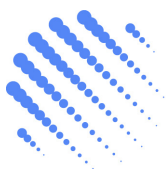




ASCOR

**State of Transition in Sovereigns 2024:
Tracking national climate action for investors**



**Transition
Pathway
Initiative**



THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE



**Grantham
Research Institute
on Climate Change
and the Environment**

ASCOR project partners

The Assessing Sovereign Climate-related Opportunities and Risks (ASCOR) project is led by asset owners, asset managers and investor networks. ASCOR is co-chaired by Victoria Barron at GIB Asset Management, Claudia Gollmeier at Colchester Global Investors, Esther Law at Amundi Asset Management and Adam Matthews at the Church of England Pensions Board. The project is supported by Chronos Sustainability.

The ASCOR Steering Committee is composed of the Asia Investor Group on Climate Change (AIGCC), the UN-convened Net-Zero Asset Owner Alliance (AOA), Ceres, the Investor Group on Climate Change (IGCC), the Institutional Investors Group on Climate Change (IIGCC) and Principles for Responsible Investment (PRI). The ASCOR Advisory Committee includes Aktia Bank, Allspring Global Investments, Amundi Asset Management, the Church of England Pensions Board, Colchester Global Investors, Franklin Templeton, MFS Investment Management and Ninety One.

www.ascorproject.org

Academic partner: LSE Transition Pathway Initiative Centre

ASCOR's academic partner is the Transition Pathway Initiative Centre (TPI Centre). The TPI Centre is an independent, authoritative source of research and data on the progress of corporate and sovereign entities in transitioning to a low-carbon economy. The TPI Centre is part of the Grantham Research Institute on Climate Change and the Environment based at the London School of Economics and Political Science (LSE).

The TPI Centre is also the academic partner of the Transition Pathway Initiative (TPI), a global initiative led by asset owners and supported by asset managers.

www.transitionpathwayinitiative.org

Authors

This report was written by Antonina Scheer, Camila Cristancho-Duarte, Simon Dietz, Setenay Hizliok, Johannes Honneth, Sylvan Lutz, Giorgia Monsignori and Carmen Nuzzo of the TPI Centre, and Rory Sullivan, Chronos Sustainability.

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Foreword by ASCOR's co-chairs

We are pleased to announce a significant milestone in the ASCOR project, marked by an expansion in country coverage since its inception in 2021 and the publication of the first country pilot results in November 2023.

The climate agenda has never been more critical, taking centre stage in both political and investor discussions. The rising frequency of weather-related incidents, coupled with geopolitical tensions affecting energy security, underscores the urgent need for a transition to a lower-carbon economy. Investors are also seeking to better understand how to incorporate climate considerations in all investible asset classes, including in sovereign debt instruments.

As the project has developed over the last few years, we have engaged with a diverse array of stakeholders, including investors, sovereign issuers and multilateral development banks, through four public webinars, 12 regional roundtables and dozens of workshops and other bilateral calls. This collaborative effort has culminated in the creation of the pioneering ASCOR framework, aimed at reshaping how investors approach climate change in relation to sovereign bonds. The response to the framework has been overwhelmingly positive.

Responding to increased demand, the project has expanded its analysis from an initial 25 pilot countries to this new assessment of 70 countries. This comprehensive coverage encompasses all major developed and emerging government bond indices, providing investors with a powerful tool to evaluate nations' progress on climate initiatives and facilitate constructive engagement with policymakers. After all, to accelerate a transition to a lower-carbon world using private capital, it is vital that countries' Nationally Determined Contributions are viable and investible for institutional investors.

We understand from the analysis presented in this report that there is no overwhelming trend across income groups in terms of how countries perform against the ASCOR framework. This nuance is important: investors should acknowledge that not all high-income countries perform systematically better than middle- or low-income countries just because they are wealthier. Targeted transition finance could help many emerging market and developing economies to harness low-carbon technologies and establish climate policies while they continue to focus on development priorities.

We extend our heartfelt thanks to everyone who has supported this initiative. Your collaboration is invaluable as we take the next steps in the ASCOR journey. Please help us spread awareness to encourage the adoption of this transformative framework.

Victoria Barron

Chief Sustainability Officer,
GIB Asset Management

Claudia Gollmeier

Managing Director, Singapore,
Head of Investment Management APAC & MEA,
Colchester Global Investors

Esther Law

Senior Portfolio Manager, EM Sovereign and
Responsible Investing Lead,
Amundi Asset Management

Adam Matthews

Chief Responsible Investment Officer,
Church of England Pensions Board

Executive summary

Key findings from our assessment of 70 countries

Emissions Pathways

- Forty of the 70 countries assessed have reduced their emissions over the past five years and almost all have established medium-term targets.
- Not a single country has a historical emissions trend or 2030 target that aligns with its national 1.5°C benchmark. Only a few are aligned with their '1.5°C fair share' (an allocation based on equity principles) in their emissions trends or 2030 targets.

Climate Policies

- Forty out of the 70 countries have established a legal framework for national climate policy through a climate framework law.
- Countries perform poorly on commitments to phase out fossil fuel subsidies and production, making finance flows inconsistent with a 1.5°C future.

Climate Finance

- Most of the developed countries (81%) assessed fail to contribute or commit to their proportional share of the US\$100 billion international climate finance goal.
- Only one-third of the developing countries assessed have been transparent about the costs of their mitigation and adaptation measures. This may constrain public and private finance flows towards these objectives.

This report reviews the climate change performance of 70 high-, middle- and low-income countries assessed against the ASCOR framework in 2024. Collectively accounting for more than 85% of global greenhouse gas (GHG) emissions and 90% of global GDP, the country universe covers the key national players in the low-carbon transition. They are also the most relevant countries for investors to incorporate climate change considerations into their sovereign bond evaluations, as together they cover 75–100% of the major sovereign bond market indices.

ASCOR is an investor-led initiative launched to provide comprehensive and comparable data on how sovereigns are managing their transition, physical and social risks. Using publicly available data including from official country sources and third-party data providers, we assess countries' performance across three pillars: Emissions Pathways, Climate Policies and Climate Finance – see table below. The framework provides a comparable picture of country performance using qualitative 'Yes' or 'No' questions as well as quantitative metrics. In line with the principle of 'common but differentiated responsibilities' enshrined in the United Nations Framework Convention on Climate Change (UNFCCC), low- and middle-income countries are exempted from certain indicators and metrics.

Overview of the ASCOR framework		
Pillar 1. Emissions Pathways (EP)	Pillar 2. Climate Policies (CP)	Pillar 3. Climate Finance (CF)
EP 1. Emissions trends	CP 1. Climate legislation	CF 1. International climate finance
EP 2. 2030 targets	CP 2. Carbon pricing	CF 2. Transparency of climate costing
EP 3. Net zero targets	CP 3. Fossil fuels	CF 3. Transparency of climate spending
	CP 4. Sectoral transitions	CF 4. Renewable energy opportunities
	CP 5. Adaptation	
	CP 6. Just transition	

State of transition in sovereigns 2024: assessment results

Our assessment of 70 countries against the ASCOR framework confirms the well-known gap between national targets and policies and the international temperature goals of the 2015 UN Paris Agreement. No country is assessed as 'Yes' on all or even a majority of the framework's areas. Countries across income groups perform well on some key areas, such as net zero targets, climate legislation and transparency in climate spending. But countries generally perform poorly on other areas including emissions trends, fossil fuels and international climate finance.

On **Emissions Pathways**, although most countries have reduced their emissions over the five years since 2018 and have set medium- and long-term emissions reduction targets, few of these targets are ambitious enough to align with 1.5°C. Nearly all countries have 2030 targets, but few are transparent about their reliance on carbon credits. No country has a 2030 target aligned with their national 1.5°C benchmark and only 20% of countries' targets are aligned with their national 1.5°C fair share allocations (which are estimated by dividing allowable global 2030 emissions by country based on equity principles). Setting a net zero target is common across assessed countries (80% having done so). Most high-income countries (84%) have a net zero target for 2050, but only seven target net zero by 2045, which is the accelerated net zero benchmark we apply as an additional high-ambition evaluation for high-income countries.

On **Climate Policies**, countries show promising performance in setting legal and regulatory frameworks for their transitions. However, policies often lack effectiveness, clear commitments and concrete multi-sector measures. More than half (57%) of countries have a climate framework law and many of these establish specific accountability mechanisms for climate-related obligations. Setting a price on carbon is fairly common (69% of countries do so), but most countries' pricing schemes have insufficient emissions coverage and prices that are too low to align with the Paris Agreement goals. Almost half of countries have multi-sector decarbonisation strategies that break down their Nationally Determined Contribution (NDC) targets to the sectoral level and set associated mitigation measures in each sector.

The worst performance is on commitments to phase out fossil fuel subsidies and production. This is concerning as continued investment in new fossil fuel projects is inconsistent with a 1.5°C future.

Most countries have taken steps to address both the physical impacts of climate change and the social risks and opportunities of the low-carbon transition. However, although 76% of countries have published a National Adaptation Plan (NAP), only one-third of these have monitored and evaluated progress on its implementation. Regarding the social impacts of transition, at least half of countries have green jobs strategies, but only 21% have an inclusive approach to just transition institutionalised within a government body.

Finally, on **Climate Finance**, developed countries are making insufficient contributions to international climate finance. There is also limited transparency from developing countries about the costs of their

climate objectives, which may constrain public and private finance flows towards these objectives. Most developed countries (81%) fail to contribute their proportional share of the US\$100 billion international climate finance goal, or to set future finance targets that would meet such a share. Despite being a potential enabler of climate finance, transparent costing of mitigation and adaptation measures is only undertaken by around one-third of the developing countries assessed. Two-thirds of countries disclose their climate-related expenditure in some form, but only 24% track and quantify this expenditure with a consistent tagging methodology. New 'prospective' renewable energy projects represent one form of transition investment opportunity that we assess within Pillar 3: the pipeline of new renewable energy projects means that overall capacity is expanding in all but one country.

A synthesis of national climate action

ASCOR does not aggregate assessment results into a single country score, instead providing an in-depth, granular picture of the many facets of country climate performance. But to analyse cross-country patterns, the dimensionality of the layered ASCOR framework must be reduced. We do this by synthesising the assessment into two pillar-level scores: *Emissions Pathways* (Pillar 1) and *Climate Policies and Finance* (Pillars 2 and 3 combined).

To avoid constraining financial flows to emerging market and developing economies which require significant amounts of transition finance, countries' performance against the ASCOR framework should be compared within rather than across income groups. This is because income is a predictor of all pillar scores, reflecting the role of factors including access to financial resources and technologies. Across regions, the European Union performs best, while countries in the Middle East and North Africa perform worst, which may be partially explained by the region's economic dependence on fossil fuel rents. We present pillar scores by quartile in each income group and cross-validate our results against similar tools including the Climate Change Performance Index (CCPI) and the Environmental Performance Index (EPI).

Lessons for national transition planning and implications for investors

Echoing the emerging guidance on national transition planning, we offer three recommendations to national governments to improve the next generation of NDCs and help to address information gaps identified by investors and other stakeholders:

1. Adopt a whole-of-government vision to coordinate ministries
2. Translate national ambitions to the sectoral level
3. Develop climate-related investment plans, clarify funding needs and identify sources of finance

For each recommendation, we outline relevant ASCOR areas and indicators that assess the practical ingredients of national transition planning; and showcase examples of emerging best practice.

The ASCOR tool and the assessment results have the following implications for investors:

- ASCOR offers the breadth and depth that investors need. The ASCOR tool's increased coverage enables investors to assess a much broader segment of their investment portfolios than before, and to implement strategies such as climate-aware index investing and climate tilting.
- ASCOR's breadth and depth enable a broader range of uses. Ways in which investors can use ASCOR data include to explicitly assess climate-related risks and opportunities in sovereign debt analysis and to structure dialogue with sovereign issuers. The ASCOR tool can in principle also support specific use cases by sovereign bond issuers, including supporting country governments in showcasing progress on climate policies to bondholders.
- ASCOR data provides important insights into the relationship between economic growth and emissions reductions. The analysis sheds light on the tension between development and climate action and highlights how mitigation policies could be integrated into national economic development plans.

1. Introduction

Background and purpose

Climate change is the world's largest market failure (Stern, 2006), leaving the world on an emissions trajectory that is driving 'irresponsible' levels of physical climate risk (Lenton et al., 2019). As a global problem, climate change requires international cooperation, with nation states the central actors. Nation states are also important actors in financial markets: the government bonds they issue represent a significant asset class. Outstanding public debt represents about 40% of total global fixed income and equity markets (International Monetary Fund [IMF], 2024; Securities Industry and Financial Markets Association, 2024).

To play its role in mitigating and adapting to climate change, the financial sector therefore requires an understanding of what action sovereign issuers are taking on climate change. Comparing countries' progress has been difficult due to a lack of consistent data that appropriately accounts for countries' economic, geographical, political, social and cultural circumstances. In addition, over-simplified sustainable finance metrics could create perverse incentives and constrain lending to middle- and low-income countries that need it most to finance the low-carbon transition (Dibley et al., 2024).

In this context, the Transition Pathway Initiative Centre, as the academic partner of the Assessing Sovereign Climate-Related Opportunities and Risks (ASCOR) project, has developed a publicly available and independent tool that assesses countries on climate change. The ASCOR project is led by asset owners, asset managers and investor networks. The ASCOR tool and framework aim to inform investors' decision-making on sovereign bonds and enable a more explicit consideration of climate change.

This report reviews the climate change performance of 70 high-, middle- and low-income countries assessed against the ASCOR framework in 2024. The framework and our assessment methodology are introduced below. See Appendix 1 for the list of countries assessed.

Structure and principles of the assessment

The ASCOR framework was developed and iterated according to the following seven design principles. Indicators and metrics are intended to be:

1. Assessable using publicly available data
2. Clear and accessible to investors, prioritising easily interpretable binary questions
3. Objectively evaluated using a transparent methodology
4. Chosen to avoid unnecessary additions to the reporting burden of sovereign entities
5. Pitched at the national level
6. Aligned with the principle of common but differentiated responsibilities and respective capabilities, as enshrined in the United Nations Framework Convention on Climate Change
7. Focused on sovereign *management* of climate risks and opportunities rather than on physical risk *exposure*.

The framework comprises three pillars, Emissions Pathways, Climate Policies and Climate Finance, divided into 13 thematic areas which contain binary performance indicators and quantitative metrics (see Table 1.1). Each pillar of the ASCOR framework evaluates a distinct component of sovereign action on climate change; alignment with this framework requires a whole-of-government approach. The [ASCOR methodology note](#) provides further details on the design principles and a full explanation of how each indicator and metric is assessed.

In the first pillar, we assess countries' Emissions Pathways by analysing both their historical emissions and their forward-looking targets. Countries that have steeper reductions and more ambitious targets are contributing towards the goals of the 2015 UN Paris Agreement on climate change. As such, they are acting to limit future physical risks, thereby promoting system-wide social, environmental and financial stability.

In the second pillar, we assess countries across a range of specific policy and planning measures aimed at mitigation, adaptation and just transition outcomes. The presence of such policies can highlight to investors whether there is meaningful progress on the implementation of stated climate targets.

In the final pillar, we assess Climate Finance from four interrelated angles. We assess: (i) how much wealthier countries are contributing to international climate finance; to facilitate these flows, we also assess (ii) whether developing countries are transparently costing their climate finance needs. To verify the credibility of targets and policies assessed under Emissions Pathways and Climate Policies, we also assess countries on (iii) whether they are transparent about public spending towards climate action. Finally, we showcase comparable data on (iv) how much countries are actively expanding their renewable energy capacity as a proxy for the scale of investment opportunities in the low-carbon transition.

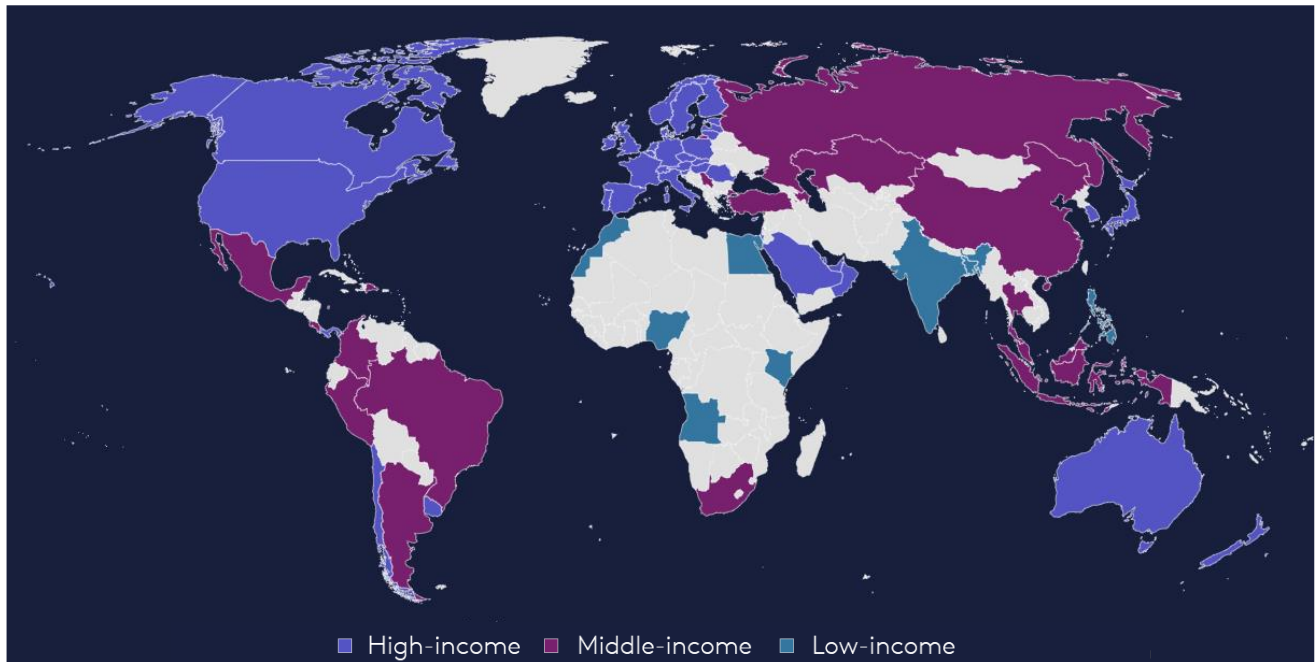
Table 1.1. Overview of the ASCOR framework

Pillar 1. Emissions Pathways (EP)	Pillar 2. Climate Policies (CP)	Pillar 3. Climate Finance (CF)
EP 1. Emissions trends	CP 1. Climate legislation	CF 1. International climate finance
EP 2. 2030 targets	CP 2. Carbon pricing	CF 2. Transparency of climate costing
EP 3. Net zero targets	CP 3. Fossil fuels	CF 3. Transparency of climate spending
	CP 4. Sectoral transitions	CF 4. Renewable energy opportunities
	CP 5. Adaptation	
	CP 6. Just transition	

Note: All indicators and metrics included in the ASCOR framework are presented in Section 2 of this report at the beginning of the discussion of each Pillar's results.

In 2024, the ASCOR country universe includes 70 countries (see Figure 1.1) from different geographical regions, income groups, climate risk levels and policymaking systems. These countries account for more than 85% of global greenhouse gas (GHG) emissions and 90% of global GDP (in current international US\$, adjusted for purchasing power parity). Countries were selected based on their weights in the major sovereign bond market indices. The ASCOR assessment cycle in 2024 had a cut-off date of 23 August 2024. Any documents or laws published after this date will be assessed in the next assessment cycle.

Figure 1.1. Map of countries assessed in the ASCOR tool in 2024, by income group.¹



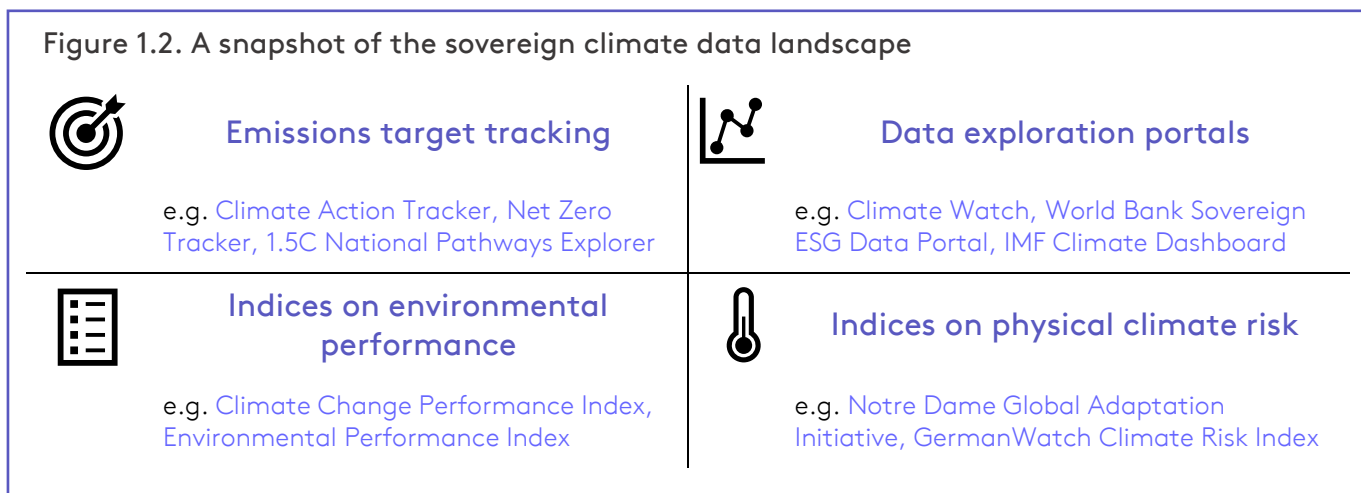
Note: *High-income countries* (45) assessed are: Australia, Barbados, Canada, Chile, France, Germany, Italy, Japan, Poland, Saudi Arabia, United Kingdom, United States, Uruguay, Austria, Bahrain, Belgium, Cyprus, Czechia, Denmark, Estonia, Finland, Hong Kong, Hungary, Ireland, Israel, Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Oman, Panama, Portugal, Qatar, Republic of Korea, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, United Arab Emirates. *Middle-income countries* (17) assessed are: Argentina, Azerbaijan, Brazil, China, Colombia, Costa Rica, Dominican Republic, Indonesia, Kazakhstan, Malaysia, Mexico, Peru, Russian Federation, Serbia, South Africa, Thailand, Türkiye. *Low-income countries* (8) assessed are: Angola, Bangladesh, Egypt, India, Kenya, Morocco, Nigeria, Philippines.

Contribution to the sovereign climate data landscape

The landscape of country climate data is complex and includes a range of information developed for diverse purposes and audiences. A sample of leading existing data tools is provided in Figure 1.2, categorised as focusing primarily on tracking targets, enabling data exploration, or providing index results on countries' environmental performance or physical climate risk. In this context, the ASCOR project was initiated by investors seeking a comprehensive and practical way to specifically integrate climate considerations in their sovereign bond investment decisions and dialogue. As such, ASCOR draws on some of the characteristics of existing tools but goes further. We track emissions targets but also provide performance data in the form of detailed policy assessments addressing both transition and physical risk. The ASCOR tool does not aggregate results into a single index or score: instead, it provides more transparent and granular performance data. See Section 3 for a comparison of our country results with the Climate Change Performance Index (CCPI) and the Environmental Performance Index (EPI).

¹ We group countries primarily based on the [World Bank country classification by income level](#) as follows: i) high-income (HI) countries: World Bank group 'high income'; ii) middle-income (MI) countries: World Bank group 'upper-middle income'; iii) low-income (LI) countries: World Bank groups 'lower-middle income' and 'low income'. Note that the Russian Federation is assessed in the ASCOR tool as a middle-income country, with all applicable exemptions, based on the World Bank income group assigned to it at the beginning of this research cycle (i.e. upper-middle-income country). The Russian Federation has since been recategorised as a high-income country by the World Bank. The country will be assessed as a high-income country in the next ASCOR assessment cycle.

Figure 1.2. A snapshot of the sovereign climate data landscape



The ASCOR tool has several characteristics that make it a valuable and complementary addition to the existing landscape of sovereign climate data. The development of the analytical approach and methodology behind the tool have been informed by the priorities and constraints of its intended audience. Ongoing outreach by the TPI Centre and the project partners is intended to maintain an understanding of evolving investor expectations and the changing policy landscape to adapt the tool and methodology.

From a content perspective, the ASCOR tool is a one-stop shop to understand where a country is at in its transition. Although ASCOR is not a financial risk tool, it comprehensively evaluates countries' policies to manage transition and physical risks, which can inform investors about future economic stability. It goes beyond evaluating emissions targets by assessing climate policies, including at a granular level. It also evaluates novel policy areas not explored in existing tools, including just transition and climate framework legislation.

From a practical perspective, the ASCOR tool has specific features that enable greater uptake by financial market participants: transparency, regularity and coverage. To integrate data into investment decision-making, investors need to understand how data was collected and analysed. The ASCOR tool has transparency at its core, with a publicly available methodology note, open-source assessment results and sources noted for each data point. Investors also require up-to-date information across a large investable universe: ASCOR has committed to providing regular annual updates of a growing number of countries. We have assessed 70 countries that cover 70-100% of the major sovereign bond market indices in 2024.²

The ASCOR tool is a proactive contribution to support investor engagement: the feedback period with country governments sets a foundation for mutual understanding and dialogue. Before publication, preliminary and confidential country assessments are sent to country government representatives. As part of this process, we receive feedback from Ministries of Finance or Environment, and in some cases Debt Management Offices coordinate across different ministries. We achieved the significant feedback rate of 46% in 2024, an improvement on 2023, which demonstrates strong and growing awareness of the ASCOR tool.

² These countries cover 100% of the FTSE World Government Bond Index (WGBI), Bloomberg Global Treasury Index and JP Morgan Government Bond Index-Emerging Markets (GBI-EM) Global Diversified. They cover 85% of the JP Morgan Emerging Markets Bond Index (EMBI) and 70% of the FTSE Frontier Emerging Markets Government Bond Index.

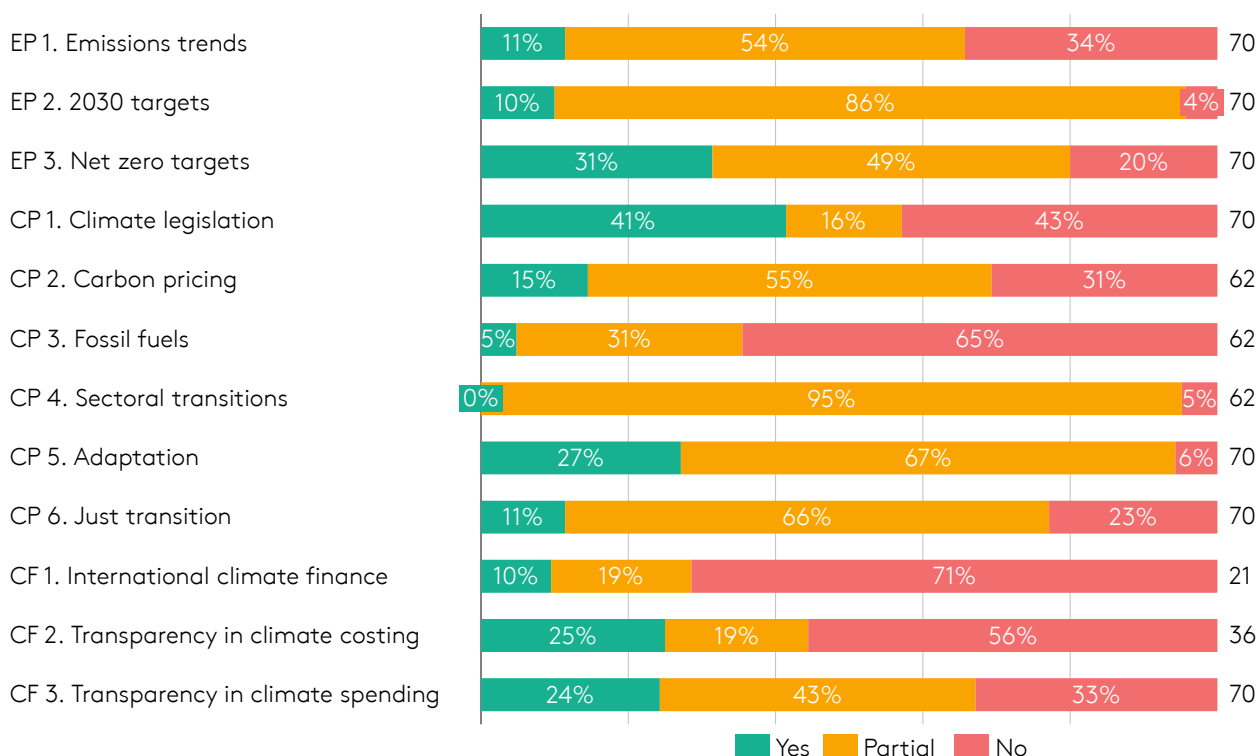
2. State of transition in sovereigns

This section presents for the first time the assessment results of 70 countries. These countries include the smaller universe of 25 countries assessed in 2023 (Scheer et al., 2023). We first provide an overview of all area-level results followed by analysis of each area and indicator. Appendix 2 details the area-level results by country and Appendix 3 shows a heatmap of ASCOR metric results for each country.

When interpreting the area- and indicator-level assessment results (i.e. the percentage of 'Yes' or 'No' results), readers should consider the total number of countries assessed, which is specified on the bar charts and throughout the text. We exempt middle- and/or low-income countries from selected areas, indicators and metrics to reflect countries' common but differentiated responsibilities and respective capabilities. Exemptions on some indicators and metrics are based on other country characteristics or groupings. For example, we use the UNFCCC Annex categories to determine which countries to assess on their contributions to international climate finance (CF 1). All country exemptions for each indicator and metric are specified in the ASCOR methodology note (Scheer et al., 2024).

The overarching outcome of our analysis is that countries need to enhance ambition and accelerate climate action, confirming similar conclusions from other organisations that track progress on the low-carbon transition (e.g. Climate Action Tracker, 2023; Net Zero Tracker, 2024; UNEP, 2024). Figure 2.1 presents area-level results, where a country is assessed as 'Yes' if it achieves all applicable binary indicators in that area and 'No' if it achieves none.

Figure 2.1. Overview of assessment results by area



Note: the number of countries assessed on each area is shown on the right-hand side of the bar.

Most areas, such as 2030 targets and sectoral transitions, are dominated by ‘Partial’ results, indicating that countries have taken some level of action but that significant gaps remain. Some other areas show stronger results, where a higher share of countries have achieved all relevant indicators, such as in the climate legislation area. No country has achieved ‘Yes’ on a majority of the ASCOR framework’s areas.

Most countries’ historical emissions trends (EP 1) and future targets (EP 2) are not ambitious enough to align with their country-specific 1.5°C or fair share benchmarks. Countries’ net zero targets align with 1.5°C more frequently but most high-income countries’ net zero targets fail to meet an accelerated deadline of 2045 or earlier.

Setting a legal framework for mitigation and adaptation policies through climate laws (CP 1) and establishing carbon pricing systems (CP 2) are widespread practices. However, the emissions coverage and price levels of carbon pricing systems remain limited. Few countries have met any of the criteria for fossil fuel phaseouts, as shown by the high ‘No’ share in this area (CP 3). Sectoral transition planning (CP 4) is the only area where no country has achieved every single indicator; this is in part due to the large number of indicators in this area that cover different sectors. A significant number of countries are beginning to address the physical and social risks of climate change through adaptation (CP 5) and just transition (CP 6) policies.

Most high-income countries do not contribute a proportional share of the US\$100 billion commitment to international climate finance (CF 1), nor do they have adequate targets to achieve such a share. There is greater transparency over climate expenditure (CF 3) compared with transparency over the expected cost of climate action (CF 2), but both require improvement.

These area-level results provide an overview of the current state of transition across countries. However, the ASCOR framework is built in a way that assesses countries’ ambition, transparency and credibility through interrelated policies and disclosures. Therefore, we provide a more nuanced and complete picture of country performance through granular indicator-by-indicator results within each area.

Pillar 1: Emissions Pathways

National emissions pathways, composed of forward-looking targets and historical emissions trends, provide an overview of countries’ mitigation performance and ambition. In the Emissions Pathways pillar, we assess recent trends in emissions on an absolute and an intensity basis, as well as medium-term 2030 targets and long-term net zero targets. National emissions trends provide information on the outcomes of mitigation actions taking place in a given country while targets send signals to investors and businesses about future ambition.

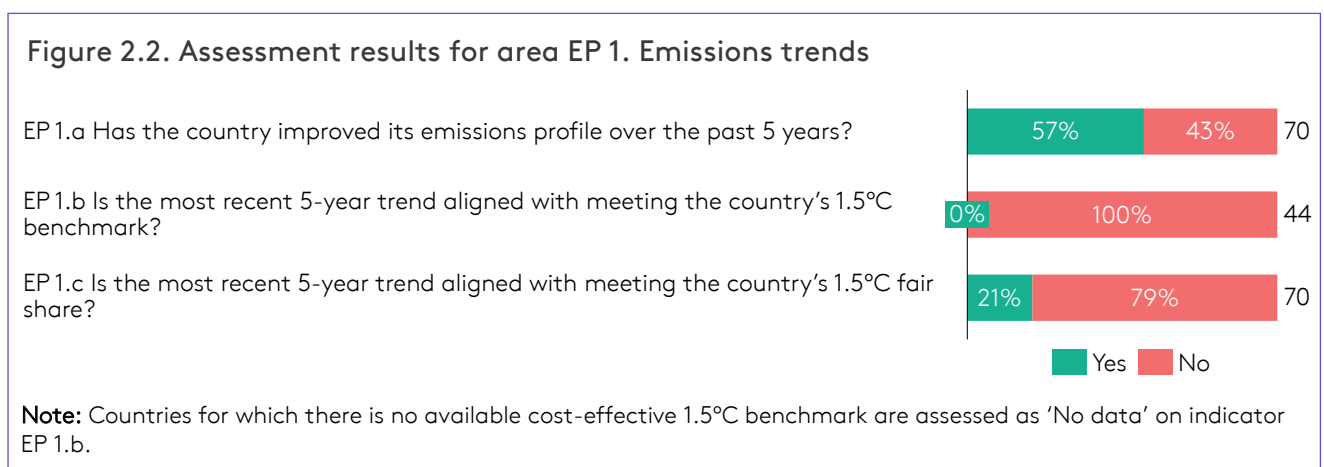
Table 2.1 shows all the indicators and metrics in this pillar along with the type of assessment results and the countries assessed for that particular indicator or metric. Boxes 2.1 and 2.2 summarise how we assess historical and future Emissions Pathways in the three areas of this pillar. Our results show that many countries are improving their emissions profile and setting long-term net zero targets. However, no intermediate 2030 targets are aligned with 1.5°C benchmarks, calling into question the credibility of countries’ distant net zero ambitions.

Table 2.1. Indicators and metrics in Pillar 1: Emissions Pathways

Pillar 1.	Emissions Pathways (EP)	Answer type	Countries assessed*
EP 1.	Emissions trends		
EP 1.a	Has the country improved its emissions profile over the past 5 years?	Yes/No	All
EP 1.a.i	What is the country's most recent emission level?	MtCO ₂ e	All
EP 1.a.ii	What is the country's most recent emission trend?	%	All
EP 1.b	Is the most recent 5-year trend aligned with meeting the country's 1.5°C benchmark?	Yes/No	All
EP 1.c	Is the most recent 5-year trend aligned with meeting the country's 1.5°C fair share?	Yes/No	All
EP 2.	2030 targets		
EP 2.a	Has the country set a 2030 emission reduction target?	Yes/No	All
EP 2.a.i	What is the targeted reduction relative to 2019 emissions?	%	All
EP 2.b	Does the country specify whether and how much carbon credits may contribute to its 2030 target?	Yes/No	All
EP 2.b.i	What percentage of the 2030 target will be met using carbon credits?	%	All
EP 2.c	Is the country's 2030 target aligned with its 1.5°C benchmark?	Yes/No	All
EP 2.c.i	What is the degree of alignment with its 1.5°C benchmark?	%	All
EP 2.d	Is the country's 2030 target aligned with its 1.5°C fair share?	Yes/No	All
EP 2.d.i	What is the degree of alignment with its 1.5°C fair share?	%	All
EP 3.	Net zero targets		
EP 3.a	Has the country set a net zero CO ₂ target?	Yes/No	All
EP 3.a.i	In what year is the net zero CO ₂ target set?	Year	All
EP 3.b	Is the country's net zero CO ₂ target aligned with a global 1.5°C scenario?	Yes/No	HI
EP 3.c	Is the country's net zero CO ₂ target aligned with an accelerated deadline for high-income countries?	Yes/No	HI

***Note:** High-income (HI) countries are assessed on all applicable ASCOR indicators and metrics whereas middle-income (MI) and low-income (LI) countries are exempt on certain indicators and metrics. For country income groups see [Appendix 1](#).

EP 1. Emissions trends



Rapidly cutting emissions is key to achieving climate stability. By 2030, global GHG emissions must fall by 42% from 2019 levels to meet the 1.5°C goal of the Paris Agreement; the current policy scenario suggests that global emissions will be higher in 2030 than they were in 2019 and will put the world on track for an estimated 3.1°C of warming (UNEP, 2024). The alignment of historical

emissions trends with 1.5°C benchmarks reveals whether countries' recent mitigation efforts are consistent with this international goal and can also be used to gauge the level of commitment to forward-looking targets (see Boxes 2.1 and 2.2). Over half of assessed countries have decreasing emissions trends on at least two-thirds of the nine emissions metrics we evaluate. However, there is no country whose emissions trend aligns with their cost-effective 1.5°C benchmark and only a few countries (15) are aligned with their fair share 1.5°C benchmark (see Figure 2.2).

ASCOR assesses countries' five-year emissions trends across nine emissions metrics (see Box 2.1). Each metric reveals a different aspect of a country's emissions profile, together providing a more complete picture. Production-based emissions³ are vital to global carbon budgets and are generally the focus of Nationally Determined Contributions (NDCs) under the Paris Agreement. We assess land use, land use change and forestry (LULUCF) emissions separately from other production-based emissions due to lower measurement accuracy and disagreements between sources (Gütschow et al., 2016). Consumption-based emissions⁴ reveal whether a country is contributing to emissions abroad through imports (Peters et al., 2011). Considering emissions intensities by population and GDP is important because socioeconomic trends create different country circumstances: lower- and middle-income countries may need to increase per-capita emissions to meet development priorities. We compare the five-year linear trends of absolute production emissions with two different 1.5°C benchmarks. The five-year period reported on here is 2019–2023.

Box 2.1. Methodology to assess emissions trends

In the emissions trends area (EP 1), we assess countries' recent trends using three boundaries:

- **Production-based emissions, excluding LULUCF:** emissions generated within a country.
- **Production-based LULUCF emissions:** emissions generated or sequestered due to changes in carbon sinks related to land management.
- **Consumption-based emissions excluding LULUCF:** emissions associated with the production of goods consumed within a country, regardless of where the emissions occur.

We adjust each of these three emissions boundaries as follows to yield nine separate emissions metrics:

- **Absolute:** total emissions from the relevant emissions boundary.
- **Per capita intensity:** total emissions divided by population.
- **Per GDP intensity:** total emissions divided by GDP adjusted for purchasing power parity (PPP).

If two-thirds of the nine metrics are negative, a country is assessed as having improved its emissions profile (indicator EP 1.a). To evaluate whether these trends align with 1.5°C, production-based emissions trends are extrapolated linearly to 2030 and compared with our 1.5°C cost-effective and fair share benchmarks (indicators EP 1.b and c). See Box 2.2 below for a description of these two benchmarks.

Note that these linear extrapolations are not intended to represent a likely future emissions level of the country as this would require an analysis of current and future policies. Rather, they are only intended to evaluate whether the pace of decarbonisation observed historically is compatible with a trend aligned with 1.5°C.

³ We source production-based and LULUCF emissions from the [PRIMAP-HISTCR](#) database. This dataset contains comparable data on emissions, prioritising countries' own emissions reporting.

⁴ We source consumption-based emissions from the Global Carbon Project (GCP). Some countries, including [New Zealand](#) and some [EU member states](#), report their consumption-based emissions but may not use consistent methodologies.

Our results show that the global transition is underway: 40 out of 70 countries (57%) have reduced their emissions over the past five years. This is defined as a reduction in emissions on at least two-thirds of our metrics.

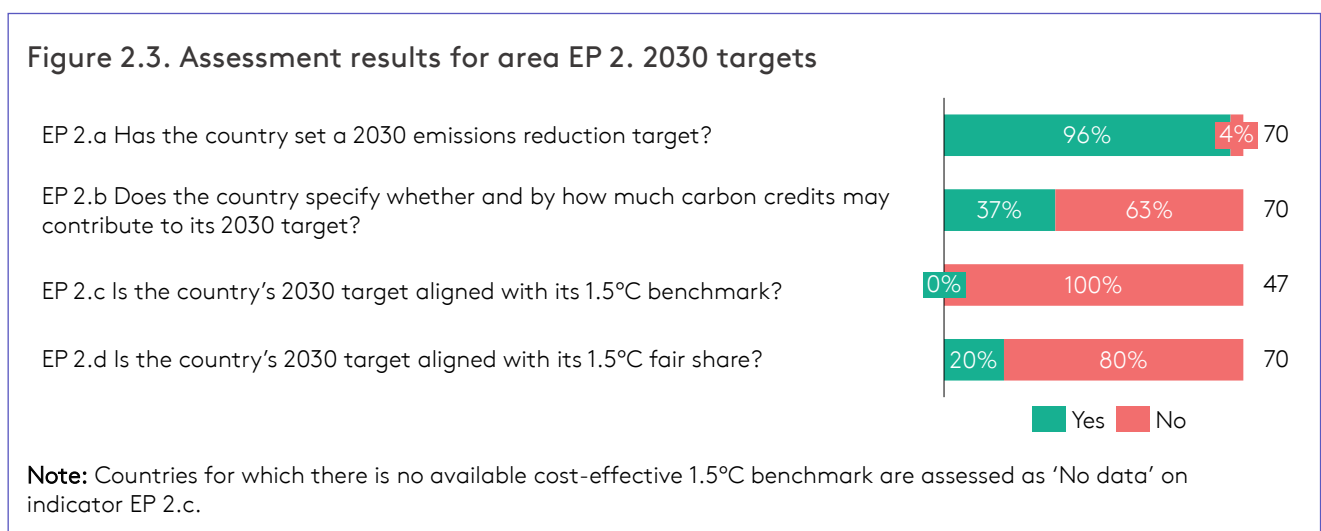
None of the 44 countries for which a cost-effective 1.5°C benchmark exists have five-year emissions trends aligned with this benchmark in 2030. Only 15 out of 70 countries (21%) have trends aligned with meeting their 1.5°C fair share benchmark in 2030. Thus, despite recent emissions reductions in many countries, there is a long way to go to meet the Paris Agreement goals.

High-income countries are more consistently reducing their emissions, but low-income countries have lower per capita emissions and more often have trends aligned with their 2030 fair share benchmarks. The percentage of high-income countries that have improved their emissions profile is 71%, compared with 29% of middle-income and 38% of low-income countries. Over the past five years, high-income countries experienced an average annual reduction in absolute production emissions of 1.9%, while middle- and low-income countries saw increases of 1.5% and 1.9%, respectively. Estonia had the highest annual reductions in absolute (-9.5%), per-capita intensity (-10.1%) and per GDP intensity (-15.3%) production emissions over the last five years.

Emissions intensity metrics by population and GDP shed light on the relationship between economic development and emissions (Chancel, 2022). Low-income countries have the lowest production-based emissions per capita, ranging from 1 to 4 tonnes of CO₂ equivalent (tCO₂e) per person, much lower than the 16 to 83 tCO₂e per person in the top 10 middle- and high-income countries. In 2023, the average production-based emissions per capita of high-income countries were 402% higher than those of low-income countries. This difference was even bigger for consumption emissions (667% in 2021). GDP-based emissions intensities are falling in every country but Qatar.

Low-income countries lead in aligning emissions trends with 2030 fair share emissions allocations. About 38% align, compared with 22% and 12% of high- and middle-income countries.

EP 2. 2030 targets



In this area, we identify countries' 2030 targets (EP 2.a), assess their reliance on carbon credits (EP 2.b) and assess their alignment against national cost-effective 1.5°C benchmarks (EP 2.c) and fair share allocations (EP 2.d) (see Box 2.1). Article 4.2 of the Paris Agreement requires countries to publish 2030 targets in their NDCs. Countries must prepare, communicate and maintain successive NDCs and provide information about their medium-term ambition. The alignment of 2030 targets with the temperature goals of the Paris Agreement is important to reaching net zero targets in a credible and orderly way.

The results of the alignment analysis should be interpreted cautiously: both types of benchmark (cost-effective and fair share) represent hypothetical future scenarios that by their very nature are unlikely to reflect real-world conditions. Cost-efficient benchmarks assume emissions reductions take place where they are cheapest, in turn implicitly assuming significant financial transfers between countries. The current gap in international finance and offsetting mechanisms calls this assumption into question. To address equity concerns, fair share emissions allocations were developed to complement the cost-effective benchmarks, but they set dramatic and potentially unrealistic reductions in emissions for many high-income countries. For example, to align with its fair share allocation, the United States would have to cut emissions by 95% by 2030 from 2023 levels.

Box 2.2. Methodology to assess emissions targets

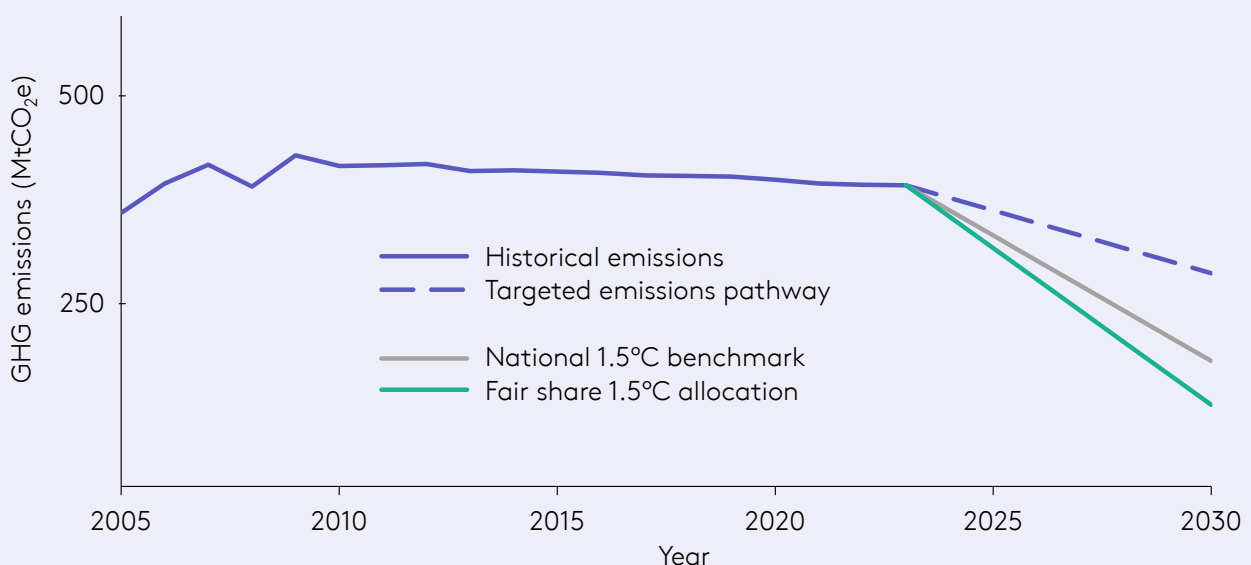
In the 2030 targets area (EP 2), we assess whether countries have an unconditional 2030 target, which is usually stated in their NDC, and whether countries are transparent and clear about their reliance on carbon credits. In Figure 2.4 below, the purple line represents the country's historical emissions and the dashed purple line represents its NDC target for 2030.

We evaluate the 1.5°C alignment of targets against country-specific cost-effective (grey line) and fair share (green line) benchmarks. Cost-effective 2030 benchmarks are sourced from the [1.5°C National Pathway Explorer](#), which downscales a global emissions budget to the national level using integrated assessment models that allocate mitigation effort based on minimising global costs. Fair share allocations for 2030 are estimated by dividing allowable global 2030 emissions by country based on the equity principles of equality, capability and responsibility. (More information is provided in our [methodology note](#) [p.10].)

For consistency across countries and with the benchmarks, alignment is assessed on the basis of production-based emissions excluding LULUCF. In the example graph, the country's target value (purple line) is above both benchmarks in 2030, and it is not aligned with either 1.5°C benchmark.

In the third area of the Emissions Pathways pillar (EP 3), we assess whether countries have set long-term net zero targets. These are not presented in the same graph as 2030 targets as they are usually set on a different emissions boundary (i.e. CO₂ only). For high-income countries, we assess these targets against 2050 as the global deadline for net zero aligned with 1.5°C, and against 2045 as an accelerated deadline for high-income countries.

Figure 2.4. Emissions pathway and benchmarks for an example country

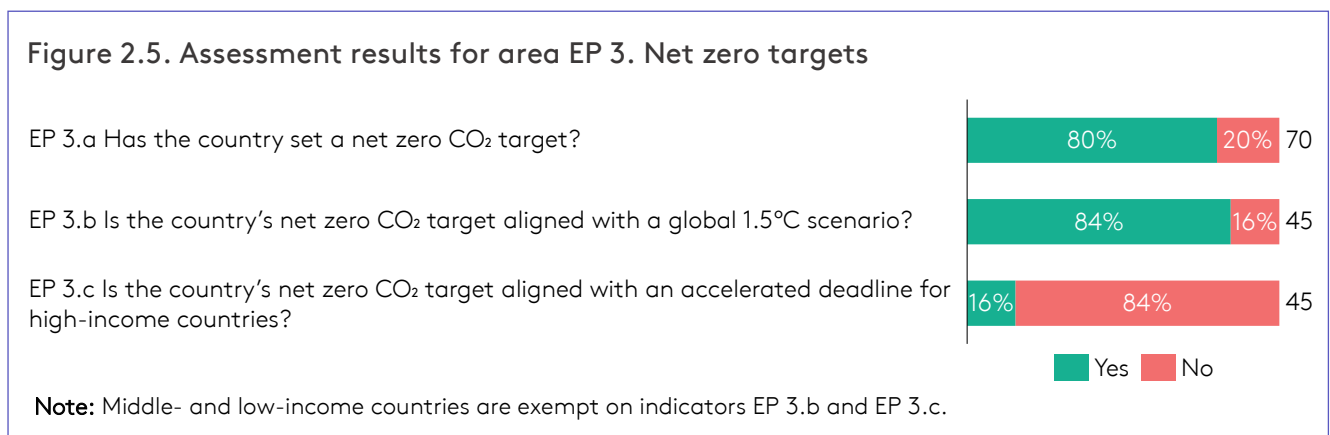


Ultimately, benchmarks are an accountability tool to hold countries to the Paris Agreement. We do not necessarily recommend that investors expect countries to align with *both* benchmarks, but if a country aligns with one and not the other, this suggests there could be scope for further ramping up ambitions. For example, a high-income country that aligns with its cost-efficient benchmark but not its fair share benchmark could be encouraged to set an even more ambitious target.

Almost all countries (96%) have committed to unconditional 2030 emissions targets, but over half of NDCs (63%) lack information on how much countries plan to rely on internationally transferred mitigation outcomes (ITMOs) to meet their targets (see Figure 2.3). This is despite growing attention on Article 6 of the Paris Agreement, which focuses on voluntary cooperation. Countries that do disclose this information are mainly in the EU, whose combined supranational NDC rules out the use of ITMOs. Japan specifies a cap of 15% on how much of its 2030 target can be met using carbon credits.

All targets lack ambition. Costa Rica and Angola have 2030 NDC targets that narrowly miss their respective cost-effective benchmarks by about 5 and 10% respectively. Meanwhile, 14 of 70 countries (20%) have targets aligned with their fair share allocation in 2030. These countries are mostly located in Africa, Latin America and Eastern Europe, and have relatively generous fair share allocations based on their lower historical emissions and income levels.

EP 3. Net zero targets

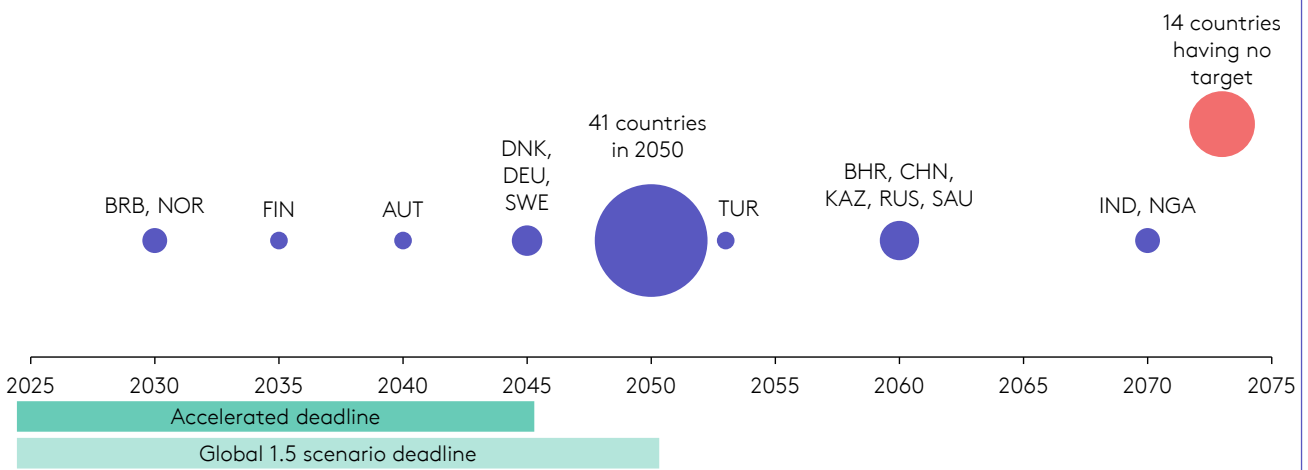


Net zero targets set a strategic direction for climate action and demonstrate the long-term ambition of countries. The alignment assessment in this area evaluates high-income countries against a 2050 deadline (EP 3.b) and an accelerated 2045 deadline (EP 3.c). To meet the Paris Agreement goal of limiting warming to 1.5°C, global CO₂ emissions must reach net zero by 2050. Emissions of other GHGs, in particular methane, must also undergo deep reductions but not necessarily to net zero.

More than three-quarters of assessed countries have set a net zero target (see Figure 2.5): over 85% of high-income countries, 75% of middle-income countries and 25% of low-income countries.

Most targets are set for 2050, but they range from 2030 (Barbados and Norway) to 2070 (India and Nigeria). Thirty-eight of 45 high-income countries have committed to net zero by 2050 at the latest. As Figure 2.6 shows, only Austria, Barbados, Denmark, Finland, Germany, Norway and Sweden are aligned with the accelerated 2045 deadline.

Figure 2.6. Net zero target years



Note: The bubble size represents the number of countries having set a net zero target in each year.

Pillar 2: Climate Policies

The successful implementation of ambitious emissions reduction targets requires countries to establish a legal, regulatory and institutional framework for national climate policy. In the Climate Policies pillar, we assess mitigation, adaptation and just transition policies. Table 2.2 shows all the indicators and metrics assessed in this pillar along with the type of assessment results and income group of assessed countries. We assess whether countries have put in place a selection of policies and evaluate these policies against the criteria of transparency (e.g. fossil fuel subsidy inventories), scope (e.g. the coverage of carbon pricing mechanisms), credibility (e.g. whether fossil fuel subsidy phaseout commitments are stated in legislative or executive documents) and/or accountability (e.g. whether responsibilities are specified in climate framework laws). Our results show that many countries have taken the initial step of passing a climate framework law, but they often lack a comprehensive implementation approach across sectors, actors and policy instruments.

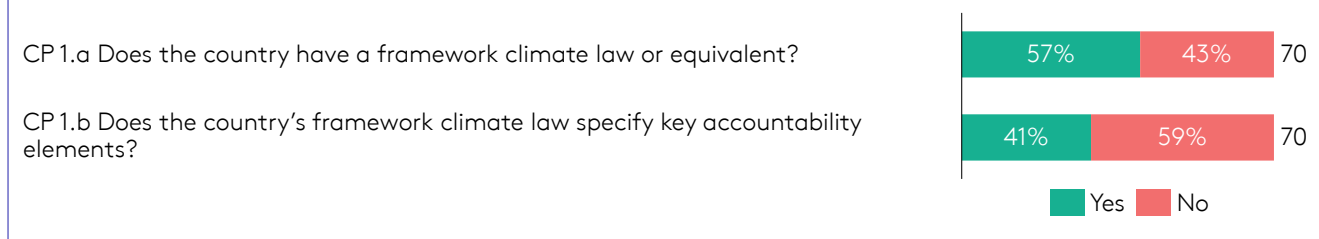
Table 2.2. Indicators and metrics in Pillar 2: Climate Policies

Pillar 2.	Climate Policies (CP)	Answer type	Countries assessed
CP 1.	Climate legislation		
CP 1.a	Does the country have a climate framework law or equivalent?	Yes/No	All
CP 1.b	Does the country's climate framework law specify key accountability elements?	Yes/No	All
CP 2.	Carbon pricing		
CP 2.a	Does the country have a carbon pricing system?	Yes/No	HI, MI
CP 2.b	Does the country's carbon pricing system(s) cover at least 50% of national greenhouse gas emissions?	Yes/No	HI, MI
CP 2.b.i	What percentage of national greenhouse gas emissions is covered by an explicit carbon price?	%	HI, MI
CP 2.c	Is the carbon price at least at the floor of a global carbon price corridor aligned with the Paris Agreement?	Yes/No	HI
CP 2.c.i	What is the country's most recent explicit carbon price?	US\$/tCO ₂ e	HI

CP 3. Fossil fuels			
CP 3.a	Has the country committed to a deadline by which to phase out fossil fuel subsidies?	Yes/No	HI, MI
CP 3.a.i	By what year has the country committed to phase out fossil fuel subsidies?	Year	HI, MI
CP 3.b	Does the country publish an inventory of direct fossil fuel subsidies?	Yes/No	HI
CP 3.b.i	How much is spent annually on explicit fossil fuel subsidies as a percentage of GDP?	%	HI, MI
CP 3.c	Has the country committed not to approve new coal mines?	Yes/No	HI, MI
CP 3.c.i	What is the level of coal rents in the country as a percentage of GDP?	%	HI, MI
CP 3.d	Has the country committed not to approve new long-lead-time upstream oil and gas projects?	Yes/No	HI
CP 3.d.i	What is the level of oil rents in the country as a percentage of GDP?	%	HI, MI
CP 3.d.ii	What is the level of natural gas rents in the country as a percentage of GDP?	%	HI, MI
CP 4. Sectoral transitions			
CP 4.a	Does the country have a multi-sector climate strategy?	Yes/No	HI, MI
CP 4.b	Does the country have a law and target on energy efficiency?	Yes/No	HI, MI
CP 4.b.i	What is the country's energy intensity of primary energy?	MJ/US\$	HI, MI
CP 4.c	Has the country established mandatory climate-related disclosure?	Yes/No	HI
CP 4.d	Has the country set a net zero electricity target aligned with 1.5°C?	Yes/No	HI, MI
CP 4.d.i	What percentage of the country's electricity generation is from low-carbon sources?	%	HI, MI
CP 4.e	Has the country increased its protected areas as a percentage of total land area over the last 5 years?	Yes/No	HI, MI
CP 4.e.i	What is the amount of protected area in the country as a percentage of total land area?	%	HI, MI
CP 5. Adaptation			
CP 5.a	Has the country published a National Adaptation Plan?	Yes/No	All
CP 5.b	Does the country regularly publish national climate risk assessments?	Yes/No	All
CP 5.c	Has the country published a Monitoring & Evaluation report on implementing adaptation?	Yes/No	All
CP 5.d	Does the country have a multi-hazard early warning system?	Yes/No	All
CP 5.e	Is the country part of a sovereign catastrophe risk pool?	Yes/No	MI, LI
CP 6. Just transition			
CP 6.a	Has the country ratified fundamental human, labour and Indigenous rights conventions?	Yes/No	All
CP 6.a.i	At what percentile is the country's Voice and Accountability estimate?	%	All
CP 6.b	Does the country have an inclusive and institutionalised approach on just transition?	Yes/No	All
CP 6.c	Does the country have a green jobs strategy?	Yes/No	All
CP 6.d	Does the country integrate just transition into its carbon pricing?	Yes/No	HI, MI

CP 1. Climate legislation

Figure 2.7. Assessment results for area CP 1. Climate legislation



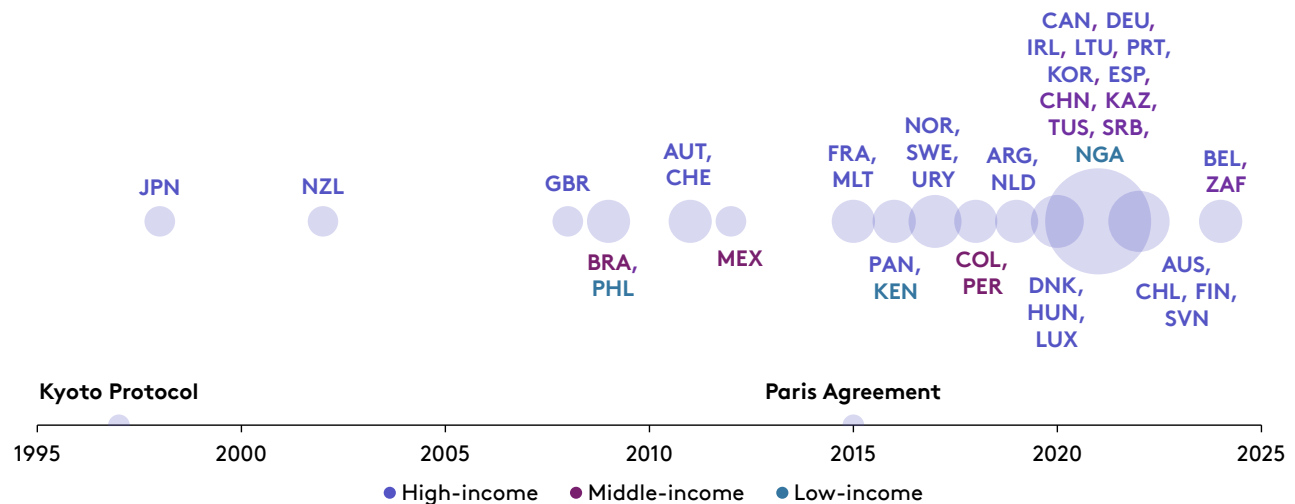
Climate framework laws embed climate action into national policy by establishing a long-term strategic direction and setting legal obligations. Such laws can enhance the credibility of a country's climate commitments by setting a legally backed approach to climate action. Accountability mechanisms built into these laws, such as parliamentary interventions or judicial orders, enable governments and private parties to be held responsible for meeting the obligations set in the law (Higham et al., 2021). Climate framework laws have proliferated in recent years, with many governments also establishing clear compliance and accountability mechanisms that can help prevent backsliding on climate commitments (see Figure 2.7).

The climate legislation area assesses if countries have a climate framework law (CP 1.a) and if their climate framework law includes key accountability elements (CP 1.b). To qualify as a climate framework law, a law needs to set a strategic direction for mitigation and/or adaptation, be passed by the legislative branch of the country, and set relevant obligations in line with that strategic direction. Key accountability elements should specify accountability relations, compliance mechanisms and the consequences of non-compliance with established obligations.

More than half (57%) of countries have passed a climate framework law or equivalent: 75% of identified laws were adopted after the 2015 Paris Agreement. The first ever climate law was adopted in Japan in 1998, directly after the country hosted COP3 in Kyoto (see Figure 2.8.). While climate framework laws are more common across high- (60%) and middle-income (59%) countries, low-income countries (38%) are also starting to pass such laws. Additionally, we have identified 11 further countries including India, Oman and Thailand that have draft laws or have announced plans to draft one. Some countries, such as Japan, France and Switzerland, have multiple climate framework laws. We also identify several laws that we interpret as equivalent to a climate framework law, such as broader environmental laws that specify relevant provisions for climate policy, as Panama's and Slovenia's do, for example.

Many countries with a climate framework law (29 of 40) specify relevant accountability elements, including (i) accountability relations, (ii) compliance mechanisms and (iii) what happens in the case of non-compliance. The third criterion, which involves clarifying specifically what happens if obligations of the law are not met, is the one that countries most often fail on. Among the countries meeting all criteria, 19 have climate laws that specify actions or penalties if the government itself is not taking the required steps to comply with its own obligations.

Figure 2.8. Number of climate framework laws adopted between 1998 and 2024

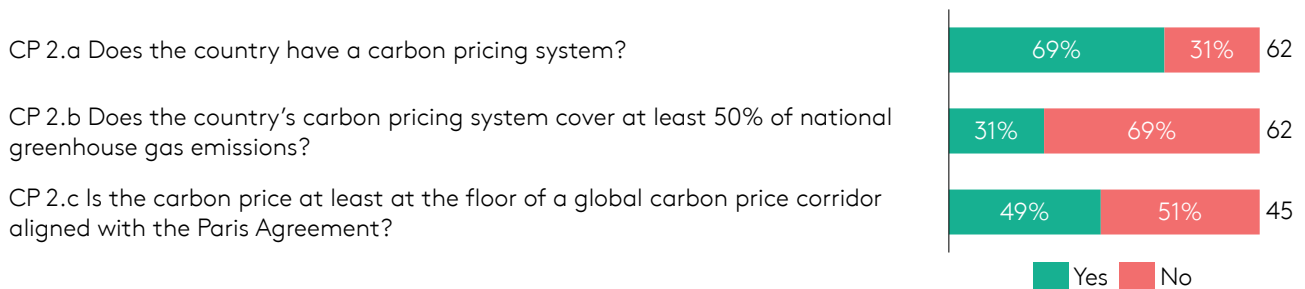


Note: The timeline shows climate framework laws and equivalents identified in 40 countries. Bubbles are sized based on the number of countries that passed a climate framework law in each year. For countries with multiple climate framework laws, the timeline includes only the first law adopted in the country. Country ISO codes are coloured by income group.

CP 2. Carbon pricing

Investors are increasingly interested in understanding whether and how governments apply carbon pricing, along with other fiscal and economic instruments. Setting a price on carbon can drive decarbonisation by incentivising emissions reductions to save money. Carbon pricing can also raise public revenue, which could be one source of finance for the low-carbon transition. Carbon pricing is widespread among assessed countries, but the share of emissions covered is often too low, limiting the effectiveness of these systems (see Figure 2.9).

Figure 2.9. Assessment results for area CP 2. Carbon pricing



Note: Low-income countries are exempt on this area. Middle-income countries are exempt on indicator CP 2.c.

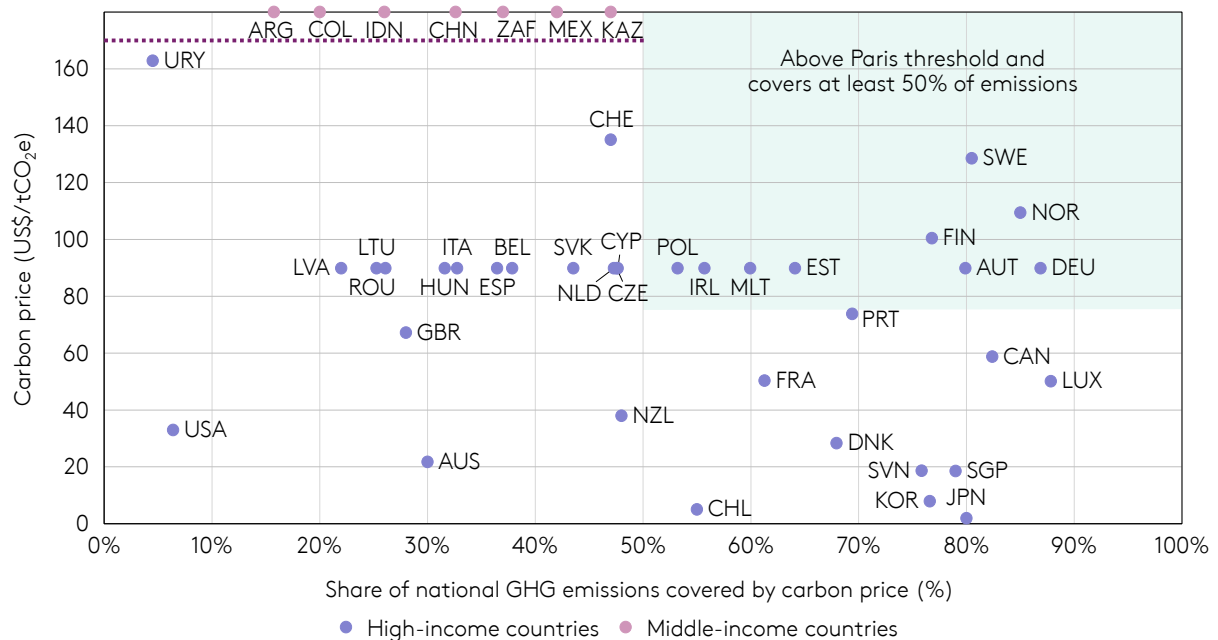
This area assesses the existence and coverage of carbon pricing systems in high- and middle-income countries; the price level is only evaluated for high-income countries. Carbon pricing can be in the form of a carbon tax or emissions trading system (ETS) and can be at the subnational (e.g. state-level), national or supranational (e.g. EU ETS) level. The emissions coverage of carbon pricing instruments as a percentage of national GHG emissions is assessed against a 50% threshold (CP 2.b). The carbon price is considered to be aligned with the goals of Paris Agreement (CP 2.c) if it meets a global price floor of US\$75/tCO_{2e} in 2023. In countries with more than one carbon pricing instrument, we assess the one with the highest price. Additionally, we assess two quantitative metrics in this area specifying the percentage of emissions covered by carbon pricing and the price level in the latest available year.

At the sub-national, national or supranational level, 43 of 62 countries (69%) have a carbon pricing instrument. The EU ETS applies to 25 countries assessed by ASCOR. Some of these countries, such as Austria, Germany and Slovenia, have implemented additional domestic carbon pricing mechanisms. The high-income countries without a carbon pricing system are mostly fossil fuel-dependent economies like Saudi Arabia and the United Arab Emirates, or countries with small contributions to global GHG emissions like Barbados and Panama. Based on our research, around half of the middle-income countries without a carbon pricing instrument have publicly considered introducing one.

One-third of countries assessed have carbon pricing systems that cover at least 50% of national emissions. All of those passing this threshold are high-income countries. Additionally, six countries have carbon pricing instruments covering just under 50% of national emissions. Measuring the emissions coverage of carbon pricing is challenging, and countries rarely disclose this figure explicitly. Carbon pricing instruments can overlap in particular sectors and can set size thresholds or other exemptions for companies to be included. More transparent, consistent and up-to-date data is needed to improve our estimates of the share of national emissions subject to a carbon price. Furthermore, design features such as the free allocation of emissions allowances in emissions trading systems or the use of offsets need to be considered when interpreting emissions coverage results.

Only half of the high-income countries assessed set a carbon price aligned with the Paris Agreement. Nine countries have a price that both covers 50% of national emissions and is also aligned with the Paris Agreement price floor (see Figure 2.10). These include some EU countries and Norway, which is also part of the EU ETS. Although the EU ETS price (US\$90/tCO₂e) is above the threshold, not all EU countries meet the criteria for this indicator. Those that do not meet the criteria include Denmark, France, Luxembourg, Portugal and Slovenia, all of which have established additional domestic carbon pricing mechanisms that cover a higher share of their national emissions than the EU ETS but set a lower price.

Figure 2.10. Carbon prices by emissions coverage and price level

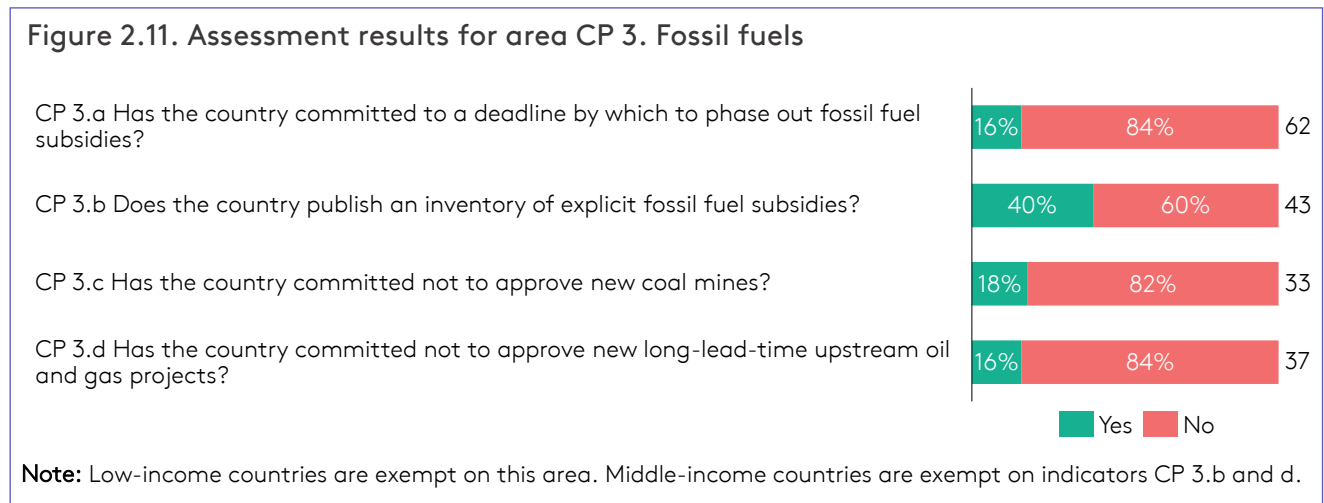


Note: The green area shows the countries with a carbon pricing mechanism that covers at least 50% of emissions and has a price aligning with Paris Agreement (US\$75/tCO₂e in 2023). Middle-income countries are exempt from the indicator and metric on the carbon price level (CP 2.c and CP 2.c.i). Therefore, they are shown at the top of the figure, illustrating their emissions coverage but not their carbon price level. **Source:** Authors' analysis based on data from European Environment Agency, International Carbon Action Partnership, OECD, PRIMAP, World Bank Carbon Pricing Dashboard and official country sources. The data reflects the most recent estimates available for each country. For further information on estimates and sources see [ASCOR methodology note](#).

There is little correlation between carbon price coverage and price level. Uruguay has the highest carbon price but it covers only 5% of national emissions. Chile, Japan and the Republic of Korea have the lowest carbon prices but they cover 55–80% of national emissions. The United States has the second-lowest emissions coverage as it only has subnational, state-level carbon pricing instruments. The carbon pricing system with the largest coverage in the country, the California cap-and-trade program, sets a price around US\$33/tCO_{2e}, well below the Paris Agreement threshold.

CP 3. Fossil fuels

Meeting the Paris Agreement goals requires significant reductions in fossil fuel use and investments (IPCC, 2022). Robust commitments to reduce the subsidisation of fossil fuels and limit the expansion of fossil fuel extraction are fundamental steps in the transition. Such commitments can send clear signals to investors, producers and consumers that low-carbon energy should be prioritised. This can help direct financial flows towards low-carbon opportunities rather than to fossil fuel assets that may become stranded. Among all areas of the ASCOR framework, countries' performance is poorest on fossil fuels. Figure 2.11 shows that the vast majority of countries have not set robust deadlines for phasing out fossil fuels subsidies (CP 3.a) or banned new fossil fuel projects (CP 3.c and d), contradicting their mitigation targets and jeopardising a 1.5°C future.



This area assesses countries' commitments to phase out fossil fuel subsidies and ban new fossil projects. Countries that have no fossil fuel subsidies or have committed to a specific deadline, either in a legislative or executive document, score 'Yes' on the first indicator (CP 3.a). The transparency of phaseout commitments is assessed by evaluating whether countries publish an inventory of explicit fossil fuels subsidies (CP 3.b). We also provide a quantitative metric on how much is spent annually on explicit fossil fuel subsidies as a percentage of GDP. Finally, we assess whether countries have made explicit commitments not to approve new coal mines (CP 3.c) or new upstream oil and gas projects with long lead times (CP 3.d). Countries without operating coal mines are not assessed on indicator CP 3.c and countries without proven oil and gas reserves are not assessed on indicator CP 3.d. These indicators are complemented with quantitative metrics on the level of rents generated by the extraction of each fossil fuel as a percentage of GDP.

Despite international pledges made by the G7, G20 and Asia-Pacific Economic Cooperation (APEC), countries rarely commit to phasing out explicit fossil fuel subsidies by a specified deadline in a legislative or executive document. Only seven countries, including Germany and Lithuania, have committed to a phaseout deadline, mostly by 2025. Hong Kong, Peru and Uruguay qualify as having already phased out fossil fuel subsidies based on evidence in publicly available sources (IMF, OECD, IEA, UN SDGs).

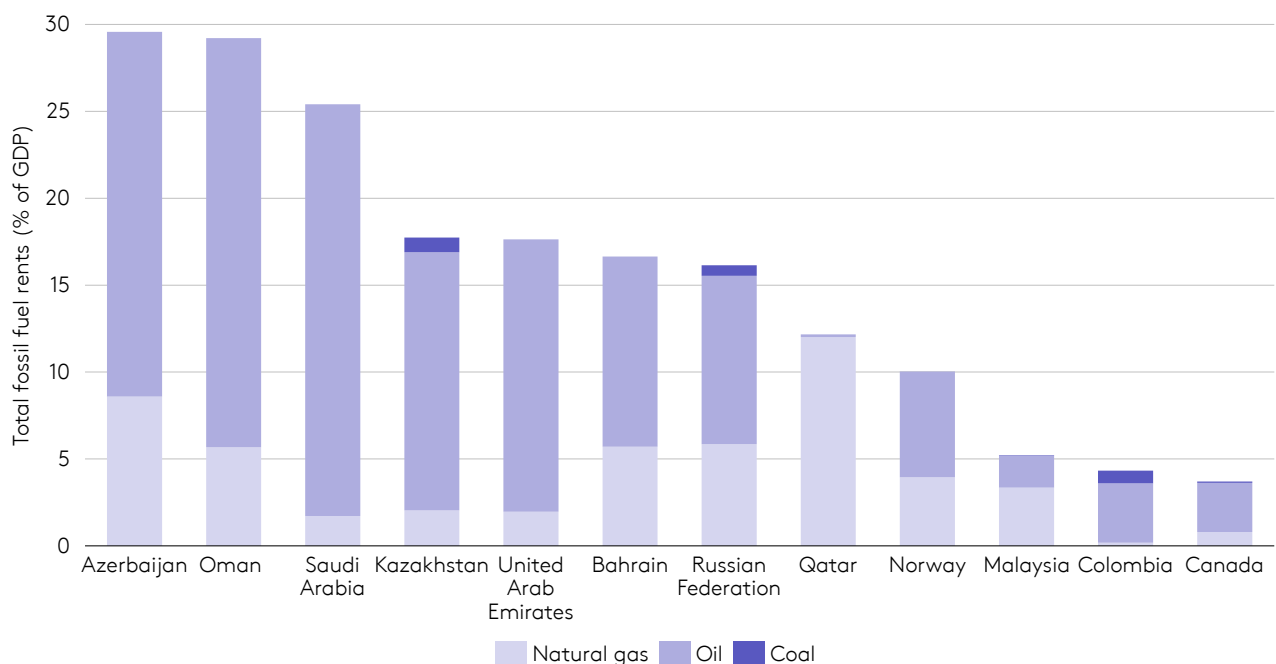
Phaseout commitments often lack clarity on which subsidies would be phased out, using vague loopholes like commitments to phase out only ‘inefficient’ subsidies. Recognising the social and economic challenges around phasing out *all* fossil fuel subsidies, countries could nonetheless make clearer commitments by defining ‘inefficient’ or publishing a transparent inventory of subsidies they aim to phase out. For example, Canada has published [guidelines](#) it uses to identify inefficient fossil fuel subsidies.

Providing transparency on existing fossil fuel subsidies in the form of inventories is a growing practice across assessed countries. Of the high-income countries we assess on this indicator, 40% publish such an inventory. All of these are EU countries: Member States are in fact required to disclose this information in their National Energy and Climate Plans (NECPs). However, six of 24 EU countries assessed have not disclosed such inventories despite the requirement.

Only six of 33 applicable countries have committed to stop approving new coal mines. For oil and gas projects, such commitments exist for only six of 37 assessed countries. For 12 of 62 countries, at least 3% of GDP is derived from fossil fuel rents (see Figure 2.12). None of these 12 economies most reliant on fossil fuels have made commitments to phase out fossil fuels, except for Canada, which commits only to phasing out subsidies. Economies dependent on fossil fuels face potentially large impacts on growth, government revenue and debt due to decreasing fossil fuel demand in line with global decarbonisation (UNDP, 2023). We discuss fossil fuel dependence further in Section 3.

Only Hong Kong, Latvia and Portugal have met all the criteria in the fossil fuels area. They all have at least one indicator that does not apply to the country for one reason or another. The fossil fuel inventory indicator (CP 3.b) does not apply to Hong Kong as there are no fossil fuel subsidies in the country. Similarly, committing to no new coal mines (CP 3.c) does not apply to any of these three countries as they have no operating coal mines. This approach is necessary so that the ASCOR assessment results take into account unique country circumstances.

Figure 2.12. Fossil fuel-reliant economies



Note: Total rents (of coal, oil and natural gas) are calculated as a percentage of GDP. We adopt the UNDP’s threshold of defining countries as fossil fuel-reliant if over 3% of GDP is derived from fossil fuel rents. The countries included in this figure are only those among the 70 countries included in our analysis that have fossil fuel rents above this 3% threshold. **Source:** Authors’ analysis based on latest available data from the World Bank (2021) for coal, oil and natural gas.

CP 4. Sectoral transitions

Establishing granular, sector-level climate strategies helps to demonstrate that countries have a detailed and comprehensive plan to implement climate goals. This may inform investors about the credibility of economy-wide targets and provide sector-specific guidance to corporate actors. This area assesses a range of indicators that affect the transition of specific sectors. Box 2.3 explains these indicators in greater detail. Assessment results indicate that planning and implementing decarbonisation strategies through sectoral targets and measures is fairly common practice (see Figure 2.13). In this area, countries perform worst on the alignment of electricity sector targets with differentiated net zero deadlines.

Box 2.3. Methodology to assess sectoral transitions

CP 4.a: We assess if a country has a **multi-sector climate strategy** that sets quantified, sector-specific emissions targets and includes at least one related policy, initiative or regulation for five sectors: electricity, transport, industry, LULUCF and a fifth sector chosen by the country as relevant to its transition.

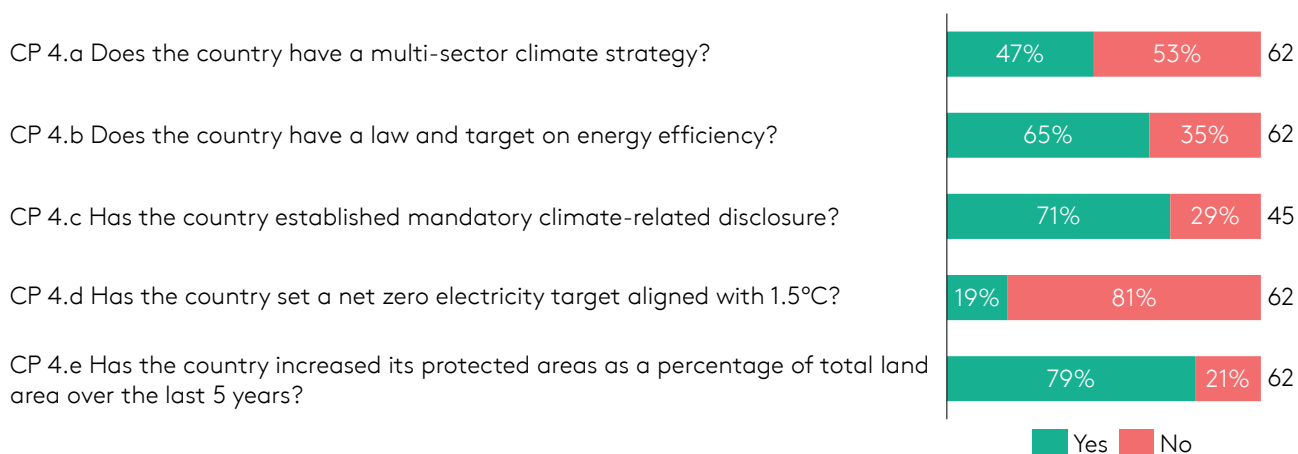
CP 4.b: We assess if a country has a **law on energy efficiency** (or an energy law that provides a legal framework and strategic direction for energy efficiency policy) and an **energy efficiency target**.

CP 4.c: We identify if a country has established **mandatory climate-related disclosure** through a law that applies to all economic actors or only a specified sector. Requirements may be either limited to financially material climate disclosure or more broadly apply to non-financially material disclosure.

CP 4.d: We assess if a country has a **net zero electricity sector target** aligned with 1.5°C. This is based on the International Energy Agency's Net Zero Emissions by 2050 scenario (IEA, 2023), where the electricity sector reaches net zero by 2035 in advanced economies, 2040 in China and 2045 in the rest of the world.

CP 4.e: We identify if a country has **increased its protected areas as a percentage of total land area over the last five years**. Countries that already protect at least 30% of their land area automatically receive 'Yes', in line with the [Kunming-Montreal Global Biodiversity Framework](#).

Figure 2.13. Assessment results for area CP 4. Sectoral transitions



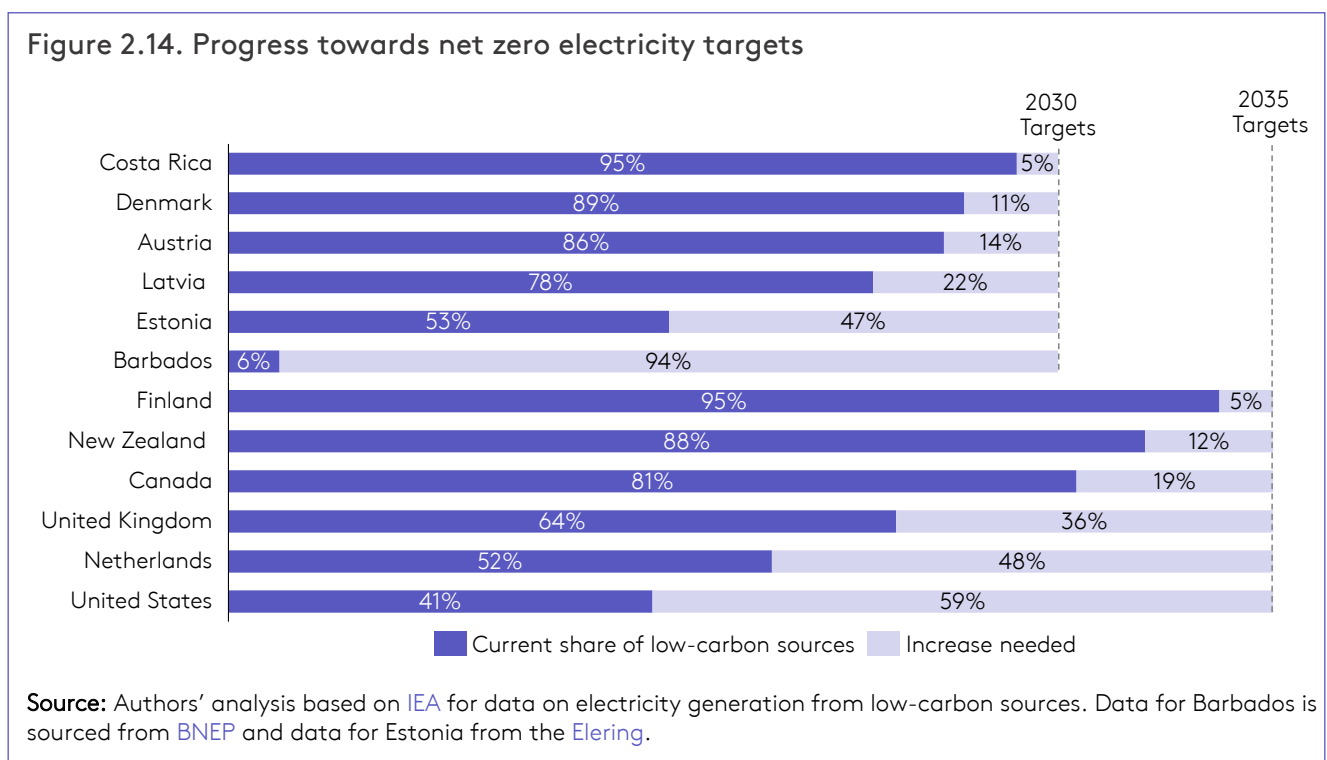
Note: Low-income countries are exempt on this area. Middle-income countries are exempt on indicator CP 4.c.

Around half (47%) of countries have multi-sector climate strategies with quantified emissions targets and associated policy measures across five key sectors. Electricity and transport are the most common sectors for which targets and policies are set. Concrete decarbonisation actions identified in the assessed strategies include renewable energy support schemes for the electricity sector or scheduled bans on the sale of combustion engine vehicles. Energy efficiency is crucial for

achieving net zero by 2050: most countries (65%) have an energy efficiency law and target. Among countries assessed as 'No' are some of the most energy-intensive economies, such as Bahrain, Qatar and Canada.

Over two-thirds of assessed countries (32 out of 45) have established rules that require companies to disclose climate-related information. Most of these are EU countries, due to the EU Corporate Sustainability Reporting Directive (CSRD) which entered into force in January 2023, requiring Member States to transpose disclosure requirements into domestic legislation. Three EU countries (Malta, Portugal and Austria) qualified as 'No' as there was insufficient evidence that this transposition process is underway in those countries. The indicator on which countries perform the best overall relates to protected areas: 49 of 62 countries have increased protected areas as a percentage of their total land area in the last five years. However, this is in part because the indicator sets a fairly low bar. Only 13 of these countries have achieved the 30% target for protected areas by 2030 adopted in the [Kunming-Montreal Global Biodiversity Framework](#).

The indicator with the poorest results in this area concerns the alignment of net zero electricity sector targets: only 12 of 62 countries have set sufficiently ambitious targets for this sector. This indicator is complemented by a quantitative metric showing the percentage of the country's electricity that is generated from low-carbon sources. Figure 2.14 ranks the 12 countries with aligned net zero electricity targets by the target year and share of non-fossil fuel sources in the electricity generation matrix. Norway, Sweden and Switzerland already generate over 98% of electricity from low-carbon sources but have not set a net zero target for the power sector.

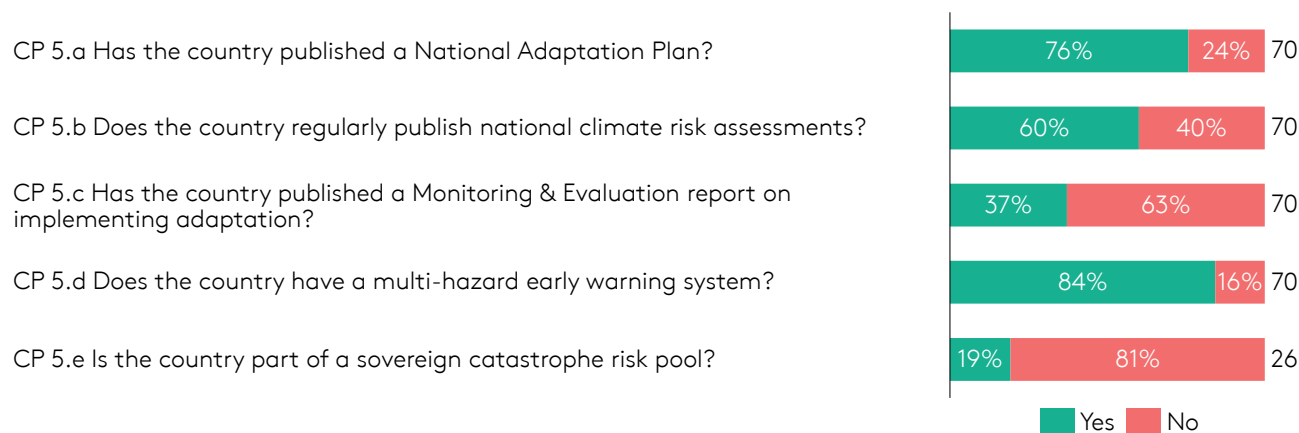


CP 5. Adaptation

Effective adaptation planning is essential to proactively managing the physical risks posed by current and future climate change impacts. The indicators in the adaptation area address various aspects of the adaptation policy planning cycle, from tracking physical risks to monitoring the implementation of adaptation policies. For investors, this analysis has implications for the long-term risk profile and debt sustainability of sovereign issuers as it evaluates how countries are planning to manage future impacts of climate change on their population, economic sectors and businesses. The practice of publishing National Adaptation Plans (NAPs) has become widespread but only one-third of assessed countries disclose the results of monitoring and evaluating progress

on the implementation of these plans (see Figure 2.15.). Each country’s approach to adaptation planning should be tailored to their own circumstances.

Figure 2.15. Assessment results for area CP 5. Adaptation



Note: High-income countries are exempt on indicator CP 5.e.

This area focuses on the planning and implementation of adaptation policies rather than on physical risk, vulnerability or exposure metrics. We assess the adaptation policy cycle drawing guidance from UNEP’s [Adaptation Gap Report](#) and academic literature (Leiter, 2021). First, we assess whether the country has published a NAP or similar operational planning document focused on adaptation (CP 5.a). Second, we assess whether it has published a risk assessment report containing historical and future scenarios on specific hazards and an analysis of the country’s exposure and vulnerability to these hazards (CP 5.b). Third, we assess whether the country has published a monitoring and evaluation report on the progress made in implementing its NAP (CP 5.c). These latter two indicators are contingent on the country having a NAP since they each assess characteristics of the country’s NAP process. Two further indicators address acute climate impacts through disaster risk reduction measures. Multi-hazard early warning systems (MHEWS) reduce the costs imposed by climate-fuelled extreme events (CP 5.d) and sovereign catastrophe risk pools can provide financial support as part of emergency responses (CP 5.e).

Nearly three-quarters of countries (53 of 70) have published a NAP, the operational planning instrument endorsed by the UNFCCC to identify responsible authorities, responsibilities and adaptation measures. Well over half of countries (42 of 70) also publish detailed and up-to-date national risk assessments. Chile’s climate risk assessment, for example, is comprehensive and unusual for being easy to access on the country’s [Climate Atlas](#) online platform.

Only one-third of countries (26 of 70) have published monitoring and evaluation (M&E) reports, which discuss and evaluate progress in implementing policies aimed at adaptation. Making necessary adjustments after such evaluations is crucial for successful adaptation, particularly as future climate events become increasingly severe and unpredictable. Most countries achieving this indicator are high-income countries, with just one classified as low-income. This pattern highlights potential capacity barriers in conducting thorough M&E reports. Frequent reporting demonstrates ongoing and robust adaptation planning. Nine of 26 countries have published one M&E report, eight have published two, and the remaining nine have published between three and five different reports.

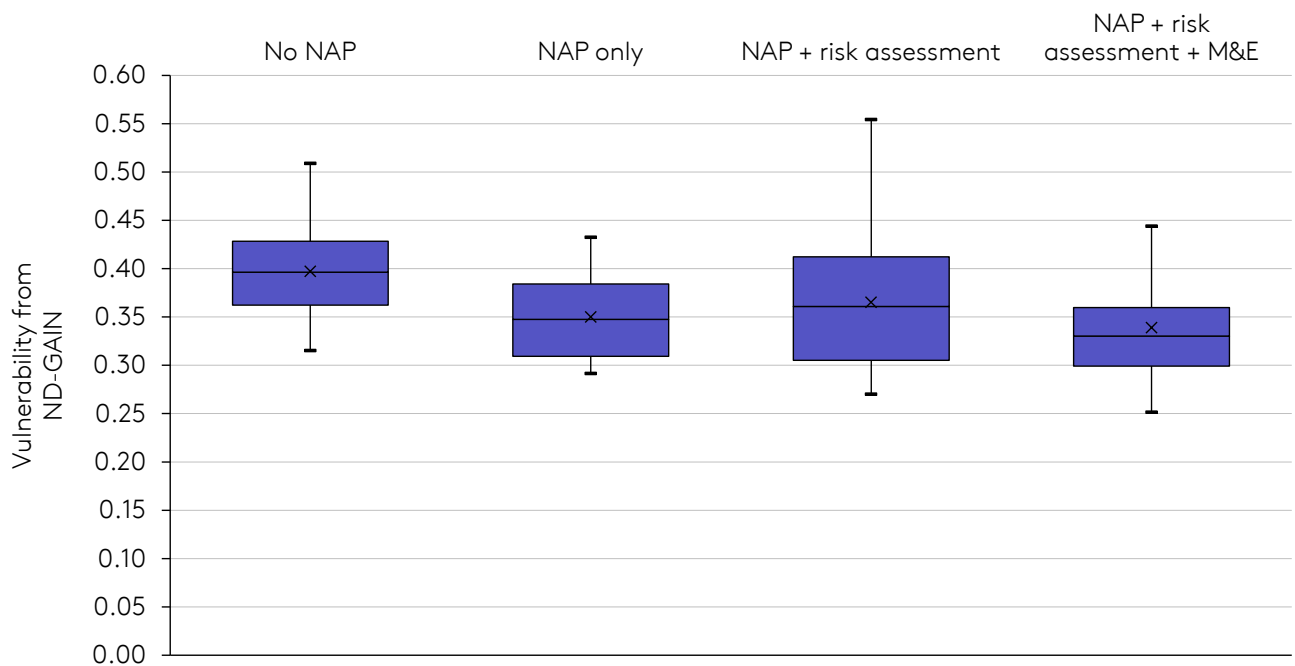
In addition to adaptation planning, we also assess disaster risk reduction, finding that significant efforts have been undertaken to spread information on extreme events as they happen: 59 of 70 countries assessed have an MHEWS. Among these countries, 12 have yet to develop a NAP and 19 have not undertaken a climate risk assessment. These countries are adopting tools to manage acute climate hazards, but more effort is needed in these countries to develop comprehensive

adaptation planning for the full range of climate hazards, including chronic risks like sea level rise. Among the eight low-income countries assessed, all but Nigeria have an MHEWS in place.

Among 26 middle- and low-income countries, only five are members of a sovereign catastrophe risk pool. Membership in a risk pool can help countries access insurance solutions following a climate disaster. High-income countries are not included in our assessment because catastrophe risk pools mainly exist for middle- and low-income countries and because high-income countries generally have sufficient domestic financial resources. Among high-income countries, only Japan and Singapore are members of the Southeast Asia Disaster Risk Insurance Facility (SEADRIF) while Barbados is a member the Caribbean Catastrophe Risk Insurance Facility (CCRIF). Some other high-income countries are donors to these risk pools.

As an exploratory analysis, we compare our three adaptation planning indicators (setting aside the disaster risk reduction indicators) to measurements of physical climate risk. We draw on the climate vulnerability assessment of the Notre Dame-Global Adaptation Initiative (ND-GAIN) Index, which unlike ASCOR aims to measure the physical climate risk exposure of countries. We group countries into four clusters that set out a hierarchy of adaptation planning based on our indicators and show their respective distributions of ND-GAIN vulnerability scores (see Figure 2.16). The first cluster has on average higher vulnerability scores than the other three clusters. It is especially concerning that these countries are more vulnerable but have not yet taken the first step of adaptation planning: publishing a NAP. Countries in this cluster include Angola, Saudi Arabia and Slovenia. As mentioned above, capacity-building and financial assistance to support middle- and low-income countries with adaptation planning and implementation is crucial.

Figure 2.16. Adaptation planning clusters against the ND-GAIN Index



Note: The ND-GAIN Index is built with indicators that measure (i) vulnerability and (ii) readiness to adapt to climate change. We focus our analysis here on vulnerability only. Countries with higher vulnerability scores on the y-axis are more exposed and vulnerable to physical climate-related hazards. Vulnerability is the predisposition of countries to be negatively impacted by climate hazards and is calculated using exposure, sensitivity and adaptive capacity indicators. The box plots illustrate quartiles of the distribution where the horizontal line in the middle of the box indicates the median and the X indicates the mean. The total number of countries in each cluster from left to right is: 17, 8, 18 and 23. **Source:** Authors' analysis based on data from the ND-GAIN Index.

CP 6. Just transition

Countries can manage the social risks and opportunities of the low-carbon transition by developing institutional capacity to address the needs of workers and communities affected by decarbonisation. This emphasis on securing a ‘just’ transition can help build public trust and prevent costly delays in decarbonisation. It also relates to several investor priorities, such as upholding labour and human rights in line with broader sustainability commitments and building the social and human capital needed to create long-term value in the future low-carbon economy (Robins et al., 2024). Box 2.4 further explains our methodology for assessing countries’ alignment with just transition principles. Countries have begun to take legal and regulatory action towards a just transition (see Figure 2.17). However, an inclusive just transition approach monitored by a government body is missing in most countries.

Box 2.4. Methodology for assessing just transition policy

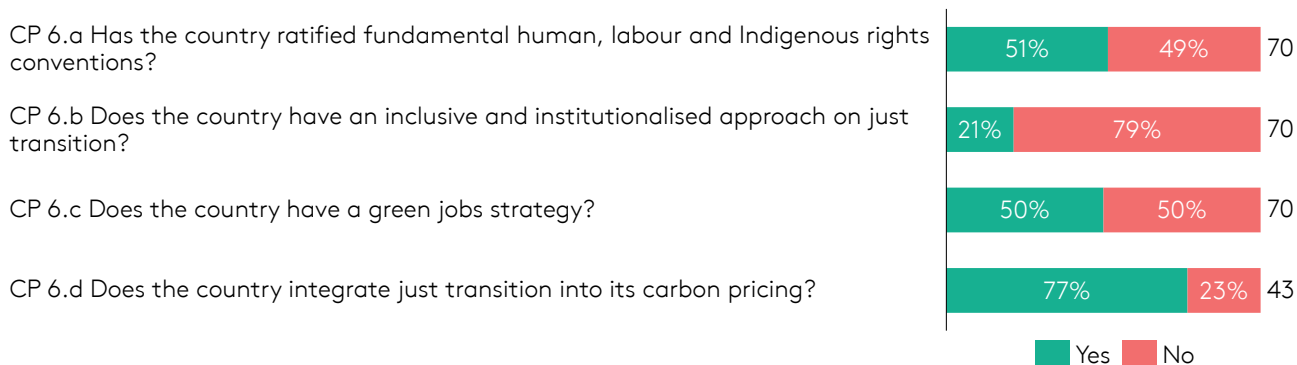
CP 6.a: A country is assessed on whether it has **ratified at least half of the fundamental human and labour rights conventions of the UN and the International Labour Organization (ILO)**. Additionally, countries with Indigenous populations are required to ratify the ILO Indigenous and Tribal Peoples Convention. We note that ratification does not necessarily imply that such conventions are adequately enforced.

CP 6.b: To evaluate if a country has an **inclusive and institutionalised approach on just transition**, our methodology requires a strategy that meets three criteria: social dialogue with workers; engagement with at least three specified stakeholder groups; a government just transition commission or equivalent.

CP 6.c: We look for a **green jobs strategy** that identifies employment-related opportunities from the low-carbon transition and sets actions, measures or policies to harness identified opportunities.

CP 6.d: We assess if a country’s **carbon pricing instrument** includes a clear acknowledgement or mechanism to address the potentially regressive distributional impacts of the carbon price on lower-income citizens. This indicator only applies to high- and middle-income countries that have established a carbon pricing system.

Figure 2.17. Assessment results for area CP 6. Just transition



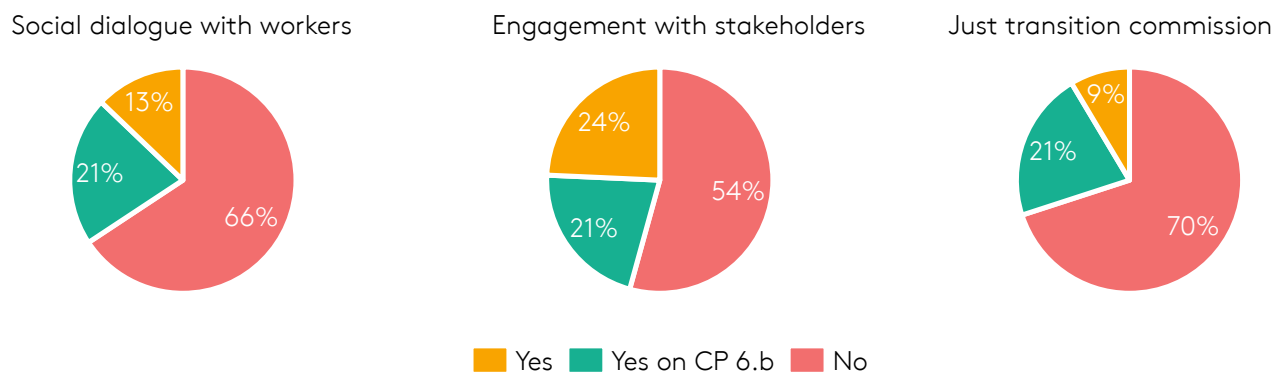
Note: Low-income countries are exempt on indicator CP 6.d.

Among the 34 countries that fail to meet indicator CP 6.a, almost half (16) have ratified a sufficient number of human and labour rights conventions but are lacking ratification of the ILO’s Indigenous and Tribal Peoples Convention No. 169. This criterion of ratifying Convention No. 169 only applies to 41 of the 70 countries that have an Indigenous population living within the country.

Only 21% of countries have a governance framework that involves social dialogue with workers and engagement with relevant stakeholders to guide national action on just transition (CP 6.b). Figure 2.18 shows the sub-criteria results for this indicator across all 70 countries. Stakeholder

engagement is the most common criteria met under this indicator (45%, the sum of 24% and 21%), but it is not always evident whether this involves genuine participation in decision-making. Indeed, countries that introduce stakeholder engagement into their development of climate policies sometimes establish only infrequent consultations. More progress is needed on social dialogue and the institutionalisation of just transition. The institutional settings identified for this criterion include dedicated just transition commissions (as described in Heffron, 2021) and broader climate change commissions with a mandate or specific sub-committee dedicated to just transition.

Figure 2.18. Criteria-level assessments results for indicator CP 6.b on having an inclusive just transition approach



Note: Countries assessed as 'Yes' for indicator CP 6.b meet all the criteria and are grouped under the green label 'Yes on all CP 6.b'. Countries that meet one criterion but not the overall indicator are included in the orange segment of the pie charts and those that do not meet that criterion are in the red segment.

Half of countries have initiated a strategy to identify green job opportunities and support re-skilling of the workforce to match these opportunities. Identified strategies include a variety of regulatory frameworks including a legal basis (e.g. Canada, Philippines), a dedicated institutional body (e.g. India, United Kingdom) and green jobs programmes (e.g. Argentina, United Arab Emirates). However, green jobs strategies often lack regular analysis on specific sectors and concrete policies to support the workforce.

The majority of countries with a carbon pricing instrument in place (33 of 43) address the potential regressive impacts of carbon pricing in some way. Some of these countries evaluate and acknowledge the potential distributional impacts of imposing a price on carbon while others develop targeted support mechanisms for affected citizens. For example, Singapore provides [rebates](#) that would help eligible low-income citizens offset the increase in their energy bills and some part of [EU ETS2](#) revenues will be used to support vulnerable citizens through the European Social Fund.

Pillar 3: Climate Finance

Finance is a crucial enabler to accelerate decarbonisation, manage the social impacts of the low-carbon transition and adapt to increasing climate shocks. Table 2.3 shows all the indicators and metrics assessed in this pillar along with the type of assessment results and income group of assessed countries. This pillar provides a holistic perspective on climate finance at the international level as well as climate finance needed and spent domestically. We aim to provide an understanding of the financial flows between and within countries towards climate goals. Developed countries should commit higher financial support in line with their capabilities. Meanwhile, international and domestic financing sources could be mobilised more effectively if developing countries assessed and published the costs of their climate objectives.

Table 2.3. Indicators and metrics in Pillar 2: Climate Finance

Pillar 3.	Climate Finance (CF)	Answer type	Countries assessed
CF 1.	International climate finance		
CF 1.a	Does the country contribute at least a proportional share of the US\$100 billion commitment to climate finance?	Yes/No	Annex II
CF 1.a.i	What is the country's 3-year average climate finance contribution as a % of GDP?	%	Annex II
CF 1.b	Does the country's targeted contribution represent at least a proportional share of the US\$100 billion commitment?	Yes/No	Annex II
CF 1.b.i	What is the country's targeted level of international climate finance contributions as a % of GDP?	%	Annex II
CF 2.	Transparency in climate costing		
CF 2.a	Has the country disclosed a transparent breakdown of the costs of implementing its NDC?	Yes/No	Non-Annex I
CF 2.b	Has the country disclosed a transparent breakdown of the costs of implementing its National Adaptation Plan?	Yes/No	Non-Annex I
CF 3.	Transparency in climate spending		
CF 3.a	Has the country disclosed its climate-related expenditure?	Yes/No	All
CF 3.b	Does the country apply climate budget tagging?	Yes/No	All
CF 4.	Renewable energy opportunities		
CF 4.i	What is the country's prospective solar energy capacity?		All
CF 4.ii	What is the country's prospective wind energy capacity?	MW/US\$bn	All
CF 4.iii	What is the country's prospective geothermal energy capacity?	GDP	All
CF 4.iv	What is the country's prospective hydroelectric energy capacity?		All

CF 1. International climate finance

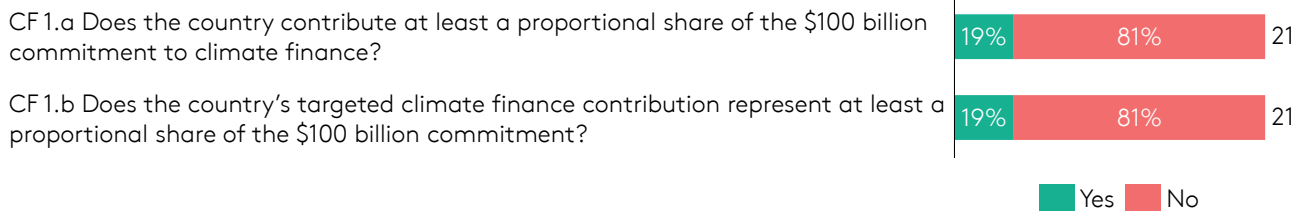
International climate finance from developed to developing countries is a cornerstone of the Paris Agreement's 'grand bargain' (Bos and Thwaites, 2021). In 2009, Annex II Parties to the UNFCCC⁵ (those considered to have the financial capabilities to contribute to these flows) committed to direct US\$100 billion in international climate finance to developing countries on an annual basis by 2020. Assessing whether countries individually contribute a proportional share of this commitment based on their respective GDP levels can help investors and other stakeholders hold high-income countries accountable to this goal. In 2020, almost all high-income countries assessed failed to contribute a proportional share of the US\$100 billion international climate finance commitment through public finance (Figure 2.19). Their additional future commitments also largely fail to meet this threshold.

This area assesses if Annex II countries are currently meeting their proportional share of the US\$100 billion goal (CF1.a) and if their additional future commitments meet their proportional share (CF1.b). To assess countries' proportional share of the US\$100 billion goal, we follow the approach developed by the World Resources Institute (Bos and Thwaites, 2021). The proportional share threshold of 0.2% of GDP is the ratio of the US\$100 billion goal and the sum of the GDP of all UNFCCC Annex II countries (averaged over three years). We use international climate finance contributions stated in countries' biennial reports submitted to the UNFCCC to assess the first

⁵ Other countries (e.g. Latvia) that are members of the EU or the Organisation for Economic Co-operation and Development (OECD) make voluntary contributions to international climate finance, but we do not currently evaluate these countries as they were not included in the original US\$100 billion commitment.

indicator.⁶ We rely on publicly-stated targets for future international climate finance contributions to assess the second indicator. We divide these figures by GDP data to calculate the country's current and future contribution as a share of GDP.

Figure 2.19. Assessment results for area CF 1. International climate finance



Note: Non-Annex II countries are exempt on this area.

Although the US\$100 billion goal includes mobilised private finance alongside public concessional finance and loans, we only evaluate countries based on their public finance contributions. This is due to the difficulty in quantifying and attributing mobilised private finance and the resulting lack of reliable data. In addition, several Annex II countries have met this threshold through public finance alone. Furthermore, the US\$100 billion goal is widely considered to be insufficient to meet developing countries' climate finance needs (Timperley, 2021; UNFCCC, 2024). Indeed, countries were aiming to prepare a [New Collective Quantified Goal \(NCQG\) on Climate Finance](#) at COP29.

According to OECD analysis, developed countries finally met the US\$100 billion goal in 2022 (OECD, 2024) but on an individual level, most countries still fail to meet a proportional share of this goal. The OECD's estimate includes flows from many non-Annex II countries that did not participate in the original US\$100 billion goal and amounts to US\$94.1 billion in public capital.

In 2020,⁷ only France, Germany, Japan and Luxembourg contributed enough through public finance channels to meet the proportional share of 0.2% of GDP. Sweden and Norway came very close to meeting their proportional share, falling short by only 0.03% of GDP. The range of contributions to international climate finance varied greatly, from 0.27% from France to 0.01% from the United States. Aside from Japan and Norway, EU countries generally contributed more than non-EU countries. The five countries that contributed the least as a share of GDP were the United States, Australia, the United Kingdom, New Zealand and Canada.

Future international climate commitments remain unclear and insufficient. Only France, Germany, Norway and Sweden have made forward-looking commitments to contribute at least 0.2% of their GDP to international climate finance. Japan's and Denmark's fall short of this threshold by a very small margin of only 0.02% of GDP. Half (11 of 21) of finance commitments are set for 2026 or sooner. It is often unclear what proportion of the commitment will be met through public finance: the NCQG on Climate Finance will likely encourage countries to set new long-term goals.

The climate financing needs of developing countries are growing (Timperley, 2021). These needs, which may be met by domestic, international public or mobilised private finance, are cumulatively estimated to reach nearly US\$6 trillion by 2030. This figure is recognised as an underestimate as it does not fully cost adaptation (UNFCCC, 2021).

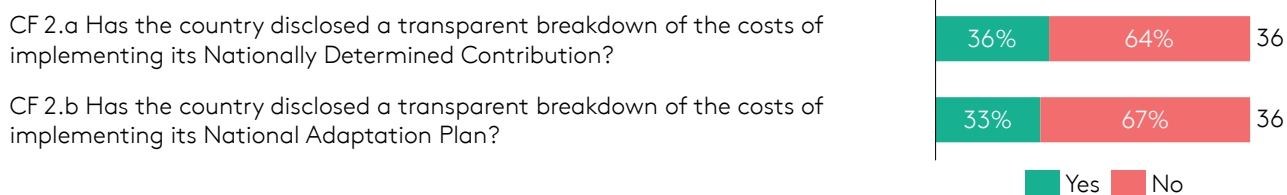
⁶ We evaluate all countries based on their UNFCCC biennial report disclosure unless we receive additional public disclosure from a country during the feedback process that we deem to have an equivalent measurement of international climate finance.

⁷ Because ASCOR assessments prioritise comparable data and countries' own disclosure, we use international climate finance contributions stated in countries' biennial reports submitted to the UNFCCC. These figures are available only up to 2020.

CF 2. Transparency in climate costing

Costing the actions identified in NDCs and NAPs can help mobilise different means of implementation, such as finance, capacity-building and technological support, in line with country-specific needs. Private investors may use disclosure of costed mitigation measures to identify opportunities to finance the low-carbon transition. Additionally, such disclosure may help countries to deploy climate-related funding to pre-identified measures prioritised in national mitigation and adaptation plans. About one-third of countries have estimated the costs of their mitigation or adaptation measures (see Figure 2.20). Investors have a growing expectation to access such information so that they can identify future investment opportunities. We discuss this further and how it relates to national transition planning in Section 4.

Figure 2.20. Assessment results for area CF 2. Transparency in climate costing



Note: Annex I countries are exempt on this area.

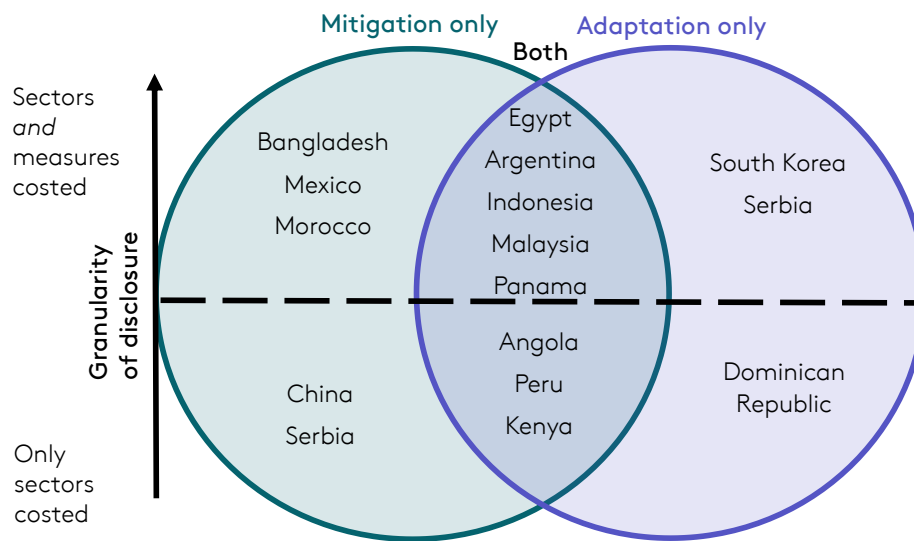
This area assesses whether countries publish a transparent costing of their mitigation (CF 2.a) and adaptation (CF 2.b) measures. Only non-Annex I (i.e. developing) countries are assessed because the Paris Agreement specifically encourages developing countries to disclose information on the costs of implementing their climate policies (Article 13, para. 10) to facilitate financial flows from developed countries to developing ones (Article 9). Our assessment requires costs to be broken down to some degree, for example into sectoral or thematic categories. We analyse country submissions to the UNFCCC including NDCs, NAPs, Long-Term Strategies (LTSs), National Communications and National Adaptation Communications along with other official government documents.

Of the 36 countries assessed in this area, 13 have disclosed their mitigation costs and 12 have disclosed their adaptation costs. Estimating the costs of mitigation and adaptation measures is a resource-intensive process, which may require capacity-building in some countries. In particular, costing adaptation measures can be more challenging in developing economies, as they have less technological capacity, such as meteorological data collection systems, to assess future risks (UNFCCC, 2023).

The methodologies used by countries to estimate the costs of specific measures and the level of granularity of those disclosures vary. Some countries present costs at the sectoral level, whereas others also give more detailed information on specific measures or projects. When costs are estimated for specific measures, countries tend to break down these costs by means of implementation, such as capacity-building and technological support. Other countries estimate the costs of specific projects. For example, Egypt's NDC provides information on mitigation and adaptation, including specific wind power plants, bioethanol production and programmes to enhance agricultural production in the Valley and Delta regions.

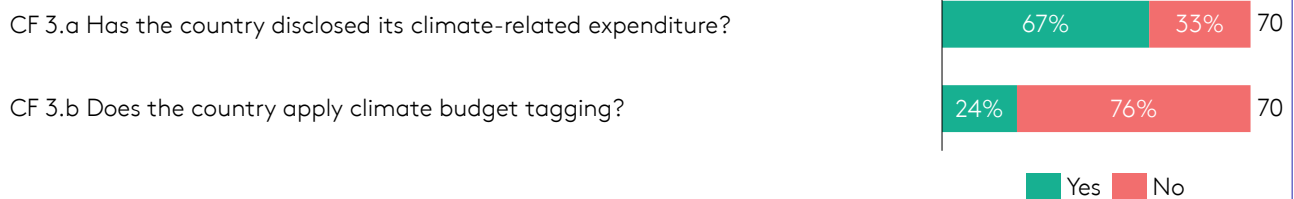
Figure 2.21 illustrates our results across assessed countries based on whether they cost mitigation, adaptation or both and based on the granularity of their disclosure.

Figure 2.21. Granularity of costing disclosure for mitigation and adaptation



CF 3. Transparency in climate spending

Figure 2.22. Assessment results for area CF 3. Transparency in climate spending



Budget transparency on relevant fiscal measures, on both the revenue and the expenditure side, that supports climate action can inform the credibility of NDCs and net zero targets. Climate budget tagging (CBT) is a fiscal tool for climate-related budgetary disclosure that tracks climate expenditure and often quantifies the positive or negative impact of government spending on climate change. Tracking, quantifying and disclosing climate-related fiscal measures enables taxpayers and investors to verify whether governments are collecting revenues and allocating public funds in line with their climate commitments. Figure 2.22 shows that basic disclosure of climate-related expenditure has become fairly common among the countries we assess (with 47 of 70 doing so), but applying a transparent CBT methodology to disclose spending is still rare (with only 17 of 70 doing so). Figure 2.23 maps the geographical distribution of these results.

This area assesses if a country has been transparent about its climate-related expenditure either by disclosing some form of climate spending information (CF 3.a) or applying a robust budget tagging methodology (CF 3.b). To qualify for the first indicator, a country needs to disclose the amount allocated or spent on climate-specific programmes, funds, projects or measures. As this is a budgetary practice, we assess annual budgets or spending reports for any relevant disclosure. Green or sustainability bond impact reports may also be considered in our analysis. The second indicator goes beyond this basic level of transparency by requiring a systematic methodology to identify expenditure and quantify the impact of each spending item on the achievement of climate goals. To qualify for this indicator, a country needs to publish a CBT methodology and disclose tagged expenditure in its national government budget.

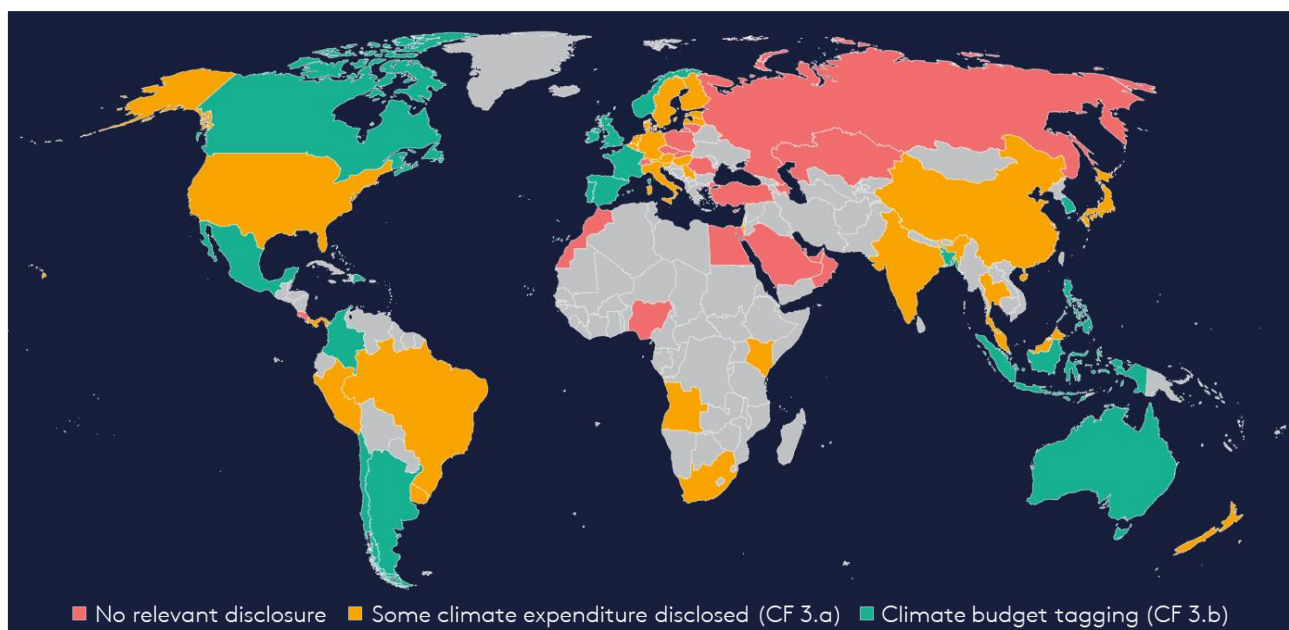
The majority (67%) of countries meet a basic level of transparency on their climate-related expenditure. The use of citizens' budgets or open budget portals is a widespread practice that enhances accountability on how public money is spent. However, these budgets often lack detailed information on how a given spending item is relevant to climate change goals.

Only 24% of countries have disclosed their expenditure using a climate budget tagging (CBT) methodology (see Figure 2.23). This practice is slightly more widespread among developing countries: 29% of middle-income countries apply CBT and 25% of low-income countries do so, compared with 22% of high-income countries. As there is not yet a standardised way of applying CBT, countries' tagging methodologies vary in terms of their coverage, definition of climate-related expenditure and tags (e.g. green, brown; primary or secondary objective; adaptation, mitigation).

Sovereigns that issue a green or sustainability bond often apply a methodology similar to CBT to identify eligible expenditure that can be funded by the bond's proceeds. Austria and Italy, for example, disclose this expenditure plus its impact in their green bond allocation and impact reports. We assess this practice as an initial level of transparency sufficient to achieve 'Yes' on indicator CF 3.a as long as it clearly contextualises this spending within broader budgetary expenditure. However, such disclosure does not qualify as equivalent to CBT because it is limited to the eligible expenditure identified in the bond's framework, rather than providing a comprehensive picture of overall public spending towards climate goals.

Around a quarter of countries that do not apply CBT have disclosed intentions to introduce this practice. Some of these, including Costa Rica, Serbia and Slovenia, have already published a CBT methodology but have yet to disclose their climate-tagged expenditure.

Figure 2.23. Mapped assessment results for area CF 3. Transparency in climate spending



CF 4. Renewable energy opportunities

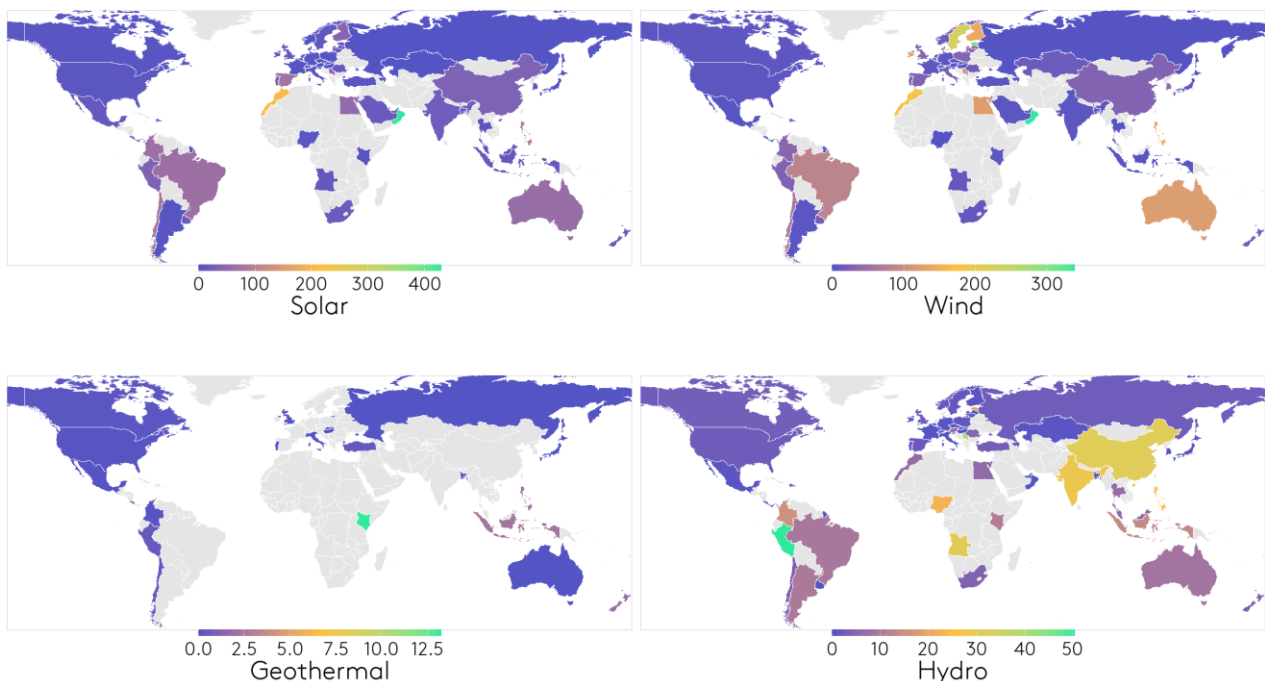
Electricity demand is expected to increase through to 2050 and renewable energy costs have decreased significantly in the last two decades (Clarke et al., 2022), making renewables both a lever for climate change mitigation and a potentially attractive investment opportunity. This area evaluates the renewable energy pipeline in each country to identify where renewable energy expansion is being actively pursued, as a proxy for potential transition investment opportunities. Rather than focusing on the physical (and fully hypothetical) *potential* of renewable energy in the country, these metrics quantify the existing pipeline of new renewable energy projects in a country.

All but one country we assess is expanding renewable energy capacity, but there is significant variation in planned increases between countries (see Figure 2.24). Our analysis focuses on solar, wind, geothermal and hydroelectric energy as these are the forms of energy for which relevant data was available.

We rely on [Global Energy Monitor](#) (GEM) data on ‘prospective’ renewable energy capacity. Prospective capacity is defined as the sum of capacity in megawatts (MW) of projects that have either been announced (i.e. described in corporate or government plans or media releases), are in pre-construction (i.e. projects that are actively moving forward in seeking governmental approvals or financing) or are under construction (i.e. site preparation and equipment installation are underway). This pipeline of new renewable energy capacity is normalised by the country’s GDP sourced from the World Bank (in billions of US\$). This adjustment is made to account for the different sizes of countries’ economies to provide a more comparable measure of national low-carbon investment opportunities.⁸

Country-specific factors are important when interpreting these metrics. Some countries, such as Hong Kong and Singapore, lack the necessary land area for certain renewables projects. Others, such as Costa Rica and Switzerland, already have nearly 100% renewable energy penetration, meaning that new projects may be less necessary. We recommend investors cross-check this area’s results against the percentage of a country’s electricity generation that is already from low-carbon sources (CP 4.d.i) to adjust their expectations. There are, of course, differences in the physical potential for different forms of renewable energy, which limit the potential for new renewable projects in many countries.

Figure 2.24. Prospective energy capacity normalised by GDP across four renewable energy sources (MW per US\$ billion of GDP)



Note: The data for Uruguay’s solar and wind prospective energy capacity was adjusted before normalisation to reflect announced projects not yet included in the GEM database. **Source:** Authors’ analysis adapted from GEM data.

⁸ Metrics normalised by GDP are presented in Figure 2.24, which is why countries like Oman and Morocco have higher values for normalised prospective solar and wind capacity than the United States or China.

Wind and solar energy are favoured over hydroelectric and geothermal energy. Collectively across assessed countries, wind energy is the fastest growing renewable energy source in normalised terms (2,605 MW/US\$ bn) and absolute terms (1,973,662 MW). Solar is the next fastest-growing form of renewable energy (1,625 MW/US\$ bn). There are relatively few new hydro and geothermal energy projects in the pipeline.

The Middle East and North Africa (MENA) region, as well as low-income countries as a group, generally have better results in this area. In part this is due to the normalisation of renewable energy pipeline sizes to GDP. Regionally, MENA countries have an average pipeline of new renewable projects over 10 times the size of those of North American countries. When accounting for their income levels, low-income countries have more prospective capacity, averaging 125 MW/US\$ bn in GDP, compared with 63 MW/US\$ bn in high-income countries and 49 MW/US\$ bn in middle-income countries.

Oman stands out (in green in Figure 2.24 for solar and wind) as the leader in normalised prospective renewable energy capacity. When summing the normalised prospective capacity of the four renewable energy sources, Oman's total is 70% higher than the next highest country, Morocco. Countries like Oman and Morocco hold significant low-carbon investment opportunities in proportion to the size of their economies as they have large pipelines of already approved renewable energy projects. Although smaller in scale, Kenya (13 MW/US\$ bn) and Peru (50 MW/US\$ bn) lead in normalised prospective geothermal and hydro energy capacity, respectively (shown in green in Figure 2.24 for geothermal and hydro).

3. A synthesis of national climate action

This section analyses the relationship between performance against the ASCOR framework and country characteristics such as region, income and fossil fuel dependence. To do this, we synthesise the 72 ASCOR indicators and metrics into two *pillar-level* scores: (1) *Emissions Pathways* and (2) *Climate Policies and Finance*. These two separate analyses offer distinct and complementary information about a given country's climate transition: some countries, such as Costa Rica, have impressive emissions trends and targets but do not have the full range of mitigation policies we assess (and may not need them). Analysing the relationship between ASCOR pillar scores and specific country characteristics can help investors set their expectations of country performance appropriately and may be useful to frame their engagement with sovereigns.

The relationship between country scores and income should be considered particularly carefully. In most sovereign portfolio decision-making, developed and emerging markets are analysed separately on financial performance as well as environmental, social and governance (ESG) factors. Similarly, countries' performance against the ASCOR framework should generally be compared *within* rather than across income groups. This is because key factors such as financial resources, institutions and technologies to manage climate change are affected by income: emerging market and developing economies face higher costs of capital and competing funding needs for economic development, which can constrain progress on decarbonisation. As such, the income patterns described here are intended to help investors evaluate countries' climate performance *in the context* of their income level.

This section is structured as follows:

- We first explain the approach taken to calculate pillar-level scores.
- We then present the pillar scores aggregated by region, income group and fossil fuel dependence group. We also analyse which of these factors are most relevant when all three are considered.
- Finally, we present relative country performance against the ASCOR pillars by income group.

Developing a synthesis of national climate action from the ASCOR framework

The ASCOR framework was developed to address a lack of consistent sovereign climate data available to investors and to provide detailed, actionable assessments of each country. The ASCOR framework provides investors with comparable climate data across key dimensions such as emissions targets, climate laws and National Adaptation Plans, but it is difficult to get an overall picture of how assessed countries perform across all 14 areas, 38 indicators and 24 metrics.

To simplify comparisons across countries and country groupings, we calculate ASCOR pillar scores, which condense the framework's dimensionality from 72 to two key aspects of countries' climate transitions. The *Emissions Pathway* pillar score reflects a country's recent mitigation efforts and their future mitigation ambition. The *Climate Policies and Finance* pillar score reflects the tools and systems a country has put in place to implement their mitigation and adaptation plans. To calculate pillar scores, we take unweighted averages at the area level and then equally weigh each area within the pillar or group of pillars (see Box 3.1). We combine Climate Policies with Climate Finance (Pillars 2 and 3) because thematically they both assess actions taken to implement emissions targets and manage physical or transition risks. The Climate Finance pillar cannot be meaningfully aggregated because this pillar's areas have non-overlapping exemptions, making the results across donor and recipient countries difficult to interpret.

Box 3.1. Methodology to develop the ASCOR pillar scores

To calculate the ASCOR pillar score, we convert all binary indicators and quantitative metrics within the framework into numbers on a scale from zero to one. Binary indicators are zero for 'No' and one for 'Yes'. Quantitative metrics, such as the percentage of a country's electricity generation from low-carbon sources, are normalised on a scale from zero to one using transformed z-scores, where a number closer to one indicates better performance. Z-score normalisation rescales data based on its mean and standard deviation, enabling comparisons in terms of deviations from the mean. If a country has 'No or unsuitable disclosure' for an indicator or metric, it receives a zero. We then aggregate these standardised indicator scores to the area level using the unweighted average, and similarly aggregate to the pillar level by taking the unweighted average of area-level scores.

Exemptions are an essential part of the ASCOR framework, designed to account for countries' development context. To ensure fairness, indicators for which a country is exempt are excluded from their score by removing the indicators in question from both the numerator and denominator of the area- and pillar-level averages. We also exclude certain indicators and metrics to avoid double-counting the same performance criteria. We remove LULUCF data from the emissions trends area due to large uncertainties in the associated data.

Due to the normalisation of the framework's quantitative metrics, the resulting pillar scores are relative rather than absolute measures of climate performance. Each pillar score provides unique and complementary information on different aspects of a country's climate performance.

The pillar scores can be used to explore whether specific country characteristics correlate with overall climate performance and express how a country performs relative to other countries within a given pillar of the ASCOR framework. However, it is important to interpret these pillar scores with caution, as the ASCOR framework was not originally designed to create a scoring or ranking system. Indeed, pillar scores are used here to examine patterns across regions and income groups. In determining relative performance, a score close to one indicates relatively better performance in that pillar whereas a score close to zero indicates a lack of action. A relatively higher pillar score does not necessarily imply complete alignment with the Paris goals. Future iterations of the ASCOR tool may expand to analyse further important policy tools and the scoring methodology presented here may be developed further. The pillar scores offer only a high-level and non-exhaustive overview of climate performance.

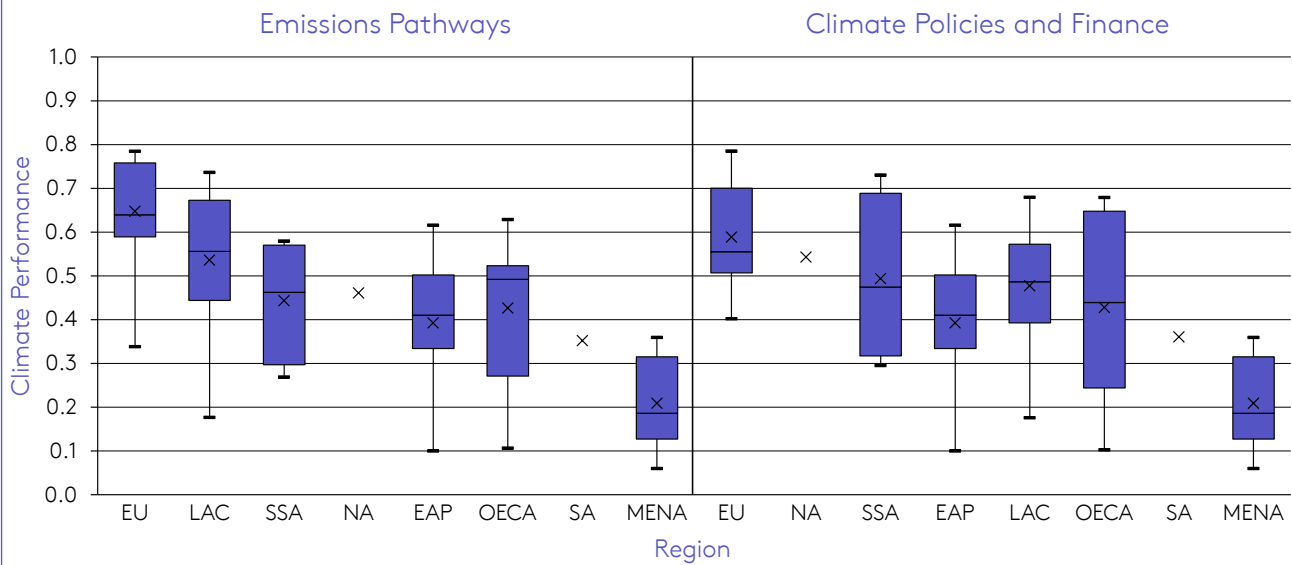
Patterns in climate performance by region, income and fossil fuel dependence

In this section, we analyse the relationship between ASCOR pillar scores and important country characteristics: region, income and fossil fuel dependence.

Across regions, the EU has the highest pillar scores and the Middle East and North Africa (MENA) region has the lowest scores. Figure 3.1 shows the average pillar scores for each region. In the *Emissions Pathways* pillar, EU countries perform best on average, followed by Latin American and Caribbean countries. There is minimal variation between the other regions, apart from MENA which has a significantly lower average score. Every region's result is statistically different to and lower than the EU's, except for North America's due to limited observations in this region (covering only Canada and the US)...⁹

⁹ A statistically significant difference means the difference between two groups can be explained more by the variation between them than within them. The statistical significance of the difference across categorical variables (e.g. region) is evaluated using an ANOVA test. Confirmation of the direction of the statistical relationship (or lack thereof) is calculated by a simple linear regression of the variable of interest (e.g. region) on the pillar score. For regressions that analyse the relationship between the pillar scores and income or fossil fuel rents, which are discussed later in this section, we use the continuous variables of GDP per capita and total fossil fuel rents, respectively. The reference region for all regressions that include a region variable is the EU.

Figure 3.1. Pillar scores by World Bank region

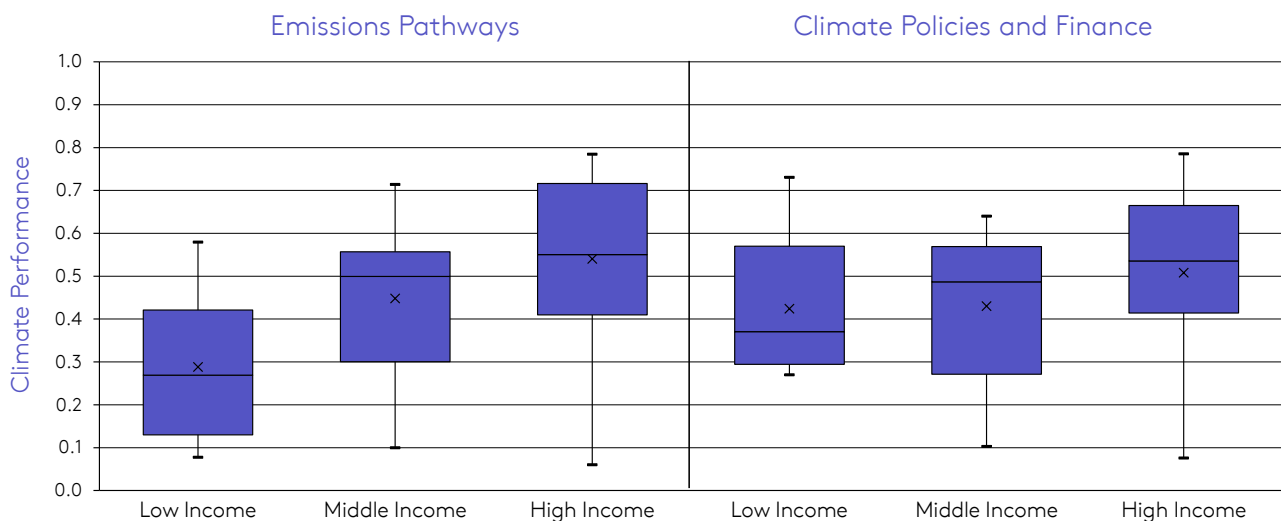


Note: Regions are based on World Bank regional definitions. Due to policy coordination at the EU level, we separate countries in the EU from Europe and Central Asia. This results in the following regions: East Asia and Pacific (EAP), European Union (EU), Latin America and the Caribbean (LAC), Middle East and North Africa (MENA), North America (NA), Other Europe and Central Asia (OECA), South Asia (SA), and Sub-Saharan Africa (SSA). The box plots illustrate quartiles of the distribution where the horizontal line in the middle of the box indicates the median and the X indicates the mean.

In the *Climate Policies and Finance* pillar, the EU again performs best on average, followed by North America. Sub-Saharan Africa, East Asia and Pacific, and Latin America and the Caribbean all also perform well. MENA is again the region with the lowest average scores. Like the *Emissions Pathways* pillar, almost all regions' averages are statistically different and lower than the EU's with the exception of North America and Sub-Saharan Africa.

Both pillar scores are positively correlated with country income. Figure 3.2 shows the difference in average pillar scores between income groups, using the World Bank classification system that is based on GDP per capita.

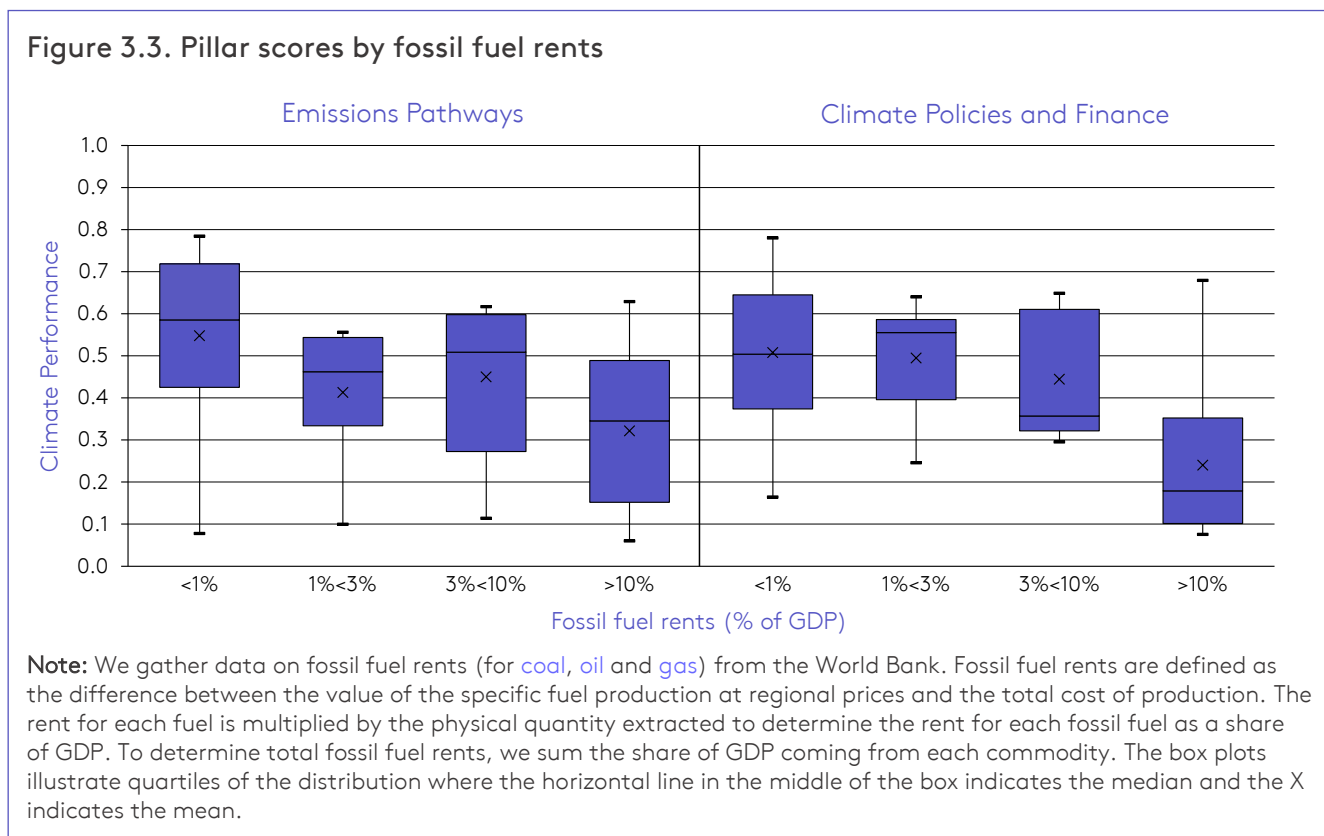
Figure 3.2. Pillar score by income group



Note: Income groups are based on World Bank groupings. In our framework, LI refers to low-income, MI to middle-income and HI to high-income. The box plots illustrate quartiles of the distribution where the horizontal line in the middle of the box indicates the median and the X indicates the mean.

The differences between income groups are greater in the *Emissions Pathways* pillar. For the *Climate Policies and Finance* pillar, the difference in the average results between low- and middle-income countries is particularly small.¹⁰ The relationship between pillar scores and income is particularly important when looking at how individual countries perform on the ASCOR tool. As discussed above, income group averages can serve as ‘benchmarks’ against which to evaluate a country’s climate performance. Comparing a country with other countries within its own income group gives a more appropriate indication of its overall performance subject to financial, institutional, technological and other constraints.

Pillar scores are negatively related to fossil fuel dependence. Figure 3.3 shows the difference in average pillar scores for different levels of fossil fuel dependence as measured by fossil fuel rents as a share of overall GDP. Countries are allocated to four groups based on their share of GDP derived from coal, oil and gas rents.¹¹ The 17 countries for which this share is over 3% include many countries in the Middle East but also Russia, Norway, Colombia and Canada (see Figure 2.12 in Section 2). Countries that are less dependent on fossil fuels perform better on average than those that are more reliant. The relationship is strong and statistically significant. The larger effect is in the *Climate Policy and Finance* pillar.



Understanding the comparative roles of region, income and fossil fuel dependence is challenging, because these three factors are correlated with each other. For example, the highest fossil fuel rents are primarily found in the MENA region. In principle, with large amounts of continuous data, statistical techniques can be used to isolate the effect of each factor individually, controlling for the others. However, it is harder to achieve clean statistical testing in this case because the number and granularity of the data points are limited. Running various statistical tests on the

¹⁰ The significance of the relationship between the categorical variable ‘income group’ and the pillar score is estimated by a one-way ANOVA test.

¹¹ Levels of fossil fuel dependence are adapted from United Nations Development Programme definitions (UNDP, 2023).

data,¹² we find tentative evidence that all three factors are significant predictors of *Emissions Pathways* pillar scores, while for the *Climate Policies and Finance* pillar, both region and fossil fuel dependence are significant but income may not be.

Relative country performance against the ASCOR pillars

In line with the investment approach of sovereign investors, who typically manage separate portfolios for developed and emerging markets, we show pillar scores for each country by income group (see Table 3.1).

Income group	Quartile	Emissions Pathways			Climate Policies and Finance		
High	First	Austria	Estonia	Luxembourg	Austria	France	Portugal
		Barbados	Finland	Slovenia	Chile	Germany	Spain
		Cyprus	Latvia	Sweden	Denmark	Ireland	Sweden
		Denmark	Lithuania		Finland	Norway	
	Second	Belgium	Hungary	Norway	Australia	Malta	Slovenia
		France	Ireland	Portugal	Canada	Netherlands	Switzerland
		Germany	Malta	Slovak Rep	Estonia	New Zealand	UK
		Hong Kong	Netherlands		Japan	Rep. of Korea	
	Third	Canada	New Zealand	Switzerland	Belgium	Italy	Romania
		Chile	Panama	UK	Cyprus	Latvia	United States
		Italy	Romania	United States	Czechia	Lithuania	Uruguay
		Japan	Spain		Hungary	Luxembourg	
	Fourth	Australia	Oman	Saudi Arabia	Bahrain	Oman	Saudi Arabia
		Bahrain	Poland	Singapore	Barbados	Panama	Singapore
		Czechia	Qatar	UAE	Hong Kong	Poland	Slovak Republic
		Israel	Rep. of Korea	Uruguay	Israel	Qatar	UAE
Middle	Quartile	Emissions Pathways			Climate Policies and Finance		
	First	Colombia	Dominican Rep.		Argentina	Indonesia	
		Costa Rica	Peru		Colombia	Serbia	
	Second	Argentina	Malaysia		China	Peru	
		Brazil	South Africa		Mexico	South Africa	
	Third	Kazakhstan	Thailand		Brazil	Kazakhstan	
		Russia	Türkiye		Dominican Rep.	Malaysia	
	Fourth	Azerbaijan	Indonesia	Serbia	Azerbaijan	Russia	Türkiye
		China	Mexico		Costa Rica	Thailand	
	Low	Quartile	Emissions Pathways			Climate Policies and Finance	
First		India	Nigeria		Kenya	Philippines	
		Angola	Bangladesh		Angola	Bangladesh	
Third		Kenya	Morocco		Egypt	Nigeria	
		Egypt	Philippines		India	Morocco	

Note: ASCOR pillar scores are presented by quartile of relative performance in each income group. Results in each quartile are presented by alphabetical order rather than rank.

¹² To test the strength of these relationships, we first run two-way ANOVA tests that account for all three combinations of country characteristics to detect whether the variance between the means is still partially explained by a particular characteristic if we also account for another characteristic. We next run simple linear regressions to confirm the direction and significance of these relationships for all possible combinations of country characteristics: e.g. we run a regression of the pillar score on GDP and region. Then we run a regression of the pillar score on GDP, region and fossil fuel rents to see if each characteristic independently explains the variation in the pillar score, or if it correlates with another characteristic.

In the low-income group, Nigeria and Kenya are leaders. Nigeria ranks high on the *Emissions Pathways* pillar due to its improving emissions profile and ambitious 2030 emissions reduction and 2070 net zero targets. Kenya leads its income group in the *Climate Policies and Finance* pillar. Kenya's 2016 Climate Change Act and Energy Transition and Investment Plan make it a leader in the credible preparation and leveraging of climate opportunities.

In the middle-income group, Costa Rica and Argentina stand out as leaders. Costa Rica performs well on recent mitigation and future mitigation ambition as one of the few countries with both emissions trends and a 2030 target aligned with its 1.5°C fair share. It is also one of the only countries whose 2030 target is close to aligning with its 1.5°C cost-effective benchmark. Argentina has a wide suite of tools to manage the physical and transition risks of climate change, including a climate framework law with accountability mechanisms, a carbon pricing system and a green jobs strategy. In addition, Argentina has transparently costed the implementation of its NDC and NAP.

In the high-income group, both top performers are EU members – Denmark and France. Denmark performs well in the *Emissions Pathways* pillar thanks to decreasing emissions trends across all nine emissions metrics. Like other leaders in the *Climate Policies and Finance* pillar, France has developed policies and systems that lend credibility to its mitigation and adaptation goals. This includes two climate framework laws with strong accountability mechanisms, a carbon pricing system that covers over 60% of emissions, and a green jobs strategy. France also contributes more than its proportional share to the US\$100 billion international climate finance goal and has announced future targets that will continue to meet this threshold.

Countries that are economically reliant on fossil fuels are among the worst performers across both pillars and include Azerbaijan, Qatar and Saudi Arabia. These three countries have high per capita emissions and limited tools and systems to mitigate and adapt to climate change. Other poor performers include Indonesia and the Philippines, both of which have increasing emissions on most metrics and lack net zero targets.

India's case underscores the importance of interpreting both pillar scores as separate and complementary ways of evaluating country performance. India is the second-best performing low-income country in the *Emissions Pathways* pillar metric due to its very low per capita emissions and its 2070 net zero target. However, it lacks some of the tools and systems to enact effective climate mitigation and adaptation, such as a climate framework law or a NAP.

We cross-validate the ASCOR pillar scores against the relevant components of the Environmental Performance Index (EPI) and the Climate Change Performance Index (CCPI), finding general alignment across country results.¹⁵ Similar to the EPI and CCPI, the ASCOR pillar scores are based on a relative scoring system. Among the few discrepancies are India and the Philippines, which CCPI ranks fourth and sixth overall respectively, likely due to the CCPI's much higher weighting of per capita emissions in its scoring system. Despite some differences in results, the general similarities between the top and bottom performers in the ASCOR pillars compared with the relevant EPI and CCPI results lends confidence that we are accurately measuring climate performance. As discussed in the Introduction, the notable difference between ASCOR and these other indices is the higher transparency and granularity of the climate policy assessments which is intended to meet investor needs for informed decision-making and dialogue with sovereign issuers.

¹⁵ The **EPI** assesses 58 indicators on climate change performance, environmental health and ecosystem vitality to rank countries on the state of sustainability around the world (Block et al., 2024). The EPI Climate Change Mitigation area makes up 30% of the total score and is a useful comparison for the *Emissions Pathways* pillar. The **CCPI** is a climate-specific tool that assesses countries with 14 indicators across four categories: GHG Emissions, Renewable Energy, Energy Use and Climate Policy (Burck et al., 2023). The first three categories provide quantitative information on countries' energy systems and alignment with 1.5 and 2°C pathways, making it relevant to compare to the *Emissions Pathways* pillar. CCPI's Climate Policy category is evaluated through the aggregated responses of national experts to a questionnaire, making it relevant to compare to the *Climate Policies and Finance* pillar.

4. Lessons for national transition planning

The systemic transformation needed to achieve a net zero future will require robust government coordination and financing. There are growing calls from financial market actors for countries to develop 'national transition plans' (Aviva Investors, 2024) and to make NDCs 'investible' (IIGCC, 2024). Broadly, these calls recommend countries adopt more coordinated, whole-of-government approaches and develop investment plans to drive public-private collaboration towards financing the transition (Manning et al., 2024). Some countries have already implemented many of these recommendations, although the relevant information is not always compiled within a single coherent document such as an NDC.

This section aims to highlight emerging practices among countries that are responding to these calls, as identified through the exploratory and iterative development of the ASCOR methodology. The intention is to educate investors about where to find relevant information and for governments to learn from the transition planning experiences of their peers.

The ASCOR tool can be used both to evaluate the ingredients of national transition plans and to identify lessons from emerging best practice gathered in our research. The ASCOR indicators and metrics evaluate many of the component ingredients of relevant guidance such as the recommendations for national transition planning developed by the [Centre for Economic Transition Expertise](#) (ibid.). [Appendix 4](#) presents a systematic mapping of ASCOR areas against these recommendations. Below, we draw on our assessment dataset, collected based on in-depth and consistent policy analysis, to highlight specific lessons for national transition planning. This analysis can also help investors refine their disclosure expectations of sovereigns.

Echoing the emerging guidance on national transition planning, we offer three recommendations to national governments that also help to address information gaps identified by investors and other stakeholders:

1. Adopt a whole-of-government vision to coordinate ministries
2. Translate national ambitions to the sectoral level
3. Develop climate-related investment plans, clarify funding needs and identify sources of finance

For each recommendation, we provide specific country cases of emerging best practice.

Whole-of-government vision

In many countries, climate framework laws are used as the bedrock of a whole-of-government approach to the low-carbon transition. Establishing a whole-of-government approach demonstrates to investors that climate change is managed as a systemic risk. The ASCOR climate legislation indicators (CP 1.a and b) evaluate the presence of such laws and their accountability characteristics, meaning whether the law specifies obligations and what happens in the case of non-compliance. Climate framework laws establish governance and coordination mechanisms between government entities which can cascade from the top down to specific sectoral mandates, policies and standards. Accountability mechanisms in climate framework laws (Higham et al., 2021), such as requirements to report on the progress and impact of different climate policies, hold relevant actors to meeting the climate obligations set in the law. Such reporting can help investors better understand the landscape of climate policies in a country, while accountability elements in general can reduce future litigation risk.

A range of countries offer lessons for precisely how a whole-of-government approach can be established. For example, Mexico's [General Law on Climate Change](#) defines the country's National Climate Change System as a permanent mechanism to communicate, coordinate and consult on national climate policy. All three levels of government, federal, state and municipal, and various secretariats including agriculture, energy, finance and rural development, are represented in this

mechanism. Climate framework laws may also establish dedicated bodies to coordinate an interministerial agenda on climate change, for example Colombia's [Comité de Gestión Financiera](#) and Nigeria's [National Council on Climate Change](#).

Sectoral planning

The implementation of overarching national climate ambitions requires them to be translated into sectoral targets and policies. Economic sectors have differing transition challenges, availability of low-carbon technologies and interdependencies between different ministries' mandates and priorities. Greater policy certainty and sectoral direction on climate action can encourage corporate ambition and improve investor confidence. The ASCOR decarbonisation strategy indicator (CP 4.a) assesses this precisely by evaluating whether countries have set an emissions target and at least one policy or measure to deliver that target for specific high-emitting sectors. For some sectors, modelling data is available to benchmark national sectoral targets against regional net zero deadlines. We assess this for the electricity sector, which needs to reach net zero by 2035 or earlier in advanced economies, 2040 in China, and 2045 or earlier in the rest of the world.

Some countries communicate sector-specific mitigation strategies in NDCs or Long-Term Strategies, such as Costa Rica's [National Decarbonisation Plan](#) and New Zealand's [Emissions Reduction Plan](#). Many other countries instead provide this in the form of other executive documentation such as the Republic of Korea's [Carbon Neutrality Green Growth Strategy](#). Sector-level planning is as crucial in adaptation: Chile has an economy-wide [NAP](#) as well as eight [sector-specific NAPs](#) to communicate sector-specific risks and actions to build resilience.

It is important to distinguish sectoral forecasts, modelled projections and targets. Countries sometimes publish sectoral emissions *forecasts* of what they expect given current trends and realities, or *projections* of their sectoral mitigation pathways under different modelled hypothetical scenarios. However, both of these are distinct from setting explicit sectoral *targets* in line with a country's economy-wide NDC. Unlike forecasts or projections, a target sets an intention and can therefore be benchmarked to assess ambition. As such, they provide leadership and sector-specific direction for mitigation efforts by sub-national economic actors. For example, Germany's [Federal Climate Protection Act](#) sets annual emissions limits by sector while its Long-Term Strategy specifies sectoral milestones towards net zero such as reaching 80% renewables in its electricity sector, 50% climate-neutral solutions for the heating sector and 15 million electric cars in its passenger transport sector by 2030.

Investment plans

A major information gap exists for many countries on their transition investment needs and funding plans. Filling this gap would help investors identify investment opportunities and increase private financial flows towards the low-carbon transition. While many developing economies disclose some information on the costs of their NDCs and NAPs, the level of detail varies. The demands for this information from financial institutions could be clarified and specified by learning from and building on countries' current practices. ASCOR's Climate Finance pillar contributes to filling this gap by uncovering whether developing countries are costing their climate plans (CF 2) and whether all countries are disclosing their climate-related spending (CF 3). In the case of wealthy countries, we also evaluate whether they are contributing proportionally to international climate finance (CF 1) as a component of public spending on climate change.

Investors should examine this existing disclosure of developing countries' climate financing needs and clarify whether the granularity of the information is sufficient to inform understanding of investment opportunities. For example, Argentina provides granular costing of its mitigation and adaptation actions at the level of specific projects and measures. Its [NDC](#) (p.190) breaks down mitigation costs for the energy, agriculture, industry and waste sectors, and for specific measures within each sector. Examples of specific mitigation measures include grid-connected renewable energy in the wholesale market, the substitution of natural gas for alternative fuels in industry and

biogas capture for energy generation. Alongside Argentina, Egypt is among only five countries to have published a transparent costing at the granular measure-level of both its NDC and NAP. Such detailed disclosure reflects its success in attracting finance through its platform for the Nexus on Water, Food and Energy (NWFE) (World Bank, 2023). These costing exercises can be resource-intensive: capacity-building from the NDC Partnership has provided guidance for investment strategies to implement climate goals for some developing countries including Panama and Nigeria.

While ASCOR does not yet assess the transparency of climate costing among high-income countries, there are other sources that investors can use to understand investment opportunities, such as fiscal spending programmes or tax credit systems like the United States' Inflation Reduction Act. Instead of publishing estimates of the costs of implementing NDCs, as many middle- and low-income countries do, wealthier countries tend instead to disclose intended future government spending towards climate goals.

Budget transparency on climate-related fiscal measures can be a foundation of transition investment planning as long-term funding priorities are subject to budgetary planning cycles.

Disclosing current spending on climate action aims also demonstrates credibility of emissions targets. The Philippines applies a climate change expenditure tagging framework mandated in the country's 2012 Climate Change Act. Tagging applies to central and local budget processes for mitigation and adaptation pillars and specifies strategic priorities and sub-priorities for each expenditure. In many cases, countries may tag climate-positive expenditure, without also tagging climate-negative spending. Transparency on spending dedicated to activities that are inconsistent with climate action is also important. The ASCOR indicators on phaseout commitments and disclosure related to fossil fuel subsidies (CP 3.a and b) offer complementary information to climate budget tagging. Portugal has a deadline to phase out fossil fuel subsidies by 2030 and uniquely states this commitment in law through its Basic Climate Law.

For wealthy countries, spending on climate change action includes international climate finance.

From our analysis (CF 1), we find that Sweden has emerged as the leader in future commitments through a long-term (to 2032) public commitment of SEK 1.5 billion annually (0.27% of GDP) through its programme for international climate initiatives. However, as noted in Section 2, Sweden just misses the 0.2% threshold when considering its past contributions to international climate finance.

Ahead of the next generation of NDCs to be released during 2025, countries could learn from these lessons to reformulate their national strategies and develop more granular plans.

5. Implications for investors

ASCOR was established by asset owners, asset managers and investor networks to provide comprehensive and comparable data on how governments are managing the low-carbon transition and the impacts of climate change. Its goals are to help investors assess their portfolios' exposure to climate risk and identify investment opportunities, and to help structure dialogue between sovereigns and investors that encourages financial flows to support a resilient and just low-carbon transition.

The ASCOR tool and the results discussed in this report, have three main implications for investors.

1. ASCOR offers the breadth and depth that investors need

This report has reviewed the climate change performance of 70 countries assessed against the ASCOR framework in 2024. These countries are the most relevant for bondholders as together they make up most of the major sovereign bond market indices. The ASCOR tool's increased coverage enables investors to assess a much broader segment of their investment portfolios and to implement strategies such as climate-aware index investing and climate tilting.

ASCOR also focuses on the most important ways in which countries are managing physical and transition risks. It assesses both historical emissions and forward-looking targets. It also assesses climate policies, enabling investors to understand whether there has been meaningful progress on the implementation of stated targets.

Finally, it analyses how much wealthier countries are contributing to international climate finance, whether countries are transparently costing their climate finance needs, and whether countries are transparent about public spending on climate action. This third point is particularly important in the context of financial flows. There are significant information gaps for many countries on their transition investment needs and funding plans. Filling this gap would help investors identify investment opportunities and direct private finance towards the low-carbon transition.

2. ASCOR's breadth and depth enable a broad range of uses

Investors may use this report's findings alongside the ASCOR data in a variety of ways. These suggestions are corroborated by our ongoing discussions with investors and other stakeholders.

Investors may use the ASCOR data to:

- **Explicitly assess climate-related risks and opportunities in sovereign debt analysis.** This can include guiding portfolio alignment, for example using ASCOR data in the [Net Zero Investment Framework](#) (NZIF). ASCOR may also enable financial service providers to create Paris-aligned sovereign indices and conduct climate scenario analysis.
- **Structure dialogue and engagement with sovereign issuers.** ASCOR provides an independent framework for assessing and discussing progress, enabling country governments to showcase the progress they have made in developing and implementing climate policies. In turn, this will help build investor confidence in governments' climate change goals and encourage capitals flows that will support job creation, infrastructure improvement, and pollution reduction. This use case has been demonstrated by the Principles for Responsible Investment-convened [pilot](#) collaborative sovereign engagement project with the government of Australia.
- **Complement bond-level certifications for labelled debt** (e.g. green bonds) with entity-level assessments of climate action.
- **Support corporate climate risk assessment with insights on country risk.** For example, when investors assess the credibility of corporate climate targets, they also need to assess the extent to which achieving these targets depends on country-specific factors such as national policies. In addition, investors can use ASCOR data to assess how companies are performing in relation to the local regulatory conditions in which they operate.

- **Build consensus around investors' expectations of governments in relation to climate mitigation and adaptation.** This should help to avoid an unnecessary proliferation of different sovereign climate frameworks and should streamline investor engagement with governments, which could help optimise limited time and resources for both.

The ASCOR tool can, in principle, also support specific use cases by sovereign bond issuers, including:

- **Supporting country governments in showcasing progress on climate policies** to bondholders and private finance investors more broadly. For smaller and more resource-constrained countries, this ease of reporting on climate progress by referring to the independent ASCOR tool can be particularly helpful.
- **Enabling sovereign issuers to conduct peer-group comparisons** on climate risk management.
- **Providing independently assessed indicators** that may be used as key performance indicators (KPIs) in sustainability-linked bonds.
- **Facilitating transition funding** by providing a common basis for dialogue and decision-making.

3. ASCOR data provides important insights into the relationship between economic growth and emissions reductions

The analysis described in this report shows the apparent tension between economic growth and emissions reductions. Addressing this challenge should be centred in investor-government dialogue. Furthermore, the ASCOR framework highlights factors such as emissions trends and mitigation policies that should be integrated into national economic development plans. The framework also encourages governments to demonstrate both where they intend to invest and where they would like support to invest. This, in turn, could enable low- and medium-income countries to align their goals of economic growth with the goals of a resilient and just low-carbon transition.

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Appendix 1. Country universe

ASCOR income group	Country	Region
High	Australia	East Asia and Pacific
	Austria	Europe and Central Asia
	Bahrain	Middle East and North Africa
	Barbados	Latin America and Caribbean
	Belgium	Europe and Central Asia
	Canada	North America
	Chile	Latin America and Caribbean
	Cyprus	Europe and Central Asia
	Czechia	Europe and Central Asia
	Denmark	Europe and Central Asia
	Estonia	Europe and Central Asia
	Finland	Europe and Central Asia
	France	Europe and Central Asia
	Germany	Europe and Central Asia
	Hong Kong	East Asia and Pacific
	Hungary	Europe and Central Asia
	Ireland	Europe and Central Asia
	Israel	Middle East and North Africa
	Italy	Europe and Central Asia
	Japan	East Asia and Pacific
	Latvia	Europe and Central Asia
	Lithuania	Europe and Central Asia
	Luxembourg	Europe and Central Asia
	Malta	Middle East and North Africa
	Netherlands	Europe and Central Asia
	New Zealand	East Asia and Pacific
	Norway	Europe and Central Asia
	Oman	Middle East and North Africa
	Panama	Latin America and Caribbean
	Poland	Europe and Central Asia
	Portugal	Europe and Central Asia
	Qatar	Middle East and North Africa
	Republic of Korea	East Asia and Pacific
	Romania	Europe and Central Asia
	Saudi Arabia	Middle East and North Africa
	Singapore	East Asia and Pacific
	Slovak Republic	Europe and Central Asia
	Slovenia	Europe and Central Asia
	Spain	Europe and Central Asia
	Sweden	Europe and Central Asia
	Switzerland	Europe and Central Asia
	United Arab Emirates	Middle East and North Africa
United Kingdom	Europe and Central Asia	
United States	North America	
Uruguay	Latin America and Caribbean	

Middle	Argentina	Latin America and Caribbean
	Azerbaijan	Europe and Central Asia
	Brazil	Latin America and Caribbean
	China	East Asia and Pacific
	Colombia	Latin America and Caribbean
	Costa Rica	Latin America and Caribbean
	Dominican Republic	Latin America and Caribbean
	Indonesia	East Asia and Pacific
	Kazakhstan	Europe and Central Asia
	Malaysia	East Asia and Pacific
	Mexico	Latin America and Caribbean
	Peru	Latin America and Caribbean
	Russian Federation*	Europe and Central Asia
	Serbia	Europe and Central Asia
	South Africa	Sub-Saharan Africa
	Thailand	East Asia and Pacific
Türkiye	Europe and Central Asia	
Low	Angola	Sub-Saharan Africa
	Bangladesh	South Asia
	Egypt	Middle East and North Africa
	India	South Asia
	Kenya	Sub-Saharan Africa
	Morocco	Middle East and North Africa
	Nigeria	Sub-Saharan Africa
	Philippines	East Asia and Pacific

Note: The Russian Federation is assessed in the ASCOR tool as a middle-income country, with all applicable exemptions, based on the World Bank income group assigned to it at the beginning of this research cycle (i.e. upper-middle-income country). The Russian Federation has since been recategorised as a high-income country by the World Bank. The country will be assessed as a high-income country in the next ASCOR assessment cycle.

Further details on these countries assessed can be downloaded on the [ASCOR tool](#).

Appendix 2. ASCOR area results by country

The area-level result is 'Yes' if all indicators within the area are assessed as 'Yes'; 'Partial' if some of the indicators within the area are assessed as 'Yes'; and 'No' if all the indicators within the area are assessed as 'No'. An asterisk (*) indicates the area includes one or more indicators from which the country has been exempted or assessed as 'No data'/'Not applicable'.

Income Group	Country	EP 1. Emission trends	EP 2. 2030 targets	EP 3. Net zero targets	CP 1. Climate legislation	CP 2. Carbon pricing	CP 3. Fossil fuels	CP 4. Sectoral transitions	CP 5. Adaptation	CP 6. Just transition	CF 1. International climate finance	CF 2. Transparency of climate costing	CF 3. Transparency of climate spending
High	Australia	Partial	Partial	Partial	Yes	Partial	No	Partial	Partial*	Partial	No	Exempt	Yes
	Austria	Partial*	Partial*	Yes	Yes	Yes	Partial*	Partial	Yes*	Yes	No	Exempt	Partial
	Bahrain	Partial*	No	Partial	No	No	No*	Partial	No*	No*	Exempt	No	No
	Barbados	Yes*	Partial*	Yes	No	No	No*	Partial	Partial	No*	Exempt	No	No
	Belgium	Partial*	Partial*	Partial	Partial	Partial	Partial*	Partial	Partial*	Yes	No	Exempt	Partial
	Canada	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial*	Partial	No	Exempt	Yes
	Chile	No	Partial	Partial	Yes	Partial	No	Partial	Yes*	Yes	Exempt	No	Yes
	Cyprus	Yes*	Yes*	Partial	No	Partial	No*	Partial	Yes*	Partial	Exempt	Exempt	No
	Czechia	No	Partial	No	No	Partial	Partial	Partial	Yes*	Partial	Exempt	Exempt	No
	Denmark	Partial*	Partial*	Yes	Yes	Partial	Partial*	Partial	Partial*	Partial	No	Exempt	Partial
	Estonia	Yes*	Yes*	Partial	No	Yes	Partial*	Partial	Yes*	Partial	Exempt	Exempt	Partial
	Finland	Partial*	Partial*	Yes	Yes	Yes	Partial*	Partial	Partial*	Partial	No	Exempt	Partial
	France	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Yes*	Partial	Yes	Exempt	Yes
	Germany	Partial	Partial	Yes	Yes	Yes	Partial	Partial	Yes*	Yes	Yes	Exempt	Partial
	Hong Kong	Yes*	Partial*	Partial	No	No	Yes*	Partial	Partial*	No*	Exempt	No	Partial
	Hungary	Partial*	Partial*	Partial	Partial	Partial	No	Partial	Partial*	Partial	Exempt	Exempt	Partial
	Ireland	Partial*	Partial*	Partial	Yes	Yes	Partial*	Partial	Partial*	Partial	No	Exempt	Yes
	Israel	No	Partial	No	No	No	No*	Partial	Partial*	No*	Exempt	No	Partial
	Italy	Partial	Partial	Partial	No	Partial	Partial*	Partial	Partial*	Partial	No	Exempt	Partial
	Japan	Partial	Partial	Partial	Yes	Partial	No	Partial	Yes*	No	Partial	Exempt	Partial
	Latvia	Partial*	Yes*	Partial	No	Partial	Yes*	Partial	Partial*	Partial	Exempt	Exempt	Partial
	Lithuania	Yes*	Yes*	Partial	Yes	Partial	Partial*	Partial	Yes*	Partial	Exempt	Exempt	No
	Luxembourg	Yes*	Yes*	Partial	Yes	Partial	No*	Partial	Partial*	Partial	Partial	Exempt	No
	Malta	Partial*	Yes*	Partial	Yes	Yes	No*	Partial	Partial*	Partial	Exempt	Exempt	Partial
	Netherlands	Partial*	Partial*	Partial	Partial	Partial	Partial*	Partial	Partial*	Yes	No	Exempt	Partial
	New Zealand	Partial	Partial	Partial	Yes	Partial	No	Partial	Yes*	Partial	No	Exempt	Partial
	Norway	Partial	Partial	Yes	Partial	Yes	No	Partial	Partial*	Yes	Partial	Exempt	Yes
	Oman	No*	Partial*	Partial	No	No	No*	Partial	Partial*	No*	Exempt	No	No
	Panama	Partial*	Partial*	Partial	Partial	No	No*	Partial	No*	No*	Exempt	Yes	Partial
	Poland	No	Partial	No	No	Yes	No	Partial	Partial*	Partial	Exempt	Exempt	No
	Portugal	Partial*	Partial*	Partial	Yes	Partial	Yes*	Partial	Yes*	Partial	No	Exempt	Yes
	Qatar	No*	Partial	No	No	No	No*	Partial	Partial*	No*	Exempt	No	No
	Republic of Korea	No*	Partial	Partial	Yes	Partial	No	Partial	Yes*	Partial	Exempt	Partial	Yes
	Romania	No	Partial	Partial	No	Partial	No	Partial	Partial*	Partial	Exempt	Exempt	No
Saudi Arabia	Partial	Partial	Partial	No	No	No*	No	No*	No*	Exempt	No	No	
Singapore	No	Partial	Partial	No	Partial	No*	Partial	Partial*	Partial	Exempt	No	No	
Slovak Republic	Partial*	Partial*	Partial	No	Partial	Partial	Partial	Partial*	Partial	Exempt	Exempt	No	
Slovenia	Yes*	Yes*	Partial	Yes	Partial	Partial	Partial	Partial*	Partial	Exempt	Exempt	Partial	
Spain	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Yes*	Yes	No	Exempt	Yes	
Sweden	Partial*	Partial*	Yes	Yes	Yes	Partial	Partial	Yes*	Partial	Partial	Exempt	Partial	
Switzerland	Partial	Partial	Partial	Yes	Partial	No*	Partial	Yes*	Partial	No	Exempt	No	
United Arab Emirates	No	Partial	Partial	No	No	No*	Partial	Partial*	Partial*	Exempt	No	No	
United Kingdom	Partial	Partial	Partial	Yes	Partial	No	Partial	Yes*	Partial	No	Exempt	Yes	
United States	Partial	Partial	Partial	No	Partial	No	Partial	Yes*	Partial	No	Exempt	Partial	
Uruguay	No*	Partial*	Partial	Partial	Partial	Partial	Partial*	Partial	Yes*	No	Exempt	Partial	

Income group	Country	EP 1. Emission trends	EP 2. 2030 targets	EP 3. Net zero targets	CP 1. Climate legislation	CP 2. Carbon pricing	CP 3. Fossil fuels	CP 4. Sectoral transitions	CP 5. Adaptation	CP 6. Just transition	CF 1. International climate finance	CF 2. Transparency of climate costing	CF 3. Transparency of climate spending
Middle	Argentina	Partial	Partial	Yes*	Yes	Partial*	No*	No*	Partial	Partial	Exempt	Yes	Yes
	Azerbaijan	No*	No	No*	No	No*	No*	No*	No	Partial*	Exempt	No	No
	Brazil	No	Partial	Yes*	Partial	No*	No*	Partial*	Partial	Yes*	Exempt	No	Partial
	China	No	Partial	Yes*	Yes	Partial*	No*	Partial*	Partial	No	Exempt	Partial	Partial
	Colombia	Partial	Partial	Yes*	Yes	Partial*	No*	Partial*	Partial	Partial	Exempt	No	Yes
	Costa Rica	Partial	Partial	Yes*	No	No*	No*	Partial*	Partial	Partial*	Exempt	No	No
	Dominican Republic	Yes*	Partial*	Yes*	No	No*	No*	Partial*	Partial	Partial*	Exempt	Partial	Yes
	Indonesia	No	Partial	No*	No	Partial*	No*	Partial*	Partial	Partial	Exempt	Yes	Yes
	Kazakhstan	Partial	Partial	Yes*	Yes	Partial*	No*	Partial*	Partial	Partial	Exempt	No	No
	Malaysia	No	Partial	Yes*	No	No*	No*	Partial*	Partial	Partial*	Exempt	Yes	Partial
	Mexico	No	Partial	No*	Yes	Partial*	No*	Partial*	Partial	Partial	Exempt	Partial	Yes
	Peru	No	Partial	Yes*	Partial	No*	Partial*	Partial*	Partial	No*	Exempt	Yes	Partial
	Russian Federation	No	Partial	Yes*	Partial	No*	No*	Partial*	Partial	No*	Exempt	Exempt	No
	Serbia	No	Partial	No*	Yes	No*	No*	Partial*	Partial	Partial*	Exempt	Yes	Partial
South Africa	Partial	Partial	Yes*	Yes	Partial*	No*	Partial*	Partial	Partial	Exempt	Partial	Partial	
Thailand	No	Partial	Yes*	No	No*	No*	Partial*	Partial	No*	Exempt	No	Partial	
Türkiye	No	Partial	Yes*	No	No*	No*	Partial*	Partial	Partial*	Exempt	Exempt	No	
Low	Angola	Partial	Partial	No*	No	Exempt	Exempt	Exempt	Partial	No*	Exempt	Yes	Partial
	Bangladesh	Partial	Partial	No*	No	Exempt	Exempt	Exempt	Partial	Partial*	Exempt	Partial	Yes
	Egypt	Partial	No	No*	No	Exempt	Exempt	Exempt	Partial	Partial*	Exempt	Yes	No
	India	No	Partial	Yes*	No	Exempt	Exempt	Exempt	Partial	Partial*	Exempt	No	Partial
	Kenya	Partial	Partial	No*	Yes	Exempt	Exempt	Exempt	Yes	Partial*	Exempt	Yes	Partial
	Morocco	No	Partial	No*	No	Exempt	Exempt	Exempt	Partial	No*	Exempt	Partial	No
	Nigeria	Partial	Partial	Yes*	Yes	Exempt	Exempt	Exempt	Partial	No*	Exempt	No	No
Philippines	No	Partial	No*	Partial	Exempt	Exempt	Exempt	Yes	Partial*	Exempt	No	Yes	

Appendix 3. Heatmap of ASCOR metrics by country

This table compares countries on the quantitative metrics of the ASCOR framework. These serve as contextual information on the progress countries are making towards meeting their climate targets and implementing relevant policies. See the ASCOR [methodology note](#) for further details.

● No or unsuitable disclosure ● Exempt ○ No data

Pillar 1. Emissions Pathways

Income group	Country	EP 2.a.i 2030 target reduction	EP 2.b.i Reliance on carbon credits	EP 2.c.i % aligned with 1.5°C	EP 2.d.i % aligned with fair share	EP 3.a.i Net zero target year
High	Australia	-23.59%	No disclosure	65%	1122%	2050
	Austria	-45.81%	0%	No Data	81%	2040
	Bahrain	No disclosure	No disclosure	No disclosure	No disclosure	2060
	Barbados	-73.22%	No disclosure	No Data	-94%	2030
	Belgium	-41.46%	0%	No Data	184%	2050
	Canada	-37%	No disclosure	26%	807%	2050
	Chile	-14.43%	No disclosure	45%	91%	2050
	Cyprus	-46.64%	0%	No Data	-78%	2050
	Czechia	-34.88%	0%	52%	248%	No disclosure
	Denmark	-54.79%	0%	No Data	8%	2045
	Estonia	-33.09%	0%	No Data	-36%	2050
	Finland	-41.41%	0%	No Data	64%	2035
	France	-36.92%	0%	20%	248%	2050
	Germany	-45.23%	No disclosure	27%	394%	2045
	Hong Kong	-23.36%	No disclosure	No Data	2%	2050
	Hungary	-20.55%	0%	No Data	68%	2050
	Ireland	-39.53%	0%	No Data	158%	2050
	Israel	-33.49%	No disclosure	8%	131%	No disclosure
	Italy	-29.95%	0%	56%	317%	2050
	Japan	-33.05%	15%	79%	563%	2050
	Latvia	-29.64%	0%	No Data	-72%	2050
	Lithuania	-25.68%	0%	No Data	-36%	2050
	Luxembourg	-42.15%	0%	No Data	-18%	2050
	Malta	-26.53%	0%	No Data	-93%	2050
	Netherlands	-44.38%	0%	No Data	245%	2050
	New Zealand	-40.39%	No disclosure	2%	203%	2050
	Norway	-39.71%	No disclosure	26%	62%	2030
	Oman	4.17%	No disclosure	No Data	514%	2050
	Panama	-11.25%	No disclosure	No Data	-56%	2050
	Poland	-37.82%	0%	53%	368%	No disclosure
	Portugal	-22.86%	0%	No Data	56%	2050
	Qatar	No disclosure	No disclosure	No disclosure	No disclosure	No disclosure
	Republic of Korea	-33.29%	No disclosure	41%	681%	2050
Romania	-18.07%	0%	59%	138%	2050	
Saudi Arabia	No disclosure	No disclosure	No disclosure	No disclosure	2060	
Singapore	59.81%	No disclosure	76%	189%	2050	
Slovak Republic	-26.66%	0%	No Data	20%	2050	
Slovenia	-30.17%	0%	No Data	-39%	2050	
Spain	-25.78%	0%	59%	270%	2050	
Sweden	-39.02%	0%	No Data	1%	2045	
Switzerland	-40.90%	No disclosure	21%	-1%	2050	
United Arab Emirates	-19.72%	No disclosure	48%	1084%	2050	
United Kingdom	-41.62%	No disclosure	19%	234%	2050	
United States	-36.79%	0%	42%	1189%	2050	
Uruguay	13.99%	No disclosure	No Data	75%	2050	
Middle	Argentina	-10.03%	No disclosure	44%	360%	2050
	Azerbaijan	6.14%	No disclosure	No disclosure	No disclosure	No disclosure
	Brazil	-13.10%	No disclosure	30%	315%	2050
	China	17%	No disclosure	201%	1188%	2060
	Colombia	-37.56%	No disclosure	5%	23%	2050
	Costa Rica	-35.15%	No disclosure	9%	-80%	2050
	Dominican Republic	26%	No disclosure	No Data	6%	2050
	Indonesia	71.83%	No disclosure	136%	445%	No disclosure
	Kazakhstan	-8.88%	No disclosure	69%	865%	2060
	Malaysia	7.60%	0%	78%	579%	2050
	Mexico	-5%	No disclosure	70%	369%	No disclosure
	Peru	1.40%	No disclosure	56%	21%	2050
	Russian Federation	-31.82%	No disclosure	48%	931%	2060
	Serbia	-25.44%	No disclosure	76%	100%	No disclosure
	South Africa	-15.74%	No disclosure	47%	388%	2050
	Thailand	1.45%	No disclosure	62%	279%	2050
	Türkiye	43.61%	No disclosure	155%	601%	2053
Low	Angola	-38.42%	No disclosure	179%	-48%	No disclosure
	Bangladesh	53.98%	No disclosure	93%	4%	No disclosure
	Egypt	8.65%	No disclosure	No disclosure	No disclosure	No disclosure
	India	83.55%	No disclosure	185%	324%	2070
	Kenya	27.56%	No disclosure	85%	-35%	No disclosure
	Morocco	18.38%	No disclosure	44%	1%	No disclosure
	Nigeria	-20.11%	No disclosure	56%	-7%	2070
	Philippines	No disclosure	No disclosure	No disclosure	No disclosure	No disclosure

Pillar 2. Climate Policies

Income group	Country	CP 2.b.i Carbon price emission coverage	CP 2.c.i Carbon price level (US\$/t CO ₂ e)	CP 3.a.i Fossil fuel subsidy phaseout date	CP 3.b.i Fossil fuel subsidy level (% of GDP)	CP 3.c.i Coal rents (% of GDP)	CP 3.d.i Oil rents (% of GDP)	CP 3.d.ii Natural gas rents (% of GDP)	CP 4.b.i Energy intensity (MJ/PPP- adjusted GDP)	CP 4.d.i Share of low- carbon electricity	CP 4.e.i % protected area	CP 6.a.i Voice & account- ability percentile rank
High	Australia	30%	22.00		0.48%	0.79%	0.26%	1.72%	4.12	30%	22%	93.24%
	Austria	80%	90.00	2030	0.29%	0%	0.04%	0.02%	2.55	86%	30%	94.20%
	Bahrain	0%	0		19.68%	0%	10.94%	5.70%	9.23	No data	13%	10.14%
	Barbados	0%	0		0.46%	0%	0.31%	0.01%	5.76	6%	1%	86.47%
	Belgium	38%	90.00		0.67%	0%	0.03%	0.00%	3.4	76%	16%	92.75%
	Canada	82%	59.00	2023	0.09%	0.07%	2.83%	0.79%	6.44	81%	13%	95.65%
	Chile	55%	5.00		0.56%	0.00%	0.01%	0.02%	3.19	64%	21%	78.26%
	Cyprus	48%	90.00		0.95%	0%	0%	0%	2.36	17%	39%	73.91%
	Czechia	48%	90.00		0.84%	0.09%	0.01%	0.01%	3.98	56%	22%	80.68%
	Denmark	68%	28.21		0.61%	0%	0.27%	0.06%	1.83	89%	17%	98.07%
	Estonia	64%	90.00		3.00%	0%	0.96%	0%	4.12	53%	21%	87.92%
	Finland	77%	99.99		0.48%	0%	0.05%	0%	4.82	95%	13%	98.55%
	France	61%	47.94		0.58%	0%	0.01%	0.00%	2.83	92%	28%	85.99%
	Germany	87%	90.00	2025	1.00%	0.01%	0.01%	0.02%	2.47	55%	38%	94.69%
	Hong Kong	0%	0		No Data	0%	0.00%	0%	1.17	1%	42%	35.27%
	Hungary	32%	90.00		3.50%	0.01%	0.18%	0.13%	3.12	72%	23%	59.90%
	Ireland	56%	90.00		0.04%	0%	0.00%	0.05%	0.97	46%	14%	96.14%
	Israel	0%	0		0.06%	0%	0.01%	0.43%	2.3	12%	24%	67.63%
	Italy	33%	90.00	2025	0.42%	0%	0.08%	0.03%	2.3	46%	22%	82.61%
	Japan	80%	2.00		0.64%	0.00%	0.00%	0.01%	5.15	36%	30%	80.19%
	Latvia	22%	90.00	2030	0.66%	0%	0.07%	0%	2.88	78%	18%	75.85%
	Lithuania	25%	90.00	2025	1.36%	0%	0.02%	0%	2.59	87%	17%	81.16%
	Luxembourg	88%	49.91		0.68%	0%	0%	0%	1.71	96%	56%	97.10%
	Malta	60%	90.00		0.00%	0%	0%	0%	1.18	13%	31%	83.57%
	Netherlands	47%	90.00		0.84%	0%	0.02%	0.31%	2.53	52%	22%	97.58%
	New Zealand	48%	38.30		0.00%	0.03%	0.10%	0.29%	3.52	88%	53%	99.52%
	Norway	85%	107.78		0.00%	0.00%	6.06%	3.94%	3.21	99%	18%	100.00%
	Oman	0%	0		3.39%	0%	23.54%	5.67%	7.21	3%	22%	17.87%
	Panama	0%	0		0.07%	0%	0%	0%	1.41	77%	51%	62.32%
	Poland	53%	90.00		1.46%	0.25%	0.04%	0.10%	3.13	28%	40%	65.22%
Portugal	69%	25.92	2030	0.00%	0%	0.05%	0%	2.31	76%	23%	89.86%	
Qatar	0%	0		11.67%	0%	0.15%	12.01%	7.2	1%	16%	20.29%	
Republic of Korea	77%	8.17		3.23%	0.00%	0.03%	0.01%	5.11	39%	17%	74.88%	
Romania	26%	90.00		0.46%	0.02%	0.38%	0.53%	2.12	64%	25%	63.77%	
Saudi Arabia	0%	0		13.81%	0%	23.69%	1.72%	5.81	1%	16%	7.73%	
Singapore	79%	18.48		1.88%	0%	0%	0%	2.51	5%	6%	44.44%	
Slovak Republic	44%	90.00		2.09%	0.01%	0.00%	0.01%	3.83	85%	38%	75.36%	
Slovenia	76%	18.60		0.19%	0.03%	2.90E-07	0.00%	3.15	73%	40%	77.78%	
Spain	36%	90.00		0.06%	0%	0.00%	0.00%	2.53	73%	28%	79.71%	
Sweden	80%	127.26		0.13%	0%	0.03%	0%	3.24	99%	15%	96.62%	
Switzerland	47%	132.12		0.00%	0%	0.00%	0%	1.48	99%	12%	99.03%	
United Arab Emirates	0%	0		0.00%	0%	15.67%	1.96%	5.48	18%	19%	18.36%	
United Kingdom	28%	66.70		0.58%	0.00%	0.42%	0.17%	2.04	64%	28%	89.37%	
United States	6%	32.93		0.01%	0.17%	0.61%	0.36%	4.17	41%	13%	72.95%	
Uruguay	5%	167.17	2015	0	0%	0.01%	0%	2.94	91%	4%	91.79%	
Middle	Argentina	16%	Exempt		2.49%	0.00%	1.54%	0.39%	3.29	39%	9%	62.80%
	Azerbaijan	0%	Exempt		4.16%	0%	20.98%	8.59%	4.4	7%	10%	9.66%
	Brazil	0%	Exempt		0.11%	0.01%	2.60%	0.07%	3.87	91%	31%	55.56%
	China	33%	Exempt		1.50%	0.61%	0.31%	0.21%	6.3	35%	16%	6.28%
	Colombia	20%	Exempt		1.20%	0.73%	3.42%	0.18%	2.18	68%	17%	54.59%
	Costa Rica	0%	Exempt		0.14%	0%	0.01%	0%	1.91	95%	27%	82.13%
	Dominican Republic	0%	Exempt		1.31%	0%	0%	0%	2.11	41%	26%	57.97%
	Indonesia	26%	Exempt		6.22%	1.22%	0.77%	0.84%	3.04	18%	12%	52.66%
	Kazakhstan	47%	Exempt		8.62%	0.85%	14.84%	2.04%	5.81	12%	10%	19.81%
	Malaysia	0%	Exempt		4.34%	0.03%	1.85%	3.35%	4.49	18%	13%	47.34%
	Mexico	42%	Exempt		1.13%	0.02%	2.07%	0.09%	3	26%	15%	42.03%
	Peru	0%	Exempt	2015	0.00%	0.00%	0.25%	0.26%	2.3	55%	23%	49.76%
	Russian Federation	0%	Exempt		3.96%	0.61%	9.67%	5.86%	8.46	38%	11%	14.49%
	Serbia	0%	Exempt		4.10%	0.24%	0.42%	0.10%	5.02	30%	8%	42.51%
	South Africa	37%	Exempt		1.16%	2.44%	0.40%	0.03%	6.57	14%	9%	68.60%
Thailand	0%	Exempt		4.31%	0.03%	0.48%	0.94%	4.44	18%	19%	31.40%	
Türkiye	0%	Exempt		5.88%	0.05%	0.14%	0.01%	2.27	42%	7%	23.19%	
Low	Angola	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	9.18%
	Bangladesh	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	39.13%
	Egypt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	32.85%
	India	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	49.28%
	Kenya	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	28.02%
	Morocco	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	43.96%
	Nigeria	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	32.37%
	Philippines	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	26.57%

Pillar 3. Climate Finance

Income group	Country	CF 1.a.i Climate finance (% of GDP)	CF 1.b.i Targeted climate finance (% of GDP)	CF 4.i Future solar capacity (MW/US\$ billion GDP)	CF 4.ii Future wind capacity (MW/US\$ billion GDP)	CF 4.iii Future geo-thermal capacity (MW/US\$ billion GDP)	CF 4.iv Future hydro capacity (MW/US\$ billion GDP)
High	Australia	0.02%	0.02%	57.56	120.89	0	8.43
	Austria	0.11%	Exempt	0.23	0.68	No data	6.08
	Bahrain	Exempt	Exempt	4.41	No data	No data	No data
	Barbados	Exempt	Exempt	10.95	4.69	No data	No data
	Belgium	0.06%	Exempt	0.11	7.91	No data	0
	Canada	0.04%	Exempt	3.13	5.18	0.14	2.67
	Chile	Exempt	Exempt	80.50	67.81	0.30	3.72
	Cyprus	Exempt	Exempt	2.23	0.50	No data	No data
	Czechia	Exempt	Exempt	0	0.11	No data	0
	Denmark	0.11%	Exempt	2.74	75.01	No data	No data
	Estonia	Exempt	Exempt	3.53	321.91	No data	19.02
	Finland	0.08%	Exempt	39.59	139.67	No data	0.25
	France	0.27%	0.26%	1.14	6.32	No data	0
	Germany	0.24%	Exempt	2.07	3.55	No data	0.16
	Hong Kong	Exempt	Exempt	0.26	1.05	No data	No data
	Hungary	Exempt	Exempt	1.70	0.00	0	0
	Ireland	0.05%	Exempt	6.07	127.27	No data	0.66
	Israel	Exempt	Exempt	1.77	0.52	No data	0.98
	Italy	0.07%	0.13%	2.24	20.56	0	0.12
	Japan	0.21%	0.19%	0.53	6.03	0	0.14
	Latvia	Exempt	Exempt	22.10	49.46	No data	0
	Lithuania	Exempt	Exempt	10.36	38.77	No data	1.41
	Luxembourg	0.23%	Exempt	0	0.97	No data	0
	Malta	Exempt	Exempt	0	0.00	No data	No data
	Netherlands	0.10%	Exempt	1.24	18.75	No data	No data
	New Zealand	0.03%	Exempt	14.10	18.59	1.84	3.95
	Norway	0.19%	Exempt	1.35	16.60	No data	1.47
	Oman	Exempt	Exempt	429.46	338.29	No data	0
	Panama	Exempt	Exempt	23.02	13.22	No data	2.69
	Poland	Exempt	Exempt	2.33	31.03	No data	1.02
	Portugal	0.04%	Exempt	22.85	20.35	0.03	0.56
	Qatar	Exempt	Exempt	3.71	No data	No data	No data
	Republic of Korea	Exempt	Exempt	3.05	40.11	No data	0
Romania	Exempt	Exempt	13.31	14.69	No data	4.80	
Saudi Arabia	Exempt	Exempt	14.02	4.03	No data	No data	
Singapore	Exempt	Exempt	1.28	0.10	No data	No data	
Slovak Republic	Exempt	Exempt	0.44	0.38	0.20	0	
Slovenia	Exempt	Exempt	0	2.96	No data	6.45	
Spain	0.09%	Exempt	72.19	26.41	No data	1.81	
Sweden	0.17%	Exempt	7.97	227.02	No data	1.21	
Switzerland	0.06%	Exempt	0.12	0.35	No data	1.11	
United Arab Emirates	Exempt	Exempt	21.52	0.12	No data	0.50	
United Kingdom	0.03%	Exempt	8.26	32.11	0.01	1.90	
United States	0.01%	0.04%	5.04	4.28	0.07	2.27	
Uruguay	Exempt	Exempt	17.31	15.15	No data	0	
Middle	Argentina	Exempt	Exempt	2.29	3.63	No data	9.81
	Azerbaijan	Exempt	Exempt	6.50	3.32	No data	1.26
	Brazil	Exempt	Exempt	64.00	83.02	No data	9.25
	China	Exempt	Exempt	31.82	27.82	No data	31.56
	Colombia	Exempt	Exempt	65.10	33.76	0.08	15.20
	Costa Rica	Exempt	Exempt	0	0.00	1.27	1.08
	Dominican Republic	Exempt	Exempt	29.40	4.48	No data	1.57
	Indonesia	Exempt	Exempt	12.06	1.81	2.29	13.63
	Kazakhstan	Exempt	Exempt	0.57	12.83	No data	0.42
	Malaysia	Exempt	Exempt	5.94	No data	No data	5.51
	Mexico	Exempt	Exempt	10.96	1.46	0	0.42
	Peru	Exempt	Exempt	31.83	25.84	0.37	50.44
	Russian Federation	Exempt	Exempt	0.56	0.79	0	2.22
	Serbia	Exempt	Exempt	39.08	104.19	No data	40.30
	South Africa	Exempt	Exempt	16.48	7.12	No data	3.97
	Thailand	Exempt	Exempt	5.28	0.84	No data	6.35
Türkiye	Exempt	Exempt	3.15	3.10	0.38	2.92	
Low	Angola	Exempt	Exempt	10.54	8.29	No data	31.20
	Bangladesh	Exempt	Exempt	5.24	1.82	0	0
	Egypt	Exempt	Exempt	52.08	121.42	No data	6.06
	India	Exempt	Exempt	18.87	3.95	No data	29.23
	Kenya	Exempt	Exempt	2.57	5.12	13.24	10.42
	Morocco	Exempt	Exempt	205.87	184.05	No data	6.63
	Nigeria	Exempt	Exempt	4.93	0.00	No data	22.68
Philippines	Exempt	Exempt	84.22	143.68	2.02	24.54	

Appendix 4. Mapping ASCOR to the national transition planning framework

National transition planning framework	Relevant ASCOR areas
Foundations	
1.1. Strategic Ambition	Emissions Pathways: 2030 targets (EP 2); Net zero targets (EP 3) ¹⁴
1.2. Whole-of-government strategy	Partly covered in Climate Legislation (CP 1)
1.3. Sectoral pathways and other planning assumptions	Partly covered in Sectoral Transitions (CP 4)
Implementation strategy	
Integrated regulatory and policy approach	Climate Finance:
Just transition	Transparency in climate costing (CF 2)
National investment plan	Transparency in climate spending (CF 3)
2.1. Direct and indirect public investment	Just transition (CP6)
2.2. Carbon pricing and other fiscal reforms	Carbon pricing (CP2); Fossil fuels (CP3)
2.3. Public procurement	Not directly covered
2.4. Energy transition and other sectoral policies	Fossil fuels (CP 3); Sectoral transitions (CP 4); Renewable energy opportunities (CF 4)
2.5. Adaptation planning	Adaptation (CP 5)
2.6. Financial policy and regulation	Not directly covered (though indicator CP 4.c. considers mandatory climate-related disclosure)
2.7. Skills and education	Just Transition (CP 6) ¹⁵
Engagement strategy	
3.1 Engagement with companies and financial services firms	Not directly covered
3.2 Engagement with civil society, communities and the public	Just Transition (CP 6)
3.3 Engagement with international partners	International Climate Finance (CF 1)
Metrics and targets	
4.1 Metrics and targets on emissions and sustainable development	ASCOR indicators across all 3 pillars incorporated here
Governance	
5.1 Legal, governance and institutional arrangements	Partly covered in Climate Legislation (CP 1)
5.2 Roles, responsibilities and whole-of-government coordination	Partly covered in Just transition (CP 6)

Source: Taking the lead on climate action and sustainable development (Manning et al., 2024) and ASCOR methodology note (Scheer et al., 2024)

¹⁴ Emission Trends (EP 1) would be a primary input to the national transition planning process.

¹⁵ Just Transition is otherwise integrated across all Implementation Strategy recommendations.

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