TPI Global Climate Transition Centre
Research and Data at LSE

LSE Global School of Sustainability

ASCOR framework: methodology note

Version 2.0, November 2026



ASCOR

The TPI Global Climate Transition Centre at LSE

The TPI Global Climate Transition Centre (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. It is part of the Global School of Sustainability at the London School of Economics and Political Science (LSE). The TPI Centre is the academic partner of the Transition Pathway Initiative (TPI), a global initiative led by asset owners and supported by asset managers, aimed at helping investors and other stakeholders assess company, bank and sovereign progress on the transition to a low-carbon economy and supporting efforts to address climate change. More than 155 investors globally, representing approximately US$80 trillion[1] combined Assets Under Management and Advice, have pledged support for TPI. The TPI Centre is also the academic research expert of Assessing Sovereign Climate-related Opportunities and Risks (ASCOR).
www.transitionpathwayinitiative.org/ascor

ASCOR project partners

ASCOR is an investor-led initiative. It is co-chaired by Claudia Gollmeier at Colchester Global Investors, Esther Law at Amundi Investment Solutions and Laura Hillis at the Church of England Pensions Board. The ASCOR Investor Director is Claire Meier. The ASCOR Investor Advisory Committee is composed of asset owners, asset managers and investor networks. Its members include Allspring Global Investments, Amundi Investment Solutions, the Asia Investor Group on Climate Change (AIGCC), Ceres, the Church of England Pensions Board, Colchester Global Investors, Chronos Sustainability, the Institutional Investors Group on Climate Change (IIGCC), the Investor Group on Climate Change (IGCC), Insight Investment, MFS Investment Management, Ninety One, Pictet Asset Management and Principles for Responsible Investment (PRI).
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1 This figure is subject to market-price and foreign-exchange fluctuations and, as the sum of self-reported data by TPI supporters, may double-count some assets.

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1. Introduction to the ASCOR project

Assessing Sovereign Climate-related Opportunities and Risks (ASCOR) is an investor-led project to develop a publicly available, independent tool that assesses countries on climate change. The ASCOR framework is composed of indicators for the transparent assessment of the progress made by countries in managing the low-carbon transition and the impacts of climate change. ASCOR aims to inform, support and facilitate investors' decision-making on sovereign bonds and enable a more explicit consideration of climate change. The project intends to facilitate engagement and dialogue between issuers and investors and drive financing for climate change mitigation and adaptation. ASCOR will also enable countries to showcase their improvements on the transition to a low-carbon and resilient future by providing independent and open-source assessments of their targets and policies.

ASCOR framework Version 1.0

In 2022, ASCOR's academic research expert, the TPI Centre, developed an initial framework of indicators drawing on working group sessions with asset owners, asset managers and investor networks, and interviews with climate policy experts.

In February 2023, the TPI Centre launched a public consultation on the initial framework, set out in a Consultation Report (Scheer et al., 2023). Feedback was collected through an online survey of a broad range of stakeholders. In addition, the ASCOR project partners convened virtual global webinars and regional roundtables with investor and government representatives in North America, Latin America, Europe, Africa, Asia, Australia and New Zealand. Following this consultation process, the TPI Centre launched the ASCOR framework: methodology note Version 1.0 (Scheer et al., 2023).

The TPI Centre has updated the methodology regularly to maintain its robustness, drawing on findings from the assessment and the annual feedback process with assessed sovereign governments. Minor updates were published as Version 1.1 and Version 1.2.

ASCOR framework Version 2.0

In December 2025, the TPI Centre published a second Consultation Report (Hizliok et al., 2025) and launched a public consultation on potential changes to the ASCOR framework. The public consultation process involved an online survey, two dedicated sessions with the ASCOR Investor Advisory Committee, two roundtables with a broader group of investors, and two roundtables with sovereign issuers. Feedback was received from various stakeholder groups, including asset owners, asset managers, investor networks, sovereign issuers, academia and civil society.

This document reflects the updates resulting from the feedback gathered through the consultation as well as additional research conducted at the TPI Centre. The framework presented in this methodology note is a major update and is hence labelled Version 2.0.

In line with the data requirements of the tool's investor users, the new framework should enable comparability with data from previous years. To facilitate this, Appendix 3 presents a mapping of ASCOR framework Version 2.0 against the previous version, enabling users to track performance across assessment cycles.

How this methodology note differs from the previous version

Structural changes: New pillar structure

The framework has been restructured to better analyse and communicate countries' progress in managing the low-carbon transition and the impacts of climate change. Figure 1.1 presents the structural elements of the ASCOR framework Version 2.0.

Figure 1.1. Elements of the ASCOR framework structure compared to Version 1.2

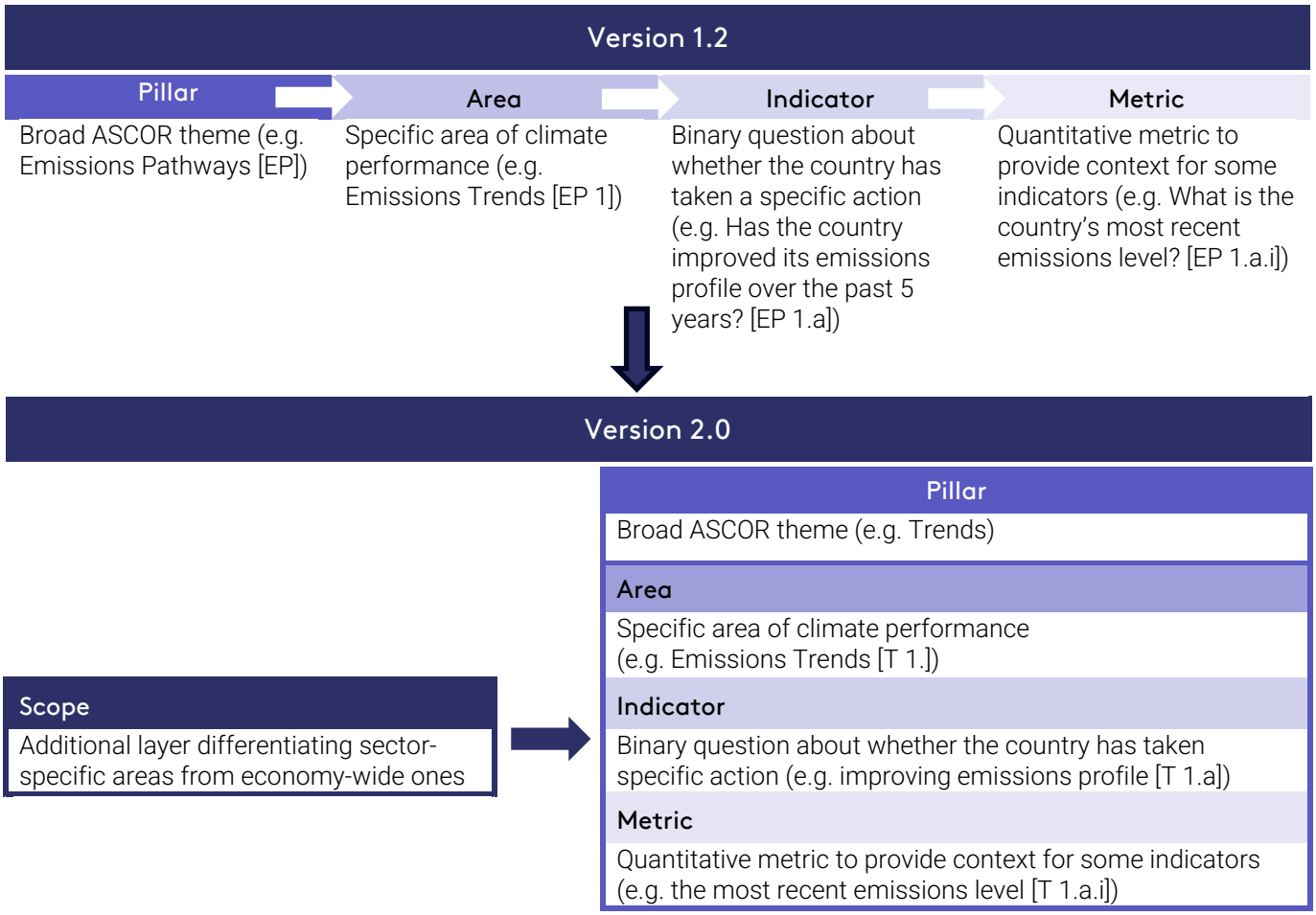
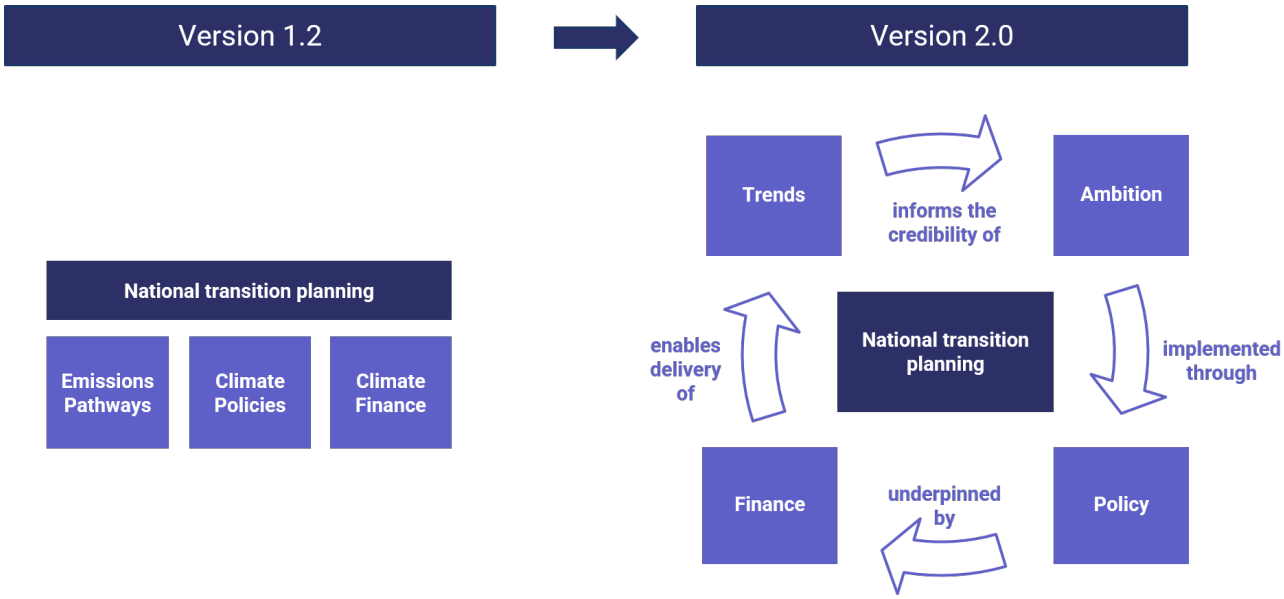


Figure 1.2 shows the new structure of the framework consisting of four pillars and illustrates the cycle of national transition planning: recent trends inform the credibility of countries' ambitions, which are implemented through policies underpinned by financial flows that then deliver improved trends in performance over time. The previous three pillars of the framework have been reorganised into four by splitting the previous *Emissions Pathways* pillar into two pillars, separating historical performance under *Trends* from forward-looking ambition under *Ambition*. Feedback to our consultation indicated that users would welcome this change, as it provides a more intuitive picture of country performance and better aligns with investors' internal analysis.

Figure 1.2. Overview of the structural change compared to Version 1.2



Structural changes: new sectoral scope

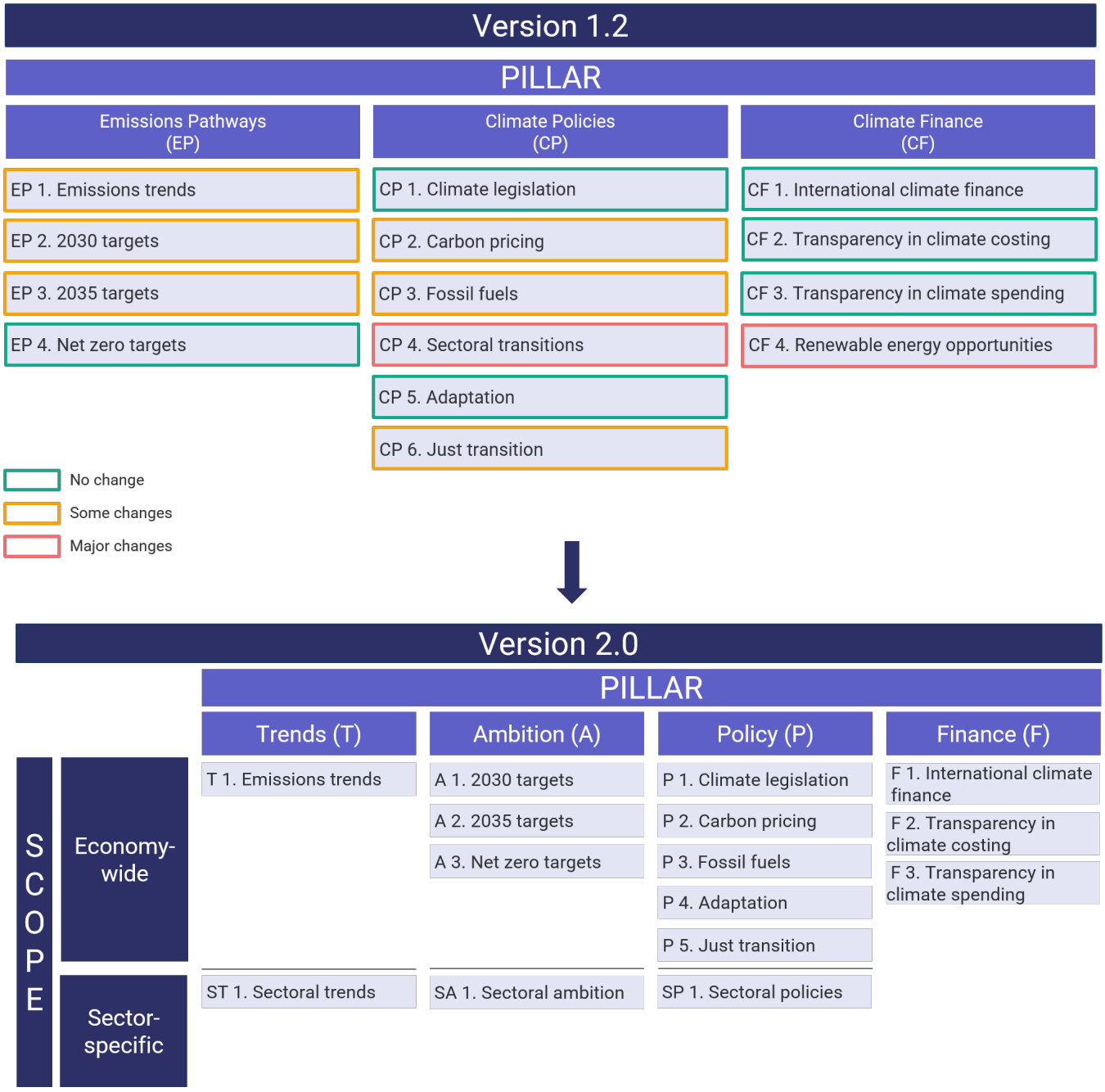
The new framework differentiates economy-wide and sector-specific efforts by governments to provide a more comprehensive picture of how they are managing the low-carbon transition. The majority of consultation respondents preferred a more detailed analysis of sectoral transition planning compared to the previous version of the framework (i.e. area CP 4. Sectoral transitions). Building on the foundation that economy-wide indicators provide, this deeper sector-specific analysis aims to reveal variation in how countries are managing the transition across their highest-emitting sectors.

Figure 1.3 presents how the structure has changed. The new framework:

- Adds an assessment of emissions trends at the sectoral level
- Unpacks the analysis on multisector climate strategies (previously indicator CP 4.a[2]) into ten individual indicators assessing ambition and policy separately in the country's five highest-emitting sectors
- Reallocates relevant indicators and metrics to the sector-specific scope
- Introduces new indicators under Sectoral Trends.

[2] In the ASCOR framework Version 1.2, indicator CP 4.a assessed if the countries had a multi-sector climate strategy that set both (i) quantified sector-specific emissions reduction targets or projections (either for 2030 or for net zero) and (ii) at least one related policy for each of the following five sectors: electricity; transport; industry; land use, land-use change and forestry (LULUCF) or agriculture or forestry; and a fifth sector with significant emissions in that country.

Figure 1.3. Overview of the framework restructuring with the new sectoral scope

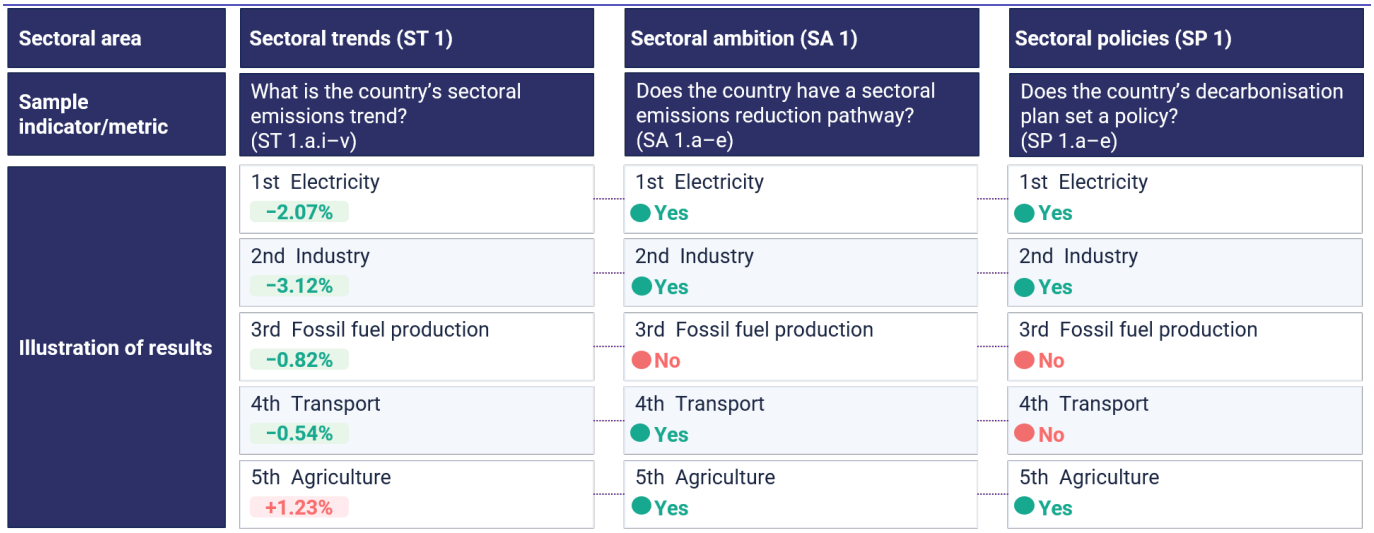


Sectoral analysis captures country-specific context, including the composition of national emissions profiles, while informing investors about the progress of decarbonisation across individual sectors. It can also indicate whether national targets and policies are in place to steer corporate transitions at the sectoral level. This granularity acknowledges that countries may be taking steps across some sectors, if not all, while enabling them to showcase progress on the decarbonisation of different sectors. For example, a country may lack sectoral targets or policies, but emissions trends in that sector may nevertheless be falling.

A further novelty introduced in Version 2.0 is differential selection of sectors by country, based on emissions materiality: we rank and assess the five highest-emitting sectors in each country. Unlike the previous approach to indicator CP 4.a, which assessed targets and policies in a fixed set of sectors, this new approach focuses on the sectors that are most material to the decarbonisation challenge in each

country. Figure 1.4 illustrates the sectoral analysis provided across the Trends, Ambition and Policy pillars for a hypothetical country.

Figure 1.4 Illustration of ranked sector categories across the *Trends*, *Ambition* and *Policy* pillars



Further details on these changes are explained below and in the following sections of this note.

Area-level changes

The changes implemented in each area of the framework are summarised below, with references to the new indicator and metric codes, except for the areas and indicators that no longer exist. See Appendix 3 for a mapping of all new indicator and metric codes against the previous codes.

Emissions trends (area T 1)

In indicator T 1.a, which evaluates if countries' emissions profiles are improving based on recent emissions trends, we now assess production-based emissions including land use, land-use change and forestry (LULUCF) in place of LULUCF emissions in isolation due to volatility in the data. Assessed separately, five-year LULUCF trends are highly volatile: one additional year of data can reverse their direction and disproportionately affect the results. Aggregating LULUCF into total production-based emissions reduces this volatility while still reflecting LULUCF dynamics in countries where it represents an important share of total emissions. We continue to assess production-based emissions, excluding LULUCF and consumption-based emissions separately.

Benchmarks (areas T 1, A 1 and A 2)

We have introduced a Below 2°C benchmark alongside the existing 1.5°C benchmark, so that the alignment indicators now assess trends and targets against two benchmarks rather than one. This weakens the binary alignment indicators compared to Version 1.2 where countries were only assessed against 1.5°C benchmarks. However, each alignment indicator is now accompanied by a new metric identifying which of the two benchmarks are met by the country. This allows the framework to recognise country progress towards Below 2°C alignment, even where 1.5°C alignment has not yet been achieved. Quantitative metrics reporting the degree of alignment continue to be evaluated against the 1.5°C benchmark.

To allow the addition of a Below 2°C benchmark, we have changed the data source for our benchmarks. We now derive all cost-effective benchmarks (both 1.5°C and Below 2°C) from the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) Phase 5.1 scenarios, taking the mean of the downscaled country-level REMIND-MAgPIE, MESSAGEix and GCAM models, in place of the 1.5°C National Pathway Explorer (Climate Analytics) used previously. This resolves the limited country coverage

of the previous source — from 54 of 85 assessed countries to almost the full universe (84 of 85) — and provides the Below 2°C modelling data needed for the new benchmark.

One consequence of this change is that 1.5°C cost-effective benchmarks are now derived from the NGFS Net Zero 2050 scenario. This is a 1.5°C pathway that permits overshoot, in contrast to the no- or limited-overshoot basis of the benchmarks from Climate Analytics used in previous years. It is therefore less stringent, with the 2030 benchmark around 14% higher on average and the 2035 benchmark around 23% higher. The change in benchmarks has caused changes in alignment results.

We have adjusted the fair share benchmarks correspondingly. The global carbon budget is now taken from the same NGFS scenarios — the three-model average of total emissions in the target year, using Net Zero 2050 for the 1.5°C fair share and Below 2°C for the Below 2°C fair share — replacing the subset of AR6 C1 scenarios used previously. The cost-effective and fair share benchmarks are therefore drawn from the same underlying scenario at each temperature level, so the only difference between the two remains the emissions allocation methodology. As with the cost-effective benchmark, the 1.5°C fair share budget now reflects overshoot and is correspondingly more generous than in previous cycles.

Emissions trends and 2030/2035 targets (areas T 1, A 1, A 2)

For the metrics measuring the distance between a country's emissions trend or target and its benchmarks (T 1.b.ii,T 1.c.ii, A 1.c.ii, A 1.d.ii, A 2.c.ii and A 2.d.ii), we now express the gap relative to the country's 2019 emissions rather than relative to the benchmark. Anchoring the gap to a common 2019 baseline makes it easier to compare across countries. A positive value now indicates the additional reduction, as a percentage of 2019 emissions, needed to align with the benchmark. A negative value indicates the extent to which the trend or target already surpasses the benchmark.

Carbon pricing (area P 2)

We have updated the data source used to assess the alignment of emissions trading systems (ETSs) with countries' 1.5°C benchmarks (indicator P 2.c). We now use the NGFS Phase 5.1 scenarios in place of the 1.5°C National Pathway Explorer hosted by Climate Analytics (See Benchmarks).

Fossil fuels (area P 3)

For indicator P 3.a on commitments to phase out fossil fuel subsidies, countries for which there is evidence that fossil fuels are not subsidised at all are now assessed as 'Not applicable' rather than 'Yes'. In such cases, the metric P 3.a.i on the phaseout deadline is assessed as 'Not applicable'. Previously, we reported the year that the country stopped subsidising fossil fuels as verified by the third-party sources used to assess P 3.a. This change has been made to account for the volatility and uncertainty in fossil fuel subsidy data.

Just transition (area P 5)

Metric CP 6.a.i (the Voice and Accountability estimate sourced from the World Bank) in the previous framework has been archived. Due to significant changes in the data source's revised methodology and approach to assessing this data point, we are no longer able to maintain comparability with the previously published datasets. Following the feedback received during the consultation, this metric is replaced with a new metric that shows the percentage of relevant fundamental human, labour and indigenous conventions that the country has ratified (P 5.a.i).

Sectoral trends (area ST 1)

Within the sectoral scope under the *Trends* pillar, a new area presents new sectoral emissions trends data and pulls in various sectoral data points from other parts of the previous framework. In this way, the ASCOR tool now offers a coherent section for evaluating the climate performance at the sectoral level. Table 1.1 outlines the indicators and metrics in this new area.

Table 1.1 List of indicators and metrics in *Sectoral trends* area

Indicator/metric	Result
ST 1.a Has the country improved its sectoral emissions profile over the past 5 years?	Yes/No
ST 1.a.i-v What are the emissions trends in the country's five highest-emitting sectors?	%
ST 1.b Is the country's renewable energy pipeline greater than its expected fossil fuel fleet?	Yes/No
ST 1.b.i What is the country's renewable energy pipeline compared with its expected fossil fuel generation?	Ratio
ST 1.b.ii What percentage of the country's electricity generation is from low-carbon sources?	%
ST 1.b.iii What is the country's energy intensity of primary energy?	MJ/$2021 PPP GDP
ST 1.c Has the country increased its protected areas as a percentage of total land area over the last 5 years?	Yes/No
ST 1.c.i What is the amount of protected area in the country as a percentage of total land area?	%

This analysis of countries' sectoral emissions profiles sets the scene for country-specific evaluations of sectoral transition performance and informs the other areas in the sectoral scope of the framework. Indicator ST 1.a assesses whether the country has decreasing emissions trends in at least three of its five highest-emitting sectors. The most recent five-year emissions trend for each sector is reported in accompanying metrics (ST 1.a.i-v), which identify the highest-emitting sectors and show the rate of change. Together, these enable users to identify which sectors are most material to a country's emissions and assess the pace of decarbonisation across each of them.

This area also absorbs the four renewable energy opportunity metrics (previously CF 4.i–iv), which reported the pipeline of solar, wind, geothermal and hydroelectric energy relative to fossil-fuel-based electricity capacity. For ease of interpretation, these four metrics are now consolidated into a single binary indicator (ST 1.b) with one supporting metric that combines all renewable energy types and divides them by fossil-fuel-based electricity (ST 1.b.i). The binary indicator evaluates whether the new pipeline of renewable energy is projected to equal expected fossil fuel generation.

There are three further changes to the calculation of this metric:

1. The renewable pipeline now only includes projects that have passed the announcement stage, i.e. pre-construction and construction projects, because announced projects have high cancellation rates and fluctuate year-on-year.
2. The denominator is now the *expected* fossil-fuel fleet: current operating capacity plus the comparable-stage fossil fuel-based pipeline net of planned retirements, rather than current fossil fuel-based capacity alone.
3. Both the numerator and denominator are weighted by technology-specific capacity factors, so the ratio is expressed in terms of expected generation rather than installed capacity.

With these adjustments, a ratio of one now corresponds to expected generation-equivalent parity between the renewable energy pipeline and expected fossil fuel generation.

The rest of the indicators and metrics in this area have been reallocated from the Sectoral transitions area (CP4) of the previous framework. Specifically, the indicator and metric on protected areas (ST 1.c and ST 1.c.i) as well as the metrics on electricity generation from low-carbon sources and energy intensity (SP 1.b.ii and SP 1.b.iii) are now also part of this area.

Sectoral ambition and policy (areas SA 1 and SP 1)

The previous indicator CP 4.a (multi-sector climate strategies) has been split into 10 new indicators: five for targets under Sectoral ambition (SA 1.a-SA 1.e) and five for measures under Sectoral policy (SP 1.a–SP 1.e). These new sectoral indicators are not directly comparable to the historical assessments of CP 4.a because the sectors assessed in each country in this new version align with the highest-emitting sectors specific to that country. This parallel structure across sectoral areas provides a holistic snapshot of country performance, combining both backward-looking emissions trends and forward-looking targets and policies.

Additionally, the net zero electricity target indicator (SA 1.f) from the previous framework has been reallocated to the new Sectoral ambition area. The remaining indicators of the Sectoral transitions area from the previous framework (CP 4) have been reallocated to the Sectoral policy area; this includes the energy efficiency indicator (SP 1.f) and the mandatory climate-related disclosure indicator (SP 1.g). These two indicators differ from the rest of the sectoral indicators, as they provide cross-cutting context on energy efficiency and financial disclosure, rather than assessing a specific economic sector.

Emissions data

Please note that the emissions data used in the ASCOR tool are now sourced from EDGAR, with LULUCF data from the National Greenhouse Gas Inventories (NGHGI). Previously, we used the PRIMAP-hist "country-reported data priority" (HISTCR) dataset. As a result, the historical emissions series used in our calculations have changed, which may affect the results in areas T1 (Emissions trends), A1 (2030 targets), A2 (2035 targets) and P2 (Carbon pricing).

Country exemptions

Feedback has suggested that country exemptions from some indicators and metrics should be revisited. Specifically, lifting some of the exemptions on low-income countries would enable investors to access more data, while also enabling some emerging economies to showcase their progress. Bearing in mind the ASCOR framework's design principle of avoiding income bias, this year we have revisited country exemptions across the framework and lifted the exemption for low-income countries from the following indicators and metrics:

- Electricity generation from low-carbon sources (metric ST 1.b.ii)
- Energy intensity in primary energy (metric ST 1.b.iii)
- Protected areas (indicator ST 1.c and metric ST 1.c.i)

We will continue to revisit country exemptions every year and make any adjustments depending on countries' progress and data availability.

Ongoing research for future iterations

The consultation to inform Version 2.0 of the ASCOR framework elicited a range of investor priorities and stakeholder perspectives. Some of the feedback and input from the consultation has not been immediately integrated into the new framework but has sparked or fed into ongoing research that may eventually be integrated into future iterations of the ASCOR tool.

Data aggregation: Feedback ranged from positive to cautious on the option of communicating an aggregated summary of the assessment results on the ASCOR tool (e.g. in the form of pillar scores).[3] Some stakeholders preferred seeing an aggregated result on the tool to ease their interpretation of the overall assessment and to enable integration of the data into their models and analysis. Others noted the risks of unintended bias and comparability limitations considering the country exemptions.

[3] The State of the Transition in Sovereigns reports published in 2024 (Scheer et al.) and 2025 (Hizliok et al.) present the methodology and results of pillar scores as a way of aggregating the assessment results for illustrative purposes, but these pillar scores have not been included in the online ASCOR tool.

Implementation of adaptation: There is growing interest from respondents in expanding the assessment of adaptation policy in the framework. Responses suggested topics that we should explore (e.g. policy implementation, deforestation, investment in adaptation, nature-based solutions) rather than methodologies. Our ongoing research aims to identify the most relevant criteria that can assist investors in evaluating whether and how governments are implementing adaptation, based on the UN Adaptation Gap reports' analysis of global adaptation planning over the last three years. Taking a subset of countries, we tested potential criteria, such as the disclosure of timeframes for adaptation measures and the alignment of National Adaptation Plans with other national policies. The initial results reveal inconsistent disclosure practices and raise doubts about whether these criteria constitute reliable proxies for actual adaptation implementation. Given that adaptation implementation is a nascent research area, we will continue to monitor progress and explore options for future framework iterations.

Climate investment planning: Evidence that a country has identified its climate financing gaps and mapped pathways to address them through public and private finance provides investors with a clearer sense of the credibility of the country's climate commitments. Consultation responses were mixed on what information would be most useful in assessing whether a country has created the enabling conditions to generate public funds and mobilise private finance for the low-carbon transition. Some provided specific criteria to assess investment plans, including funding timelines, quantified investment needs, project pipelines and alignment with Nationally Determined Contributions (NDCs). To explore this topic, we identified investment planning documents published by a selection of countries. We used the criteria provided in the consultation feedback, as well as desk research, including guidance from the NDC Partnership, to identify investment plan elements we do not already assess in the areas on climate costing (area F2) and spending (area F3). We tested these investment planning documents against potential criteria including governance, financing gaps, funding sources and financing instruments. The initial results reveal inconsistent disclosure practices: most countries' investment plans include some of these elements, but not all of them. This raises the question of which criteria to prioritise when assessing countries against a binary Yes/No indicator. We will continue to monitor progress and explore options for future framework iterations.

Fossil fuel rents: Since its launch in 2023, the ASCOR tool has provided data on fossil fuel rents via three metrics on coal, oil and natural gas rents (P 3.c.i , P 3.d.i and P 3.d.ii, respectively), all sourced from the World Bank. The latest available data are for 2021, making them significantly outdated and preventing an analysis of recent trends. We are therefore searching for alternative options, including identifying new data sources for a similar metric, developing a methodology to calculate fossil fuel rents internally or, if there is no other way of providing more up-to-date data, removing these metrics from the framework.

Structure of the note

This note first describes the design principles used in developing and iterating the ASCOR framework. It then presents the full framework of indicators and metrics, alongside an associated assessment methodology. Further details on country exemptions, how to interpret assessment results and the mapping of methodological changes compared to the previous framework are included in the appendices.

2. Design principles behind the framework's development

The ASCOR framework has been developed and iterated according to the following seven design principles:

1. **Indicators are assessable using publicly available data,** such as government documents and reliable, publicly available databases. While data availability remains a limitation for some indicators, we aim to evolve the framework as disclosure and data availability improve, and through engagement with sovereign issuers. Country assessments are undertaken using existing databases or through dedicated policy analysis based on information in public government documents.
2. **Indicators are assessable objectively using a transparent methodology.** For clarity, comparability and ease of interpretation, the framework prioritises 'Yes' or 'No' indicators. Where relevant, these are complemented with quantitative metrics.
3. **Indicators are clear, useful and accessible to investors**, including to those with limited resources to assess climate change. To create an easy-to-use framework, efforts have been taken to minimise the number of topics and focus on the most important aspects of climate risks and opportunities.
4. **Indicators are chosen to avoid unnecessarily adding to the reporting burden** of sovereigns. This principle is balanced against the need to drive improvements in disclosure.
5. **Indicators are pitched at the national level** so that metrics of climate opportunities and risks are relevant for sovereign bond investment decisions and country analysis. The framework therefore would not consider characteristics of individual sovereign green bonds' use of proceeds, for example.
6. **The framework was developed in line with the principle of common but differentiated responsibilities and respective capabilities,** which is enshrined in the UN Framework Convention on Climate Change (UNFCCC). This internationally agreed principle posits that countries' contributions to climate-change mitigation should consider their differing responsibilities for climate change and abilities to act. For example, middle- and/or low-income countries are exempt from selected indicators (see Appendix 1 for details of exemptions). In addition, this principle has been incorporated into the framework through the topics of fair-share allocations and international climate finance.
7. **The framework focuses on sovereign management of climate risks and opportunities** through the policies and objectives that countries can put in place. This means that indicators that are entirely outside government decision-making – for example, the probability of climate hazards and exposure to physical climate risk more broadly – are not included. As such, sovereigns can improve their performance on all of the framework's indicators and metrics.

3. General assessment approach

Unless otherwise specified in the indicator methodology, assessments for ASCOR are undertaken using in-depth policy research drawing on government websites, policy databases such as Climate Change Laws of the World (CCLW), and UNFCCC document repositories such as the Nationally Determined Contributions (NDC) Registry. The primary source used to determine results is therefore government disclosure in the form of policy documents. In the case of most quantitative metrics and some indicators, we also use and cite third-party data sources.

The following points apply to the research process underpinning the country assessments:

- Feedback process: Draft assessments (including full citations and an explanation of results) are shared with country governments' Ministries of Environment, Ministries of Finance and/or Debt Management Offices ahead of publication, to collect feedback on any inaccuracies or misinterpretations.
- Document types: Any document to be used as a source of information for ASCOR indicators must be officially published by the assessed country government, with very few exceptions. Depending on the indicator, documents can be executive, legislative or official submissions to the UNFCCC. Government webpages may be used as supporting evidence. Third-party data sources are used for selected metrics.
- Translation: Assessment research is not limited to documents published in English. When there is no English version of a document, machine translation is used; support from expert translators and native speakers may additionally be used. The sovereign feedback process is also intended to ensure that misinterpretations deriving from translations are avoided.
- Publication dates: On a case-by-case basis, executive or planning documents that were published more than a decade prior to the assessment may be judged to be outdated. However, laws passed more than a decade previously are considered if they are still in force.
- Third-party data providers: Several quantitative metrics rely on third-party data providers. Most datasets are published under a Creative Commons licence; others require dedicated licensing agreements (see References section for further details).

4. Indicator-by-indicator methodology

Economy-wide scope

Pillar 1: Trends

T 1. Emissions trends

Indicator T 1.a	Has the country improved its emissions profile over the past 5 years?
Methodology	A country's emissions trends are assessed in several ways to account for a variety of factors and uncertainties. Depending on the data available, a country is assessed as 'Yes' if two-thirds of its different emissions metric trends are negative. The emissions metrics considered include the following nine options: • Production-based emissions, excluding land use, land-use change and forestry (LULUCF): 1. Absolute emissions 2. Per capita intensity 3. Per gross domestic product (GDP) intensity, adjusted for purchasing power parity (PPP) • Production-based emissions, including LULUCF: 4. Absolute emissions 5. Per capita intensity 6. Per PPP-adjusted GDP intensity • Consumption-based emissions, excluding LULUCF: 7. Absolute emissions 8. Per capita intensity 9. Per PPP-adjusted GDP intensity. Production-based emissions are sourced from the Emissions Database for Global Atmospheric Research (EDGAR), published by the European Commission's Joint Research Centre. Production-based emissions including LULUCF combine the EDGAR data with LULUCF estimates from the National Greenhouse Gas Inventories (NGHGI), also compiled by the European Commission's Joint Research Centre. Consumption-based emissions are sourced from the Global Carbon Atlas database. Data on population and PPP-adjusted GDP are sourced from the World Bank.
Metric T 1.a.i	What is the country's most recent emissions level?
Methodology	The most recent value available is presented for each of the nine emissions metric options. Data sources are listed above under indicator T 1.a.
Metric T 1.a.ii	What is the country's most recent emissions trend?
Methodology	This metric is calculated over three time horizons: the year-on-year percentage change and the percentage change over 3 and 5 years. We calculate trends using a generalised least squares (GLS) regression with a logarithm-like transformation to yield a percentage change. This approach is more robust to volatility in the underlying emissions data than alternative approaches such as calculating the compound annual growth rate and provides more meaningful trends for small negative emissions levels from LULUCF. Data sources are listed under indicator T 1.a. This is calculated for all emissions categories listed in T 1.a.

Indicator T 1.b	Is the country's emissions trend aligned with the 1.5°C or Below 2°C cost-effective benchmark?
Methodology	A country is assessed as 'Yes' if the linear extrapolation of the most recent 5-year trend in absolute production-based emissions is at or below its country-specific Below 2°C cost-effective benchmark in 2030 — the less stringent of the two benchmarks. Meeting the 1.5°C cost-effective benchmark also satisfies this indicator. The linear extrapolation is intended to assess historical trends only; it is not a forecast and therefore does not involve modelling of macroeconomic, technological or political variables and risks. Trends are evaluated on a basis that excludes LULUCF emissions, given the uncertainties in estimating them and the methodological challenges with deriving benchmarks that include LULUCF emissions and are consistent with how countries report their LULUCF emissions. The cost-effective benchmarks are sourced from the NGFS Version 5.1 scenarios, taken as the mean of the REMIND-MAgPIE, MESSAGEix and GCAM downscaled models for each country, with the 1.5°C benchmark using the Net Zero 2050 scenario and the Below 2°C benchmark using the Below 2°C scenario. The NGFS Net Zero 2050 scenario limits warming to 1.5°C with a 50% probability and reaches approximately 1.4°C by the end of the century following a peak of around 1.7°C; it corresponds most closely to the AR6 C2 scenario category (return warming to 1.5°C after a high overshoot). The Below 2°C benchmark is derived from the NGFS Below 2°C scenario, which limits warming to 2°C with a 67% probability and corresponds to the AR6 C3 scenario category (limit warming to 2°C with greater than 67% probability).
Metric T 1.b.i	Which cost-effective benchmark is the country's emissions trend aligned with?
Methodology	This metric reports the most stringent cost-effective benchmark the extrapolated 2030 trend meets. The metric result is '1.5°C' if the extrapolated trend is below the 1.5°C benchmark, 'Below 2°C' if it is below only the Below 2°C benchmark, and 'Not aligned' if it exceeds both.
Metric T 1.b.ii	How far is the country's emissions trend from meeting its 1.5°C cost-effective benchmark?
Methodology	This metric is calculated as the difference between the emissions level in 2030, extrapolated from the most recent 5-year trend, and the 1.5°C benchmark, expressed as a percentage of the country's 2019 emissions: (extrapolated 2030 emissions − 1.5°C benchmark) / 2019 emissions × 100% A positive percentage result represents the additional reduction, relative to 2019 emissions, that would be needed to meet the 1.5°C benchmark. A negative percentage result signifies that the extrapolated value is below (i.e. achieving) the 1.5°C benchmark.
Indicator T 1.c	Is the country's emissions trend aligned with the 1.5°C or Below 2°C fair share benchmark?
Methodology	A country is assessed as 'Yes' if the linear extrapolation of its most recent 5-year trend in absolute production-based emissions is at or below its country-specific Below 2°C fair share benchmark in 2030 — the less stringent of the two benchmarks. Meeting the 1.5°C fair share benchmark also satisfies this indicator. Trends are assessed in the same way as T 1.b. The fair share allocation for each country is calculated by dividing global emissions in 2030 consistent with the 1.5°C and Below 2°C goals into allowable country-specific emissions. The global carbon budget for each temperature target is given by the average of total global emissions from each of the three NGFS models in 2030 (Net Zero 2050 for the 1.5°C fair share; Below 2°C for the Below 2°C fair share) and divided

	into country-specific allocations. This means that the only difference between the cost-effective benchmark and fair share is the allocation methodology. A country's fair share of the global budget is calculated based on three equally weighted variables: population, PPP-adjusted GDP per capita, and historical emissions per capita. These three variables represent equality, capability and responsibility, respectively, the primary factors to consider when developing a fair share approach to climate mitigation (Mattoo and Subramanian, 2012). The fair share allocation is thus calculated according to this formula: $$\phi_{i,t} = \frac{1}{3} * \phi_{i,t}^{Responsibility} + \frac{1}{3} * \phi_{i,t}^{Capability} + \frac{1}{3} * \phi_{i,t}^{Population}$$ $$= \frac{1}{3} * \frac{\frac{1}{e_{i,t2}}}{\sum_i^n \frac{1}{e_{i,t2}}} + \frac{1}{3} * \frac{\frac{1}{y_{i,t}}}{\sum_i^n \frac{1}{y_{i,t}}} + \frac{1}{3} * \frac{pop_{i,t}}{\sum_i^n pop_{i,t}}$$ where *e* is historical emissions per capita (over the years 1990–2023), *y* is GDP per capita, and *pop* is population in year *t* of country *i*. The variable ϕ gives the percentage share of the global 1.5°C or Below 2°C-aligned emissions budget in 2030 to allocate to each country. As illustrated in the formula, the emissions allowance will be higher for countries with lower historical emissions, lower GDP per capita, and/or a higher population.
Metric T 1.c.i	Which fair share benchmark is the country's trend aligned with?
Methodology	This metric reports the most stringent fair share allocation the extrapolated 2030 trend meets: '1.5°C', 'Below 2°C' or 'Not aligned'.
Metric T 1.c.ii	How far is the country's emissions trend from meeting its 1.5°C fair share benchmark?
Methodology	This is calculated as the difference between the emissions level in 2030, extrapolated from the most recent 5-year trend, and the fair share emissions allocation, expressed as a percentage of the country's 2019 emissions (see metric T 1.b.ii for the formula).

Pillar 2: Ambition

A 1. 2030 targets

Indicator A 1.a	Has the country set a 2030 emissions reduction target?
Methodology	A country is assessed as 'Yes' if it has specified an emissions target for the year 2030. This can be in the form of a Nationally Determined Contribution (NDC) submitted to the UNFCCC's NDC Registry. Targets may be set against a historical base year value or against a future business-as-usual scenario. As a clearer gauge of domestic ambition, the assessment considers unconditional targets rather than conditional ones.
Metric A 1.a.i	What is the targeted reduction relative to 2019 emissions?
Methodology	A country's targeted reduction is adjusted to a common base year of 2019 to facilitate comparisons between countries. This is done by calculating the 2030 emissions level implied by the country's target and calculating the implied reduction relative to the country's emissions level in 2019.

Indicator A 1.b	Does the country specify whether and by how much carbon credits may contribute to its 2030 target?
Methodology	A country is assessed as 'Yes' if, within its target disclosure, it either: • Clearly quantifies the portion of the 2030 target that will be met through the use of carbon credits, offsets, internationally transferred mitigation outcomes (ITMOs) or other equivalent carbon market instruments; or • Clearly specifies that the country will *not* rely on such instruments in order to meet its 2030 target. Referring to general partnerships in the context of Article 6 of the Paris Agreement without specifying the details above is not sufficient to be assessed as 'Yes' for this indicator. The indicator is designed to capture whether and how countries intend to rely on the purchase of carbon credits to meet their target. It is not designed to capture whether and how countries intend to *sell* carbon credits.
Metric A 1.b.i	What percentage of the 2030 target will be met using carbon credits?
Methodology	This metric is sourced from a country's target disclosure. If a country clearly specifies that it will not use any carbon credits, the metric is assessed as 0%. If a country does not specify whether it will rely on carbon credits to meet its target, it is assessed as 'No or unsuitable disclosure'.
Indicator A 1.c	Is the country's 2030 target aligned with the 1.5°C or Below 2°C cost-effective benchmark?
Methodology	A country is assessed as 'Yes' if its targeted 2030 emissions level is at or below its country-specific Below 2°C cost-effective benchmark — the less stringent of the two benchmarks, such that meeting the 1.5°C cost-effective benchmark also satisfies this indicator. Targets are evaluated on a basis that excludes LULUCF emissions, given the uncertainties in estimating them and the methodological challenges with deriving benchmarks that include LULUCF emissions and are consistent with how countries report their LULUCF emissions. See indicator T 1.b for further details on cost-effective benchmarks.
Metric A 1.c.i	Which cost-effective benchmark is the country's 2030 target aligned with?
Methodology	This metric reports the most stringent cost-effective benchmark the 2030 target meets.
Metric A 1.c.ii	How far is the country's 2030 target from meeting its 1.5°C cost-effective benchmark?
Methodology	This is calculated as the difference between the targeted emissions level and the 1.5°C cost-effective benchmark, expressed as a percentage of the country's 2019 emissions (see metric T 1.b.ii for the formula). A positive percentage result represents the additional reduction, relative to 2019 emissions, that would be needed to meet the 1.5°C benchmark. A negative percentage result signifies that the target is below (i.e. achieving) the 1.5°C benchmark.
Indicator A 1.d	Is the country's 2030 target aligned with the 1.5°C or Below 2°C fair share benchmark?
Methodology	A country is assessed as 'Yes' if its targeted 2030 emissions level is at or below its country-specific Below 2°C fair share allocation. See indicator T 1.c for further details on fair share allocations.
Metric A 1.d.i	Which fair share benchmark is the country's 2030 target aligned with?
Methodology	This metric reports the most stringent fair share allocation the 2030 target meets.

Metric A 1.d.ii	How far is the country's 2030 target from meeting its 1.5°C fair share benchmark?
Methodology	This is calculated as the difference between the targeted emissions level and the fair share emissions allocation, expressed as a percentage of the country's 2019 emissions (see metric T 1.c for the formula). A positive percentage result represents the additional reduction, relative to 2019 emissions, that would be needed to meet the 1.5°C benchmark. A negative percentage result signifies that the target is below (i.e. achieving) the 1.5°C benchmark.

A 2. 2035 targets

Indicator A 2.a	Has the country set a 2035 emissions reduction target?
Methodology	See indicator A 1.a for details on how this indicator is assessed. In area A 2, we follow the same methodology as in area A 1 but assess 2035 targets and use 2035 benchmarks instead of 2030 targets and benchmarks.
Metric A 2.a.i	What is the targeted reduction relative to 2019 emissions?
Methodology	See metric A 1.a.i for details on how this metric is assessed.
Indicator A 2.b	Does the country specify whether and by how much carbon credits may contribute to its 2035 target?
Methodology	See indicator A 1.b for details on how this indicator is assessed.
Metric A 2.b.i	What percentage of the 2035 target will be met using carbon credits?
Methodology	See metric A 1.b.i for details on how this metric is assessed.
Indicator A 2.c	Is the country's 2035 target aligned with the 1.5°C or Below 2°C cost-effective benchmark?
Methodology	See indicator A 1.c for details on how this indicator is assessed.
Metric A 2.c.i	Which cost-effective benchmark is the country's 2035 target aligned with?
Methodology	See metric A 1.c.i for details on how this metric is assessed.
Metric A 2.c.ii	How far is the country's 2035 target from meeting its 1.5°C cost-effective benchmark?
Methodology	See metric A 1.c.ii for details on how this metric is assessed.
Indicator A 2.d	Is the country's 2035 target aligned with the 1.5°C or Below 2°C fair share benchmark?
Methodology	See indicator A 1.d for details on how this indicator is assessed. The only difference in the assessment of 2035 targets is that we source PPP-adjusted GDP data from Koch, J., & Leimbach, M. (2023).
Metric A 2.d.i	Which fair share benchmark is the country's 2035 target aligned with?
Methodology	See metric A 1.d.i for details on how this metric is assessed.
Metric A 2.d.ii	How far is the country's 2035 target from meeting its 1.5°C fair share benchmark?
Methodology	See metric A 1.d.ii for details on how this metric is assessed.

A 3. Net zero targets

Indicator A 3.a	Has the country set a net zero CO_2 target?
Methodology	A country is assessed as 'Yes' if it has set a net zero CO_2 target in a legislative or executive document or an official submission to the UNFCCC. Note that while global CO_2 emissions must reach net zero by 2050 to hold global temperatures at or below 1.5°C, emissions from other greenhouse gases may remain positive, albeit at very low levels (IPCC, 2023). As such, this indicator focuses on the inclusion of CO_2 emissions in net zero targets.

Metric A 3.a.i	In what year is the net zero CO_2 target set?
Methodology	Based on country disclosure, this metric specifies the net zero CO_2 target year.
Indicator A 3.b	Is the country's net zero CO_2 target aligned with a global 1.5°C scenario?
Methodology	A country is assessed as 'Yes' if its net zero CO_2 target is set for 2050 or earlier.
Indicator A 3.c	Is the country's net zero CO_2 target aligned with an accelerated deadline for high-income countries?
Methodology	A country is assessed as 'Yes' if its net zero CO_2 target is set for 2045 or earlier.

Pillar 3: Policy

P 1. Climate legislation

Indicator P 1.a	Does the country have a climate framework law or equivalent?
Methodology	A country is assessed as 'Yes' if it has a climate framework law that fulfils all of the following: • It sets a strategic direction for decarbonisation (i.e. it must include a clear statement to meet the goals of the Paris Agreement or a national long-term decarbonisation target); • It is enshrined in law (i.e. it must be legislative rather than executive, except in particular political systems); • It sets out at least one of the following obligations: meeting a national target; developing, revising, implementing or complying with domestic plans, strategies or policies; developing policy instruments such as regulation, taxation or public spending in support of climate change goals. In exceptional cases, the combination of a broad environmental law and a clearly linked executive climate strategy may be sufficient to meet these criteria. Announcements to develop a climate framework law or draft law are insufficient for this indicator. The definition and criteria for assessing climate framework laws are built on the methodology of LSE's Climate Change Laws of the World (CCLW) research. In situations of ambiguity, we consult the CCLW team to ensure consistent and accurate assessments.
Indicator P 1.b	Does the country's climate framework law specify key accountability elements?
Methodology	A country is assessed as 'Yes' if its climate framework law contains all three of the following accountability elements: • Specification of who is accountable to whom for at least one stated obligation (e.g. accountability of executive to parliament, or private parties to executive authorities); • Specification of how compliance is assessed for at least one stated obligation (e.g. transparency mechanisms in the form of monitoring, reporting and verification, parliamentary oversight, expert assessments, court proceedings); • Specification of what happens in the case of non-compliance for at least one stated obligation (e.g. parliamentary intervention, judicial orders, financial penalties). Note that if a country has multiple laws assessed under the previous indicator, all are considered under this indicator. The country is assessed as 'Yes' if at least one of those laws satisfies all three accountability elements above. The definition and criteria for assessing accountability in climate framework laws are built on the methodology of Higham et al. (2021). This indicator is contingent on indicator P 1.a being assessed as 'Yes'.

P 2. Carbon pricing

Indicator P 2.a	Does the country have a carbon pricing system?
Methodology	A country is assessed as 'Yes' if it has a carbon price through either a carbon tax or an emissions trading system. The emissions trading system can be at the supranational (e.g. EU Emissions Trading System), national or sub-national level (e.g. state-level carbon pricing mechanisms). The World Bank's Carbon Pricing Dashboard is used as a guide for this indicator, but country-level policy research is undertaken to identify any potentially relevant systems not captured by the Carbon Pricing Dashboard. Pilot carbon pricing systems or those under consideration are insufficient to meet this indicator.
Indicator P 2.b	Does the country's carbon pricing system cover at least 50% of national greenhouse gas emissions?
Methodology	A country is assessed as 'Yes' if the percentage of national emissions covered by an explicit carbon price is at least 50%. The coverage estimate is sourced as described below in metric P 2.b.i.
Metric P 2.b.i	What percentage of national greenhouse gas emissions is covered by an explicit carbon price?
Methodology	Depending on the country, various sources are used to determine this metric. The percentage of a country's emissions covered by an explicit carbon price is sourced from the World Bank Carbon Pricing Dashboard, which provides information on the coverage of carbon pricing systems in the relevant jurisdiction (subnational, national or supranational). Note that the World Bank estimates do not necessarily reflect the impact of exemptions or free allocations. Therefore, we combine these estimates with other available sources, including the OECD (share of emissions priced by an explicit carbon price) and official country sources. For EU member states, the European Environment Agency provides further information on the country-specific coverage of the EU Emissions Trading System. When using and validating these sources, we ensure that overlaps between different carbon pricing systems applicable within the same jurisdiction are quantified appropriately where this information is publicly available.
Indicator P 2.c	Does the country's carbon pricing system align with the Paris Agreement?
Methodology	A country is assessed as 'Yes' if at least one carbon pricing system implemented in the country meets either one of the following criteria: • The country's carbon tax rate in the latest available year is at or above the floor of a global carbon price corridor aligned with the Paris Agreement. • The country's ETS is designed in a way that would align with its country-specific 1.5°C benchmark. We assess this alignment by comparing the forward-looking reduction rate of the system's emissions cap with the reduction rate implied by the country's 1.5°C benchmark over the same period. Benchmarks are sourced from the from the NGFS Version 5.1 scenarios (see Indicator T 1.b). The alignment criteria in this indicator differ depending on the type of instrument. A carbon tax is assessed against a price threshold because it has a fixed price. In contrast, an ETS has volatile emissions permit prices and therefore can be more accurately assessed based on how its emissions cap is reduced over time. The carbon price corridor is set using estimates from the *Carbon Pricing Leadership Report* (World Bank, 2022) for 2020 and the *State and Trends of Carbon Pricing 2024* report (World Bank, 2024) for 2030. Note that the latter relies on marginal abatement costs for mitigation pathways provided in the *Sixth Assessment Report* of the IPCC (2022). The price floor we calculate for the year 2026 is US$125/tonne CO_2-equivalent

	(tCO_2e). Threshold prices are adjusted to nominal prices of the appropriate year for comparison with countries' carbon price data. The threshold is updated every year to adjust for the shifting carbon price corridor and for inflation in order to be comparable with actual carbon prices in place in different countries. In previous assessment cycles, this indicator focused on the carbon pricing system with the largest emissions coverage whereas it currently assesses whether at least one system meets the alignment criteria above.
Metric P 2.c.i	What is the country's most recent explicit carbon price?
Methodology	The most recent price level of the carbon pricing system with the highest price is presented in US$/$tCO_2e$. These data are drawn from the World Bank's Carbon Pricing Dashboard for carbon taxes. For emissions trading systems, to account for price volatility, average annual auction prices are sourced from the International Carbon Action Partnership rather than the World Bank, as the latter provides prices on a specific date rather than the average price over a year. When the price level is not provided by either source, we may use official country sources if these are available. All national currencies are converted into US dollars by using yearly average exchange rates from the IMF.

P 3. Fossil fuels

Indicator P 3.a	Has the country committed to a deadline by which to phase out fossil fuel subsidies?
Methodology	A country is assessed as 'Yes' if it has committed to a specified deadline by which to phase out fossil fuel subsidies in a legislative or executive document. A country is assessed as 'Not Applicable' if it has no explicit fossil fuel subsidies according to the fossil fuel subsidy databases of the IMF, OECD, IEA and/or UNSDG (SDG Indicator 12.c.1). Note that international commitments made by the G20 (2009) and the Asia-Pacific Economic Cooperation (APEC) (2009) to "rationalise and phase out inefficient fossil fuel subsidies" are not sufficient for this indicator as they do not set a phaseout deadline. The G7's (2023) commitment to "the elimination of inefficient fossil fuel subsidies by 2025 or sooner" is accepted if the country rediscloses the commitment in a domestic legislative or executive document.
Metric P 3.a.i	By what year has the country committed to phase out fossil fuel subsidies?
Methodology	If a country is assessed as 'Yes' on indicator P 3.a, the deadline set in the country's commitment is specified in this metric. Otherwise, it is assessed as 'No or unsuitable disclosure'. If the country does not subsidise fossil fuels, and this is verified by the databases mentioned above (see metric P 3.b.i), the country is assessed as 'Not Applicable'.
Indicator P 3.b	Does the country publish an inventory of explicit fossil fuel subsidies?
Methodology	A country is assessed as 'Yes' if it has published an inventory of its explicit fossil fuel subsidies, defined as a list of fossil fuel subsidies or environmentally harmful subsidies that the country has in place. Note that inventories may be disclosed as part of a country's budgetary reporting processes or as part of its commitment to phase out fossil fuel subsidies. Also note that the definition, scope and calculation methodology of fossil fuel subsidies may differ across countries. Therefore, the inventories identified for this indicator are not necessarily comparable. If the country does not subsidise fossil fuels, and this is verified by available data (see metric P 3.b.i), the country is assessed as 'Not applicable'.

Metric P 3.b.i	How much is spent annually on explicit fossil fuel subsidies as a percentage of GDP?
Methodology	The most recent data on explicit fossil fuel subsidies as a percentage of GDP are sourced from the IMF's Fossil Fuel Subsidies Database. Note that other data providers or country sources may use different methodologies and disclose different estimates for this metric. For consistency, when assessing this metric, we rely on the same source, i.e. the IMF database, for all assessed countries. The assessment is focused on explicit subsidies given that implicit fossil fuel subsidies are largely captured in the assessment of countries' carbon pricing systems. The other main component of implicit fossil fuel subsidies is the failure to price air pollution externalities; assessment of these is not within the scope of the ASCOR framework.
Indicator P 3.c	Has the country committed not to approve new coal mines?
Methodology	A country is assessed as 'Yes' if it has committed not to approve new coal mines. This indicator only applies to countries that produce coal. If a country does not have an operating coal mine according to Global Energy Monitor's Global Coal Mine Tracker, it is assessed as 'Not applicable' on this indicator.
Metric P 3.c.i	*What is the level of coal rents in the country as a percentage of GDP?*
Methodology	The most recent value is presented for the level of coal rents in the country. Coal rents are defined as the difference between the value of both hard and soft coal production at world prices and their total costs of production. This estimate and definition are sourced from the World Bank.
Indicator P 3.d	Has the country committed not to approve new long-lead-time upstream oil and gas projects?
Methodology	A country is assessed as 'Yes' if it has committed not to approve new long-lead-time upstream oil and gas projects or committed to a moratorium or ban on oil and gas exploration or production. This indicator was designed in alignment with the International Energy Agency (IEA)'s Net Zero Emissions by 2050 scenario (IEA, 2023). This indicator only applies to countries that have oil or gas reserves. If a country has neither, it is assessed as 'Not applicable' on this indicator.
Metric P 3.d.i	*What is the level of oil rents in the country as a percentage of GDP?*
Methodology	The most recent value is presented for the level of oil rents in the country. Oil rents are defined as the difference between the value of crude oil production at regional prices and total costs of production. This estimate and definition are sourced from the World Bank.
Metric P 3.d.ii	*What is the level of natural gas rents in the country as a percentage of GDP?*
Methodology	The most recent value is presented for the level of natural gas rents in the country. Natural gas rents are defined as the difference between the value of natural gas production at regional prices and total costs of production. This estimate and definition are sourced from the World Bank.

P 4. Adaptation

Indicator P 4.a	Has the country published a National Adaptation Plan?
Methodology	A country is assessed as 'Yes' if it has published a detailed operational planning document that fulfils the following criteria: • It is explicitly directed at adaptation to climate change; • It specifies planning and policies to address the identified risks, hazards and vulnerabilities. For developing countries, National Adaptation Plans (NAPs) can be found on NAP Central. Additional research is undertaken to identify other government planning documents that meet these criteria, drawing on best practice in adaptation planning (e.g. Leiter, 2021). Planning documents that focus on disaster risk reduction (DRR)

	only may not qualify for this indicator, as both acute and chronic physical climate risks should be considered. Plans published more than 10 years ago may not be accepted if there is evidence that they are outdated.
Indicator P 4.b	Does the country regularly publish national climate risk assessments?
Methodology	A country is assessed as 'Yes' if it regularly and comprehensively assesses existing and future climate risks, scenarios, hazards, exposure, vulnerabilities and/or impacts. These assessments should be published at least every 5–10 years and should be relevant to the country's particular economic sectors, population and climate hazards. This assessment may be published in a document or an online platform.
Indicator P 4.c	Has the country published a Monitoring and Evaluation report on implementing adaptation?
Methodology	A country is assessed as 'Yes' if it regularly evaluates progress in implementing policies aimed at adaptation and discloses the results. These evaluations should be published at least every 5–10 years and they may be published in a document or an online platform. Several NAPs signal the intention to establish a Monitoring and Evaluation framework. While indicator P 4.b assesses regular disclosure on evolving climate risks, this indicator assesses regular disclosure on progress implementing risk management policies and measures. Because this indicator is meant to determine the implementation of adaptation planning, it is contingent on indicator P 4.a being assessed as 'Yes'.
Indicator P 4.d	Does the country have a multi-hazard early warning system?
Methodology	A country is assessed as 'Yes' if it describes an early warning system that addresses more than one climate-related hazard in a national executive or legislative document. Early warning systems are generally expected to include a weather monitoring system as well as a national communication system to inform citizens of imminent hazards.
Indicator P 4.e	Is the country part of a sovereign catastrophe risk pool?
Methodology	A country is assessed as 'Yes' if it is a member of any existing risk pools. The result is determined using the member lists of the Caribbean Catastrophe Risk Insurance Facility (CCRIF-SPC), the Pacific Catastrophe Risk Insurance Company (PCRIC), the African Risk Capacity (ARC), and the Southeast Asia Disaster Risk Insurance Facility (SEADRIF). High-income countries are exempt from this indicator, given the absence of risk pools for their associated regions, but some high-income countries may be assessed on a case-by-case basis, as relevant. If additional risk pools or equivalent systems are identified during future feedback processes with governments, they may be considered.

P 5. Just transition

Indicator P 5.a	Has the country ratified fundamental human, labour and Indigenous rights conventions?
Methodology	A country is assessed as 'Yes' if the following are true: 1. The country has ratified at least half of the UN's 18 international human rights instruments; 2. The country has ratified at least half of the International Labour Organization's 14 Fundamental and Governance Conventions; 3. The country has ratified the Indigenous and Tribal Peoples Convention No. 169;

	4. The country has endorsed the United Nations Declaration on the Rights of Indigenous Peoples. These international treaties and declarations form a universal and comparable foundation for climate-specific just transition policies. Countries without Indigenous peoples are exempt from criteria 3 and 4. Guidance on such exemptions is drawn from various sources including the International Work Group for Indigenous Affairs (IWGIA).
Metric P 5.a.i	What share of relevant fundamental rights conventions has the country ratified?
Methodology	This metric calculates the percentage share of applicable conventions that the country has ratified, drawing on the sources specified in indicator P 5.a.
Indicator P 5.b	Does the country have an inclusive and institutionalised approach on the just transition?
Methodology	A country is assessed as 'Yes' if it has a just transition strategy or approach that fulfils all of the following criteria: • It involves social dialogue with workers; • It involves engagement with at least three of the following stakeholder groups: Indigenous peoples, rural communities, minorities, a citizens' assembly for climate, civil society, low-income households, women, young people, or another specified group; • It has established a just transition commission, defined by Heffron (2021) as a body that provides expert advice on just transition measures and policies and ensures the delivery of a just transition by monitoring the implications of existing legal and executive government frameworks.
Indicator P 5.c	Does the country have a green jobs strategy?
Methodology	A country is assessed as 'Yes' if it has a green jobs strategy that identifies employment-related opportunities from the low-carbon transition and sets actions, measures or policies to harness these identified opportunities. Such measures may include creating decent green jobs, addressing job losses caused by the transition, and launching skill development programmes.
Indicator P 5.d	Does the country integrate just transition into its carbon pricing?
Methodology	A country is assessed as 'Yes' if its implementation of carbon pricing involves a clear acknowledgement of or mechanism to address the potentially regressive distributional impacts on lower-income citizens. If the country has no carbon pricing, this indicator is assessed as 'Not applicable'.

Pillar 4: Finance

F 1. International climate finance

Indicator F 1.a	Does the country contribute at least a proportional share of the international climate finance commitment?
Methodology	A country is assessed as 'Yes' if its contributions to international climate finance represent at least 0.17% of its GDP.[4] A country's contributions to climate finance as a share of GDP are calculated by taking the average annual share over the most recent 3-year period. This accounts for potential economic volatility. The threshold of 0.17% is the ratio of the US$100 billion

[4] Due to GDP growth, this threshold is slightly lower than the 0.2% of GDP threshold used in previous assessments.

	international climate finance commitment at the 15th meeting of the Conference of the Parties (COP15) in 2009 to the sum of the most recent 3-year average annual GDP levels of all UNFCCC Annex II countries. Only Annex II countries are assessed in this area. Annex II countries are a subset of developed countries which together made the original $100 billion climate finance commitment. Before 2025, the ASCOR assessment of this indicator excluded mobilised private finance due to a lack of reliable data. As disclosure quality has improved, it is now included in our assessment because private finance is explicitly included in the $100 billion goal. To reflect climate finance flows from all public sources, we allocate EU institutional flows to member states based on their contributions (e.g. EU revenue contributions; European Investment Bank paid-in capital).
Metric F 1.a.i	What is the country's 3-year average climate finance contribution as a % of GDP?
Methodology	This metric is calculated in line with the approach explained for indicator F 1.a. The assessment relies on contributions which may be disclosed in countries' biennial transparency reports submitted to the UNFCCC or in other official documents (such as the European Environment Agency's Reporting Obligations Database).
Indicator F 1.b	Does the country's targeted climate finance contribution represent at least a proportional share of the international climate finance commitment?
Methodology	A country is assessed as 'Yes' if it fulfils both of the following: • It has publicly announced a target for international climate finance contribution in an official government document or UNFCCC communication. • The targeted contribution as a share of projected GDP in the target year (metric F 1.b.i) meets the country's proportional share of relevant international commitments. For climate finance targets for the year 2025, the relevant threshold is 0.18% of GDP. This threshold varies over time depending on which international commitments are in effect. For targets beyond 2025, which is when the $100 billion goal expires, we take into account the New Collective Quantified Goal (NCQG) agreed at COP29, which aims to deliver $300 billion in international climate finance by 2035. For international climate finance targets between 2025 and 2035, we calculate relevant proportional shares by interpolating between these two international goals. A country's targeted contribution to climate finance as a share of GDP is calculated by dividing it by projected GDP sourced from the IMF World Economic Outlook database, which includes GDP projections in both national currency and US dollars. GDP projections are chosen to align with the currencies in which targets are stated. To compare commitments against the proportional share, we assess each country's commitment in the earliest future year for which the target applies. Countries' targets are generally not explicit about expectations on inflation and GDP growth. During the feedback process, countries may specify if their targets consider these factors and disclose related information such that targeted contributions as a share of future GDP are as accurate as possible.
Metric F 1.b.i	What is the country's targeted level of international climate finance contribution as a % of GDP?
Methodology	This metric is calculated in line with the approach explained for indicator F 1.b. The assessment relies on public country commitments, which may be disclosed in an official government document or UNFCCC communication (e.g. COP26 Compilation of 2021–2025 Climate Finance Commitments or biennial communications.

F 2. Transparency in climate costing

Indicator F 2.a	Has the country disclosed a transparent breakdown of the costs of implementing its Nationally Determined Contribution?
Methodology	A country is assessed as 'Yes' if its NDC or other official climate report includes a breakdown of estimated costs of implementing mitigation measures identified in the NDC or other climate report. Estimates of a total economy-wide cost would be insufficient for this indicator. Instead, the breakdown should be made by sector, policy or measure. This indicator aims to encourage transparency on financing needs for a country's prospective investors, lenders or donors aiming to support climate change action. Only non-Annex I parties to the UNFCCC are assessed on this indicator, given expectations about the direction of international climate finance flows. This indicator assesses if a country is transparent about how much it expects the climate-related measures in its NDC to cost. Countries that are assessed as 'Yes' may have widely differing ways of estimating, accounting for and categorising costed mitigation measures and may have additional climate-related costs that are not disclosed within their NDC or other official report. Therefore, the costs stated within the identified disclosures are not directly comparable between countries.
Indicator F 2.b	Has the country disclosed a transparent breakdown of the costs of implementing its National Adaptation Plan?
Methodology	A country is assessed as 'Yes' if its National Adaptation Plan (NAP) or other official climate report includes a breakdown of estimated costs of implementing adaptation measures. All guidance for this indicator follows the same approach as indicator F 2.a above.

F 3. Transparency in climate spending

Indicator F 3.a	Has the country disclosed its climate-related expenditure?
Methodology	A country is assessed as 'Yes' if it discloses climate-related expenditure: • Including the total amount and a breakdown of the amount allocated to different categories (e.g. mitigation, adaptation or specific projects and measures); and • In one of the following sources: annual or multiannual budgets; other documents related to public expenditure including citizens' budgets, spending reviews and budget fact sheets; open budget portals; databases of a national statistics office; or green or sustainability bond reports. Note that the disclosure of environmental protection expenditure is insufficient for this indicator, as this is a classification that covers a broad category of expenditure unrelated to climate change. In many cases, it is not possible to track climate-related expenditure under this classification. If a country provides an additional breakdown of climate-related expenditure within environmental protection expenditure and meets the other criteria above, it is assessed as 'Yes'. This indicator assesses if a country is transparent about how much it intends to spend on its climate-related measures. Countries that are assessed as 'Yes' may have additional climate-related expenditure that they have not disclosed within their budgets (e.g. through non-budgetary tools like funds) and the scope of disclosed expenditures may vary across countries. Therefore, the spending amounts stated within the identified disclosures are not comparable across countries.
Indicator F 3.b	Does the country apply climate budget tagging?
Methodology	A country is assessed as 'Yes' if it regularly applies climate budget tagging or an equivalent practice in a systematic and consistent way. This indicator uses the

	following sources as a guide to identify budget tagging practices: World Bank (2021); OECD (2021a); OECD (2021b); OECD (2024); UN Development Programme (2022); EU Commission (2023); and Institute for Climate Economics (Boutron, 2023). Countries are assessed based on their own disclosures and methodologies; assessment results may therefore differ from the identified cases in the sources above. Climate budget tagging practices vary across countries in terms of the definition of climate-related expenditure, institutional and sectoral coverage, type of expenditure covered (e.g. investment budget, tax expenditure, budgetary transfers) and their estimation and tagging methodology. Therefore, amounts stated within identified climate budget tagging disclosures are not comparable across countries. Applying climate budget tagging does not necessarily imply alignment of climate policies with fiscal or budgetary policies. Rather, it indicates if the country is transparent about its climate-related expenditure in a systematic and consistent way.

Sector-specific scope

ST 1. Sectoral trends

Indicator ST 1.a	Has the country improved its sectoral emissions profile over the past 5 years?
Methodology	A country is assessed as 'Yes' if at least three of its five highest-emitting sectors show a negative 5-year emissions trend. Sectors are ranked by their total emissions in the most recent year, and the five highest-emitting sectors are assessed. The 5-year trend for each sector is calculated using a generalised least squares (GLS) regression with a logarithm-like transformation, consistent with the approach used to assess emissions trends in area T 1. Sectoral emissions are sourced from the EDGAR (Emissions Database for Global Atmospheric Research) dataset. Sectoral emissions totals may not exactly match those reported under area T 1, with the LULUCF sector showing the largest discrepancies between the two sources, due to differing methodological approaches. Appendix 4 provides a mapping of sectoral categories across ASCOR and EDGAR. The five highest-emitting sectors identified for each country are the same sectors assessed in areas SA 1 (sectoral ambition) and SP 1 (sectoral policies). As such, trends, ambition, and policy are evaluated against a consistent set of the most material sectors in a specific country. EDGAR aggregates the emissions of some smaller countries into those of larger neighbouring countries. Where this occurs, we cross-check against other emissions datasets to confirm it does not materially affect the country's sectoral emissions profile. Because this area reports trends rather than emissions totals, only the relative ranking and direction of change are used.
Metric ST 1.a.i	What is the emissions trend in the country's highest-emitting sector?
Methodology	This metric reports the country's highest-emitting sector (the sector assessed) and its 5-year trend, calculated in line with the approach explained for indicator ST 1.a. The same sector is assessed under SA 1.a and SP 1.a.
Metric ST 1.a.ii	What is the emissions trend in the country's second highest-emitting sector?
Methodology	This metric is assessed with the same approach as metric ST 1.a.i. The same sector is assessed under SA 1.b and SP 1.b.

Metric ST 1.a.iii	What is the emissions trend in the country's third highest-emitting sector?
Methodology	This metric is assessed with the same approach as metric ST 1.a.i. The same sector is assessed under SA 1.c and SP 1.c.
Metric ST 1.a.iv	What is the emissions trend in the country's fourth highest-emitting sector?
Methodology	This metric is assessed with the same approach as metric ST 1.a.i. The same sector is assessed under SA 1.d and SP 1.d.
Metric ST 1.a.v	What is the emissions trend in the country's fifth highest-emitting sector?
Methodology	This metric is assessed with the same approach as metric ST 1.a.i. The same sector is assessed under SA 1.e and SP 1.e.
Indicator ST 1.b	Is the country's renewable energy pipeline greater than its expected fossil fuel fleet?
Methodology	A country is assessed as 'Yes' if either of the following is true: • Its capacity-factor-weighted renewable pipeline has at least as much expected generation potential as its capacity-factor-weighted expected fossil fleet (where metric ST 1.b.i is at or above 1); or • It has no current or planned domestic fossil fuel generation capacity. All capacity data are sourced from the Global Energy Monitor (GEM) trackers for solar, wind, hydropower, geothermal, coal, oil and gas, with region-specific capacity factors from Bolson, Prieto and Patzek (2022, Table 1). The renewable pipeline combines pre-construction and construction projects across solar, wind, hydropower and geothermal energy. Announced projects are excluded, as they have high cancellation rates and year-on-year volatility. The expected fossil fuel fleet combines current operating electricity capacity based on coal, oil and gas, plus fossil fuel projects at the pre-construction and construction stages (permitted and construction for coal), minus planned coal, oil and gas retirements scheduled over 2026–2040. This makes the comparison between renewable and fossil fuel-based electricity generation symmetrically forward-looking. This indicator pairs with the low-carbon electricity share metric (ST 1.b.ii), which shows the *current* level of renewables deployment in the power grid. Each technology's capacity is multiplied by its regional capacity factor before summation, so the ratio is expressed in terms of expected generation rather than installed capacity. Regional factors are used in preference to global means to reflect differences in resource availability and fleet composition between regions. The weighting is an approximation: real generation capacity may fluctuate over time and between countries. "Electricity generation potential" refers to this capacity-factor-weighted output, not the geophysical potential of renewable resources. The indicator should therefore be read as a build-out adequacy signal: whether the pipeline is at a scale that, under typical capacity factors, would broadly match the fossil fleet's expected output, rather than a claim about exact replacement in megawatt-hour terms. ST 1.b should be read alongside ST 1.b.ii (share of low-carbon electricity) and ST 1.b.iii (energy intensity of primary energy), which provide information on the current state of the grid and the wider economic context.
Metric ST 1.b.i	What is the country's renewable energy pipeline compared with its expected fossil fuel generation?
Methodology	This metric reports the ratio underlying indicator ST 1.b, calculated in line with the approach explained above. The ratio = (capacity-factor-weighted renewable pipeline) / (capacity-factor-weighted expected fossil fleet).

	The numerator sums pre-construction and construction capacity across solar, wind, hydropower and geothermal, each multiplied by its regional capacity factor, and the denominator sums operating, pre-construction and construction fossil fuel capacity net of planned retirements, multiplied by the regional fossil fuel capacity factor. If a country has no current or planned domestic fossil fuel generation capacity, the country is assessed as "Not applicable." A ratio at or above 1 indicates that the country's renewable pipeline has greater capacity-factor-weighted output potential than its expected fossil fleet.
Metric ST 1.b.ii	What percentage of the country's electricity generation is from low-carbon sources?
Methodology	This estimate is sourced from the IEA by subtracting the sum of the proportion of the country's electricity generated from coal, oil and natural gas from 100%. Some countries disclose relevant data in official government documents, which may also be used to assess this metric.
Metric ST 1.b.iii	What is the country's energy intensity of primary energy?
Methodology	This estimate is sourced from the World Bank. The most recent value of the country's energy intensity of primary energy in megajoules per US$2021 of PPP-adjusted GDP is provided.
Indicator ST 1.c	Has the country increased its protected areas as a percentage of total land area over the last 5 years?
Methodology	A country is assessed as 'Yes' if it has increased its protected areas as a percentage of total land area over the last 5 years according to the data presented by the World Bank, which is compiled by the UN Environment World Conservation Monitoring Centre (UNEP-WCMC). Countries that already protect at least 30% of their land area automatically receive 'Yes'. This threshold is adopted from the Kunming-Montreal Global Biodiversity Framework.
Metric ST 1.c.i	What is the amount of protected area in the country as a percentage of total land area?
Methodology	This estimate is sourced from the Integrated Biodiversity Assessment Tool (IBAT) and considers both terrestrial and inland waters. Although protected areas in oceans are important, they do not relate to LULUCF, which is the intended focus of this metric. Some countries disclose relevant data in official government documents, which may also be used to assess this metric.

SA 1. Sectoral ambition

Indicator SA 1.a	Does the country have an emissions reduction pathway for its highest-emitting sector?
Methodology	A country is assessed as 'Yes' if it has a climate strategy that sets either a quantified sector-specific emissions target or projection (either for interim or for net zero) for its highest emitting sector. The specific sectors assessed in indicators SA 1.a-e are aligned with the highest-emitting sectors determined in metrics ST 1.a.i-v. Countries' NDCs and long-term strategies (LTSs), submitted to the UNFCCC's NDC Registry and LTS Portal respectively, are used to assess this indicator. The analysis also considers equivalent climate strategy documents, including National Energy and Climate Plans published by EU member states.
Indicator SA 1.b	Does the country have an emissions reduction pathway for its second highest-emitting sector?
Methodology	The indicator is assessed with the same approach as indicator SA 1.a.

Indicator SA 1.c	Does the country have an emissions reduction pathway for its third highest-emitting sector?
Methodology	The indicator is assessed with the same approach as indicator SA 1.a.
Indicator SA 1.d	Does the country have an emissions reduction pathway for its fourth highest-emitting sector?
Methodology	The indicator is assessed with the same approach as indicator SA 1.a.
Indicator SA 1.e	Does the country have an emissions reduction pathway for its fifth highest-emitting sector?
Methodology	The indicator is assessed with the same approach as indicator SA 1.a.
Indicator SA 1.f	Has the country set a net zero electricity target aligned with 1.5°C?
Methodology	A country is assessed as 'Yes' if it has made a net zero electricity commitment aligned with 1.5°C. Based on the IEA's Net Zero Emissions by 2050 scenario (IEA, 2023), electricity sector emissions are considered aligned with 1.5°C if they reach net zero by 2035 in advanced economies, by 2040 in China and by 2045 in the rest of the world. If they align with these timelines, economy-wide net zero commitments are also considered in this indicator.

SP 1. Sectoral policy

Indicator SP 1.a	Does the country's decarbonisation strategy set a policy for its highest-emitting sector?
Methodology	A country is assessed as 'Yes' if it has a climate strategy that includes at least one sector-specific policy, initiative or regulation for its highest-emitting sector. The sector assessed is aligned with the sectors assessed in metrics ST 1.a.i-v. Countries' NDCs and long-term strategies (LTSs), submitted to the UNFCCC's NDC Registry and LTS Portal respectively, are used to assess this indicator. The analysis also considers equivalent climate strategy documents, including National Energy and Climate Plans published by EU member states.
Indicator SP 1.b	Does the country's decarbonisation strategy set a policy for its second highest-emitting sector?
Methodology	The indicator is assessed with the same approach as indicator SP 1.a.
Indicator SP 1.c	Does the country's decarbonisation strategy set a policy for its third highest-emitting sector?
Methodology	The indicator is assessed with the same approach as indicator SP 1.a.
Indicator SP 1.d	Does the country's decarbonisation strategy set a policy for its fourth highest-emitting sector?
Methodology	The indicator is assessed with the same approach as indicator SP 1.a.
Indicator SP 1.e	Does the country's decarbonisation strategy set a policy for its fifth highest-emitting sector?
Methodology	The indicator is assessed with the same approach as indicator SP 1.a.
Indicator SP 1.f	Does the country have a law and target on energy efficiency?
	A country is assessed as 'Yes' if: • It has either an energy efficiency law or an energy law that provides a legal framework and strategic direction for national energy efficiency policy; and

	• It has set an energy efficiency target in its NDC, long-term strategy or an executive document.
Indicator SP 1.g	Has the country established mandatory climate-related disclosure?
Methodology	A country is assessed as 'Yes' if it has either: • Established mandatory climate-related disclosure through an implemented or scheduled law (i.e. the law must be formally adopted and have an official start date); or • Indicated that it will begin mandatory climate-related disclosure and specified a date for the requirements to become effective. Mandatory climate-related disclosure can be specific either to financial materiality or to non-financial materiality. Note that an endorsement of mandatory disclosure is not sufficient for this indicator. Mandatory climate-related disclosure that applies to a subset of the economy (e.g. the financial sector or a selection of sectors) is acceptable for this indicator.

Appendix 1. Exemptions by country group

Area	Indicator or metric	Countries assessed	Countries exempt
ECONOMY-WIDE SCOPE			
Trends			
T 1. Emissions trends	All	All	None
Ambition			
A 1. 2030 targets	All	All	None
A 2. 2035 targets	All	All	None
A 3. Net zero targets	A 3.a	All	None
	A 3.a.i	All	None
	A 3.b	HI, MI	LI
	A 3.c	HI	MI, LI
Policy			
P 1. Climate legislation	P 1.a	All	None
	P 1.b	All	None
P 2. Carbon pricing	P 2.a	HI, MI	LI
	P 2.b	HI, MI	LI
	P 2.b.i	HI, MI	LI
	P 2.c	HI	MI, LI
	P 2.c.i	HI	MI, LI
P 3. Fossil fuels	P 3.a	HI, MI	LI
	P 3.a.i	HI, MI	LI
	P 3.b	HI	MI, LI
	P 3.b.i	HI, MI	LI
	P 3.c	HI, MI	LI
	P 3.c.i	HI, MI	LI
	P 3.d	HI	MI, LI
	P 3.d.i	HI	MI, LI
P 4. Adaptation	P 4.a	All	None
	P 4.b	All	None
	P 4.c	All	None
	P 4.d	All	None
	P 4.e	MI, LI	HI
P 5. Just transition	P 5.a	All	None
	P 5.a.i	All	None
	P 5.b	All	None
	P 5.c	All	None
	P 5.d	HI, MI	LI
Finance			
F 1. International climate finance	F 1.a	Annex II	Non-Annex II
	F 1.a.i	Annex II	Non-Annex II
	F 1.b	Annex II	Non-Annex II
	F 1.b.i	Annex II	Non-Annex II

F 2. Transparency in climate costing	F 2.a F 2.b	Non-Annex I Non-Annex I	Annex I Annex I
F 3. Transparency in climate spending	F 3.a F 3.b	All All	None None
SECTOR-SPECIFIC SCOPE			
ST 1. Sectoral trends	ST 1.a	HI, MI	LI
	ST 1.a.i	All	None
	ST 1.a.ii	All	None
	ST 1.a.iii	All	None
	ST 1.a.iv	All	None
	ST 1.a.v	All	None
	ST 1.b	All	None
	ST 1.b.i	All	None
	ST 1.b.ii	All	None
	ST 1.b.iii	All	None
	ST 1.c	All	None
	ST 1.c.i	All	None
SA 1. Sectoral ambition	SA 1.a	HI, MI	LI
	SA 1.b	HI, MI	LI
	SA 1.c	HI, MI	LI
	SA 1.d	HI, MI	LI
	SA 1.e	HI, MI	LI
	SA 1.f	HI, MI	LI
SP 1. Sectoral policy	SP 1.a	HI, MI	LI
	SP 1.b	HI, MI	LI
	SP 1.c	HI, MI	LI
	SP 1.d	HI, MI	LI
	SP 1.e	HI, MI	LI
	SP 1.f	HI, MI	LI
	SP 1.g	HI	MI, LI

We group countries primarily based on the World Bank country classification by income level as follows: (i) high-income (HI) countries ('high income' according to the World Bank); (ii) middle-income (MI) countries ('upper-middle income'); (iii) low-income (LI) countries ('lower-middle income' and 'low income').

Appendix 2. ASCOR tool assessment results – key

Pillar

- In the ASCOR tool, there are no assessment results at the pillar level. However, the annual State of the Sovereign Transition reports present a pillar score methodology and associated results as an illustrative analysis.

Area

- **'Yes'** if all applicable indicators in this area are assessed as 'Yes'. (If any indicators within an area are assessed as 'no data', 'not applicable' or 'exempt', these indicators are excluded from this area-level evaluation.)
- **'No'** if all applicable indicators in this area are assessed as 'No'.
- **'Partial'** if some applicable indicators in this area are assessed as 'Yes' and others as 'No'.
- **'Exempt'** if the country is part of a group that is exempt from all indicators in this area.

Indicator

- **'Yes'** if all required criteria for this indicator are met.
- **'No'** if any of the required criteria for this indicator are not met.
- **'No data'** if this indicator relies on an external data source that does not include data on this country.
- **'Not applicable'** if there is no coherent value for this indicator (e.g. if the country has no fossil fuel subsidies, it is not applicable for it to publish an inventory of fossil fuel subsidies).
- **'Exempt'** if the country is part of a group that is exempt from this indicator.

Each indicator result is accompanied by a link to the main source used in the assessment. If an indicator is assessed as 'No', it may or may not be accompanied by a link to a source, depending on whether we have identified relevant evidence for the result.

Metric

- **Quantitative value** with metric-specific units.
- **'No or unsuitable disclosure'** if this metric relies on country disclosure and the country has not published the necessary information.
- **'No data'** if this metric relies on an external data source that does not include data on this country.
- **'Not applicable'** if there is no coherent value for this metric.
- **'Exempt'** if the country is part of a group that is exempt from this metric.

Each metric result is accompanied by a link to the main source used in the assessment. Each metric result is also accompanied by its corresponding measurement year, which is the most recent available data point taken from the relevant source.

Appendix 3. Mapping of changes by indicator and metric

The table below provides a list of the pillars, areas, indicators and metrics of the ASCOR framework Version 2.0 and maps these against the previous alphanumerical codes for equivalent elements in Version 1.2. We specify the type of change made to each of these components. Note that all codes have been adjusted compared to the previous version following the structural changes described in Section 1 of this note. The types of changes are explained below. The changes in green indicate that the current and previous indicators are methodologically equivalent and can be directly compared for tracking performance over time. The changes in red indicate a methodological change that would not allow direct comparisons between the current and previous indicators.

- No change: The methodology and data are fully comparable with the previous version and only the code has changed. For the areas marked with this type of change, note that there may be at least one indicator or metric that is archived or added this year while the rest of the area is still comparable with the previous version.
- Reallocation: The methodology and data are fully comparable with the previous version. The code has changed and the indicator has been moved to a different area and/or pillar of the framework.
- New addition: The data point is novel and therefore any associated data will only be available in 2026 onwards.
- Methodology change: An existing indicator or metric is assessed in a different way and therefore no longer comparable with the previous version. Such changes are made to ensure the robustness of the ASCOR framework.
- Structural change: The pillar has been renamed or split, or its coverage has changed. As there are no pillar-level results on the ASCOR tool, these changes do not have direct implications for data comparability over time.

Pillar/Area/Indicator/Metric in Version 2.0	Equivalent code in Version 1.2	Change compared to Version 1.2
Economy-wide scope		
Pillar 1. Trends	Not applicable	Structural change
T 1. Emissions trends	EP 1	Methodology change
T 1.a Has the country improved its emissions profile over the past 5 years?	EP 1.a	
T 1.a.i What is the country's most recent emissions level?	EP 1.a.i	
T 1.a.ii What is the country's most recent emissions trend?	EP 1.a.ii	
T 1.b Is the country's emissions trend aligned with the 1.5°C or Below 2°C cost-effective benchmark?	EP 1.b	
T 1.b.i Which cost-effective benchmark is the country's emissions trend aligned with?	Not applicable	New addition
T 1.b.ii How far is the country's emissions trend from meeting its 1.5°C cost-effective benchmark?	EP 1.b.i	Methodology change

T 1.c Is the country's emissions trend aligned with the country's 1.5°C or Below 2°C fair share benchmark?	EP 1.c	
T 1.c.i Which fair share benchmark is the country's emissions trend aligned with?	Not applicable	New addition
T 1.c.ii How far is the country's emissions trend from meeting its 1.5°C fair share?	EP 1.c.i	Methodology change
Pillar 2. Ambition	Pillar 1. Emissions pathways	Structural change
A 1/2. 2030/2035 targets	EP 2/3	Methodology change
A 1/2.a Has the country set a 2030/2035 emissions reduction target?	EP 2/3.a	No change
A 1/2.a.i What is the targeted reduction relative to 2019 emissions?	EP 2/3.a.i	
A 1/2.b Does the country specify whether and by how much carbon credits may contribute to its 2030/2035 target?	EP 2/3.b	
A 1/2.b.i What percentage of the 2030/2035 target will be met using carbon credits?	EP 2/3.b.i	
A 1/2.c Is the country's 2030/2035 target aligned with the 1.5°C or Below 2°C cost-effective benchmark?	EP 2/3.c	Methodology change
A 1/2.c.i Which cost-effective benchmark is the country's 2030/2035 target aligned with?	Not applicable	New addition
A 1/2.c.ii How far is the country's 2030/2035 target from meeting its 1.5°C cost-effective benchmark?	EP 2/3.c.i	Methodology change
A 1/2.d Is the country's 2030/2035 target aligned with the 1.5°C or Below 2°C fair share benchmark?	EP 2/3.d	
A 1/2.d.i Which fair share benchmark is the country's 2030/2035 target aligned with?	Not applicable	New addition
A 1/2.d.ii How far is the country's 2030 target from meeting its 1.5°C fair share benchmark?	EP 2/3.di	Methodology change
A 3. Net zero targets	EP 4	No change
A 3.a Has the country set a net zero CO_2 target?	EP 4.a	
A 3.a.i In what year is the net zero CO_2 target set?	EP 4.a.i	
A 3.b Is the country's net zero CO_2 target aligned with a global 1.5°C scenario?	EP 4.b	
A 3.c Is the country's net zero CO_2 target aligned with an accelerated deadline for high-income countries?	EP 4.c	
Pillar 3. Policy	Pillar 2. Climate Policy	Structural change
P 1. Climate legislation	CP 1	No change
P 1.a Does the country have a climate framework law or equivalent?	CP 1.a	
P 1.b Does the country's climate framework law specify key accountability elements?	CP 1.b	
P 2. Carbon pricing	CP 2	

P 2.a Does the country have a carbon pricing system?	CP 2.a	
P 2.b Does the country's carbon pricing system cover at least 50% of national greenhouse gas emissions?	CP 2.b	
P 2.b.i What percentage of national greenhouse gas emissions is covered by an explicit carbon price?	CP 2.b.i	Methodology change
P 2.c Does the country's carbon pricing system align with the Paris Agreement?	CP 2.c	
P 2.c.i What is the country's most recent explicit carbon price?	CP 2.c.i	No change
P 3. Fossil fuels	CP 3	
P 3.a Has the country committed to a deadline by which to phase out fossil fuel subsidies?	CP 3.a	Methodology change
P 3.a.i By what year has the country committed to phase out fossil fuel subsidies?	CP 3.a.i	
P 3.b Does the country publish an inventory of explicit fossil fuel subsidies?	CP 3.b	
P 3.b.i How much is spent annually on explicit fossil fuel subsidies as a percentage of GDP?	CP 3.b.i	
P 3.c Has the country committed not to approve new coal mines?	CP 3.c	
P 3.c.i What is the level of coal rents in the country as a percentage of GDP?	CP 3.c.i	
P 3.d Has the country committed not to approve new long-lead-time upstream oil and gas projects?	CP 3.d	
P 3.d.i What is the level of oil rents in the country as a percentage of GDP?	CP 3.d.i	
P 3.d.ii What is the level of natural gas rents in the country as a percentage of GDP?	CP 3.d.ii	
P 4. Adaptation	CP 5	No change
P 4.a Has the country published a National Adaptation Plan?	CP 5.a	
P 4.b Does the country regularly publish national climate risk assessments?	CP 5.b	
P 4.c Has the country published a Monitoring and Evaluation report on implementing adaptation?	CP 5.c	
P 4.d Does the country have a multi-hazard early warning system?	CP 5.d	
P 4.e Is the country part of a sovereign catastrophe risk pool?	CP 5.e	
P 5. Just transition	CP 6	
P 5.a Has the country ratified fundamental human, labour and Indigenous rights conventions?	CP 6.a	
P 5.a.i What share of relevant fundamental rights conventions has the country ratified?	Not applicable	New addition
P 5.b Does the country have an inclusive and institutionalised approach on the just transition?	CP 6.b	No change

P 5.c Does the country have a green jobs strategy?	CP 6.c	
P 5.d Does the country integrate just transition into its carbon pricing?	CP 6.d	
Pillar 4. Finance	Pillar 3. Climate Finance	Structural change
F 1. International climate finance	CF 1	No change
F 1.a Does the country contribute at least a proportional share of the international climate finance commitment?	CF 1.a	
F 1.a.i What is the country's 3-year average climate finance contribution as a % of GDP?	CF 1.a.i	
F 1.b Does the country's targeted climate finance contribution represent at least a proportional share of the international climate finance commitment?	CF 1.b	
F 1.b.i What is the country's targeted level of international climate finance contribution as a % of GDP?	CF 1.b.i	
F 2. Transparency in climate costing	CF 2	
F 2.a Has the country disclosed a transparent breakdown of the costs of implementing its Nationally Determined Contribution?	CF 2.a	
F 2.b Has the country disclosed a transparent breakdown of the costs of implementing its National Adaptation Plan?	CF 2.b	
F 3. Transparency in climate spending	CF 3	
F 3.a Has the country disclosed its climate-related expenditure?	CF 3.a	
F 3.b Does the country apply climate budget tagging?	CF 3.b	
Sector-specific scope		
ST 1. Sectoral trends	Not applicable	New addition
ST 1.a Has the country improved its sectoral emissions profile over the past 5 years?		
ST 1.a.i What is the emissions trend in the country's highest-emitting sector?		
ST 1.a.ii What is the emissions trend in the country's second highest-emitting sector?		
ST 1.a.iii What is the emissions trend in the country's third highest-emitting sector?		
ST 1.a.iv What is the emissions trend in the country's fourth highest-emitting sector?		
ST 1.a.v What is the emissions trend in the country's fifth highest-emitting sector?		
ST 1.b Is the country's renewable energy pipeline greater than its expected fossil fuel fleet?	Not applicable	New addition
ST 1.b.i What is the country's renewable energy pipeline compared with its expected fossil fuel generation?	Not applicable	New addition replacing previous CF4 metrics

ST 1.b.ii What percentage of the country's electricity generation is from low-carbon sources?	CP 4.d.i	Reallocation
ST 1.b.iii What is the country's energy intensity of primary energy?	CP 4.b.i	
ST 1.c Has the country increased its protected areas as a percentage of total land area over the last 5 years?	CP 4.e	
ST 1.c.i What is the amount of protected area in the country as a percentage of total land area?	CP 4.e.i	
SA 1. Sectoral ambition	Not applicable	New addition replacing the sectoral target assessments in the previous indicator CP4a
SA 1.a Does the country have an emissions reduction pathway for its highest-emitting sector?		
SA 1.b Does the country have an emissions reduction pathway for its second highest-emitting sector?		
SA 1.c Does the country have an emissions reduction pathway for its third highest-emitting sector?		
SA 1.d Does the country have an emissions reduction pathway for its fourth highest-emitting sector?		
SA 1.e Does the country have an emissions reduction pathway for its fifth highest-emitting sector?		
SA 1.f Has the country set a net zero electricity target aligned with 1.5°C?	CP 4.d	Reallocation
SP 1. Sectoral policy	Not applicable	New addition replacing the sectoral policy assessments in the previous indicator CP4a
SP 1.a Does the country's decarbonisation strategy set a policy for its highest-emitting sector?		
SP 1.b Does the country's decarbonisation strategy set a policy for its second highest-emitting sector?		
SP 1.c Does the country's decarbonisation strategy set a policy for its third highest-emitting sector?		
SP 1.d Does the country's decarbonisation strategy set a policy for its fourth highest-emitting sector?		
SP 1.e Does the country's decarbonisation strategy set a policy for its fifth highest-emitting sector?		
SP 1.f Does the country have a law and target on energy efficiency?	CP 4.b	Reallocation
SP 1.g Has the country established mandatory climate-related disclosure?	CP 4.c	

Appendix 4. Sectoral emissions data from EDGAR

To calculate sectoral emissions trends for indicator ST 1.a and metrics ST 1.a.i-v and to identify the five highest-emitting sectors in each country assessed in area SA 1 and SP 1, we use sectoral emissions data from EDGAR (Emissions Database for Global Atmospheric Research). We adopt the EDGAR sectoral classifications with minor adjustments for ease of interpretation and suitability for the ASCOR analysis (see Table A.4.a).

Sectoral greenhouse gas emissions are drawn from the EDGAR dataset, which reports emissions by substance, sector and country from 1970 onwards. Emissions from land use, land-use change and forestry (LULUCF) are not included in EDGAR's main sectoral series, so we take them from EDGAR's dedicated LULUCF dataset, which covers 1990–2024. Across both datasets, emissions of the three principal greenhouse gases (CO_2, CH_4 and N_2O) are aggregated to produce a single emissions total per country–sector–year, expressed in Mt CO_2-equivalent.

Sector mapping to the ASCOR classification

EDGAR's sectoral taxonomy does not align directly with economic sectors, so we have made minor adjustments to the classification for the purposes of the ASCOR analysis. These details and the scope of emissions captured under each sector we assess in ASCOR, is set out in Table A.4.1.

Table A.4.1. Mapping of EDGAR sectors to the ASCOR sectoral classification

ASCOR sector	EDGAR source	Scope of emissions captured
Electricity	Power Industry	Power and heat generation plants
Transport	Transport	Mobile combustion across road, rail, shipping and aviation
Industry	Industrial Combustion + Processes	Combustion for industrial manufacturing combined with industrial process emissions from cement, iron and steel, aluminium, chemicals, solvents and similar activities
Buildings	Buildings	Small-scale non-industrial stationary combustion
Fossil fuel production	Fuel Exploitation	Production, transformation and refining of fossil fuels (solid fuels, oil and natural gas)
Agriculture	Agriculture	Agricultural soils, crop residue burning, enteric fermentation, manure management and indirect N_2O emissions from agriculture
LULUCF	LULUCF (separate dataset)	Net emissions and removals from deforestation, fires, forest land and organic soils
Waste	Waste	Solid waste disposal and wastewater treatment

We sum EDGAR's Industrial Combustion sector (combustion for industrial manufacturing) and Processes sector (industrial process emissions) into a single Industry sector, since both represent direct industrial emissions and together correspond to the scope of industry assessed in ASCOR.

For the purpose of ST 1, SA 1 and SP 1, LULUCF and Agriculture are treated as separate sectors, and both may appear in a country's top five highest-emitting sectors. Agriculture is taken from EDGAR's Agriculture sector, while LULUCF is taken from the separate EDGAR LULUCF dataset, using only the pre-calculated net row to avoid double-counting against its component sub-sectors. The separation reflects the distinct emissions sources, greenhouse gas accounting types and mitigation levers for the two sectors.

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