	2019
Land-use biodiversity loss – Domestic	1.44E-11	global PDF/capita	79.1	→	6.05E-05	global PDF	2015
Land-use biodiversity loss – Spillover	4.25E-12	global PDF/capita	90.4	↑	1.79E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	7.19	per M people	1.0		29.89	number	2018
Freshwater biodiversity threats – Spillover	0.33	per M people	61.7		1.37	number	2018
Permanent deforestation	1.42E-05	%	100.0	↓	0.33	hectare	2020
Red List Index of species survival	0.90	scale 0–1	76.3	↓	0.90	scale 0–1	2019
Biodiversity Habitat Index	0.43	scale 0–1	17.4		0.43	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	19.41	%	82.7	↓	19.41	%	2019
Marine biodiversity threats – Domestic	0.42	per M people	94.3		1.75	number	2018
Marine biodiversity threats – Spillover	0.05	per M people	95.7		0.20	number	2018
Fish stocks: overexploited or collapsed	62.00	%	12.0	→	62.00	%	2018
Fish caught by trawling	14.40	%	76.7	→	14.40	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.49	scale 0–1.4	63.6	→	0.49	scale 0–1.4	2015
Nitrogen surplus – Domestic	15.05	kg/capita	65.6	↑	63.25	Gg	2015
Nitrogen surplus – Spillover	6.10	kg/capita	74.9	↓	25.64	Gg	2015
Phosphorus fertilizer – Domestic	4.49	g/capita	96.9	↓	34,424.00	kt	2019
Phosphorus fertilizer – Spillover	1,932.22	g/capita	18.7	↓	8.12	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.08	m^3/capita	96.5	↓	0.33	B m^3	2015
Scarce water consumption – Spillover	18.17	m^3/capita	38.2	→	76.38	M m^3	2015
Water stress of crops – Domestic	293.54	m^3/capita	52.3	↗	1,233.92	M m^3	2015
Water stress of crops – Spillover	1,943.64	m^3/capita	48.2	↑	8,170.28	M m^3	2015
Feshwater withdrawal	1.50	% renew. H_20	92.0		0.67	% renew. H_20	2017

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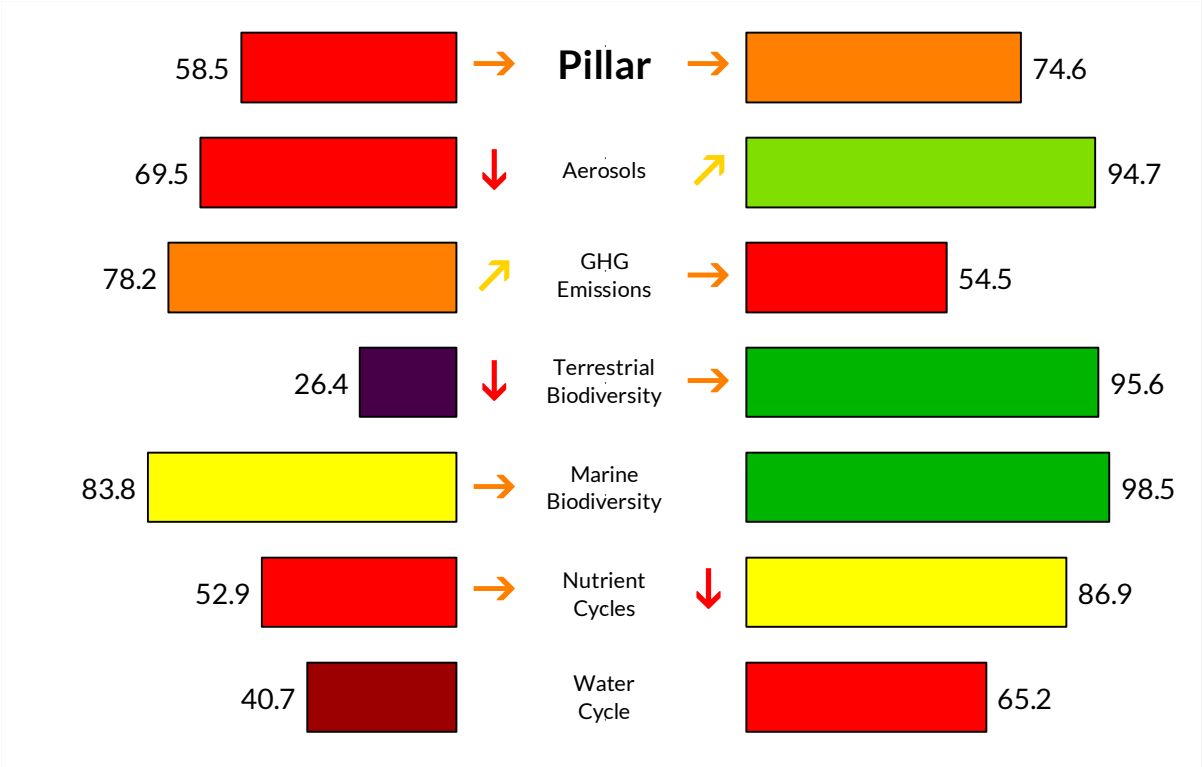
Cuba

Latin America & the Caribbean

Population [millions]	11.3	**GDP** [$, billions]	279.0
Land area [km^2, thousands]	11,127.4	**GDP** per capita	24,632

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



Note: All results shown in proportional terms.

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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Cuba

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	28.81	kg/capita	47.5	→	326.47	Gg	2019
SO_2 emissions – Spillover	2.02	kg/capita	93.4	↑	22.87	Gg	2015
NO_X emissions – Domestic	12.96	kg/capita	81.3	↓	146.87	Gg	2019
NO_X emissions – Spillover	2.62	kg/capita	95.7	↗	29.69	Gg	2015
Black Carbon emissions – Domestic	0.48	kg/capita	86.8	↓	5.43	Gg	2019
Black Carbon emissions – Spillover	0.10	kg/capita	95.0	↗	1.16	Gg	2015
GHG Emissions							
GHG emissions – Domestic	3.96	tonnes/capita	78.2	↗	44.86	Tg	2019
GHG emissions – Spillover	0.92	tonnes/capita	54.5	→	10.39	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	45.52	%	57.8	↓	45.52	%	2019
Unprotected freshwater sites	1.81	%	100.0	↓	1.81	%	2019
Land-use biodiversity loss – Domestic	1.03E-10	global PDF/capita	1.0	→	1.17E-03	global PDF	2015
Land-use biodiversity loss – Spillover	3.77E-12	global PDF/capita	91.6	→	4.27E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	1.33	per M people	75.4		15.11	number	2018
Freshwater biodiversity threats – Spillover	0.00	per M people	99.7		0.05	number	2018
Permanent deforestation	7.93E-02	%	84.8	↓	3,363.62	hectare	2020
Red List Index of species survival	0.65	scale 0–1	8.4	↓	0.65	scale 0–1	2019
Biodiversity Habitat Index	0.50	scale 0–1	28.4		0.50	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	29.94	%	72.0	↓	29.94	%	2019
Marine biodiversity threats – Domestic	1.94	per M people	73.3		21.95	number	2018
Marine biodiversity threats – Spillover	0.02	per M people	98.5		0.19	number	2018
Fish stocks: overexploited or collapsed	5.91	%	93.2	↗	5.91	%	2018
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.06	scale 0–1.4	19.8	↓	1.06	scale 0–1.4	2015
Nitrogen surplus – Domestic	10.66	kg/capita	75.6	↓	120.74	Gg	2015
Nitrogen surplus – Spillover	1.18	kg/capita	95.6	↓	13.36	Gg	2015
Phosphorus fertilizer – Domestic	1.00	g/capita	99.3	↑	7,684.21	kt	2019
Phosphorus fertilizer – Spillover	498.00	g/capita	79.0	↓	5.64	kt	2015
Water Cycle							
Scarce water consumption – Domestic	31.26	m^3/capita	31.2	↓	354.02	B m^3	2015
Scarce water consumption – Spillover	3.17	m^3/capita	65.5	→	35.95	M m^3	2015
Water stress of crops – Domestic	977.50	m^3/capita	37.8	↓	11,069.94	M m^3	2015
Water stress of crops – Spillover	806.70	m^3/capita	64.8	↓	9,135.74	M m^3	2015
Feshwater withdrawal	16.99	% renew. H_20	57.0		6.96	% renew. H_20	2007

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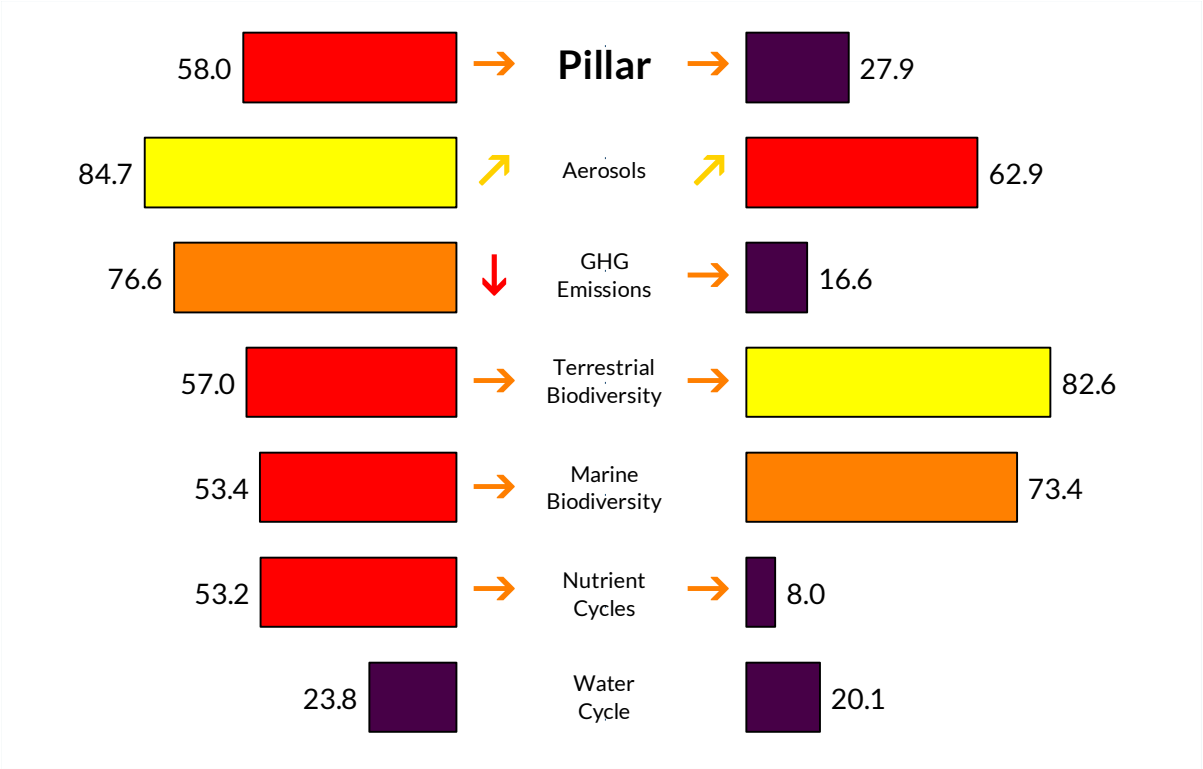
Cyprus

Eastern Europe & Central Asia

Population [millions]	1.2	**GDP** [$, billions]	33.7
Land area [km^2, thousands]	928.9	**GDP** per capita	27,885

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Cyprus

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	13.35	kg/capita	76.2	↓	16.00	Gg	2019
SO_2 emissions – Spillover	11.25	kg/capita	59.0	↑	13.06	Gg	2015
NO_X emissions – Domestic	10.39	kg/capita	87.3	↑	12.45	Gg	2019
NO_X emissions – Spillover	17.15	kg/capita	67.4	→	19.91	Gg	2015
Black Carbon emissions – Domestic	0.39	kg/capita	91.2	↑	0.46	Gg	2019
Black Carbon emissions – Spillover	0.68	kg/capita	62.4	→	0.79	Gg	2015
GHG Emissions							
GHG emissions – Domestic	7.26	tonnes/capita	58.7	↓	8.71	Tg	2019
GHG emissions – Spillover	6.10	tonnes/capita	16.6	→	7.08	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	100.0		0.00	Gg	2017
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	25.94	%	78.3	↗	25.94	%	2019
Unprotected freshwater sites	63.43	%	37.9	↓	63.43	%	2019
Land-use biodiversity loss – Domestic	3.64E-12	global PDF/capita	94.8	→	4.23E-06	global PDF	2015
Land-use biodiversity loss – Spillover	9.41E-12	global PDF/capita	78.1	→	1.09E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.72	per M people	86.8		0.85	number	2018
Freshwater biodiversity threats – Spillover	0.11	per M people	87.3		0.13	number	2018
Permanent deforestation	1.69E-02	%	96.8	↓	15.46	hectare	2020
Red List Index of species survival	0.98	scale 0–1	98.5	↗	0.98	scale 0–1	2019
Biodiversity Habitat Index	0.36	scale 0–1	8.4		0.36	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	45.76	%	56.0	→	45.76	%	2019
Marine biodiversity threats – Domestic	0.76	per M people	89.5		0.91	number	2018
Marine biodiversity threats – Spillover	0.29	per M people	73.4		0.35	number	2018
Fish stocks: overexploited or collapsed	54.34	%	23.1	→	54.34	%	2018
Fish caught by trawling	18.31	%	70.2	↓	18.31	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.07	scale 0–1.4	18.6	→	1.07	scale 0–1.4	2015
Nitrogen surplus – Domestic	8.10	kg/capita	81.5	→	9.40	Gg	2015
Nitrogen surplus – Spillover	8.58	kg/capita	64.4	→	9.96	Gg	2015
Phosphorus fertilizer – Domestic	0.69	g/capita	99.5	↓	5,256.23	kt	2019
Phosphorus fertilizer – Spillover	3,456.74	g/capita	1.0	→	4.01	kt	2015
Water Cycle							
Scarce water consumption – Domestic	71.70	m^3/capita	22.2	→	83.24	B m^3	2015
Scarce water consumption – Spillover	71.39	m^3/capita	16.7	→	82.88	M m^3	2015
Water stress of crops – Domestic	7,994.32	m^3/capita	12.4	→	9,281.30	M m^3	2015
Water stress of crops – Spillover	6,935.92	m^3/capita	24.2	→	8,052.51	M m^3	2015
Feshwater withdrawal	29.52	% renew. H_20	49.0		0.22	% renew. H_20	2017

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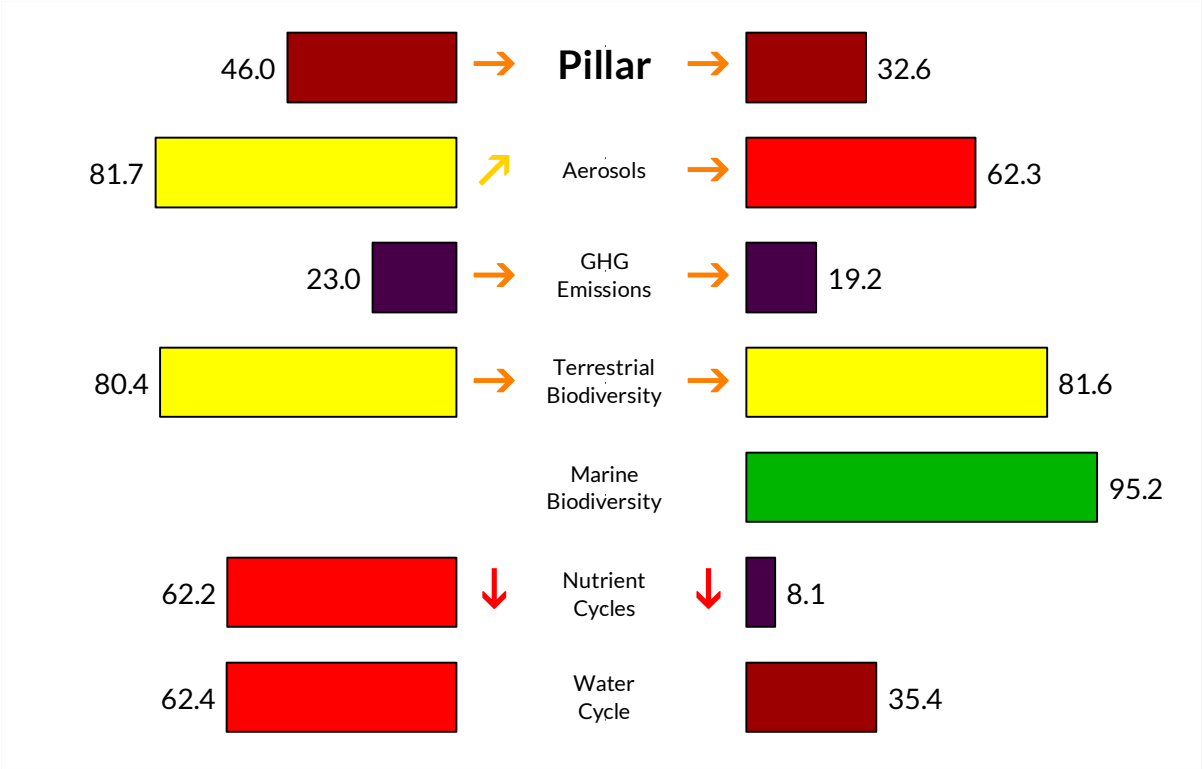
Czech Republic

OECD

Population [millions]	10.7	**GDP** [$, billions]	410.0
Land area [km^2, thousands]	7,859.2	**GDP** per capita	38,322

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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↑	Projected to meet 2050 Threshold
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Trajectories based upon 5-year average annual growth rates.

Czech Republic

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	7.35	kg/capita	87.4	↑	78.39	Gg	2019
SO_2 emissions – Spillover	12.40	kg/capita	54.7	→	130.75	Gg	2015
NO_X emissions – Domestic	14.37	kg/capita	78.1	↑	153.30	Gg	2019
NO_X emissions – Spillover	18.45	kg/capita	64.9	→	194.60	Gg	2015
Black Carbon emissions – Domestic	0.62	kg/capita	79.9	↗	6.66	Gg	2019
Black Carbon emissions – Spillover	0.58	kg/capita	68.1	→	6.08	Gg	2015
GHG Emissions							
GHG emissions – Domestic	11.74	tonnes/capita	43.4	→	125.27	Tg	2019
GHG emissions – Spillover	5.38	tonnes/capita	19.2	→	56.71	Tg	2015
CO_2 emissions embodied in fossil fuel exports	617.29	kg/capita	12.2		6,587.63	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	5.27	%	99.9	↗	5.27	%	2019
Unprotected freshwater sites	7.89	%	93.9	↗	7.89	%	2019
Land-use biodiversity loss – Domestic	3.42E-12	global PDF/capita	95.1	↓	3.61E-05	global PDF	2015
Land-use biodiversity loss – Spillover	7.00E-12	global PDF/capita	83.9	→	7.38E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.04	per M people	99.4		0.39	number	2018
Freshwater biodiversity threats – Spillover	0.18	per M people	79.4		1.91	number	2018
Permanent deforestation	1.79E-02	%	96.6	↓	577.33	hectare	2020
Red List Index of species survival	0.97	scale 0–1	95.3	↗	0.97	scale 0–1	2019
Biodiversity Habitat Index	0.49	scale 0–1	26.6		0.49	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.05	per M people	95.2		0.57	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.49	scale 0–1.4	63.1	↓	0.49	scale 0–1.4	2015
Nitrogen surplus – Domestic	26.08	kg/capita	40.2	↓	275.04	Gg	2015
Nitrogen surplus – Spillover	8.24	kg/capita	65.9	↓	86.88	Gg	2015
Phosphorus fertilizer – Domestic	7.57	g/capita	94.8	↓	58,030.00	kt	2019
Phosphorus fertilizer – Spillover	3,308.01	g/capita	1.0	→	34.89	kt	2015
Water Cycle							
Scarce water consumption – Domestic	2.19	m^3/capita	60.2	↗	23.14	B m^3	2015
Scarce water consumption – Spillover	26.84	m^3/capita	32.0	→	283.07	M m^3	2015
Water stress of crops – Domestic	34.23	m^3/capita	78.3	↓	360.95	M m^3	2015
Water stress of crops – Spillover	3,152.14	m^3/capita	39.1	→	33,242.70	M m^3	2015
Feshwater withdrawal	24.79	% renew. H_20	51.5		1.63	% renew. H_20	2017

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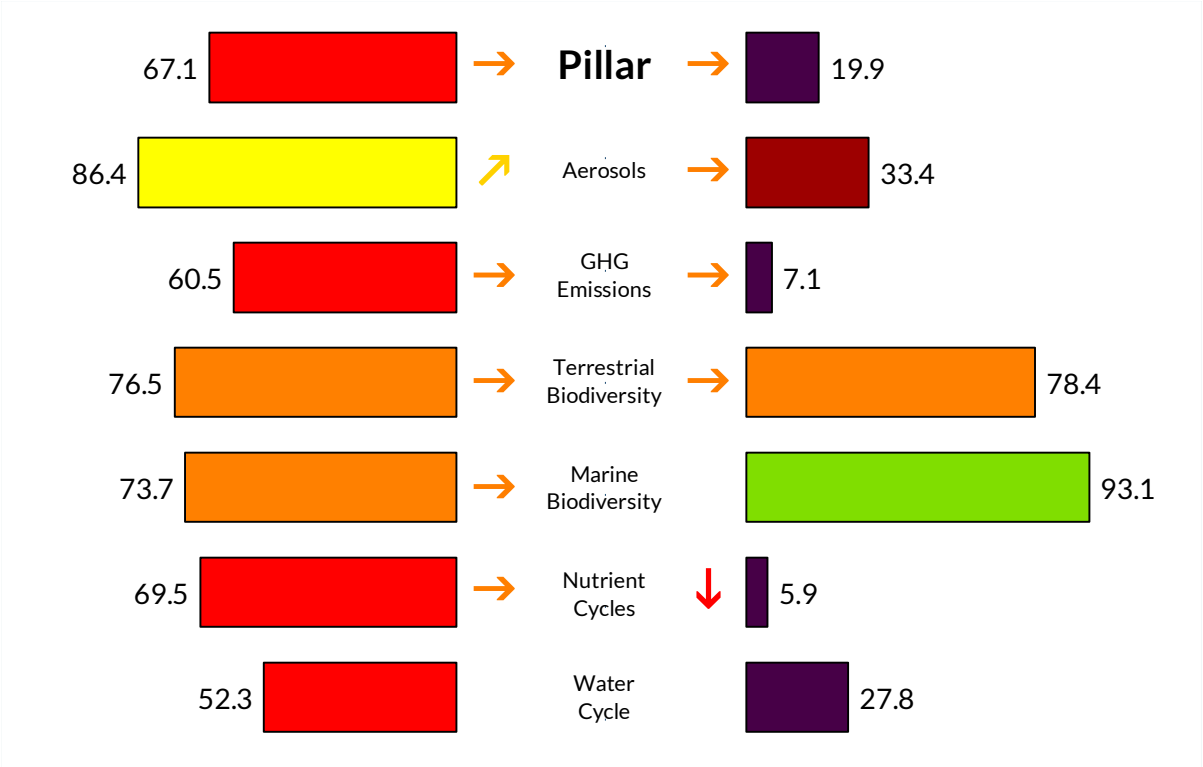
Denmark

OECD

Population [millions]	5.8	**GDP** [$, billions]	326.0
Land area [km^2, thousands]	4,309.2	**GDP** per capita	55,904

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Denmark

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.60	kg/capita	98.1	↗	9.29	Gg	2019
SO_2 emissions – Spillover	20.20	kg/capita	25.6	→	114.81	Gg	2015
NO_X emissions – Domestic	14.96	kg/capita	76.7	↑	87.00	Gg	2019
NO_X emissions – Spillover	35.14	kg/capita	32.4	→	199.69	Gg	2015
Black Carbon emissions – Domestic	0.50	kg/capita	85.8	↑	2.91	Gg	2019
Black Carbon emissions – Spillover	0.99	kg/capita	44.9	→	5.60	Gg	2015
GHG Emissions							
GHG emissions – Domestic	7.81	tonnes/capita	56.4	→	45.39	Tg	2019
GHG emissions – Spillover	9.82	tonnes/capita	7.1	→	55.83	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.01	kg/capita	64.8		0.05	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	13.80	%	90.9	↗	13.80	%	2019
Unprotected freshwater sites	8.25	%	93.5	↓	8.25	%	2019
Land-use biodiversity loss – Domestic	2.59E-12	global PDF/capita	96.3	→	1.47E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.26E-11	global PDF/capita	70.5	→	7.15E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.01	per M people	99.9		0.04	number	2018
Freshwater biodiversity threats – Spillover	0.11	per M people	87.2		0.65	number	2018
Permanent deforestation	1.24E-02	%	97.6	↓	89.00	hectare	2020
Red List Index of species survival	0.97	scale 0–1	95.5	↓	0.97	scale 0–1	2019
Biodiversity Habitat Index	0.44	scale 0–1	20.2		0.44	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	13.15	%	89.0	↗	13.15	%	2019
Marine biodiversity threats – Domestic	0.07	per M people	99.2		0.39	number	2018
Marine biodiversity threats – Spillover	0.08	per M people	93.1		0.44	number	2018
Fish stocks: overexploited or collapsed	35.73	%	50.0	↓	35.73	%	2018
Fish caught by trawling	20.49	%	66.7	↓	20.49	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.37	scale 0–1.4	72.1	→	0.37	scale 0–1.4	2015
Nitrogen surplus – Domestic	22.67	kg/capita	48.0	↓	128.86	Gg	2015
Nitrogen surplus – Spillover	15.49	kg/capita	35.4	↓	88.06	Gg	2015
Phosphorus fertilizer – Domestic	4.41	g/capita	97.0	↓	33,803.23	kt	2019
Phosphorus fertilizer – Spillover	5,771.19	g/capita	1.0	↓	32.80	kt	2015
Water Cycle							
Scarce water consumption – Domestic	9.66	m^3/capita	44.0	↓	54.92	B m^3	2015
Scarce water consumption – Spillover	52.46	m^3/capita	21.5	→	298.13	M m^3	2015
Water stress of crops – Domestic	163.87	m^3/capita	59.4	↗	931.33	M m^3	2015
Water stress of crops – Spillover	3,737.57	m^3/capita	35.9	→	21,242.42	M m^3	2015
Feshwater withdrawal	19.70	% renew. H_20	54.8		0.74	% renew. H_20	2012

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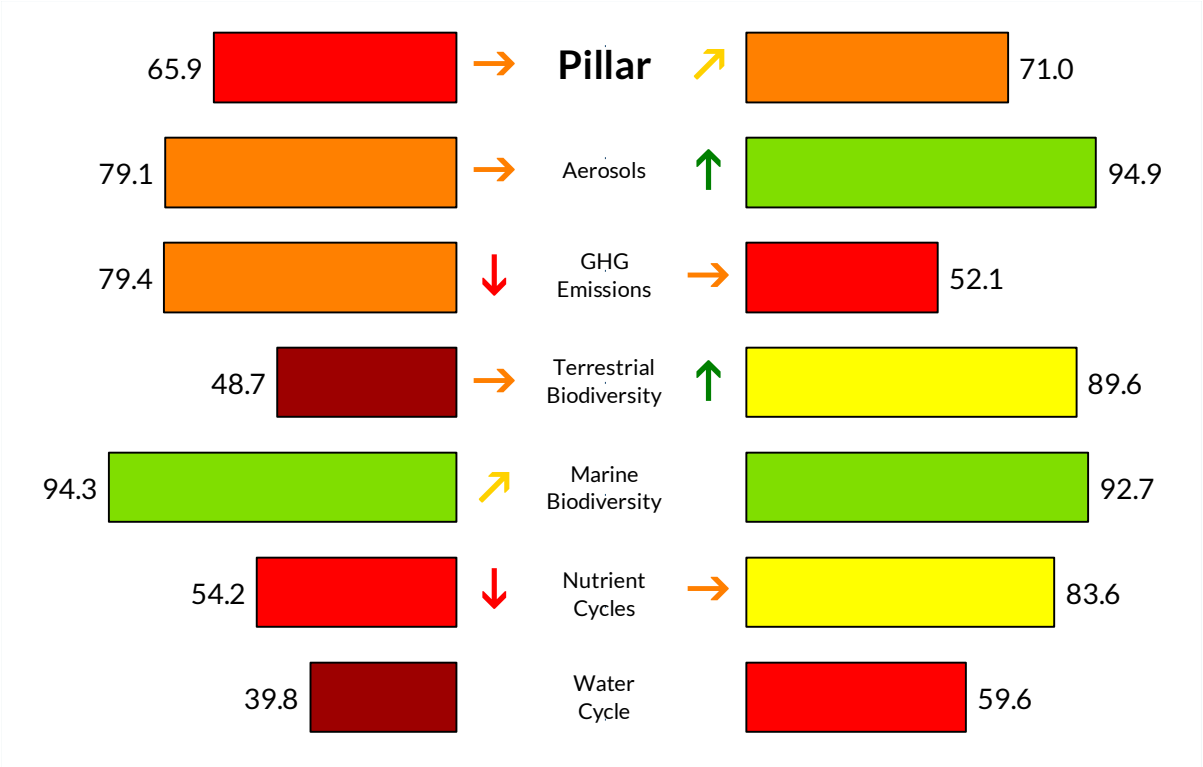
Dominican Republic

Latin America & the Caribbean

Population [millions]	10.8	**GDP** [$, billions]	184.0
Land area [km^2, thousands]	4,836.2	**GDP** per capita	16,962

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Dominican Republic

	Proportional				Absolute		
Indicator	**Value**	**Units**	**Score**		**Value**	**Units**	**Year**
Aerosol							
SO_2 emissions – Domestic	11.37	kg/capita	79.9	↓	122.05	Gg	2019
SO_2 emissions – Spillover	1.87	kg/capita	94.0	↑	19.21	Gg	2015
NO_X emissions – Domestic	17.19	kg/capita	71.5	↓	184.61	Gg	2019
NO_X emissions – Spillover	2.78	kg/capita	95.4	↑	28.61	Gg	2015
Black Carbon emissions – Domestic	0.48	kg/capita	86.6	↗	5.20	Gg	2019
Black Carbon emissions – Spillover	0.10	kg/capita	95.3	↑	0.98	Gg	2015
GHG Emissions							
GHG emissions – Domestic	3.81	tonnes/capita	79.4	↓	40.92	Tg	2019
GHG emissions – Spillover	1.04	tonnes/capita	52.1	→	10.66	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	18.92	%	85.6	↗	18.92	%	2019
Unprotected freshwater sites	4.55	%	97.2	↓	4.55	%	2019
Land-use biodiversity loss – Domestic	3.89E-11	global PDF/capita	43.5	→	4.00E-04	global PDF	2015
Land-use biodiversity loss – Spillover	8.21E-12	global PDF/capita	81.0	↑	8.45E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.23	per M people	95.8		2.46	number	2018
Freshwater biodiversity threats – Spillover	0.01	per M people	99.1		0.11	number	2018
Permanent deforestation	3.62E-01	%	30.7	↓	8,893.44	hectare	2020
Red List Index of species survival	0.73	scale 0–1	31.0	↓	0.73	scale 0–1	2019
Biodiversity Habitat Index	0.44	scale 0–1	19.6		0.44	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	14.66	%	87.5	↓	14.66	%	2019
Marine biodiversity threats – Domestic	0.57	per M people	92.1		6.11	number	2018
Marine biodiversity threats – Spillover	0.08	per M people	92.7		0.86	number	2018
Fish stocks: overexploited or collapsed	2.55	%	98.0	↑	2.55	%	2018
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.05	scale 0–1.4	20.5	→	1.05	scale 0–1.4	2015
Nitrogen surplus – Domestic	8.84	kg/capita	79.8	↓	90.87	Gg	2015
Nitrogen surplus – Spillover	1.33	kg/capita	94.9	→	13.65	Gg	2015
Phosphorus fertilizer – Domestic	3.90	g/capita	97.3	↓	29,903.87	kt	2019
Phosphorus fertilizer – Spillover	627.09	g/capita	73.6	→	6.45	kt	2015
Water Cycle							
Scarce water consumption – Domestic	31.96	m^3/capita	31.0	→	328.61	B m^3	2015
Scarce water consumption – Spillover	3.49	m^3/capita	64.0	↗	35.87	M m^3	2015
Water stress of crops – Domestic	2,645.36	m^3/capita	25.8	↓	27,198.75	M m^3	2015
Water stress of crops – Spillover	1,318.61	m^3/capita	55.5	→	13,557.54	M m^3	2015
Feshwater withdrawal		% renew. H_20			7.14	% renew. H_20	

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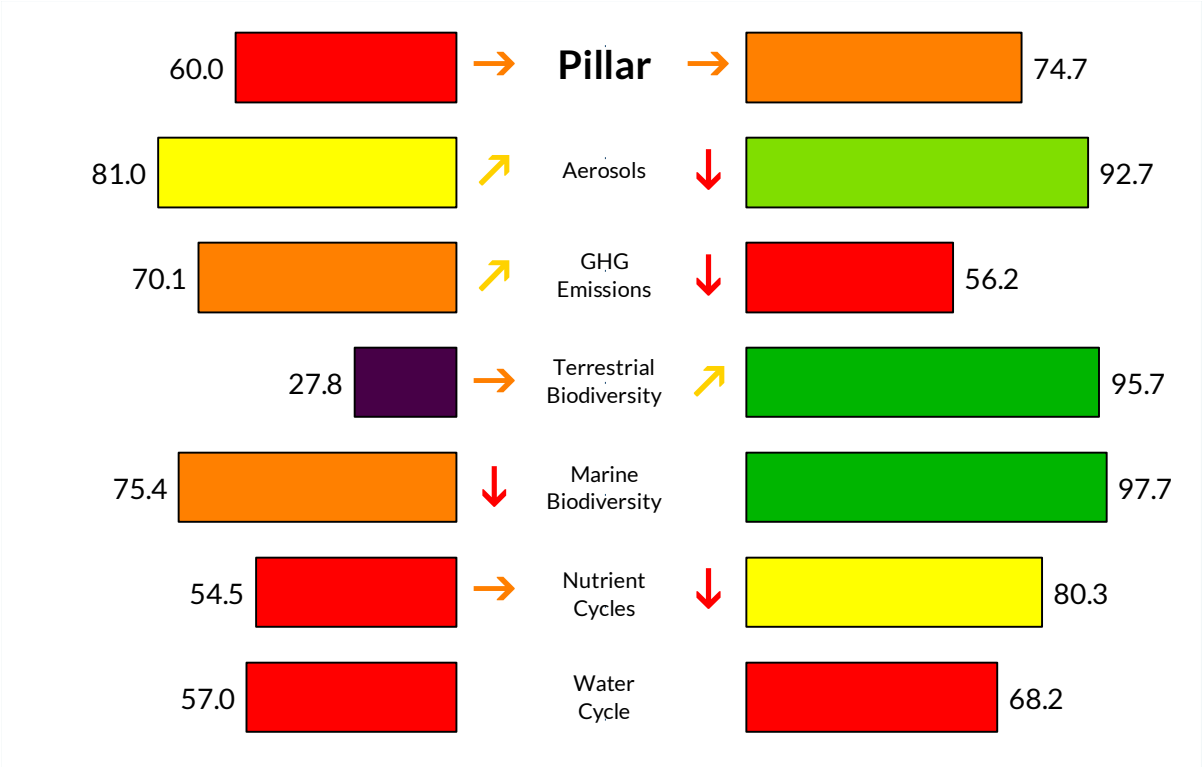
Ecuador

Latin America & the Caribbean

Population [millions]	17.6	**GDP** [$, billions]	182.0
Land area [km^2, thousands]	25,834.2	**GDP** per capita	10,316

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Ecuador

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	7.35	kg/capita	87.4	↗	127.69	Gg	2019
SO_2 emissions – Spillover	2.75	kg/capita	90.7	→	44.55	Gg	2015
NO_X emissions – Domestic	16.39	kg/capita	73.3	→	284.73	Gg	2019
NO_X emissions – Spillover	3.92	kg/capita	93.2	↓	63.52	Gg	2015
Black Carbon emissions – Domestic	0.56	kg/capita	82.9	↗	9.76	Gg	2019
Black Carbon emissions – Spillover	0.11	kg/capita	94.3	↓	1.85	Gg	2015
GHG Emissions							
GHG emissions – Domestic	4.00	tonnes/capita	77.8	↗	69.54	Tg	2019
GHG emissions – Spillover	0.84	tonnes/capita	56.2	↓	13.68	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.01	kg/capita	63.2		0.21	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	69.77	%	32.5	→	69.77	%	2019
Unprotected freshwater sites	33.17	%	68.4	→	33.17	%	2019
Land-use biodiversity loss – Domestic	6.68E-11	global PDF/capita	2.9	→	1.08E-03	global PDF	2015
Land-use biodiversity loss – Spillover	2.78E-12	global PDF/capita	93.9	↗	4.51E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	2.13	per M people	60.7		36.35	number	2018
Freshwater biodiversity threats – Spillover	0.02	per M people	97.5		0.41	number	2018
Permanent deforestation	1.04E-01	%	80.2	↓	19,946.41	hectare	2020
Red List Index of species survival	0.67	scale 0–1	15.0	↓	0.67	scale 0–1	2019
Biodiversity Habitat Index	0.49	scale 0–1	26.7		0.49	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	32.50	%	69.4	→	32.50	%	2019
Marine biodiversity threats – Domestic	1.62	per M people	77.7		27.62	number	2018
Marine biodiversity threats – Spillover	0.03	per M people	97.7		0.44	number	2018
Fish stocks: overexploited or collapsed	29.00	%	59.7	↓	29.00	%	2018
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.00	scale 0–1.4	24.2	→	1.00	scale 0–1.4	2015
Nitrogen surplus – Domestic	13.04	kg/capita	70.2	→	211.48	Gg	2015
Nitrogen surplus – Spillover	1.62	kg/capita	93.7	↓	26.26	Gg	2015
Phosphorus fertilizer – Domestic	7.13	g/capita	95.1	↓	54,721.62	kt	2019
Phosphorus fertilizer – Spillover	740.50	g/capita	68.8	↓	12.01	kt	2015
Water Cycle							
Scarce water consumption – Domestic	3.08	m^3/capita	56.5	↗	50.00	B m^3	2015
Scarce water consumption – Spillover	3.11	m^3/capita	65.8	↓	50.47	M m^3	2015
Water stress of crops – Domestic	714.46	m^3/capita	41.6	→	11,582.89	M m^3	2015
Water stress of crops – Spillover	593.44	m^3/capita	70.6	↓	9,620.91	M m^3	2015
Feshwater withdrawal		% renew. H_20			9.92	% renew. H_20	

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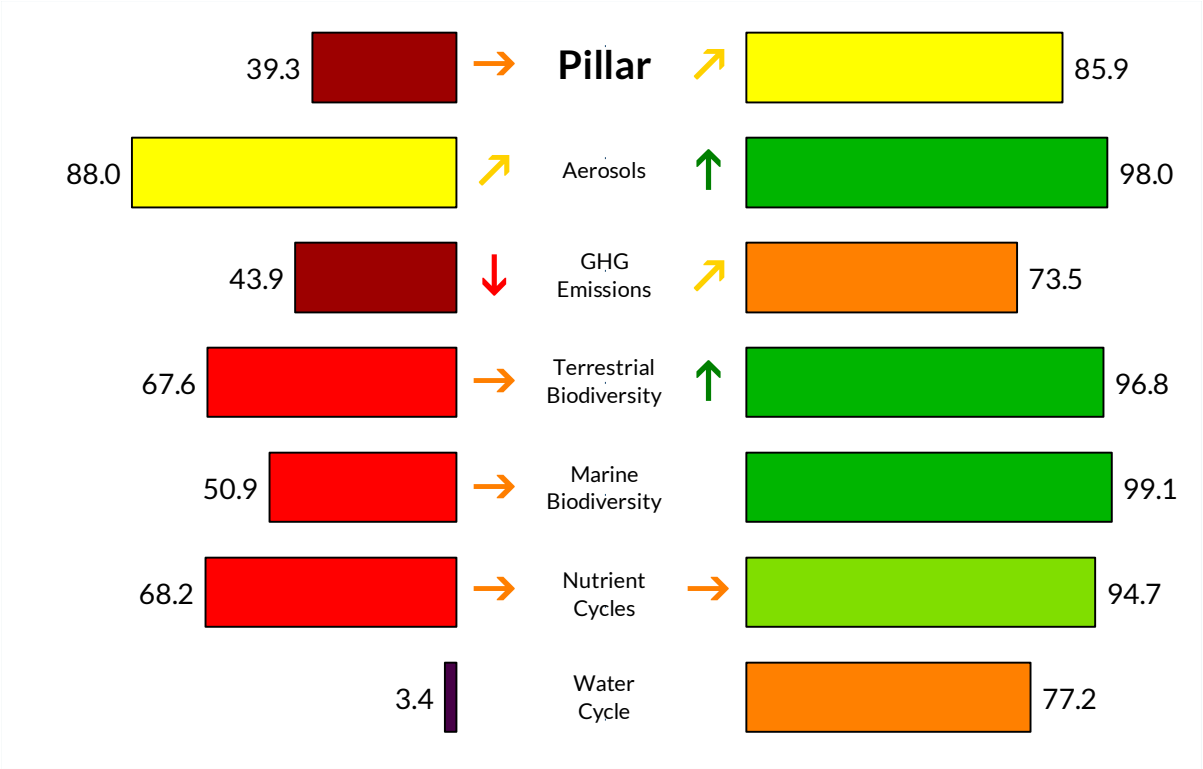
Egypt

Middle East & North Africa

Population [millions]	102.3	**GDP** [$, billions]	1,220.0
Land area [km^2, thousands]	100,387.2	**GDP** per capita	11,922

Overall impact on the Global Commons and trajectory: **High** ↗

Impacts and trajectory by pillar and sub-pillar:



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90–95	Low
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Arrow	Meaning
↑	Projected to meet 2050 Threshold
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Egypt

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	6.22	kg/capita	89.5	↑	624.24	Gg	2019
SO_2 emissions – Spillover	0.87	kg/capita	97.7	↑	80.12	Gg	2015
NO_X emissions – Domestic	7.12	kg/capita	94.9	↑	715.00	Gg	2019
NO_X emissions – Spillover	1.31	kg/capita	98.2	↗	121.23	Gg	2015
Black Carbon emissions – Domestic	0.62	kg/capita	80.3	→	61.83	Gg	2019
Black Carbon emissions – Spillover	0.05	kg/capita	98.2	↑	4.22	Gg	2015
GHG Emissions							
GHG emissions – Domestic	3.57	tonnes/capita	81.4	↓	358.79	Tg	2019
GHG emissions – Spillover	0.35	tonnes/capita	73.5	↗	32.78	Tg	2015
CO_2 emissions embodied in fossil fuel exports	54.23	kg/capita	23.6		5,444.29	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	60.59	%	42.1	↓	60.59	%	2019
Unprotected freshwater sites	71.51	%	29.7	↓	71.51	%	2019
Land-use biodiversity loss – Domestic	3.73E-14	global PDF/capita	100.0	↑	3.45E-06	global PDF	2015
Land-use biodiversity loss – Spillover	2.18E-12	global PDF/capita	95.4	↑	2.01E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.06	per M people	98.9		6.24	number	2018
Freshwater biodiversity threats – Spillover	0.02	per M people	98.3		1.65	number	2018
Permanent deforestation	7.39E-03	%	98.6	↓	10.59	hectare	2020
Red List Index of species survival	0.91	scale 0–1	77.7	↓	0.91	scale 0–1	2019
Biodiversity Habitat Index	0.77	scale 0–1	68.0		0.77	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	56.99	%	44.6	↓	56.99	%	2019
Marine biodiversity threats – Domestic	0.25	per M people	96.7		24.37	number	2018
Marine biodiversity threats – Spillover	0.01	per M people	99.1		1.02	number	2018
Fish stocks: overexploited or collapsed	36.75	%	48.5	↓	36.75	%	2018
Fish caught by trawling	41.53	%	32.1	→	41.53	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.64	scale 0–1.4	51.8	↓	0.64	scale 0–1.4	2015
Nitrogen surplus – Domestic	10.24	kg/capita	76.6	↓	946.88	Gg	2015
Nitrogen surplus – Spillover	0.52	kg/capita	98.3	↗	47.76	Gg	2015
Phosphorus fertilizer – Domestic	29.05	g/capita	80.0	↗	222,800.00	kt	2019
Phosphorus fertilizer – Spillover	210.10	g/capita	91.2	→	19.42	kt	2015
Water Cycle							
Scarce water consumption – Domestic	481.24	m^3/capita	1.4	→	44,487.31	B m^3	2015
Scarce water consumption – Spillover	1.77	m^3/capita	74.6	↗	163.99	M m^3	2015
Water stress of crops – Domestic	45,940.94	m^3/capita	1.0	→	4,246,897.79	M m^3	2015
Water stress of crops – Spillover	362.28	m^3/capita	79.9	↓	33,490.19	M m^3	2015
Feshwater withdrawal	117.30	% renew. H_20	29.1		64.40	% renew. H_20	2017

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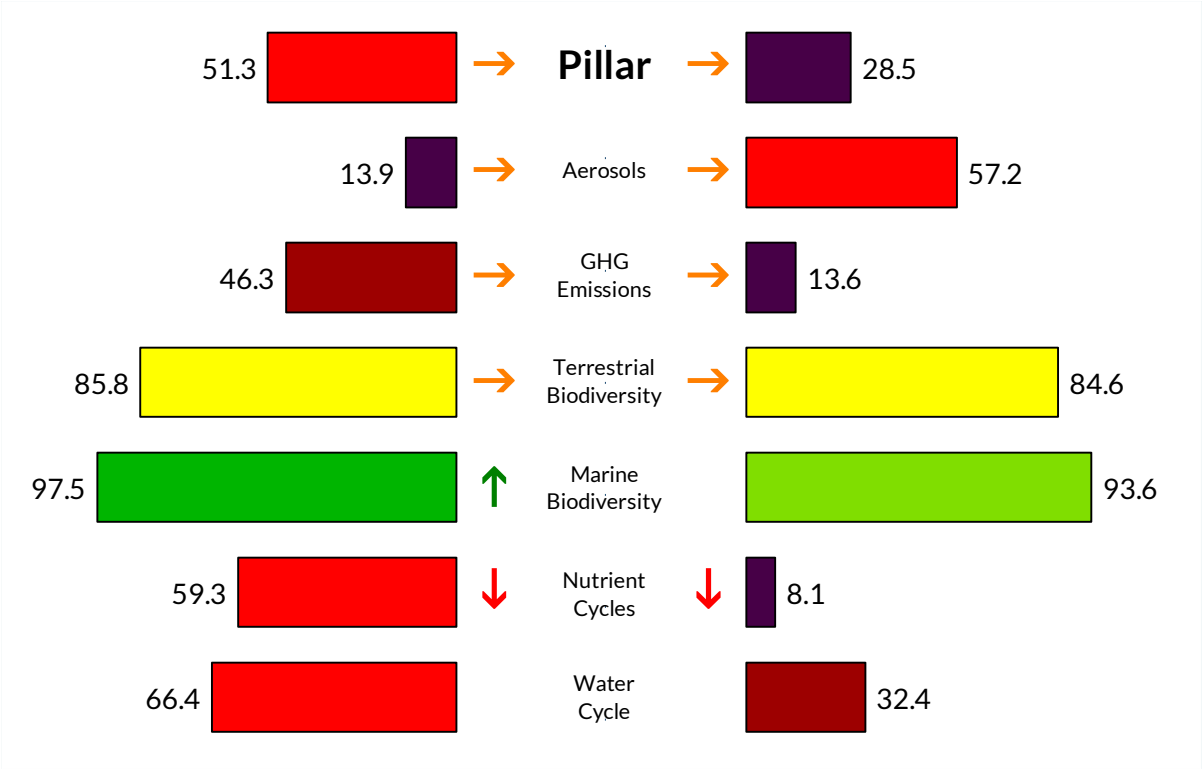
Estonia

OECD

Population [millions]	1.3	**GDP** [$, billions]	47.4
Land area [km^2, thousands]	4,535.0	**GDP** per capita	35,638

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
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Arrow	Meaning
↑	Projected to meet 2050 Threshold
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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Estonia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	30.71	kg/capita	43.9	→	40.75	Gg	2019
SO_2 emissions – Spillover	13.29	kg/capita	51.4	→	17.48	Gg	2015
NO_X emissions – Domestic	21.59	kg/capita	61.2	→	28.65	Gg	2019
NO_X emissions – Spillover	17.95	kg/capita	65.8	→	23.62	Gg	2015
Black Carbon emissions – Domestic	2.29	kg/capita	1.0	→	3.04	Gg	2019
Black Carbon emissions – Spillover	0.80	kg/capita	55.3	→	1.06	Gg	2015
GHG Emissions							
GHG emissions – Domestic	16.71	tonnes/capita	32.1	→	22.18	Tg	2019
GHG emissions – Spillover	7.11	tonnes/capita	13.6	→	9.35	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.01	kg/capita	66.8		0.01	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	5.13	%	100.0	↑	5.13	%	2019
Unprotected freshwater sites	6.50	%	95.3	↗	6.50	%	2019
Land-use biodiversity loss – Domestic	9.18E-12	global PDF/capita	86.7	↓	1.21E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.13E-11	global PDF/capita	73.5	→	1.49E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.05	per M people	99.2		0.06	number	2018
Freshwater biodiversity threats – Spillover	0.02	per M people	97.4		0.03	number	2018
Permanent deforestation	2.02E-02	%	96.1	↓	549.33	hectare	2020
Red List Index of species survival	0.99	scale 0–1	99.3	↓	0.99	scale 0–1	2019
Biodiversity Habitat Index	0.61	scale 0–1	43.7		0.61	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	2.92	%	99.4	↗	2.92	%	2019
Marine biodiversity threats – Domestic	0.02	per M people	99.9		0.02	number	2018
Marine biodiversity threats – Spillover	0.07	per M people	93.6		0.09	number	2018
Fish stocks: overexploited or collapsed	1.60	%	99.4	↑	1.60	%	2018
Fish caught by trawling	5.29	%	91.6	↗	5.29	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.62	scale 0–1.4	53.3	→	0.62	scale 0–1.4	2015
Nitrogen surplus – Domestic	26.40	kg/capita	39.5	↓	34.72	Gg	2015
Nitrogen surplus – Spillover	8.21	kg/capita	66.0	↓	10.80	Gg	2015
Phosphorus fertilizer – Domestic	1.21	g/capita	99.2	↓	9,293.65	kt	2019
Phosphorus fertilizer – Spillover	3,230.81	g/capita	1.0	↓	4.25	kt	2015
Water Cycle							
Scarce water consumption – Domestic	1.53	m^3/capita	64.1	↓	2.02	B m^3	2015
Scarce water consumption – Spillover	26.56	m^3/capita	32.2	↓	34.93	M m^3	2015
Water stress of crops – Domestic	23.24	m^3/capita	83.0	↓	30.57	M m^3	2015
Water stress of crops – Spillover	4,457.16	m^3/capita	32.6	→	5,862.98	M m^3	2015
Feshwater withdrawal	19.30	% renew. H_20	55.1		1.78	% renew. H_20	2017

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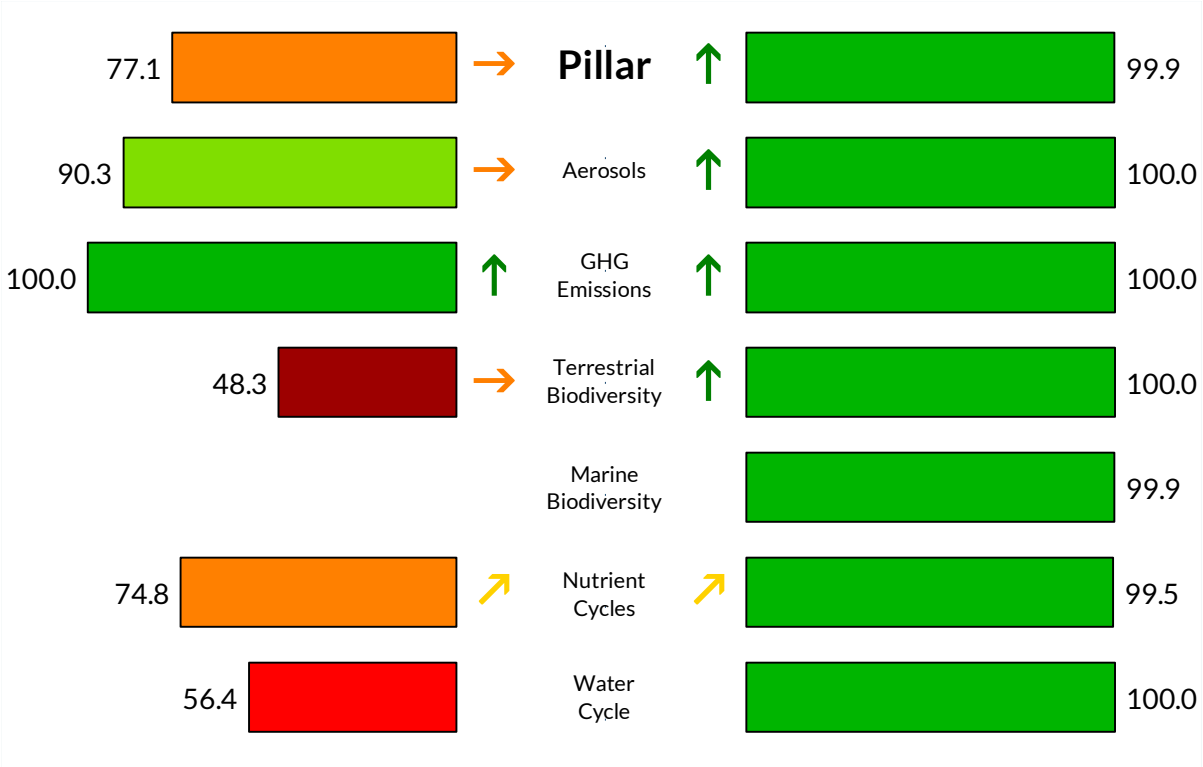
Ethiopia

Africa

Population [millions]	115.0	**GDP** [$, billions]	264.0
Land area [km^2, thousands]	113,826.9	**GDP** per capita	2,296

Overall impact on the Global Commons and trajectory: **Medium-low** ↗

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
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Trajectories based upon 5-year average annual growth rates.

Ethiopia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	0.48	kg/capita	100.0	↓	53.35	Gg	2019
SO_2 emissions – Spillover	0.10	kg/capita	100.0	↑	9.66	Gg	2015
NO_X emissions – Domestic	2.30	kg/capita	100.0	↓	257.49	Gg	2019
NO_X emissions – Spillover	0.12	kg/capita	100.0	↑	11.68	Gg	2015
Black Carbon emissions – Domestic	0.76	kg/capita	73.7	→	84.64	Gg	2019
Black Carbon emissions – Spillover	0.01	kg/capita	100.0	↑	0.76	Gg	2015
GHG Emissions							
GHG emissions – Domestic	1.50	tonnes/capita	100.0	↑	167.93	Tg	2019
GHG emissions – Spillover	0.04	tonnes/capita	100.0	↑	3.82	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	100.0		0.00	Gg	2017
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	81.90	%	19.9	↓	81.90	%	2019
Unprotected freshwater sites	83.83	%	17.3	↓	83.83	%	2019
Land-use biodiversity loss – Domestic	4.43E-12	global PDF/capita	93.6	↗	4.47E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.73E-13	global PDF/capita	100.0	↑	1.75E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.10	per M people	98.2		10.97	number	2018
Freshwater biodiversity threats – Spillover	0.00	per M people	100.0		0.27	number	2018
Permanent deforestation	8.07E-02	%	84.6	↓	9,974.11	hectare	2020
Red List Index of species survival	0.84	scale 0–1	60.4	→	0.84	scale 0–1	2019
Biodiversity Habitat Index	0.57	scale 0–1	38.1		0.57	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.00	per M people	99.9		0.10	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.66	scale 0–1.4	50.1	→	0.66	scale 0–1.4	2015
Nitrogen surplus – Domestic	0.91	kg/capita	98.0	↗	91.53	Gg	2015
Nitrogen surplus – Spillover	0.06	kg/capita	100.0	↑	5.85	Gg	2015
Phosphorus fertilizer – Domestic	21.43	g/capita	85.2	↗	164,365.20	kt	2019
Phosphorus fertilizer – Spillover	22.92	g/capita	99.0	→	2.31	kt	2015
Water Cycle							
Scarce water consumption – Domestic	1.50	m^3/capita	64.4	↗	150.87	B m^3	2015
Scarce water consumption – Spillover	0.24	m^3/capita	100.0	↑	24.21	M m^3	2015
Water stress of crops – Domestic	385.68	m^3/capita	49.0	↓	38,890.30	M m^3	2015
Water stress of crops – Spillover	53.06	m^3/capita	100.0	↑	5,350.66	M m^3	2015
Feshwater withdrawal	17.00	% renew. H_20	57.0		10.55	% renew. H_20	2002

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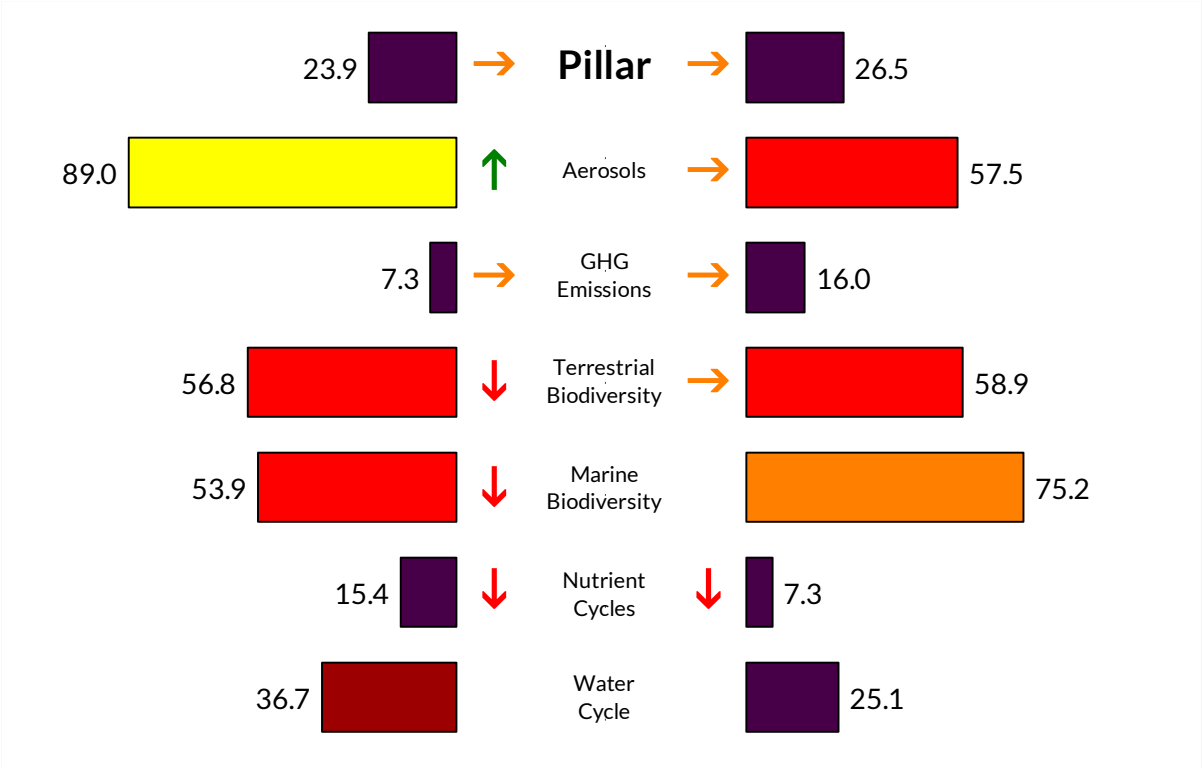
European Union

OECD

Population [millions]	447.8	**GDP** [$, billions]	18,573.1
Land area [km^2, thousands]	413,350.9	**GDP** per capita	41,473

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

European Union

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	3.98	kg/capita	93.6	↑	1,778.87	Gg	2019
SO_2 emissions – Spillover	13.38	kg/capita	51.1	→	5,946.82	Gg	2015
NO_X emissions – Domestic	12.51	kg/capita	82.4	↑	5,593.69	Gg	2019
NO_X emissions – Spillover	21.12	kg/capita	59.7	→	9,391.07	Gg	2015
Black Carbon emissions – Domestic	0.38	kg/capita	91.3	↑	172.05	Gg	2019
Black Carbon emissions – Spillover	0.68	kg/capita	62.3	→	301.56	Gg	2015
GHG Emissions							
GHG emissions – Domestic	8.64	tonnes/capita	53.2	→	3,865.63	Tg	2019
GHG emissions – Spillover	6.30	tonnes/capita	16.0	→	2,801.17	Tg	2015
CO_2 emissions embodied in fossil fuel exports	154,960.00	kg/capita	1.0		69,208,896.00	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	65.59	%	36.9	↓	65.59	%	2019
Unprotected freshwater sites	58.16	%	43.2	↓	58.16	%	2019
Land-use biodiversity loss – Domestic	9.63E-12	global PDF/capita	86.1	→	4.28E-03	global PDF	2015
Land-use biodiversity loss – Spillover	1.27E-11	global PDF/capita	70.3	→	5.64E-03	global PDF	2015
Freshwater biodiversity threats – Domestic	0.89	per M people	83.5		399.94	number	2018
Freshwater biodiversity threats – Spillover	0.44	per M people	49.3		195.31	number	2018
Permanent deforestation	1.12E-02	%	97.9	↓	1,269.71	hectare	2020
Red List Index of species survival	0.84	scale 0–1	60.9	↓	0.84	scale 0–1	2019
Biodiversity Habitat Index	0.50	scale 0–1	27.9		0.50	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	70.52	%	30.9	↓	70.52	%	2019
Marine biodiversity threats – Domestic	0.24	per M people	96.8		106.20	number	2018
Marine biodiversity threats – Spillover	0.27	per M people	75.2		122.50	number	2018
Fish stocks: overexploited or collapsed	34.12	%	52.3	→	34.12	%	2018
Fish caught by trawling	28.17	%	54.0	↓	28.17	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.57	scale 0–1.4	56.9	↓	0.57	scale 0–1.4	2015
Nitrogen surplus – Domestic	15.79	kg/capita	63.9	↓	7,019.17	Gg	2015
Nitrogen surplus – Spillover	11.23	kg/capita	53.3	↓	4,994.59	Gg	2015
Phosphorus fertilizer – Domestic	341.84	g/capita	1.0	↓	2,621,791.11	kt	2019
Phosphorus fertilizer – Spillover	4,651.33	g/capita	1.0	→	2,067.88	kt	2015
Water Cycle							
Scarce water consumption – Domestic	18.71	m^3/capita	36.8	→	8,318.24	B m^3	2015
Scarce water consumption – Spillover	51.41	m^3/capita	21.9	→	22,853.86	M m^3	2015
Water stress of crops – Domestic	2,987.86	m^3/capita	24.3	→	1,328,343.45	M m^3	2015
Water stress of crops – Spillover	5,402.55	m^3/capita	28.9	→	2,401,862.03	M m^3	2015
Feshwater withdrawal	19.16	% renew. H_20	55.2		195.92	% renew. H_20	2017

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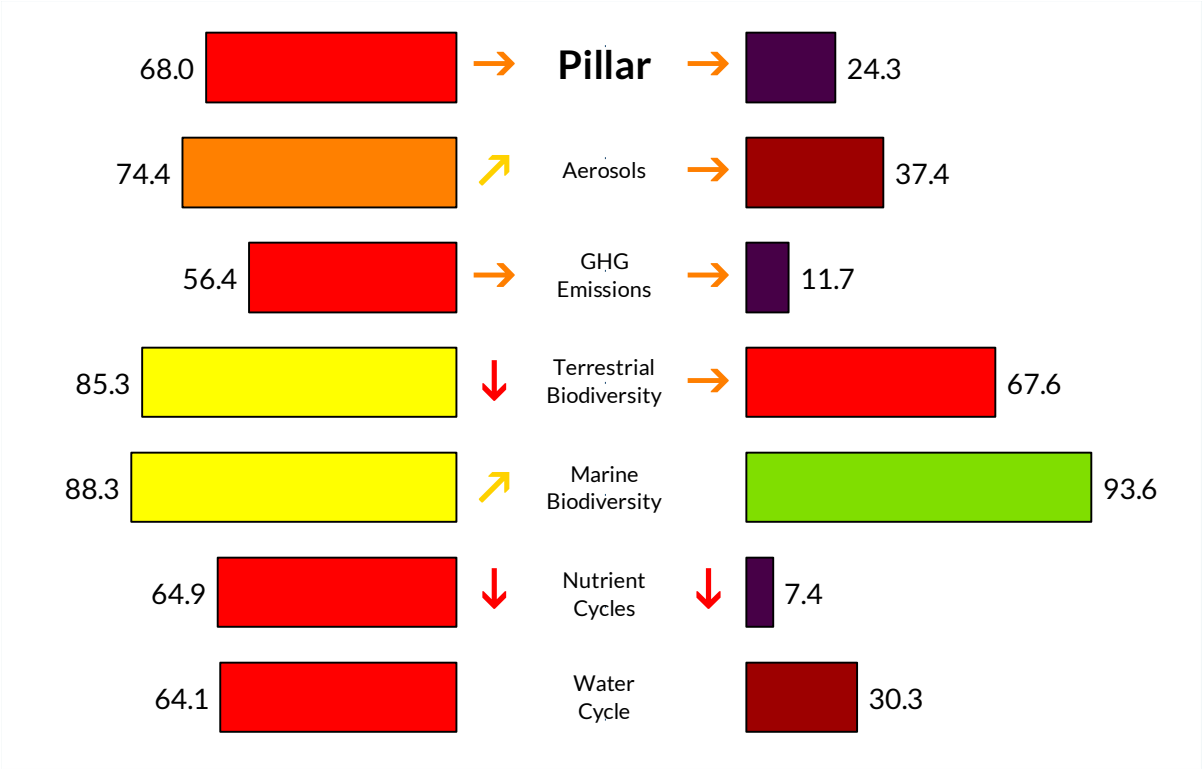
Finland

OECD

Population [millions]	5.5	**GDP** [$, billions]	261.0
Land area [km^2, thousands]	33,517.5	**GDP** per capita	47,191

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



Note: All results shown in proportional terms.

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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Finland

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	5.70	kg/capita	90.4	↗	31.49	Gg	2019
SO_2 emissions – Spillover	19.62	kg/capita	27.8	→	107.53	Gg	2015
NO_X emissions – Domestic	19.93	kg/capita	65.1	↑	110.04	Gg	2019
NO_X emissions – Spillover	30.66	kg/capita	41.1	→	168.01	Gg	2015
Black Carbon emissions – Domestic	0.84	kg/capita	69.9	→	4.62	Gg	2019
Black Carbon emissions – Spillover	0.97	kg/capita	45.8	→	5.32	Gg	2015
GHG Emissions							
GHG emissions – Domestic	12.82	tonnes/capita	40.6	→	70.77	Tg	2019
GHG emissions – Spillover	7.82	tonnes/capita	11.7	→	42.85	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	78.3		0.00	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	28.20	%	75.9	→	28.20	%	2019
Unprotected freshwater sites	26.34	%	75.3	→	26.34	%	2019
Land-use biodiversity loss – Domestic	5.92E-12	global PDF/capita	91.5	↓	3.25E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.45E-11	global PDF/capita	65.9	→	7.95E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.21	per M people	96.2		1.16	number	2018
Freshwater biodiversity threats – Spillover	0.26	per M people	69.4		1.46	number	2018
Permanent deforestation	4.31E-03	%	99.2	↓	982.31	hectare	2020
Red List Index of species survival	0.99	scale 0–1	100.0	↓	0.99	scale 0–1	2019
Biodiversity Habitat Index	0.76	scale 0–1	66.2		0.76	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	39.03	%	62.8	→	39.03	%	2019
Marine biodiversity threats – Domestic	0.04	per M people	99.5		0.24	number	2018
Marine biodiversity threats – Spillover	0.07	per M people	93.6		0.39	number	2018
Fish stocks: overexploited or collapsed	3.12	%	97.2	↑	3.12	%	2018
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.63	scale 0–1.4	52.9	↓	0.63	scale 0–1.4	2015
Nitrogen surplus – Domestic	20.50	kg/capita	53.0	↓	112.32	Gg	2015
Nitrogen surplus – Spillover	10.76	kg/capita	55.3	↓	58.97	Gg	2015
Phosphorus fertilizer – Domestic	3.40	g/capita	97.7	↓	26,090.99	kt	2019
Phosphorus fertilizer – Spillover	4,351.25	g/capita	1.0	→	23.84	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.84	m^3/capita	70.7	↑	4.59	B m^3	2015
Scarce water consumption – Spillover	37.40	m^3/capita	26.8	→	204.96	M m^3	2015
Water stress of crops – Domestic	63.13	m^3/capita	70.9	↑	345.91	M m^3	2015
Water stress of crops – Spillover	4,095.87	m^3/capita	34.1	→	22,443.45	M m^3	2015
Feshwater withdrawal		% renew. H_20			6.56	% renew. H_20	

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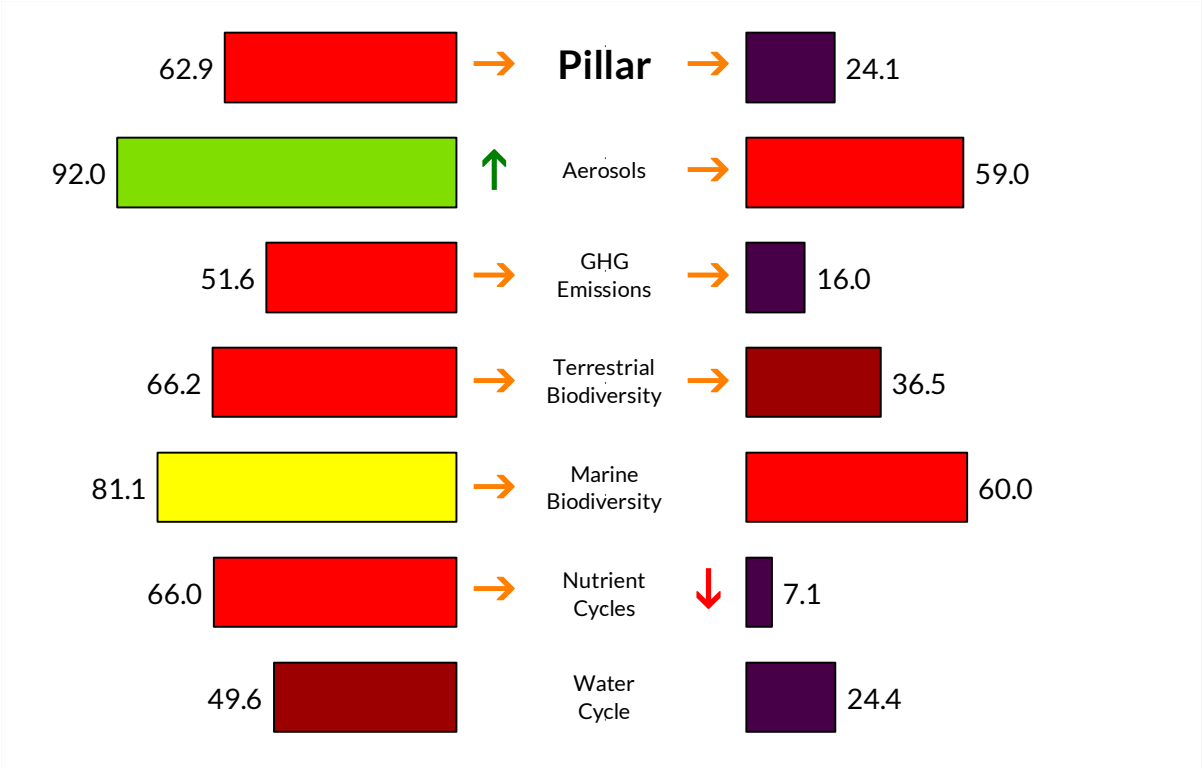
France

OECD

Population [millions]	67.4	**GDP** [$, billions]	2,830.0
Land area [km^2, thousands]	54,919.9	**GDP** per capita	41,969

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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↑	Projected to meet 2050 Threshold
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

France

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.87	kg/capita	97.6	↑	126.04	Gg	2019
SO_2 emissions – Spillover	12.44	kg/capita	54.6	→	828.21	Gg	2015
NO_X emissions – Domestic	11.88	kg/capita	83.8	↑	799.50	Gg	2019
NO_X emissions – Spillover	20.36	kg/capita	61.2	→	1,355.32	Gg	2015
Black Carbon emissions – Domestic	0.30	kg/capita	95.2	↑	20.37	Gg	2019
Black Carbon emissions – Spillover	0.69	kg/capita	61.6	→	46.06	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.84	tonnes/capita	60.7	→	460.18	Tg	2019
GHG emissions – Spillover	6.30	tonnes/capita	16.0	→	419.44	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.73	kg/capita	43.9		49.16	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	19.65	%	84.9	↑	19.65	%	2019
Unprotected freshwater sites	21.89	%	79.8	↑	21.89	%	2019
Land-use biodiversity loss – Domestic	6.75E-12	global PDF/capita	90.3	→	4.49E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.56E-11	global PDF/capita	63.4	→	1.04E-03	global PDF	2015
Freshwater biodiversity threats – Domestic	1.38	per M people	74.5		89.72	number	2018
Freshwater biodiversity threats – Spillover	0.68	per M people	21.1		44.14	number	2018
Permanent deforestation	3.49E-02	%	93.3	↓	5,874.95	hectare	2020
Red List Index of species survival	0.87	scale 0–1	68.1	↓	0.87	scale 0–1	2019
Biodiversity Habitat Index	0.44	scale 0–1	19.3		0.44	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	18.87	%	83.2	→	18.87	%	2019
Marine biodiversity threats – Domestic	0.24	per M people	96.8		15.52	number	2018
Marine biodiversity threats – Spillover	0.44	per M people	60.0		28.77	number	2018
Fish stocks: overexploited or collapsed	21.01	%	71.3	↓	21.01	%	2018
Fish caught by trawling	15.26	%	75.2	→	15.26	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.39	scale 0–1.4	71.2	→	0.39	scale 0–1.4	2015
Nitrogen surplus – Domestic	15.50	kg/capita	64.5	↓	1,031.80	Gg	2015
Nitrogen surplus – Spillover	11.91	kg/capita	50.4	↓	793.01	Gg	2015
Phosphorus fertilizer – Domestic	54.27	g/capita	62.5	↗	416,254.88	kt	2019
Phosphorus fertilizer – Spillover	5,037.18	g/capita	1.0	→	335.40	kt	2015
Water Cycle							
Scarce water consumption – Domestic	9.99	m^3/capita	43.7	→	664.94	B m^3	2015
Scarce water consumption – Spillover	53.47	m^3/capita	21.2	→	3,560.00	M m^3	2015
Water stress of crops – Domestic	259.10	m^3/capita	53.8	↗	17,252.08	M m^3	2015
Water stress of crops – Spillover	5,677.68	m^3/capita	28.0	→	378,043.55	M m^3	2015
Feshwater withdrawal	24.20	% renew. H_20	51.9		26.44	% renew. H_20	2012

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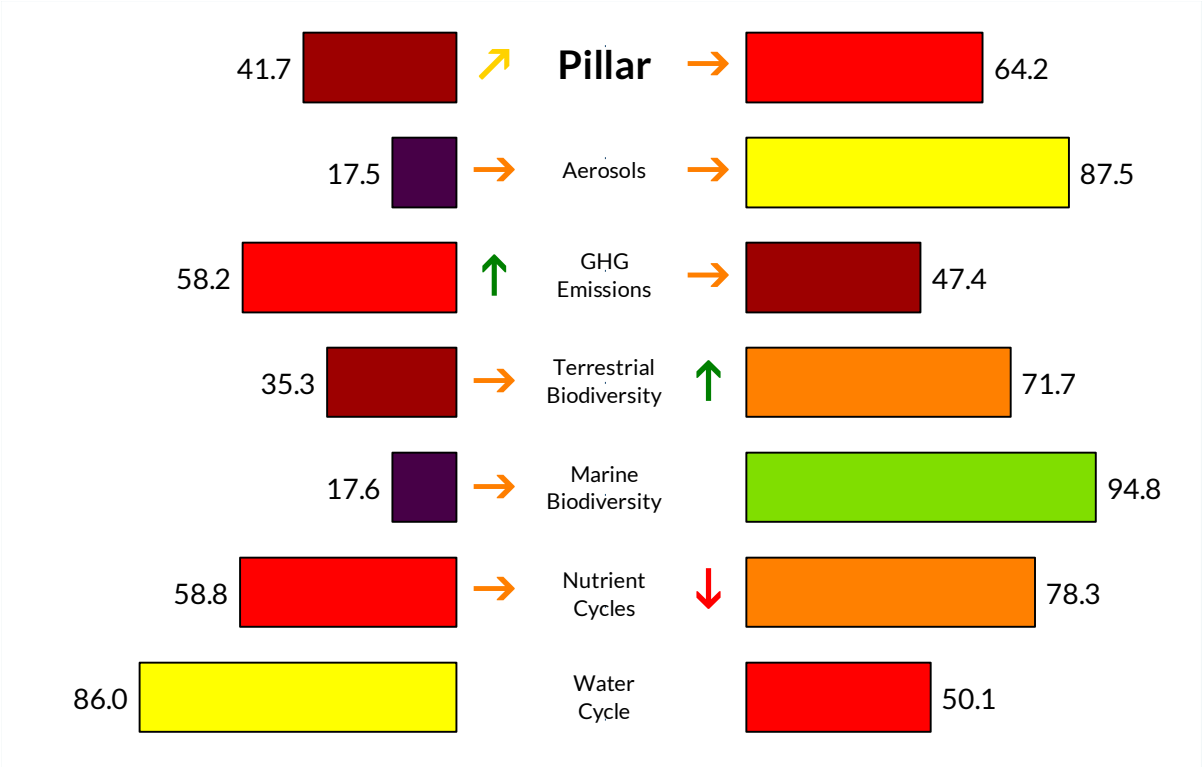
Gabon

Africa

Population [millions]	2.2	**GDP** [$, billions]	32.1
Land area [km^2, thousands]	26,640.9	**GDP** per capita	14,400

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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↑	Projected to meet 2050 Threshold
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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Gabon

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	5.27	kg/capita	91.2	→	11.46	Gg	2019
SO_2 emissions – Spillover	3.65	kg/capita	87.3	→	7.11	Gg	2015
NO_X emissions – Domestic	22.63	kg/capita	58.8	→	49.16	Gg	2019
NO_X emissions – Spillover	6.87	kg/capita	87.4	→	13.39	Gg	2015
Black Carbon emissions – Domestic	5.66	kg/capita	1.0	→	12.30	Gg	2019
Black Carbon emissions – Spillover	0.23	kg/capita	87.8	→	0.44	Gg	2015
GHG Emissions							
GHG emissions – Domestic	7.40	tonnes/capita	58.2	↑	16.07	Tg	2019
GHG emissions – Spillover	1.31	tonnes/capita	47.4	→	2.55	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	38.33	%	65.4	→	38.33	%	2019
Unprotected freshwater sites	6.39	%	95.4	↓	6.39	%	2019
Land-use biodiversity loss – Domestic	5.38E-11	global PDF/capita	21.8	→	1.05E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.13E-11	global PDF/capita	73.7	↑	2.19E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	11.77	per M people	1.0		24.95	number	2018
Freshwater biodiversity threats – Spillover	0.26	per M people	69.9		0.55	number	2018
Permanent deforestation	4.97E-02	%	90.5	→	12,263.56	hectare	2020
Red List Index of species survival	0.96	scale 0–1	92.6	↓	0.96	scale 0–1	2019
Biodiversity Habitat Index	0.71	scale 0–1	59.8		0.71	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	32.97	%	69.0	→	32.97	%	2019
Marine biodiversity threats – Domestic	4.12	per M people	43.1		8.74	number	2018
Marine biodiversity threats – Spillover	0.06	per M people	94.8		0.12	number	2018
Fish stocks: overexploited or collapsed	69.58	%	1.0	↓	69.58	%	2018
Fish caught by trawling	41.61	%	32.0	→	41.61	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.02	scale 0–1.4	22.2	↓	1.02	scale 0–1.4	2015
Nitrogen surplus – Domestic	3.54	kg/capita	92.0	↓	6.90	Gg	2015
Nitrogen surplus – Spillover	2.05	kg/capita	91.9	↓	4.00	Gg	2015
Phosphorus fertilizer – Domestic	0.42	g/capita	99.7	↗	3,243.33	kt	2019
Phosphorus fertilizer – Spillover	789.39	g/capita	66.8	↓	1.54	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.01	m^3/capita	100.0	↑	0.01	B m^3	2015
Scarce water consumption – Spillover	7.23	m^3/capita	52.6	→	14.08	M m^3	2015
Water stress of crops – Domestic	6.65	m^3/capita	98.1	↑	12.95	M m^3	2015
Water stress of crops – Spillover	1,995.86	m^3/capita	47.7	→	3,887.31	M m^3	2015
Feshwater withdrawal		% renew. H_20			0.14	% renew. H_20	

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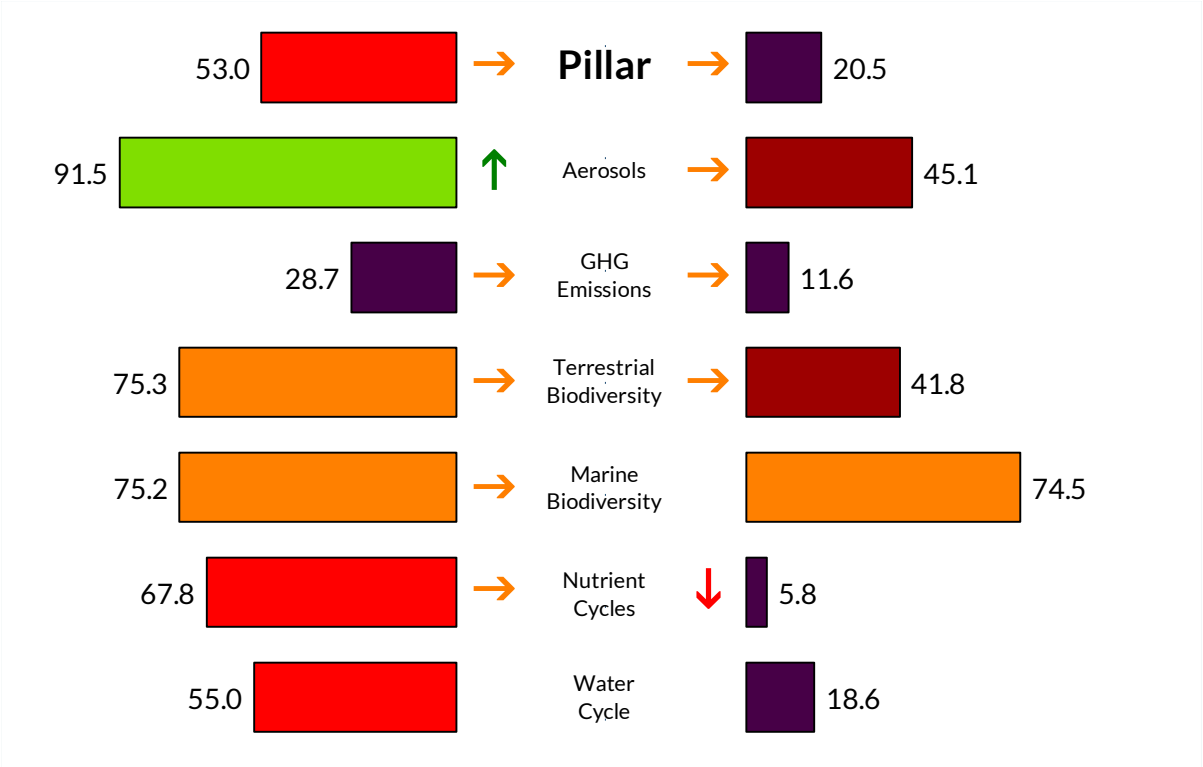
Germany

OECD

Population [millions]	83.2	**GDP** [$, billions]	4,240.0
Land area [km^2, thousands]	35,676.8	**GDP** per capita	50,937

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Germany

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	3.19	kg/capita	95.1	↑	265.32	Gg	2019
SO_2 emissions – Spillover	17.09	kg/capita	37.2	→	1,395.99	Gg	2015
NO_X emissions – Domestic	10.90	kg/capita	86.1	↑	905.63	Gg	2019
NO_X emissions – Spillover	27.52	kg/capita	47.2	↓	2,247.90	Gg	2015
Black Carbon emissions – Domestic	0.34	kg/capita	93.4	↑	28.35	Gg	2019
Black Carbon emissions – Spillover	0.85	kg/capita	52.3	→	69.83	Gg	2015
GHG Emissions							
GHG emissions – Domestic	9.78	tonnes/capita	49.2	→	812.81	Tg	2019
GHG emissions – Spillover	7.85	tonnes/capita	11.6	→	641.14	Tg	2015
CO_2 emissions embodied in fossil fuel exports	231.50	kg/capita	16.8		19,269.97	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	21.17	%	83.3	↗	21.17	%	2019
Unprotected freshwater sites	18.67	%	83.0	→	18.67	%	2019
Land-use biodiversity loss – Domestic	2.50E-12	global PDF/capita	96.5	↓	2.04E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.59E-11	global PDF/capita	62.7	→	1.29E-03	global PDF	2015
Freshwater biodiversity threats – Domestic	0.24	per M people	95.7		19.61	number	2018
Freshwater biodiversity threats – Spillover	0.62	per M people	27.8		51.64	number	2018
Permanent deforestation	1.05E-03	%	99.8	↓	133.94	hectare	2020
Red List Index of species survival	0.98	scale 0–1	98.5	↗	0.98	scale 0–1	2019
Biodiversity Habitat Index	0.46	scale 0–1	21.9		0.46	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	30.55	%	71.4	→	30.55	%	2019
Marine biodiversity threats – Domestic	0.01	per M people	99.9		1.13	number	2018
Marine biodiversity threats – Spillover	0.28	per M people	74.5		23.48	number	2018
Fish stocks: overexploited or collapsed	25.62	%	64.6	↑	25.62	%	2018
Fish caught by trawling	18.82	%	69.4	↓	18.82	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.51	scale 0–1.4	61.9	↓	0.51	scale 0–1.4	2015
Nitrogen surplus – Domestic	15.33	kg/capita	64.9	↓	1,251.88	Gg	2015
Nitrogen surplus – Spillover	15.80	kg/capita	34.1	↓	1,290.41	Gg	2015
Phosphorus fertilizer – Domestic	32.30	g/capita	77.7	↗	247,766.00	kt	2019
Phosphorus fertilizer – Spillover	6,665.01	g/capita	1.0	→	544.44	kt	2015
Water Cycle							
Scarce water consumption – Domestic	5.62	m^3/capita	49.9	→	458.94	B m^3	2015
Scarce water consumption – Spillover	76.75	m^3/capita	15.6	→	6,269.41	M m^3	2015
Water stress of crops – Domestic	37.05	m^3/capita	77.3	↓	3,026.62	M m^3	2015
Water stress of crops – Spillover	7,719.15	m^3/capita	22.2	→	630,551.24	M m^3	2015
Feshwater withdrawal	44.22	% renew. H_20	43.2		24.44	% renew. H_20	2007

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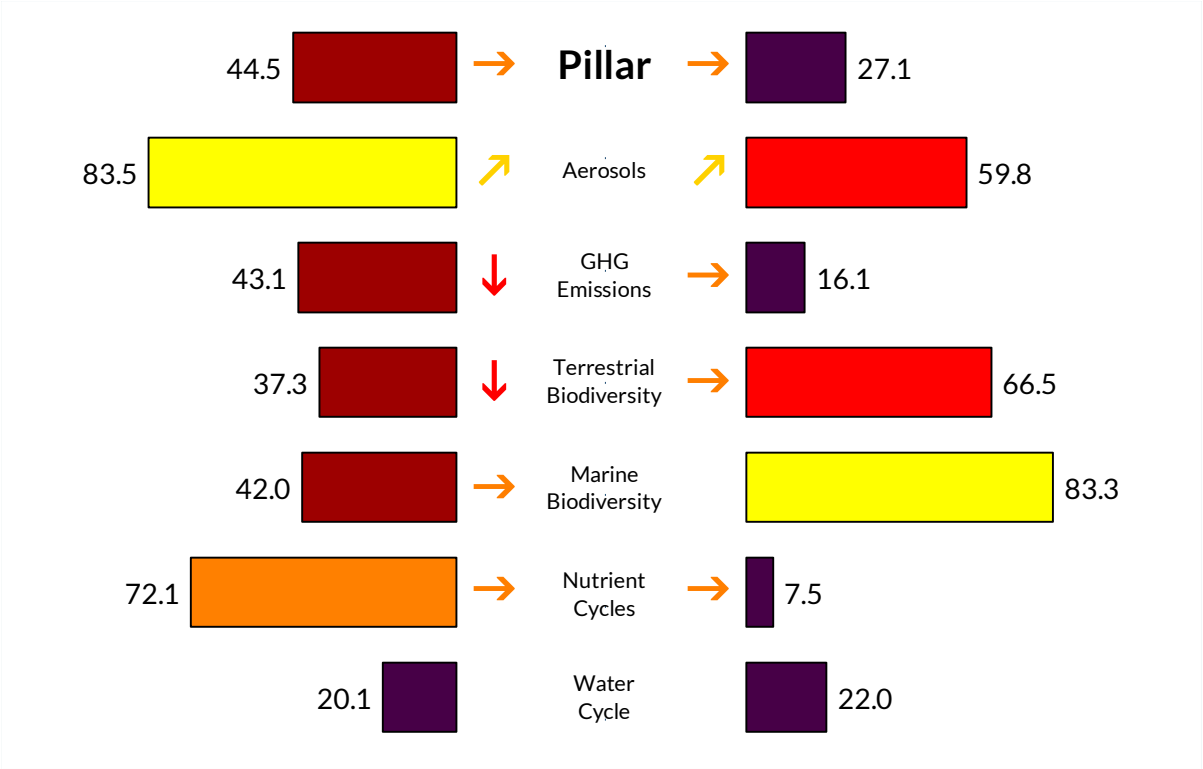
Greece

OECD

Population [millions]	10.7	**GDP** [$, billions]	292.0
Land area [km^2, thousands]	13,266.7	**GDP** per capita	27,250

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Greece

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	10.09	kg/capita	82.3	→	108.21	Gg	2019
SO_2 emissions – Spillover	12.69	kg/capita	53.6	↑	137.33	Gg	2015
NO_X emissions – Domestic	17.13	kg/capita	71.6	↑	183.61	Gg	2019
NO_X emissions – Spillover	18.67	kg/capita	64.5	→	202.01	Gg	2015
Black Carbon emissions – Domestic	0.22	kg/capita	98.9	↑	2.41	Gg	2019
Black Carbon emissions – Spillover	0.69	kg/capita	61.8	→	7.44	Gg	2015
GHG Emissions							
GHG emissions – Domestic	8.30	tonnes/capita	54.5	↓	88.98	Tg	2019
GHG emissions – Spillover	6.28	tonnes/capita	16.1	→	67.98	Tg	2015
CO_2 emissions embodied in fossil fuel exports	5.96	kg/capita	34.0		63.92	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	13.96	%	90.8	↓	13.96	%	2019
Unprotected freshwater sites	12.76	%	89.0	↓	12.76	%	2019
Land-use biodiversity loss – Domestic	3.19E-11	global PDF/capita	53.7	↓	3.45E-04	global PDF	2015
Land-use biodiversity loss – Spillover	7.03E-12	global PDF/capita	83.8	→	7.61E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	5.20	per M people	3.9		54.73	number	2018
Freshwater biodiversity threats – Spillover	0.41	per M people	52.8		4.28	number	2018
Permanent deforestation	2.66E-04	%	100.0	↓	9.63	hectare	2020
Red List Index of species survival	0.85	scale 0–1	62.0	→	0.85	scale 0–1	2019
Biodiversity Habitat Index	0.37	scale 0–1	9.5		0.37	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	13.91	%	88.3	↓	13.91	%	2019
Marine biodiversity threats – Domestic	1.43	per M people	80.4		15.02	number	2018
Marine biodiversity threats – Spillover	0.19	per M people	83.3		1.95	number	2018
Fish stocks: overexploited or collapsed	62.48	%	11.3	→	62.48	%	2018
Fish caught by trawling	37.29	%	39.1	↓	37.29	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.64	scale 0–1.4	51.9	↓	0.64	scale 0–1.4	2015
Nitrogen surplus – Domestic	10.41	kg/capita	76.2	→	112.65	Gg	2015
Nitrogen surplus – Spillover	10.65	kg/capita	55.8	→	115.22	Gg	2015
Phosphorus fertilizer – Domestic	7.76	g/capita	94.7	↓	59,536.69	kt	2019
Phosphorus fertilizer – Spillover	4,161.58	g/capita	1.0	→	45.03	kt	2015
Water Cycle							
Scarce water consumption – Domestic	54.45	m^3/capita	25.2	↓	589.23	B m^3	2015
Scarce water consumption – Spillover	75.11	m^3/capita	15.9	→	812.71	M m^3	2015
Water stress of crops – Domestic	13,699.79	m^3/capita	5.9	→	148,243.84	M m^3	2015
Water stress of crops – Spillover	5,013.00	m^3/capita	30.3	↑	54,245.06	M m^3	2015
Feshwater withdrawal	20.10	% renew. H_20	54.6		11.24	% renew. H_20	2012

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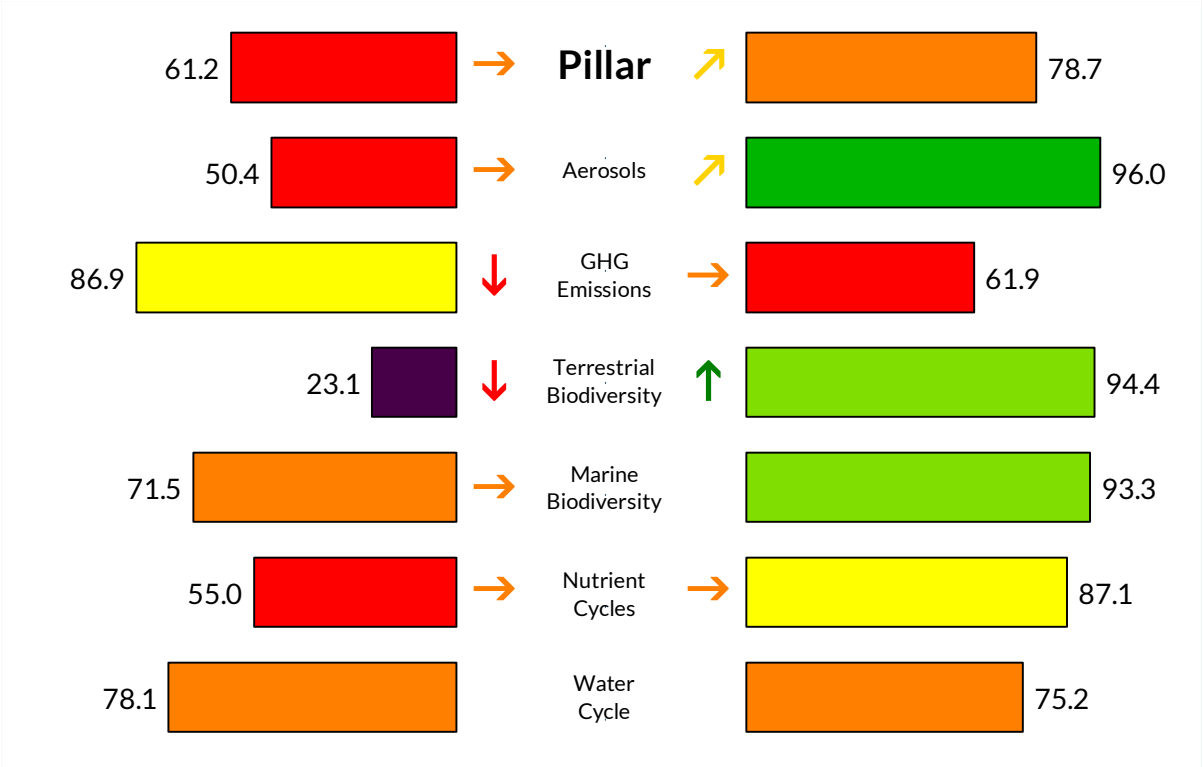
Guatemala

Latin America & the Caribbean

Population [millions]	16.9	**GDP** [$, billions]	141.0
Land area [km^2, thousands]	10,977.9	**GDP** per capita	8,364

Overall impact on the Global Commons and trajectory: **High** ↗

Impacts and trajectory by pillar and sub-pillar:



Note: All results shown in proportional terms.

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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Guatemala

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	6.00	kg/capita	89.9	↓	99.65	Gg	2019
SO_2 emissions – Spillover	1.54	kg/capita	95.2	↗	24.04	Gg	2015
NO_X emissions – Domestic	9.75	kg/capita	88.8	↗	161.82	Gg	2019
NO_X emissions – Spillover	2.30	kg/capita	96.3	→	35.87	Gg	2015
Black Carbon emissions – Domestic	1.97	kg/capita	16.0	↓	32.76	Gg	2019
Black Carbon emissions – Spillover	0.07	kg/capita	96.5	↗	1.16	Gg	2015
GHG Emissions							
GHG emissions – Domestic	2.45	tonnes/capita	93.6	↓	40.60	Tg	2019
GHG emissions – Spillover	0.64	tonnes/capita	61.9	→	9.89	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	80.7		0.00	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	70.02	%	32.3	→	70.02	%	2019
Unprotected freshwater sites	75.18	%	26.0	↓	75.18	%	2019
Land-use biodiversity loss – Domestic	2.92E-11	global PDF/capita	57.7	→	4.54E-04	global PDF	2015
Land-use biodiversity loss – Spillover	4.44E-12	global PDF/capita	90.0	↑	6.91E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.19	per M people	96.5		3.30	number	2018
Freshwater biodiversity threats – Spillover	0.01	per M people	99.1		0.18	number	2018
Permanent deforestation	6.62E-01	%	1.0	↓	46,541.91	hectare	2020
Red List Index of species survival	0.72	scale 0–1	27.2	↓	0.72	scale 0–1	2019
Biodiversity Habitat Index	0.49	scale 0–1	27.4		0.49	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	51.31	%	50.4	→	51.31	%	2019
Marine biodiversity threats – Domestic	0.27	per M people	96.3		4.67	number	2018
Marine biodiversity threats – Spillover	0.07	per M people	93.3		1.28	number	2018
Fish stocks: overexploited or collapsed	8.57	%	89.3	↑	8.57	%	2018
Fish caught by trawling	24.43	%	60.2	↓	24.43	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.99	scale 0–1.4	25.1	↓	0.99	scale 0–1.4	2015
Nitrogen surplus – Domestic	13.33	kg/capita	69.5	→	207.52	Gg	2015
Nitrogen surplus – Spillover	1.26	kg/capita	95.2	→	19.65	Gg	2015
Phosphorus fertilizer – Domestic	6.34	g/capita	95.6	↗	48,587.64	kt	2019
Phosphorus fertilizer – Spillover	484.51	g/capita	79.6	→	7.54	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.61	m^3/capita	74.2	↗	9.47	B m^3	2015
Scarce water consumption – Spillover	1.92	m^3/capita	73.4	↗	29.95	M m^3	2015
Water stress of crops – Domestic	26.36	m^3/capita	81.4	↗	410.35	M m^3	2015
Water stress of crops – Spillover	423.27	m^3/capita	77.0	↑	6,589.16	M m^3	2015
Feshwater withdrawal		% renew. H_20			3.32	% renew. H_20	

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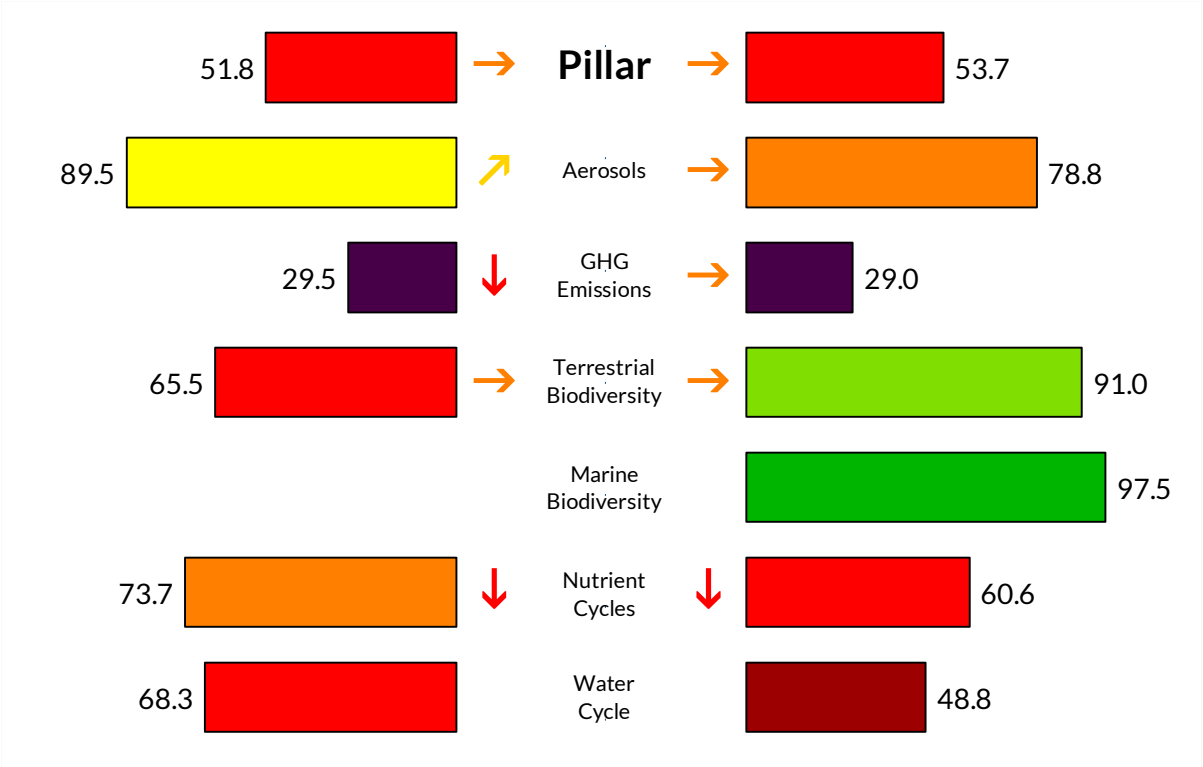
Hungary

OECD

Population [millions]	9.7	**GDP** [$, billions]	302.0
Land area [km^2, thousands]	9,292.2	**GDP** per capita	30,975

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Hungary

	Proportional				Absolute		
Indicator	**Value**	**Units**	**Score**		**Value**	**Units**	**Year**
Aerosol							
SO_2 emissions – Domestic	2.13	kg/capita	97.1	↗	20.80	Gg	2019
SO_2 emissions – Spillover	7.33	kg/capita	73.6	→	72.11	Gg	2015
NO_X emissions – Domestic	10.28	kg/capita	87.6	↑	100.46	Gg	2019
NO_X emissions – Spillover	9.88	kg/capita	81.6	→	97.26	Gg	2015
Black Carbon emissions – Domestic	0.53	kg/capita	84.3	↑	5.20	Gg	2019
Black Carbon emissions – Spillover	0.34	kg/capita	81.6	→	3.33	Gg	2015
GHG Emissions							
GHG emissions – Domestic	7.21	tonnes/capita	59.0	↓	70.45	Tg	2019
GHG emissions – Spillover	3.29	tonnes/capita	29.0	→	32.34	Tg	2015
CO_2 emissions embodied in fossil fuel exports	354.51	kg/capita	14.8		3,456.38	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	17.47	%	87.1	↓	17.47	%	2019
Unprotected freshwater sites	15.18	%	86.5	↓	15.18	%	2019
Land-use biodiversity loss – Domestic	4.35E-12	global PDF/capita	93.8	↓	4.28E-05	global PDF	2015
Land-use biodiversity loss – Spillover	4.62E-12	global PDF/capita	89.5	→	4.55E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.28	per M people	94.8		2.76	number	2018
Freshwater biodiversity threats – Spillover	0.07	per M people	92.5		0.64	number	2018
Permanent deforestation	9.03E-03	%	98.3	→	179.87	hectare	2020
Red List Index of species survival	0.93	scale 0–1	84.1	↗	0.93	scale 0–1	2019
Biodiversity Habitat Index	0.37	scale 0–1	9.3		0.37	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.03	per M people	97.5		0.27	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.35	scale 0–1.4	73.8	↓	0.35	scale 0–1.4	2015
Nitrogen surplus – Domestic	17.26	kg/capita	60.5	↓	169.93	Gg	2015
Nitrogen surplus – Spillover	3.45	kg/capita	86.0	↓	33.99	Gg	2015
Phosphorus fertilizer – Domestic	14.92	g/capita	89.7	↓	114,439.00	kt	2019
Phosphorus fertilizer – Spillover	1,359.95	g/capita	42.8	→	13.39	kt	2015
Water Cycle							
Scarce water consumption – Domestic	2.29	m^3/capita	59.7	↗	22.51	B m^3	2015
Scarce water consumption – Spillover	12.93	m^3/capita	43.5	→	127.23	M m^3	2015
Water stress of crops – Domestic	34.65	m^3/capita	78.1	↗	341.08	M m^3	2015
Water stress of crops – Spillover	1,374.61	m^3/capita	54.8	→	13,530.36	M m^3	2015
Feshwater withdrawal	7.77	% renew. H_20	68.3		4.50	% renew. H_20	2017

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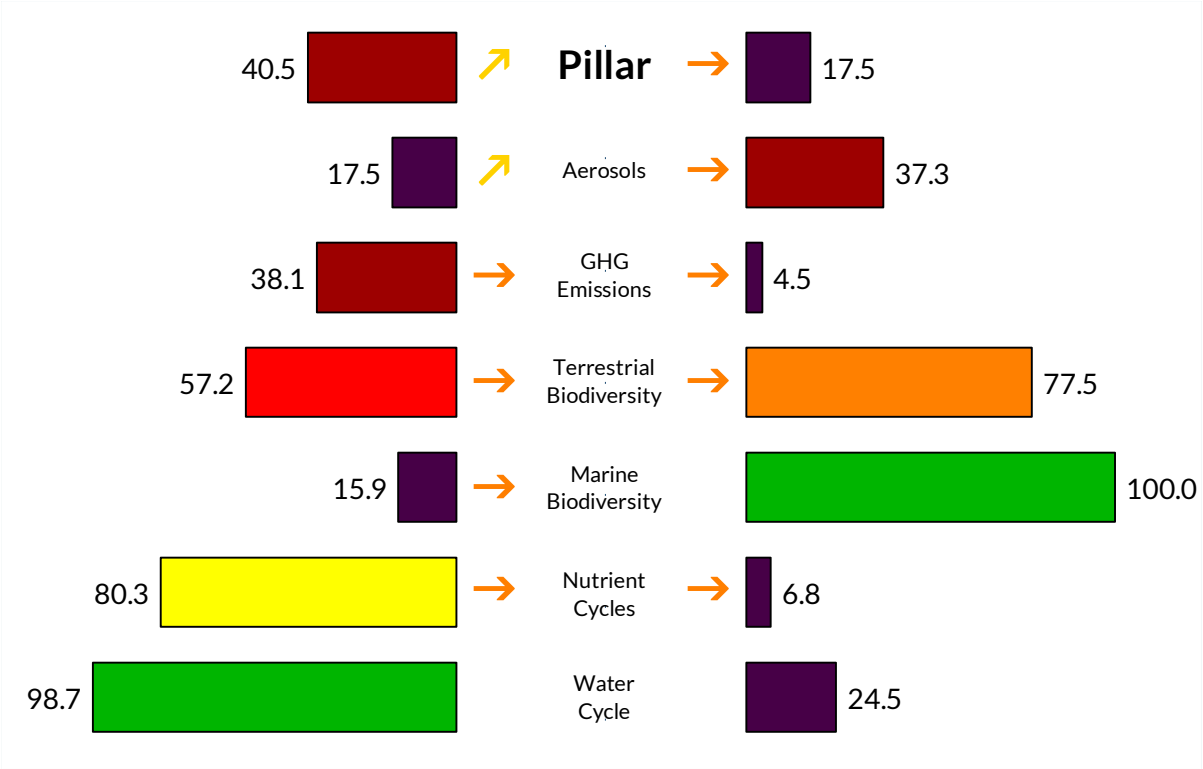
Iceland

OECD

Population [millions]	0.4	**GDP** [$, billions]	19.2
Land area [km^2, thousands]	10,212.4	**GDP** per capita	52,280

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
↑	Projected to meet 2050 Threshold
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Iceland

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	45.41	kg/capita	16.6	→	16.37	Gg	2019
SO_2 emissions – Spillover	17.93	kg/capita	34.1	→	5.93	Gg	2015
NO_X emissions – Domestic	46.12	kg/capita	4.0	↑	16.63	Gg	2019
NO_X emissions – Spillover	31.65	kg/capita	39.2	→	10.47	Gg	2015
Black Carbon emissions – Domestic	0.63	kg/capita	79.8	↑	0.23	Gg	2019
Black Carbon emissions – Spillover	1.09	kg/capita	39.0	→	0.36	Gg	2015
GHG Emissions							
GHG emissions – Domestic	13.86	tonnes/capita	38.1	→	5.00	Tg	2019
GHG emissions – Spillover	11.18	tonnes/capita	4.5	→	3.70	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	80.92	%	20.9	↓	80.92	%	2019
Unprotected freshwater sites	66.46	%	34.8	↓	66.46	%	2019
Land-use biodiversity loss – Domestic	9.90E-14	global PDF/capita	99.9	↑	3.28E-08	global PDF	2015
Land-use biodiversity loss – Spillover	1.64E-11	global PDF/capita	61.3	→	5.44E-06	global PDF	2015
Freshwater biodiversity threats – Domestic	0.02	per M people	99.7		0.01	number	2018
Freshwater biodiversity threats – Spillover	0.02	per M people	98.0		0.01	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.86	scale 0–1	65.2	↓	0.86	scale 0–1	2019
Biodiversity Habitat Index	0.81	scale 0–1	74.3		0.81	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	83.39	%	17.8	↓	83.39	%	2019
Marine biodiversity threats – Domestic	10.71	per M people	1.0		3.61	number	2018
Marine biodiversity threats – Spillover	0.00	per M people	100.0		0.00	number	2018
Fish stocks: overexploited or collapsed	27.09	%	62.5	↑	27.09	%	2018
Fish caught by trawling	25.99	%	57.6	↓	25.99	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.64	scale 0–1.4	51.9	→	0.64	scale 0–1.4	2015
Nitrogen surplus – Domestic	0.02	kg/capita	100.0	↓	0.01	Gg	2015
Nitrogen surplus – Spillover	12.85	kg/capita	46.5	↓	4.25	Gg	2015
Phosphorus fertilizer – Domestic	0.19	g/capita	99.9	↑	1,482.00	kt	2019
Phosphorus fertilizer – Spillover	5,266.74	g/capita	1.0	→	1.74	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.06	m^3/capita	100.0	↑	0.02	B m^3	2015
Scarce water consumption – Spillover	47.18	m^3/capita	23.2	→	15.61	M m^3	2015
Water stress of crops – Domestic	7.85	m^3/capita	96.1	↑	2.60	M m^3	2015
Water stress of crops – Spillover	6,334.36	m^3/capita	25.9	→	2,095.50	M m^3	2015
Feshwater withdrawal	0.40	% renew. H_20	100.0		0.26	% renew. H_20	2012

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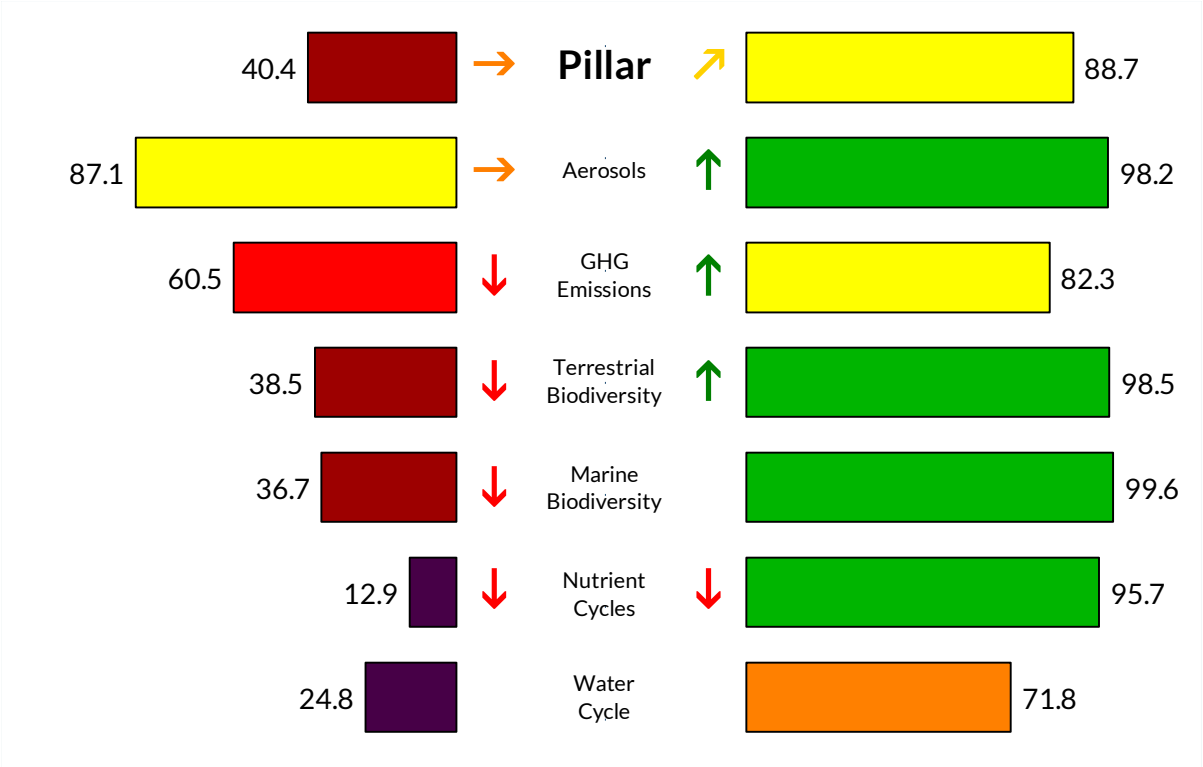
India

East & South Asia

Population [millions]	1,380.0	**GDP** [$, billions]	8,440.0
Land area [km^2, thousands]	316,695.5	**GDP** per capita	6,116

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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95–100	None or limited
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Arrow	Meaning
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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

India

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	7.08	kg/capita	87.9	→	9,672.04	Gg	2019
SO_2 emissions – Spillover	0.88	kg/capita	97.7	↑	1,152.45	Gg	2015
NO_X emissions – Domestic	6.94	kg/capita	95.4	↗	9,476.94	Gg	2019
NO_X emissions – Spillover	1.43	kg/capita	98.0	↑	1,878.72	Gg	2015
Black Carbon emissions – Domestic	0.65	kg/capita	78.8	→	885.93	Gg	2019
Black Carbon emissions – Spillover	0.03	kg/capita	98.9	↑	43.07	Gg	2015
GHG Emissions							
GHG emissions – Domestic	2.80	tonnes/capita	89.2	↓	3,829.33	Tg	2019
GHG emissions – Spillover	0.23	tonnes/capita	82.3	↑	299.42	Tg	2015
CO_2 emissions embodied in fossil fuel exports	1.36	kg/capita	41.0		1,882.53	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	78.98	%	22.9	→	78.98	%	2019
Unprotected freshwater sites	81.36	%	19.8	→	81.36	%	2019
Land-use biodiversity loss – Domestic	6.30E-12	global PDF/capita	90.9	→	8.25E-03	global PDF	2015
Land-use biodiversity loss – Spillover	8.46E-13	global PDF/capita	98.5	↑	1.11E-03	global PDF	2015
Freshwater biodiversity threats – Domestic	0.19	per M people	96.5		256.62	number	2018
Freshwater biodiversity threats – Spillover	0.02	per M people	98.4		21.01	number	2018
Permanent deforestation	4.23E-02	%	91.9	↓	14,579.82	hectare	2020
Red List Index of species survival	0.67	scale 0–1	15.1	↓	0.67	scale 0–1	2019
Biodiversity Habitat Index	0.46	scale 0–1	22.9		0.46	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	81.20	%	20.1	↓	81.20	%	2019
Marine biodiversity threats – Domestic	0.06	per M people	99.2		82.22	number	2018
Marine biodiversity threats – Spillover	0.00	per M people	99.6		6.71	number	2018
Fish stocks: overexploited or collapsed	7.43	%	91.0	↓	7.43	%	2018
Fish caught by trawling	54.94	%	10.1	↓	54.94	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.89	scale 0–1.4	32.7	→	0.89	scale 0–1.4	2015
Nitrogen surplus – Domestic	15.11	kg/capita	65.4	↓	19,801.58	Gg	2015
Nitrogen surplus – Spillover	0.43	kg/capita	98.7	↓	565.71	Gg	2015
Phosphorus fertilizer – Domestic	973.29	g/capita	1.0	↓	7,464,800.00	kt	2019
Phosphorus fertilizer – Spillover	169.53	g/capita	92.9	↓	222.11	kt	2015
Water Cycle							
Scarce water consumption – Domestic	61.53	m^3/capita	23.8	→	80,609.84	B m^3	2015
Scarce water consumption – Spillover	4.13	m^3/capita	61.4	↗	5,405.81	M m^3	2015
Water stress of crops – Domestic	6,454.43	m^3/capita	15.0	→	8,456,288.23	M m^3	2015
Water stress of crops – Spillover	292.31	m^3/capita	84.0	↑	382,968.07	M m^3	2015
Feshwater withdrawal		% renew. H_20			647.50	% renew. H_20	

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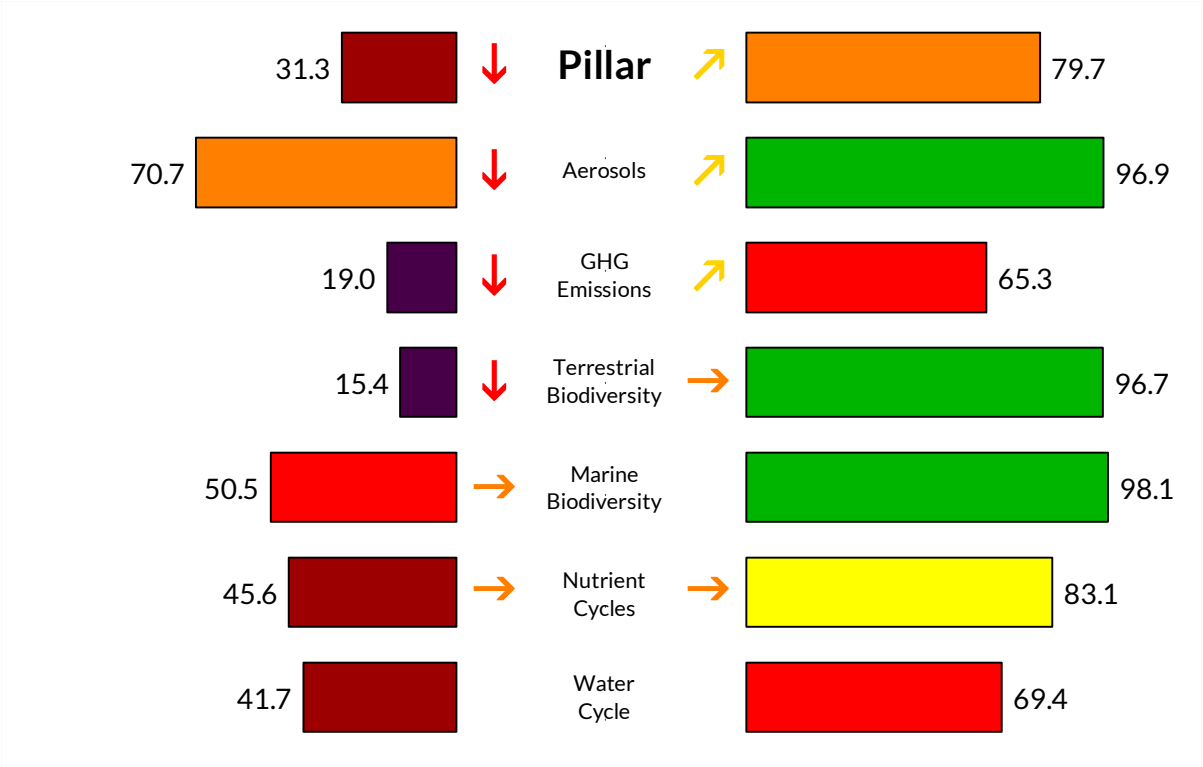
Indonesia

East & South Asia

Population [millions]	273.5	**GDP** [$, billions]	3,130.0
Land area [km^2, thousands]	191,729.0	**GDP** per capita	11,443

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Indonesia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	9.59	kg/capita	83.2	↓	2,595.48	Gg	2019
SO_2 emissions – Spillover	1.09	kg/capita	96.9	↑	281.63	Gg	2015
NO_X emissions – Domestic	18.62	kg/capita	68.1	↓	5,038.85	Gg	2019
NO_X emissions – Spillover	1.87	kg/capita	97.2	↗	482.18	Gg	2015
Black Carbon emissions – Domestic	0.99	kg/capita	62.4	→	269.26	Gg	2019
Black Carbon emissions – Spillover	0.07	kg/capita	96.7	↑	18.28	Gg	2015
GHG Emissions							
GHG emissions – Domestic	4.02	tonnes/capita	77.7	↓	1,087.58	Tg	2019
GHG emissions – Spillover	0.54	tonnes/capita	65.3	↗	138.36	Tg	2015
CO_2 emissions embodied in fossil fuel exports	3,049.22	kg/capita	4.6		825,197.81	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	73.89	%	28.3	→	73.89	%	2019
Unprotected freshwater sites	58.98	%	42.4	→	58.98	%	2019
Land-use biodiversity loss – Domestic	7.13E-11	global PDF/capita	1.0	↓	1.84E-02	global PDF	2015
Land-use biodiversity loss – Spillover	1.91E-12	global PDF/capita	96.0	→	4.94E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.32	per M people	94.1		86.06	number	2018
Freshwater biodiversity threats – Spillover	0.02	per M people	97.5		6.34	number	2018
Permanent deforestation	6.58E-01	%	1.0	→	1,038,451.66	hectare	2020
Red List Index of species survival	0.75	scale 0–1	35.6	↓	0.75	scale 0–1	2019
Biodiversity Habitat Index	0.66	scale 0–1	52.1		0.66	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	73.94	%	27.4	→	73.94	%	2019
Marine biodiversity threats – Domestic	1.32	per M people	81.9		352.85	number	2018
Marine biodiversity threats – Spillover	0.02	per M people	98.1		5.59	number	2018
Fish stocks: overexploited or collapsed	16.69	%	77.6	→	16.69	%	2018
Fish caught by trawling	38.26	%	37.5	↓	38.26	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.69	scale 0–1.4	48.1	→	0.69	scale 0–1.4	2015
Nitrogen surplus – Domestic	8.38	kg/capita	80.9	→	2,164.22	Gg	2015
Nitrogen surplus – Spillover	1.17	kg/capita	95.6	↓	303.22	Gg	2015
Phosphorus fertilizer – Domestic	109.52	g/capita	24.4	→	840,015.16	kt	2019
Phosphorus fertilizer – Spillover	658.56	g/capita	72.3	→	170.16	kt	2015
Water Cycle							
Scarce water consumption – Domestic	4.86	m^3/capita	51.5	↓	1,254.86	B m^3	2015
Scarce water consumption – Spillover	4.17	m^3/capita	61.2	↗	1,078.75	M m^3	2015
Water stress of crops – Domestic	1,472.66	m^3/capita	32.8	→	380,510.13	M m^3	2015
Water stress of crops – Spillover	387.86	m^3/capita	78.6	↑	100,216.72	M m^3	2015
Feshwater withdrawal		% renew. H_20			222.60	% renew. H_20	

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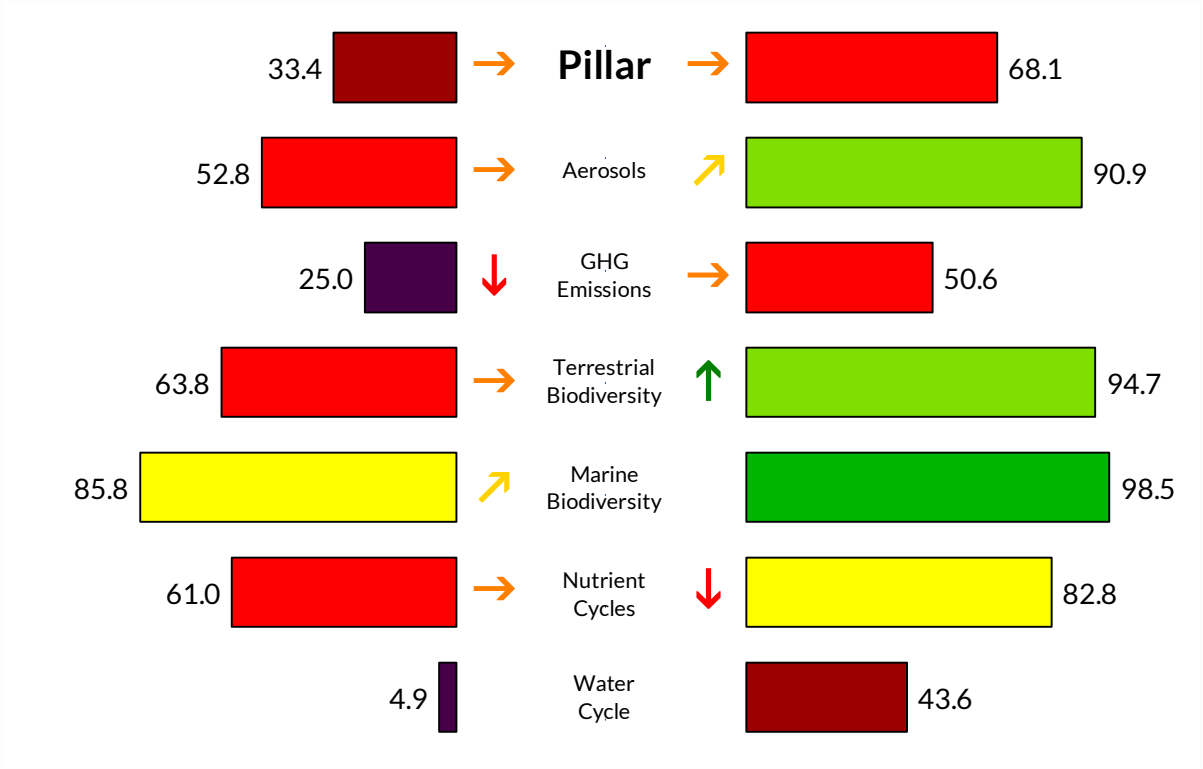
Iran

Middle East & North Africa

Population [millions]	84.0	**GDP** [$, billions]	1,040.0
Land area [km^2, thousands]	162,635.8	**GDP** per capita	12,382

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



Note: All results shown in proportional terms.

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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Iran

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	25.54	kg/capita	53.5	→	2,117.70	Gg	2019
SO_2 emissions – Spillover	2.95	kg/capita	90.0	↑	231.20	Gg	2015
NO_X emissions – Domestic	27.43	kg/capita	47.6	→	2,274.54	Gg	2019
NO_X emissions – Spillover	4.99	kg/capita	91.1	↗	392.04	Gg	2015
Black Carbon emissions – Domestic	1.09	kg/capita	57.8	↓	90.46	Gg	2019
Black Carbon emissions – Spillover	0.16	kg/capita	91.8	→	12.39	Gg	2015
GHG Emissions							
GHG emissions – Domestic	12.16	tonnes/capita	42.3	↓	1,008.19	Tg	2019
GHG emissions – Spillover	1.12	tonnes/capita	50.6	→	87.59	Tg	2015
CO_2 emissions embodied in fossil fuel exports	354.59	kg/capita	14.8		29,005.26	Gg	2018
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	56.40	%	46.5	↓	56.40	%	2019
Unprotected freshwater sites	64.58	%	36.7	↓	64.58	%	2019
Land-use biodiversity loss – Domestic	2.55E-12	global PDF/capita	96.4	↑	2.00E-04	global PDF	2015
Land-use biodiversity loss – Spillover	3.55E-12	global PDF/capita	92.1	↑	2.79E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.21	per M people	96.2		16.80	number	2018
Freshwater biodiversity threats – Spillover	0.02	per M people	97.3		2.04	number	2018
Permanent deforestation	0.00E+00	%	100.0	↑	0.00	hectare	2020
Red List Index of species survival	0.83	scale 0–1	57.9	↓	0.83	scale 0–1	2019
Biodiversity Habitat Index	0.63	scale 0–1	47.0		0.63	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	32.00	%	69.9	↓	32.00	%	2019
Marine biodiversity threats – Domestic	0.16	per M people	97.9		13.16	number	2018
Marine biodiversity threats – Spillover	0.02	per M people	98.5		1.34	number	2018
Fish stocks: overexploited or collapsed	14.43	%	80.8	↑	14.43	%	2018
Fish caught by trawling	1.38	%	98.1	↑	1.38	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.85	scale 0–1.4	35.9	↓	0.85	scale 0–1.4	2015
Nitrogen surplus – Domestic	13.47	kg/capita	69.2	↓	1,057.30	Gg	2015
Nitrogen surplus – Spillover	1.17	kg/capita	95.6	↓	92.02	Gg	2015
Phosphorus fertilizer – Domestic	12.77	g/capita	91.2	↗	97,966.20	kt	2019
Phosphorus fertilizer – Spillover	671.80	g/capita	71.7	→	52.73	kt	2015
Water Cycle							
Scarce water consumption – Domestic	348.17	m^3/capita	4.9	→	27,328.50	B m^3	2015
Scarce water consumption – Spillover	29.07	m^3/capita	30.8	→	2,281.68	M m^3	2015
Water stress of crops – Domestic	23,442.69	m^3/capita	1.0	→	1,840,068.48	M m^3	2015
Water stress of crops – Spillover	945.07	m^3/capita	61.8	↑	74,180.94	M m^3	2015
Feshwater withdrawal		% renew. H_20			93.10	% renew. H_20	

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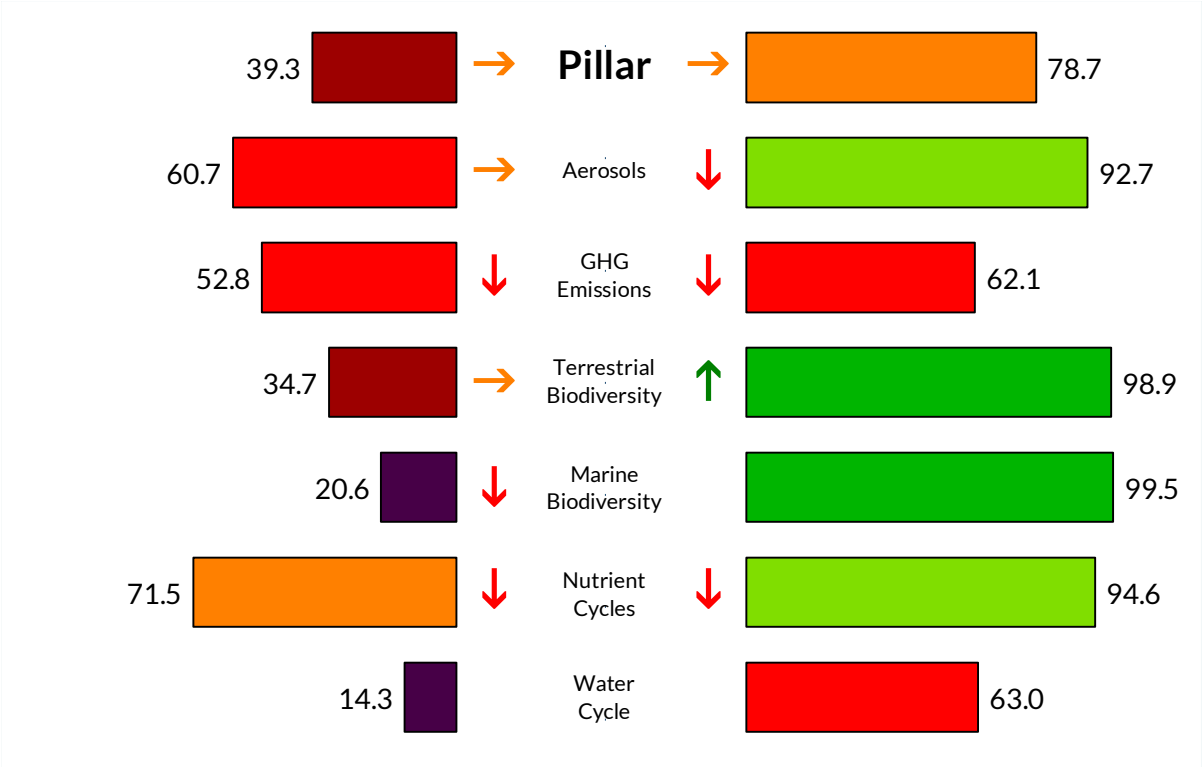
Iraq

Middle East & North Africa

Population [millions]	40.2	**GDP** [$, billions]	372.0
Land area [km^2, thousands]	44,658.3	**GDP** per capita	9,249

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
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90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Iraq

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	26.86	kg/capita	51.1	→	1,055.94	Gg	2019
SO_2 emissions – Spillover	2.70	kg/capita	90.9	↓	95.90	Gg	2015
NO_X emissions – Domestic	22.38	kg/capita	59.4	→	879.90	Gg	2019
NO_X emissions – Spillover	3.63	kg/capita	93.7	↓	128.95	Gg	2015
Black Carbon emissions – Domestic	0.76	kg/capita	73.7	↓	29.73	Gg	2019
Black Carbon emissions – Spillover	0.13	kg/capita	93.4	↓	4.62	Gg	2015
GHG Emissions							
GHG emissions – Domestic	9.76	tonnes/capita	49.3	↓	383.56	Tg	2019
GHG emissions – Spillover	0.63	tonnes/capita	62.1	↓	22.32	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.05	kg/capita	56.6		1.81	Gg	2016
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	94.15	%	7.1	→	94.15	%	2019
Unprotected freshwater sites	91.88	%	9.2	→	91.88	%	2019
Land-use biodiversity loss – Domestic	2.30E-13	global PDF/capita	99.8	↑	8.20E-06	global PDF	2015
Land-use biodiversity loss – Spillover	1.03E-12	global PDF/capita	98.1	↑	3.67E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.11	per M people	98.0		4.18	number	2018
Freshwater biodiversity threats – Spillover	0.00	per M people	99.7		0.17	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.80	scale 0–1	48.0	↓	0.80	scale 0–1	2019
Biodiversity Habitat Index	0.70	scale 0–1	56.9		0.70	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	100.00	%	1.0	↓	100.00	%	2019
Marine biodiversity threats – Domestic	0.03	per M people	99.6		1.25	number	2018
Marine biodiversity threats – Spillover	0.01	per M people	99.5		0.21	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	7.35	%	88.2	↓	7.35	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.75	scale 0–1.4	43.2	→	0.75	scale 0–1.4	2015
Nitrogen surplus – Domestic	3.31	kg/capita	92.5	→	117.92	Gg	2015
Nitrogen surplus – Spillover	0.68	kg/capita	97.7	↓	24.13	Gg	2015
Phosphorus fertilizer – Domestic	12.51	g/capita	91.4	↓	95,928.40	kt	2019
Phosphorus fertilizer – Spillover	200.17	g/capita	91.6	↓	7.12	kt	2015
Water Cycle							
Scarce water consumption – Domestic	179.80	m^3/capita	12.1	→	6,395.84	B m^3	2015
Scarce water consumption – Spillover	5.30	m^3/capita	57.5	↓	188.47	M m^3	2015
Water stress of crops – Domestic	9,716.91	m^3/capita	10.1	→	345,652.48	M m^3	2015
Water stress of crops – Spillover	643.48	m^3/capita	69.1	→	22,889.90	M m^3	2015
Feshwater withdrawal		% renew. H_20			38.54	% renew. H_20	

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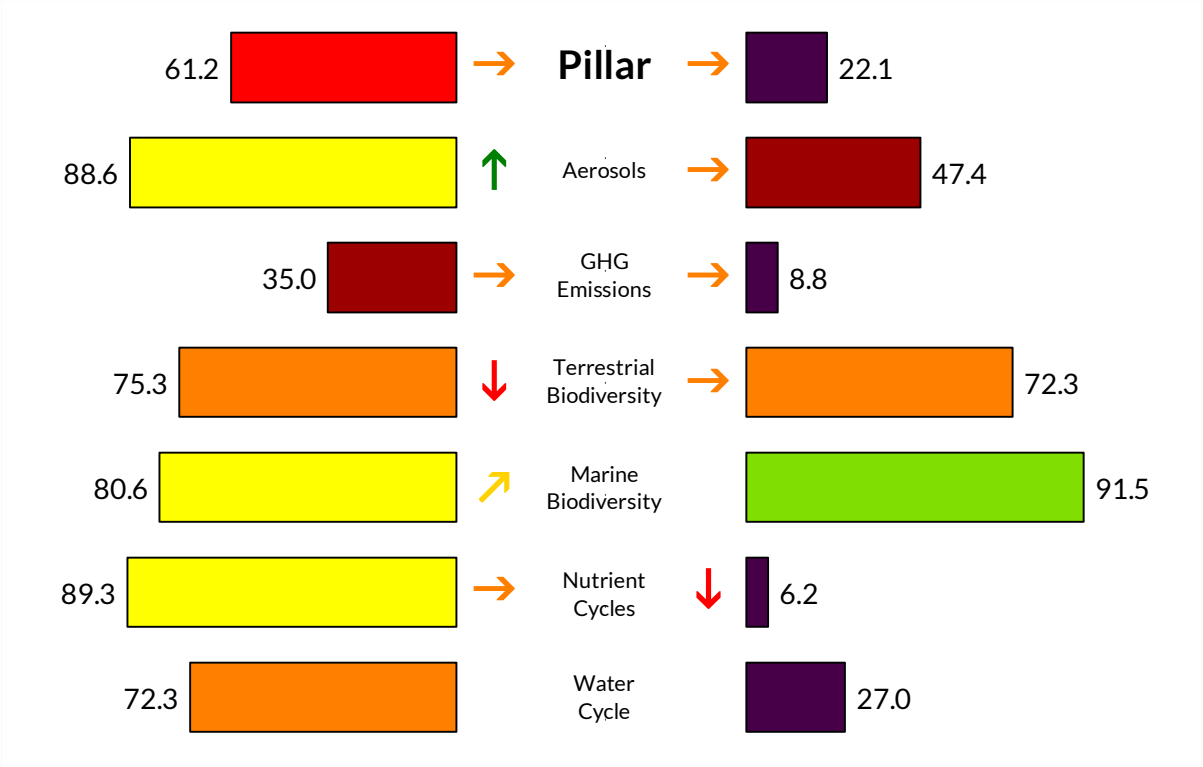
Ireland

OECD

Population [millions]	5.0	**GDP** [$, billions]	448.0
Land area [km^2, thousands]	7,014.8	**GDP** per capita	89,695

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Ireland

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.91	kg/capita	97.5	↑	9.41	Gg	2019
SO_2 emissions – Spillover	15.83	kg/capita	41.9	→	74.42	Gg	2015
NO_X emissions – Domestic	15.87	kg/capita	74.6	↑	78.29	Gg	2019
NO_X emissions – Spillover	26.79	kg/capita	48.6	→	125.98	Gg	2015
Black Carbon emissions – Domestic	0.29	kg/capita	95.6	↑	1.45	Gg	2019
Black Carbon emissions – Spillover	0.86	kg/capita	52.1	→	4.03	Gg	2015
GHG Emissions							
GHG emissions – Domestic	13.27	tonnes/capita	39.5	→	65.48	Tg	2019
GHG emissions – Spillover	9.04	tonnes/capita	8.8	→	42.48	Tg	2015
CO_2 emissions embodied in fossil fuel exports	11.23	kg/capita	31.0		56.09	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	14.03	%	90.7	↓	14.03	%	2019
Unprotected freshwater sites	1.49	%	100.0	↓	1.49	%	2019
Land-use biodiversity loss – Domestic	2.75E-12	global PDF/capita	96.1	↓	1.29E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.56E-11	global PDF/capita	63.3	→	7.34E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.43	per M people	92.0		2.09	number	2018
Freshwater biodiversity threats – Spillover	0.15	per M people	82.6		0.73	number	2018
Permanent deforestation	6.42E-03	%	98.8	↓	96.33	hectare	2020
Red List Index of species survival	0.92	scale 0–1	82.7	↓	0.92	scale 0–1	2019
Biodiversity Habitat Index	0.45	scale 0–1	21.0		0.45	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	16.86	%	85.3	↓	16.86	%	2019
Marine biodiversity threats – Domestic	0.88	per M people	87.9		4.23	number	2018
Marine biodiversity threats – Spillover	0.09	per M people	91.5		0.45	number	2018
Fish stocks: overexploited or collapsed	25.15	%	65.3	↑	25.15	%	2018
Fish caught by trawling	8.62	%	86.2	↑	8.62	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.01	scale 0–1.4	100.0	↑	0.01	scale 0–1.4	2015
Nitrogen surplus – Domestic	8.56	kg/capita	80.4	→	40.27	Gg	2015
Nitrogen surplus – Spillover	14.79	kg/capita	38.4	↓	69.52	Gg	2015
Phosphorus fertilizer – Domestic	16.59	g/capita	88.6	↓	127,234.06	kt	2019
Phosphorus fertilizer – Spillover	5,789.85	g/capita	1.0	→	27.22	kt	2015
Water Cycle							
Scarce water consumption – Domestic	1.13	m^3/capita	67.4	↓	5.34	B m^3	2015
Scarce water consumption – Spillover	46.15	m^3/capita	23.5	→	217.02	M m^3	2015
Water stress of crops – Domestic	65.41	m^3/capita	70.5	↓	307.57	M m^3	2015
Water stress of crops – Spillover	4,849.17	m^3/capita	31.0	→	22,800.61	M m^3	2015
Feshwater withdrawal	3.51	% renew. H_20	79.7		0.76	% renew. H_20	2007

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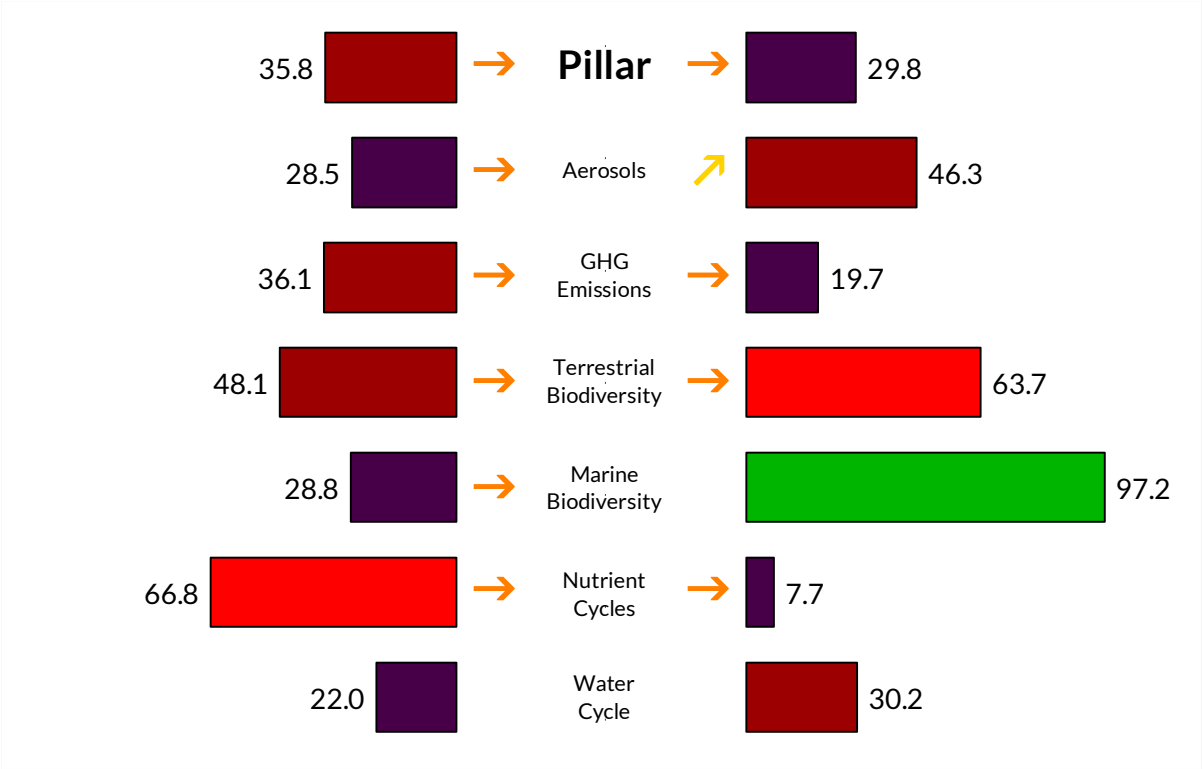
Israel

OECD

Population [millions]	9.2	**GDP** [$, billions]	353.0
Land area [km^2, thousands]	2,247.1	**GDP** per capita	38,299

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Israel

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	22.86	kg/capita	58.5	→	206.96	Gg	2019
SO_2 emissions – Spillover	16.76	kg/capita	38.4	↑	140.46	Gg	2015
NO_X emissions – Domestic	44.85	kg/capita	7.0	→	406.06	Gg	2019
NO_X emissions – Spillover	28.73	kg/capita	44.9	→	240.74	Gg	2015
Black Carbon emissions – Domestic	1.12	kg/capita	56.6	→	10.12	Gg	2019
Black Carbon emissions – Spillover	0.76	kg/capita	57.7	↑	6.37	Gg	2015
GHG Emissions							
GHG emissions – Domestic	10.12	tonnes/capita	48.1	→	91.63	Tg	2019
GHG emissions – Spillover	5.24	tonnes/capita	19.7	→	43.88	Tg	2015
CO_2 emissions embodied in fossil fuel exports	26.01	kg/capita	27.1		235.47	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	79.67	%	22.2	↓	79.67	%	2019
Unprotected freshwater sites	74.77	%	26.4	↓	74.77	%	2019
Land-use biodiversity loss – Domestic	7.05E-13	global PDF/capita	99.1	↑	5.91E-06	global PDF	2015
Land-use biodiversity loss – Spillover	2.06E-11	global PDF/capita	51.4	→	1.73E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.39	per M people	92.8		3.29	number	2018
Freshwater biodiversity threats – Spillover	0.18	per M people	79.0		1.53	number	2018
Permanent deforestation	9.19E-03	%	98.2	→	2.67	hectare	2020
Red List Index of species survival	0.76	scale 0–1	37.6	↓	0.76	scale 0–1	2019
Biodiversity Habitat Index	0.51	scale 0–1	29.8		0.51	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	89.17	%	12.0	↓	89.17	%	2019
Marine biodiversity threats – Domestic	0.13	per M people	98.3		1.06	number	2018
Marine biodiversity threats – Spillover	0.03	per M people	97.2		0.26	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	48.69	%	20.3	→	48.69	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.87	scale 0–1.4	34.1	→	0.87	scale 0–1.4	2015
Nitrogen surplus – Domestic	5.21	kg/capita	88.2	→	43.64	Gg	2015
Nitrogen surplus – Spillover	9.80	kg/capita	59.3	→	82.08	Gg	2015
Phosphorus fertilizer – Domestic	0.93	g/capita	99.4	↓	7,111.96	kt	2019
Phosphorus fertilizer – Spillover	4,840.40	g/capita	1.0	→	40.56	kt	2015
Water Cycle							
Scarce water consumption – Domestic	82.00	m^3/capita	20.7	→	687.14	B m^3	2015
Scarce water consumption – Spillover	36.12	m^3/capita	27.4	→	302.69	M m^3	2015
Water stress of crops – Domestic	5,695.14	m^3/capita	16.5	→	47,725.85	M m^3	2015
Water stress of crops – Spillover	4,277.93	m^3/capita	33.3	→	35,849.52	M m^3	2015
Feshwater withdrawal	103.36	% renew. H_20	30.9		1.20	% renew. H_20	2017

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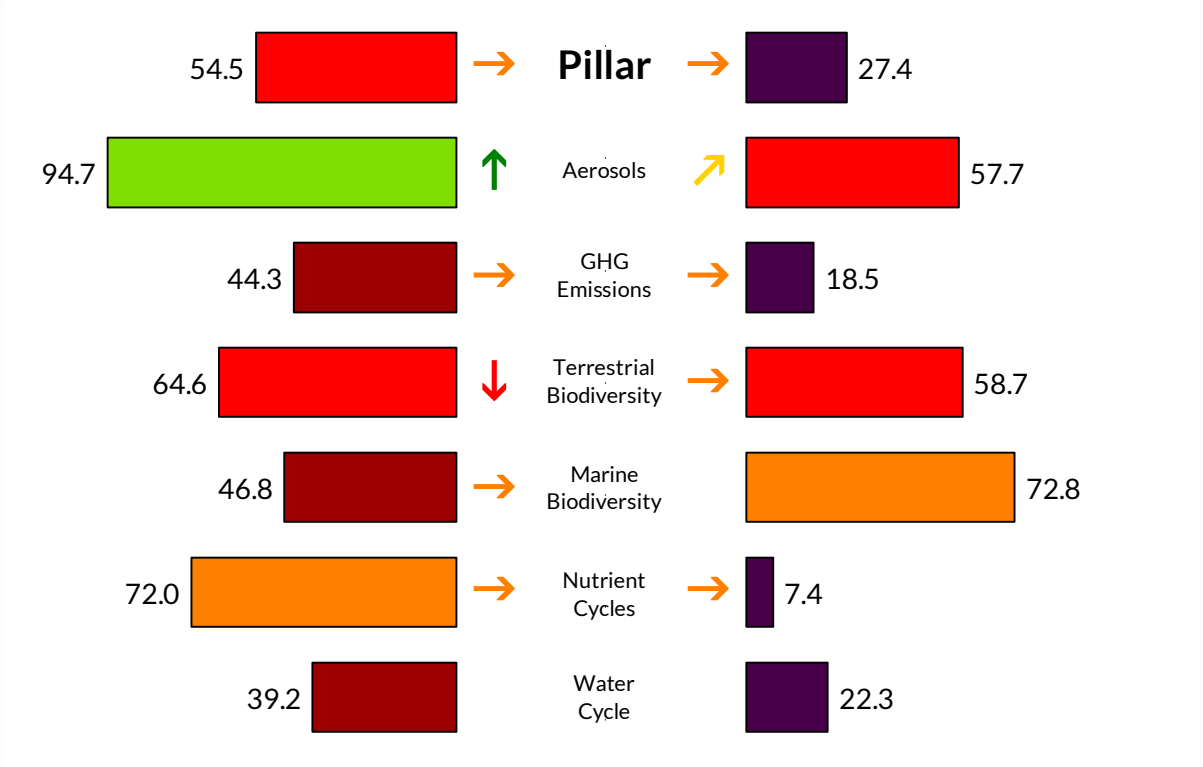
Italy

OECD

Population [millions]	59.6	**GDP** [$, billions]	2,320.0
Land area [km^2, thousands]	30,156.4	**GDP** per capita	38,956

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Italy

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.83	kg/capita	97.6	↗	109.31	Gg	2019
SO_2 emissions – Spillover	13.90	kg/capita	49.1	↑	844.32	Gg	2015
NO_X emissions – Domestic	9.83	kg/capita	88.6	↑	587.05	Gg	2019
NO_X emissions – Spillover	21.05	kg/capita	59.8	→	1,278.64	Gg	2015
Black Carbon emissions – Domestic	0.24	kg/capita	98.1	↑	14.47	Gg	2019
Black Carbon emissions – Spillover	0.62	kg/capita	65.5	→	37.83	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.96	tonnes/capita	60.1	→	415.87	Tg	2019
GHG emissions – Spillover	5.57	tonnes/capita	18.5	→	338.19	Tg	2015
CO_2 emissions embodied in fossil fuel exports	7.91	kg/capita	32.7		472.64	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	22.65	%	81.7	→	22.65	%	2019
Unprotected freshwater sites	15.34	%	86.4	↓	15.34	%	2019
Land-use biodiversity loss – Domestic	1.34E-11	global PDF/capita	80.7	→	8.11E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.13E-11	global PDF/capita	73.5	→	6.88E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.82	per M people	84.9		49.81	number	2018
Freshwater biodiversity threats – Spillover	0.46	per M people	46.9		27.75	number	2018
Permanent deforestation	3.80E-03	%	99.3	↓	358.76	hectare	2020
Red List Index of species survival	0.90	scale 0–1	76.5	↓	0.90	scale 0–1	2019
Biodiversity Habitat Index	0.39	scale 0–1	12.8		0.39	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	22.83	%	79.2	→	22.83	%	2019
Marine biodiversity threats – Domestic	0.30	per M people	96.0		17.98	number	2018
Marine biodiversity threats – Spillover	0.30	per M people	72.8		18.22	number	2018
Fish stocks: overexploited or collapsed	52.30	%	26.0	→	52.30	%	2018
Fish caught by trawling	46.35	%	24.2	↓	46.35	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.59	scale 0–1.4	55.9	→	0.59	scale 0–1.4	2015
Nitrogen surplus – Domestic	9.02	kg/capita	79.4	↓	547.53	Gg	2015
Nitrogen surplus – Spillover	10.73	kg/capita	55.4	↓	651.89	Gg	2015
Phosphorus fertilizer – Domestic	22.95	g/capita	84.2	↗	175,991.00	kt	2019
Phosphorus fertilizer – Spillover	4,546.50	g/capita	1.0	→	276.11	kt	2015
Water Cycle							
Scarce water consumption – Domestic	17.32	m^3/capita	37.7	→	1,051.85	B m^3	2015
Scarce water consumption – Spillover	64.22	m^3/capita	18.4	→	3,899.86	M m^3	2015
Water stress of crops – Domestic	1,810.13	m^3/capita	30.4	→	109,930.02	M m^3	2015
Water stress of crops – Spillover	5,996.15	m^3/capita	27.0	↑	364,149.71	M m^3	2015
Feshwater withdrawal		% renew. H_20			34.19	% renew. H_20	

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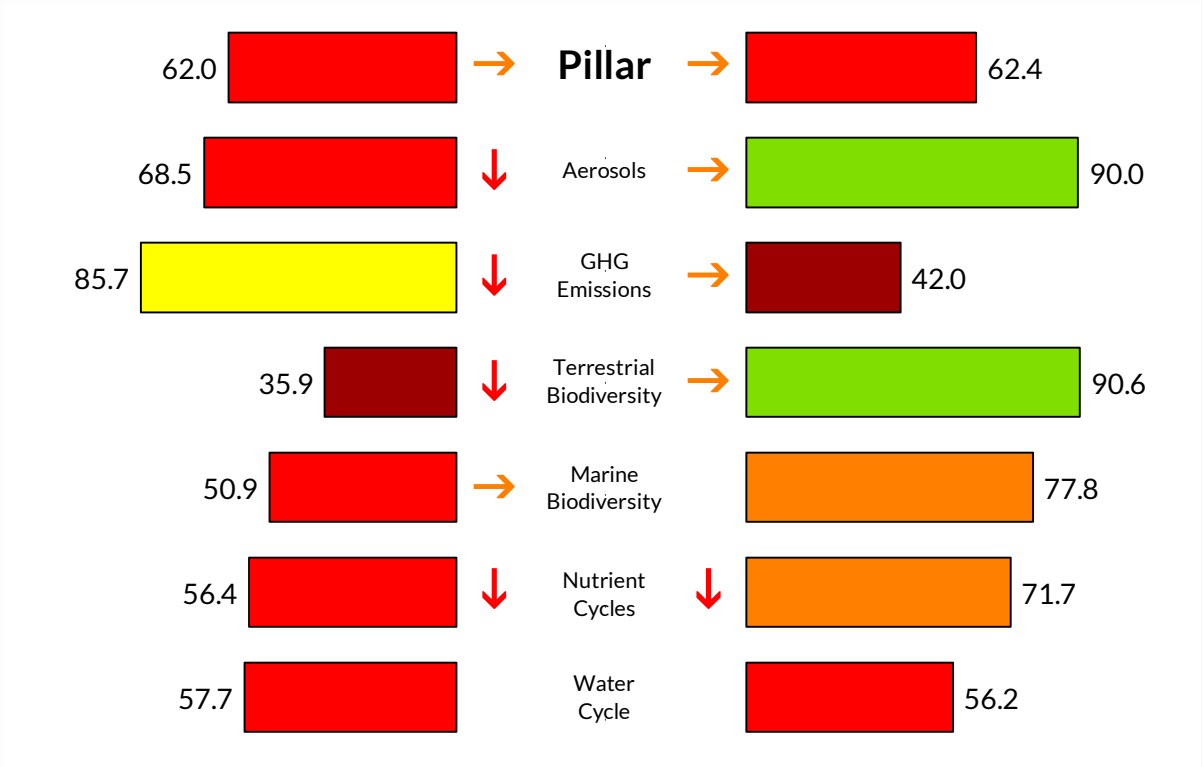
Jamaica

Latin America & the Caribbean

Population [millions]	3.0	**GDP** [$, billions]	25.9
Land area [km^2, thousands]	1,106.0	**GDP** per capita	8,742

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Jamaica

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	22.38	kg/capita	59.4	→	65.97	Gg	2019
SO_2 emissions – Spillover	3.32	kg/capita	88.6	→	9.60	Gg	2015
NO_X emissions – Domestic	21.83	kg/capita	60.7	↓	64.36	Gg	2019
NO_X emissions – Spillover	5.76	kg/capita	89.6	→	16.64	Gg	2015
Black Carbon emissions – Domestic	0.43	kg/capita	89.1	↓	1.27	Gg	2019
Black Carbon emissions – Spillover	0.15	kg/capita	92.0	→	0.45	Gg	2015
GHG Emissions							
GHG emissions – Domestic	3.35	tonnes/capita	83.5	↓	9.88	Tg	2019
GHG emissions – Spillover	1.72	tonnes/capita	42.0	→	4.97	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	87.9		0.00	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	70.54	%	31.7	↓	70.54	%	2019
Unprotected freshwater sites	72.23	%	29.0	↓	72.23	%	2019
Land-use biodiversity loss – Domestic	5.29E-11	global PDF/capita	23.1	→	1.53E-04	global PDF	2015
Land-use biodiversity loss – Spillover	5.80E-12	global PDF/capita	86.7	→	1.68E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.07	per M people	98.7		0.22	number	2018
Freshwater biodiversity threats – Spillover	0.05	per M people	94.6		0.14	number	2018
Permanent deforestation	1.39E-01	%	73.5	→	1,045.96	hectare	2020
Red List Index of species survival	0.72	scale 0–1	28.0	↓	0.72	scale 0–1	2019
Biodiversity Habitat Index	0.43	scale 0–1	17.8		0.43	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	85.63	%	15.6	↓	85.63	%	2019
Marine biodiversity threats – Domestic	1.45	per M people	80.1		4.25	number	2018
Marine biodiversity threats – Spillover	0.25	per M people	77.8		0.72	number	2018
Fish stocks: overexploited or collapsed	33.05	%	53.9	→	33.05	%	2018
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.06	scale 0–1.4	19.4	→	1.06	scale 0–1.4	2015
Nitrogen surplus – Domestic	3.13	kg/capita	92.9	→	9.04	Gg	2015
Nitrogen surplus – Spillover	2.02	kg/capita	92.0	↓	5.83	Gg	2015
Phosphorus fertilizer – Domestic	0.38	g/capita	99.8	↓	2,930.03	kt	2019
Phosphorus fertilizer – Spillover	1,047.31	g/capita	55.9	→	3.03	kt	2015
Water Cycle							
Scarce water consumption – Domestic	3.35	m^3/capita	55.6	↗	9.68	B m^3	2015
Scarce water consumption – Spillover	5.12	m^3/capita	58.0	↓	14.79	M m^3	2015
Water stress of crops – Domestic	351.94	m^3/capita	50.1	→	1,017.46	M m^3	2015
Water stress of crops – Spillover	1,404.33	m^3/capita	54.4	↓	4,059.95	M m^3	2015
Feshwater withdrawal	7.50	% renew. H_20	68.8		1.35	% renew. H_20	2007

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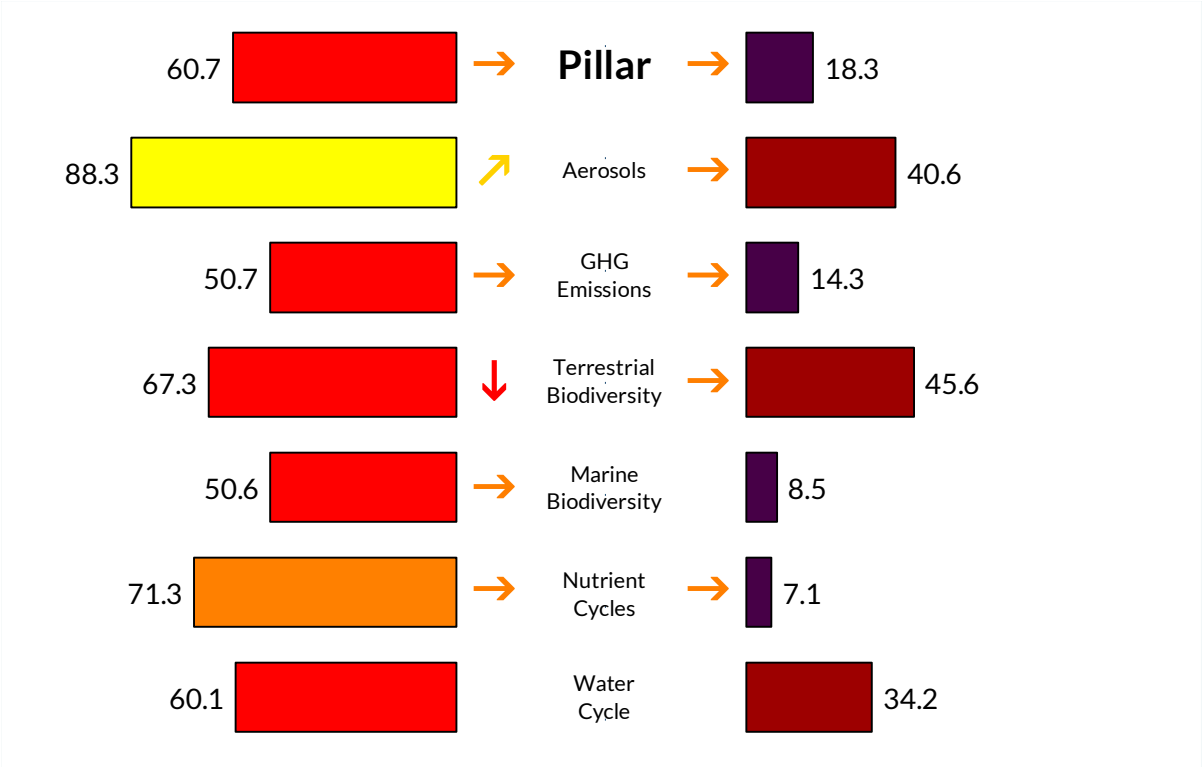
Japan

OECD

Population [millions]	125.8	**GDP** [$, billions]	4,930.0
Land area [km^2, thousands]	37,312.9	**GDP** per capita	39,178

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Japan

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	5.02	kg/capita	91.7	→	634.19	Gg	2019
SO_2 emissions – Spillover	18.60	kg/capita	31.6	→	2,364.56	Gg	2015
NO_X emissions – Domestic	13.26	kg/capita	80.6	→	1,674.21	Gg	2019
NO_X emissions – Spillover	31.07	kg/capita	40.3	↓	3,950.83	Gg	2015
Black Carbon emissions – Domestic	0.35	kg/capita	93.1	↑	43.74	Gg	2019
Black Carbon emissions – Spillover	0.85	kg/capita	52.7	→	107.92	Gg	2015
GHG Emissions							
GHG emissions – Domestic	10.65	tonnes/capita	46.5	→	1,344.88	Tg	2019
GHG emissions – Spillover	6.85	tonnes/capita	14.3	→	870.70	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.06	kg/capita	55.4		8.11	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	35.17	%	68.6	↓	35.17	%	2019
Unprotected freshwater sites	37.12	%	64.4	↓	37.12	%	2019
Land-use biodiversity loss – Domestic	8.38E-12	global PDF/capita	87.9	↓	1.07E-03	global PDF	2015
Land-use biodiversity loss – Spillover	1.41E-11	global PDF/capita	66.9	→	1.79E-03	global PDF	2015
Freshwater biodiversity threats – Domestic	0.14	per M people	97.4		18.10	number	2018
Freshwater biodiversity threats – Spillover	0.59	per M people	31.1		75.50	number	2018
Permanent deforestation	4.09E-04	%	99.9	↓	107.28	hectare	2020
Red List Index of species survival	0.78	scale 0–1	43.0	↓	0.78	scale 0–1	2019
Biodiversity Habitat Index	0.57	scale 0–1	38.4		0.57	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	35.15	%	66.7	↓	35.15	%	2019
Marine biodiversity threats – Domestic	0.95	per M people	86.9		121.30	number	2018
Marine biodiversity threats – Spillover	1.01	per M people	8.5		128.75	number	2018
Fish stocks: overexploited or collapsed	60.92	%	13.5	↓	60.92	%	2018
Fish caught by trawling	10.36	%	83.3	↑	10.36	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.59	scale 0–1.4	55.6	→	0.59	scale 0–1.4	2015
Nitrogen surplus – Domestic	2.87	kg/capita	93.5	↓	364.60	Gg	2015
Nitrogen surplus – Spillover	12.01	kg/capita	50.0	↓	1,526.42	Gg	2015
Phosphorus fertilizer – Domestic	44.08	g/capita	69.6	↗	338,100.00	kt	2019
Phosphorus fertilizer – Spillover	6,082.97	g/capita	1.0	→	773.40	kt	2015
Water Cycle							
Scarce water consumption – Domestic	4.55	m^3/capita	52.3	→	577.96	B m^3	2015
Scarce water consumption – Spillover	38.75	m^3/capita	26.3	→	4,927.29	M m^3	2015
Water stress of crops – Domestic	11.46	m^3/capita	91.5	↑	1,456.97	M m^3	2015
Water stress of crops – Spillover	2,372.27	m^3/capita	44.5	→	301,612.82	M m^3	2015
Feshwater withdrawal	38.05	% renew. H_20	45.4		81.22	% renew. H_20	2007

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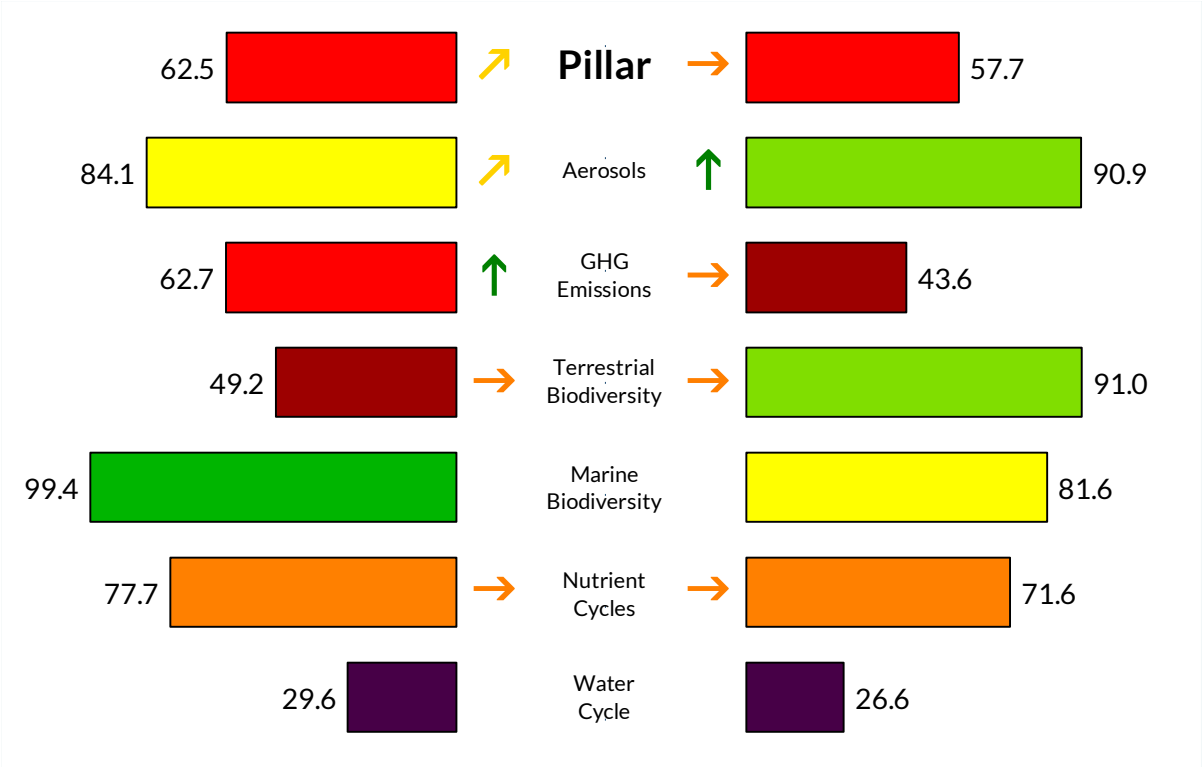
Jordan

Middle East & North Africa

Population [millions]	10.2	**GDP** [$, billions]	100.0
Land area [km^2, thousands]	8,939.9	**GDP** per capita	9,801

Overall impact on the Global Commons and trajectory: **High** ↗

Impacts and trajectory by pillar and sub-pillar:



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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Jordan

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	7.65	kg/capita	86.8	↑	77.32	Gg	2019
SO_2 emissions – Spillover	3.09	kg/capita	89.4	↑	28.64	Gg	2015
NO_X emissions – Domestic	10.87	kg/capita	86.2	↑	109.78	Gg	2019
NO_X emissions – Spillover	4.02	kg/capita	93.0	↑	37.26	Gg	2015
Black Carbon emissions – Domestic	0.63	kg/capita	79.6	↓	6.38	Gg	2019
Black Carbon emissions – Spillover	0.18	kg/capita	90.3	↑	1.71	Gg	2015
GHG Emissions							
GHG emissions – Domestic	2.80	tonnes/capita	89.2	↑	28.30	Tg	2019
GHG emissions – Spillover	1.58	tonnes/capita	43.6	→	14.67	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.71	kg/capita	44.0		7.22	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	86.52	%	15.1	→	86.52	%	2019
Unprotected freshwater sites	81.32	%	19.8	↓	81.32	%	2019
Land-use biodiversity loss – Domestic	2.00E-13	global PDF/capita	99.8	↑	1.86E-06	global PDF	2015
Land-use biodiversity loss – Spillover	5.98E-12	global PDF/capita	86.3	→	5.54E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.38	per M people	93.0		3.81	number	2018
Freshwater biodiversity threats – Spillover	0.04	per M people	96.0		0.36	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.96	scale 0–1	93.0	↓	0.96	scale 0–1	2019
Biodiversity Habitat Index	0.68	scale 0–1	54.7		0.68	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic	0.09	per M people	98.8		0.89	number	2018
Marine biodiversity threats – Spillover	0.20	per M people	81.6		2.03	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.65	scale 0–1.4	51.0	→	0.65	scale 0–1.4	2015
Nitrogen surplus – Domestic	3.49	kg/capita	92.1	→	32.30	Gg	2015
Nitrogen surplus – Spillover	2.60	kg/capita	89.6	→	24.12	Gg	2015
Phosphorus fertilizer – Domestic	0.21	g/capita	99.9	↓	1,617.00	kt	2019
Phosphorus fertilizer – Spillover	1,015.62	g/capita	57.3	→	9.41	kt	2015
Water Cycle							
Scarce water consumption – Domestic	42.54	m^3/capita	27.9	→	394.20	B m^3	2015
Scarce water consumption – Spillover	59.30	m^3/capita	19.6	→	549.47	M m^3	2015
Water stress of crops – Domestic	2,053.92	m^3/capita	28.8	→	19,032.77	M m^3	2015
Water stress of crops – Spillover	3,677.38	m^3/capita	36.2	→	34,076.69	M m^3	2015
Feshwater withdrawal	94.03	% renew. H_20	32.3		0.90	% renew. H_20	2012

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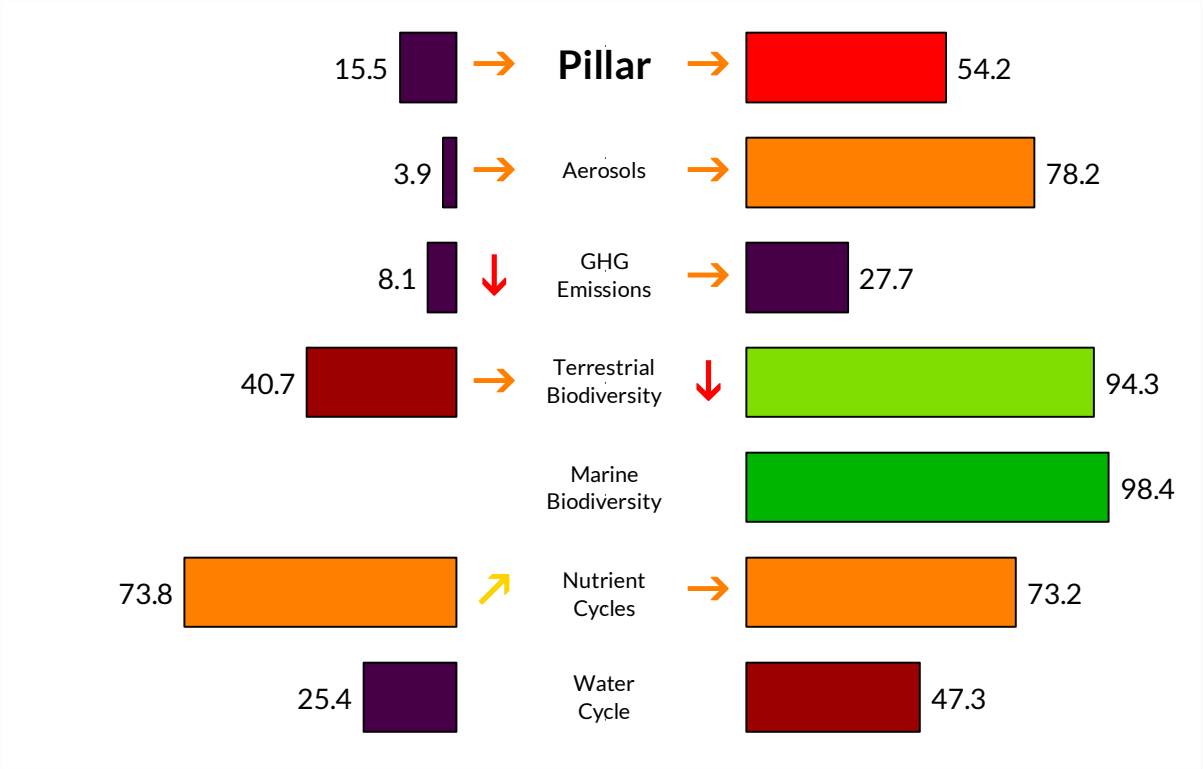
Kazakhstan

Eastern Europe & Central Asia

Population [millions]	18.8	**GDP** [$, billions]	475.0
Land area [km^2, thousands]	272,851.4	**GDP** per capita	25,327

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
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Trajectories based upon 5-year average annual growth rates.

Kazakhstan

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	72.76	kg/capita	1.0	↓	1,347.12	Gg	2019
SO_2 emissions – Spillover	9.94	kg/capita	63.9	→	174.32	Gg	2015
NO_X emissions – Domestic	47.43	kg/capita	1.0	→	878.09	Gg	2019
NO_X emissions – Spillover	6.26	kg/capita	88.6	→	109.86	Gg	2015
Black Carbon emissions – Domestic	1.10	kg/capita	57.2	→	20.44	Gg	2019
Black Carbon emissions – Spillover	0.29	kg/capita	84.6	→	5.01	Gg	2015
GHG Emissions							
GHG emissions – Domestic	19.57	tonnes/capita	27.0	↓	362.24	Tg	2019
GHG emissions – Spillover	3.51	tonnes/capita	27.7	→	61.50	Tg	2015
CO_2 emissions embodied in fossil fuel exports	4,885.16	kg/capita	2.4		90,442.28	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	88.85	%	12.6	→	88.85	%	2019
Unprotected freshwater sites	89.85	%	11.2	→	89.85	%	2019
Land-use biodiversity loss – Domestic	3.95E-11	global PDF/capita	42.6	→	6.93E-04	global PDF	2015
Land-use biodiversity loss – Spillover	3.63E-12	global PDF/capita	91.9	↓	6.37E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.55	per M people	89.8		10.12	number	2018
Freshwater biodiversity threats – Spillover	0.03	per M people	96.7		0.56	number	2018
Permanent deforestation	6.22E-06	%	100.0	↑	0.28	hectare	2020
Red List Index of species survival	0.87	scale 0–1	68.2	↓	0.87	scale 0–1	2019
Biodiversity Habitat Index	0.65	scale 0–1	50.0		0.65	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.02	per M people	98.4		0.34	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.77	scale 0–1.4	41.7	→	0.77	scale 0–1.4	2015
Nitrogen surplus – Domestic	0.48	kg/capita	99.0	↑	8.35	Gg	2015
Nitrogen surplus – Spillover	2.15	kg/capita	91.5	→	37.68	Gg	2015
Phosphorus fertilizer – Domestic	3.84	g/capita	97.4	↗	29,424.72	kt	2019
Phosphorus fertilizer – Spillover	984.49	g/capita	58.6	→	17.27	kt	2015
Water Cycle							
Scarce water consumption – Domestic	103.98	m^3/capita	18.1	→	1,824.09	B m^3	2015
Scarce water consumption – Spillover	11.73	m^3/capita	45.0	→	205.73	M m^3	2015
Water stress of crops – Domestic	4,715.36	m^3/capita	18.8	→	82,720.66	M m^3	2015
Water stress of crops – Spillover	1,802.51	m^3/capita	49.6	↓	31,621.15	M m^3	2015
Feshwater withdrawal	31.14	% renew. H_20	48.2		22.45	% renew. H_20	2017

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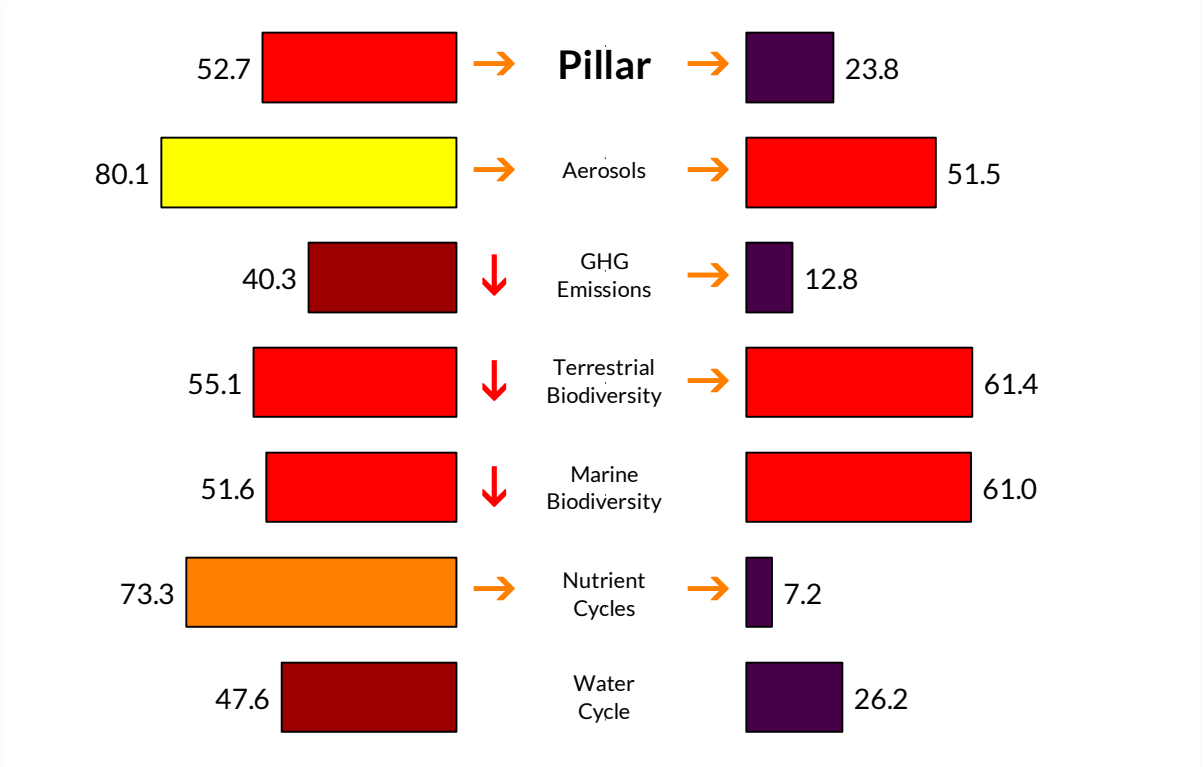
Korea, Rep.

OECD

Population [millions]	51.8	**GDP** [$, billions]	2,190.0
Land area [km^2, thousands]	10,051.1	**GDP** per capita	42,294

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Korea, Rep.

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	5.39	kg/capita	91.0	↗	278.49	Gg	2019
SO_2 emissions – Spillover	14.71	kg/capita	46.1	→	750.40	Gg	2015
NO_X emissions – Domestic	19.50	kg/capita	66.1	→	1,008.37	Gg	2019
NO_X emissions – Spillover	23.82	kg/capita	54.4	→	1,215.08	Gg	2015
Black Carbon emissions – Domestic	0.51	kg/capita	85.4	↗	26.33	Gg	2019
Black Carbon emissions – Spillover	0.82	kg/capita	54.4	→	41.70	Gg	2015
GHG Emissions							
GHG emissions – Domestic	13.77	tonnes/capita	38.3	↓	711.94	Tg	2019
GHG emissions – Spillover	7.39	tonnes/capita	12.8	→	377.24	Tg	2015
CO_2 emissions embodied in fossil fuel exports	1.02	kg/capita	42.3		52.90	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	62.53	%	40.1	→	62.53	%	2019
Unprotected freshwater sites	63.21	%	38.1	↓	63.21	%	2019
Land-use biodiversity loss – Domestic	1.91E-12	global PDF/capita	97.3	↓	9.77E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.57E-11	global PDF/capita	63.1	→	8.00E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.03	per M people	99.6		1.30	number	2018
Freshwater biodiversity threats – Spillover	0.35	per M people	59.7		17.80	number	2018
Permanent deforestation	5.71E-03	%	98.9	↓	291.36	hectare	2020
Red List Index of species survival	0.73	scale 0–1	30.5	↓	0.73	scale 0–1	2019
Biodiversity Habitat Index	0.54	scale 0–1	34.5		0.54	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	61.45	%	40.1	→	61.45	%	2019
Marine biodiversity threats – Domestic	0.21	per M people	97.1		10.94	number	2018
Marine biodiversity threats – Spillover	0.43	per M people	61.0		22.06	number	2018
Fish stocks: overexploited or collapsed	42.18	%	40.7	↓	42.18	%	2018
Fish caught by trawling	33.71	%	44.9	↓	33.71	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.64	scale 0–1.4	51.4	↓	0.64	scale 0–1.4	2015
Nitrogen surplus – Domestic	5.18	kg/capita	88.2	↓	264.20	Gg	2015
Nitrogen surplus – Spillover	11.51	kg/capita	52.1	↓	587.42	Gg	2015
Phosphorus fertilizer – Domestic	18.82	g/capita	87.0	↗	144,371.47	kt	2019
Phosphorus fertilizer – Spillover	5,447.72	g/capita	1.0	→	277.91	kt	2015
Water Cycle							
Scarce water consumption – Domestic	10.55	m^3/capita	43.1	→	538.07	B m^3	2015
Scarce water consumption – Spillover	60.49	m^3/capita	19.3	→	3,085.94	M m^3	2015
Water stress of crops – Domestic	48.57	m^3/capita	74.1	↓	2,477.56	M m^3	2015
Water stress of crops – Spillover	3,788.03	m^3/capita	35.6	→	193,246.37	M m^3	2015
Feshwater withdrawal	85.11	% renew. H_20	33.7		29.04	% renew. H_20	2002

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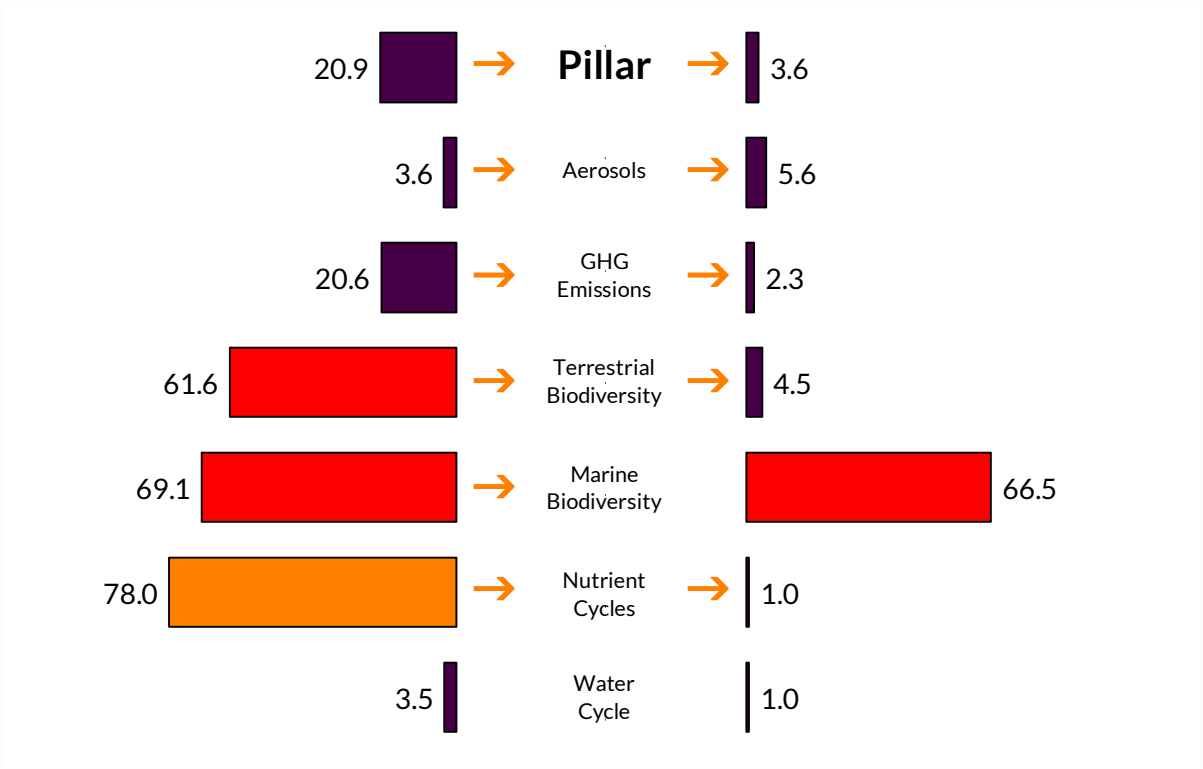
Kuwait

Middle East & North Africa

Population [millions]	4.3	**GDP** [$, billions]	212.0
Land area [km^2, thousands]	1,745.0	**GDP** per capita	49,642

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



Note: All results shown in proportional terms.

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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Kuwait

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	100.66	kg/capita	1.0	→	423.48	Gg	2019
SO_2 emissions – Spillover	25.77	kg/capita	4.8	→	98.84	Gg	2015
NO_X emissions – Domestic	46.74	kg/capita	2.6	→	196.63	Gg	2019
NO_X emissions – Spillover	32.82	kg/capita	36.9	→	125.90	Gg	2015
Black Carbon emissions – Domestic	1.93	kg/capita	18.2	→	8.10	Gg	2019
Black Carbon emissions – Spillover	1.76	kg/capita	1.0	→	6.75	Gg	2015
GHG Emissions							
GHG emissions – Domestic	34.69	tonnes/capita	8.7	→	145.94	Tg	2019
GHG emissions – Spillover	12.48	tonnes/capita	2.3	→	47.86	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.28	kg/capita	48.4		1.18	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	48.35	%	54.9	→	48.35	%	2019
Unprotected freshwater sites		%				%	
Land-use biodiversity loss – Domestic	1.07E-14	global PDF/capita	100.0	↑	4.09E-08	global PDF	2015
Land-use biodiversity loss – Spillover	5.52E-11	global PDF/capita	1.0	→	2.12E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.00	per M people	100.0		0.02	number	2018
Freshwater biodiversity threats – Spillover	0.69	per M people	20.1		2.84	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.84	scale 0–1	60.1	↓	0.84	scale 0–1	2019
Biodiversity Habitat Index	0.70	scale 0–1	57.9		0.70	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	67.92	%	33.5	→	67.92	%	2019
Marine biodiversity threats – Domestic	0.11	per M people	98.5		0.47	number	2018
Marine biodiversity threats – Spillover	0.37	per M people	66.5		1.54	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.69	scale 0–1.4	47.8	↓	0.69	scale 0–1.4	2015
Nitrogen surplus – Domestic	0.34	kg/capita	99.3	↑	1.29	Gg	2015
Nitrogen surplus – Spillover	43.64	kg/capita	1.0	→	167.39	Gg	2015
Phosphorus fertilizer – Domestic	0.25	g/capita	99.8	↓	1,941.09	kt	2019
Phosphorus fertilizer – Spillover	16,503.83	g/capita	1.0	→	63.30	kt	2015
Water Cycle							
Scarce water consumption – Domestic	499.47	m^3/capita	1.0	→	1,915.75	B m^3	2015
Scarce water consumption – Spillover	194.54	m^3/capita	1.0	→	746.18	M m^3	2015
Water stress of crops – Domestic	658.61	m^3/capita	42.6	↗	2,526.17	M m^3	2015
Water stress of crops – Spillover	23,712.19	m^3/capita	1.0	→	90,950.18	M m^3	2015
Feshwater withdrawal	2,075.00	% renew. H_20	1.0		0.42	% renew. H_20	2002

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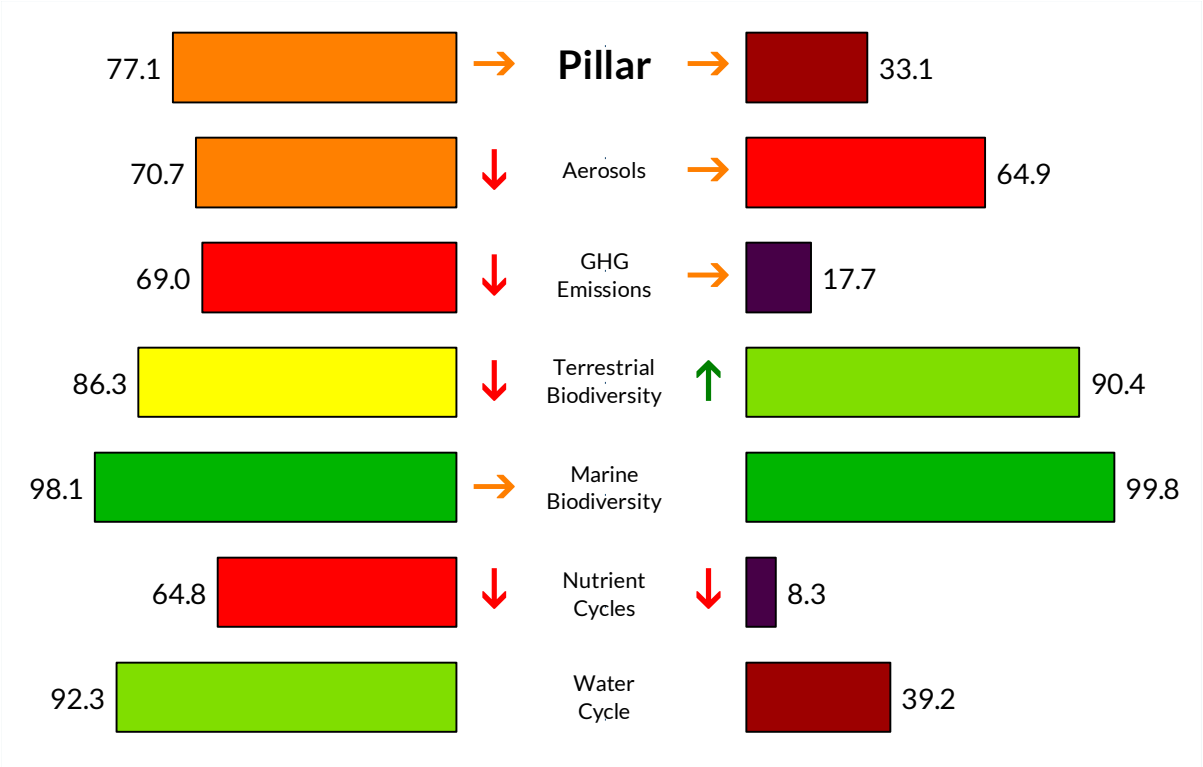
Latvia

OECD

Population [millions]	1.9	**GDP** [$, billions]	56.9
Land area [km^2, thousands]	6,453.6	**GDP** per capita	29,932

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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↑	Projected to meet 2050 Threshold
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Latvia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	2.06	kg/capita	97.2	↓	3.94	Gg	2019
SO_2 emissions – Spillover	11.20	kg/capita	59.2	→	22.14	Gg	2015
NO_X emissions – Domestic	17.91	kg/capita	69.8	→	34.28	Gg	2019
NO_X emissions – Spillover	13.35	kg/capita	74.8	→	26.41	Gg	2015
Black Carbon emissions – Domestic	1.21	kg/capita	52.1	↓	2.32	Gg	2019
Black Carbon emissions – Spillover	0.69	kg/capita	61.9	→	1.36	Gg	2015
GHG Emissions							
GHG emissions – Domestic	7.28	tonnes/capita	58.7	↓	13.93	Tg	2019
GHG emissions – Spillover	5.80	tonnes/capita	17.7	→	11.47	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	81.2		0.00	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	2.78	%	100.0	↓	2.78	%	2019
Unprotected freshwater sites	2.51	%	99.3	↓	2.51	%	2019
Land-use biodiversity loss – Domestic	8.19E-12	global PDF/capita	88.2	↓	1.62E-05	global PDF	2015
Land-use biodiversity loss – Spillover	7.03E-12	global PDF/capita	83.8	↑	1.39E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.13	per M people	97.6		0.25	number	2018
Freshwater biodiversity threats – Spillover	0.02	per M people	97.5		0.05	number	2018
Permanent deforestation	3.69E-03	%	99.3	↓	136.34	hectare	2020
Red List Index of species survival	0.99	scale 0–1	99.9	↓	0.99	scale 0–1	2019
Biodiversity Habitat Index	0.59	scale 0–1	42.1		0.59	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	3.86	%	98.5	↓	3.86	%	2019
Marine biodiversity threats – Domestic	0.02	per M people	99.8		0.03	number	2018
Marine biodiversity threats – Spillover	0.00	per M people	99.8		0.01	number	2018
Fish stocks: overexploited or collapsed	5.25	%	94.1	↑	5.25	%	2018
Fish caught by trawling	0.00	%	100.0	↓	0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.56	scale 0–1.4	57.7	→	0.56	scale 0–1.4	2015
Nitrogen surplus – Domestic	22.51	kg/capita	48.4	↓	44.52	Gg	2015
Nitrogen surplus – Spillover	7.72	kg/capita	68.1	↓	15.26	Gg	2015
Phosphorus fertilizer – Domestic	3.50	g/capita	97.6	↓	26,824.00	kt	2019
Phosphorus fertilizer – Spillover	2,909.00	g/capita	1.0	→	5.75	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.07	m^3/capita	98.4	↑	0.13	B m^3	2015
Scarce water consumption – Spillover	20.92	m^3/capita	36.0	→	41.37	M m^3	2015
Water stress of crops – Domestic	24.25	m^3/capita	82.4	↗	47.95	M m^3	2015
Water stress of crops – Spillover	2,611.71	m^3/capita	42.6	↑	5,164.73	M m^3	2015
Feshwater withdrawal	1.07	% renew. H_20	96.9		0.18	% renew. H_20	2017

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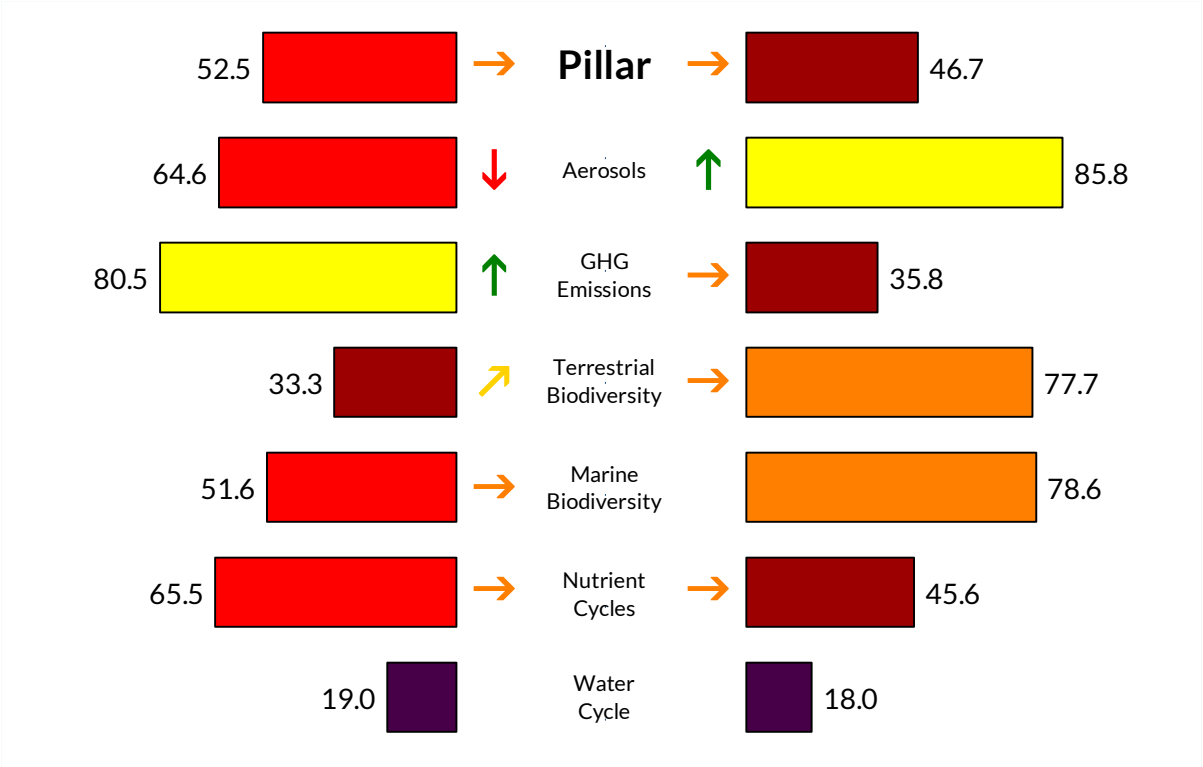
Lebanon

Middle East & North Africa

Population [millions]	6.8	**GDP** [$, billions]	79.5
Land area [km^2, thousands]	1,044.6	**GDP** per capita	11,649

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
↑	Projected to meet 2050 Threshold
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Lebanon

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	21.15	kg/capita	61.7	↓	144.97	Gg	2019
SO_2 emissions – Spillover	4.49	kg/capita	84.2	↑	29.33	Gg	2015
NO_X emissions – Domestic	25.19	kg/capita	52.8	↓	172.67	Gg	2019
NO_X emissions – Spillover	6.29	kg/capita	88.5	↑	41.12	Gg	2015
Black Carbon emissions – Domestic	0.57	kg/capita	82.6	↓	3.89	Gg	2019
Black Carbon emissions – Spillover	0.28	kg/capita	84.8	↑	1.84	Gg	2015
GHG Emissions							
GHG emissions – Domestic	3.68	tonnes/capita	80.5	↑	25.23	Tg	2019
GHG emissions – Spillover	2.34	tonnes/capita	35.8	→	15.28	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	87.66	%	13.9	↓	87.66	%	2019
Unprotected freshwater sites	78.94	%	22.2	↓	78.94	%	2019
Land-use biodiversity loss – Domestic	1.99E-12	global PDF/capita	97.2	↑	1.30E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.42E-11	global PDF/capita	66.6	→	9.30E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.32	per M people	94.1		2.19	number	2018
Freshwater biodiversity threats – Spillover	0.08	per M people	90.7		0.56	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.96	scale 0–1	92.6	↗	0.96	scale 0–1	2019
Biodiversity Habitat Index	0.34	scale 0–1	5.2		0.34	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	87.35	%	13.8	↓	87.35	%	2019
Marine biodiversity threats – Domestic	0.07	per M people	99.2		0.45	number	2018
Marine biodiversity threats – Spillover	0.24	per M people	78.6		1.62	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.92	scale 0–1.4	30.5	↓	0.92	scale 0–1.4	2015
Nitrogen surplus – Domestic	3.01	kg/capita	93.2	→	19.66	Gg	2015
Nitrogen surplus – Spillover	4.57	kg/capita	81.3	→	29.85	Gg	2015
Phosphorus fertilizer – Domestic	1.58	g/capita	98.9	↓	12,100.00	kt	2019
Phosphorus fertilizer – Spillover	1,767.83	g/capita	25.6	→	11.55	kt	2015
Water Cycle							
Scarce water consumption – Domestic	45.91	m^3/capita	27.0	→	299.95	B m^3	2015
Scarce water consumption – Spillover	91.96	m^3/capita	12.7	→	600.77	M m^3	2015
Water stress of crops – Domestic	9,228.37	m^3/capita	10.7	→	60,285.98	M m^3	2015
Water stress of crops – Spillover	6,522.33	m^3/capita	25.4	→	42,608.31	M m^3	2015
Feshwater withdrawal		% renew. H_20			1.81	% renew. H_20	

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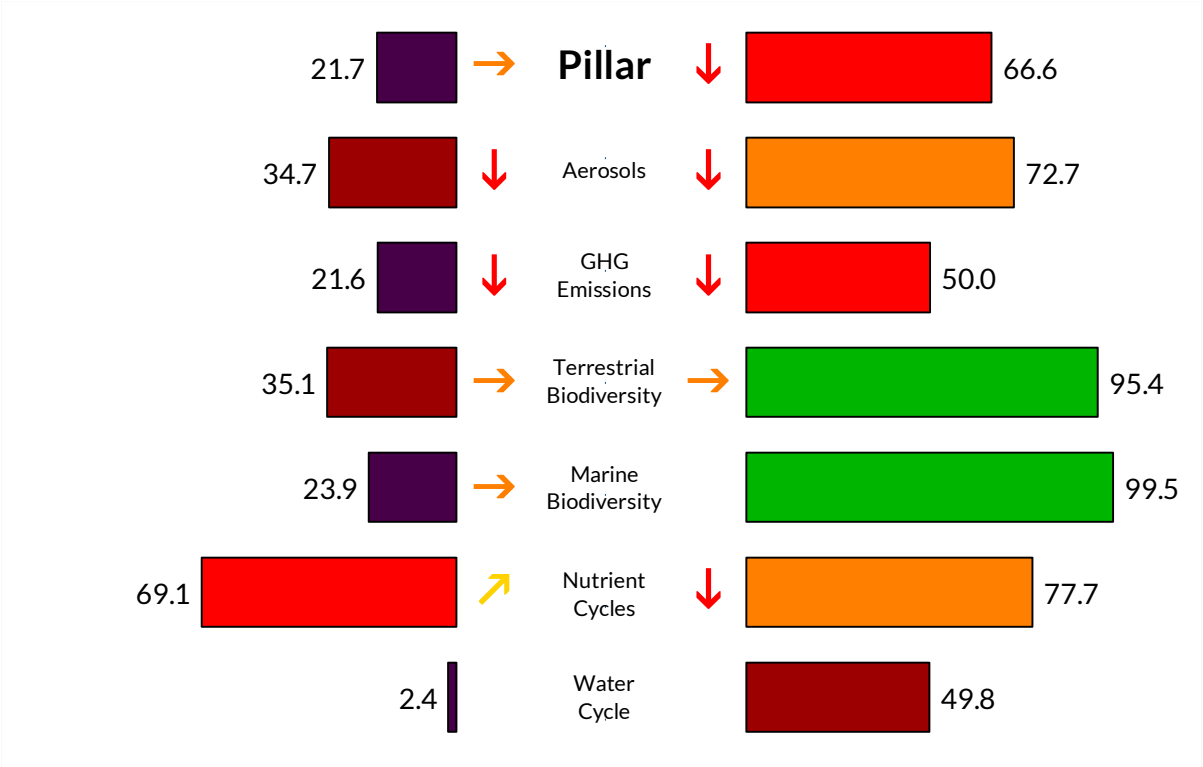
Libya

Middle East & North Africa

Population [millions]	6.9	**GDP** [$, billions]	70.7
Land area [km^2, thousands]	162,244.0	**GDP** per capita	10,282

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
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Trajectories based upon 5-year average annual growth rates.

Libya

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	13.53	kg/capita	75.9	→	91.71	Gg	2019
SO_2 emissions – Spillover	8.87	kg/capita	67.9	↓	56.93	Gg	2015
NO_X emissions – Domestic	41.00	kg/capita	16.0	↓	277.89	Gg	2019
NO_X emissions – Spillover	17.85	kg/capita	66.1	↓	114.55	Gg	2015
Black Carbon emissions – Domestic	1.58	kg/capita	34.6	↓	10.72	Gg	2019
Black Carbon emissions – Spillover	0.26	kg/capita	85.8	↓	1.69	Gg	2015
GHG Emissions							
GHG emissions – Domestic	9.73	tonnes/capita	49.4	↓	65.97	Tg	2019
GHG emissions – Spillover	1.15	tonnes/capita	50.0	↓	7.37	Tg	2015
CO_2 emissions embodied in fossil fuel exports	1,089.09	kg/capita	9.5		7,273.57	Gg	2018
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	100.00	%	1.0	↓	100.00	%	2019
Unprotected freshwater sites		%				%	
Land-use biodiversity loss – Domestic	9.58E-13	global PDF/capita	98.7	↗	6.15E-06	global PDF	2015
Land-use biodiversity loss – Spillover	4.00E-12	global PDF/capita	91.0	→	2.57E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.17	per M people	97.0		1.11	number	2018
Freshwater biodiversity threats – Spillover	0.00	per M people	100.0		0.01	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.97	scale 0–1	94.7	↓	0.97	scale 0–1	2019
Biodiversity Habitat Index	0.81	scale 0–1	73.1		0.81	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	100.00	%	1.0	↓	100.00	%	2019
Marine biodiversity threats – Domestic	2.21	per M people	69.6		14.74	number	2018
Marine biodiversity threats – Spillover	0.01	per M people	99.5		0.04	number	2018
Fish stocks: overexploited or collapsed	20.02	%	72.7	↑	20.02	%	2018
Fish caught by trawling	21.56	%	64.9	↓	21.56	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.88	scale 0–1.4	33.7	→	0.88	scale 0–1.4	2015
Nitrogen surplus – Domestic	0.33	kg/capita	99.3	↑	2.15	Gg	2015
Nitrogen surplus – Spillover	1.91	kg/capita	92.5	↓	12.26	Gg	2015
Phosphorus fertilizer – Domestic	2.04	g/capita	98.6	↗	15,630.22	kt	2019
Phosphorus fertilizer – Spillover	823.61	g/capita	65.3	↓	5.29	kt	2015
Water Cycle							
Scarce water consumption – Domestic	2,464.29	m^3/capita	1.0	→	15,816.62	B m^3	2015
Scarce water consumption – Spillover	9.46	m^3/capita	48.4	↓	60.71	M m^3	2015
Water stress of crops – Domestic	7,014.73	m^3/capita	14.0	→	45,022.73	M m^3	2015
Water stress of crops – Spillover	1,660.88	m^3/capita	51.2	→	10,660.03	M m^3	2015
Feshwater withdrawal	822.86	% renew. H_20	1.0		5.76	% renew. H_20	2012

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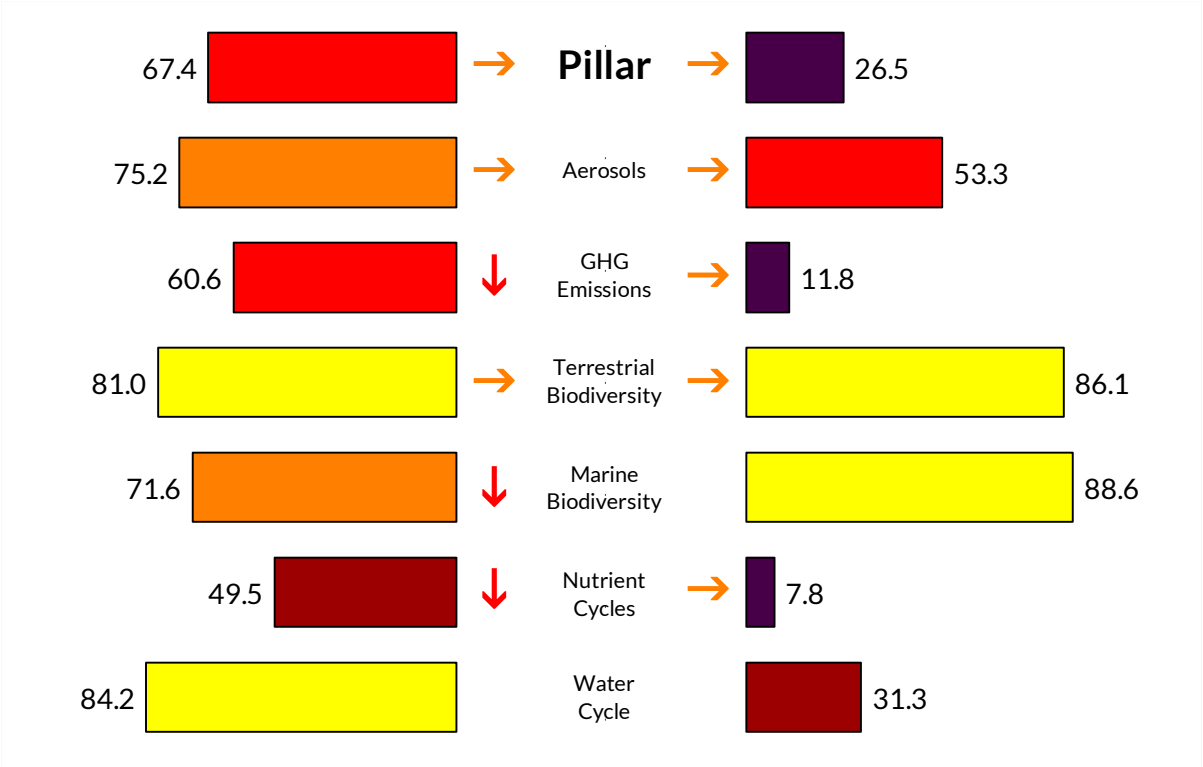
Lithuania

OECD

Population [millions]	2.8	**GDP** [$, billions]	103.0
Land area [km^2, thousands]	6,485.7	**GDP** per capita	36,855

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Lithuania

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	6.91	kg/capita	88.2	→	19.32	Gg	2019
SO_2 emissions – Spillover	14.85	kg/capita	45.6	→	43.12	Gg	2015
NO_X emissions – Domestic	15.24	kg/capita	76.0	→	42.58	Gg	2019
NO_X emissions – Spillover	18.47	kg/capita	64.8	→	53.65	Gg	2015
Black Carbon emissions – Domestic	0.97	kg/capita	63.4	↓	2.72	Gg	2019
Black Carbon emissions – Spillover	0.87	kg/capita	51.3	→	2.53	Gg	2015
GHG Emissions							
GHG emissions – Domestic	10.29	tonnes/capita	47.6	↓	28.76	Tg	2019
GHG emissions – Spillover	7.78	tonnes/capita	11.8	→	22.59	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	77.2		0.00	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	8.94	%	96.0	↓	8.94	%	2019
Unprotected freshwater sites	4.80	%	97.0	↓	4.80	%	2019
Land-use biodiversity loss – Domestic	4.55E-12	global PDF/capita	93.5	→	1.32E-05	global PDF	2015
Land-use biodiversity loss – Spillover	6.71E-12	global PDF/capita	84.5	→	1.95E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.10	per M people	98.2		0.28	number	2018
Freshwater biodiversity threats – Spillover	0.11	per M people	87.8		0.30	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.99	scale 0–1	100.0	↓	0.99	scale 0–1	2019
Biodiversity Habitat Index	0.53	scale 0–1	32.9		0.53	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	16.55	%	85.6	↓	16.55	%	2019
Marine biodiversity threats – Domestic	0.01	per M people	100.0		0.02	number	2018
Marine biodiversity threats – Spillover	0.13	per M people	88.6		0.35	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	34.95	%	42.9	↓	34.95	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.49	scale 0–1.4	63.3	↓	0.49	scale 0–1.4	2015
Nitrogen surplus – Domestic	34.84	kg/capita	20.1	↓	101.22	Gg	2015
Nitrogen surplus – Spillover	9.42	kg/capita	60.9	→	27.37	Gg	2015
Phosphorus fertilizer – Domestic	6.86	g/capita	95.3	↓	52,586.80	kt	2019
Phosphorus fertilizer – Spillover	3,711.42	g/capita	1.0	→	10.78	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.24	m^3/capita	84.4	↑	0.69	B m^3	2015
Scarce water consumption – Spillover	30.69	m^3/capita	29.9	↓	89.14	M m^3	2015
Water stress of crops – Domestic	30.57	m^3/capita	79.6	↓	88.79	M m^3	2015
Water stress of crops – Spillover	4,419.49	m^3/capita	32.7	↓	12,838.23	M m^3	2015
Feshwater withdrawal	1.87	% renew. H_20	88.8		0.26	% renew. H_20	2017

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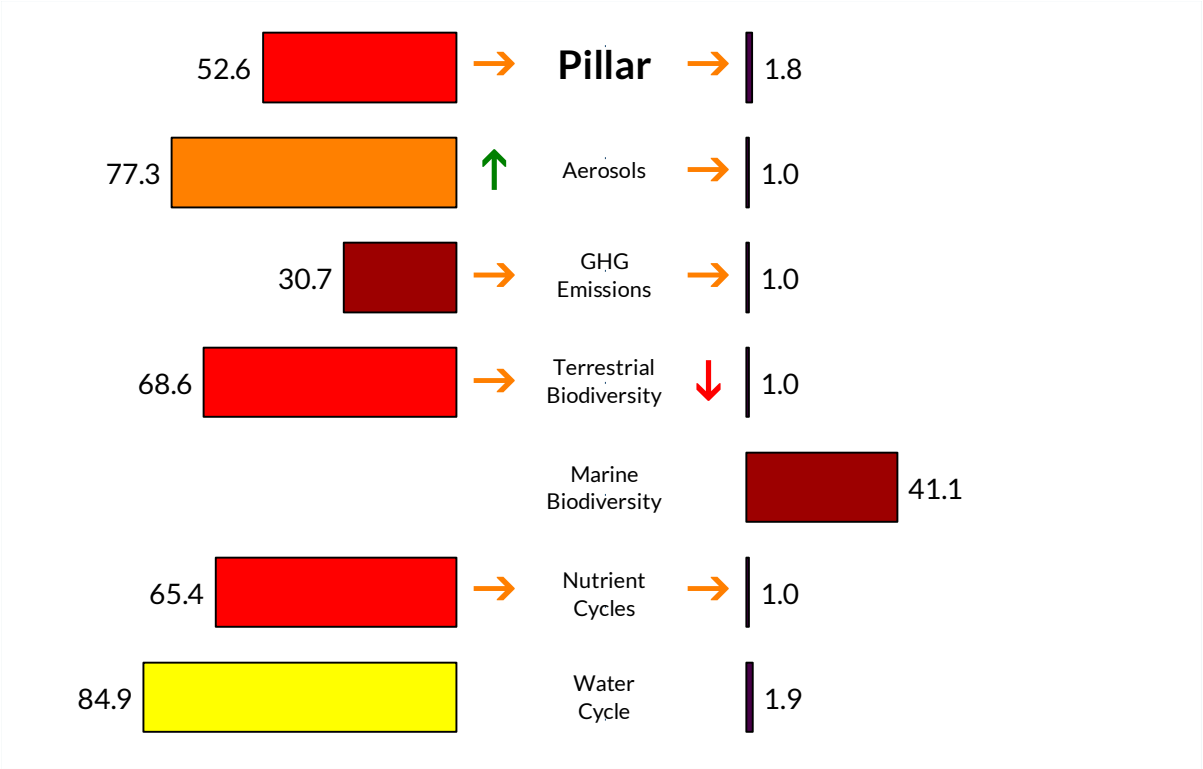
Luxembourg

OECD

Population [millions]	0.6	**GDP** [$, billions]	69.7
Land area [km^2, thousands]	256.2	**GDP** per capita	110,261

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Luxembourg

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.82	kg/capita	97.7	↑	1.13	Gg	2019
SO_2 emissions – Spillover	59.31	kg/capita	1.0	→	33.78	Gg	2015
NO_X emissions – Domestic	24.93	kg/capita	53.4	↑	15.46	Gg	2019
NO_X emissions – Spillover	107.91	kg/capita	1.0	→	61.47	Gg	2015
Black Carbon emissions – Domestic	0.45	kg/capita	88.4	↑	0.28	Gg	2019
Black Carbon emissions – Spillover	3.30	kg/capita	1.0	→	1.88	Gg	2015
GHG Emissions							
GHG emissions – Domestic	17.46	tonnes/capita	30.7	→	10.82	Tg	2019
GHG emissions – Spillover	37.50	tonnes/capita	1.0	→	21.36	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	18.13	%	86.4	↗	18.13	%	2019
Unprotected freshwater sites	62.87	%	38.4	↓	62.87	%	2019
Land-use biodiversity loss – Domestic	2.46E-12	global PDF/capita	96.5	→	1.40E-06	global PDF	2015
Land-use biodiversity loss – Spillover	9.96E-11	global PDF/capita	1.0	↓	5.67E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.02	per M people	99.7		0.01	number	2018
Freshwater biodiversity threats – Spillover	0.85	per M people	1.0		0.51	number	2018
Permanent deforestation	7.09E-02	%	86.5	↓	73.33	hectare	2020
Red List Index of species survival	0.99	scale 0–1	99.5	↑	0.99	scale 0–1	2019
Biodiversity Habitat Index	0.48	scale 0–1	26.0		0.48	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.65	per M people	41.1		0.39	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.74	scale 0–1.4	44.3	↓	0.74	scale 0–1.4	2015
Nitrogen surplus – Domestic	16.12	kg/capita	63.1	→	9.18	Gg	2015
Nitrogen surplus – Spillover	55.44	kg/capita	1.0	→	31.58	Gg	2015
Phosphorus fertilizer – Domestic	0.11	g/capita	99.9	↑	849.00	kt	2019
Phosphorus fertilizer – Spillover	18,684.71	g/capita	1.0	→	10.64	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.32	m^3/capita	81.2	↗	0.18	B m^3	2015
Scarce water consumption – Spillover	164.19	m^3/capita	3.7	→	93.52	M m^3	2015
Water stress of crops – Domestic	7.95	m^3/capita	95.9	↓	4.53	M m^3	2015
Water stress of crops – Spillover	24,930.55	m^3/capita	1.0	→	14,200.54	M m^3	2015
Feshwater withdrawal	3.78	% renew. H_20	78.7		0.05	% renew. H_20	2017

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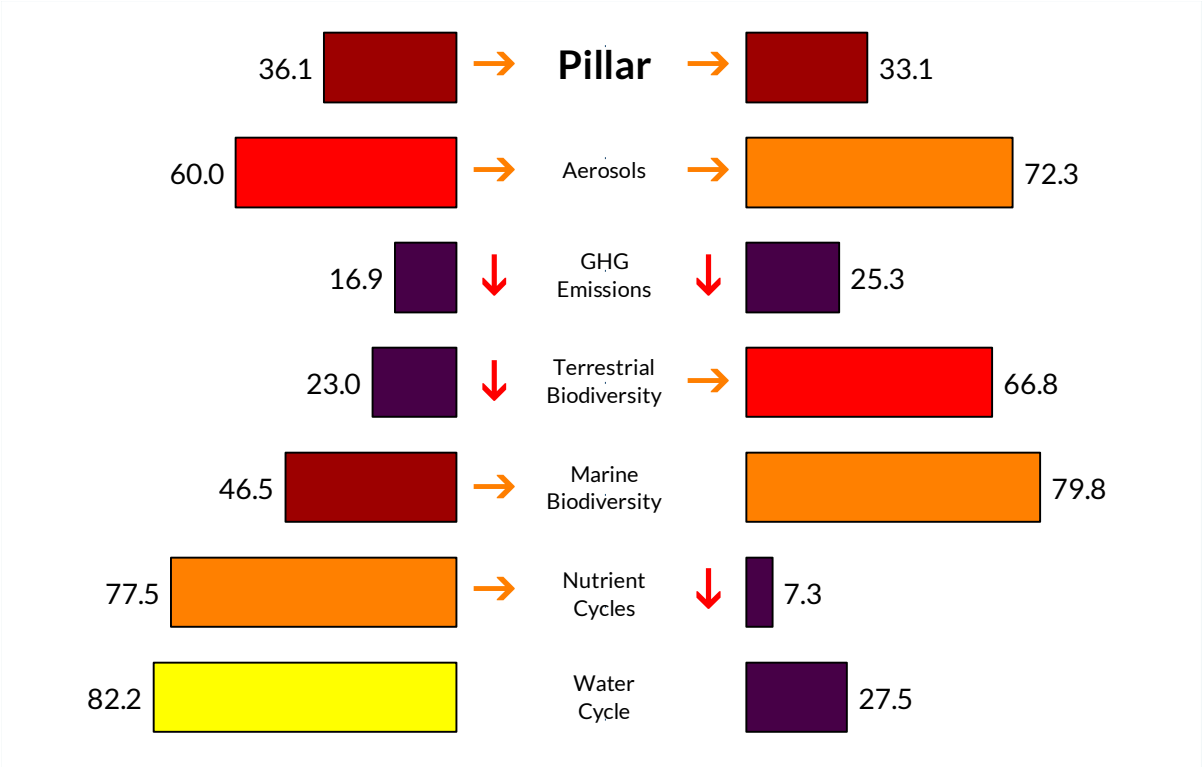
Malaysia

East & South Asia

Population [millions]	32.4	**GDP** [$, billions]	856.0
Land area [km^2, thousands]	33,153.4	**GDP** per capita	26,448

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Malaysia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	11.80	kg/capita	79.1	↓	377.09	Gg	2019
SO_2 emissions – Spillover	8.34	kg/capita	69.8	→	252.46	Gg	2015
NO_X emissions – Domestic	28.06	kg/capita	46.1	→	896.64	Gg	2019
NO_X emissions – Spillover	13.76	kg/capita	74.0	↓	416.54	Gg	2015
Black Carbon emissions – Domestic	1.06	kg/capita	59.1	→	33.98	Gg	2019
Black Carbon emissions – Spillover	0.49	kg/capita	73.2	→	14.72	Gg	2015
GHG Emissions							
GHG emissions – Domestic	10.85	tonnes/capita	45.9	↓	346.54	Tg	2019
GHG emissions – Spillover	3.96	tonnes/capita	25.3	↓	119.73	Tg	2015
CO_2 emissions embodied in fossil fuel exports	2,186.70	kg/capita	6.2		69,864.49	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	71.49	%	30.7	↓	71.49	%	2019
Unprotected freshwater sites	49.99	%	51.4	↓	49.99	%	2019
Land-use biodiversity loss – Domestic	2.96E-11	global PDF/capita	57.1	↓	8.95E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.25E-11	global PDF/capita	70.8	→	3.77E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	1.49	per M people	72.5		47.05	number	2018
Freshwater biodiversity threats – Spillover	0.32	per M people	63.1		10.06	number	2018
Permanent deforestation	1.20E+00	%	1.0	→	344,059.08	hectare	2020
Red List Index of species survival	0.67	scale 0–1	13.3	↓	0.67	scale 0–1	2019
Biodiversity Habitat Index	0.57	scale 0–1	38.8		0.57	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	86.29	%	14.9	↓	86.29	%	2019
Marine biodiversity threats – Domestic	1.08	per M people	85.1		34.18	number	2018
Marine biodiversity threats – Spillover	0.22	per M people	79.8		7.06	number	2018
Fish stocks: overexploited or collapsed	23.35	%	67.9	→	23.35	%	2018
Fish caught by trawling	28.08	%	54.2	→	28.08	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.54	scale 0–1.4	59.5	→	0.54	scale 0–1.4	2015
Nitrogen surplus – Domestic	3.30	kg/capita	92.5	↓	99.92	Gg	2015
Nitrogen surplus – Spillover	11.28	kg/capita	53.1	↓	341.34	Gg	2015
Phosphorus fertilizer – Domestic	22.55	g/capita	84.4	↓	172,947.51	kt	2019
Phosphorus fertilizer – Spillover	5,561.85	g/capita	1.0	↓	168.36	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.56	m^3/capita	75.2	↓	16.84	B m^3	2015
Scarce water consumption – Spillover	36.95	m^3/capita	27.0	↓	1,118.59	M m^3	2015
Water stress of crops – Domestic	10.74	m^3/capita	92.3	↑	325.17	M m^3	2015
Water stress of crops – Spillover	5,704.67	m^3/capita	27.9	→	172,686.00	M m^3	2015
Feshwater withdrawal	3.44	% renew. H_20	80.0		6.71	% renew. H_20	2017

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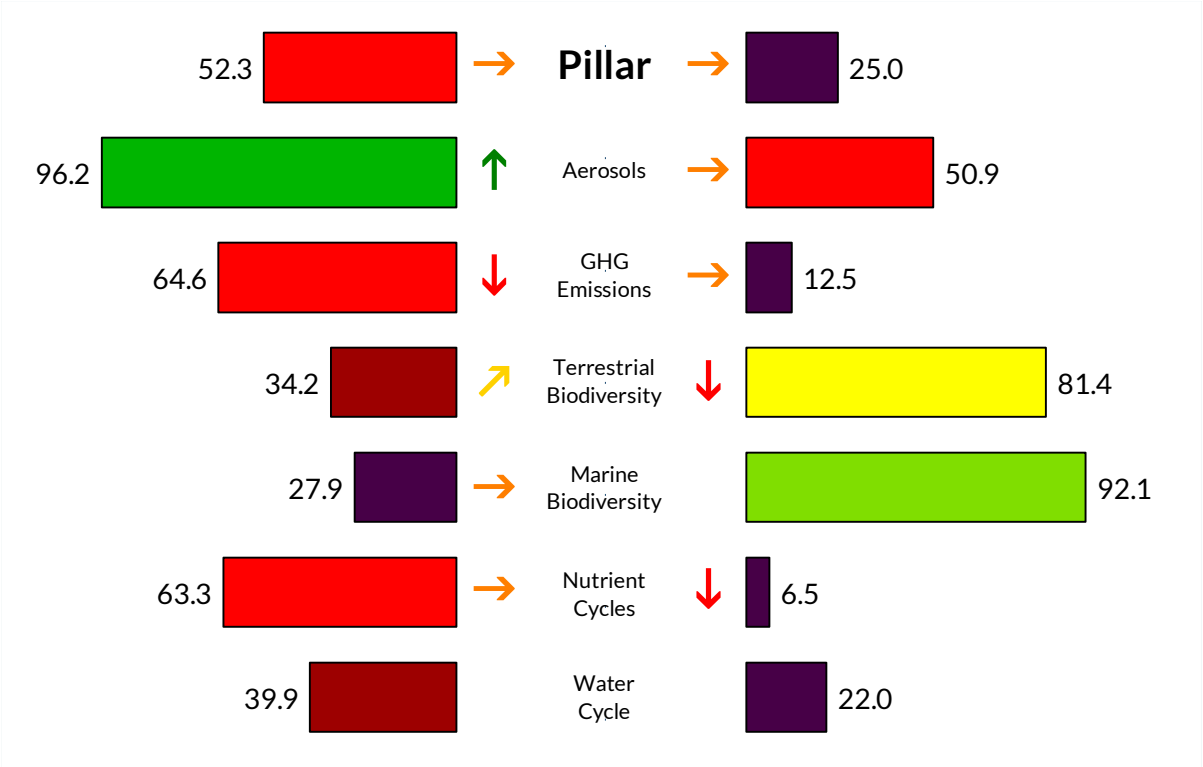
Malta

Eastern Europe & Central Asia

Population [millions]	0.5	**GDP** [$, billions]	20.6
Land area [km^2, thousands]	32.6	**GDP** per capita	39,222

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Malta

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.61	kg/capita	98.0	↑	0.81	Gg	2019
SO_2 emissions – Spillover	14.65	kg/capita	46.3	→	6.52	Gg	2015
NO_X emissions – Domestic	8.84	kg/capita	90.9	↑	4.46	Gg	2019
NO_X emissions – Spillover	24.37	kg/capita	53.4	→	10.85	Gg	2015
Black Carbon emissions – Domestic	0.12	kg/capita	100.0	↑	0.06	Gg	2019
Black Carbon emissions – Spillover	0.84	kg/capita	53.3	→	0.37	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.05	tonnes/capita	64.6	↓	3.05	Tg	2019
GHG emissions – Spillover	7.52	tonnes/capita	12.5	→	3.35	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	15.51	%	89.2	↑	15.51	%	2019
Unprotected freshwater sites		%				%	
Land-use biodiversity loss – Domestic	1.21E-12	global PDF/capita	98.3	↗	5.38E-07	global PDF	2015
Land-use biodiversity loss – Spillover	1.34E-11	global PDF/capita	68.6	↓	5.96E-06	global PDF	2015
Freshwater biodiversity threats – Domestic	0.00	per M people	100.0		0.00	number	2018
Freshwater biodiversity threats – Spillover	0.03	per M people	96.6		0.01	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.88	scale 0–1	71.4	↓	0.88	scale 0–1	2019
Biodiversity Habitat Index	0.30	scale 0–1	1.0		0.30	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	6.57	%	95.7	↑	6.57	%	2019
Marine biodiversity threats – Domestic	1.11	per M people	84.7		0.49	number	2018
Marine biodiversity threats – Spillover	0.09	per M people	92.1		0.04	number	2018
Fish stocks: overexploited or collapsed	18.89	%	74.4	↓	18.89	%	2018
Fish caught by trawling	89.64	%	1.0	→	89.64	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.89	scale 0–1.4	32.4	↓	0.89	scale 0–1.4	2015
Nitrogen surplus – Domestic	9.51	kg/capita	78.3	↓	4.23	Gg	2015
Nitrogen surplus – Spillover	13.73	kg/capita	42.8	↓	6.11	Gg	2015
Phosphorus fertilizer – Domestic	0.01	g/capita	100.0	↑	104.76	kt	2019
Phosphorus fertilizer – Spillover	5,520.25	g/capita	1.0	→	2.46	kt	2015
Water Cycle							
Scarce water consumption – Domestic	21.36	m^3/capita	35.4	↓	9.51	B m^3	2015
Scarce water consumption – Spillover	61.19	m^3/capita	19.1	→	27.23	M m^3	2015
Water stress of crops – Domestic	275.08	m^3/capita	53.1	↗	122.42	M m^3	2015
Water stress of crops – Spillover	6,580.34	m^3/capita	25.2	↓	2,928.60	M m^3	2015
Feshwater withdrawal	85.15	% renew. H_20	33.7		0.04	% renew. H_20	2017

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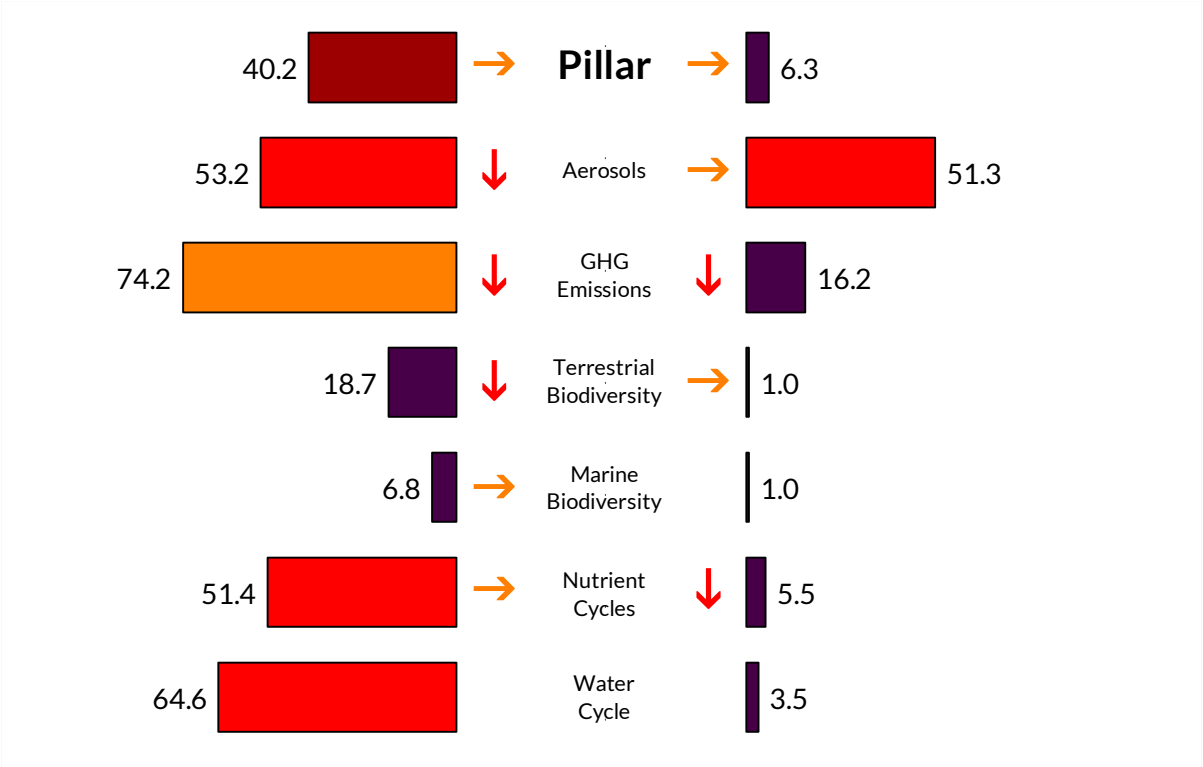
Mauritius

Africa

Population [millions]	1.3	**GDP** [$, billions]	24.6
Land area [km^2, thousands]	203.8	**GDP** per capita	19,470

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
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Trajectories based upon 5-year average annual growth rates.

Mauritius

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	23.79	kg/capita	56.8	↓	30.12	Gg	2019
SO_2 emissions – Spillover	14.85	kg/capita	45.6	→	18.75	Gg	2015
NO_X emissions – Domestic	25.20	kg/capita	52.8	→	31.89	Gg	2019
NO_X emissions – Spillover	19.22	kg/capita	63.4	→	24.26	Gg	2015
Black Carbon emissions – Domestic	1.25	kg/capita	50.3	→	1.58	Gg	2019
Black Carbon emissions – Spillover	0.95	kg/capita	46.8	→	1.20	Gg	2015
GHG Emissions							
GHG emissions – Domestic	4.48	tonnes/capita	74.2	↓	5.67	Tg	2019
GHG emissions – Spillover	6.22	tonnes/capita	16.2	↓	7.86	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	90.36	%	11.1	↓	90.36	%	2019
Unprotected freshwater sites		%				%	
Land-use biodiversity loss – Domestic	9.41E-12	global PDF/capita	86.4	↓	1.19E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.23E-10	global PDF/capita	1.0	→	1.55E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	2.14	per M people	60.4		2.72	number	2018
Freshwater biodiversity threats – Spillover	2.26	per M people	1.0		2.87	number	2018
Permanent deforestation	0.00E+00	%	100.0		0.00	hectare	2020
Red List Index of species survival	0.39	scale 0–1	1.0	↓	0.39	scale 0–1	2019
Biodiversity Habitat Index	0.33	scale 0–1	2.9		0.33	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	88.94	%	12.2	↓	88.94	%	2019
Marine biodiversity threats – Domestic	7.11	per M people	1.8		9.01	number	2018
Marine biodiversity threats – Spillover	1.80	per M people	1.0		2.28	number	2018
Fish stocks: overexploited or collapsed	71.91	%	1.0	↓	71.91	%	2018
Fish caught by trawling	1.18	%	98.4	↑	1.18	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.11	scale 0–1.4	15.5	→	1.11	scale 0–1.4	2015
Nitrogen surplus – Domestic	5.33	kg/capita	87.9	→	6.73	Gg	2015
Nitrogen surplus – Spillover	16.71	kg/capita	30.3	↓	21.09	Gg	2015
Phosphorus fertilizer – Domestic	0.33	g/capita	99.8	↑	2,548.52	kt	2019
Phosphorus fertilizer – Spillover	8,051.18	g/capita	1.0	↓	10.17	kt	2015
Water Cycle							
Scarce water consumption – Domestic	5.17	m^3/capita	50.8	↓	6.53	B m^3	2015
Scarce water consumption – Spillover	96.35	m^3/capita	12.0	↓	121.66	M m^3	2015
Water stress of crops – Domestic	5.66	m^3/capita	100.0	↓	7.15	M m^3	2015
Water stress of crops – Spillover	25,711.36	m^3/capita	1.0	→	32,463.29	M m^3	2015
Feshwater withdrawal	22.17	% renew. H_20	53.1		0.61	% renew. H_20	2017

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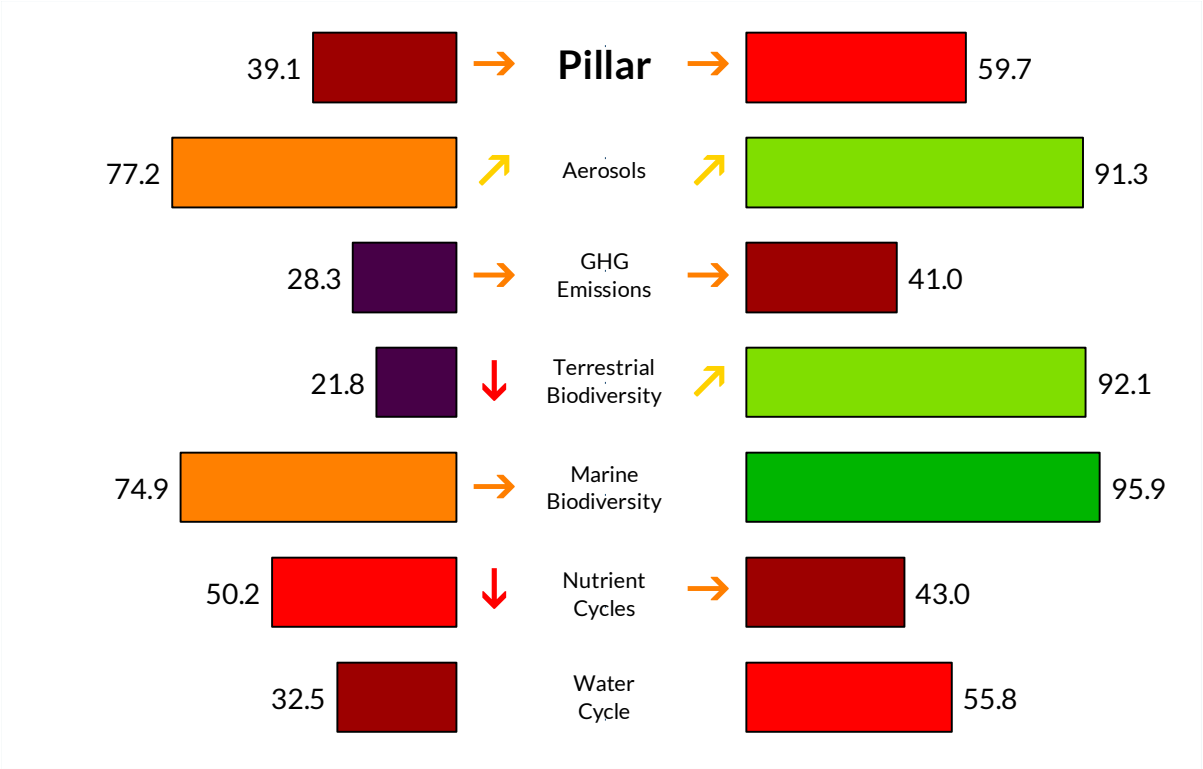
Mexico

OECD

Population [millions]	128.9	**GDP** [$, billions]	2,310.0
Land area [km^2, thousands]	196,083.8	**GDP** per capita	17,916

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Mexico

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	18.23	kg/capita	67.1	→	2,325.59	Gg	2019
SO_2 emissions – Spillover	3.12	kg/capita	89.3	↑	380.59	Gg	2015
NO_X emissions – Domestic	13.95	kg/capita	79.0	↑	1,779.40	Gg	2019
NO_X emissions – Spillover	4.93	kg/capita	91.2	→	601.26	Gg	2015
Black Carbon emissions – Domestic	0.48	kg/capita	86.6	↑	61.75	Gg	2019
Black Carbon emissions – Spillover	0.13	kg/capita	93.6	→	15.44	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.10	tonnes/capita	64.3	→	778.49	Tg	2019
GHG emissions – Spillover	1.80	tonnes/capita	41.0	→	219.84	Tg	2015
CO_2 emissions embodied in fossil fuel exports	583.84	kg/capita	12.4		74,484.13	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	62.93	%	39.7	→	62.93	%	2019
Unprotected freshwater sites	70.35	%	30.9	→	70.35	%	2019
Land-use biodiversity loss – Domestic	6.81E-11	global PDF/capita	1.0	↓	8.30E-03	global PDF	2015
Land-use biodiversity loss – Spillover	2.52E-12	global PDF/capita	94.5	↗	3.07E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.63	per M people	88.5		78.92	number	2018
Freshwater biodiversity threats – Spillover	0.09	per M people	89.7		11.48	number	2018
Permanent deforestation	3.28E-01	%	37.4	↓	164,935.20	hectare	2020
Red List Index of species survival	0.67	scale 0–1	15.0	↓	0.67	scale 0–1	2019
Biodiversity Habitat Index	0.57	scale 0–1	38.8		0.57	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	34.17	%	67.7	→	34.17	%	2019
Marine biodiversity threats – Domestic	1.41	per M people	80.6		177.67	number	2018
Marine biodiversity threats – Spillover	0.05	per M people	95.9		5.82	number	2018
Fish stocks: overexploited or collapsed	17.30	%	76.7	↑	17.30	%	2018
Fish caught by trawling	15.29	%	75.2	↓	15.29	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.82	scale 0–1.4	38.0	↓	0.82	scale 0–1.4	2015
Nitrogen surplus – Domestic	13.38	kg/capita	69.4	↓	1,630.06	Gg	2015
Nitrogen surplus – Spillover	3.54	kg/capita	85.6	↓	431.13	Gg	2015
Phosphorus fertilizer – Domestic	75.37	g/capita	48.0	↓	578,027.40	kt	2019
Phosphorus fertilizer – Spillover	1,864.39	g/capita	21.5	→	227.19	kt	2015
Water Cycle							
Scarce water consumption – Domestic	23.01	m^3/capita	34.6	→	2,803.81	B m^3	2015
Scarce water consumption – Spillover	8.82	m^3/capita	49.5	→	1,074.91	M m^3	2015
Water stress of crops – Domestic	3,963.07	m^3/capita	20.9	→	482,933.16	M m^3	2015
Water stress of crops – Spillover	895.89	m^3/capita	62.8	↗	109,171.04	M m^3	2015
Feshwater withdrawal	32.95	% renew. H_20	47.4		87.84	% renew. H_20	2017

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Montenegro

Eastern Europe & Central Asia

Population [millions]	0.6	**GDP** [$, billions]	11.4
Land area [km^2, thousands]	1,376.2	**GDP** per capita	18,279

Overall impact on the Global Commons and trajectory: **Extreme** →

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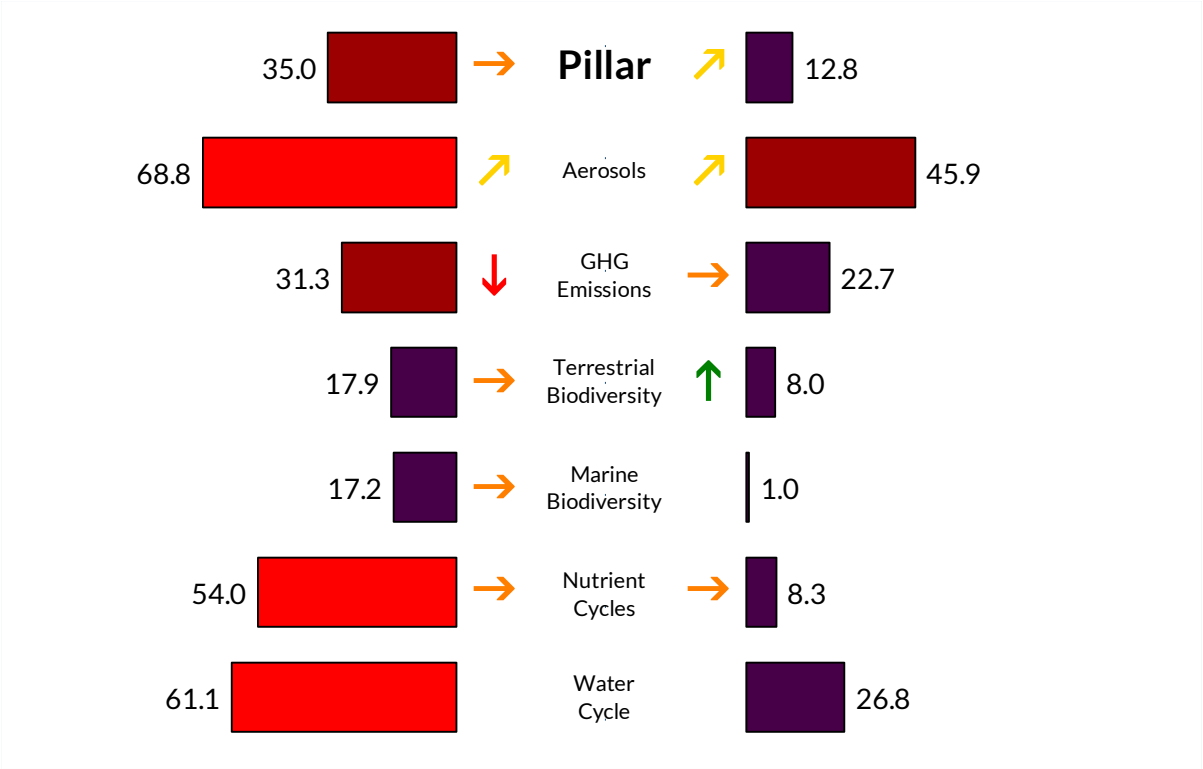

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Trajectories based upon 5-year average annual growth rates.

Montenegro

	Proportional				Absolute		
Indicator	**Value**	**Units**	**Score**		**Value**	**Units**	**Year**
Aerosol							
SO_2 emissions – Domestic	17.64	kg/capita	68.2	↑	10.97	Gg	2019
SO_2 emissions – Spillover	10.80	kg/capita	60.7	→	6.72	Gg	2015
NO_X emissions – Domestic	11.37	kg/capita	85.0	↑	7.07	Gg	2019
NO_X emissions – Spillover	13.28	kg/capita	74.9	→	8.26	Gg	2015
Black Carbon emissions – Domestic	1.13	kg/capita	56.2	→	0.70	Gg	2019
Black Carbon emissions – Spillover	1.40	kg/capita	21.3	↑	0.87	Gg	2015
GHG Emissions							
GHG emissions – Domestic	8.78	tonnes/capita	52.7	↓	5.46	Tg	2019
GHG emissions – Spillover	4.51	tonnes/capita	22.7	→	2.81	Tg	2015
CO_2 emissions embodied in fossil fuel exports	157.15	kg/capita	18.6		97.70	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	88.89	%	12.6	↓	88.89	%	2019
Unprotected freshwater sites		%				%	
Land-use biodiversity loss – Domestic	1.64E-11	global PDF/capita	76.3	→	1.02E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.55E-11	global PDF/capita	63.5	↑	9.66E-06	global PDF	2015
Freshwater biodiversity threats – Domestic	15.67	per M people	1.0		9.84	number	2018
Freshwater biodiversity threats – Spillover	1.30	per M people	1.0		0.82	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.81	scale 0–1	51.8	↓	0.81	scale 0–1	2019
Biodiversity Habitat Index	0.48	scale 0–1	25.7		0.48	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	100.00	%	1.0	↓	100.00	%	2019
Marine biodiversity threats – Domestic	0.34	per M people	95.3		0.22	number	2018
Marine biodiversity threats – Spillover	1.09	per M people	1.0		0.69	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	28.58	%	53.4	→	28.58	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.06	scale 0–1.4	19.4	↓	1.06	scale 0–1.4	2015
Nitrogen surplus – Domestic	8.24	kg/capita	81.2	↓	5.13	Gg	2015
Nitrogen surplus – Spillover	7.38	kg/capita	69.5	→	4.59	Gg	2015
Phosphorus fertilizer – Domestic	0.07	g/capita	100.0	↑	501.50	kt	2019
Phosphorus fertilizer – Spillover	3,006.53	g/capita	1.0	→	1.87	kt	2015
Water Cycle							
Scarce water consumption – Domestic		m^3/capita				B m^3	
Scarce water consumption – Spillover	43.60	m^3/capita	24.4	→	27.13	M m^3	2015
Water stress of crops – Domestic	39.60	m^3/capita	76.5	↗	24.64	M m^3	2015
Water stress of crops – Spillover	5,298.29	m^3/capita	29.3	↑	3,296.38	M m^3	2015
Feshwater withdrawal		% renew. H_20			0.16	% renew. H_20	

The Global Commons Stewardship Index is a production of SDSN, Yale University, and the University of Tokyo.

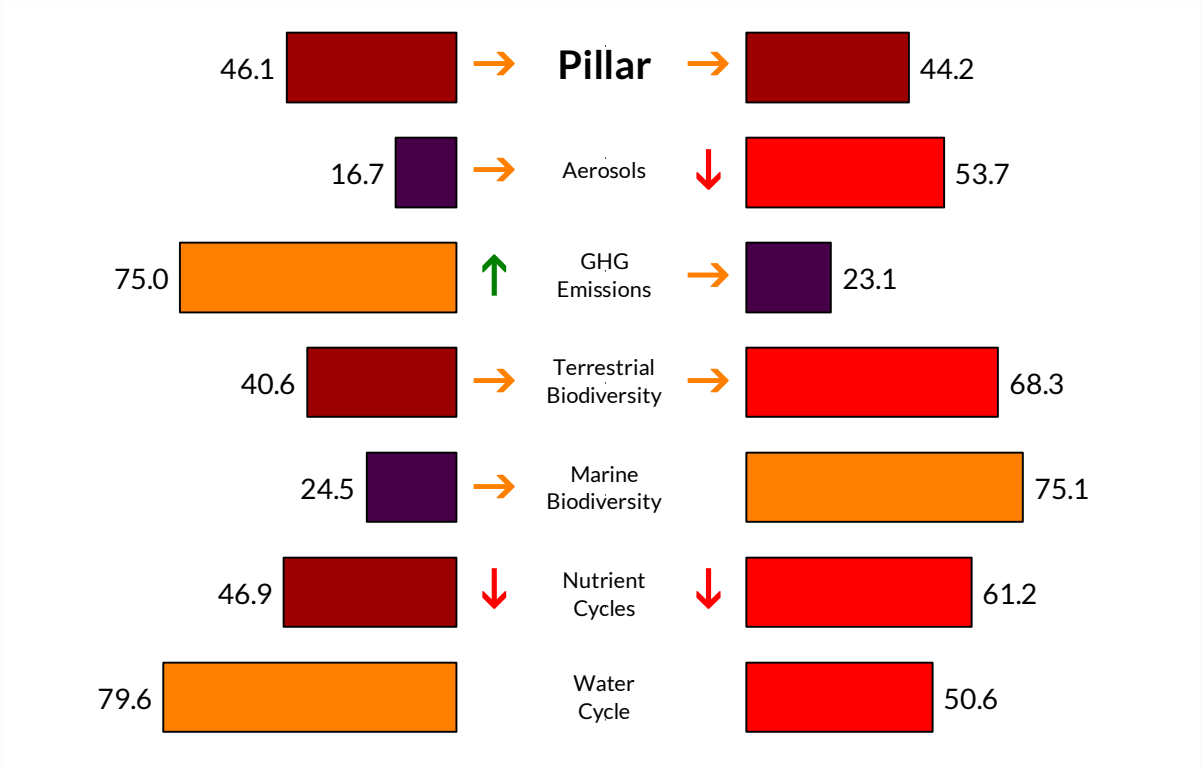
Namibia

Africa

Population [millions]	2.5	**GDP** [$, billions]	22.6
Land area [km^2, thousands]	82,794.0	**GDP** per capita	8,894

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
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Trajectories based upon 5-year average annual growth rates.

Namibia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	87.35	kg/capita	1.0	↓	217.89	Gg	2019
SO_2 emissions – Spillover	17.58	kg/capita	35.4	↓	40.69	Gg	2015
NO_X emissions – Domestic	8.11	kg/capita	92.6	↑	20.23	Gg	2019
NO_X emissions – Spillover	14.01	kg/capita	73.5	↓	32.43	Gg	2015
Black Carbon emissions – Domestic	1.26	kg/capita	49.8	↓	3.14	Gg	2019
Black Carbon emissions – Spillover	0.73	kg/capita	59.5	↓	1.68	Gg	2015
GHG Emissions							
GHG emissions – Domestic	4.37	tonnes/capita	75.0	↑	10.89	Tg	2019
GHG emissions – Spillover	4.41	tonnes/capita	23.1	→	10.22	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	13.91	%	90.8	↓	13.91	%	2019
Unprotected freshwater sites	14.65	%	87.1	↓	14.65	%	2019
Land-use biodiversity loss – Domestic	1.34E-10	global PDF/capita	1.0	→	3.10E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.81E-11	global PDF/capita	57.4	→	4.19E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	2.44	per M people	55.0		5.97	number	2018
Freshwater biodiversity threats – Spillover	0.16	per M people	81.3		0.40	number	2018
Permanent deforestation	1.46E-01	%	72.1		1.00	hectare	2020
Red List Index of species survival	0.97	scale 0–1	93.8	↓	0.97	scale 0–1	2019
Biodiversity Habitat Index	0.73	scale 0–1	61.6		0.73	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	17.02	%	85.1	↓	17.02	%	2019
Marine biodiversity threats – Domestic	7.17	per M people	1.0		17.55	number	2018
Marine biodiversity threats – Spillover	0.28	per M people	75.1		0.68	number	2018
Fish stocks: overexploited or collapsed	5.18	%	94.2	↑	5.18	%	2018
Fish caught by trawling	33.51	%	45.3	↓	33.51	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.15	scale 0–1.4	12.6	↓	1.15	scale 0–1.4	2015
Nitrogen surplus – Domestic	7.69	kg/capita	82.5	↓	17.80	Gg	2015
Nitrogen surplus – Spillover	2.04	kg/capita	91.9	↓	4.73	Gg	2015
Phosphorus fertilizer – Domestic	0.17	g/capita	99.9	↓	1,309.03	kt	2019
Phosphorus fertilizer – Spillover	1,409.16	g/capita	40.7	↓	3.26	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.22	m^3/capita	85.5	↗	0.50	B m^3	2015
Scarce water consumption – Spillover	13.09	m^3/capita	43.3	↓	30.31	M m^3	2015
Water stress of crops – Domestic	170.47	m^3/capita	58.9	↗	394.63	M m^3	2015
Water stress of crops – Spillover	1,090.92	m^3/capita	59.1	↑	2,525.38	M m^3	2015
Feshwater withdrawal	0.86	% renew. H_20	100.0		0.28	% renew. H_20	2002

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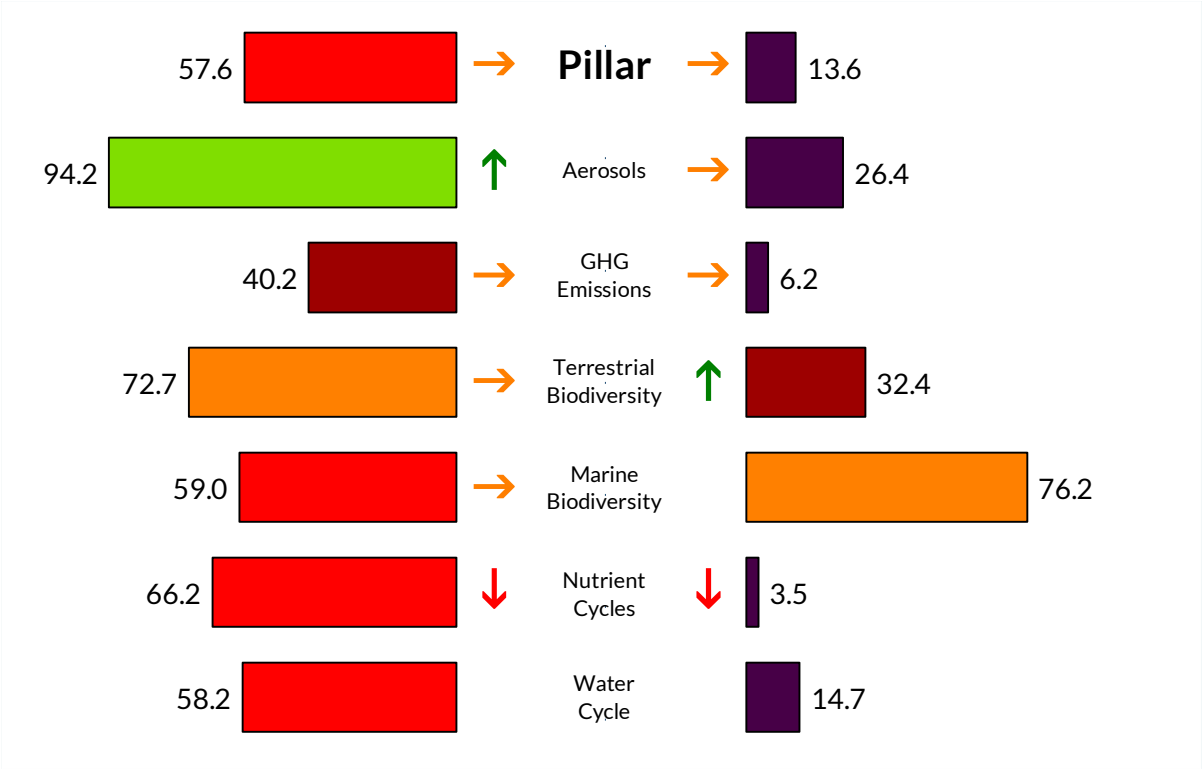
Netherlands

OECD

Population [millions]	17.4	**GDP** [$, billions]	945.0
Land area [km^2, thousands]	3,781.1	**GDP** per capita	54,182

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Netherlands

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.39	kg/capita	98.5	↑	24.18	Gg	2019
SO_2 emissions – Spillover	22.58	kg/capita	16.7	→	382.48	Gg	2015
NO_X emissions – Domestic	11.40	kg/capita	85.0	↑	197.66	Gg	2019
NO_X emissions – Spillover	36.51	kg/capita	29.7	→	618.51	Gg	2015
Black Carbon emissions – Domestic	0.19	kg/capita	100.0	↑	3.36	Gg	2019
Black Carbon emissions – Spillover	1.12	kg/capita	37.2	→	19.00	Gg	2015
GHG Emissions							
GHG emissions – Domestic	12.05	tonnes/capita	42.6	→	208.98	Tg	2019
GHG emissions – Spillover	10.30	tonnes/capita	6.2	→	174.41	Tg	2015
CO_2 emissions embodied in fossil fuel exports	2.56	kg/capita	38.0		44.60	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	2.10	%	100.0	↑	2.10	%	2019
Unprotected freshwater sites	1.67	%	100.0	↓	1.67	%	2019
Land-use biodiversity loss – Domestic	1.20E-12	global PDF/capita	98.3	↓	2.04E-05	global PDF	2015
Land-use biodiversity loss – Spillover	2.81E-11	global PDF/capita	33.6	↑	4.75E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.01	per M people	99.9		0.10	number	2018
Freshwater biodiversity threats – Spillover	0.59	per M people	31.3		10.09	number	2018
Permanent deforestation	3.70E-03	%	99.3	↓	26.33	hectare	2020
Red List Index of species survival	0.94	scale 0–1	87.4	↓	0.94	scale 0–1	2019
Biodiversity Habitat Index	0.39	scale 0–1	12.6		0.39	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	2.60	%	99.7	↑	2.60	%	2019
Marine biodiversity threats – Domestic	0.01	per M people	99.9		0.24	number	2018
Marine biodiversity threats – Spillover	0.26	per M people	76.2		4.49	number	2018
Fish stocks: overexploited or collapsed	53.06	%	24.9	↓	53.06	%	2018
Fish caught by trawling	31.31	%	48.9	→	31.31	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.76	scale 0–1.4	42.4	↓	0.76	scale 0–1.4	2015
Nitrogen surplus – Domestic	13.48	kg/capita	69.2	↓	228.37	Gg	2015
Nitrogen surplus – Spillover	21.03	kg/capita	12.1	↓	356.31	Gg	2015
Phosphorus fertilizer – Domestic	1.39	g/capita	99.1	↓	10,666.00	kt	2019
Phosphorus fertilizer – Spillover	8,852.84	g/capita	1.0	→	149.97	kt	2015
Water Cycle							
Scarce water consumption – Domestic	4.34	m^3/capita	52.8	↗	73.49	B m^3	2015
Scarce water consumption – Spillover	79.30	m^3/capita	15.1	→	1,343.38	M m^3	2015
Water stress of crops – Domestic	76.40	m^3/capita	68.6	↓	1,294.15	M m^3	2015
Water stress of crops – Spillover	11,735.17	m^3/capita	14.3	→	198,792.93	M m^3	2015
Feshwater withdrawal	20.35	% renew. H_20	54.4		7.99	% renew. H_20	2012

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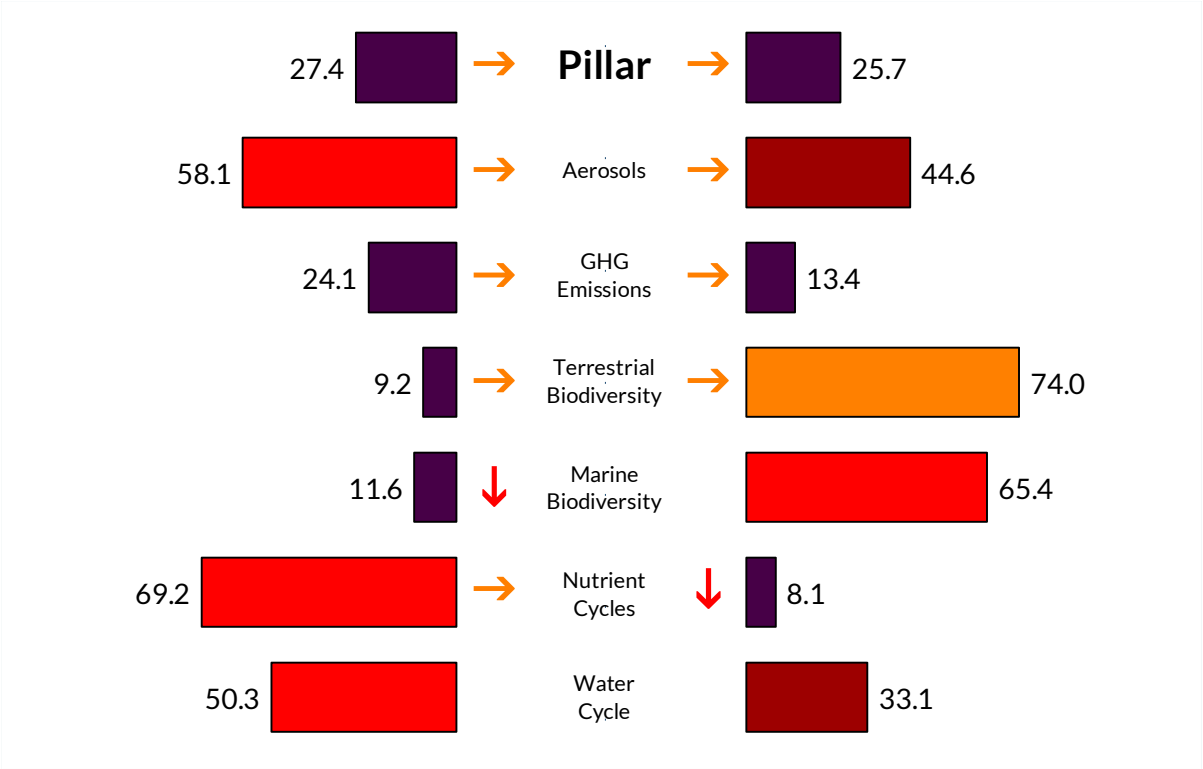
New Zealand

OECD

Population [millions]	5.1	**GDP** [$, billions]	216.0
Land area [km^2, thousands]	27,845.9	**GDP** per capita	42,484

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

New Zealand

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	12.67	kg/capita	77.5	→	63.07	Gg	2019
SO_2 emissions – Spillover	18.33	kg/capita	32.6	→	84.49	Gg	2015
NO_X emissions – Domestic	32.70	kg/capita	35.3	→	162.81	Gg	2019
NO_X emissions – Spillover	28.32	kg/capita	45.7	→	130.54	Gg	2015
Black Carbon emissions – Domestic	0.80	kg/capita	71.5	→	4.00	Gg	2019
Black Carbon emissions – Spillover	0.73	kg/capita	59.4	→	3.36	Gg	2015
GHG Emissions							
GHG emissions – Domestic	18.21	tonnes/capita	29.3	→	90.68	Tg	2019
GHG emissions – Spillover	7.19	tonnes/capita	13.4	→	33.13	Tg	2015
CO_2 emissions embodied in fossil fuel exports	123.90	kg/capita	19.7		629.95	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	53.56	%	49.5	→	53.56	%	2019
Unprotected freshwater sites	70.67	%	30.6	→	70.67	%	2019
Land-use biodiversity loss – Domestic	1.46E-10	global PDF/capita	1.0	→	6.73E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.66E-11	global PDF/capita	61.0	→	7.65E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	10.42	per M people	1.0		49.40	number	2018
Freshwater biodiversity threats – Spillover	0.09	per M people	89.9		0.42	number	2018
Permanent deforestation	1.54E-02	%	97.1	→	1,764.87	hectare	2020
Red List Index of species survival	0.62	scale 0–1	1.0	↓	0.62	scale 0–1	2019
Biodiversity Habitat Index	0.57	scale 0–1	38.8		0.57	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	55.89	%	45.7	→	55.89	%	2019
Marine biodiversity threats – Domestic	12.85	per M people	1.0		60.96	number	2018
Marine biodiversity threats – Spillover	0.38	per M people	65.4		1.82	number	2018
Fish stocks: overexploited or collapsed	60.40	%	14.3	↓	60.40	%	2018
Fish caught by trawling	44.27	%	27.6	↓	44.27	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.58	scale 0–1.4	56.1	→	0.58	scale 0–1.4	2015
Nitrogen surplus – Domestic	8.06	kg/capita	81.6	→	37.14	Gg	2015
Nitrogen surplus – Spillover	8.19	kg/capita	66.1	↓	37.76	Gg	2015
Phosphorus fertilizer – Domestic	39.90	g/capita	72.5	↓	306,000.00	kt	2019
Phosphorus fertilizer – Spillover	4,730.26	g/capita	1.0	→	21.80	kt	2015
Water Cycle							
Scarce water consumption – Domestic	7.10	m^3/capita	47.4	↓	32.73	B m^3	2015
Scarce water consumption – Spillover	25.65	m^3/capita	32.8	→	118.22	M m^3	2015
Water stress of crops – Domestic	322.36	m^3/capita	51.2	↗	1,485.86	M m^3	2015
Water stress of crops – Spillover	4,270.33	m^3/capita	33.4	↓	19,683.68	M m^3	2015
Feshwater withdrawal		% renew. H_20			9.88	% renew. H_20	

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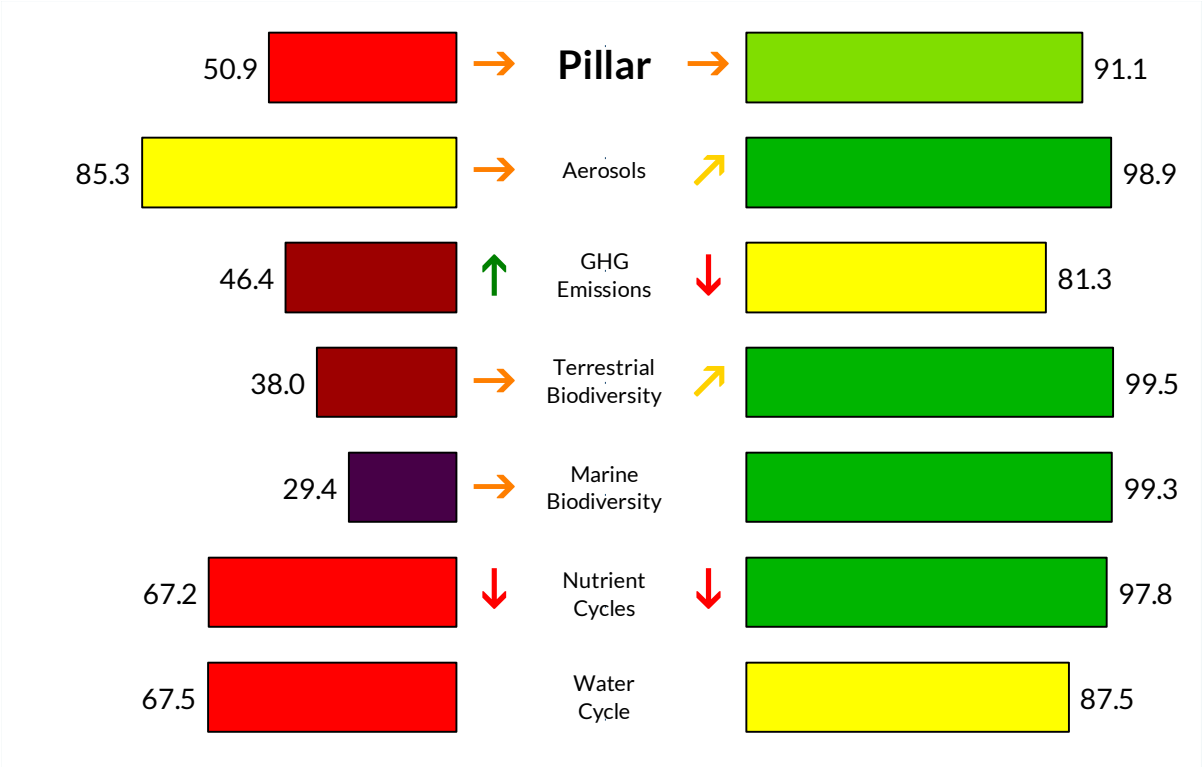
Nigeria

Africa

Population [millions]	206.1	**GDP** [$, billions]	1,010.0
Land area [km^2, thousands]	91,377.9	**GDP** per capita	4,900

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
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Trajectories based upon 5-year average annual growth rates.

Nigeria

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	0.52	kg/capita	100.0	↓	105.26	Gg	2019
SO_2 emissions – Spillover	0.58	kg/capita	98.8	↑	105.27	Gg	2015
NO_X emissions – Domestic	3.40	kg/capita	100.0	↑	682.34	Gg	2019
NO_X emissions – Spillover	0.77	kg/capita	99.3	↗	139.42	Gg	2015
Black Carbon emissions – Domestic	1.00	kg/capita	62.1	→	201.05	Gg	2019
Black Carbon emissions – Spillover	0.04	kg/capita	98.7	↓	6.51	Gg	2015
GHG Emissions							
GHG emissions – Domestic	2.00	tonnes/capita	100.0	↑	402.34	Tg	2019
GHG emissions – Spillover	0.24	tonnes/capita	81.3	↓	43.55	Tg	2015
CO_2 emissions embodied in fossil fuel exports	84.21	kg/capita	21.5		16,923.18	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	19.59	%	84.9	↓	19.59	%	2019
Unprotected freshwater sites	26.25	%	75.4	↓	26.25	%	2019
Land-use biodiversity loss – Domestic	3.17E-12	global PDF/capita	95.5	↗	5.74E-04	global PDF	2015
Land-use biodiversity loss – Spillover	5.86E-13	global PDF/capita	99.2	↗	1.06E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.31	per M people	94.3		60.83	number	2018
Freshwater biodiversity threats – Spillover	0.00	per M people	99.9		0.65	number	2018
Permanent deforestation	5.18E-01	%	1.0	↓	56,628.77	hectare	2020
Red List Index of species survival	0.87	scale 0–1	69.0	↓	0.87	scale 0–1	2019
Biodiversity Habitat Index	0.50	scale 0–1	28.9		0.50	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	100.00	%	1.0	↓	100.00	%	2019
Marine biodiversity threats – Domestic	0.11	per M people	98.6		21.53	number	2018
Marine biodiversity threats – Spillover	0.01	per M people	99.3		1.67	number	2018
Fish stocks: overexploited or collapsed	10.24	%	86.9	↑	10.24	%	2018
Fish caught by trawling	8.18	%	86.9	↓	8.18	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.84	scale 0–1.4	36.4	↓	0.84	scale 0–1.4	2015
Nitrogen surplus – Domestic	2.14	kg/capita	95.2	↓	387.49	Gg	2015
Nitrogen surplus – Spillover	0.23	kg/capita	99.5	↓	42.28	Gg	2015
Phosphorus fertilizer – Domestic	17.75	g/capita	87.8	↓	136,100.00	kt	2019
Phosphorus fertilizer – Spillover	94.01	g/capita	96.0	↓	17.03	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.38	m^3/capita	79.3	↗	68.96	B m^3	2015
Scarce water consumption – Spillover	0.93	m^3/capita	84.7	↓	168.99	M m^3	2015
Water stress of crops – Domestic	159.40	m^3/capita	59.7	↗	28,872.68	M m^3	2015
Water stress of crops – Spillover	207.60	m^3/capita	90.4	↓	37,604.12	M m^3	2015
Feshwater withdrawal		% renew. H_20			12.47	% renew. H_20	

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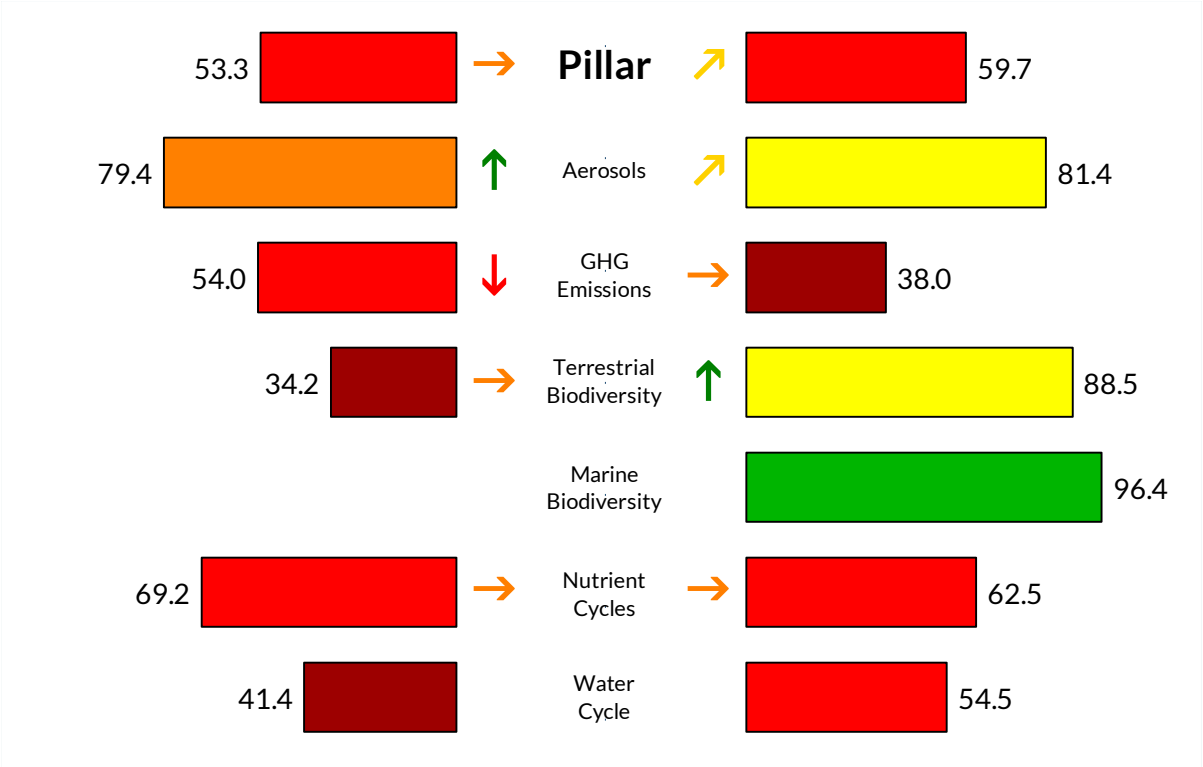
North Macedonia

Eastern Europe & Central Asia

Population [millions]	2.1	**GDP** [$, billions]	33.0
Land area [km^2, thousands]	2,494.2	**GDP** per capita	15,848

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

North Macedonia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	21.36	kg/capita	61.3	↑	44.50	Gg	2019
SO_2 emissions – Spillover	6.06	kg/capita	78.3	↑	12.61	Gg	2015
NO_X emissions – Domestic	11.09	kg/capita	85.7	↑	23.10	Gg	2019
NO_X emissions – Spillover	9.73	kg/capita	81.9	→	20.23	Gg	2015
Black Carbon emissions – Domestic	0.30	kg/capita	95.4	↑	0.62	Gg	2019
Black Carbon emissions – Spillover	0.30	kg/capita	84.0	→	0.62	Gg	2015
GHG Emissions							
GHG emissions – Domestic	5.21	tonnes/capita	69.4	↓	10.86	Tg	2019
GHG emissions – Spillover	2.10	tonnes/capita	38.0	→	4.36	Tg	2015
CO_2 emissions embodied in fossil fuel exports	1.11	kg/capita	42.0		2.30	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	74.00	%	28.1	↓	74.00	%	2019
Unprotected freshwater sites	6.36	%	95.4	↓	6.36	%	2019
Land-use biodiversity loss – Domestic	5.54E-12	global PDF/capita	92.0	→	1.15E-05	global PDF	2015
Land-use biodiversity loss – Spillover	2.31E-12	global PDF/capita	95.1	↑	4.80E-06	global PDF	2015
Freshwater biodiversity threats – Domestic	20.05	per M people	1.0		41.77	number	2018
Freshwater biodiversity threats – Spillover	0.15	per M people	82.4		0.32	number	2018
Permanent deforestation	0.00E+00	%	100.0		0.00	hectare	2020
Red List Index of species survival	0.97	scale 0–1	95.5	↗	0.97	scale 0–1	2019
Biodiversity Habitat Index	0.46	scale 0–1	23.1		0.46	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.04	per M people	96.4		0.08	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.75	scale 0–1.4	43.4	→	0.75	scale 0–1.4	2015
Nitrogen surplus – Domestic	10.21	kg/capita	76.7	↓	21.23	Gg	2015
Nitrogen surplus – Spillover	3.26	kg/capita	86.8	→	6.77	Gg	2015
Phosphorus fertilizer – Domestic	0.59	g/capita	99.6	↗	4,512.67	kt	2019
Phosphorus fertilizer – Spillover	1,308.35	g/capita	44.9	→	2.72	kt	2015
Water Cycle							
Scarce water consumption – Domestic	9.56	m^3/capita	44.1	↓	19.89	B m^3	2015
Scarce water consumption – Spillover	10.11	m^3/capita	47.3	→	21.02	M m^3	2015
Water stress of crops – Domestic	2,537.44	m^3/capita	26.3	→	5,276.19	M m^3	2015
Water stress of crops – Spillover	898.64	m^3/capita	62.8	↑	1,868.58	M m^3	2015
Feshwater withdrawal	12.67	% renew. H_20	61.2		0.52	% renew. H_20	2017

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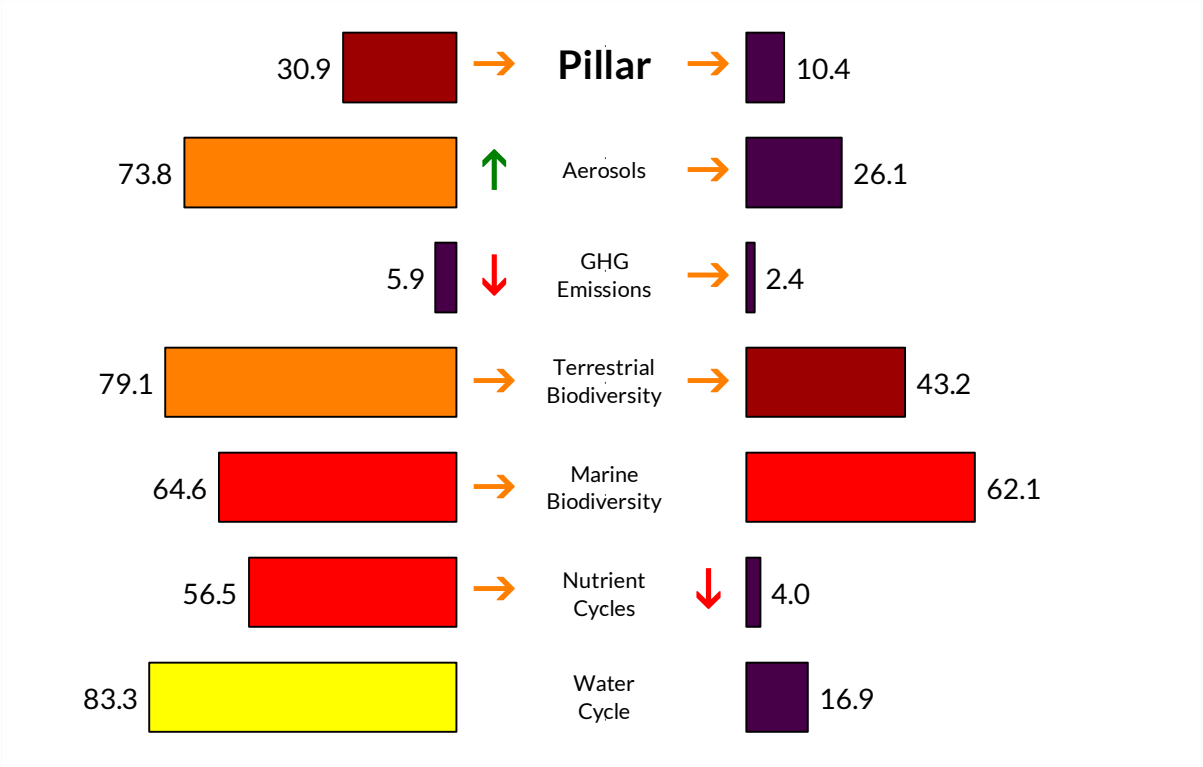
Norway

OECD

Population [millions]	5.4	**GDP** [$, billions]	342.0
Land area [km^2, thousands]	32,302.8	**GDP** per capita	63,575

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



Note: All results shown in proportional terms.

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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Norway

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	2.76	kg/capita	95.9	↑	14.76	Gg	2019
SO_2 emissions – Spillover	21.66	kg/capita	20.1	→	112.41	Gg	2015
NO_X emissions – Domestic	28.05	kg/capita	46.2	↑	150.01	Gg	2019
NO_X emissions – Spillover	35.09	kg/capita	32.5	→	182.08	Gg	2015
Black Carbon emissions – Domestic	0.39	kg/capita	90.9	↑	2.10	Gg	2019
Black Carbon emissions – Spillover	1.30	kg/capita	27.1	→	6.75	Gg	2015
GHG Emissions							
GHG emissions – Domestic	15.41	tonnes/capita	34.7	↓	82.42	Tg	2019
GHG emissions – Spillover	12.40	tonnes/capita	2.4	→	64.36	Tg	2015
CO_2 emissions embodied in fossil fuel exports	45,495.39	kg/capita	1.0		243,304.64	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	42.28	%	61.2	→	42.28	%	2019
Unprotected freshwater sites	35.87	%	65.7	→	35.87	%	2019
Land-use biodiversity loss – Domestic	1.46E-12	global PDF/capita	98.0	↗	7.57E-06	global PDF	2015
Land-use biodiversity loss – Spillover	2.82E-11	global PDF/capita	33.2	→	1.46E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.16	per M people	97.2		0.83	number	2018
Freshwater biodiversity threats – Spillover	0.38	per M people	56.3		2.01	number	2018
Permanent deforestation	1.19E-02	%	97.7	↓	1,555.67	hectare	2020
Red List Index of species survival	0.94	scale 0–1	86.6	↓	0.94	scale 0–1	2019
Biodiversity Habitat Index	0.71	scale 0–1	59.6		0.71	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	42.55	%	59.2	→	42.55	%	2019
Marine biodiversity threats – Domestic	0.97	per M people	86.6		5.20	number	2018
Marine biodiversity threats – Spillover	0.42	per M people	62.1		2.24	number	2018
Fish stocks: overexploited or collapsed	18.30	%	75.2	→	18.30	%	2018
Fish caught by trawling	33.64	%	45.1	→	33.64	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.84	scale 0–1.4	36.0	↓	0.84	scale 0–1.4	2015
Nitrogen surplus – Domestic	21.46	kg/capita	50.8	↓	111.33	Gg	2015
Nitrogen surplus – Spillover	20.16	kg/capita	15.8	↓	104.58	Gg	2015
Phosphorus fertilizer – Domestic	2.66	g/capita	98.2	↗	20,402.00	kt	2019
Phosphorus fertilizer – Spillover	8,236.39	g/capita	1.0	→	42.74	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.18	m^3/capita	87.6	↗	0.92	B m^3	2015
Scarce water consumption – Spillover	81.28	m^3/capita	14.7	→	421.71	M m^3	2015
Water stress of crops – Domestic	38.17	m^3/capita	77.0	↗	198.06	M m^3	2015
Water stress of crops – Spillover	8,974.74	m^3/capita	19.3	→	46,566.39	M m^3	2015
Feshwater withdrawal	2.30	% renew. H_20	85.8		3.03	% renew. H_20	2007

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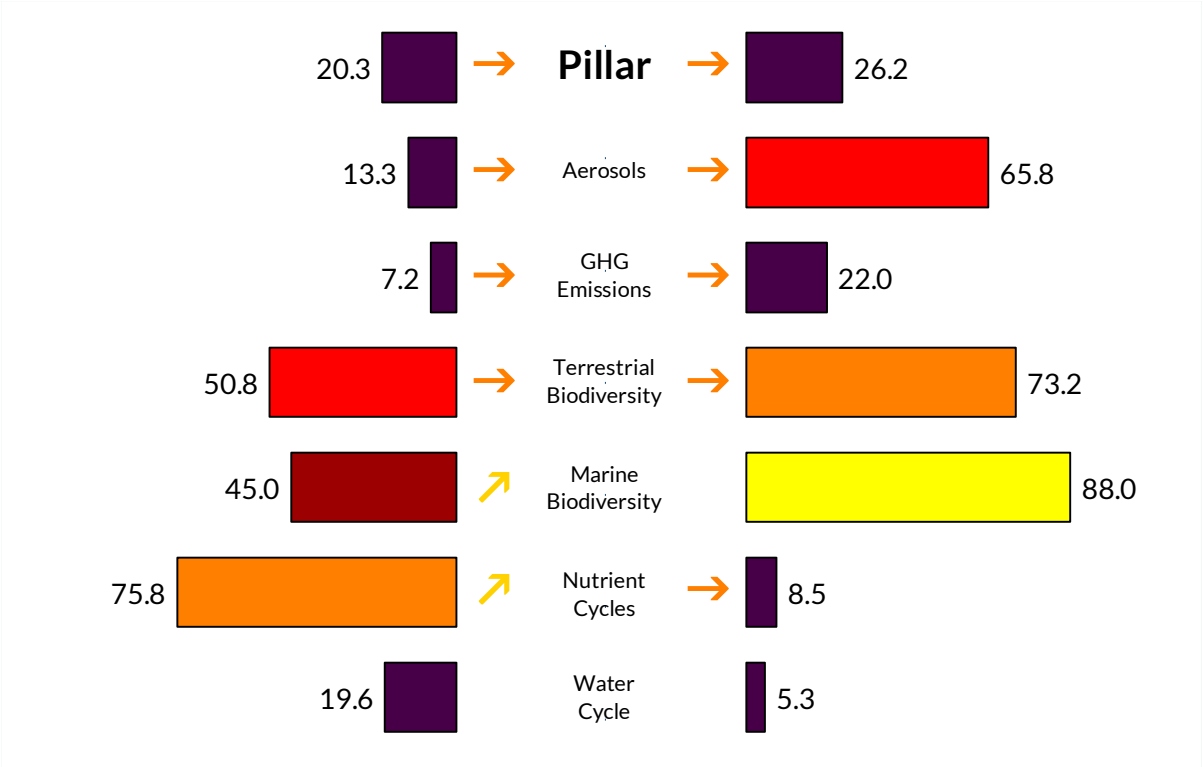
Oman

Middle East & North Africa

Population [millions]	5.1	**GDP** [$, billions]	135.0
Land area [km^2, thousands]	31,077.6	**GDP** per capita	26,436

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
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↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Oman

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	10.99	kg/capita	80.6	↓	54.66	Gg	2019
SO_2 emissions – Spillover	11.57	kg/capita	57.8	→	49.39	Gg	2015
NO_X emissions – Domestic	35.47	kg/capita	28.9	→	176.45	Gg	2019
NO_X emissions – Spillover	14.01	kg/capita	73.5	→	59.77	Gg	2015
Black Carbon emissions – Domestic	2.91	kg/capita	1.0	→	14.47	Gg	2019
Black Carbon emissions – Spillover	0.60	kg/capita	67.0	→	2.54	Gg	2015
GHG Emissions							
GHG emissions – Domestic	23.06	tonnes/capita	21.8	→	114.70	Tg	2019
GHG emissions – Spillover	4.66	tonnes/capita	22.0	→	19.88	Tg	2015
CO_2 emissions embodied in fossil fuel exports	4,896.09	kg/capita	2.4		23,645.57	Gg	2018
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	88.19	%	13.3	↓	88.19	%	2019
Unprotected freshwater sites		%				%	
Land-use biodiversity loss – Domestic	3.22E-13	global PDF/capita	99.6	↑	1.38E-06	global PDF	2015
Land-use biodiversity loss – Spillover	1.09E-11	global PDF/capita	74.5	→	4.66E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.39	per M people	92.8		1.88	number	2018
Freshwater biodiversity threats – Spillover	0.24	per M people	72.0		1.17	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.88	scale 0–1	71.8	↓	0.88	scale 0–1	2019
Biodiversity Habitat Index	0.77	scale 0–1	68.3		0.77	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	89.62	%	11.5	↓	89.62	%	2019
Marine biodiversity threats – Domestic	4.59	per M people	36.7		22.15	number	2018
Marine biodiversity threats – Spillover	0.13	per M people	88.0		0.64	number	2018
Fish stocks: overexploited or collapsed	3.33	%	96.9	↑	3.33	%	2018
Fish caught by trawling	0.00	%	100.0	↑	0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.74	scale 0–1.4	43.8	→	0.74	scale 0–1.4	2015
Nitrogen surplus – Domestic	0.05	kg/capita	100.0	↑	0.22	Gg	2015
Nitrogen surplus – Spillover	6.86	kg/capita	71.7	→	29.28	Gg	2015
Phosphorus fertilizer – Domestic	0.42	g/capita	99.7	↓	3,190.94	kt	2019
Phosphorus fertilizer – Spillover	2,558.04	g/capita	1.0	→	10.92	kt	2015
Water Cycle							
Scarce water consumption – Domestic	205.31	m^3/capita	10.7	→	876.15	B m^3	2015
Scarce water consumption – Spillover	230.49	m^3/capita	1.0	→	983.59	M m^3	2015
Water stress of crops – Domestic	1,964.26	m^3/capita	29.4	→	8,382.18	M m^3	2015
Water stress of crops – Spillover	5,558.92	m^3/capita	28.4	→	23,721.80	M m^3	2015
Feshwater withdrawal		% renew. H_20			1.63	% renew. H_20	

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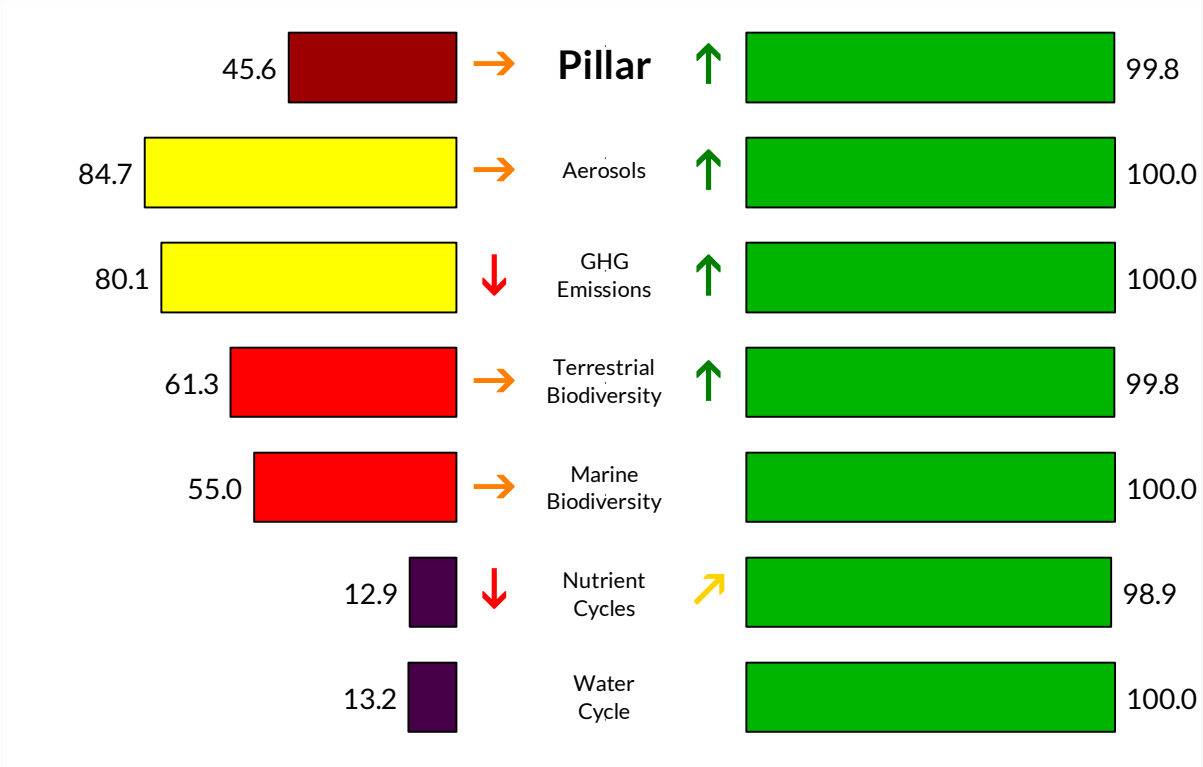
Pakistan

East & South Asia

Population [millions]	220.9	**GDP** [$, billions]	1,020.0
Land area [km^2, thousands]	87,713.2	**GDP** per capita	4,618

Overall impact on the Global Commons and trajectory: **High** ↗

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Pakistan

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	8.11	kg/capita	86.0	↓	1,756.77	Gg	2019
SO_2 emissions – Spillover	0.25	kg/capita	100.0	↑	50.40	Gg	2015
NO_X emissions – Domestic	6.80	kg/capita	95.7	↑	1,473.04	Gg	2019
NO_X emissions – Spillover	0.41	kg/capita	100.0	↑	82.07	Gg	2015
Black Carbon emissions – Domestic	0.75	kg/capita	73.8	→	163.27	Gg	2019
Black Carbon emissions – Spillover	0.01	kg/capita	100.0	↑	2.62	Gg	2015
GHG Emissions							
GHG emissions – Domestic	2.39	tonnes/capita	94.3	↓	517.96	Tg	2019
GHG emissions – Spillover	0.09	tonnes/capita	100.0	↑	18.82	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	68.1		0.95	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	65.21	%	37.3	↓	65.21	%	2019
Unprotected freshwater sites	64.10	%	37.2	↓	64.10	%	2019
Land-use biodiversity loss – Domestic	5.36E-13	global PDF/capita	99.3	↑	1.07E-04	global PDF	2015
Land-use biodiversity loss – Spillover	2.38E-13	global PDF/capita	100.0	↑	4.74E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.03	per M people	99.5		5.76	number	2018
Freshwater biodiversity threats – Spillover	0.01	per M people	99.6		1.16	number	2018
Permanent deforestation	8.57E-04	%	99.8	↓	5.55	hectare	2020
Red List Index of species survival	0.85	scale 0–1	63.6	↓	0.85	scale 0–1	2019
Biodiversity Habitat Index	0.56	scale 0–1	37.4		0.56	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	85.42	%	15.8	↓	85.42	%	2019
Marine biodiversity threats – Domestic	0.04	per M people	99.6		7.94	number	2018
Marine biodiversity threats – Spillover	0.00	per M people	100.0		0.06	number	2018
Fish stocks: overexploited or collapsed	30.11	%	58.1	→	30.11	%	2018
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.89	scale 0–1.4	32.8	→	0.89	scale 0–1.4	2015
Nitrogen surplus – Domestic	15.32	kg/capita	64.9	↓	3,054.45	Gg	2015
Nitrogen surplus – Spillover	0.12	kg/capita	100.0	↑	24.20	Gg	2015
Phosphorus fertilizer – Domestic	143.38	g/capita	1.0	↓	1,099,707.00	kt	2019
Phosphorus fertilizer – Spillover	51.33	g/capita	97.8	→	10.24	kt	2015
Water Cycle							
Scarce water consumption – Domestic	298.75	m^3/capita	6.6	→	59,577.94	B m^3	2015
Scarce water consumption – Spillover	0.35	m^3/capita	100.0	↑	70.09	M m^3	2015
Water stress of crops – Domestic	8,131.81	m^3/capita	12.2	→	1,621,701.22	M m^3	2015
Water stress of crops – Spillover	125.14	m^3/capita	100.0	↑	24,956.02	M m^3	2015
Feshwater withdrawal	122.69	% renew. H_20	28.5		200.00	% renew. H_20	2017

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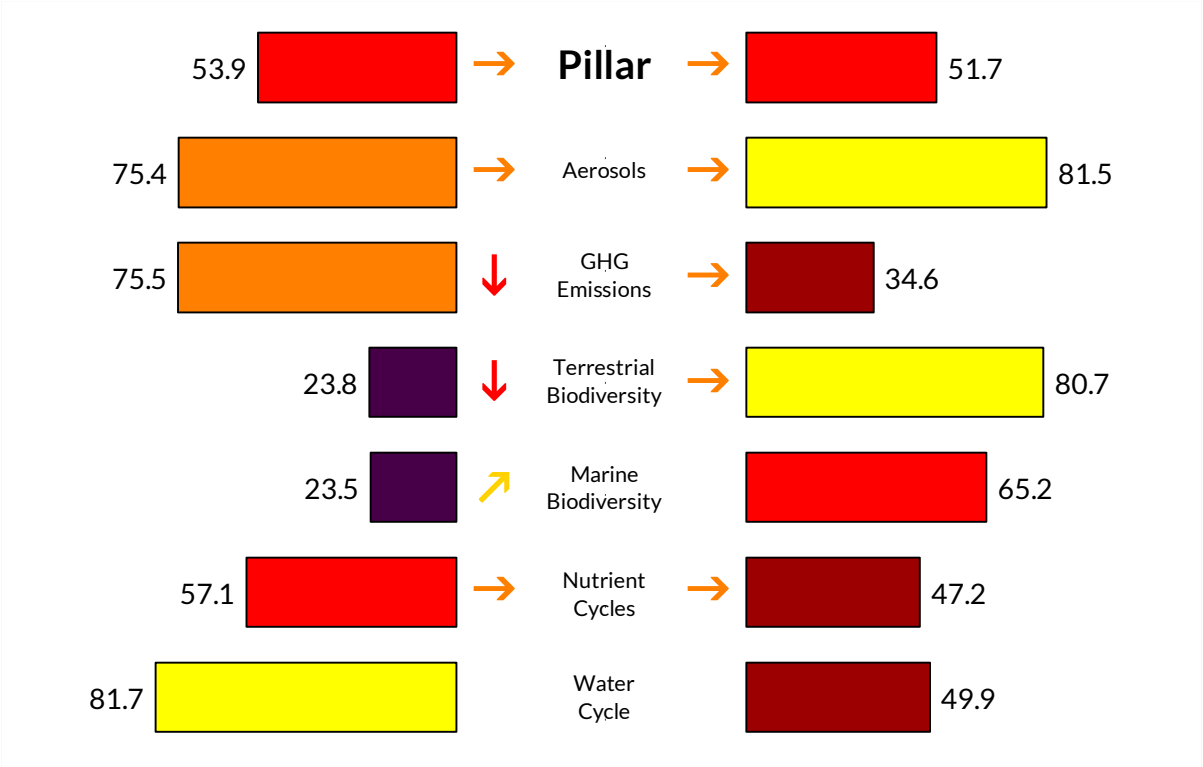
Panama

Latin America & the Caribbean

Population [millions]	4.3	**GDP** [$, billions]	110.0
Land area [km^2, thousands]	7,558.8	**GDP** per capita	25,494

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Panama

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	10.71	kg/capita	81.1	→	45.48	Gg	2019
SO_2 emissions – Spillover	5.67	kg/capita	79.8	→	22.50	Gg	2015
NO_X emissions – Domestic	15.00	kg/capita	76.6	↑	63.71	Gg	2019
NO_X emissions – Spillover	10.00	kg/capita	81.3	→	39.69	Gg	2015
Black Carbon emissions – Domestic	0.85	kg/capita	69.1	→	3.62	Gg	2019
Black Carbon emissions – Spillover	0.31	kg/capita	83.3	→	1.22	Gg	2015
GHG Emissions							
GHG emissions – Domestic	4.30	tonnes/capita	75.5	↓	18.25	Tg	2019
GHG emissions – Spillover	2.48	tonnes/capita	34.6	→	9.84	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	65.65	%	36.8	↓	65.65	%	2019
Unprotected freshwater sites	47.60	%	53.8	↓	47.60	%	2019
Land-use biodiversity loss – Domestic	1.42E-10	global PDF/capita	1.0	↓	5.65E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.17E-11	global PDF/capita	72.5	→	4.66E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	1.75	per M people	67.6		7.32	number	2018
Freshwater biodiversity threats – Spillover	0.09	per M people	89.8		0.38	number	2018
Permanent deforestation	2.72E-01	%	47.9	↓	15,103.49	hectare	2020
Red List Index of species survival	0.73	scale 0–1	30.5	↓	0.73	scale 0–1	2019
Biodiversity Habitat Index	0.46	scale 0–1	22.1		0.46	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	68.72	%	32.7	↓	68.72	%	2019
Marine biodiversity threats – Domestic	9.64	per M people	1.0		40.28	number	2018
Marine biodiversity threats – Spillover	0.38	per M people	65.2		1.61	number	2018
Fish stocks: overexploited or collapsed	6.11	%	92.9	↑	6.11	%	2018
Fish caught by trawling	0.29	%	99.8	↑	0.29	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.02	scale 0–1.4	22.2	↓	1.02	scale 0–1.4	2015
Nitrogen surplus – Domestic	6.84	kg/capita	84.4	↓	27.14	Gg	2015
Nitrogen surplus – Spillover	4.02	kg/capita	83.6	→	15.93	Gg	2015
Phosphorus fertilizer – Domestic	0.91	g/capita	99.4	↑	6,973.80	kt	2019
Phosphorus fertilizer – Spillover	1,743.54	g/capita	26.6	→	6.92	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.19	m^3/capita	87.0	↑	0.74	B m^3	2015
Scarce water consumption – Spillover	8.45	m^3/capita	50.2	→	33.55	M m^3	2015
Water stress of crops – Domestic	30.93	m^3/capita	79.5	↗	122.74	M m^3	2015
Water stress of crops – Spillover	1,803.24	m^3/capita	49.6	↓	7,156.15	M m^3	2015
Feshwater withdrawal		% renew. H_20			1.21	% renew. H_20	

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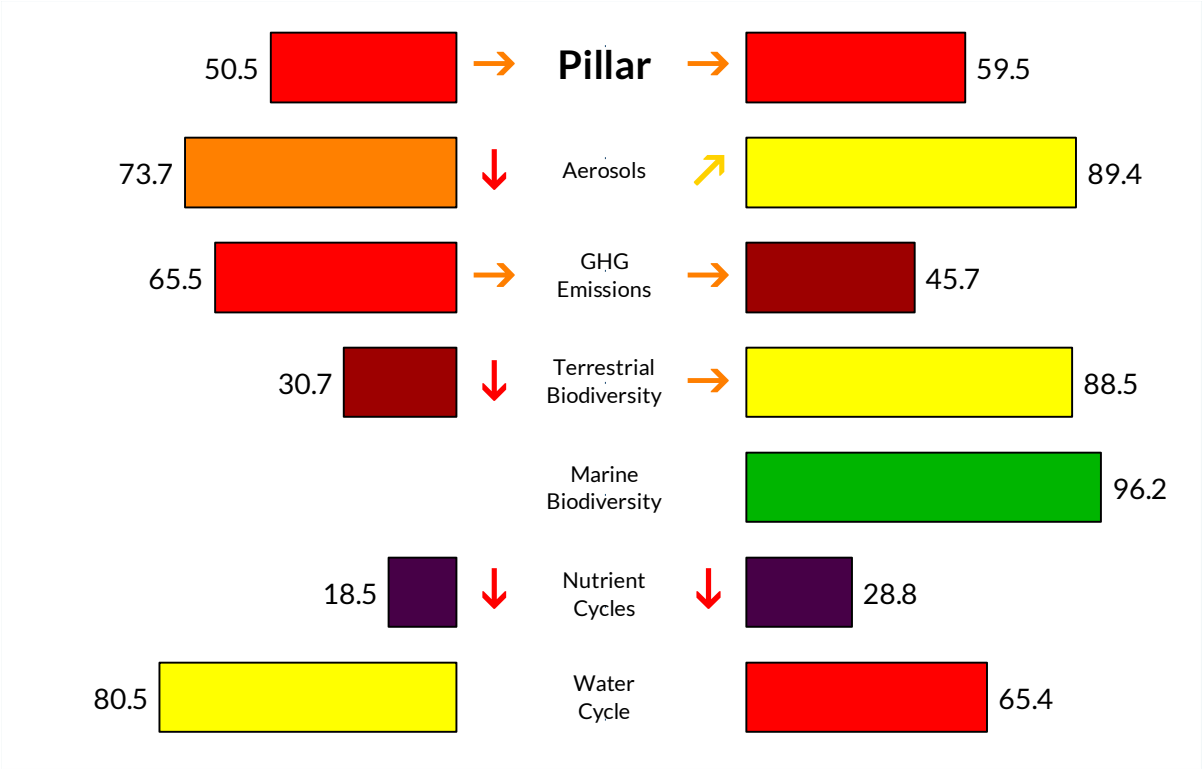
Paraguay

Latin America & the Caribbean

Population [millions]	7.1	**GDP** [$, billions]	88.0
Land area [km^2, thousands]	40,143.8	**GDP** per capita	12,335

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Paraguay

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.39	kg/capita	98.5	↓	9.76	Gg	2019
SO_2 emissions – Spillover	2.79	kg/capita	90.5	↑	18.68	Gg	2015
NO_X emissions – Domestic	12.34	kg/capita	82.8	↓	86.93	Gg	2019
NO_X emissions – Spillover	6.30	kg/capita	88.5	→	42.11	Gg	2015
Black Carbon emissions – Domestic	1.27	kg/capita	49.1	↓	8.98	Gg	2019
Black Carbon emissions – Spillover	0.20	kg/capita	89.3	→	1.35	Gg	2015
GHG Emissions							
GHG emissions – Domestic	5.87	tonnes/capita	65.5	→	41.38	Tg	2019
GHG emissions – Spillover	1.42	tonnes/capita	45.7	→	9.53	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	63.75	%	38.8	↓	63.75	%	2019
Unprotected freshwater sites	61.18	%	40.1	↓	61.18	%	2019
Land-use biodiversity loss – Domestic	4.08E-11	global PDF/capita	40.8	→	2.73E-04	global PDF	2015
Land-use biodiversity loss – Spillover	9.10E-12	global PDF/capita	78.8	→	6.09E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.29	per M people	94.6		2.05	number	2018
Freshwater biodiversity threats – Spillover	0.01	per M people	99.3		0.06	number	2018
Permanent deforestation	1.20E+00	%	1.0	→	246,198.23	hectare	2020
Red List Index of species survival	0.95	scale 0–1	89.0	↓	0.95	scale 0–1	2019
Biodiversity Habitat Index	0.63	scale 0–1	48.0		0.63	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.04	per M people	96.2		0.29	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.29	scale 0–1.4	78.7	→	0.29	scale 0–1.4	2015
Nitrogen surplus – Domestic	43.16	kg/capita	1.0	↓	288.67	Gg	2015
Nitrogen surplus – Spillover	5.16	kg/capita	78.8	↓	34.53	Gg	2015
Phosphorus fertilizer – Domestic	28.06	g/capita	80.6	↓	215,177.87	kt	2019
Phosphorus fertilizer – Spillover	2,126.60	g/capita	10.5	→	14.22	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.29	m^3/capita	82.2	↗	1.95	B m^3	2015
Scarce water consumption – Spillover	3.35	m^3/capita	64.7	↗	22.39	M m^3	2015
Water stress of crops – Domestic	60.89	m^3/capita	71.3	↗	407.29	M m^3	2015
Water stress of crops – Spillover	755.88	m^3/capita	66.0	↑	5,055.92	M m^3	2015
Feshwater withdrawal	1.83	% renew. H_20	89.1		2.41	% renew. H_20	2012

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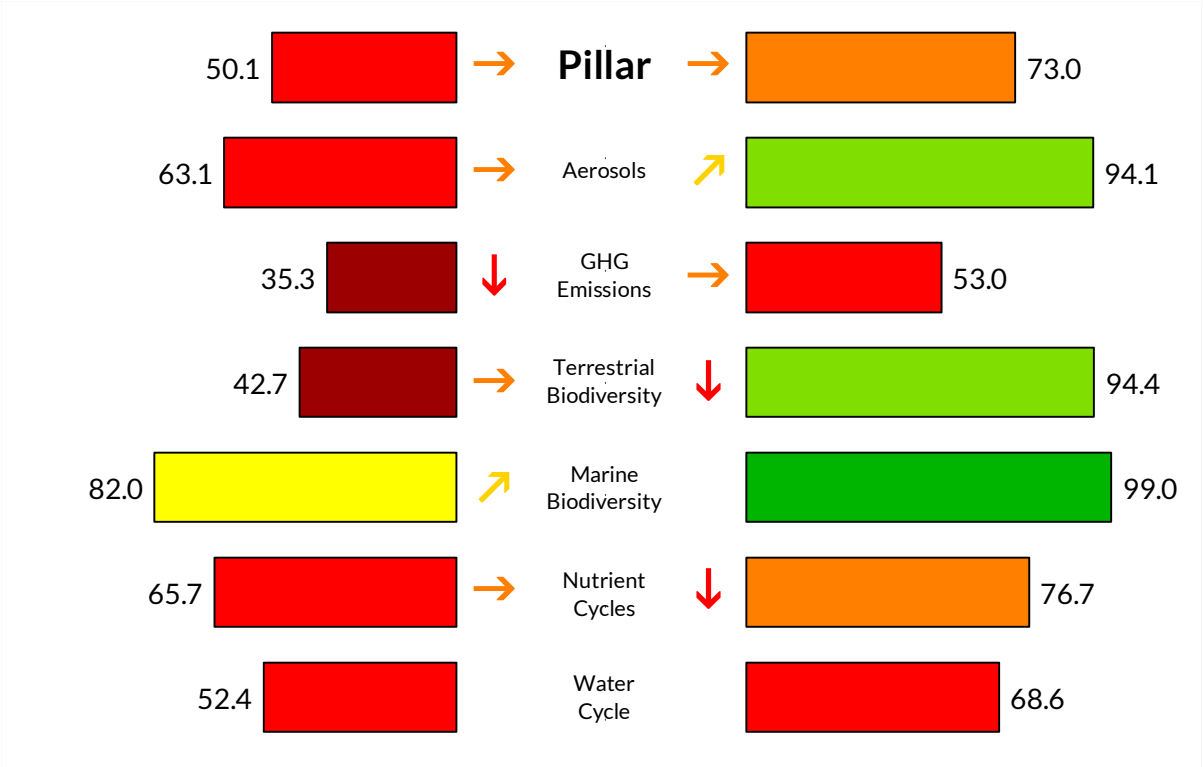
Peru

Latin America & the Caribbean

Population [millions]	33.0	**GDP** [$, billions]	371.0
Land area [km^2, thousands]	130,080.4	**GDP** per capita	11,252

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
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Arrow	Meaning
↑	Projected to meet 2050 Threshold
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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Peru

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	35.76	kg/capita	34.5	→	1,162.68	Gg	2019
SO_2 emissions – Spillover	2.07	kg/capita	93.2	↑	63.22	Gg	2015
NO_X emissions – Domestic	9.65	kg/capita	89.0	↓	313.84	Gg	2019
NO_X emissions – Spillover	3.24	kg/capita	94.5	↗	98.79	Gg	2015
Black Carbon emissions – Domestic	0.59	kg/capita	81.6	↗	19.16	Gg	2019
Black Carbon emissions – Spillover	0.11	kg/capita	94.5	→	3.37	Gg	2015
GHG Emissions							
GHG emissions – Domestic	3.15	tonnes/capita	85.5	↓	102.40	Tg	2019
GHG emissions – Spillover	0.99	tonnes/capita	53.0	→	30.15	Tg	2015
CO_2 emissions embodied in fossil fuel exports	367.67	kg/capita	14.6		11,953.22	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	70.91	%	31.4	→	70.91	%	2019
Unprotected freshwater sites	51.52	%	49.9	→	51.52	%	2019
Land-use biodiversity loss – Domestic	3.76E-11	global PDF/capita	45.3	→	1.15E-03	global PDF	2015
Land-use biodiversity loss – Spillover	2.94E-12	global PDF/capita	93.5	↓	8.97E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	2.71	per M people	50.0		86.61	number	2018
Freshwater biodiversity threats – Spillover	0.04	per M people	95.2		1.38	number	2018
Permanent deforestation	1.84E-01	%	64.7	↓	145,299.01	hectare	2020
Red List Index of species survival	0.72	scale 0–1	28.3	↓	0.72	scale 0–1	2019
Biodiversity Habitat Index	0.58	scale 0–1	40.2		0.58	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	48.36	%	53.4	↓	48.36	%	2019
Marine biodiversity threats – Domestic	1.01	per M people	86.1		32.35	number	2018
Marine biodiversity threats – Spillover	0.01	per M people	99.0		0.35	number	2018
Fish stocks: overexploited or collapsed	1.19	%	100.0	↑	1.19	%	2018
Fish caught by trawling	1.27	%	98.2	↑	1.27	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.83	scale 0–1.4	37.2	→	0.83	scale 0–1.4	2015
Nitrogen surplus – Domestic	7.56	kg/capita	82.8	↓	230.36	Gg	2015
Nitrogen surplus – Spillover	2.14	kg/capita	91.5	↓	65.27	Gg	2015
Phosphorus fertilizer – Domestic	11.47	g/capita	92.1	↗	87,974.94	kt	2019
Phosphorus fertilizer – Spillover	847.13	g/capita	64.4	↓	25.81	kt	2015
Water Cycle							
Scarce water consumption – Domestic	1.63	m^3/capita	63.4	↓	49.70	B m^3	2015
Scarce water consumption – Spillover	2.90	m^3/capita	66.9	→	88.28	M m^3	2015
Water stress of crops – Domestic	2,062.96	m^3/capita	28.8	→	62,859.95	M m^3	2015
Water stress of crops – Spillover	603.39	m^3/capita	70.3	↓	18,385.71	M m^3	2015
Feshwater withdrawal		% renew. H_20			16.10	% renew. H_20	

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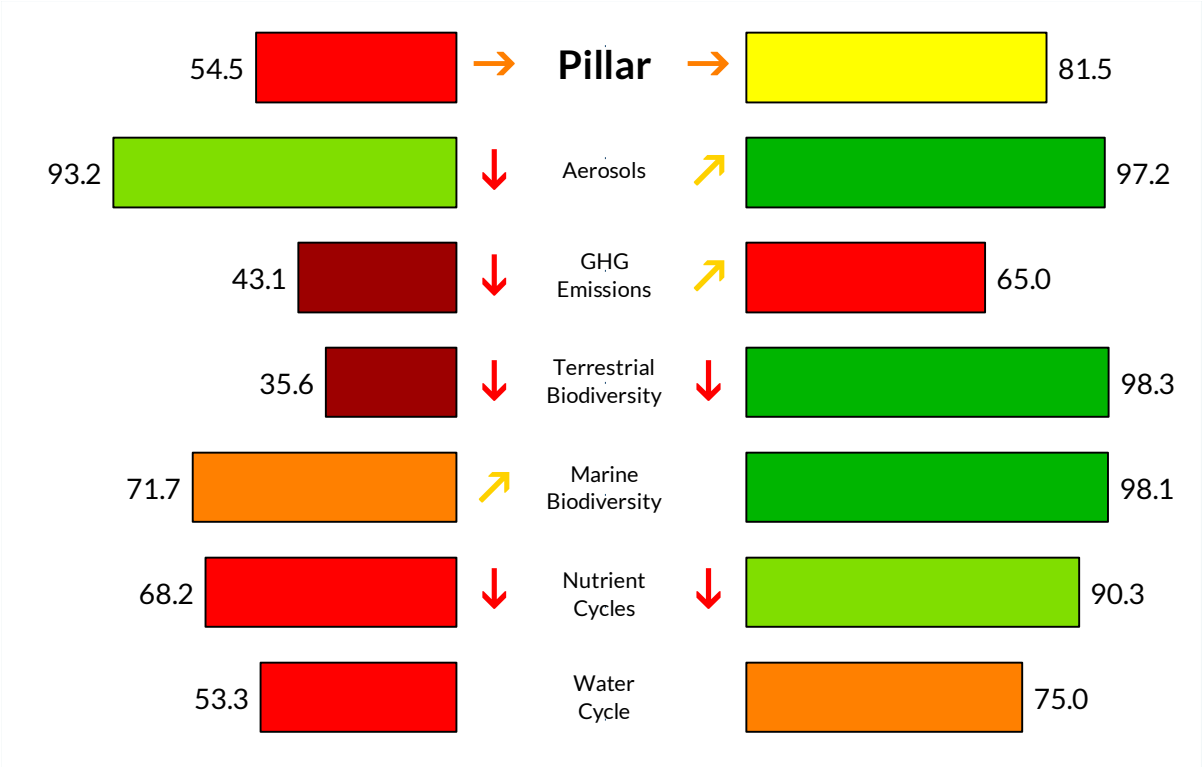
Philippines

East & South Asia

Population [millions]	109.6	**GDP** [$, billions]	872.0
Land area [km^2, thousands]	29,767.2	**GDP** per capita	7,958

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Philippines

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	5.05	kg/capita	91.7	↓	545.62	Gg	2019
SO_2 emissions – Spillover	1.11	kg/capita	96.8	↑	112.91	Gg	2015
NO_X emissions – Domestic	6.19	kg/capita	97.1	↓	669.62	Gg	2019
NO_X emissions – Spillover	1.69	kg/capita	97.5	↗	172.27	Gg	2015
Black Carbon emissions – Domestic	0.39	kg/capita	90.8	↓	42.68	Gg	2019
Black Carbon emissions – Spillover	0.06	kg/capita	97.4	↗	6.11	Gg	2015
GHG Emissions							
GHG emissions – Domestic	2.31	tonnes/capita	95.4	↓	249.34	Tg	2019
GHG emissions – Spillover	0.54	tonnes/capita	65.0	↗	55.62	Tg	2015
CO_2 emissions embodied in fossil fuel exports	130.73	kg/capita	19.5		14,134.35	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	59.87	%	42.9	↓	59.87	%	2019
Unprotected freshwater sites	50.16	%	51.3	↓	50.16	%	2019
Land-use biodiversity loss – Domestic	2.91E-11	global PDF/capita	57.7	→	2.98E-03	global PDF	2015
Land-use biodiversity loss – Spillover	1.31E-12	global PDF/capita	97.4	↓	1.34E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.21	per M people	96.2		22.43	number	2018
Freshwater biodiversity threats – Spillover	0.01	per M people	99.2		0.95	number	2018
Permanent deforestation	3.09E-01	%	40.9	↓	56,823.26	hectare	2020
Red List Index of species survival	0.64	scale 0–1	5.6	↓	0.64	scale 0–1	2019
Biodiversity Habitat Index	0.48	scale 0–1	26.0		0.48	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	62.00	%	39.5	↓	62.00	%	2019
Marine biodiversity threats – Domestic	1.14	per M people	84.4		121.38	number	2018
Marine biodiversity threats – Spillover	0.02	per M people	98.1		2.25	number	2018
Fish stocks: overexploited or collapsed	12.53	%	83.6	↑	12.53	%	2018
Fish caught by trawling	3.40	%	94.7	↗	3.40	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.77	scale 0–1.4	41.6	↓	0.77	scale 0–1.4	2015
Nitrogen surplus – Domestic	4.03	kg/capita	90.9	↓	411.79	Gg	2015
Nitrogen surplus – Spillover	0.74	kg/capita	97.4	↓	76.00	Gg	2015
Phosphorus fertilizer – Domestic	23.03	g/capita	84.1	↓	176,653.89	kt	2019
Phosphorus fertilizer – Spillover	388.29	g/capita	83.7	→	39.65	kt	2015
Water Cycle							
Scarce water consumption – Domestic	6.95	m^3/capita	47.6	↓	709.18	B m^3	2015
Scarce water consumption – Spillover	2.86	m^3/capita	67.1	↗	291.93	M m^3	2015
Water stress of crops – Domestic	111.64	m^3/capita	64.0	↗	11,400.10	M m^3	2015
Water stress of crops – Spillover	295.78	m^3/capita	83.8	↗	30,202.82	M m^3	2015
Feshwater withdrawal	28.36	% renew. H_20	49.6		92.75	% renew. H_20	2017

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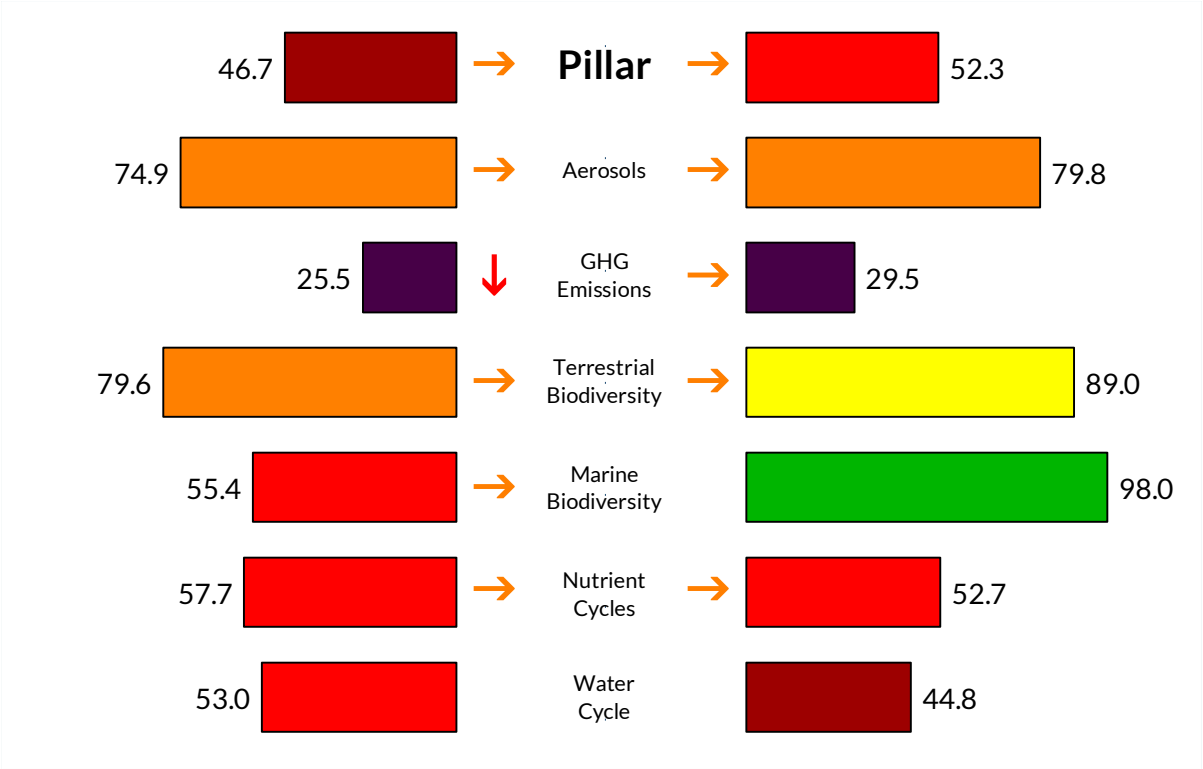
Poland

OECD

Population [millions]	38.0	**GDP** [$, billions]	1,220.0
Land area [km^2, thousands]	31,164.4	**GDP** per capita	32,147

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Poland

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	11.53	kg/capita	79.6	↑	437.66	Gg	2019
SO_2 emissions – Spillover	6.57	kg/capita	76.4	→	249.48	Gg	2015
NO_X emissions – Domestic	17.70	kg/capita	70.3	→	672.06	Gg	2019
NO_X emissions – Spillover	10.12	kg/capita	81.1	→	384.37	Gg	2015
Black Carbon emissions – Domestic	0.73	kg/capita	75.2	→	27.54	Gg	2019
Black Carbon emissions – Spillover	0.33	kg/capita	82.1	→	12.52	Gg	2015
GHG Emissions							
GHG emissions – Domestic	11.39	tonnes/capita	44.4	↓	432.37	Tg	2019
GHG emissions – Spillover	3.21	tonnes/capita	29.5	→	122.07	Tg	2015
CO_2 emissions embodied in fossil fuel exports	361.64	kg/capita	14.7		13,729.92	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	12.65	%	92.1	↗	12.65	%	2019
Unprotected freshwater sites	8.84	%	92.9	↓	8.84	%	2019
Land-use biodiversity loss – Domestic	3.39E-12	global PDF/capita	95.2	→	1.29E-04	global PDF	2015
Land-use biodiversity loss – Spillover	5.42E-12	global PDF/capita	87.6	→	2.06E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.06	per M people	98.9		2.29	number	2018
Freshwater biodiversity threats – Spillover	0.09	per M people	90.3		3.23	number	2018
Permanent deforestation	5.11E-03	%	99.0	↓	543.58	hectare	2020
Red List Index of species survival	0.97	scale 0–1	95.5	↑	0.97	scale 0–1	2019
Biodiversity Habitat Index	0.49	scale 0–1	26.6		0.49	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	10.49	%	91.7	↗	10.49	%	2019
Marine biodiversity threats – Domestic	0.01	per M people	100.0		0.20	number	2018
Marine biodiversity threats – Spillover	0.02	per M people	98.0		0.84	number	2018
Fish stocks: overexploited or collapsed	50.99	%	27.9	→	50.99	%	2018
Fish caught by trawling	38.75	%	36.7	↓	38.75	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.61	scale 0–1.4	54.2	→	0.61	scale 0–1.4	2015
Nitrogen surplus – Domestic	21.18	kg/capita	51.5	→	804.48	Gg	2015
Nitrogen surplus – Spillover	4.11	kg/capita	83.2	↓	156.28	Gg	2015
Phosphorus fertilizer – Domestic	45.10	g/capita	68.9	↓	345,899.00	kt	2019
Phosphorus fertilizer – Spillover	1,582.44	g/capita	33.4	→	60.11	kt	2015
Water Cycle							
Scarce water consumption – Domestic	5.23	m^3/capita	50.7	→	198.74	B m^3	2015
Scarce water consumption – Spillover	14.50	m^3/capita	41.7	→	550.86	M m^3	2015
Water stress of crops – Domestic	123.10	m^3/capita	62.8	↗	4,676.19	M m^3	2015
Water stress of crops – Spillover	1,960.79	m^3/capita	48.1	→	74,483.23	M m^3	2015
Feshwater withdrawal	34.89	% renew. H_20	46.6		10.08	% renew. H_20	2017

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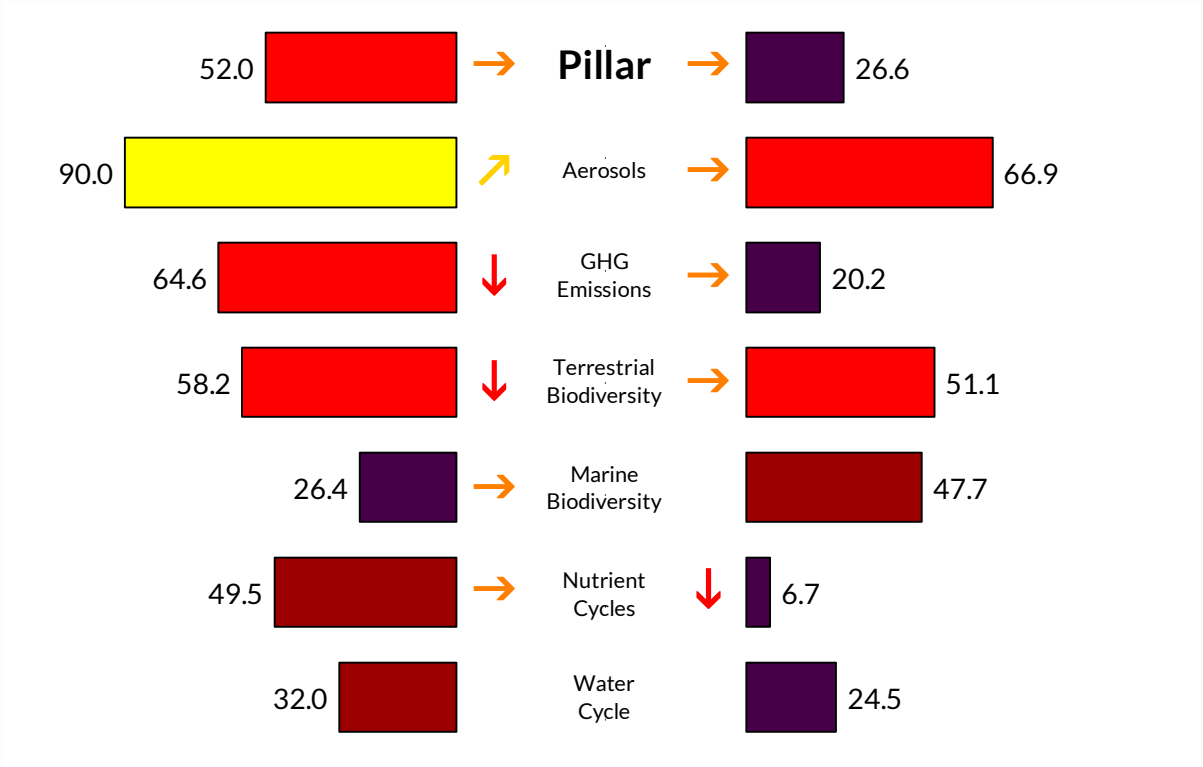
Portugal

OECD

Population [millions]	10.3	**GDP** [$, billions]	332.0
Land area [km^2, thousands]	9,232.2	**GDP** per capita	32,216

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Portugal

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	4.02	kg/capita	93.6	↗	41.38	Gg	2019
SO_2 emissions – Spillover	10.35	kg/capita	62.4	→	107.17	Gg	2015
NO_X emissions – Domestic	13.01	kg/capita	81.2	↑	133.85	Gg	2019
NO_X emissions – Spillover	18.01	kg/capita	65.7	→	186.54	Gg	2015
Black Carbon emissions – Domestic	0.29	kg/capita	95.9	↑	2.96	Gg	2019
Black Carbon emissions – Spillover	0.49	kg/capita	73.1	→	5.06	Gg	2015
GHG Emissions							
GHG emissions – Domestic	9.11	tonnes/capita	51.5	↓	93.73	Tg	2019
GHG emissions – Spillover	5.10	tonnes/capita	20.2	→	52.87	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	81.1		0.00	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	26.73	%	77.5	→	26.73	%	2019
Unprotected freshwater sites	36.01	%	65.5	↓	36.01	%	2019
Land-use biodiversity loss – Domestic	1.84E-11	global PDF/capita	73.3	↓	1.91E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.55E-11	global PDF/capita	63.7	→	1.60E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.72	per M people	86.8		7.36	number	2018
Freshwater biodiversity threats – Spillover	0.51	per M people	41.0		5.21	number	2018
Permanent deforestation	2.33E-02	%	95.6	↓	504.84	hectare	2020
Red List Index of species survival	0.85	scale 0–1	63.4	↓	0.85	scale 0–1	2019
Biodiversity Habitat Index	0.39	scale 0–1	11.6		0.39	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	34.46	%	67.4	→	34.46	%	2019
Marine biodiversity threats – Domestic	1.43	per M people	80.4		14.62	number	2018
Marine biodiversity threats – Spillover	0.58	per M people	47.7		5.93	number	2018
Fish stocks: overexploited or collapsed	68.92	%	2.0	↓	68.92	%	2018
Fish caught by trawling	33.15	%	45.9	↓	33.15	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.07	scale 0–1.4	19.1	→	1.07	scale 0–1.4	2015
Nitrogen surplus – Domestic	15.05	kg/capita	65.6	↓	155.87	Gg	2015
Nitrogen surplus – Spillover	13.24	kg/capita	44.9	↓	137.12	Gg	2015
Phosphorus fertilizer – Domestic	4.70	g/capita	96.8	↗	36,022.97	kt	2019
Phosphorus fertilizer – Spillover	5,350.44	g/capita	1.0	↓	55.42	kt	2015
Water Cycle							
Scarce water consumption – Domestic	20.25	m^3/capita	36.0	→	209.70	B m^3	2015
Scarce water consumption – Spillover	52.70	m^3/capita	21.5	→	545.91	M m^3	2015
Water stress of crops – Domestic	5,773.63	m^3/capita	16.4	→	59,803.73	M m^3	2015
Water stress of crops – Spillover	5,682.25	m^3/capita	28.0	→	58,857.15	M m^3	2015
Feshwater withdrawal	18.38	% renew. H_20	55.8		9.15	% renew. H_20	2007

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Qatar

Middle East & North Africa

Population [millions]	2.9	**GDP** [$, billions]	246.0
Land area [km^2, thousands]	1,127.6	**GDP** per capita	85,385

Overall impact on the Global Commons and trajectory: **Extreme** →

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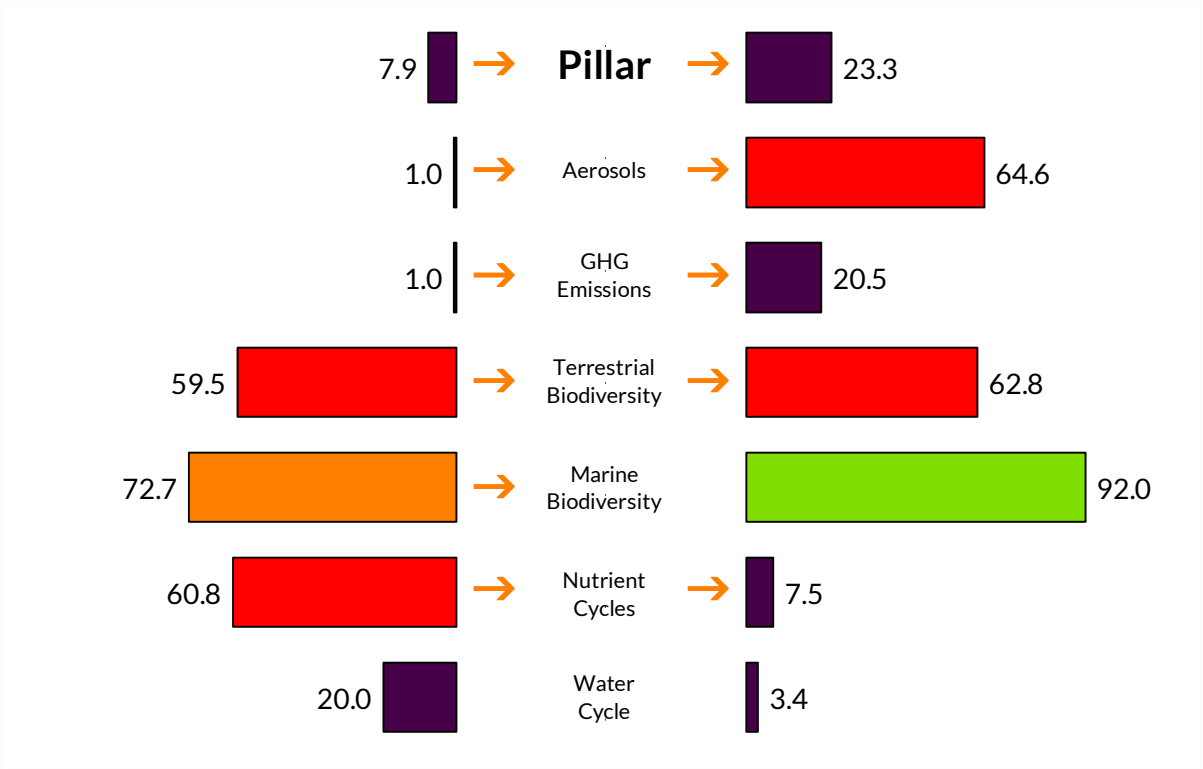

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Trajectories based upon 5-year average annual growth rates.

Qatar

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	57.16	kg/capita	1.0	→	161.89	Gg	2019
SO_2 emissions – Spillover	11.09	kg/capita	59.6	→	28.44	Gg	2015
NO_X emissions – Domestic	70.14	kg/capita	1.0	→	198.64	Gg	2019
NO_X emissions – Spillover	14.45	kg/capita	72.7	→	37.07	Gg	2015
Black Carbon emissions – Domestic	3.81	kg/capita	1.0	→	10.80	Gg	2019
Black Carbon emissions – Spillover	0.68	kg/capita	62.3	→	1.74	Gg	2015
GHG Emissions							
GHG emissions – Domestic	69.25	tonnes/capita	1.0	→	196.12	Tg	2019
GHG emissions – Spillover	5.02	tonnes/capita	20.5	→	12.88	Tg	2015
CO_2 emissions embodied in fossil fuel exports	101,832.49	kg/capita	1.0		288,396.84	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	60.03	%	42.7	↓	60.03	%	2019
Unprotected freshwater sites		%				%	
Land-use biodiversity loss – Domestic	6.36E-14	global PDF/capita	100.0	↑	1.63E-07	global PDF	2015
Land-use biodiversity loss – Spillover	2.31E-11	global PDF/capita	45.3	→	5.94E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.00	per M people	100.0		0.01	number	2018
Freshwater biodiversity threats – Spillover	0.11	per M people	87.1		0.31	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.82	scale 0–1	54.7	↓	0.82	scale 0–1	2019
Biodiversity Habitat Index	0.76	scale 0–1	67.1		0.76	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	60.03	%	41.5	↓	60.03	%	2019
Marine biodiversity threats – Domestic	0.56	per M people	92.3		1.56	number	2018
Marine biodiversity threats – Spillover	0.09	per M people	92.0		0.25	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.02	scale 0–1.4	22.6	↓	1.02	scale 0–1.4	2015
Nitrogen surplus – Domestic	0.25	kg/capita	99.5	↑	0.65	Gg	2015
Nitrogen surplus – Spillover	10.37	kg/capita	56.9	→	26.61	Gg	2015
Phosphorus fertilizer – Domestic	0.10	g/capita	99.9	↓	800.00	kt	2019
Phosphorus fertilizer – Spillover	4,001.72	g/capita	1.0	→	10.27	kt	2015
Water Cycle							
Scarce water consumption – Domestic	97.49	m^3/capita	18.8	→	250.13	B m^3	2015
Scarce water consumption – Spillover	282.46	m^3/capita	1.0	→	724.71	M m^3	2015
Water stress of crops – Domestic	1,487.70	m^3/capita	32.7	→	3,817.01	M m^3	2015
Water stress of crops – Spillover	13,673.53	m^3/capita	11.4	→	35,082.28	M m^3	2015
Feshwater withdrawal	360.34	% renew. H_20	12.9		0.25	% renew. H_20	2007

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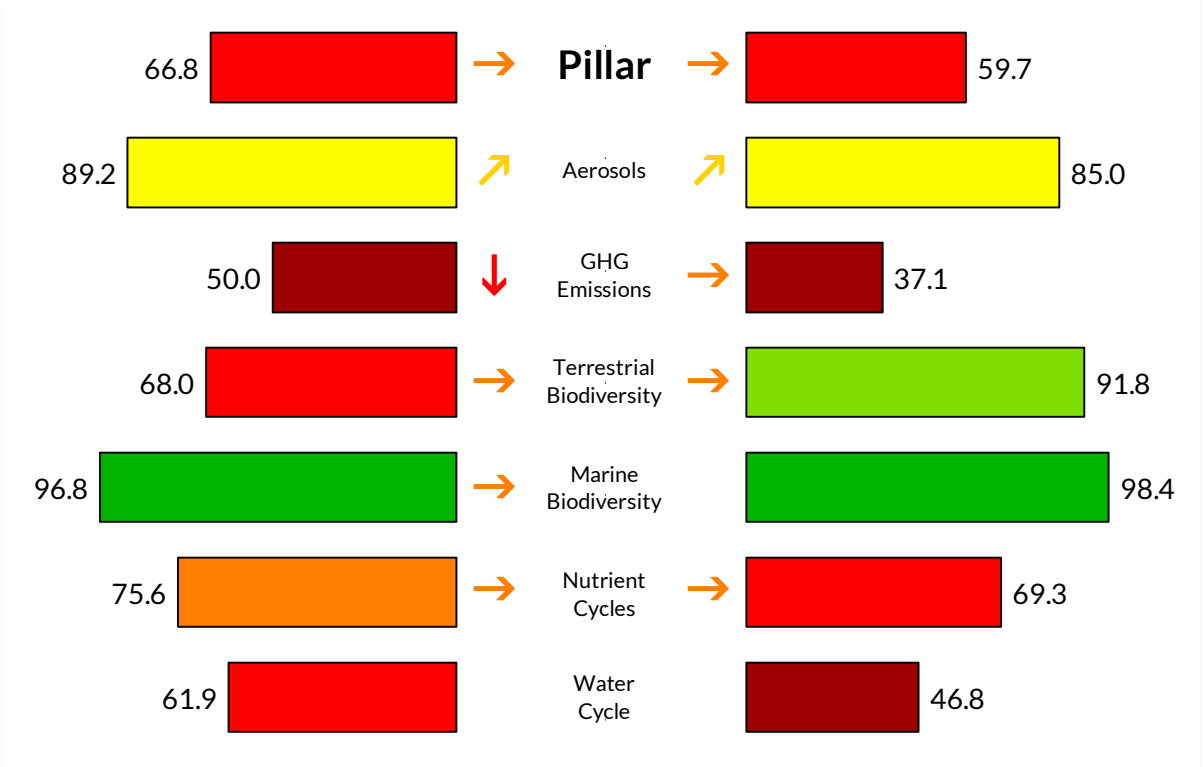
Romania

Eastern Europe & Central Asia

Population [millions]	19.3	**GDP** [$, billions]	556.0
Land area [km^2, thousands]	23,711.3	**GDP** per capita	28,829

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
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Arrow	Meaning
↑	Projected to meet 2050 Threshold
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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Romania

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	3.91	kg/capita	93.8	↑	75.72	Gg	2019
SO_2 emissions – Spillover	5.28	kg/capita	81.3	↑	104.62	Gg	2015
NO_X emissions – Domestic	10.76	kg/capita	86.5	→	208.51	Gg	2019
NO_X emissions – Spillover	6.99	kg/capita	87.2	↑	138.53	Gg	2015
Black Carbon emissions – Domestic	0.46	kg/capita	87.6	↗	8.99	Gg	2019
Black Carbon emissions – Spillover	0.25	kg/capita	86.8	→	4.88	Gg	2015
GHG Emissions							
GHG emissions – Domestic	5.68	tonnes/capita	66.6	↓	110.10	Tg	2019
GHG emissions – Spillover	2.19	tonnes/capita	37.1	→	43.49	Tg	2015
CO_2 emissions embodied in fossil fuel exports	2.86	kg/capita	37.5		55.35	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	23.98	%	80.3	→	23.98	%	2019
Unprotected freshwater sites	39.03	%	62.5	→	39.03	%	2019
Land-use biodiversity loss – Domestic	1.15E-11	global PDF/capita	83.4	→	2.27E-04	global PDF	2015
Land-use biodiversity loss – Spillover	2.96E-12	global PDF/capita	93.5	→	5.88E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.47	per M people	91.4		9.17	number	2018
Freshwater biodiversity threats – Spillover	0.09	per M people	90.1		1.70	number	2018
Permanent deforestation	1.01E-03	%	99.8	↓	77.21	hectare	2020
Red List Index of species survival	0.95	scale 0–1	89.3	↗	0.95	scale 0–1	2019
Biodiversity Habitat Index	0.44	scale 0–1	19.8		0.44	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	11.39	%	90.8	↓	11.39	%	2019
Marine biodiversity threats – Domestic	0.02	per M people	99.8		0.40	number	2018
Marine biodiversity threats – Spillover	0.02	per M people	98.4		0.36	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.45	scale 0–1.4	66.2	→	0.45	scale 0–1.4	2015
Nitrogen surplus – Domestic	8.90	kg/capita	79.7	↓	176.35	Gg	2015
Nitrogen surplus – Spillover	2.67	kg/capita	89.3	↓	52.99	Gg	2015
Phosphorus fertilizer – Domestic	26.25	g/capita	81.9	↓	201,329.00	kt	2019
Phosphorus fertilizer – Spillover	1,099.28	g/capita	53.7	→	21.78	kt	2015
Water Cycle							
Scarce water consumption – Domestic	2.07	m^3/capita	60.8	↓	41.04	B m^3	2015
Scarce water consumption – Spillover	13.18	m^3/capita	43.2	→	261.09	M m^3	2015
Water stress of crops – Domestic	239.81	m^3/capita	54.8	↓	4,751.90	M m^3	2015
Water stress of crops – Spillover	1,694.73	m^3/capita	50.8	→	33,582.12	M m^3	2015
Feshwater withdrawal	6.34	% renew. H_20	71.2		6.77	% renew. H_20	2017

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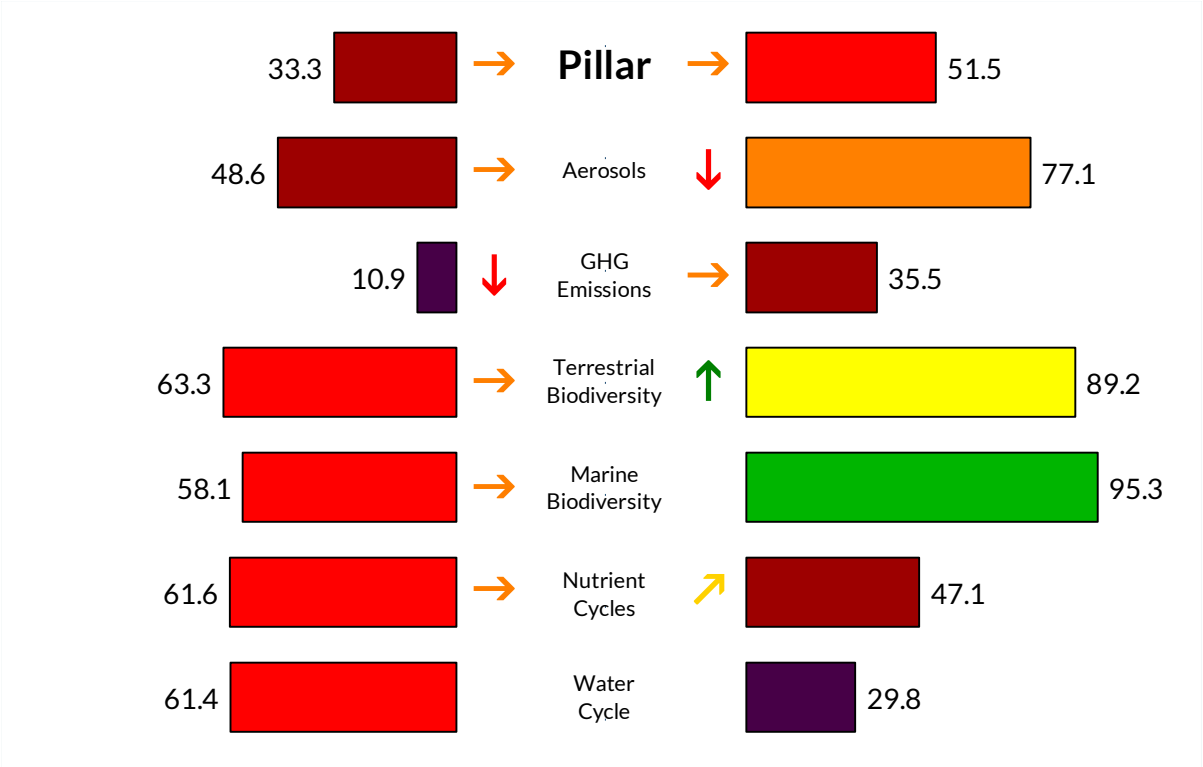
Russian Federation

Eastern Europe & Central Asia

Population [millions]	144.1	**GDP** [$, billions]	3,880.0
Land area [km^2, thousands]	1688316.4	**GDP** per capita	26,925

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
↑	Projected to meet 2050 Threshold
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Russian Federation

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	34.19	kg/capita	37.4	→	4,936.76	Gg	2019
SO_2 emissions – Spillover	8.14	kg/capita	70.6	↓	1,172.47	Gg	2015
NO_X emissions – Domestic	25.28	kg/capita	52.6	→	3,650.51	Gg	2019
NO_X emissions – Spillover	12.86	kg/capita	75.8	↓	1,853.75	Gg	2015
Black Carbon emissions – Domestic	1.08	kg/capita	58.2	→	156.32	Gg	2019
Black Carbon emissions – Spillover	0.26	kg/capita	85.8	↓	38.04	Gg	2015
GHG Emissions							
GHG emissions – Domestic	17.68	tonnes/capita	30.3	↓	2,552.94	Tg	2019
GHG emissions – Spillover	2.37	tonnes/capita	35.5	→	341.57	Tg	2015
CO_2 emissions embodied in fossil fuel exports	3,557.94	kg/capita	3.9		513,788.72	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	74.88	%	27.2	→	74.88	%	2019
Unprotected freshwater sites	73.78	%	27.4	→	73.78	%	2019
Land-use biodiversity loss – Domestic	4.78E-12	global PDF/capita	93.1	→	6.89E-04	global PDF	2015
Land-use biodiversity loss – Spillover	4.01E-12	global PDF/capita	91.0	↑	5.78E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.54	per M people	90.1		78.65	number	2018
Freshwater biodiversity threats – Spillover	0.11	per M people	87.5		15.98	number	2018
Permanent deforestation	4.79E-05	%	100.0	↓	361.88	hectare	2020
Red List Index of species survival	0.95	scale 0–1	90.8	↓	0.95	scale 0–1	2019
Biodiversity Habitat Index	0.79	scale 0–1	71.5		0.79	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	76.36	%	25.0	↓	76.36	%	2019
Marine biodiversity threats – Domestic	0.17	per M people	97.7		25.01	number	2018
Marine biodiversity threats – Spillover	0.05	per M people	95.3		7.63	number	2018
Fish stocks: overexploited or collapsed	35.63	%	50.1	↓	35.63	%	2018
Fish caught by trawling	4.48	%	93.0	↑	4.48	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.59	scale 0–1.4	55.7	→	0.59	scale 0–1.4	2015
Nitrogen surplus – Domestic	3.72	kg/capita	91.6	↗	536.60	Gg	2015
Nitrogen surplus – Spillover	4.60	kg/capita	81.2	↑	663.07	Gg	2015
Phosphorus fertilizer – Domestic	78.42	g/capita	45.9	↓	601,473.00	kt	2019
Phosphorus fertilizer – Spillover	1,727.65	g/capita	27.3	→	248.95	kt	2015
Water Cycle							
Scarce water consumption – Domestic	1.31	m^3/capita	65.9	↗	188.11	B m^3	2015
Scarce water consumption – Spillover	49.51	m^3/capita	22.4	→	7,134.73	M m^3	2015
Water stress of crops – Domestic	525.42	m^3/capita	45.3	→	75,711.73	M m^3	2015
Water stress of crops – Spillover	3,093.00	m^3/capita	39.5	→	445,691.04	M m^3	2015
Feshwater withdrawal	4.10	% renew. H_20	77.5		64.41	% renew. H_20	2017

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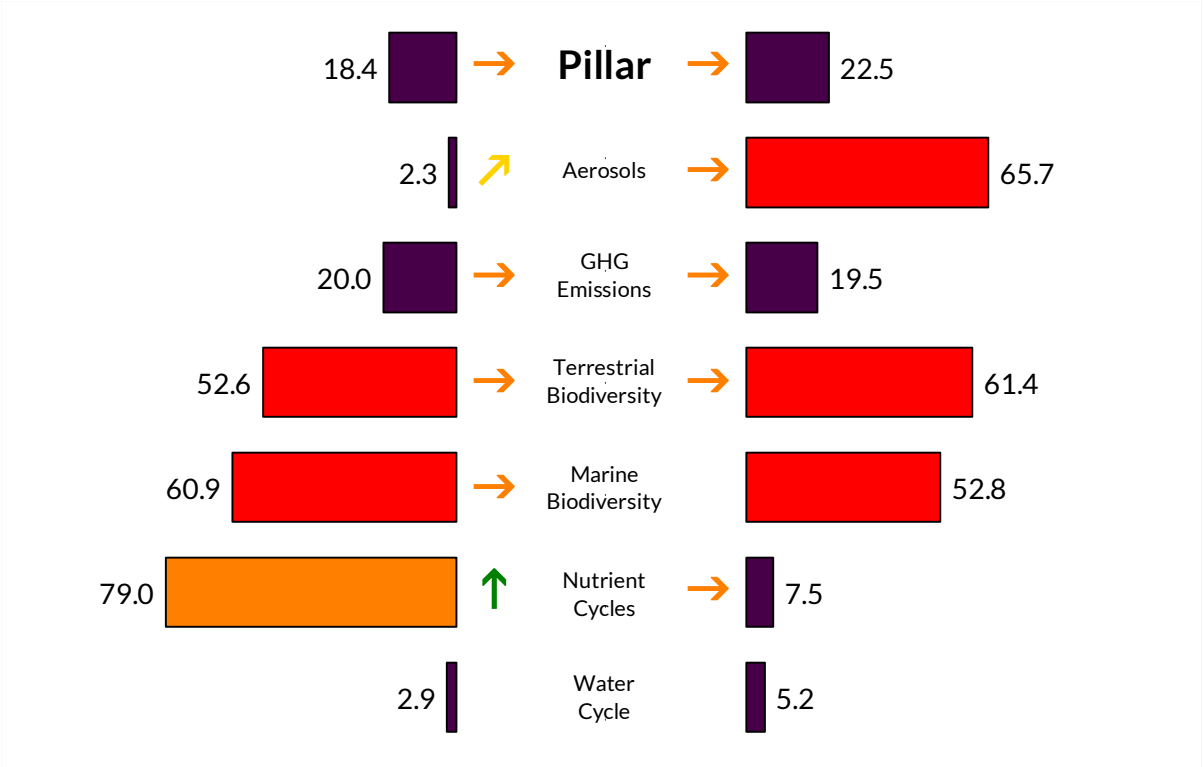
Saudi Arabia

Middle East & North Africa

Population [millions]	34.8	**GDP** [$, billions]	1,540.0
Land area [km^2, thousands]	191,708.7	**GDP** per capita	44,235

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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↑	Projected to meet 2050 Threshold
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Trajectories based upon 5-year average annual growth rates.

Saudi Arabia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	107.62	kg/capita	1.0	→	3,687.98	Gg	2019
SO_2 emissions – Spillover	10.77	kg/capita	60.8	→	341.60	Gg	2015
NO_X emissions – Domestic	61.66	kg/capita	1.0	→	2,113.14	Gg	2019
NO_X emissions – Spillover	15.52	kg/capita	70.6	↓	492.11	Gg	2015
Black Carbon emissions – Domestic	2.04	kg/capita	12.9	↑	69.88	Gg	2019
Black Carbon emissions – Spillover	0.61	kg/capita	66.2	→	19.34	Gg	2015
GHG Emissions							
GHG emissions – Domestic	21.88	tonnes/capita	23.5	→	749.81	Tg	2019
GHG emissions – Spillover	5.30	tonnes/capita	19.5	→	168.09	Tg	2015
CO_2 emissions embodied in fossil fuel exports	220.74	kg/capita	17.0		7,439.60	Gg	2018
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	78.02	%	23.9	↓	78.02	%	2019
Unprotected freshwater sites	82.32	%	18.8	↓	82.32	%	2019
Land-use biodiversity loss – Domestic	2.24E-12	global PDF/capita	96.8	↑	7.10E-05	global PDF	2015
Land-use biodiversity loss – Spillover	2.07E-11	global PDF/capita	51.1	→	6.57E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.12	per M people	97.8		4.07	number	2018
Freshwater biodiversity threats – Spillover	0.23	per M people	73.9		7.63	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.91	scale 0–1	77.7	↓	0.91	scale 0–1	2019
Biodiversity Habitat Index	0.74	scale 0–1	63.9		0.74	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	74.69	%	26.7	↓	74.69	%	2019
Marine biodiversity threats – Domestic	1.16	per M people	84.1		39.08	number	2018
Marine biodiversity threats – Spillover	0.52	per M people	52.8		17.61	number	2018
Fish stocks: overexploited or collapsed	15.77	%	78.9	↑	15.77	%	2018
Fish caught by trawling	13.76	%	77.7	→	13.76	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.60	scale 0–1.4	54.6	↑	0.60	scale 0–1.4	2015
Nitrogen surplus – Domestic	0.72	kg/capita	98.5	↗	22.84	Gg	2015
Nitrogen surplus – Spillover	10.42	kg/capita	56.7	→	330.58	Gg	2015
Phosphorus fertilizer – Domestic	12.13	g/capita	91.6	↗	93,000.00	kt	2019
Phosphorus fertilizer – Spillover	4,082.53	g/capita	1.0	→	129.49	kt	2015
Water Cycle							
Scarce water consumption – Domestic	2,433.90	m^3/capita	1.0	→	77,197.76	B m^3	2015
Scarce water consumption – Spillover	179.92	m^3/capita	2.2	→	5,706.70	M m^3	2015
Water stress of crops – Domestic	2,887.42	m^3/capita	24.7	→	91,582.27	M m^3	2015
Water stress of crops – Spillover	13,065.30	m^3/capita	12.3	→	414,401.03	M m^3	2015
Feshwater withdrawal	883.33	% renew. H_20	1.0		21.20	% renew. H_20	2017

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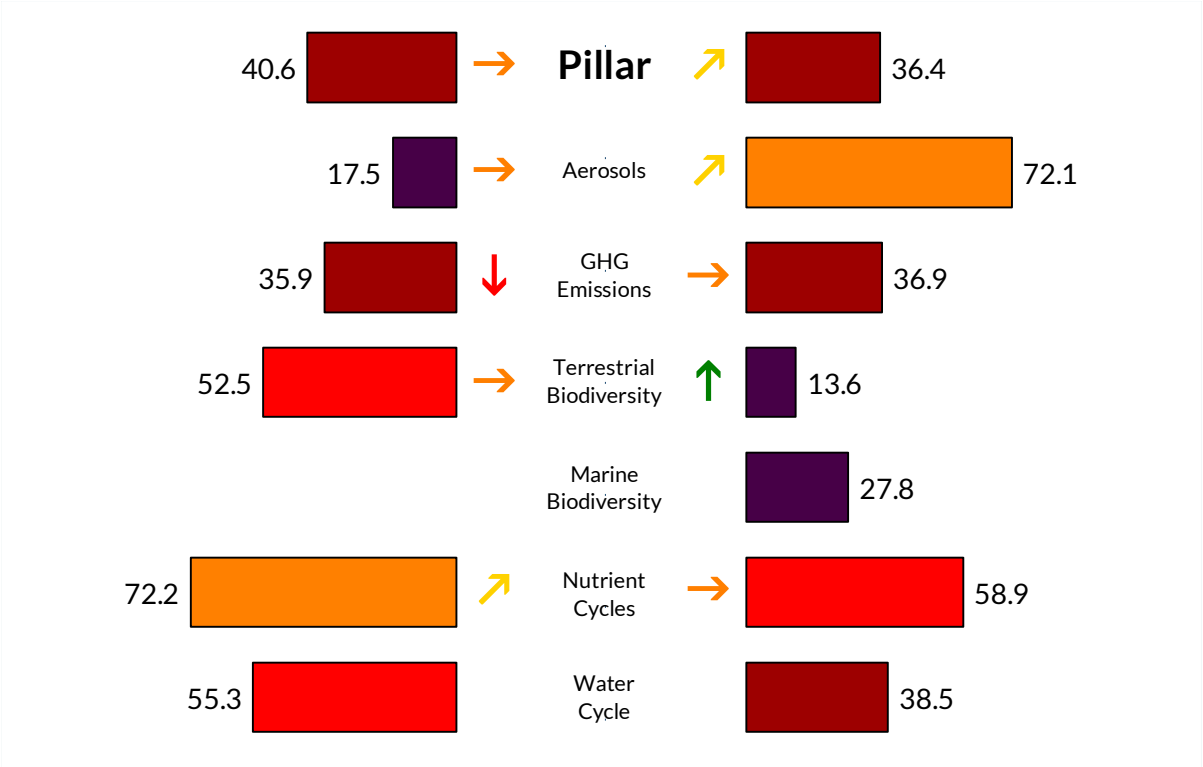
Serbia

Eastern Europe & Central Asia

Population [millions]	6.9	**GDP** [$, billions]	126.0
Land area [km^2, thousands]	7,760.1	**GDP** per capita	18,239

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Serbia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	77.83	kg/capita	1.0	→	540.52	Gg	2019
SO_2 emissions – Spillover	5.51	kg/capita	80.4	→	39.09	Gg	2015
NO_X emissions – Domestic	17.89	kg/capita	69.9	→	124.24	Gg	2019
NO_X emissions – Spillover	7.44	kg/capita	86.3	→	52.83	Gg	2015
Black Carbon emissions – Domestic	0.70	kg/capita	76.2	→	4.89	Gg	2019
Black Carbon emissions – Spillover	0.83	kg/capita	54.0	↑	5.86	Gg	2015
GHG Emissions							
GHG emissions – Domestic	12.36	tonnes/capita	41.8	↓	85.81	Tg	2019
GHG emissions – Spillover	2.22	tonnes/capita	36.9	→	15.72	Tg	2015
CO_2 emissions embodied in fossil fuel exports	11.48	kg/capita	30.9		79.28	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	73.87	%	28.3	→	73.87	%	2019
Unprotected freshwater sites	74.60	%	26.6	↓	74.60	%	2019
Land-use biodiversity loss – Domestic	2.28E-12	global PDF/capita	96.8	↗	1.62E-05	global PDF	2015
Land-use biodiversity loss – Spillover	8.09E-12	global PDF/capita	81.3	↑	5.74E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.36	per M people	93.4		3.17	number	2018
Freshwater biodiversity threats – Spillover	0.84	per M people	2.3		7.40	number	2018
Permanent deforestation	2.15E-03	%	99.6	↓	54.39	hectare	2020
Red List Index of species survival	0.96	scale 0–1	91.8	↗	0.96	scale 0–1	2019
Biodiversity Habitat Index	0.43	scale 0–1	17.8		0.43	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.80	per M people	27.8		7.03	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.48	scale 0–1.4	63.8	→	0.48	scale 0–1.4	2015
Nitrogen surplus – Domestic	17.01	kg/capita	61.1	→	120.70	Gg	2015
Nitrogen surplus – Spillover	3.42	kg/capita	86.1	→	24.28	Gg	2015
Phosphorus fertilizer – Domestic	5.00	g/capita	96.6	↑	38,325.79	kt	2019
Phosphorus fertilizer – Spillover	1,419.51	g/capita	40.3	→	10.07	kt	2015
Water Cycle							
Scarce water consumption – Domestic	3.14	m^3/capita	56.3	↓	22.27	B m^3	2015
Scarce water consumption – Spillover	20.22	m^3/capita	36.5	→	143.50	M m^3	2015
Water stress of crops – Domestic	700.39	m^3/capita	41.8	↗	4,969.56	M m^3	2015
Water stress of crops – Spillover	2,891.44	m^3/capita	40.7	↑	20,515.88	M m^3	2015
Feshwater withdrawal	6.06	% renew. H_20	71.9		5.38	% renew. H_20	2017

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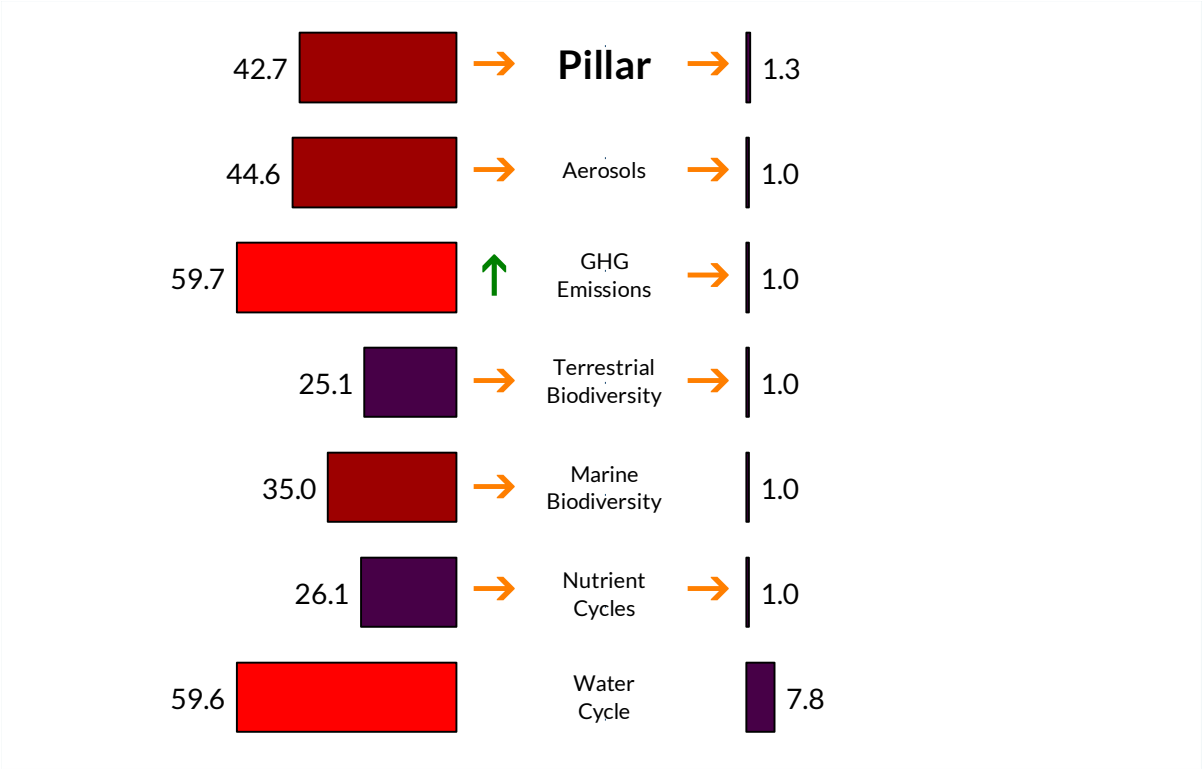
Singapore

East & South Asia

Population [millions]	5.7	**GDP** [$, billions]	531.0
Land area [km^2, thousands]	67.8	**GDP** per capita	93,390

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Singapore

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	32.60	kg/capita	40.4	→	185.93	Gg	2019
SO_2 emissions – Spillover	69.08	kg/capita	1.0	→	382.36	Gg	2015
NO_X emissions – Domestic	20.72	kg/capita	63.2	→	118.19	Gg	2019
NO_X emissions – Spillover	105.14	kg/capita	1.0	→	581.96	Gg	2015
Black Carbon emissions – Domestic	1.58	kg/capita	34.7	→	9.00	Gg	2019
Black Carbon emissions – Spillover	4.39	kg/capita	1.0	→	24.31	Gg	2015
GHG Emissions							
GHG emissions – Domestic	10.30	tonnes/capita	47.6	↑	58.77	Tg	2019
GHG emissions – Spillover	33.20	tonnes/capita	1.0	→	183.76	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	75.0		0.01	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	78.86	%	23.1	↓	78.86	%	2019
Unprotected freshwater sites		%				%	
Land-use biodiversity loss – Domestic	9.87E-14	global PDF/capita	99.9	↑	5.46E-07	global PDF	2015
Land-use biodiversity loss – Spillover	6.84E-11	global PDF/capita	1.0	→	3.79E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.13	per M people	97.7		0.74	number	2018
Freshwater biodiversity threats – Spillover	1.82	per M people	1.0		10.45	number	2018
Permanent deforestation	1.09E+00	%	1.0	↓	224.76	hectare	2020
Red List Index of species survival	0.86	scale 0–1	64.5	↓	0.86	scale 0–1	2019
Biodiversity Habitat Index	0.45	scale 0–1	21.1		0.45	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	96.75	%	4.3	↓	96.75	%	2019
Marine biodiversity threats – Domestic	0.01	per M people	100.0		0.04	number	2018
Marine biodiversity threats – Spillover	3.18	per M people	1.0		18.34	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.13	scale 0–1.4	14.5	↓	1.13	scale 0–1.4	2015
Nitrogen surplus – Domestic	0.35	kg/capita	99.3	↗	1.93	Gg	2015
Nitrogen surplus – Spillover	35.28	kg/capita	1.0	↓	195.28	Gg	2015
Phosphorus fertilizer – Domestic		g/capita				kt	
Phosphorus fertilizer – Spillover	16,404.35	g/capita	1.0	→	90.80	kt	2015
Water Cycle							
Scarce water consumption – Domestic	1.81	m^3/capita	62.3	↑	10.03	B m^3	2015
Scarce water consumption – Spillover	120.20	m^3/capita	8.5	→	665.28	M m^3	2015
Water stress of crops – Domestic	0.97	m^3/capita	100.0	↓	5.36	M m^3	2015
Water stress of crops – Spillover	17,084.40	m^3/capita	7.2	→	94,562.20	M m^3	2015
Feshwater withdrawal	83.22	% renew. H_20	34.1		0.50	% renew. H_20	2017

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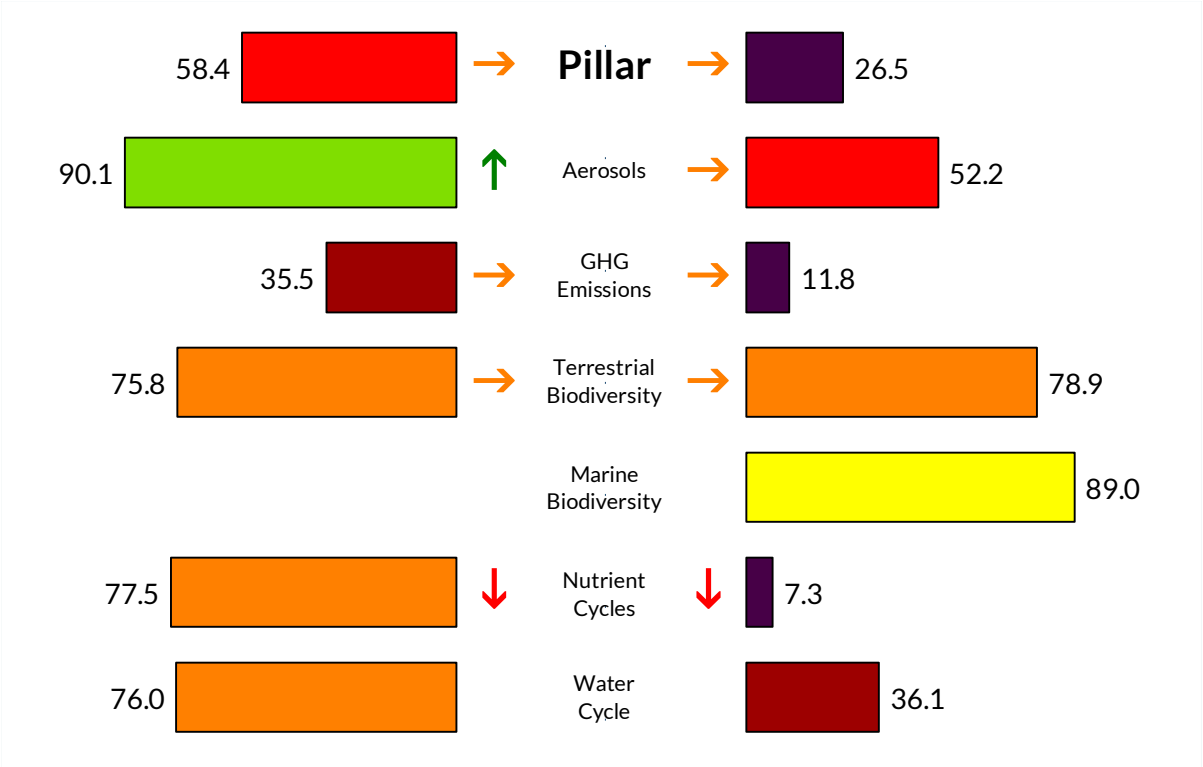
Slovak Republic

OECD

Population [millions]	5.5	**GDP** [$, billions]	166.0
Land area [km^2, thousands]	4,905.1	**GDP** per capita	30,409

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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95–100	None or limited
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Arrow	Meaning
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Slovak Republic

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	3.97	kg/capita	93.7	↑	21.64	Gg	2019
SO_2 emissions – Spillover	15.68	kg/capita	42.5	→	85.06	Gg	2015
NO_X emissions – Domestic	10.38	kg/capita	87.4	↑	56.60	Gg	2019
NO_X emissions – Spillover	20.38	kg/capita	61.1	→	110.52	Gg	2015
Black Carbon emissions – Domestic	0.43	kg/capita	89.3	↑	2.33	Gg	2019
Black Carbon emissions – Spillover	0.81	kg/capita	54.7	→	4.41	Gg	2015
GHG Emissions							
GHG emissions – Domestic	8.08	tonnes/capita	55.3	→	44.06	Tg	2019
GHG emissions – Spillover	7.76	tonnes/capita	11.8	→	42.09	Tg	2015
CO_2 emissions embodied in fossil fuel exports	65.19	kg/capita	22.7		355.55	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	14.21	%	90.5	↗	14.21	%	2019
Unprotected freshwater sites	13.73	%	88.0	↗	13.73	%	2019
Land-use biodiversity loss – Domestic	1.06E-11	global PDF/capita	84.7	↓	5.75E-05	global PDF	2015
Land-use biodiversity loss – Spillover	6.42E-12	global PDF/capita	85.2	→	3.48E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.27	per M people	95.1		1.47	number	2018
Freshwater biodiversity threats – Spillover	0.23	per M people	73.0		1.27	number	2018
Permanent deforestation	2.83E-03	%	99.5	→	67.33	hectare	2020
Red List Index of species survival	0.96	scale 0–1	93.1	↗	0.96	scale 0–1	2019
Biodiversity Habitat Index	0.47	scale 0–1	24.3		0.47	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.12	per M people	89.0		0.66	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.45	scale 0–1.4	66.2	↓	0.45	scale 0–1.4	2015
Nitrogen surplus – Domestic	12.25	kg/capita	72.0	↓	66.43	Gg	2015
Nitrogen surplus – Spillover	11.07	kg/capita	54.0	↓	60.04	Gg	2015
Phosphorus fertilizer – Domestic	3.40	g/capita	97.7	↓	26,090.97	kt	2019
Phosphorus fertilizer – Spillover	3,798.23	g/capita	1.0	→	20.60	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.47	m^3/capita	77.0	↗	2.56	B m^3	2015
Scarce water consumption – Spillover	28.44	m^3/capita	31.1	→	154.23	M m^3	2015
Water stress of crops – Domestic	87.05	m^3/capita	67.0	↗	472.17	M m^3	2015
Water stress of crops – Spillover	2,725.10	m^3/capita	41.8	→	14,780.38	M m^3	2015
Feshwater withdrawal	2.39	% renew. H_20	85.3		0.56	% renew. H_20	2017

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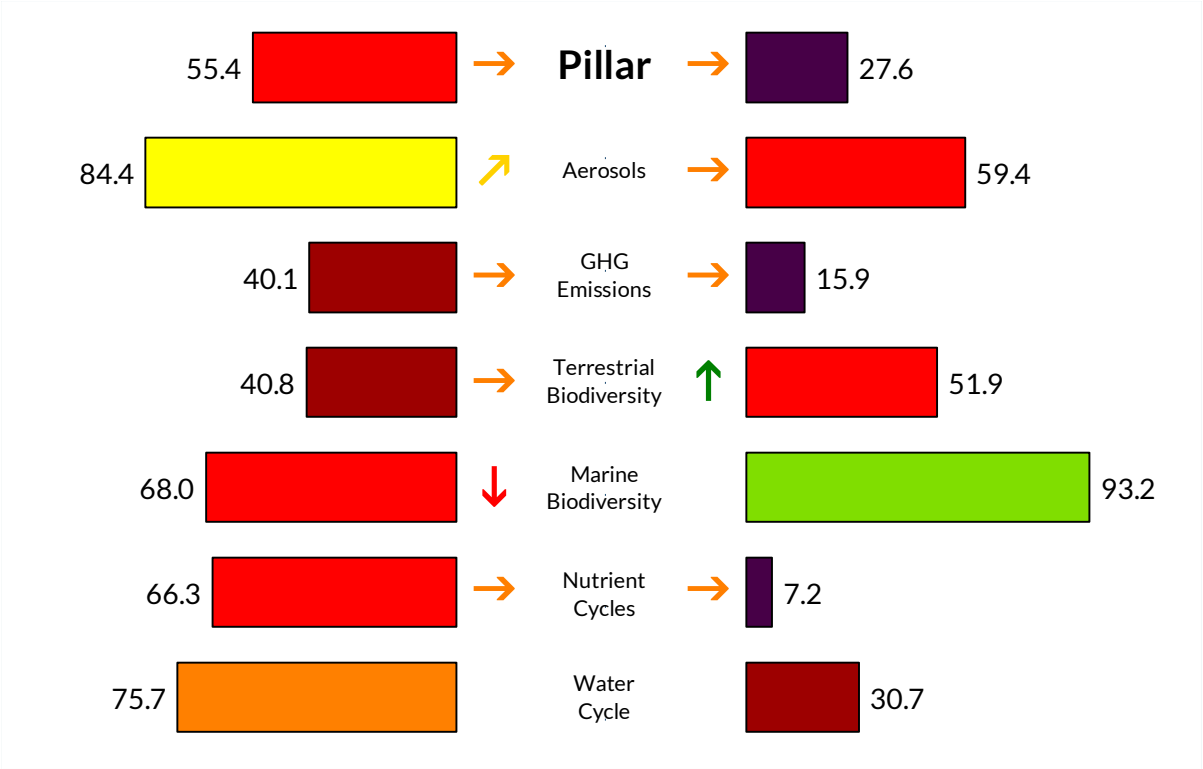
Slovenia

OECD

Population [millions]	2.1	**GDP** [$, billions]	76.8
Land area [km^2, thousands]	2,027.2	**GDP** per capita	36,548

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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↑	Projected to meet 2050 Threshold
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→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Slovenia

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	2.10	kg/capita	97.1	↑	4.39	Gg	2019
SO_2 emissions – Spillover	13.21	kg/capita	51.7	→	27.25	Gg	2015
NO_X emissions – Domestic	14.52	kg/capita	77.7	→	30.33	Gg	2019
NO_X emissions – Spillover	20.36	kg/capita	61.2	→	42.02	Gg	2015
Black Carbon emissions – Domestic	0.63	kg/capita	79.6	↑	1.32	Gg	2019
Black Carbon emissions – Spillover	0.61	kg/capita	66.4	→	1.25	Gg	2015
GHG Emissions							
GHG emissions – Domestic	8.67	tonnes/capita	53.1	→	18.11	Tg	2019
GHG emissions – Spillover	6.32	tonnes/capita	15.9	→	13.05	Tg	2015
CO_2 emissions embodied in fossil fuel exports	13.34	kg/capita	30.2		27.87	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	11.30	%	93.6	↗	11.30	%	2019
Unprotected freshwater sites	6.95	%	94.8	↓	6.95	%	2019
Land-use biodiversity loss – Domestic	1.18E-11	global PDF/capita	83.0	↓	2.43E-05	global PDF	2015
Land-use biodiversity loss – Spillover	9.71E-12	global PDF/capita	77.4	↑	2.00E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	9.16	per M people	1.0		19.03	number	2018
Freshwater biodiversity threats – Spillover	0.56	per M people	34.8		1.17	number	2018
Permanent deforestation	1.13E-03	%	99.8	↓	14.33	hectare	2020
Red List Index of species survival	0.94	scale 0–1	86.1	↓	0.94	scale 0–1	2019
Biodiversity Habitat Index	0.51	scale 0–1	29.7		0.51	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	2.09	%	100.0	↓	2.09	%	2019
Marine biodiversity threats – Domestic	0.03	per M people	99.7		0.06	number	2018
Marine biodiversity threats – Spillover	0.08	per M people	93.2		0.16	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling	41.85	%	31.6	↓	41.85	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.73	scale 0–1.4	45.1	→	0.73	scale 0–1.4	2015
Nitrogen surplus – Domestic	15.26	kg/capita	65.1	↓	31.49	Gg	2015
Nitrogen surplus – Spillover	11.75	kg/capita	51.1	→	24.24	Gg	2015
Phosphorus fertilizer – Domestic	1.06	g/capita	99.3	↗	8,104.00	kt	2019
Phosphorus fertilizer – Spillover	4,154.13	g/capita	1.0	→	8.57	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.89	m^3/capita	70.1	↗	1.83	B m^3	2015
Scarce water consumption – Spillover	30.93	m^3/capita	29.8	→	63.83	M m^3	2015
Water stress of crops – Domestic	16.77	m^3/capita	86.9	↗	34.61	M m^3	2015
Water stress of crops – Spillover	4,696.38	m^3/capita	31.6	→	9,691.12	M m^3	2015
Feshwater withdrawal	6.30	% renew. H_20	71.3		0.93	% renew. H_20	2017

The Global Commons Stewardship Index is a production of SDSN, Yale University, and the University of Tokyo.

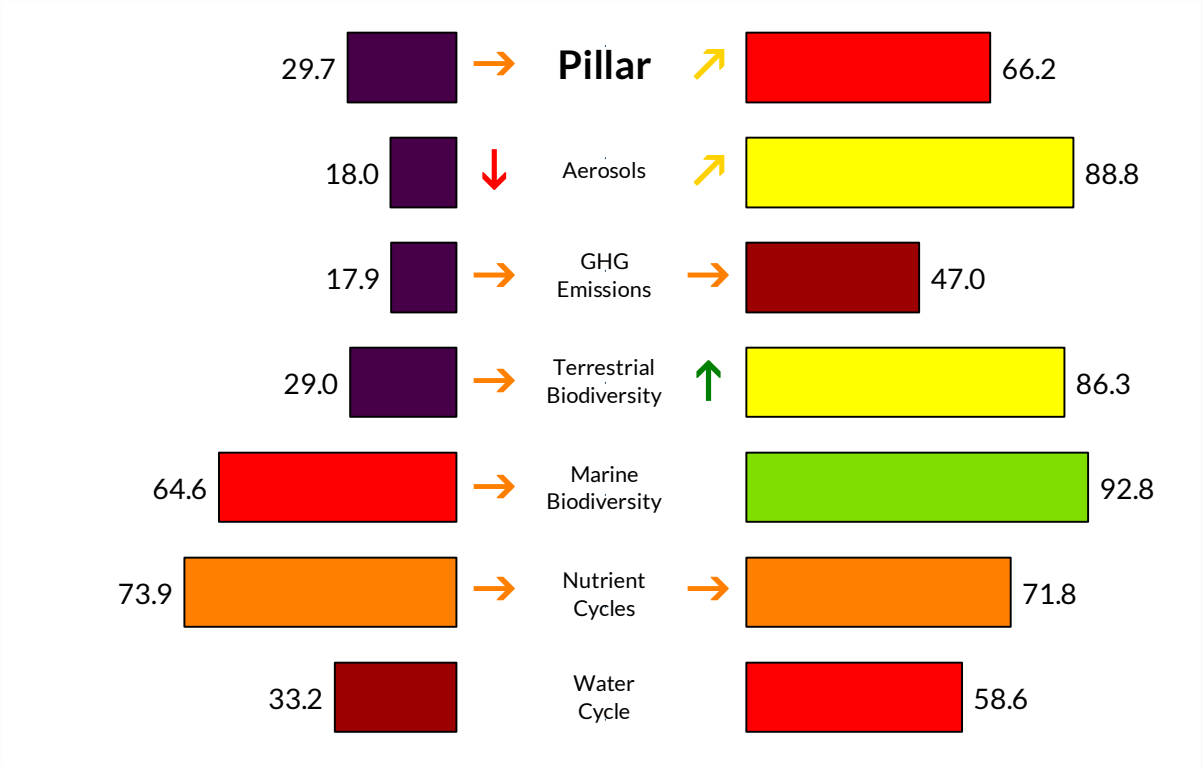
South Africa

Africa

Population [millions]	59.3	**GDP** [$, billions]	680.0
Land area [km^2, thousands]	122,447.0	**GDP** per capita	11,465

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Arrow	Meaning
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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

South Africa

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	51.85	kg/capita	4.6	→	3,036.02	Gg	2019
SO_2 emissions – Spillover	3.87	kg/capita	86.5	↑	214.27	Gg	2015
NO_X emissions – Domestic	28.01	kg/capita	46.3	→	1,640.12	Gg	2019
NO_X emissions – Spillover	5.42	kg/capita	90.3	↑	300.12	Gg	2015
Black Carbon emissions – Domestic	1.73	kg/capita	27.6	↓	101.27	Gg	2019
Black Carbon emissions – Spillover	0.20	kg/capita	89.7	→	10.84	Gg	2015
GHG Emissions							
GHG emissions – Domestic	10.47	tonnes/capita	47.1	→	613.09	Tg	2019
GHG emissions – Spillover	1.33	tonnes/capita	47.0	→	73.91	Tg	2015
CO_2 emissions embodied in fossil fuel exports	1,929.43	kg/capita	6.8		114,432.13	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	67.49	%	34.9	→	67.49	%	2019
Unprotected freshwater sites	63.67	%	37.6	→	63.67	%	2019
Land-use biodiversity loss – Domestic	6.77E-11	global PDF/capita	1.6	→	3.75E-03	global PDF	2015
Land-use biodiversity loss – Spillover	1.69E-12	global PDF/capita	96.5	↑	9.37E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	1.04	per M people	80.9		59.87	number	2018
Freshwater biodiversity threats – Spillover	0.20	per M people	77.2		11.44	number	2018
Permanent deforestation	2.04E-01	%	61.0	↓	10,775.86	hectare	2020
Red List Index of species survival	0.77	scale 0–1	41.1	↓	0.77	scale 0–1	2019
Biodiversity Habitat Index	0.59	scale 0–1	41.1		0.59	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	53.45	%	48.2	→	53.45	%	2019
Marine biodiversity threats – Domestic	1.39	per M people	80.8		80.51	number	2018
Marine biodiversity threats – Spillover	0.08	per M people	92.8		4.65	number	2018
Fish stocks: overexploited or collapsed	20.78	%	71.6	↑	20.78	%	2018
Fish caught by trawling	23.10	%	62.4	→	23.10	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.55	scale 0–1.4	58.9	→	0.55	scale 0–1.4	2015
Nitrogen surplus – Domestic	5.13	kg/capita	88.3	↓	283.87	Gg	2015
Nitrogen surplus – Spillover	2.42	kg/capita	90.3	↓	134.04	Gg	2015
Phosphorus fertilizer – Domestic	32.45	g/capita	77.6	↗	248,900.00	kt	2019
Phosphorus fertilizer – Spillover	1,019.60	g/capita	57.1	→	56.47	kt	2015
Water Cycle							
Scarce water consumption – Domestic	42.00	m^3/capita	28.0	↓	2,326.03	B m^3	2015
Scarce water consumption – Spillover	9.95	m^3/capita	47.6	→	551.33	M m^3	2015
Water stress of crops – Domestic	1,327.19	m^3/capita	34.1	→	73,508.35	M m^3	2015
Water stress of crops – Spillover	543.55	m^3/capita	72.3	↑	30,105.43	M m^3	2015
Feshwater withdrawal	62.06	% renew. H_20	38.3		19.38	% renew. H_20	2017

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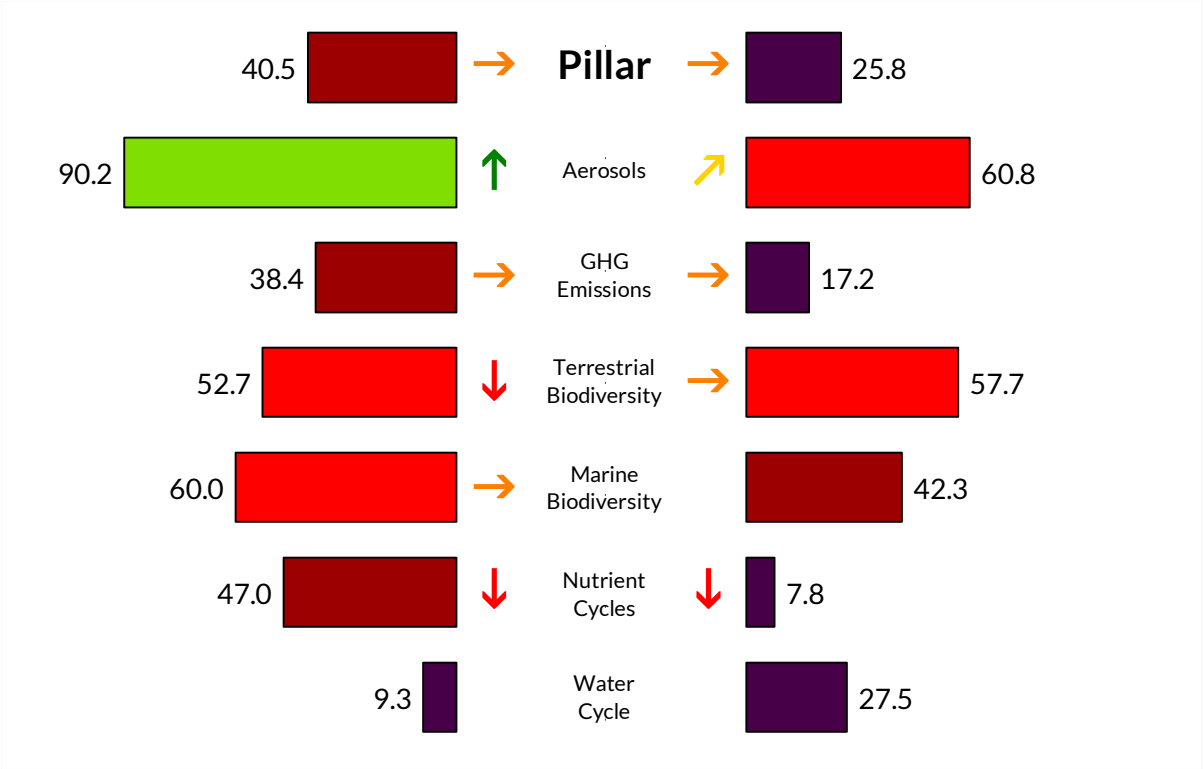
Spain

OECD

Population [millions]	47.4	**GDP** [$, billions]	1,710.0
Land area [km^2, thousands]	50,661.9	**GDP** per capita	36,113

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Spain

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	3.99	kg/capita	93.6	↑	188.27	Gg	2019
SO_2 emissions – Spillover	12.11	kg/capita	55.8	↑	562.55	Gg	2015
NO_X emissions – Domestic	13.61	kg/capita	79.8	↑	641.69	Gg	2019
NO_X emissions – Spillover	19.27	kg/capita	63.3	→	895.03	Gg	2015
Black Carbon emissions – Domestic	0.24	kg/capita	98.2	↑	11.29	Gg	2019
Black Carbon emissions – Spillover	0.66	kg/capita	63.6	→	30.45	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.97	tonnes/capita	60.1	→	328.54	Tg	2019
GHG emissions – Spillover	5.94	tonnes/capita	17.2	→	275.68	Tg	2015
CO_2 emissions embodied in fossil fuel exports	44.74	kg/capita	24.5		2,118.40	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	42.41	%	61.1	→	42.41	%	2019
Unprotected freshwater sites	51.60	%	49.8	→	51.60	%	2019
Land-use biodiversity loss – Domestic	2.85E-11	global PDF/capita	58.6	↓	1.32E-03	global PDF	2015
Land-use biodiversity loss – Spillover	1.00E-11	global PDF/capita	76.6	→	4.67E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	1.46	per M people	73.0		68.30	number	2018
Freshwater biodiversity threats – Spillover	0.49	per M people	43.4		22.77	number	2018
Permanent deforestation	1.76E-02	%	96.6	↓	1,832.63	hectare	2020
Red List Index of species survival	0.84	scale 0–1	60.7	↓	0.84	scale 0–1	2019
Biodiversity Habitat Index	0.41	scale 0–1	14.8		0.41	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	15.88	%	86.3	↓	15.88	%	2019
Marine biodiversity threats – Domestic	0.68	per M people	90.8		31.53	number	2018
Marine biodiversity threats – Spillover	0.64	per M people	42.3		29.79	number	2018
Fish stocks: overexploited or collapsed	32.07	%	55.3	→	32.07	%	2018
Fish caught by trawling	42.84	%	29.9	↓	42.84	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.83	scale 0–1.4	37.2	↓	0.83	scale 0–1.4	2015
Nitrogen surplus – Domestic	22.19	kg/capita	49.2	↓	1,030.58	Gg	2015
Nitrogen surplus – Spillover	9.26	kg/capita	61.6	↓	429.93	Gg	2015
Phosphorus fertilizer – Domestic	62.56	g/capita	56.8	↓	479,845.94	kt	2019
Phosphorus fertilizer – Spillover	4,061.25	g/capita	1.0	→	188.62	kt	2015
Water Cycle							
Scarce water consumption – Domestic	98.23	m^3/capita	18.7	→	4,562.43	B m^3	2015
Scarce water consumption – Spillover	46.02	m^3/capita	23.6	→	2,137.16	M m^3	2015
Water stress of crops – Domestic	20,582.28	m^3/capita	1.0	→	955,940.61	M m^3	2015
Water stress of crops – Spillover	4,603.80	m^3/capita	31.9	→	213,822.63	M m^3	2015
Feshwater withdrawal	46.78	% renew. H_20	42.4		31.22	% renew. H_20	2012

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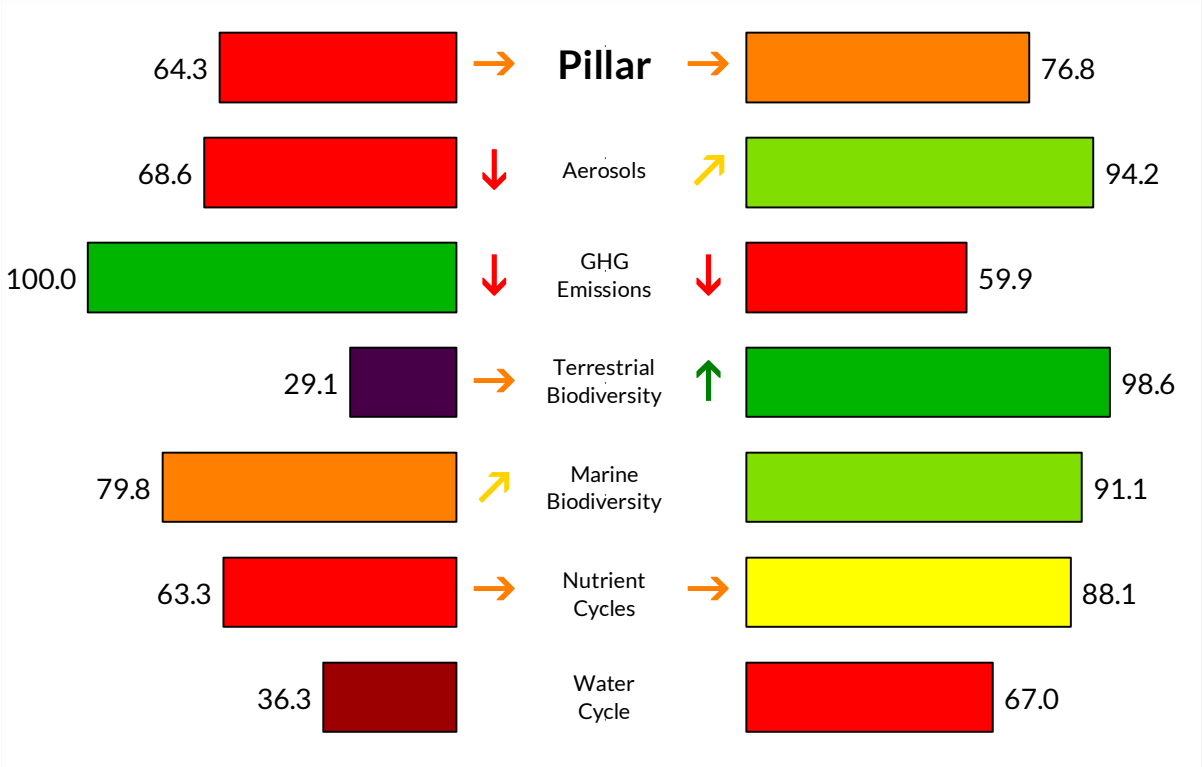
Sri Lanka

East & South Asia

Population [millions]	21.9	**GDP** [$, billions]	275.0
Land area [km^2, thousands]	6,632.1	**GDP** per capita	12,546

Overall impact on the Global Commons and trajectory: **Medium-high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Sri Lanka

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	11.25	kg/capita	80.1	↓	245.30	Gg	2019
SO_2 emissions – Spillover	2.14	kg/capita	93.0	→	44.85	Gg	2015
NO_X emissions – Domestic	14.88	kg/capita	76.9	↓	324.50	Gg	2019
NO_X emissions – Spillover	2.15	kg/capita	96.6	↗	45.17	Gg	2015
Black Carbon emissions – Domestic	1.21	kg/capita	52.4	→	26.29	Gg	2019
Black Carbon emissions – Spillover	0.14	kg/capita	93.0	→	2.87	Gg	2015
GHG Emissions							
GHG emissions – Domestic	1.81	tonnes/capita	100.0	↓	39.48	Tg	2019
GHG emissions – Spillover	0.70	tonnes/capita	59.9	↓	14.69	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	56.31	%	46.6	↓	56.31	%	2019
Unprotected freshwater sites	56.10	%	45.3	↓	56.10	%	2019
Land-use biodiversity loss – Domestic	2.04E-11	global PDF/capita	70.5	→	4.27E-04	global PDF	2015
Land-use biodiversity loss – Spillover	9.62E-13	global PDF/capita	98.3	↑	2.02E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	2.06	per M people	62.0		43.71	number	2018
Freshwater biodiversity threats – Spillover	0.01	per M people	98.9		0.25	number	2018
Permanent deforestation	8.06E-02	%	84.6	↓	2,845.25	hectare	2020
Red List Index of species survival	0.56	scale 0–1	1.0	↓	0.56	scale 0–1	2019
Biodiversity Habitat Index	0.46	scale 0–1	22.5		0.46	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	50.03	%	51.7	↓	50.03	%	2019
Marine biodiversity threats – Domestic	0.53	per M people	92.7		11.32	number	2018
Marine biodiversity threats – Spillover	0.10	per M people	91.1		2.10	number	2018
Fish stocks: overexploited or collapsed	11.71	%	84.8	↑	11.71	%	2018
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.87	scale 0–1.4	33.8	→	0.87	scale 0–1.4	2015
Nitrogen surplus – Domestic	9.80	kg/capita	77.6	↓	205.61	Gg	2015
Nitrogen surplus – Spillover	1.15	kg/capita	95.7	→	24.09	Gg	2015
Phosphorus fertilizer – Domestic	5.15	g/capita	96.5	↗	39,501.31	kt	2019
Phosphorus fertilizer – Spillover	450.92	g/capita	81.0	→	9.46	kt	2015
Water Cycle							
Scarce water consumption – Domestic	24.26	m^3/capita	34.0	→	508.65	B m^3	2015
Scarce water consumption – Spillover	4.39	m^3/capita	60.4	→	92.09	M m^3	2015
Water stress of crops – Domestic	1,463.40	m^3/capita	32.9	→	30,687.52	M m^3	2015
Water stress of crops – Spillover	487.22	m^3/capita	74.3	↗	10,216.91	M m^3	2015
Feshwater withdrawal		% renew. H_20			12.95	% renew. H_20	

The Global Commons Stewardship Index is a production of SDSN, Yale University, and the University of Tokyo.

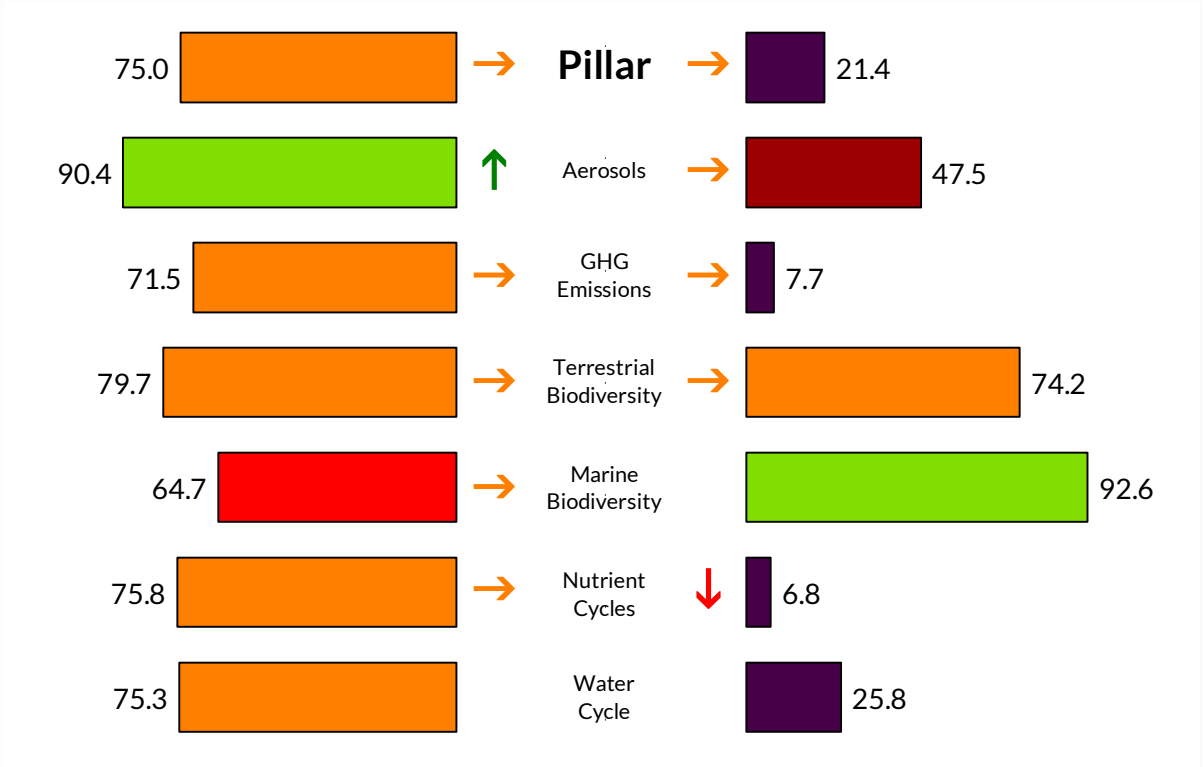
Sweden

OECD

Population [millions]	10.4	**GDP** [$, billions]	525.0
Land area [km^2, thousands]	44,821.5	**GDP** per capita	50,708

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



Note: All results shown in proportional terms.

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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
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Arrow	Meaning
↑	Projected to meet 2050 Threshold
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Trajectories based upon 5-year average annual growth rates.

Sweden

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	1.71	kg/capita	97.9	↗	17.60	Gg	2019
SO_2 emissions – Spillover	15.91	kg/capita	41.6	→	155.94	Gg	2015
NO_X emissions – Domestic	10.09	kg/capita	88.0	↑	103.74	Gg	2019
NO_X emissions – Spillover	26.35	kg/capita	49.5	→	258.17	Gg	2015
Black Carbon emissions – Domestic	0.50	kg/capita	85.9	↑	5.13	Gg	2019
Black Carbon emissions – Spillover	0.86	kg/capita	52.0	→	8.43	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.49	tonnes/capita	62.4	→	66.67	Tg	2019
GHG emissions – Spillover	9.52	tonnes/capita	7.7	→	93.29	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	82.0		0.00	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	40.97	%	62.6	→	40.97	%	2019
Unprotected freshwater sites	41.80	%	59.7	→	41.80	%	2019
Land-use biodiversity loss – Domestic	4.44E-12	global PDF/capita	93.6	→	4.36E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.42E-11	global PDF/capita	66.6	→	1.39E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.13	per M people	97.7		1.27	number	2018
Freshwater biodiversity threats – Spillover	0.15	per M people	82.7		1.50	number	2018
Permanent deforestation	3.59E-03	%	99.3	↓	1,043.22	hectare	2020
Red List Index of species survival	0.99	scale 0–1	100.0	↓	0.99	scale 0–1	2019
Biodiversity Habitat Index	0.72	scale 0–1	60.0		0.72	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	38.83	%	63.0	→	38.83	%	2019
Marine biodiversity threats – Domestic	0.12	per M people	98.4		1.19	number	2018
Marine biodiversity threats – Spillover	0.08	per M people	92.6		0.82	number	2018
Fish stocks: overexploited or collapsed	39.16	%	45.0	→	39.16	%	2018
Fish caught by trawling	22.82	%	62.8	→	22.82	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.49	scale 0–1.4	63.1	→	0.49	scale 0–1.4	2015
Nitrogen surplus – Domestic	12.78	kg/capita	70.8	↓	125.19	Gg	2015
Nitrogen surplus – Spillover	12.87	kg/capita	46.4	↓	126.10	Gg	2015
Phosphorus fertilizer – Domestic	3.83	g/capita	97.4	↓	29,409.00	kt	2019
Phosphorus fertilizer – Spillover	4,988.57	g/capita	1.0	→	48.88	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.28	m^3/capita	82.6	↗	2.75	B m^3	2015
Scarce water consumption – Spillover	44.68	m^3/capita	24.1	→	437.84	M m^3	2015
Water stress of crops – Domestic	96.48	m^3/capita	65.8	↗	945.44	M m^3	2015
Water stress of crops – Spillover	5,759.84	m^3/capita	27.7	→	56,441.70	M m^3	2015
Feshwater withdrawal	3.80	% renew. H_20	78.6		2.38	% renew. H_20	2007

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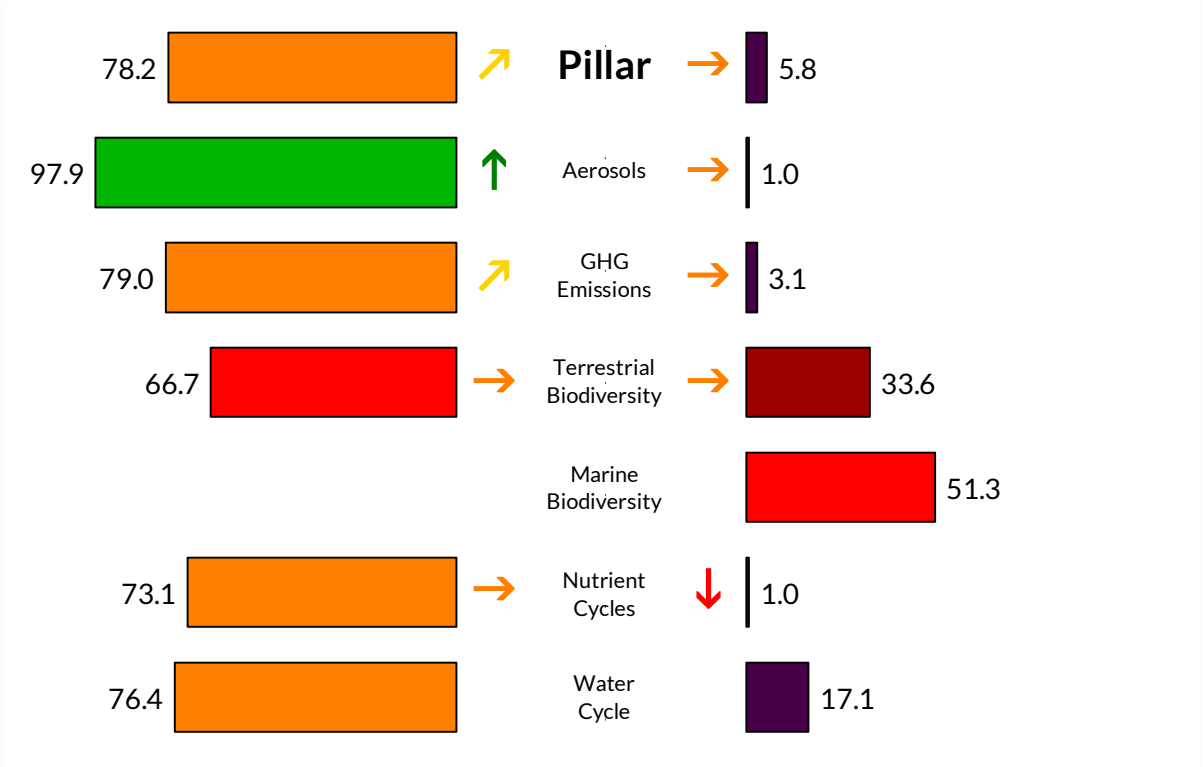
Switzerland

OECD

Population [millions]	8.6	**GDP** [$, billions]	591.0
Land area [km^2, thousands]	4,170.3	**GDP** per capita	68,427

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

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Switzerland

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	0.56	kg/capita	100.0	↑	4.81	Gg	2019
SO_2 emissions – Spillover	30.42	kg/capita	1.0	→	251.95	Gg	2015
NO_X emissions – Domestic	6.30	kg/capita	96.9	↑	54.02	Gg	2019
NO_X emissions – Spillover	52.91	kg/capita	1.0	→	438.23	Gg	2015
Black Carbon emissions – Domestic	0.27	kg/capita	96.9	↑	2.29	Gg	2019
Black Carbon emissions – Spillover	1.83	kg/capita	1.0	→	15.16	Gg	2015
GHG Emissions							
GHG emissions – Domestic	5.30	tonnes/capita	68.8	↗	45.49	Tg	2019
GHG emissions – Spillover	12.00	tonnes/capita	3.1	→	99.37	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	90.6		0.00	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	64.52	%	38.0	→	64.52	%	2019
Unprotected freshwater sites	39.79	%	61.7	→	39.79	%	2019
Land-use biodiversity loss – Domestic	6.21E-12	global PDF/capita	91.1	↓	5.14E-05	global PDF	2015
Land-use biodiversity loss – Spillover	2.06E-11	global PDF/capita	51.5	→	1.70E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.38	per M people	93.1		3.22	number	2018
Freshwater biodiversity threats – Spillover	0.67	per M people	22.0		5.72	number	2018
Permanent deforestation	2.92E-02	%	94.4	↓	454.41	hectare	2020
Red List Index of species survival	0.97	scale 0–1	96.1	↗	0.97	scale 0–1	2019
Biodiversity Habitat Index	0.53	scale 0–1	32.5		0.53	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.54	per M people	51.3		4.59	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.69	scale 0–1.4	48.0	↓	0.69	scale 0–1.4	2015
Nitrogen surplus – Domestic	7.83	kg/capita	82.1	↓	64.84	Gg	2015
Nitrogen surplus – Spillover	23.67	kg/capita	1.0	↓	196.08	Gg	2015
Phosphorus fertilizer – Domestic	1.61	g/capita	98.9	↗	12,355.38	kt	2019
Phosphorus fertilizer – Spillover	9,744.94	g/capita	1.0	↓	80.71	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.68	m^3/capita	72.9	↗	5.65	B m^3	2015
Scarce water consumption – Spillover	90.44	m^3/capita	13.0	→	749.09	M m^3	2015
Water stress of crops – Domestic	13.59	m^3/capita	89.4	↑	112.59	M m^3	2015
Water stress of crops – Spillover	7,574.26	m^3/capita	22.5	→	62,733.06	M m^3	2015
Feshwater withdrawal	7.65	% renew. H_20	68.5		2.01	% renew. H_20	2012

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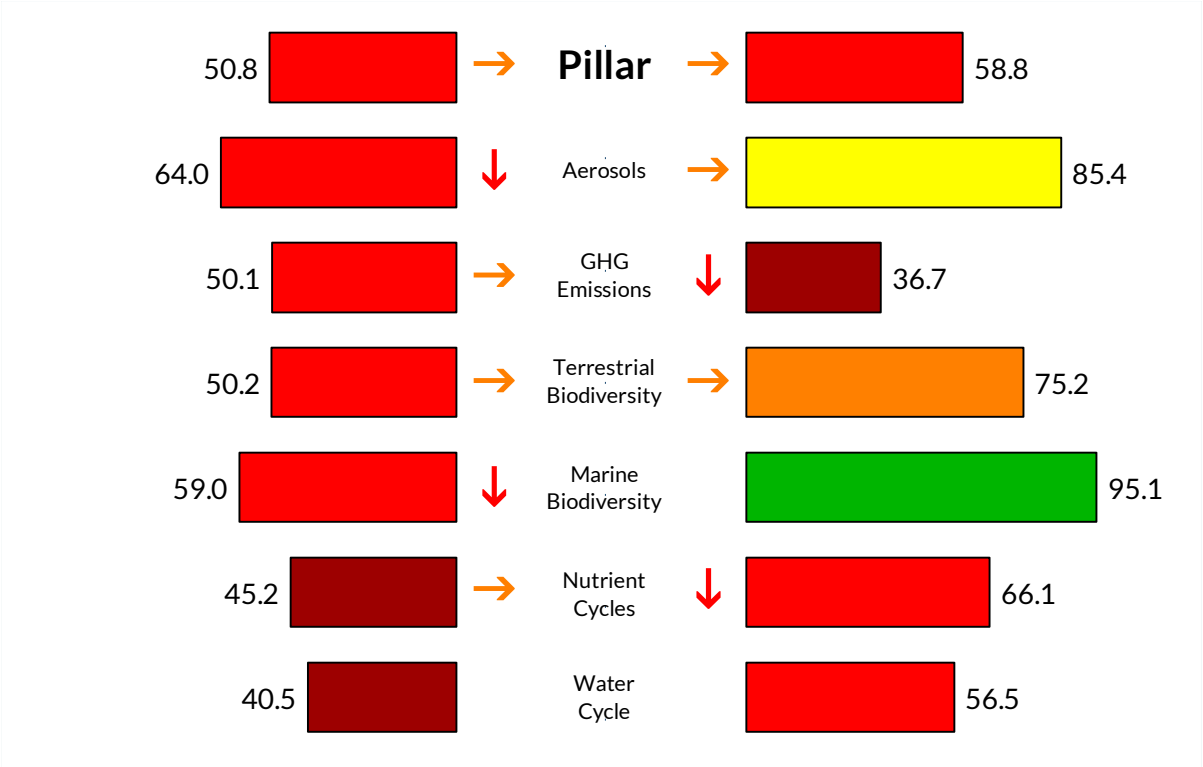
Thailand

East & South Asia

Population [millions]	69.8	**GDP** [$, billions]	1,210.0
Land area [km^2, thousands]	51,703.0	**GDP** per capita	17,335

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Thailand

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	6.44	kg/capita	89.1	→	448.50	Gg	2019
SO_2 emissions – Spillover	5.05	kg/capita	82.1	→	347.04	Gg	2015
NO_X emissions – Domestic	17.33	kg/capita	71.2	↓	1,206.34	Gg	2019
NO_X emissions – Spillover	6.90	kg/capita	87.4	↓	474.25	Gg	2015
Black Carbon emissions – Domestic	1.44	kg/capita	41.4	→	100.02	Gg	2019
Black Carbon emissions – Spillover	0.24	kg/capita	87.0	→	16.72	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.11	tonnes/capita	64.3	→	425.07	Tg	2019
GHG emissions – Spillover	2.24	tonnes/capita	36.7	↓	153.77	Tg	2015
CO_2 emissions embodied in fossil fuel exports	2.05	kg/capita	39.1		142.45	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	29.27	%	74.8	↓	29.27	%	2019
Unprotected freshwater sites	59.33	%	42.0	↓	59.33	%	2019
Land-use biodiversity loss – Domestic	1.09E-11	global PDF/capita	84.3	→	7.47E-04	global PDF	2015
Land-use biodiversity loss – Spillover	2.38E-12	global PDF/capita	94.9	→	1.64E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	2.72	per M people	49.8		188.76	number	2018
Freshwater biodiversity threats – Spillover	0.35	per M people	59.6		24.23	number	2018
Permanent deforestation	2.55E-01	%	51.2	↓	49,165.27	hectare	2020
Red List Index of species survival	0.79	scale 0–1	46.7	↓	0.79	scale 0–1	2019
Biodiversity Habitat Index	0.48	scale 0–1	25.6		0.48	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	52.46	%	49.2	↓	52.46	%	2019
Marine biodiversity threats – Domestic	0.27	per M people	96.4		18.72	number	2018
Marine biodiversity threats – Spillover	0.05	per M people	95.1		3.78	number	2018
Fish stocks: overexploited or collapsed	46.25	%	34.8	→	46.25	%	2018
Fish caught by trawling	16.27	%	73.6	↓	16.27	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.87	scale 0–1.4	33.7	↓	0.87	scale 0–1.4	2015
Nitrogen surplus – Domestic	25.81	kg/capita	40.8	↓	1,773.63	Gg	2015
Nitrogen surplus – Spillover	2.83	kg/capita	88.6	↓	194.18	Gg	2015
Phosphorus fertilizer – Domestic	47.95	g/capita	66.9	↗	367,750.11	kt	2019
Phosphorus fertilizer – Spillover	1,204.92	g/capita	49.3	→	82.80	kt	2015
Water Cycle							
Scarce water consumption – Domestic	33.01	m^3/capita	30.6	→	2,268.57	B m^3	2015
Scarce water consumption – Spillover	9.04	m^3/capita	49.1	→	621.22	M m^3	2015
Water stress of crops – Domestic	731.99	m^3/capita	41.3	→	50,298.44	M m^3	2015
Water stress of crops – Spillover	797.15	m^3/capita	65.0	↓	54,775.48	M m^3	2015
Feshwater withdrawal	23.02	% renew. H_20	52.6		57.31	% renew. H_20	2007

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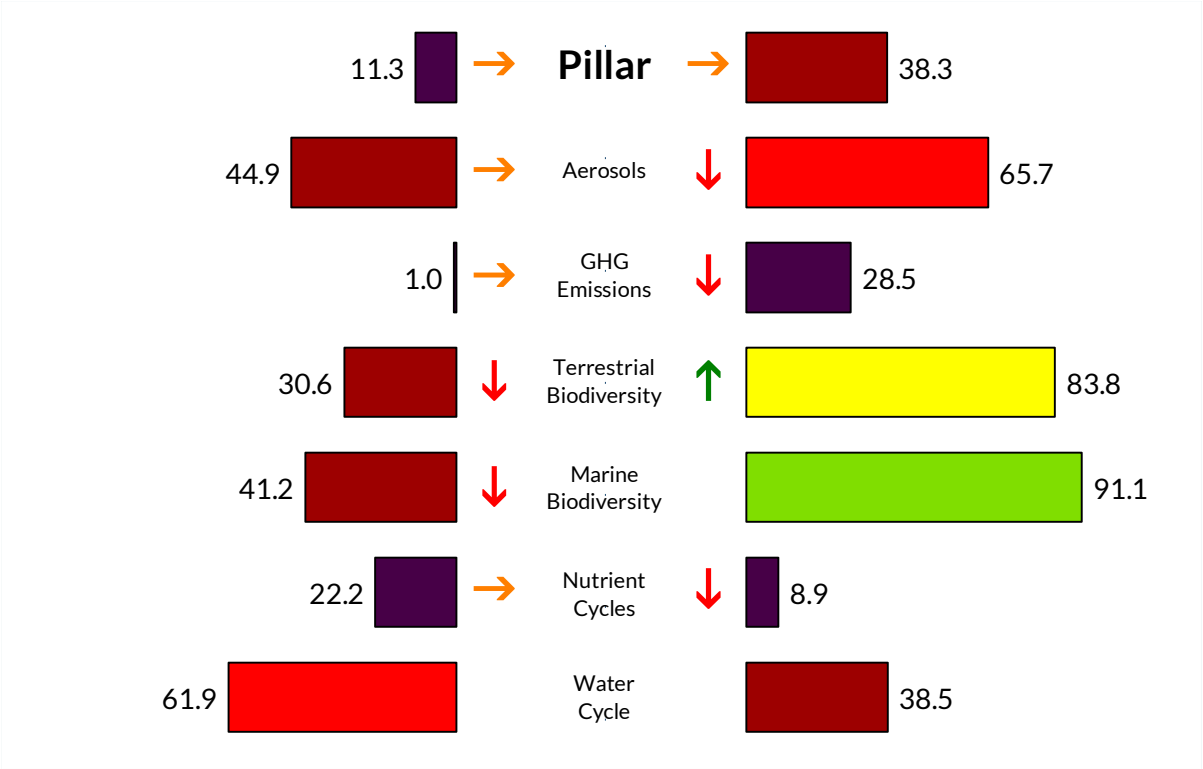
Trinidad & Tobago

Latin America & the Caribbean

Population [millions]	1.4	**GDP** [$, billions]	33.2
Land area [km^2, thousands]	519.2	**GDP** per capita	23,728

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Trinidad & Tobago

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	3.17	kg/capita	95.1	↓	4.43	Gg	2019
SO_2 emissions – Spillover	10.87	kg/capita	60.4	↓	14.89	Gg	2015
NO_X emissions – Domestic	26.93	kg/capita	48.8	↑	37.57	Gg	2019
NO_X emissions – Spillover	20.41	kg/capita	61.1	↓	27.97	Gg	2015
Black Carbon emissions – Domestic	1.90	kg/capita	19.5	→	2.65	Gg	2019
Black Carbon emissions – Spillover	0.42	kg/capita	76.8	↓	0.58	Gg	2015
GHG Emissions							
GHG emissions – Domestic	49.58	tonnes/capita	1.0	→	69.16	Tg	2019
GHG emissions – Spillover	3.37	tonnes/capita	28.5	↓	4.61	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	68.00	%	34.4	↓	68.00	%	2019
Unprotected freshwater sites	100.00	%	1.0	↓	100.00	%	2019
Land-use biodiversity loss – Domestic	3.04E-11	global PDF/capita	55.8	↓	4.17E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.14E-11	global PDF/capita	73.4	↑	1.56E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.11	per M people	98.0		0.16	number	2018
Freshwater biodiversity threats – Spillover	0.04	per M people	95.7		0.05	number	2018
Permanent deforestation	1.04E-01	%	80.2	→	397.77	hectare	2020
Red List Index of species survival	0.81	scale 0–1	52.4	↓	0.81	scale 0–1	2019
Biodiversity Habitat Index	0.53	scale 0–1	32.0		0.53	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	91.51	%	9.6	↓	91.51	%	2019
Marine biodiversity threats – Domestic	1.81	per M people	75.1		2.51	number	2018
Marine biodiversity threats – Spillover	0.10	per M people	91.1		0.14	number	2018
Fish stocks: overexploited or collapsed	37.67	%	47.2	↓	37.67	%	2018
Fish caught by trawling	9.68	%	84.4	↓	9.68	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.30	scale 0–1.4	1.3	↓	1.30	scale 0–1.4	2015
Nitrogen surplus – Domestic	5.51	kg/capita	87.5	↓	7.54	Gg	2015
Nitrogen surplus – Spillover	5.16	kg/capita	78.8	↓	7.08	Gg	2015
Phosphorus fertilizer – Domestic	0.07	g/capita	100.0	↗	500.00	kt	2019
Phosphorus fertilizer – Spillover	2,419.11	g/capita	1.0	↓	3.31	kt	2015
Water Cycle							
Scarce water consumption – Domestic	1.09	m^3/capita	67.9	↗	1.49	B m^3	2015
Scarce water consumption – Spillover	17.88	m^3/capita	38.4	↓	24.50	M m^3	2015
Water stress of crops – Domestic	128.37	m^3/capita	62.3	↗	175.91	M m^3	2015
Water stress of crops – Spillover	3,245.75	m^3/capita	38.5	→	4,447.76	M m^3	2015
Feshwater withdrawal	17.96	% renew. H_20	56.2		0.34	% renew. H_20	1997

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Turkey

OECD

Population [millions]	84.3	**GDP** [$, billions]	2,390.0
Land area [km^2, thousands]	78,181.4	**GDP** per capita	28,338

Overall impact on the Global Commons and trajectory: **Very high** →

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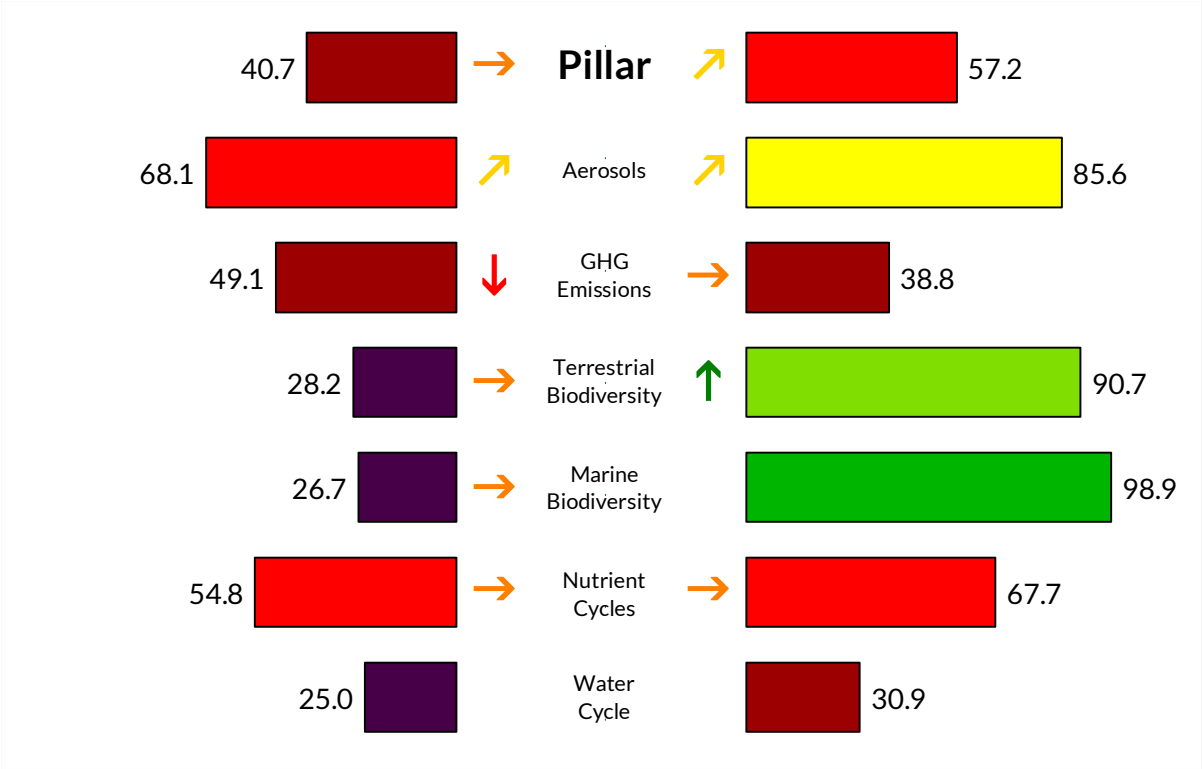

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Trajectories based upon 5-year average annual growth rates.

Turkey

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	31.62	kg/capita	42.2	↓	2,638.20	Gg	2019
SO_2 emissions – Spillover	5.25	kg/capita	81.4	↑	412.20	Gg	2015
NO_X emissions – Domestic	10.39	kg/capita	87.3	↗	867.05	Gg	2019
NO_X emissions – Spillover	6.76	kg/capita	87.6	→	530.71	Gg	2015
Black Carbon emissions – Domestic	0.51	kg/capita	85.5	↑	42.26	Gg	2019
Black Carbon emissions – Spillover	0.22	kg/capita	88.0	→	17.65	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.64	tonnes/capita	61.6	↓	553.91	Tg	2019
GHG emissions – Spillover	2.01	tonnes/capita	38.8	→	157.98	Tg	2015
CO_2 emissions embodied in fossil fuel exports	2.03	kg/capita	39.1		169.02	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	97.66	%	3.4	↓	97.66	%	2019
Unprotected freshwater sites	95.71	%	5.3	↓	95.71	%	2019
Land-use biodiversity loss – Domestic	1.50E-11	global PDF/capita	78.2	→	1.18E-03	global PDF	2015
Land-use biodiversity loss – Spillover	3.50E-12	global PDF/capita	92.2	↑	2.75E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	1.41	per M people	74.0		115.92	number	2018
Freshwater biodiversity threats – Spillover	0.10	per M people	89.1		7.87	number	2018
Permanent deforestation	2.40E-02	%	95.4	↓	2,145.88	hectare	2020
Red List Index of species survival	0.88	scale 0–1	69.4	↓	0.88	scale 0–1	2019
Biodiversity Habitat Index	0.44	scale 0–1	19.9		0.44	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	96.21	%	4.8	↓	96.21	%	2019
Marine biodiversity threats – Domestic	0.17	per M people	97.8		13.62	number	2018
Marine biodiversity threats – Spillover	0.01	per M people	98.9		0.98	number	2018
Fish stocks: overexploited or collapsed	57.50	%	18.5	→	57.50	%	2018
Fish caught by trawling	25.55	%	58.4	→	25.55	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.62	scale 0–1.4	53.7	→	0.62	scale 0–1.4	2015
Nitrogen surplus – Domestic	10.18	kg/capita	76.7	↓	799.56	Gg	2015
Nitrogen surplus – Spillover	2.77	kg/capita	88.9	→	217.66	Gg	2015
Phosphorus fertilizer – Domestic	87.01	g/capita	39.9	↗	667,367.00	kt	2019
Phosphorus fertilizer – Spillover	1,152.43	g/capita	51.5	→	90.50	kt	2015
Water Cycle							
Scarce water consumption – Domestic	52.67	m^3/capita	25.5	↓	4,136.03	B m^3	2015
Scarce water consumption – Spillover	47.04	m^3/capita	23.3	→	3,693.83	M m^3	2015
Water stress of crops – Domestic	6,945.71	m^3/capita	14.1	→	545,442.61	M m^3	2015
Water stress of crops – Spillover	2,821.49	m^3/capita	41.2	↑	221,570.26	M m^3	2015
Feshwater withdrawal	43.65	% renew. H_20	43.4		58.76	% renew. H_20	2017

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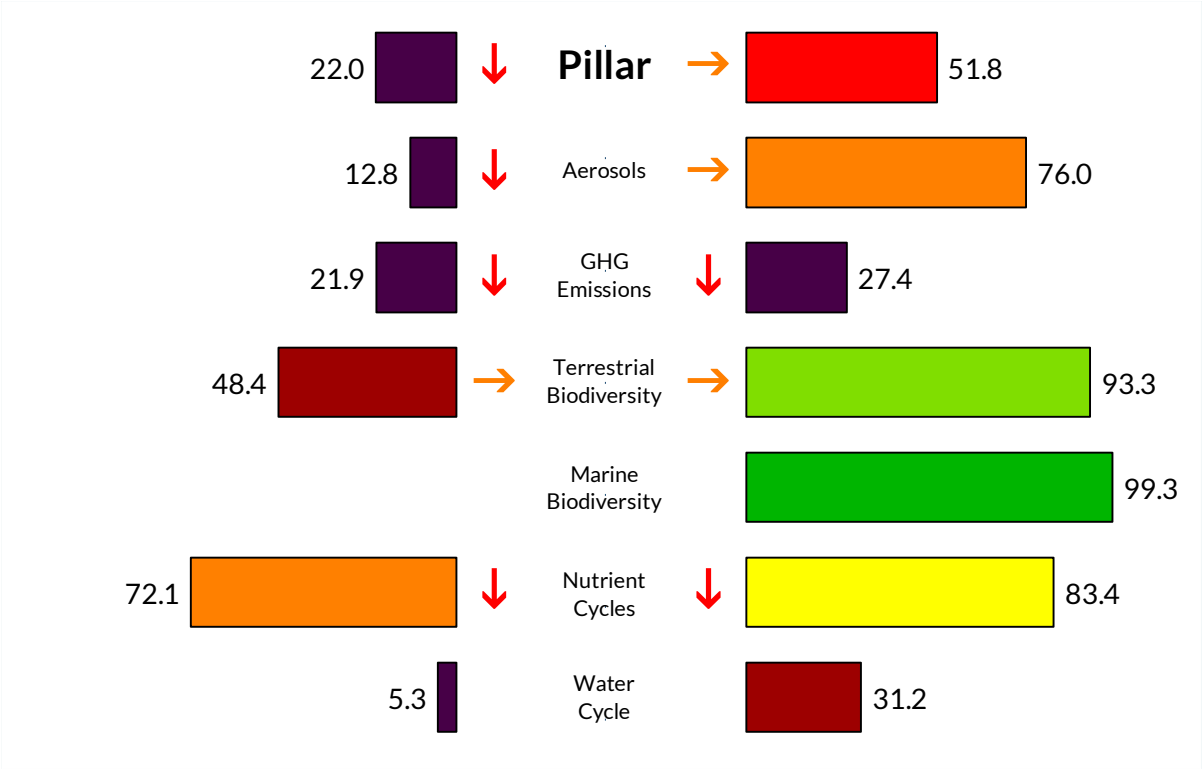
Turkmenistan

Eastern Europe & Central Asia

Population [millions]	6.0	**GDP** [$, billions]	97.8
Land area [km^2, thousands]	49,026.4	**GDP** per capita	16,216

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
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Trajectories based upon 5-year average annual growth rates.

Turkmenistan

	Proportional				Absolute		
Indicator	**Value**	**Units**	**Score**		**Value**	**Units**	**Year**
Aerosol							
SO_2 emissions – Domestic	25.06	kg/capita	54.4	↓	148.91	Gg	2019
SO_2 emissions – Spillover	9.49	kg/capita	65.5	→	52.83	Gg	2015
NO_X emissions – Domestic	81.05	kg/capita	1.0	↓	481.61	Gg	2019
NO_X emissions – Spillover	7.94	kg/capita	85.4	→	44.16	Gg	2015
Black Carbon emissions – Domestic	1.50	kg/capita	38.3	→	8.93	Gg	2019
Black Carbon emissions – Spillover	0.40	kg/capita	78.3	→	2.20	Gg	2015
GHG Emissions							
GHG emissions – Domestic	22.98	tonnes/capita	21.9	↓	136.55	Tg	2019
GHG emissions – Spillover	3.56	tonnes/capita	27.4	↓	19.84	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	85.96	%	15.7	↓	85.96	%	2019
Unprotected freshwater sites	87.25	%	13.9	↓	87.25	%	2019
Land-use biodiversity loss – Domestic	2.40E-11	global PDF/capita	65.2	→	1.33E-04	global PDF	2015
Land-use biodiversity loss – Spillover	4.63E-12	global PDF/capita	89.5	→	2.58E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.75	per M people	86.2		4.39	number	2018
Freshwater biodiversity threats – Spillover	0.03	per M people	97.3		0.15	number	2018
Permanent deforestation	0.00E+00	%	100.0		0.00	hectare	2020
Red List Index of species survival	0.97	scale 0–1	96.2	↓	0.97	scale 0–1	2019
Biodiversity Habitat Index	0.67	scale 0–1	53.4		0.67	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic		per M people				number	
Marine biodiversity threats – Spillover	0.01	per M people	99.3		0.05	number	2018
Fish stocks: overexploited or collapsed		%				%	
Fish caught by trawling		%				%	
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.73	scale 0–1.4	44.5	↓	0.73	scale 0–1.4	2015
Nitrogen surplus – Domestic	5.74	kg/capita	86.9	↓	31.95	Gg	2015
Nitrogen surplus – Spillover	1.56	kg/capita	93.9	↓	8.69	Gg	2015
Phosphorus fertilizer – Domestic	4.47	g/capita	96.9	↓	33,900.00	kt	2018
Phosphorus fertilizer – Spillover	615.26	g/capita	74.1	→	3.42	kt	2015
Water Cycle							
Scarce water consumption – Domestic	1,446.89	m^3/capita	1.0	→	8,052.33	B m^3	2015
Scarce water consumption – Spillover	37.25	m^3/capita	26.9	→	207.32	M m^3	2015
Water stress of crops – Domestic	18,510.99	m^3/capita	2.3	→	103,018.92	M m^3	2015
Water stress of crops – Spillover	3,665.59	m^3/capita	36.2	→	20,400.07	M m^3	2015
Feshwater withdrawal		% renew. H_20			27.87	% renew. H_20	

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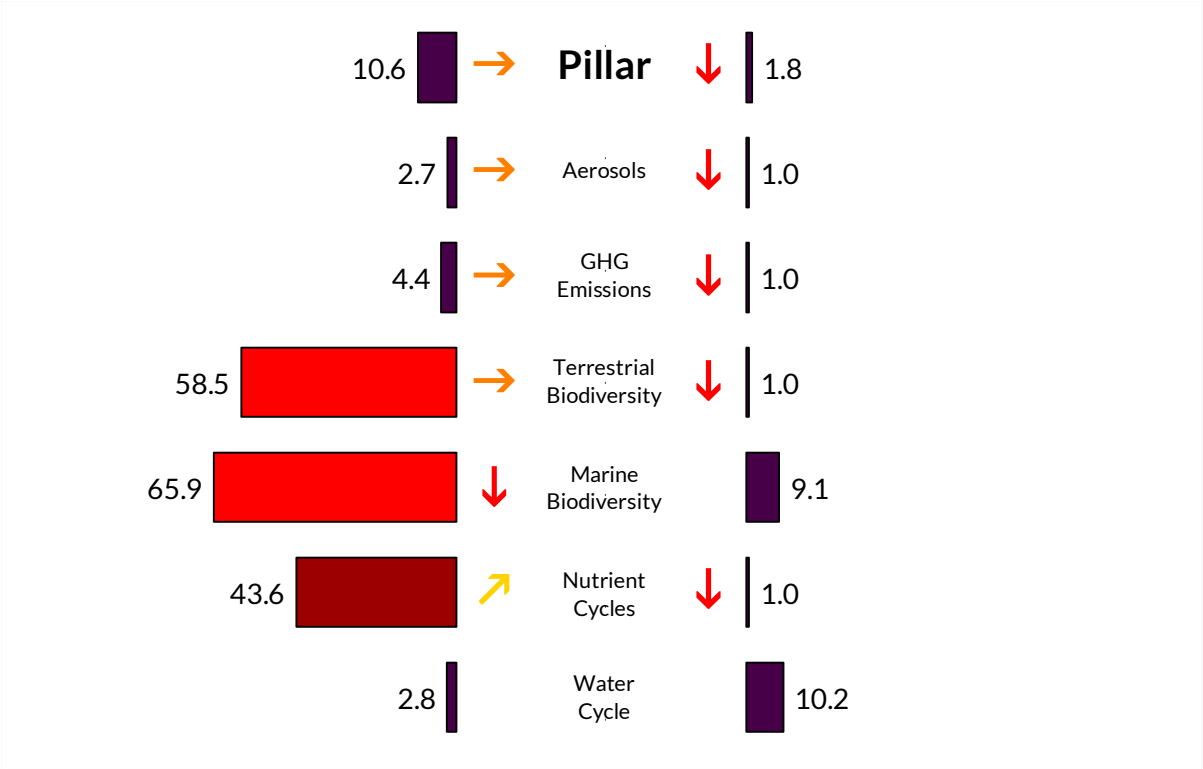
United Arab Emirates

Middle East & North Africa

Population [millions]	9.9	**GDP** [$, billions]	667.0
Land area [km^2, thousands]	7,959.9	**GDP** per capita	67,439

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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↑	Projected to meet 2050 Threshold
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Trajectories based upon 5-year average annual growth rates.

United Arab Emirates

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	53.78	kg/capita	1.0	→	525.42	Gg	2019
SO_2 emissions – Spillover	37.38	kg/capita	1.0	↓	346.27	Gg	2015
NO_X emissions – Domestic	55.18	kg/capita	1.0	→	539.10	Gg	2019
NO_X emissions – Spillover	51.26	kg/capita	1.0	↓	474.83	Gg	2015
Black Carbon emissions – Domestic	1.89	kg/capita	19.8	↓	18.49	Gg	2019
Black Carbon emissions – Spillover	2.24	kg/capita	1.0	↓	20.71	Gg	2015
GHG Emissions							
GHG emissions – Domestic	25.20	tonnes/capita	18.9	→	246.25	Tg	2019
GHG emissions – Spillover	13.34	tonnes/capita	1.0	↓	123.53	Tg	2015
CO_2 emissions embodied in fossil fuel exports	6,586.96	kg/capita	1.0		64,358.05	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites		%				%	
Unprotected freshwater sites		%				%	
Land-use biodiversity loss – Domestic	6.22E-14	global PDF/capita	100.0	↑	5.76E-07	global PDF	2015
Land-use biodiversity loss – Spillover	4.17E-11	global PDF/capita	1.0	↓	3.86E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.01	per M people	99.8		0.11	number	2018
Freshwater biodiversity threats – Spillover	0.97	per M people	1.0		9.35	number	2018
Permanent deforestation		%				hectare	
Red List Index of species survival	0.86	scale 0–1	65.2	↓	0.86	scale 0–1	2019
Biodiversity Habitat Index	0.77	scale 0–1	67.7		0.77	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites		%				%	
Marine biodiversity threats – Domestic	0.33	per M people	95.5		3.20	number	2018
Marine biodiversity threats – Spillover	1.01	per M people	9.1		9.68	number	2018
Fish stocks: overexploited or collapsed	49.53	%	30.0	↓	49.53	%	2018
Fish caught by trawling	0.00	%	100.0		0.00	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.20	scale 0–1.4	8.6	→	1.20	scale 0–1.4	2015
Nitrogen surplus – Domestic	1.66	kg/capita	96.3	↑	15.38	Gg	2015
Nitrogen surplus – Spillover	25.07	kg/capita	1.0	↓	232.21	Gg	2015
Phosphorus fertilizer – Domestic	0.54	g/capita	99.6	↗	4,150.96	kt	2019
Phosphorus fertilizer – Spillover	9,701.71	g/capita	1.0	→	89.87	kt	2015
Water Cycle							
Scarce water consumption – Domestic	2,004.39	m^3/capita	1.0	→	18,566.43	B m^3	2015
Scarce water consumption – Spillover	112.12	m^3/capita	9.6	↓	1,038.53	M m^3	2015
Water stress of crops – Domestic	3,908.79	m^3/capita	21.1	→	36,206.72	M m^3	2015
Water stress of crops – Spillover	14,079.43	m^3/capita	10.8	↓	130,416.29	M m^3	2015
Feshwater withdrawal	1,708.00	% renew. H_20	1.0		2.56	% renew. H_20	2017

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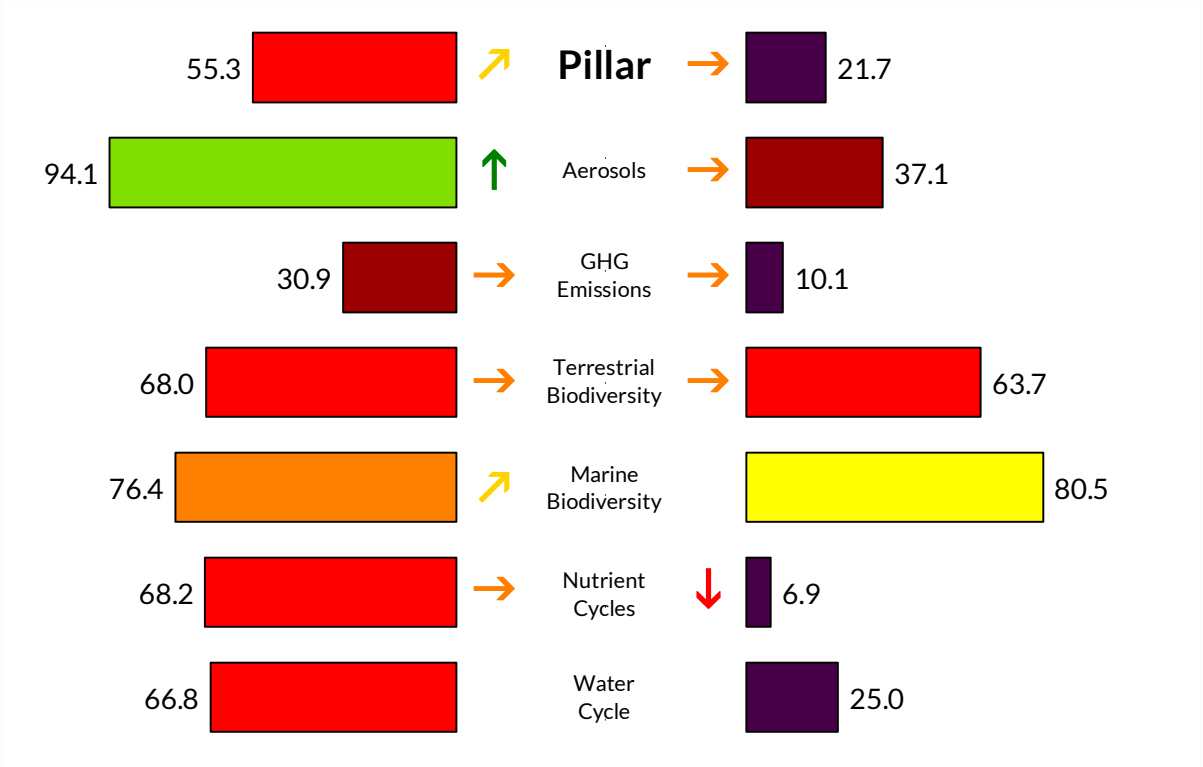
United Kingdom

OECD

Population [millions]	67.2	**GDP** [$, billions]	2,800.0
Land area [km^2, thousands]	24,373.7	**GDP** per capita	41,636

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

United Kingdom

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	2.08	kg/capita	97.2	↑	139.17	Gg	2019
SO_2 emissions – Spillover	19.16	kg/capita	29.5	→	1,248.26	Gg	2015
NO_X emissions – Domestic	11.05	kg/capita	85.8	↑	738.64	Gg	2019
NO_X emissions – Spillover	32.37	kg/capita	37.8	→	2,109.22	Gg	2015
Black Carbon emissions – Domestic	0.20	kg/capita	100.0	↑	13.47	Gg	2019
Black Carbon emissions – Spillover	0.97	kg/capita	46.0	→	62.94	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.90	tonnes/capita	60.4	→	461.51	Tg	2019
GHG emissions – Spillover	8.46	tonnes/capita	10.1	→	551.15	Tg	2015
CO_2 emissions embodied in fossil fuel exports	282.60	kg/capita	15.8		19,004.54	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	17.24	%	87.4	↗	17.24	%	2019
Unprotected freshwater sites	11.45	%	90.3	↓	11.45	%	2019
Land-use biodiversity loss – Domestic	8.53E-13	global PDF/capita	98.8	↓	5.55E-05	global PDF	2015
Land-use biodiversity loss – Spillover	1.38E-11	global PDF/capita	67.7	→	8.96E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.10	per M people	98.2		6.73	number	2018
Freshwater biodiversity threats – Spillover	0.35	per M people	59.8		23.28	number	2018
Permanent deforestation	2.18E-03	%	99.6	→	108.86	hectare	2020
Red List Index of species survival	0.78	scale 0–1	43.0	↓	0.78	scale 0–1	2019
Biodiversity Habitat Index	0.45	scale 0–1	20.5		0.45	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	17.97	%	84.2	↗	17.97	%	2019
Marine biodiversity threats – Domestic	0.11	per M people	98.5		7.57	number	2018
Marine biodiversity threats – Spillover	0.22	per M people	80.5		14.46	number	2018
Fish stocks: overexploited or collapsed	24.81	%	65.8	↑	24.81	%	2018
Fish caught by trawling	23.16	%	62.3	↓	23.16	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.58	scale 0–1.4	56.3	↓	0.58	scale 0–1.4	2015
Nitrogen surplus – Domestic	14.09	kg/capita	67.8	↓	918.20	Gg	2015
Nitrogen surplus – Spillover	12.60	kg/capita	47.5	↓	821.11	Gg	2015
Phosphorus fertilizer – Domestic	24.25	g/capita	83.3	↗	186,000.00	kt	2019
Phosphorus fertilizer – Spillover	5,917.07	g/capita	1.0	↓	385.50	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.89	m^3/capita	70.0	↗	58.12	B m^3	2015
Scarce water consumption – Spillover	49.61	m^3/capita	22.4	→	3,232.13	M m^3	2015
Water stress of crops – Domestic	64.12	m^3/capita	70.7	↗	4,177.14	M m^3	2015
Water stress of crops – Spillover	5,682.76	m^3/capita	28.0	→	370,231.44	M m^3	2015
Feshwater withdrawal	13.67	% renew. H_20	60.1		8.42	% renew. H_20	2012

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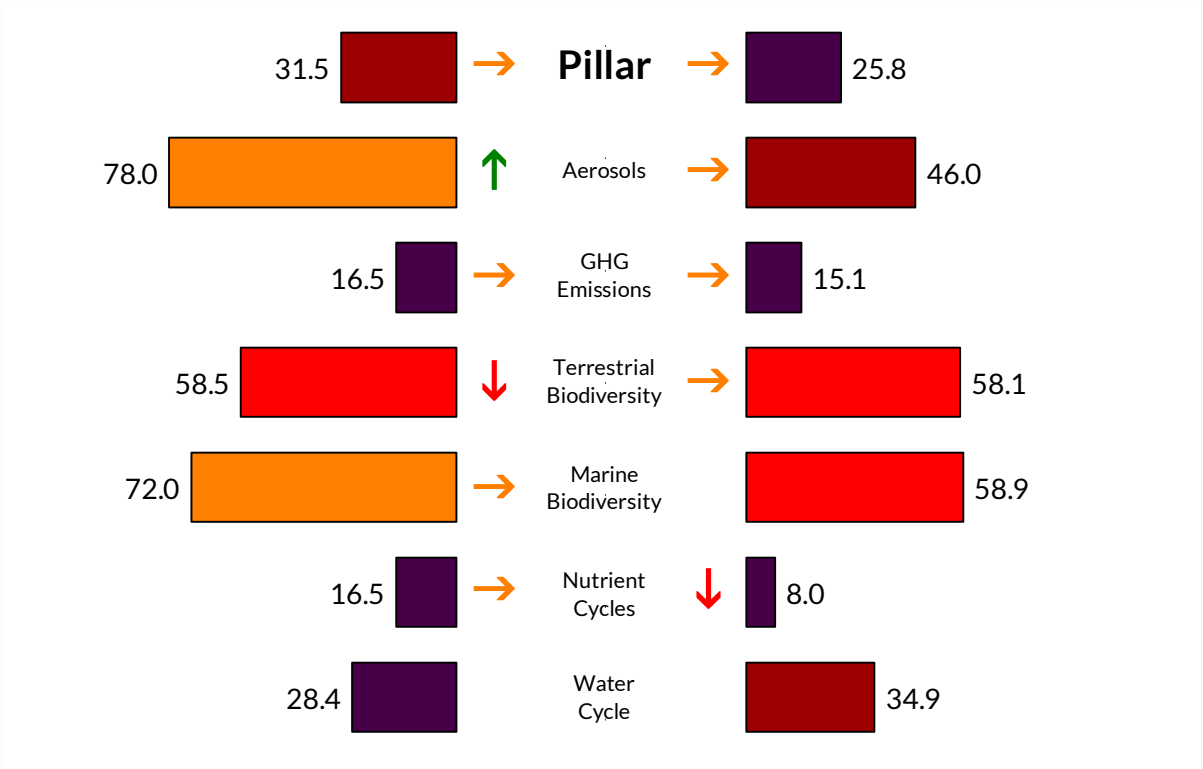
United States

OECD

Population [millions]	333.1	**GDP** [$, billions]	20,000.0
Land area [km^2, thousands]	949,857.1	**GDP** per capita	60,048

Overall impact on the Global Commons and trajectory: **Extreme** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

United States

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	5.79	kg/capita	90.3	↑	1,921.17	Gg	2019
SO_2 emissions – Spillover	18.19	kg/capita	33.1	→	5,903.59	Gg	2015
NO_X emissions – Domestic	23.14	kg/capita	57.6	↑	7,679.32	Gg	2019
NO_X emissions – Spillover	25.63	kg/capita	50.9	→	8,319.94	Gg	2015
Black Carbon emissions – Domestic	0.39	kg/capita	91.2	↑	128.40	Gg	2019
Black Carbon emissions – Spillover	0.76	kg/capita	57.8	→	245.83	Gg	2015
GHG Emissions							
GHG emissions – Domestic	19.38	tonnes/capita	27.4	→	6,432.38	Tg	2019
GHG emissions – Spillover	6.59	tonnes/capita	15.1	→	2,139.39	Tg	2015
CO_2 emissions embodied in fossil fuel exports	985.54	kg/capita	10.0		328,248.25	Gg	2020
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	48.79	%	54.4	↓	48.79	%	2019
Unprotected freshwater sites	65.83	%	35.5	↓	65.83	%	2019
Land-use biodiversity loss – Domestic	1.25E-11	global PDF/capita	81.9	→	4.07E-03	global PDF	2015
Land-use biodiversity loss – Spillover	1.70E-11	global PDF/capita	59.9	→	5.52E-03	global PDF	2015
Freshwater biodiversity threats – Domestic	1.59	per M people	70.6		520.59	number	2018
Freshwater biodiversity threats – Spillover	0.38	per M people	56.3		123.29	number	2018
Permanent deforestation	5.54E-02	%	89.4	↓	150,588.13	hectare	2020
Red List Index of species survival	0.84	scale 0–1	58.7	↓	0.84	scale 0–1	2019
Biodiversity Habitat Index	0.58	scale 0–1	40.3		0.58	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	38.96	%	62.9	↓	38.96	%	2019
Marine biodiversity threats – Domestic	0.83	per M people	88.6		272.66	number	2018
Marine biodiversity threats – Spillover	0.45	per M people	58.9		148.77	number	2018
Fish stocks: overexploited or collapsed	22.12	%	69.7	→	22.12	%	2018
Fish caught by trawling	18.98	%	69.1	↓	18.98	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.32	scale 0–1.4	76.3	↓	0.32	scale 0–1.4	2015
Nitrogen surplus – Domestic	17.86	kg/capita	59.1	→	5,798.47	Gg	2015
Nitrogen surplus – Spillover	8.79	kg/capita	63.5	↓	2,854.60	Gg	2015
Phosphorus fertilizer – Domestic	518.08	g/capita	1.0	→	3,973,509.93	kt	2019
Phosphorus fertilizer – Spillover	3,723.64	g/capita	1.0	→	1,208.67	kt	2015
Water Cycle							
Scarce water consumption – Domestic	48.52	m^3/capita	26.4	→	15,750.26	B m^3	2015
Scarce water consumption – Spillover	27.62	m^3/capita	31.6	→	8,965.65	M m^3	2015
Water stress of crops – Domestic	5,669.97	m^3/capita	16.6	→	1,840,435.47	M m^3	2015
Water stress of crops – Spillover	3,230.05	m^3/capita	38.6	→	1,048,452.15	M m^3	2015
Feshwater withdrawal		% renew. H_20			444.30	% renew. H_20	

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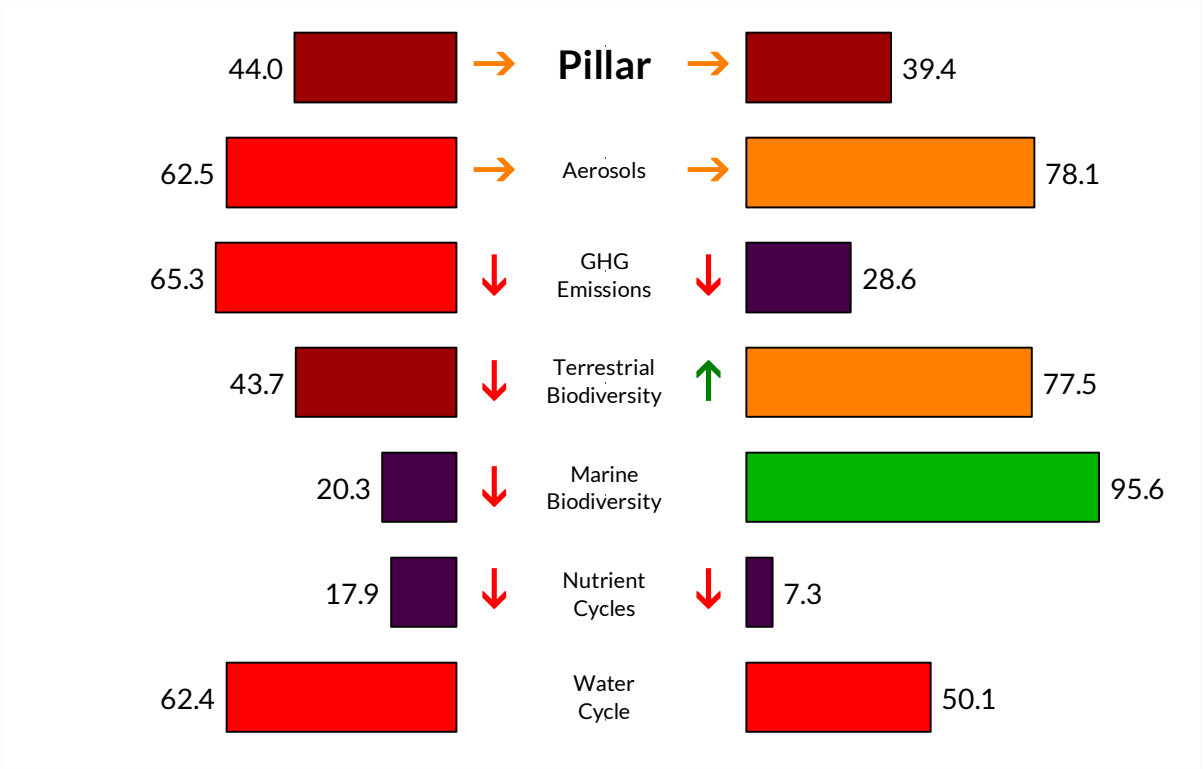
Uruguay

Latin America & the Caribbean

Population [millions]	3.5	**GDP** [$, billions]	75.1
Land area [km^2, thousands]	17,796.1	**GDP** per capita	21,608

Overall impact on the Global Commons and trajectory: **Very high** →

Impacts and trajectory by pillar and sub-pillar:



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Trajectories based upon 5-year average annual growth rates.

Uruguay

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	7.68	kg/capita	86.8	→	26.59	Gg	2019
SO_2 emissions – Spillover	6.09	kg/capita	78.2	→	20.77	Gg	2015
NO_X emissions – Domestic	20.18	kg/capita	64.5	↓	69.87	Gg	2019
NO_X emissions – Spillover	11.05	kg/capita	79.3	→	37.71	Gg	2015
Black Carbon emissions – Domestic	1.39	kg/capita	43.6	→	4.82	Gg	2019
Black Carbon emissions – Spillover	0.42	kg/capita	76.8	→	1.44	Gg	2015
GHG Emissions							
GHG emissions – Domestic	11.99	tonnes/capita	42.7	↓	41.52	Tg	2019
GHG emissions – Spillover	3.36	tonnes/capita	28.6	↓	11.47	Tg	2015
CO_2 emissions embodied in fossil fuel exports	0.00	kg/capita	100.0		0.00	Gg	2018
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	79.20	%	22.7	↓	79.20	%	2019
Unprotected freshwater sites	78.14	%	23.0	↓	78.14	%	2019
Land-use biodiversity loss – Domestic	3.23E-11	global PDF/capita	53.0	→	1.10E-04	global PDF	2015
Land-use biodiversity loss – Spillover	1.66E-11	global PDF/capita	61.0	↑	5.65E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	1.32	per M people	75.6		4.57	number	2018
Freshwater biodiversity threats – Spillover	0.02	per M people	98.4		0.06	number	2018
Permanent deforestation	1.01E-01	%	80.6	↓	2,147.77	hectare	2020
Red List Index of species survival	0.83	scale 0–1	57.6	↓	0.83	scale 0–1	2019
Biodiversity Habitat Index	0.52	scale 0–1	31.2		0.52	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	51.59	%	50.1	↓	51.59	%	2019
Marine biodiversity threats – Domestic	1.19	per M people	83.6		4.11	number	2018
Marine biodiversity threats – Spillover	0.05	per M people	95.6		0.17	number	2018
Fish stocks: overexploited or collapsed	42.53	%	40.2	↓	42.53	%	2018
Fish caught by trawling	60.46	%	1.0	↓	60.46	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.47	scale 0–1.4	64.7	↓	0.47	scale 0–1.4	2015
Nitrogen surplus – Domestic	47.91	kg/capita	1.0	↓	163.46	Gg	2015
Nitrogen surplus – Spillover	11.31	kg/capita	53.0	↓	38.58	Gg	2015
Phosphorus fertilizer – Domestic	16.08	g/capita	88.9	↓	123,291.33	kt	2019
Phosphorus fertilizer – Spillover	4,463.65	g/capita	1.0	→	15.23	kt	2015
Water Cycle							
Scarce water consumption – Domestic	5.48	m^3/capita	50.2	→	18.70	B m^3	2015
Scarce water consumption – Spillover	9.06	m^3/capita	49.1	→	30.91	M m^3	2015
Water stress of crops – Domestic	138.79	m^3/capita	61.4	↗	473.54	M m^3	2015
Water stress of crops – Spillover	1,668.78	m^3/capita	51.1	↑	5,693.89	M m^3	2015
Feshwater withdrawal		% renew. H_20			3.66	% renew. H_20	

The Global Commons Stewardship Index is a production of SDSN, Yale University, and the University of Tokyo.

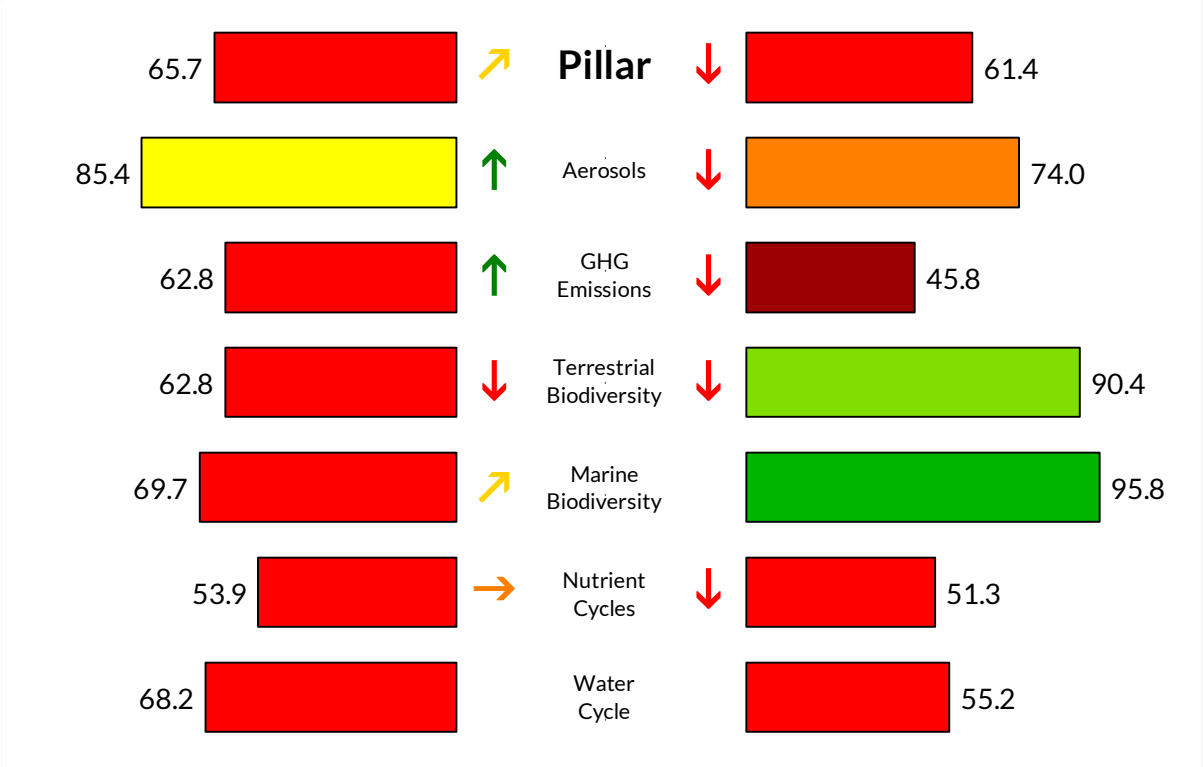
Venezuela

Latin America & the Caribbean

Population [millions]	28.4	**GDP** [$, billions]	239.0
Land area [km^2, thousands]	91,831.1	**GDP** per capita	8,405

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



Note: All results shown in proportional terms.

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Dashboard Score	Impacts on the Global Commons
95–100	None or limited
90–95	Low
80–90	Medium-low
70–80	Medium-high
50–70	High
30–50	Very High
0–30	Extreme

Arrow	Meaning
↑	Projected to meet 2050 Threshold
↗	Projected to meet only 2030 Threshold
→	Insufficient progress toward thresholds
↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Venezuela

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	9.43	kg/capita	83.5	↑	269.01	Gg	2019
SO_2 emissions – Spillover	9.05	kg/capita	67.2	↓	272.15	Gg	2015
NO_X emissions – Domestic	14.08	kg/capita	78.7	↑	401.42	Gg	2019
NO_X emissions – Spillover	15.89	kg/capita	69.9	↓	477.89	Gg	2015
Black Carbon emissions – Domestic	0.31	kg/capita	94.7	↑	8.90	Gg	2019
Black Carbon emissions – Spillover	0.25	kg/capita	86.4	↓	7.63	Gg	2015
GHG Emissions							
GHG emissions – Domestic	6.41	tonnes/capita	62.8	↑	182.75	Tg	2019
GHG emissions – Spillover	1.42	tonnes/capita	45.8	↓	42.69	Tg	2015
CO_2 emissions embodied in fossil fuel exports		kg/capita				Gg	
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	47.46	%	55.8	↓	47.46	%	2019
Unprotected freshwater sites	47.31	%	54.1	↓	47.31	%	2019
Land-use biodiversity loss – Domestic	1.74E-11	global PDF/capita	74.7	→	5.24E-04	global PDF	2015
Land-use biodiversity loss – Spillover	6.10E-12	global PDF/capita	86.0	↓	1.84E-04	global PDF	2015
Freshwater biodiversity threats – Domestic	0.55	per M people	89.8		16.01	number	2018
Freshwater biodiversity threats – Spillover	0.04	per M people	95.1		1.28	number	2018
Permanent deforestation	1.20E-01	%	77.0	↓	69,001.06	hectare	2020
Red List Index of species survival	0.82	scale 0–1	55.2	↓	0.82	scale 0–1	2019
Biodiversity Habitat Index	0.61	scale 0–1	44.6		0.61	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	64.38	%	37.1	↓	64.38	%	2019
Marine biodiversity threats – Domestic	1.27	per M people	82.6		36.61	number	2018
Marine biodiversity threats – Spillover	0.05	per M people	95.8		1.35	number	2018
Fish stocks: overexploited or collapsed	16.82	%	77.4	↑	16.82	%	2018
Fish caught by trawling	0.45	%	99.6	↑	0.45	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	1.01	scale 0–1.4	23.2	↓	1.01	scale 0–1.4	2015
Nitrogen surplus – Domestic	11.57	kg/capita	73.5	→	348.10	Gg	2015
Nitrogen surplus – Spillover	3.43	kg/capita	86.1	↓	103.27	Gg	2015
Phosphorus fertilizer – Domestic	12.48	g/capita	91.4	↗	95,700.00	kt	2019
Phosphorus fertilizer – Spillover	1,649.65	g/capita	30.6	↓	49.62	kt	2015
Water Cycle							
Scarce water consumption – Domestic	0.88	m^3/capita	70.2	↗	26.39	B m^3	2015
Scarce water consumption – Spillover	8.86	m^3/capita	49.4	↓	266.66	M m^3	2015
Water stress of crops – Domestic	95.98	m^3/capita	65.8	↗	2,887.28	M m^3	2015
Water stress of crops – Spillover	949.87	m^3/capita	61.7	↓	28,573.83	M m^3	2015
Feshwater withdrawal	7.54	% renew. H_20	68.7		22.62	% renew. H_20	2007

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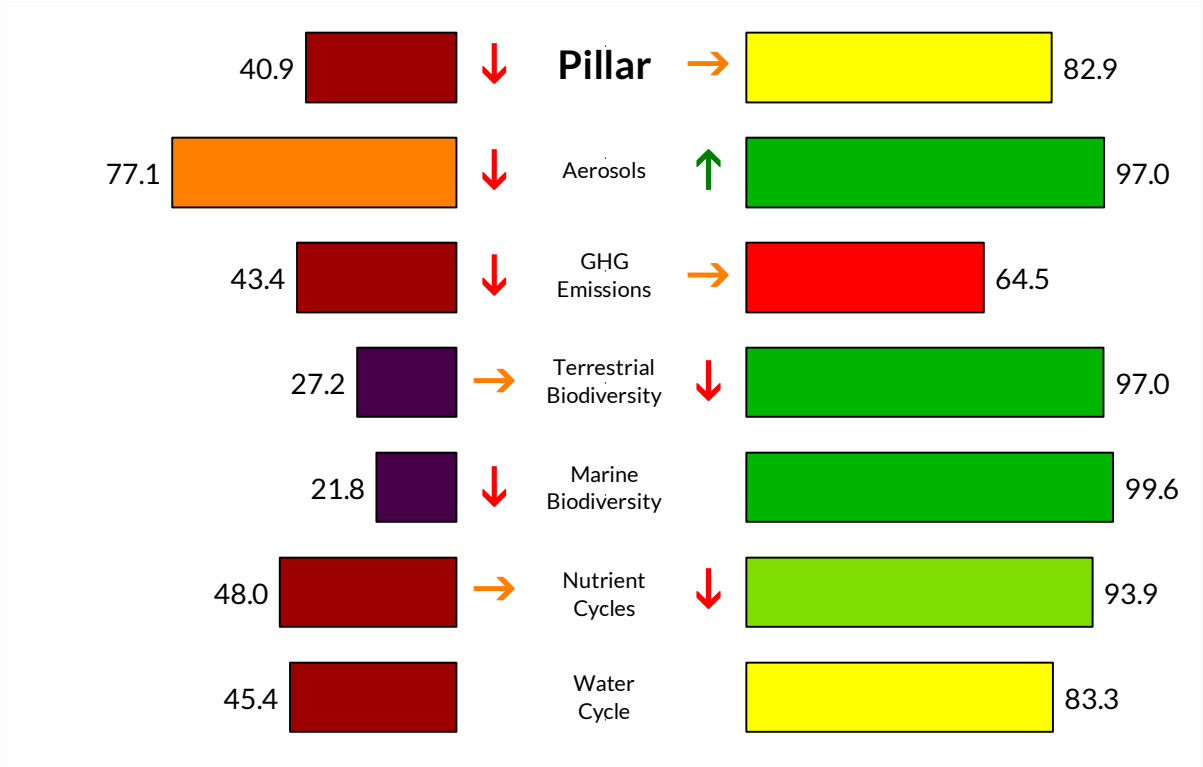
Vietnam

East & South Asia

Population [millions]	97.3	**GDP** [$, billions]	798.0
Land area [km^2, thousands]	33,021.5	**GDP** per capita	8,198

Overall impact on the Global Commons and trajectory: **High** →

Impacts and trajectory by pillar and sub-pillar:



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↓	Trajectory headed in wrong direction

Trajectories based upon 5-year average annual growth rates.

Vietnam

Indicator	Proportional Value	Units	Score		Absolute Value	Units	Year
Aerosol							
SO_2 emissions – Domestic	8.83	kg/capita	84.6	↓	852.06	Gg	2019
SO_2 emissions – Spillover	1.08	kg/capita	96.9	↑	100.36	Gg	2015
NO_X emissions – Domestic	12.20	kg/capita	83.1	↓	1,177.24	Gg	2019
NO_X emissions – Spillover	1.56	kg/capita	97.8	↗	144.96	Gg	2015
Black Carbon emissions – Domestic	0.93	kg/capita	65.3	↓	90.06	Gg	2019
Black Carbon emissions – Spillover	0.08	kg/capita	96.4	↗	7.12	Gg	2015
GHG Emissions							
GHG emissions – Domestic	4.30	tonnes/capita	75.5	↓	415.01	Tg	2019
GHG emissions – Spillover	0.56	tonnes/capita	64.5	→	51.55	Tg	2015
CO_2 emissions embodied in fossil fuel exports	41.32	kg/capita	24.9		3,986.25	Gg	2019
Terrestrial Biodiversity Loss							
Unprotected terrestrial sites	60.84	%	41.9	↓	60.84	%	2019
Unprotected freshwater sites	61.82	%	39.5	↓	61.82	%	2019
Land-use biodiversity loss – Domestic	6.40E-12	global PDF/capita	90.8	↗	5.93E-04	global PDF	2015
Land-use biodiversity loss – Spillover	9.96E-13	global PDF/capita	98.2	↓	9.23E-05	global PDF	2015
Freshwater biodiversity threats – Domestic	0.90	per M people	83.3		86.37	number	2018
Freshwater biodiversity threats – Spillover	0.04	per M people	95.8		3.64	number	2018
Permanent deforestation	9.70E-01	%	1.0	↓	158,833.31	hectare	2020
Red List Index of species survival	0.73	scale 0–1	29.6	↓	0.73	scale 0–1	2019
Biodiversity Habitat Index	0.51	scale 0–1	29.4		0.51	scale 0–1	2015
Marine Biodiversity Loss							
Unprotected marine sites	76.11	%	25.2	↓	76.11	%	2019
Marine biodiversity threats – Domestic	0.28	per M people	96.3		26.49	number	2018
Marine biodiversity threats – Spillover	0.00	per M people	99.6		0.47	number	2018
Fish stocks: overexploited or collapsed	5.46	%	93.8	↓	5.46	%	2018
Fish caught by trawling	64.80	%	1.0	↓	64.80	%	2018
Nutrient Cycles							
Sustainable Nitrogen Management Index	0.62	scale 0–1.4	53.2	→	0.62	scale 0–1.4	2015
Nitrogen surplus – Domestic	17.07	kg/capita	60.9	↓	1,582.00	Gg	2015
Nitrogen surplus – Spillover	0.54	kg/capita	98.2	↓	50.14	Gg	2015
Phosphorus fertilizer – Domestic	95.34	g/capita	34.2	↗	731,212.92	kt	2019
Phosphorus fertilizer – Spillover	243.64	g/capita	89.8	→	22.58	kt	2015
Water Cycle							
Scarce water consumption – Domestic	7.83	m^3/capita	46.3	→	725.32	B m^3	2015
Scarce water consumption – Spillover	1.40	m^3/capita	78.3	↗	129.91	M m^3	2015
Water stress of crops – Domestic	456.34	m^3/capita	47.0	↗	42,292.14	M m^3	2015
Water stress of crops – Spillover	229.82	m^3/capita	88.5	↓	21,298.88	M m^3	2015
Feshwater withdrawal		% renew. H_20			81.86	% renew. H_20	

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