Assessing Sovereign Climate-related Opportunities and Risks (ASCOR)

Countries' progress on managing climate change: The first ASCOR assessment results

December 2023

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ASCOR

LSE Grantham Research Institute on Climate Change and the Environment

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1. Introduction to ASCOR

What is ASCOR?

- Assessing Sovereign Climate-related Opportunities and Risks (ASCOR) is an investor-led project to develop a free, publicly available, independent tool that assesses countries on their progress 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 ASCOR framework was developed in collaboration with investor partners and underwent a rigorous public consultation involving input from diverse stakeholders including country governments, international financial institutions and civil society.
- This report presents the first assessment results for 25 countries. The methodology note and results are available on the ASCOR tool.

ASCOR project partners

Funders

The Church of England Pensions Board
Amundi Asset Management
Colchester Global Investors
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Academic partner

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Why do investors need ASCOR?

Asset owners and asset managers need a sovereign climate tool that can:

- **Frame climate risk in sovereign debt analysis:** Investors need better information as they start integrating climate risk considerations more systematically into bond valuations.
- **Inform engagement:** Rigorous data will help investors to build productive dialogue with sovereign issuers to ensure better management of physical and transition risks.
- **Enable regulatory reporting:** Investors must disclose to regulators (e.g. the European Union) on how they are managing sustainability risks, including in their sovereign debt holdings.
- **Support investment goals:** Investors need comparable sovereign climate data to meet their own net zero targets and to identify low-carbon and climate-resilient sovereign investment solutions.
- **Facilitate transition funding:** To assess the credibility of sovereign sustainability-themed bonds, investors must be able to track country-level progress on climate action.
- **Support corporate climate risk assessment:** Equity and corporate bond investors need climate data to inform country risk and the regulatory contexts in which companies operate.

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What value does ASCOR offer?

As a tool tailored to investor needs, ASCOR brings unique value to the financial system:

- **Comprehensive:** The framework has broad coverage of the most important ways in which countries are managing physical and transition risks, standardised into one intuitive tool.
- **Novel:** It includes innovative elements such as a detailed assessment of framework climate legislation and just transition policies.
- **Financially relevant:** Although ASCOR is not a financial risk tool, it evaluates countries' policies to manage mitigation and adaptation, thus enhancing the analysis of fiscal sustainability.
- **Useful for engagement:** While enabling investors to undertake structured and data-driven dialogue in their sovereign engagement, ASCOR also provides sovereign bond issuers with independent assessments to showcase their progress.
- **Rigorous:** To ensure accuracy, ASCOR assessments are based on transparent methodologies, involve a feedback process with sovereign issuers and are updated annually.
- **Impactful:** ASCOR helps investors identify countries that will use funds for mitigation, adaptation and social justice, thereby supporting the financing of a just, low-carbon transition.

Photo: Nick Perez/Unsplash

2. The ASCOR framework

How was ASCOR developed?

The ASCOR framework was developed with seven design principles at its core:

1. Reliance on publicly available data
2. Consistent, qualitative 'Yes' or 'No' questions and quantitative metrics
3. Transparent, clear and useful indicators and methodology
4. Avoid unnecessarily adding to reporting burden
5. Focused on the national level
6. Developed in line with the principle of 'common but differentiated responsibilities' enshrined in the UN Framework Convention on Climate Change (UNFCCC)
7. Focused on sovereign management of climate risks and opportunities meaning that characteristics falling outside the realms of government decision-making, such as the probability of climate hazards, are excluded

Photo: USGS/Unsplash

Presenting the ASCOR framework

- The ASCOR framework is composed of three pillars, covering 13 topic areas.
- Each area includes 'Yes' or 'No' indicators as well as quantitative metrics.
- Countries are assessed for each area according to the aggregated results of the indicators in that area as follows:
  - 'Yes' if all indicators in the area are 'Yes'
  - 'Partial' if some indicators in the area are 'Yes'
  - 'No' if all indicators in the area are 'No'.

For the full list of ASCOR indicators and metrics, please consult the ASCOR methodology note.

Overview of the ASCOR framework

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

Elements of ASCOR framework structure

Pillar	Area	Indicator	Metric
Broad ASCOR theme (e.g. Emission Pathways)	Specific area of climate performance (e.g. EP 1. Emission trends)	Binary question about the country's performance on a specific action (e.g. EP 1.a)	Quantitative metric to provide context for some indicators (e.g. EP 1.a.i)

3. Results of the first assessments

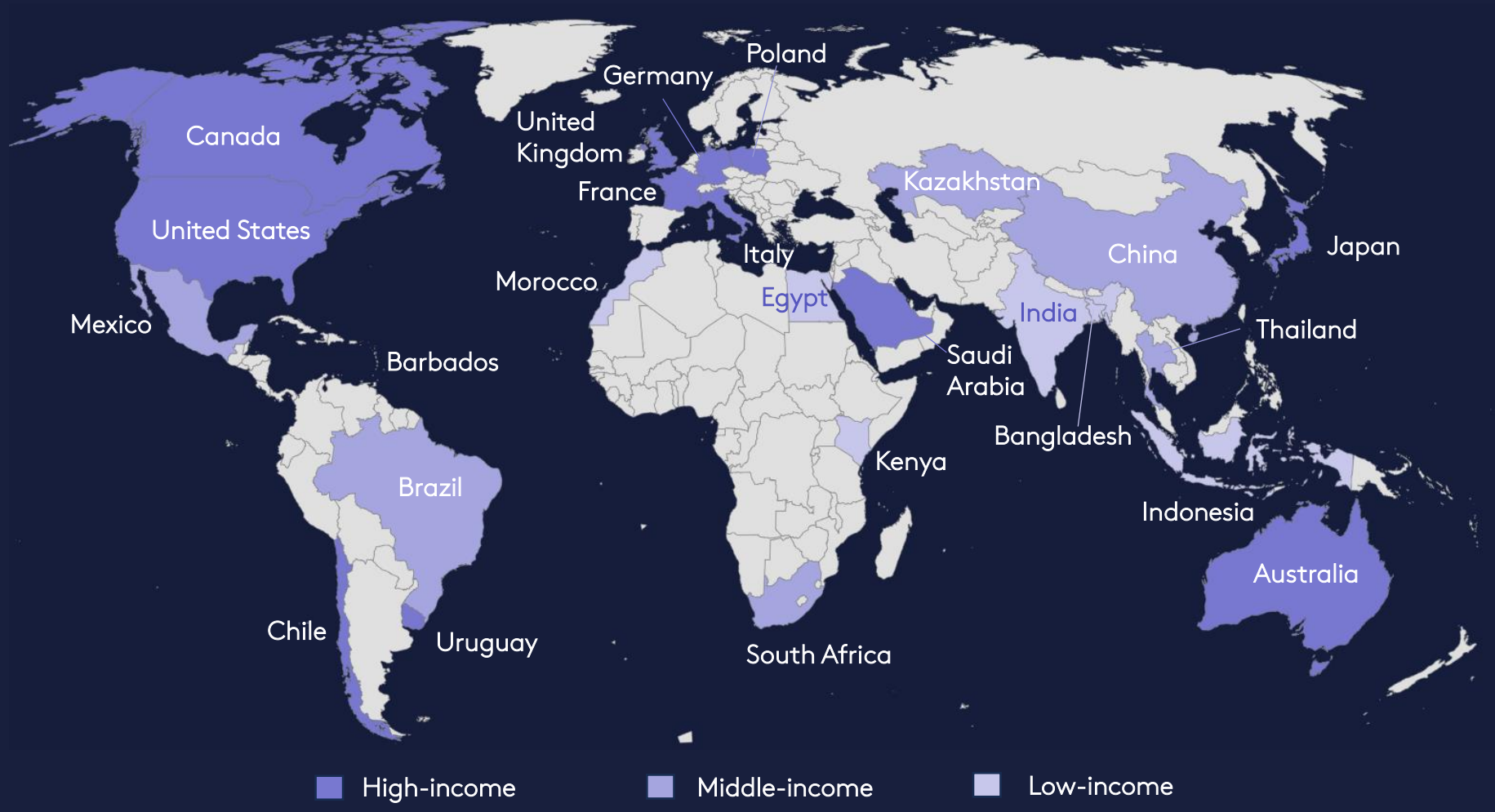
Scope of initial assessment

The first 25 countries assessed with the ASCOR framework were selected to represent a cross-section of geographies, income groups,* levels of climate risk and types of policymaking systems.

These countries represent nearly 70% of global greenhouse gas emissions and 50-80% of the main sovereign bond market indices.

To ensure accuracy, the Ministries of Environment and Finance of assessed countries were given an opportunity to provide feedback on their country assessment.

*Income groupings are based on World Bank lending group categories.



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Key messages

- Nearly all assessed countries have set an emission reduction target, but very few align with a pathway that limits global temperature rise to 1.5°C. Furthermore, all countries' emission reductions to date fail to align with their respective 1.5°C cost-effective benchmarks.
- Weak or non-existent commitments to phase out fossil fuels, both subsidies and production, jeopardise a net zero future.
- Many national climate strategies set sectoral decarbonisation targets, but the concrete policy actions to implement those targets are often absent.
- Adaptation planning has become standard practice across countries, but robust monitoring and evaluation systems are needed to track the implementation of these plans.
- The integration of just transition into climate policy is growing but institutionalised social dialogue, such as through just transition commissions or equivalent bodies, is missing in most countries.
- Although the US$100 billion commitment may finally be met in 2023, most assessed high-income countries need to increase their share of contributions to international climate finance. Better disclosure of developing countries' climate finance needs could help facilitate financial flows.
- Based on the results from the three ASCOR pillars, we observe three gaps: (1) a large emission gap due to a lack of ambition in countries' targets and trends; (2) an implementation gap with insufficient sectoral policies to meet their targets; and (3) an international climate finance gap, which high-income countries need to work towards closing.

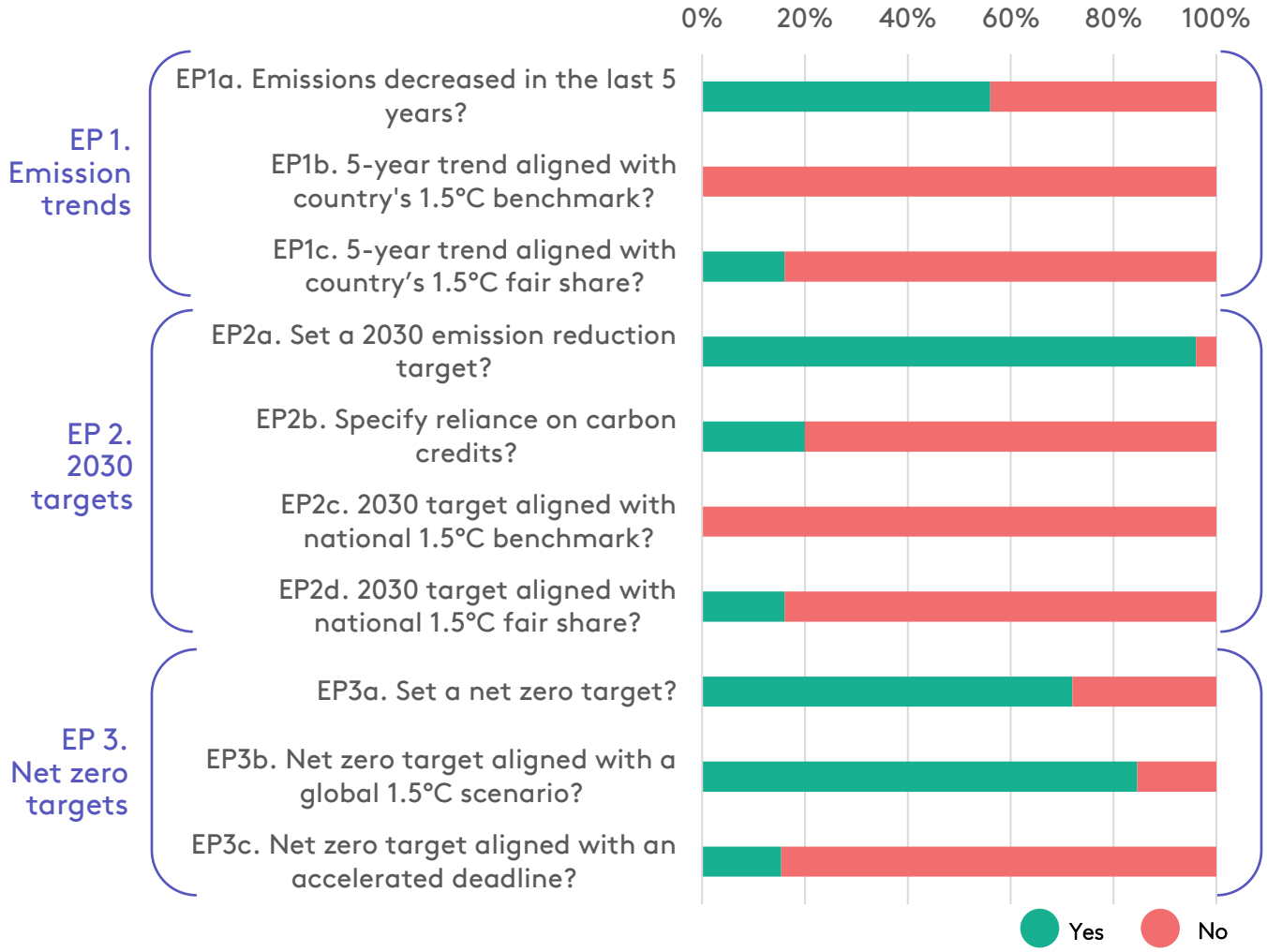
Photo: Jason Blackeye/Unsplash

Pillar 1: Emission Pathways

Countries have set targets, but they lack in ambition and fail to make significant reductions

- Over the past five years, about half of countries (14 of 25) have achieved emission reductions on a range of metrics, but none of these are steep enough to align with a cost-effective 1.5°C benchmark. Countries have more often succeeded in reducing emissions per unit of GDP than per capita.
- Target-setting has become standard practice. Most countries (18 of 25) have committed to a net zero target, which is largely by 2050 among assessed countries (11 of 13)*. Barbados' net zero target is by 2030 and Germany's is by 2045.
- However, hardly any 2030 targets are ambitious enough. No targets align with country-specific 1.5°C benchmarks based on cost-effective modelling. Only four of 25 countries (Bangladesh, Barbados, Kenya and Morocco) have targets aligned with their 1.5°C fair share allocation, estimated based on historical emissions, income and population.
- There is little transparency on the use of carbon credits. Many countries refer to Article 6 of the Paris Agreement, which suggests cooperative approaches to carbon credits, but few clearly define or quantify their reliance on such approaches.

* Selected countries, usually by income group, are exempted from certain areas, indicators or metrics. See the ASCOR methodology note for further details.

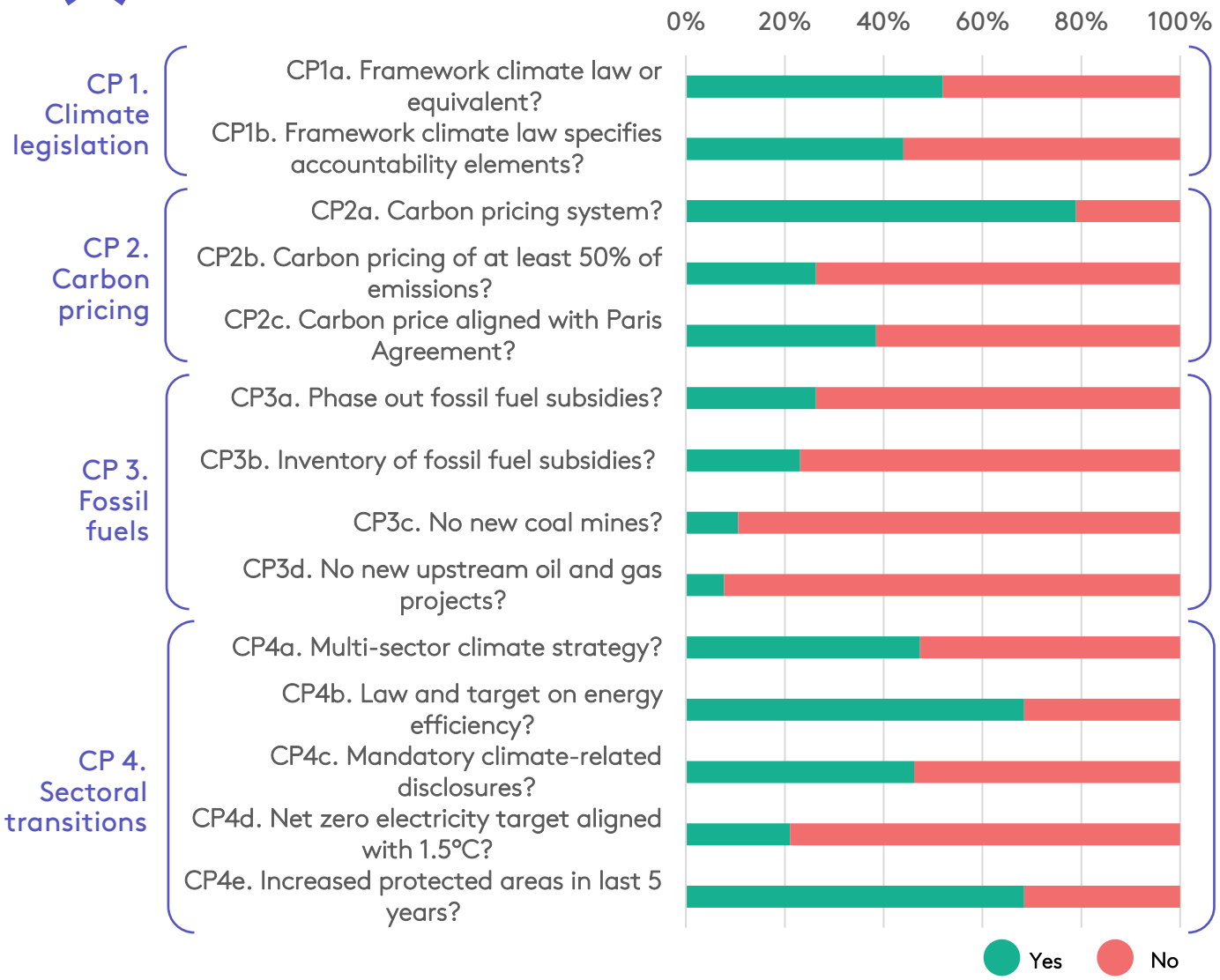


Pillar 2: Climate Policies (i)

Weak approaches to fossil fuel phase-out jeopardise a net zero future

- Over half of countries (13 of 25) have passed a framework climate law, and most of these climate laws (11) involve accountability elements. Climate laws are a growing practice, with additional ones expected to be passed in South Africa, Thailand and Morocco.
- While carbon pricing systems are common among assessed countries (15 of 19),* only a few of them cover at least half of national emissions (5 of 19) or set a price aligned with the Paris Agreement (5 of 13).
- Within Pillar 2, countries perform worst on phasing out fossil fuels. Countries perform marginally better on committing to phase out subsidies than to end fossil fuel production.
- Nearly half of assessed countries (9 of 19) have suitable multi-sector climate strategies. Although most strategies include sectoral targets, they often lack concrete policy actions to meet those targets.

* Selected countries, usually by income group, are exempted from certain areas, indicators or metrics. See the ASCOR methodology note for further details.

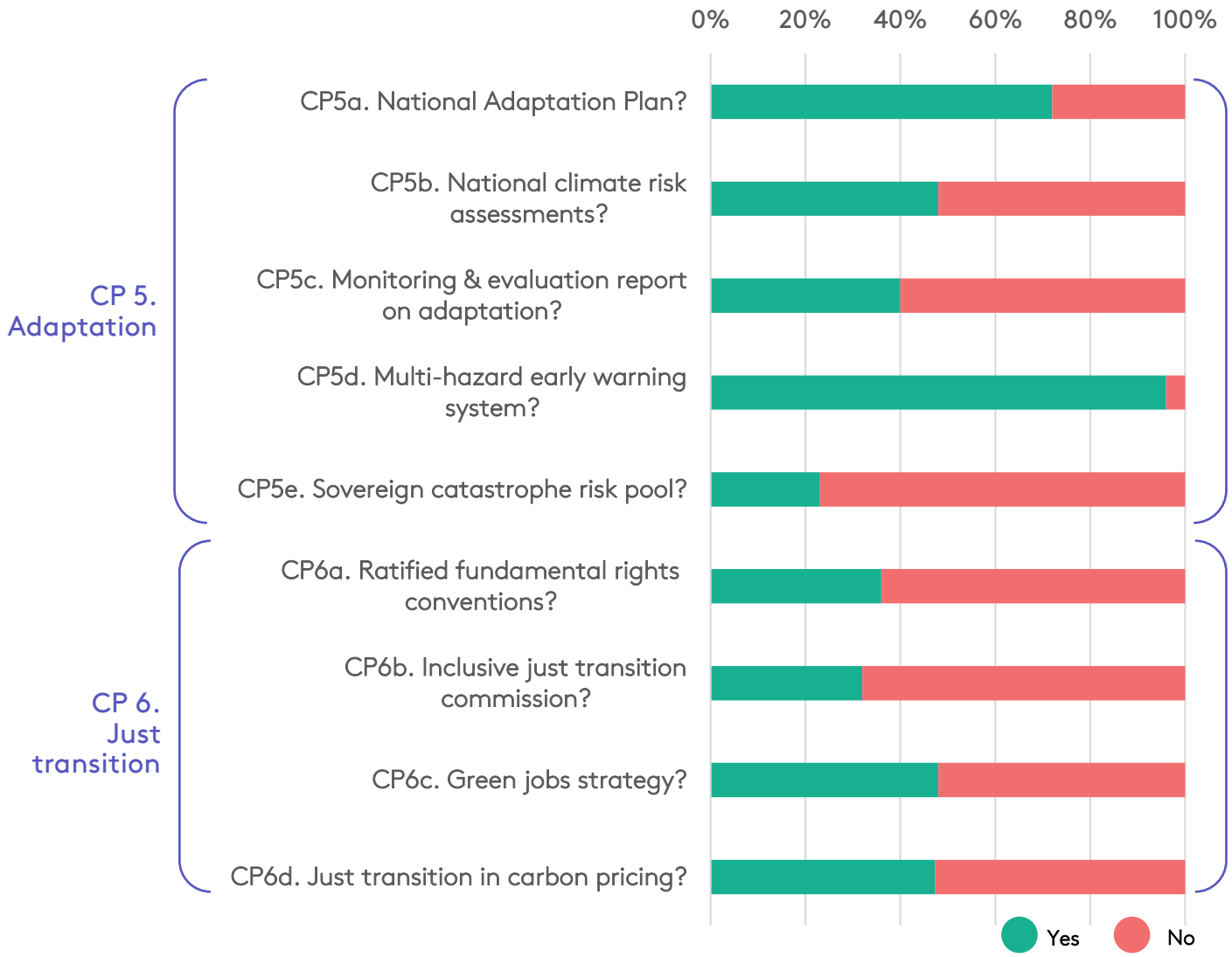


Pillar 2: Climate Policies (ii)

Need for adaptation monitoring and an institutionalisation of just transition

- Most countries have the foundations for adaptation policy, with National Adaptation Plans (NAPs) (18 of 25) and early warning systems (24 of 25) both standard practice.
- However, only about half of countries (12 of 25) regularly assess the climate risks they face, and even fewer (10 of 25) monitor and evaluate the implementation of their NAP.
- In human and labour rights, which form the groundwork of a just transition, countries most often fail to recognise the rights of Indigenous Peoples.*
- The institutionalisation of just transition within government commissions that include social dialogue is an area of emerging practice, with about a third of countries having established such commissions (8 of 25).

* This criterion within indicator CP6a is applied only to countries with an Indigenous population. Only three of 17 applicable countries met this criterion.

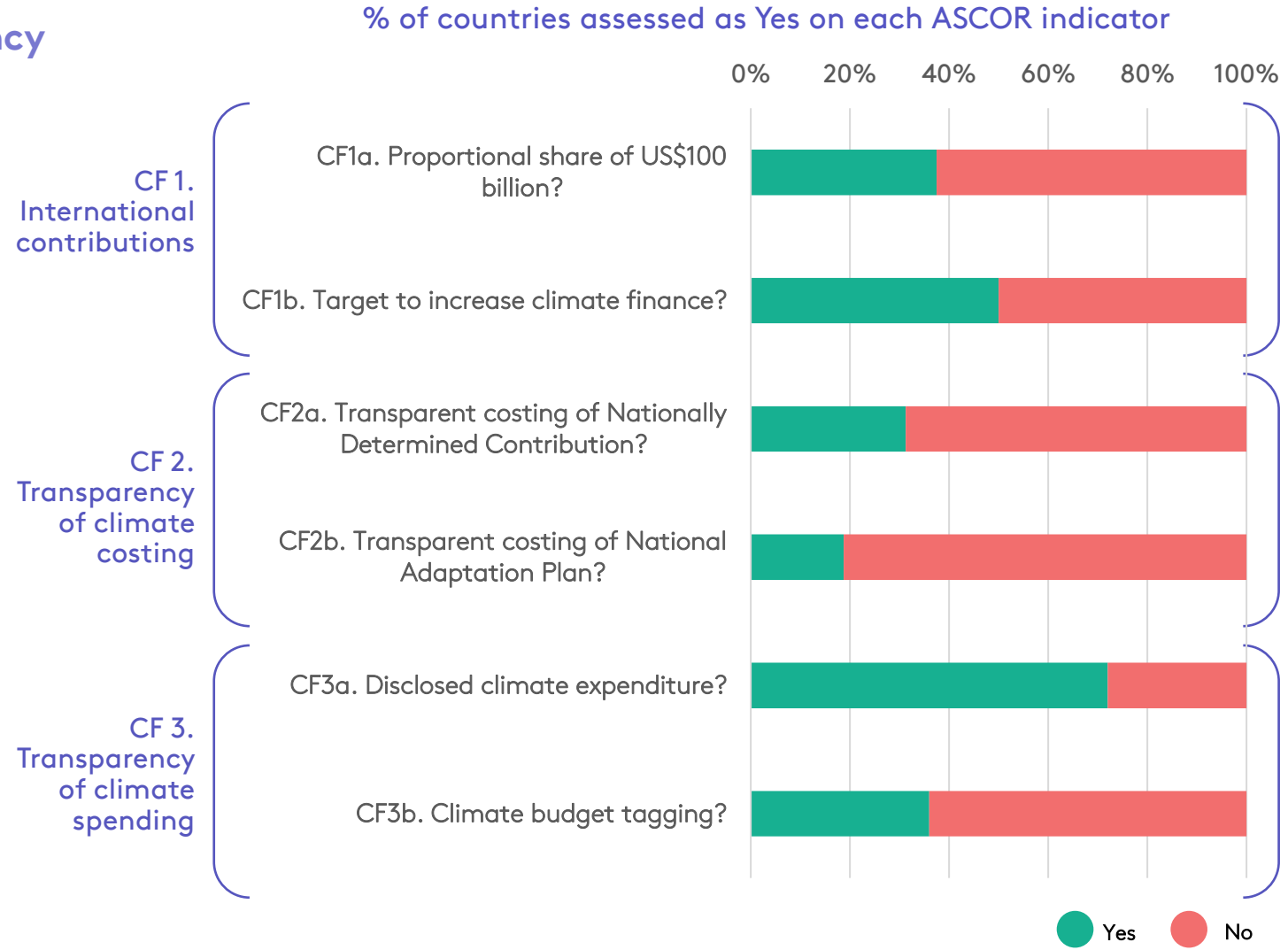


Pillar 3: Climate Finance

Insufficient climate finance, growing transparency on climate expenditure

- Fewer than half of assessed high-income countries (3 of 8)* have made proportional contributions to the US$100 billion international climate finance commitment. Four of the remaining assessed countries have set targets that would marginally increase their contributions relative to historical levels – but these still do not constitute a sufficiently high proportional contribution.
- Few countries are transparent on the costs of implementing their NDCs (5 of 16) or NAPs (3 of 16). Such disclosure may require capacity building in middle- and low-income countries to adequately model and estimate future transition and adaptation costs.
- Basic disclosure of climate spending is increasingly common practice (18 of 25). Climate budget tagging, the systematic government-led process of identifying, measuring and monitoring climate-relevant public expenditure, is less commonly applied (9 of 25).

* Selected countries, usually by income group, are exempted from certain areas, indicators or metrics. See the ASCOR methodology note for further details.



Country results by area

The area-level result is: Yes if all indicators within the area are assessed as: 'Yes'; Partial if some of the indicators within the area are assessed as 'Yes'; and No if all the indicators within the area are assessed as 'No'.

An asterisk (*) indicates that this area includes one or more indicators that the country has been exempted from or assessed as 'No data' or 'Not applicable'.

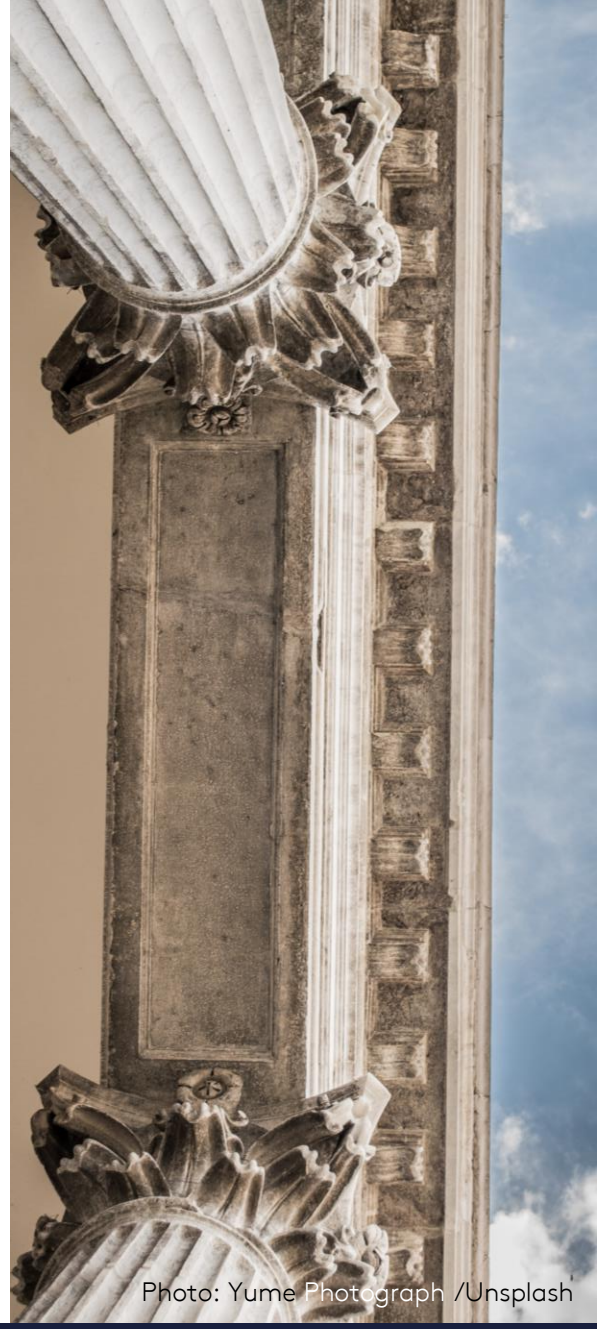
Yes No Partial Exempt

Country	Income group	EP 1. Emission trends	EP2. 2030 targets	EP 3. Net zero targets	CP 1. Climate legislation	CP 2. Carbon pricing	CP 3. Fossil fuels	CP 4. Sectoral transitions	CP 5. Adaptation	CP 6. Just transition	CF 1. Finance contributions	CF 2. Transparent costing	CF 3. Transparent spending
Australia	High	Partial	Partial	Partial	Yes	Partial	No	Partial	Partial*	Partial	Partial	Exempt	Yes
Barbados		Yes*	Partial*	Yes	No	No	No*	Partial	Partial	No*	Exempt	No	No
Canada		Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial*	Partial	No	Exempt	Yes
Chile		Partial	Partial	Partial	Yes	Partial	No	Partial	Yes*	Yes	Exempt	No	Yes
France		Partial	Partial	Partial	Yes	Partial	Partial	Partial	Yes*	Partial	Partial	Exempt	Yes
Germany		Partial	Partial	Yes	Yes	Yes	Partial	Partial	Yes*	Yes	Partial	Exempt	Partial
Italy		Partial	Partial	Partial	No	Partial	Partial*	Partial	Partial*	Partial	Partial	Exempt	Partial
Japan		Partial	Partial	Partial	Yes	Partial	No	Partial	Yes*	No	Partial	Exempt	Partial
Poland		No	Partial	No	No	Yes	No	Partial	Partial*	Partial	Exempt	Exempt	No
Saudi Arabia		No	Partial	Partial	No	No	No*	No	No*	No*	Exempt	No	No
United Kingdom		Partial	Partial	Partial	Yes	Partial	No	Partial	Yes*	Partial	Partial	Exempt	Yes
United States		No	Partial	Partial	No	Partial	Partial	Partial	Yes*	Partial	Partial	Exempt	Partial
Uruguay		No*	Partial*	Partial	Partial	Partial	Partial*	Partial	Yes*	No	Exempt	No	No
Brazil	Middle	Partial	Partial	Yes*	Partial	No*	No*	Partial*	Partial	Yes*	Exempt	No	Partial
China		No	Partial	Yes*	Yes	Partial*	No*	Partial*	Partial	No	Exempt	Partial	Partial
Kazakhstan		Partial	Partial	Yes*	Yes	Partial*	No*	Partial*	Partial	Partial	Exempt	No	No
Mexico		Partial	Partial	No*	Yes	Partial*	No*	Partial*	Partial	Partial	Exempt	No	Yes
South Africa		No	Partial	Yes*	No	Partial*	No*	Partial*	Partial	Partial	Exempt	Partial	Partial
Thailand		Partial	Partial	Yes*	No	No*	No*	Partial*	Partial	No*	Exempt	No	Partial
Bangladesh	Low	Partial	Partial	No*	No	Exempt	Exempt	Exempt	Partial	Partial*	Exempt	Partial	Yes
Egypt		Partial	No	No*	No	Exempt	Exempt	Exempt	Partial	Partial*	Exempt	Yes	No
India		No	Partial	Yes*	No	Exempt	Exempt	Exempt	Partial	Partial*	Exempt	No	Partial
Indonesia		No	Partial	No*	No	Exempt	Exempt	Exempt	Partial	Partial*	Exempt	Partial	Yes
Kenya		Partial	Partial	No*	Yes	Exempt	Exempt	Exempt	Yes	No*	Exempt	Partial	Yes
Morocco		Partial	Partial	No*	No	Exempt	Exempt	Exempt	Partial	No*	Exempt	Partial	No

Accounting for countries' differing levels of development

- ASCOR employs the principle of 'common but differentiated responsibilities' through income group exemptions* and by evaluating policies that can reasonably be established in any country.
- As those with the greatest capability to scale up climate action, high-income countries are assessed on all relevant indicators and metrics.
- To recognise their development priorities while addressing their critical role in the transition, middle-income countries are assessed on all relevant areas but are exempt from some of the highest-ambition indicators.
- As very small contributors to global emissions, low-income countries are fully exempt from three of the mitigation policy areas (Carbon pricing, Fossil fuels and Sectoral transitions).
- Positive performance patterns in the results are mixed across income groups. For example, only half of high-income countries (7 of 13) but all middle-income countries (6 of 6) have an energy efficiency law and target.
- Although framework climate laws are currently more common in high-income countries, only two assessed middle-income countries lack one, and both these countries (South Africa and Thailand) have developed draft laws.
- To provide a fully nuanced picture, ASCOR results are not aggregated into a single country 'score'. For example, although it has a poor performance in several areas, Egypt is the only country to have published a transparent costing of both its NDC and NAP, which reflects its success in attracting finance towards its platform for the Nexus on Water, Food and Energy (NWFE).
- We will continue to monitor income-related patterns in the ASCOR data, as per the priority defined in the design principles.

* Selected countries, usually by income group, are exempted from certain areas, indicators or metrics. See the ASCOR methodology note for further details.



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4. Next steps

ASCOR project developments

- **Updates:** In the coming years, the TPI Centre will continue to provide annual data updates of country assessments.
- **Coverage:** The ASCOR tool's country coverage will expand to 70 in the short term (1-2 years) and to over 100 countries in the medium term.
- **Analysis:** The TPI Centre will continue to publish analytical reports to accompany data releases and provide investors and countries with information on trends and policy developments.
- **Framework:** The ASCOR framework may be updated in the future as needed to reflect changes in available data, modelling, the climate policy landscape and evolving investor expectations.
- **Use cases:** ASCOR partners will share use cases on how investors can identify country-specific gaps and strengths for sovereign engagement and how countries can both showcase their progress and use ASCOR to adopt best practices from each other.

Photo: Andreas Gücklhorn/Unsplash

Appendix: Further results

Metric results heatmap

This table compares countries on the quantitative metrics that complement the binary 'Yes' or 'No' indicators discussed in previous slides. These serve as contextual information on the progress countries are making towards meeting their climate targets and implementing relevant policies. The next slide lists the full text for each metric. See the ASCOR methodology note for further details.

No or unsuitable disclosure Exempt No data

Country	Income group	EP 2.a.i 2030 target reduction	EP 2.b.i Reliance on carbon credits	EP 2.c.i % aligned with 1.5°C	EP 2.d.i % aligned with fair share	EP 3.a.i Net zero target year	CP 2.b.i Carbon price emission coverage	CP 2.c.i Carbon price level ($/tCO2e)	CP 3.a.i Fossil fuel subsidy phaseout date	CP 3.b.i Fossil fuel subsidy level (% of GDP)	CP 3.c.i Coal rents (% of GDP)	CP 3.d.i Oil rents (% of GDP)	CP 3.d.ii Natural gas rents (% of GDP)	CP 4.b.i Energy intensity (MJ per $ GDP)	CP 4.d.i Share of low-carbon electricity	CP 4.e.i Percent protected area	CP 6.a.i Voice & Accountability percentile rank	CF 1.a.i Climate finance (% of GDP)	CF 1.b.i Targeted climate finance (% of GDP)	CF 4.i Future solar capacity	CF 4.ii Future wind capacity	CF 4.iii Future geo-thermal capacity	CF 4.iv Future hydro capacity
Australia	High	-25%		62%	822%	2050	28%	$10.64		0.338%	0.79%	0.26%	1.72%	4.28	27%	22%	0.94	0.018%	0.023%	43.5	88.42	0	8.42
Barbados		-77%			-95%	2030	0%	$0.00		0.257%	0.00%	0.31%	0.01%	4.43	6%	1%	0.88			12.42	5.32		
Canada		-40%		47%	620%	2050	82%	$48.00	2023	0.020%	0.07%	2.83%	0.79%	6.63	82%	13%	0.96	0.036%	0.035%	1.47	4.14	0.1	2.78
Chile		-16%		47%	49%	2050	33%	$5.00		0.560%	0.00%	0.01%	0.02%	3.18	47%	21%	0.79			55.47	71.29	0.33	5.75
France		-38%	0%	32%	170%	2050	63%	$48.50		0.578%	0.00%	0.01%	0.00%	3.23	91%	28%	0.88	0.233%	0.201%	0.68	6.65		0
Germany		-45%		31%	282%	2045	88%	$83.10	2025	0.988%	0.01%	0.01%	0.02%	2.74	53%	38%	0.96	0.202%	0.136%	1.52	4.73		0.17
Italy		-31%	0%	86%	223%	2050	36%	$83.10	2025	0.422%	0.00%	0.08%	0.03%	2.48	42%	22%	0.85	0.028%	0.061%	1.75	20.78	0	0
Japan		-33%	15%	70%	405%	2050	73%	$2.00		0.625%	0.00%	0.00%	0.01%	3.29	32%	20%	0.84	0.209%		0.63	12.41	0	0.14
Poland		-38%	0%	29%	261%		53%	$80.82		1.010%	0.25%	0.04%	0.10%	3.47	18%	40%	0.64			5.04	27.56		1.21
Saudi Arabia						2060	0%	$0.00		13.815%	0.00%	23.69%	1.72%	6.23	0%	5%	0.06			8.17	0.45		
United Kingdom		-42%		37%	162%	2050	28%	$92.96		0.492%	0.00%	0.42%	0.17%	2.23	57%	28%	0.93	0.006%	0.082%	6.65	41.82	0.1	1.85
United States		-39%	0%	44%	864%	2050	6%	$28.08	2022	0.000%	0.17%	0.61%	0.36%	4.21	39%	13%	0.75	0.008%	0.040%	4.54	3.49	0.05	0.55
Uruguay		30%			34%	2050	19%	$156.00	2015	0.000%	0.00%	0.01%	0.00%	2.91	94%	4%	0.92			2.11	0		0
Brazil	Middle	-12%		50%	220%	2050	0%			0.018%	0.01%	2.60%	0.07%	4.01	87%	30%	0.56			29.69	83.43		10.63
China		12%		140%	806%	2060	33%			1.484%	0.61%	0.31%	0.21%	6.37	33%	16%	0.05			21.08	20.66		30.24
Kazakhstan		-13%		76%	609%	2060	46%			8.621%	0.85%	14.84%	2.04%	5.78	11%	10%	0.19			0.45	7.02		0.5
Mexico		-5%		81%	264%		42%			0.500%	0.02%	2.07%	0.09%	3.26	26%	15%	0.44			3.72	1.03	0	0.34
South Africa		-27%		36%	257%	2050	37%			1.162%	2.44%	0.40%	0.03%	6.95	11%	9%	0.72			15.26	7.17		0
Thailand		1%		122%	204%	2050	0%			4.312%	0.03%	0.48%	0.94%	4.63	16%	19%	0.27			0.19	0		1.62
Bangladesh	Low	59%		262%	-27%												0.28			5.85	0.77	0.43	0
Egypt		20%		79%	99%												0.08			35.86	41.29		5.03
India		61%		224%	182%	2070											0.52			16.92	5.64		23.3
Indonesia		72%		335%	370%												0.53			10.72	1.73	2.58	14.12
Kenya		32%		162%	-51%												0.36			2.95	5.55	16.56	8.82
Morocco		19%		84%	-22%												0.32			100.89	71.42		7.92

Metric results – Legend

See the ASCOR methodology note for further details.

Metric	Question that this metric answers	Units or response type
EP 1.a.i	What is the country's most recent emission level?	$MtCO_2e$
EP 1.a.ii	What is the country's most recent emission trend?	%
EP 2.a.i	What is the targeted reduction relative to 2019 emissions?	%
EP 2.b.i	What percentage of the 2030 target will be met using carbon credits?	%
EP 2.c.i	What is the degree of alignment with its 1.5°C benchmark?	%
EP 2.d.i	What is the degree of alignment with its 1.5°C fair share?	%
EP 3.a.i	In what year is the net zero CO_2 target set?	Year
CP 2.b.i	What percentage of national greenhouse gas emissions is covered by an explicit carbon price?	%
CP 2.c.i	What is the country's most recent explicit carbon price?	US/tCO_2e
CP 3.a.i	By what year has the country committed to phase out fossil fuel subsidies?	Year
CP 3.b.i	How much is spent annually on explicit fossil fuel subsidies as a percentage of GDP?	%
CP 3.c.i	What is the level of coal rents in the country as a percentage of GDP?	%
CP 3.d.i	What is the level of oil rents in the country as a percentage of GDP?	%
CP 3.d.ii	What is the level of natural gas rents in the country as a percentage of GDP?	%
CP 4.b.i	What is the country's energy intensity of primary energy?	MJ/US$ PPP-adjusted GDP
CP 4.d.i	What percentage of the country's electricity generation is from low-carbon sources?	%
CP 4.e.i	What is the amount of protected area in the country as a percentage of total land area?	%
CP 6.a.i	At what percentile is the country's Voice and Accountability estimate?	%
CF 1.a.i	What is the country's 3-year average climate finance contribution as a % of GDP?	%
CF 1.b.i	What is the country's targeted level of international climate finance contributions as a % of GDP?	%
CF 4.i	What is the country's prospective solar energy capacity?	MW/US$ GDP
CF 4.ii	What is the country's prospective wind energy capacity?	MW/US$ GDP
CF 4.iii	What is the country's prospective geothermal energy capacity?	MW/US$ GDP
CF 4.iv	What is the country's prospective hydroelectric energy capacity?	MW/US$ GDP

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ASCOR's academic partner is the Transition Pathway Initiative Centre (TPI Centre), part of the Grantham Research Institute on Climate Change and the Environment, which is based at the London School of Economics and Political Science.

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