

Middle East and Africa Environmental Sustainability Scorecard



2023 REPORT



Executive Summary

The Middle East and Africa Environmental Sustainability Scorecard (MEA ESS) evaluates the environmental sustainability performance of a diverse group of 17 countries from the Middle East and Africa. It uses a unique set of 48 indicators, combining quantitative data, data from a dedicated survey of executives, and policy assessments capturing environmental sustainability related outcomes, government policies and corporate practices.

The scorecard draws attention to the positive actions being taken across the two regions to address climate change and environmental sustainability. With a unique approach, it evaluates the current performance of the 17 countries and can guide all stakeholders to set further action steps.

South Africa, the UAE and Egypt are the top three performers on the Middle East and Africa Environmental Sustainability Scorecard for the year 2023. The results show that in the majority of the 17 countries assessed across the two regions, both governments and business demonstrate commitment to the sustainability agenda but there still is considerable room for improvement.

The scorecard builds on quantitative data, qualitative survey results about sustainable business practices gathered from 647 executives, and national sustainability strategy and policy assessments.

The assessment framework reflects the key dimensions of environmental sustainability grouped into six pillars:

Pillar 1: Green Investment, Innovation, and Technology

This pillar measures the overall investment and innovation environment, including investment flows, barriers, incentives, collaborations, and patents, with a specific focus on green sectors. Qatar, the UAE, and Morocco lead the way on this pillar. The size of economies, technological capacity, and attractiveness to investors play key roles in explaining these results.

Pillar 2: Sustainable Infrastructure and Transport

This pillar captures the existence of green certified, sustainable buildings and the availability of green infrastructure of roads, railways, ports and airports, including electric

fleets and public transport. The UAE, South Africa, and Saudi Arabia occupy the top three positions. Most Middle Eastern countries perform more strongly on the infrastructure sub-pillar than the transport sub-pillar, while for most African countries the reverse is true. This likely reflects differing policy priorities across the two regions.

Pillar 3: Governance and Reporting

This pillar captures the national regulatory environment, environmental sustainability commitments and corporate reporting practices. South Africa, the UAE and Saudi Arabia score highest. The Middle East generally performs more strongly than Africa, occupying positions 2 through 6. All countries except South Africa score more strongly on government regulation than corporate governance, which may reflect a general lag between government mandates and business compliance.

Pillar 4: Energy Transition

This pillar focuses on the energy supply and renewable energy use, subsidies and taxes, and the energy transition agendas at national and corporate levels, including net zero and energy efficiency targets. Uganda, Nigeria and Rwanda are the strongest performers. The African countries score higher on the energy consumption sub-pillar than energy transition and adaptation, due to their generally lower energy demand. The GCC countries tend to score lower but more similarly on both sub-pillars due to their fossil fuel-dependent economic models.

Pillar 5: Environmental Ecosystems

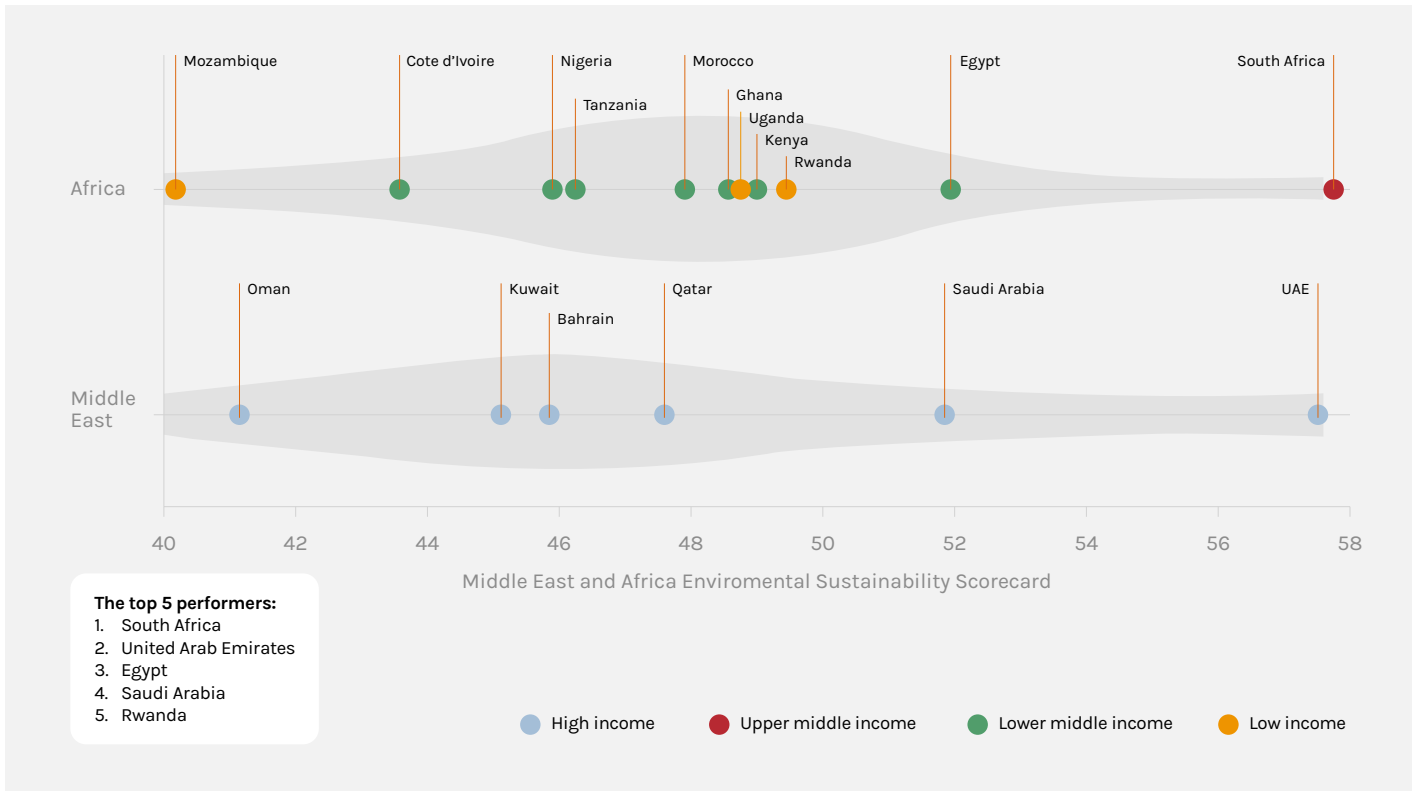
This pillar measures air, soil and water pollution, as well as the conservation efforts for biodiversity, and protected areas. The UAE, South Africa and Egypt lead on this pillar. GCC countries generally perform more strongly on ecosystem health than conservation, while the reverse is true for many African countries.

Pillar 6: Circularity

This pillar captures the circular economy via resource use efficiency and waste management. Egypt, South Africa and Bahrain lead the way, with Middle East countries occupying four of the next five places. This reflects a tendency for higher-income countries to have higher scores on this pillar. Higher-income countries also tend to score better on waste management than resource use.

Figure 1.

Middle East and Africa Environmental Sustainability Scorecard results by region and income level, 2023



Note: Middle East and Africa Environmental Sustainability Scorecard results are based on six pillars. Scores range from 0 to 100, 100 being the best performer.
Source: Authors' calculations

Pathways to a sustainable future

The scorecard results allow each individual country to identify areas for improvement, opportunities for collaborations and lessons they can learn from peers. The scorecard also allows general action points to be identified, specifically for businesses and more broadly for all stakeholders.

Action points for business

- Develop a corporate vision and strategy, as sustainability action must start with a clear objective and roadmap.
- In developing these strategies, make use of international targets and reporting.
- Analyze material footprints and priority areas, using the scorecard to put them in the context of national needs.
- Consider new business opportunities that may be created by the drive for sustainability, such as in the circular economy.
- Facilitate and participate in business-to-business knowledge exchanges on environmental sustainability.
- Engage with governments to shape regulatory frameworks.

Action points for all stakeholders

- Provide certainty on policies to create confidence for investors.
- Define a unified national vision on sustainability to ensure a holistic approach across sectors.
- Use global knowledge to identify national solutions, drawing on international initiatives to share experience.
- Facilitate early-stage engagement between investors and governments to structure projects, for example through the use of loan guarantees.
- Create positive incentives and address the perverse incentives that often undermine sustainability strategies.

The report is accompanied by a downloadable dashboard containing the scorecard's detailed assessment framework with all indicators as raw data and scores.

Introduction

For the Middle East and Africa, climate change mitigation and environmental sustainability are both inevitable challenges (extreme weather conditions, desertification, biodiversity loss, sea level rise, etc.) and potential opportunities for sustainable development. The latest scientific projections and studies, such as the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC),¹ warn about its accelerating impact and irreversible consequences of climate change. The UN Secretary-General, António Guterres, said: "*This [IPCC] report is a clarion call to massively fast-track climate efforts by every country and every sector and on every timeframe. **Our world needs climate action on all fronts: everything, everywhere, all at once.***"²

The world still has a chance to keep the global temperature rise to 1.5°C above pre-industrial levels. Countries still have the chance to develop adequate mitigation policies and adaptation capacities. Their future-oriented actions seem to be impossible without comprehensive measurement of the current situation. This report showcases the Middle East and Africa

Environmental Sustainability Scorecard (MEA ESS), which aims to motivate faster climate action by evaluating the environmental sustainability performance of a diverse group of countries from the Middle East and Africa (Figure 2). It gives an overall picture on the environmental sustainability oriented actions and policies in the 17 selected countries and measures their progress.

The purpose of the country selection is to move beyond the selective characteristics of the Middle East being fossil fuel-dependent with high greenhouse gas emissions per capita, and African countries being low emitters of greenhouse gases but taking relatively little action on the environment. These countries are relative 'late comers' to global sustainable development but at the same time represent regions that are rapidly stepping-up their sustainability strategies, programs and investments. The MEA ESS uses a unique set of indicators, combining quantitative data and qualitative assessments, organized into six pillars to cover the key dimensions of environmental sustainability.

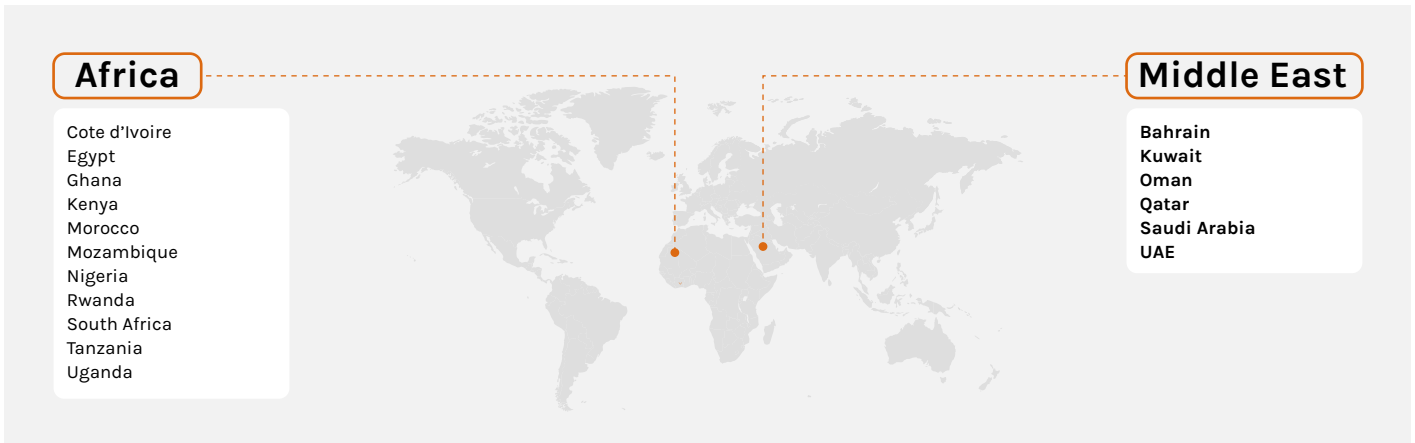
The Middle East and Africa Environmental Sustainability Scorecard measures progress towards achieving environmental sustainability in the selected countries in Middle East and Africa.

¹ IPCC (2023). Sixth Assessment Report. <https://www.ipcc.ch/assessment-report/ar6/>

² United Nations (2023). Press Release. <https://press.un.org/en/2023/sgsm21730.doc.htm>

Figure 2.

Country coverage



Source: Authors' creation

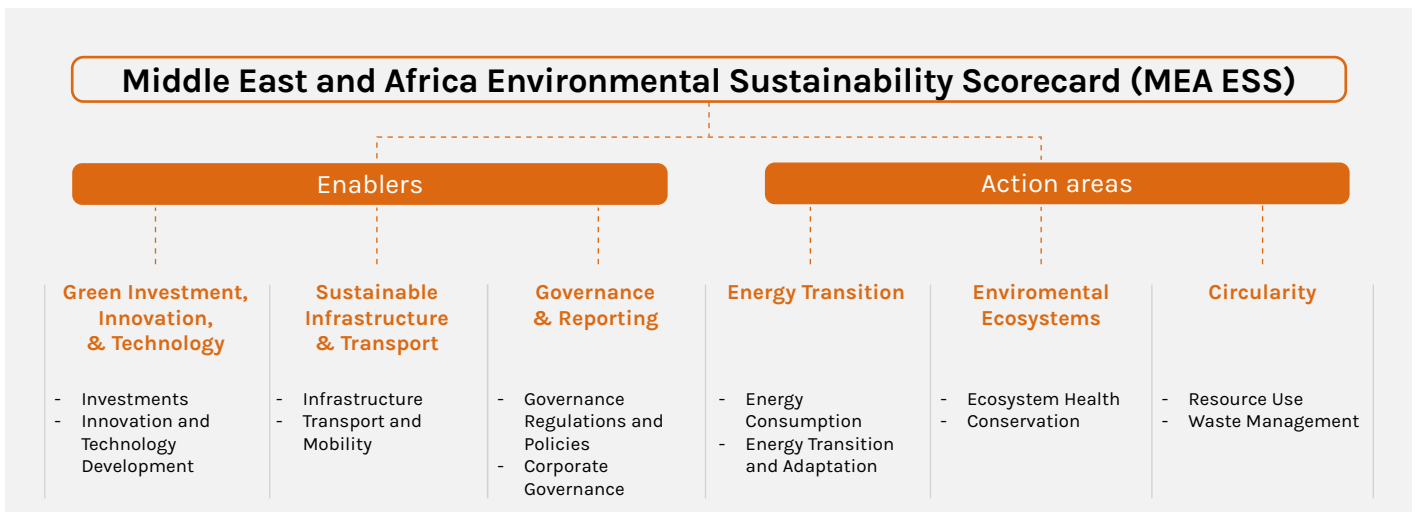
The scorecard's 48 indicators capture environmental outcomes, government policies and business practices for 2023. The scorecard is designed to assess Enablers and Action areas. Enablers are considered necessary physical foundations, tools, financial capacity and regulatory frameworks, which set the adequate circumstances for action in different thematic environmental areas, the so called Action areas, such as energy transition, biodiversity, pollution and resource use. The scorecard's selected Enablers include green investments, innovation and technology; sustainable infrastructure and transport; and national- and corporate-level governance, regulations and reporting. The scorecard's selected Action areas include energy

consumption and transition; environmental ecosystem health and conservation; and circularity via resource use and waste management.

The assessment framework is presented in Figure 3 below. All six pillars are composed of quantitative data, executive survey results about sustainable business practices, and national sustainability strategy and policy assessments. The qualitative indicators are calculated based on a survey conducted with 647 business executives responsible for environmental sustainability, as well as public strategy and policy assessments in 11 categories. A comprehensive list of indicators and detailed scores can be found in the Appendix and the Methodology Note.

Figure 3.

The assessment framework of the Middle East and Africa Environmental Sustainability Scorecard



Source: Authors' creation

Countries are scored on a scale from 0 to 100, with a higher score indicating higher level of environmental sustainability. As shown in Table 1, South Africa, the UAE and Egypt have the highest overall scores, while Cote d'Ivoire, Oman and Mozambique have the lowest overall scores.

Countries generally scored higher in the Energy Transition, Environmental Ecosystems, and Governance and Reporting pillars, and lower in the Green Investment, Innovation and Technology, and Sustainable Infrastructure and Transport pillars.

Table 1.

The Middle East and Africa Environmental Sustainability Scorecard 2023

Country	Overall score	Pillar 1. Green Investment, Innovation and Technology	Pillar 2. Sustainable Infrastructure and Transport	Pillar 3. Governance and Reporting	Pillar 4. Energy Transition	Pillar 5. Environmental Ecosystems	Pillar 6. Circularity
HIGH INCOME							
Bahrain	45.88	32.92	43.77	58.16	33.83	52.44	54.14
Kuwait	45.15	33.83	35.97	59.23	39.31	58.27	44.30
Oman	41.17	23.85	28.11	50.52	43.17	51.46	49.92
Qatar	47.64	42.89	52.33	56.85	29.54	55.26	48.97
Saudi Arabia	51.90	41.66	52.66	59.84	45.67	60.00	51.54
United Arab Emirates	57.58	42.59	62.99	66.12	51.51	68.47	53.78
UPPER MIDDLE INCOME							
South Africa	57.83	37.07	57.63	67.39	66.39	61.40	57.10
LOWER MIDDLE INCOME							
Cote d'Ivoire	43.59	33.52	41.28	41.13	55.32	52.17	38.14
Egypt	52.00	38.09	49.85	51.00	54.03	60.41	58.61
Ghana	48.66	33.94	47.10	47.45	65.39	55.12	42.99
Kenya	48.95	32.19	50.14	46.62	66.77	51.17	46.80
Morocco	47.94	42.49	46.15	48.56	53.01	51.00	46.41
Nigeria	45.94	24.22	44.08	46.36	68.75	42.48	49.76
Tanzania	46.27	31.23	43.47	46.82	62.24	52.85	41.03
LOW INCOME							
Mozambique	40.12	19.40	42.86	30.74	61.51	48.13	38.08
Rwanda	49.49	35.03	51.63	49.17	67.43	54.09	39.55
Uganda	48.88	31.78	47.78	42.17	72.01	52.32	47.22

Note: Score range from 0 to 100. Best=100.

The following sections analyze the results of each pillar and highlight pathways for businesses to make their operations

more environmentally sustainable, and for policy-decision makers to step up on their environmental policy commitments.

The COP28: A critical opportunity for raising awareness and delivering on action

Every year, the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) convenes member states to discuss ambitions and progress. In 2023, COP28 will be hosted by the UAE. His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, noted that "COP28 will be the most important event hosted by the nation in 2023".

As the first COP presidency to hold an open consultation on thematic areas and sequencing, COP28 aims to catalyze real-world solutions through an innovative and inclusive approach. It will focus on four paradigm shifts:

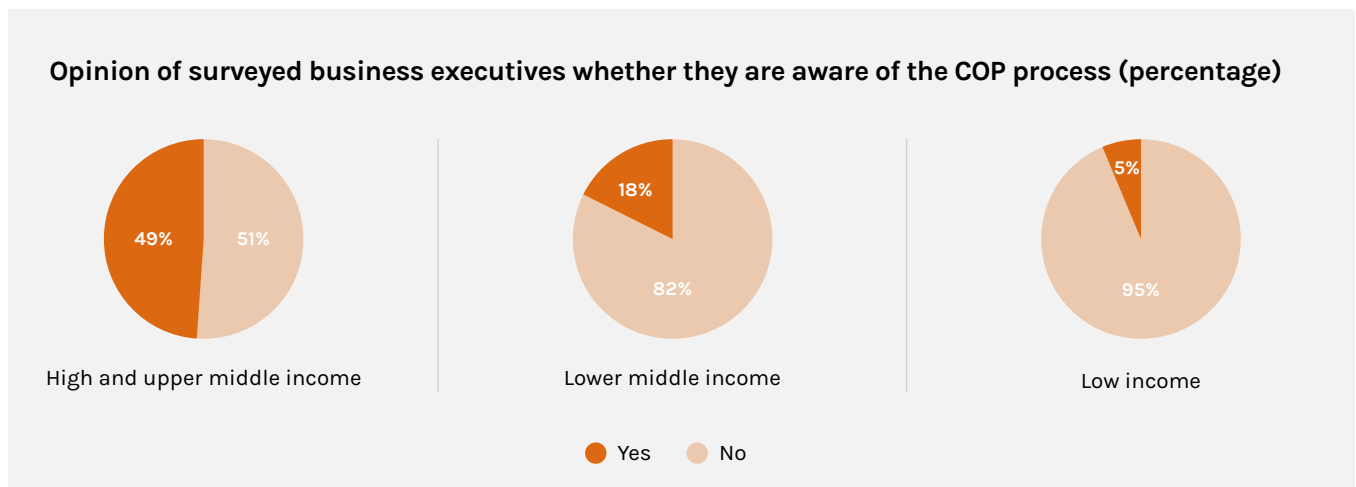
1. Fast-tracking the energy transition and slashing emissions before 2030;
2. Transforming climate finance, by delivering on old promises and setting the framework for a new deal on finance;
3. Putting nature, people, lives, and livelihoods at the heart of climate action; and
4. Mobilizing for the most inclusive COP ever.

While the global sustainability agenda has largely been driven by OECD countries, the Middle East has been catching up fast in recent years. COP28 offers an opportunity to showcase progress on sustainability at national and regional levels, as COP host countries usually make commitments to accelerate policy and action both at home and in support of other countries. At COP27 in Egypt, for example, the Egyptian government launched the Climate Responses for Sustaining Peace initiative to address food security and displacement in Africa.

Our survey of business executives shows there is room for improvement in building awareness. The COP process is known to only one in two executives in the higher-income countries, but only one in 20 in the low-income countries.

Figure 4.

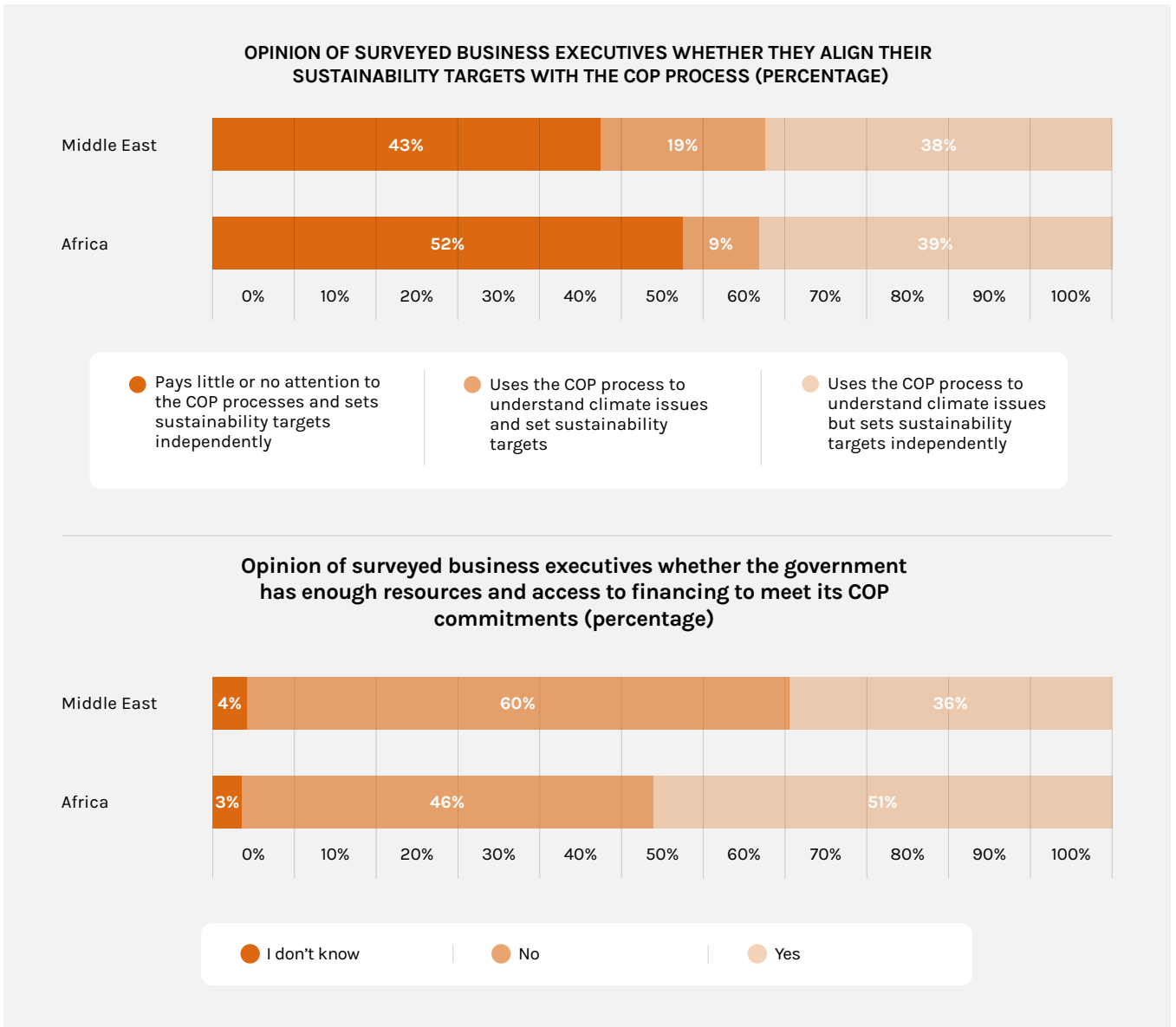
Business awareness about the COP process in the selected 17 countries, by income level



Source: Horizon Group Business Executives' Survey 2023

Figure 5.

Use of COP process by businesses in the selected 17 countries



Source: Horizon Group Business Executives' Survey 2023

Only a minority of business executives who know about the COP use it to set their sustainability targets. Interestingly, however, more African than Middle Eastern executives believe that their government has enough resources to meet its COP commitments.

Key Findings

Across pillars, the scorecard shows a range of differences between African and Middle Eastern countries, as well as between higher- and lower-income countries.

Pillar 1: Green Investment, Innovation, and Technology

Pillar 1 measures green investments and the innovation ecosystem, including the development of green sectors, technologies, and innovations towards environmental sustainability. This pillar, an Enabler, is a very important foundation for green progress of all countries, given their technological and human capacities. However, it proves to be one of the biggest challenges for many, mostly the African economies with low internal financial resources and other development priorities.

Almost all Middle East countries show relatively high levels of green investment and strong results for innovation, while Morocco, Egypt and South Africa are leaders in Africa. The size of economies, technological capacity, and attractiveness to investors play key roles in explaining these results.

According to the World Bank, the Gulf Cooperation Council's (GCC) current trajectory would lead to a GDP of around USD 6 trillion by 2050. Embracing a strategic green growth approach to economic diversification could potentially elevate this figure to over USD 13 trillion by the same year.³

GCC countries are already investing in sustainable development. Qatar, for example, has initiated a USD 1.5 billion public-private sewage treatment project to enhance water management

and use of non-conventional water resources.⁴ The UAE has invested more than USD 50 billion in clean energy projects in 70 countries, and the UAE-US Partnership to Accelerate the Transition to Clean Energy aims to catalyze USD 100 billion to deploy clean energy globally.⁵ Saudi Arabia has committed USD 266 billion to clean energy, including transport and distribution networks and hydrogen production.⁶

Among the selected countries in Africa, Morocco is a leader with a USD 13 billion program in green fertilizers and clean energy.⁷ By 2027, the program aims to convert all industrial energy supply to green energy powered by wind, solar, hydroelectric, and co-generation sources.⁸

Across all countries, business scores were lower than policy scores, even though businesses demonstrate a strong interest in applying green technology and innovation. This signifies that while policies are being put in place to promote investment and innovation, business does not yet have sufficient access to green finance and technologies. Reflecting the overall scores, businesses in the Middle East tend to fare better, while Morocco, Egypt and South Africa lead in the Africa region. Saudi Aramco, for instance, has announced a USD 1.5 billion sustainability fund with the objective to invest in technology that supports the energy transition.⁹

³ World Bank (2022). GCC Economies Expected to Expand by 6.9% in 2022. <https://www.worldbank.org/en/news/press-release/2022/10/31/gcc-economies-expected-to-expand-by-6-9-in-2022>

⁴ Invest Qatar (2023). Green investment in waste management, a driver of economic development. <https://www.invest.qa/en/media-and-events/news-and-articles/green-investment-in-waste-management-a-driver-of-economic-development>

⁵ UAE Ministry of Foreign Affairs (2022). COP28 will be the UAE's most important event in 2023: His Highness Sheikh Mohammed bin Rashid. <https://www.mofa.gov.ae/en/mediahub/news/2022/11/23/23-11-2022-uae-cop28>

⁶ Reuters (2023). Saudi Arabia to invest about \$266 bln for clean energy - minister. <https://www.reuters.com/world/middle-east/saudi-arabia-invest-about-266-bln-clean-energy-minister-2023-01-30/>

⁷ International Energy Agency (2023). OCP Group Green Investment Program. Policies. <https://www.iea.org/policies/17251-ocp-group-green-investment-program>

⁸ Ibid.

⁹ Aramco (2022). Aramco announces \$1.5bn Sustainability Fund. <https://www.aramco.com/en/news-media/news/2022/aramco-announces-sustainability-fund>

Table 2.

Green Investment, Innovation and Technology main and sub-pillar scores for the selected 17 countries, 2023

Country	Pilar 1. Green Investment, Innovation and Technology	A Investments	B Innovation and Technology Development
Qatar	42.89	49.20	36.59
United Arab Emirates	42.59	46.94	38.25
Morocco	42.49	45.41	39.57
Saudi Arabia	41.66	48.50	34.82
Egypt	38.09	42.05	34.12
South Africa	37.07	34.46	39.68
Rwanda	35.03	35.43	34.62
Ghana	33.94	37.95	29.93
Kuwait	33.83	41.93	25.72
Cote d'Ivoire	33.52	43.40	23.64
Bahrain	32.92	40.46	25.39
Kenya	32.19	34.19	30.18
Uganda	31.78	40.19	23.38
Tanzania	31.23	42.89	19.57
Nigeria	24.22	28.00	20.44
Oman	23.85	22.34	25.36
Mozambique	19.40	22.39	16.42



Figure 6.

Green Investment, Innovation and Technology main and sub-pillar scores for the selected 17 countries by region, 2023



Note: The main pillar score, 'Green Investment, Innovation and Technology', indicated with orange columns, is composed of the average of the two sub-pillar scores: 'Investments' (yellow) and 'Innovation and Technology development' (green). Score range from 0 to 100. Best=100.

Source: Authors' calculations

Climate Financing

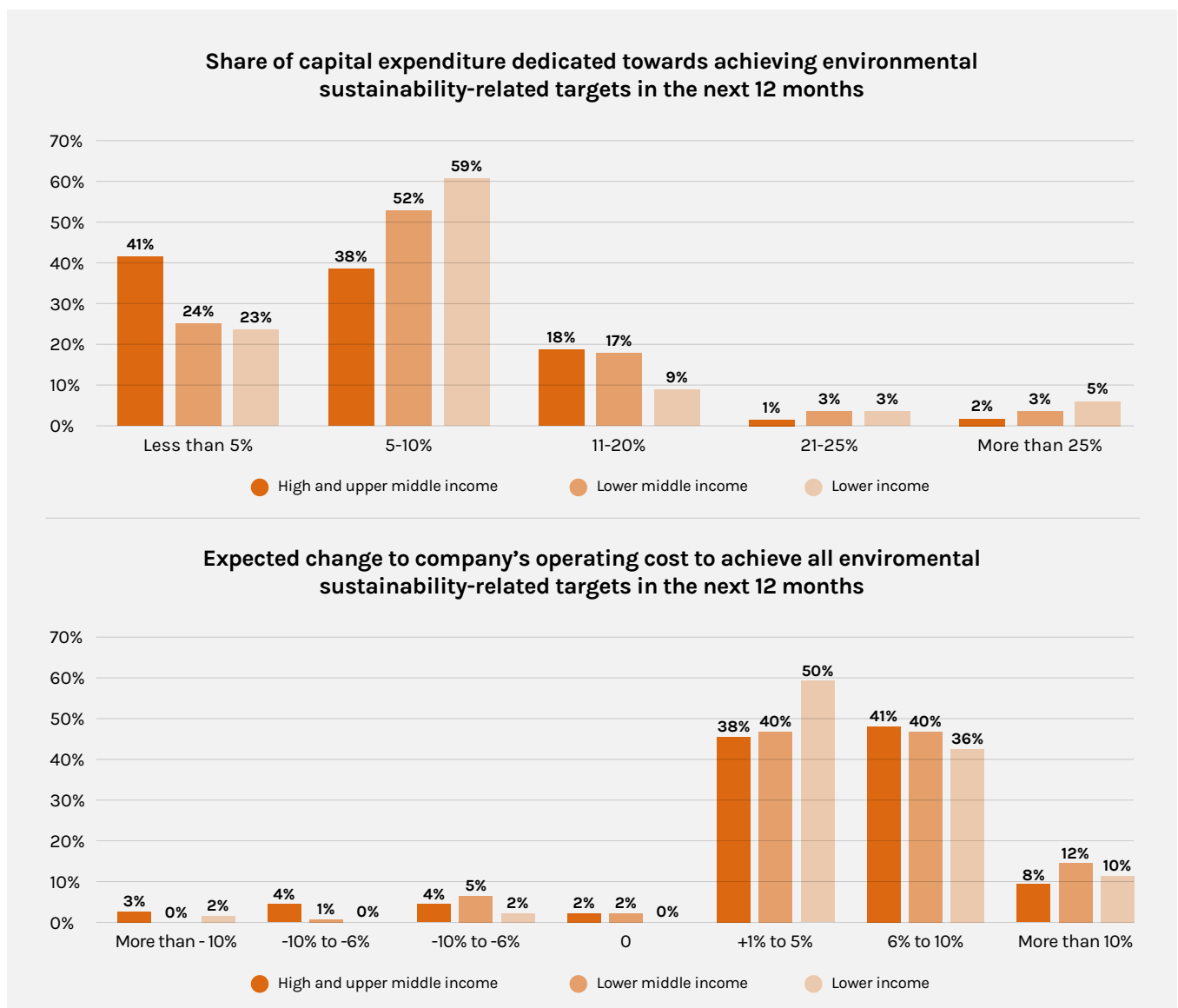
Public finance is considered insufficient to meet the challenge of climate change, with growing recognition that the private sector – including commercial banks, investment companies, pension funds, insurance companies and sovereign wealth funds – needs to fill the gap. In 2020, an OECD assessment found that out of USD 83 billion that were made available to developing countries to fight climate change, only USD 13 billion were from the private sector.

Private investors often see climate-related projects as having a higher level of risk, whether due to unproven technologies or high upfront costs. Governments and multilateral funding facilities can help to reduce the risk by ensuring projects are effectively structured with use of financing and funding mechanisms such as equity, debt, grants or guarantees (blended finance).

Our survey findings indicate that executives are most likely to say their companies were allocating between 1% to 10% of their capital expenditure to achieving environmental sustainability targets. Most surveyed executives stated that their sustainability-related targets are expected increase operating costs by between 1% and 10%.

Figure 7.

Corporate expenditure and cost estimates of environmental sustainability oriented actions in the selected 17 countries, by income level, 2023



Source: Horizon Group Business Executives' Survey 2023
 Copley, M. (2022). Investors have trillions to fight climate change. Developing nations get little of it. NPR. <https://www.npr.org/2022/11/09/1134865038/investors-have-trillions-to-fight-climate-change-developing-nations-get-little-of>

Pillar 2: Sustainable Infrastructure and Transport

The second pillar measures the availability and state of sustainable infrastructure (buildings, utilities, electricity) and transportation systems (airports, roads, railways, ports, highways). This pillar, an Enabler, highlights a key aspect of the physical environment for the operations of businesses and other actors. The availability of green buildings and sustainable transport systems can serve as motivation for change towards more environmentally friendly practices.

Countries that score strongly on sustainable infrastructure tend to score less well on transport, and vice versa. The UAE is the overall leader in this pillar, driven by its score on infrastructure. Saudi Arabia and Qatar also perform strongly on infrastructure but more modestly on transport. South Africa scores highest on transport, followed by Rwanda and Kenya, with all three scoring lower on infrastructure.

Although high-income countries scored above average – for example UAE, Saudi Arabia, South Africa and Qatar – the correlation between score and income is not perfect. Rwanda, for example, scores ahead of middle-income countries such as Egypt, Kenya and Uganda. The Middle East accounts for three of the top four scores, but also the bottom two. In general, African

countries seem to show stronger results for transport than infrastructure.

The business survey scores show some interesting nuances. Under the transport sub-pillar, many countries show stronger scores for business than for policy. This reveals how many businesses are planning for the electrification of their fleets or the use of biofuels, across the Middle East and most of Africa (Egypt, Morocco, Mozambique, Nigeria, and Rwanda, South Africa and Uganda). The reverse is true for the infrastructure pillar, with policy ahead of business: many countries are putting in place policies to promote green buildings, but relatively few businesses are prioritizing greener premises.

Some countries in the Middle East in particular have set out to become leaders in sustainable buildings, such as Saudi Arabia's commitment to Neom, an urban project that also aims to host the world's largest green hydrogen production facility.¹⁰ The UAE has applied green and sustainable building standards since 2011, and expects them to reduce carbon emissions by 30% by 2030.¹¹ Despite speculation about economic downturn, the construction industry in the GCC is projected to increase by 3-4% in 2023-2024 driven by investment in sustainable design strategies and ESG programs.¹²



¹⁰ Ibid.

¹¹ UAE (2022). Green building codes. <https://u.ae/en/information-and-services/environment-and-energy/the-green-economy-initiative/efforts-to-achieve-green-economy/green-building-codes>

¹² Cityscape (2023). GCC building industry is growing & embracing sustainability. <https://www.cityscape-intelligence.com/built-environment/gcc-building-industry-growing-embracing-sustainability>

Table 3.

Sustainable Infrastructure and Transport main and sub-pillar scores for the selected 17 countries, 2023

Country	Pillar 2. Sustainable Infrastructure and Transport	A Infrastructure	B Transport and Mobility
United Arab Emirates	62.99	77.75	48.23
South Africa	57.63	50.33	64.92
Saudi Arabia	52.66	65.70	39.62
Qatar	52.33	65.91	38.74
Rwanda	51.63	45.78	57.49
Kenya	50.14	46.41	53.87
Egypt	49.85	48.38	51.32
Uganda	47.78	42.13	53.42
Ghana	47.10	49.74	44.46
Morocco	46.15	45.01	47.29
Nigeria	44.08	41.63	46.54
Bahrain	43.77	52.04	35.50
Tanzania	43.47	40.17	46.78
Mozambique	42.86	35.56	50.15
Cote d'Ivoire	41.28	30.22	52.34
Kuwait	35.97	40.54	31.39
Oman	28.11	24.04	32.18

Note: Score range from 0 to 100. Best=100.

Source: Authors' calculation

In contrast, transport policies – such as biofuel mandates – are higher on the agenda of many African countries. Nigeria, for example, mandates a 10% ethanol blend for gasoline and 20% biodiesel for diesel, while South Africa's Biofuel Industrial Strategy includes the aim of

4.5% biofuels penetration in the national fuel pool.¹³ Overall, across public and private sectors in the two regions, the MEA ESS highlights the multifaceted strategies being pursued to improve the state of sustainable infrastructure and transport.

¹³ International Energy Agency (2023). South African biofuels regulatory framework. <https://www.iea.org/policies/13383-south-african-biofuels-regulatory-framework>

Figure 8.

Sustainable Infrastructure and Transport main and sub-pillar scores for the selected 17 countries by region, 2023



Note: The main pillar score, 'Sustainable Infrastructure and Transport', indicated with orange columns, is composed of the average of the two sub-pillar scores: 'Infrastructure' (yellow) and 'Transport and mobility' (green). Score range from 0 to 100. Best=100.
 Source: Authors' calculations

Pillar 3: Governance and Reporting

This pillar, the third Enabler, captures the national regulatory framework and nationally determined commitments and corporate practices towards environmental sustainability. Clearly defined strategies, targets, commitments and requirements are essential for more efficient, reliable and transparent operations both in the public and private sectors.

All countries except South Africa score more strongly on government regulation than corporate governance, often significantly, with the contrast especially stark in Rwanda. Most countries received full scores in national environmental strategies, monitoring of results, and environmental impact assessment regulations. This demonstrates a very strong regulatory base across both regions.

Most countries' stock markets participate in the Sustainable Stock Exchanges Initiative, and businesses surveyed indicate that environmental regulations are implemented and there is strong citizen support. Overall, there were some strong scores for integration of sustainability into business models and use of international reporting standards. This demonstrates a strong governance base for sustainability across both regions which can be built on to deliver sustainable business practices in the future.

South Africa is a clear leader in this pillar, followed by five countries from the Middle East, which clearly emerges as the stronger region with respect to governance. The lowest scores are entirely from Africa. There is also strong clustering based on income level, with the top six being high and upper-middle income countries.

South Africa is renowned for its strong and adaptable governance framework.¹⁴ It was one of the first countries after the UK to impose a code of corporate governance.¹⁵ The Johannesburg Stock Exchange requires ESG reporting as a condition of listing,¹⁶ and imposes stringent transparency and accountability standards for public companies with listed securities.¹⁷

The UAE, second-placed in this pillar, is committed to becoming a key player in decarbonization, as shown by hosting COP28 and committing to net-zero emissions by 2050. Shell is working closely with its Ministry of Energy and Infrastructure to envision the country's future role in global energy through scenarios. ADNOC, a diversified energy company owned by the Abu Dhabi Government, is investing USD 15 billion in lower-carbon solutions and has developed a comprehensive 2030 Sustainability Strategy that sets out a roadmap to achieving net zero by 2045 through sustainable operations across its businesses and the communities and environments in which they operate.¹⁹

¹⁴ Davis, E., & Ryan, K. (2023). The Corporate Governance Review: South Africa. The Law Reviews. <https://thelawreviews.co.uk/title/the-corporate-governance-review/south-africa>

¹⁵ European Corporate Governance Institute (2020). Corporate Governance in South Africa. <https://www.ecgi.global/content/corporate-governance-south-africa#:~:text=Corporate%20governance%20in%20South%20Africa%20is%20informed%20by%20common%20law.in%20financial%20and%20market%20regulation>.

¹⁶ Sustainable Stock Exchanges Initiative (n.d.). Johannesburg Stock Exchange (JSE). <https://sseinitiative.org/stock-exchange/jse/>

¹⁷ Davis, E., & Ryan, K. (2023). The Corporate Governance Review: South Africa. The Law Reviews. <https://thelawreviews.co.uk/title/the-corporate-governance-review/south-africa>

¹⁸ Shell (2023). UAE scenarios sketch: entering a world of competitive transitions. https://www.shell.ae/en_ae/transitioning-towards-a-sustainable-and-inclusive-energy-future.html

¹⁹ ADNOC (n.d.) Our 2030 Sustainability Strategy. <https://www.adnoc.ae/en/Sustainability-and-Energy-Transition/Our-2030-Sustainability-Strategy>

Table 4.

Governance and Reporting main and sub-pillar scores for the selected 17 countries, 2023

Country	Pillar 3. Governance and Reporting	A Government Regulations and Policies	B Corporate Governance
South Africa	67.39	66.35	68.43
United Arab Emirates	66.12	78.31	53.93
Saudi Arabia	59.84	70.85	48.84
Kuwait	59.23	67.21	51.26
Bahrain	58.16	65.60	50.72
Qatar	56.85	70.85	42.85
Egypt	51.00	60.88	41.11
Oman	50.52	61.29	39.74
Rwanda	49.17	69.54	28.81
Morocco	48.56	60.29	36.83
Ghana	47.45	57.59	37.30
Tanzania	46.82	53.70	39.94
Kenya	46.62	54.62	38.63
Nigeria	46.36	52.35	40.37
Uganda	42.17	53.59	30.76
Ivory Coast	41.13	53.05	29.21
Mozambique	30.74	40.81	20.67

Note: Range from 0 to 100. Best=100.
Source: Authors' calculation



Figure 9.

Governance and Reporting main and sub-pillar scores for the selected 17 countries by region, 2023



Note: The main pillar score, 'Governance and Reporting', indicated with orange columns, is composed of the average of the two sub-pillar scores: 'Government regulations and policies' (yellow) and 'Corporate governance' (green). Score range from 0 to 100. Best=100.

Source: Authors' calculations

Building on these strong regulatory foundations and a promising trajectory towards sustainable business practices, continued collaboration

between governments and corporations remains pivotal in achieving lasting environmental sustainability.

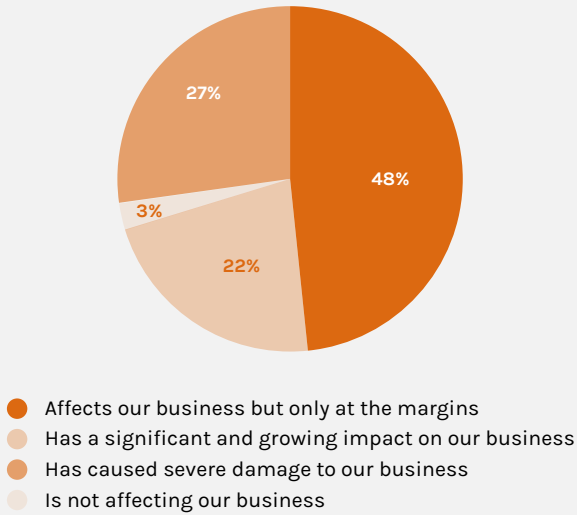
What is the business sentiment about climate change and environmental sustainability practices?

Our business executives survey asked the following questions about climate change and its impacts:

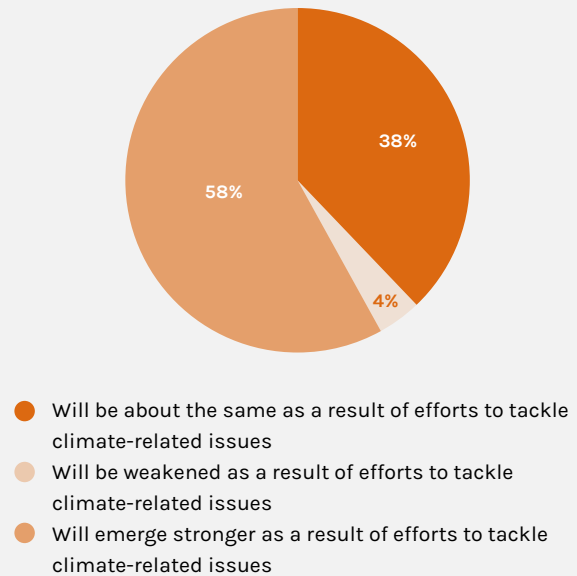
Figure 10.

Business sentiment regarding climate change and its impact

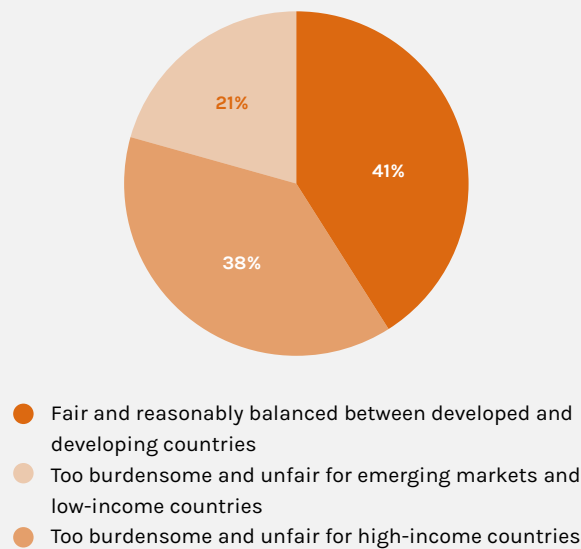
Does climate change impact businesses?



Will companies change as a result of climate action?



Is the burden of tackling climate change balanced between developed and emerging economies?



Source: Horizon Group Business Executives' Survey 2023

Pillar 4: Energy Transition

This pillar, an Action area, measures non-renewable and renewable energy use, and energy transition commitments, including net zero targets. Energy transition is highest on the world agenda for tackling climate change and undoubtedly the path for all countries sooner or later. This area is of particular importance for these two regions as 'latecomers' in environmental sustainability and can provide pathways for action.

The results show a clear distinction between the two regions. The African countries score higher on energy consumption – due to their generally lower energy demand – than energy transition and adaptation, with the exception of South Africa, while the GCC countries tend to score more similarly on both.

The regional contrast may reflect GCC countries being less focused on energy transition due to the availability of cheap fossil fuels, although

Nigeria shows it is possible for an oil-producing country to score well on the energy transition. An additional explanation could be that several GCC countries have policies to diversify their economies, which require energy-intensive processes such as water desalination. More information about the fossil fuel dependency of the Middle East can be found in the box below.

Although close to 90% of clean energy investment is concentrated in advanced economies and China, investor interest is growing in countries such as Saudi Arabia, UAE, and Oman.²⁰ The focus of Middle Eastern countries tends to be on carbon capture and storage, as seen in Saudi Arabia's Circular Carbon Economy program;²¹ facilities in Saudi Arabia, Qatar, and UAE together account for 10% of global CO2 captured.²² The Gulf countries are also investing in clean hydrogen exports, but in each country's domestic market the share of renewable energy remains below national targets.²³

Voluntary carbon markets: a solution to close the climate finance gap?

Voluntary carbon markets have the capacity to address the climate finance gap, with USD 1.3 billion directed towards emission reduction in 2022, potentially growing to USD 50 billion by 2030. They also contribute to carbon sinks, CO2 removal tech, and community support.

Several initiatives reflect the strategic commitment of countries in the Middle East and Africa to pioneering innovative solutions in carbon trading. For example as part of its "Year of Sustainability" in 2023, the UAE's Security and Commodities Authority and Abu Dhabi Global Market set out aspirations to create local carbon trading platforms. Saudi Arabia has launched a carbon trading platform. The Qatar-based Global Carbon Council is exploring opportunities to list its carbon credits on exchanges across the MENA region, including Egypt, Saudi Arabia, and the UAE, showcasing clean energy projects in nearly 45 countries.

²⁰ International Energy Agency (2023). World Energy Investment 2023. <https://www.iea.org/reports/world-energy-investment-2023/overview-and-key-findings>

²¹ Al Shehri, Thamir et al. (2022). Saudi Arabia's Climate Change Policy and the Circular Carbon Economy Approach. Climate Policy. <https://www.tandfonline.com/doi/citedby/10.1080/14693062.2022.2070118>

²² Global CCS Institute (2021). Global Status of CCS 2021 – CCS Accelerating to Net Zero. https://www.globalccsinstitute.com/wp-content/uploads/2021/10/2021-Global-Status-of-CCS-Report_Global_CCS_Institute.pdf

²³ Shehabi, M. (2023). The Hurdles of Energy Transitions in Arab States. Carnegie Endowment for International Peace. <https://carnegieendowment.org/2023/05/03/hurdles-of-energy-transitions-in-arab-states-pub-89518>

By contrast, the energy transition is generally more of a priority in Africa. For example, South Africa announced a new energy transition partnership at COP26.²⁴ Morocco's NOOR Ouarzazate Solar Complex – which will deliver solar power to 650,000 local residents²⁵ – is part of a plan for renewables to comprise 52% of the country's energy production capacity by 2030.²⁶

Corporate commitments to reduce energy consumption are strong in most of the Middle

East and some African countries (Egypt, Nigeria, South Africa and Uganda), though weaker than government commitments. Likewise, corporate commitments on GHG reductions across both regions are relatively strong, with the exception of some African countries (Cote d'Ivoire, Rwanda and Tanzania), but mostly lower than government commitments. The exceptions are Egypt and Qatar, where businesses are more ambitious than the public sector.

Table 5.

Energy Transition main and sub-pillar scores for the selected 17 countries, 2023

Country	Pillar 4. Energy transition	A Energy Consumption	B Energy Transition and Adaptation
Uganda	72.01	78.63	65.38
Nigeria	68.75	73.96	63.54
Rwanda	67.43	73.76	61.11
Kenya	66.77	73.91	59.63
South Africa	66.39	59.53	73.24
Ghana	65.39	65.51	65.27
Tanzania	62.24	69.90	54.58
Mozambique	61.51	74.37	48.64
Cote d'Ivoire	55.32	66.47	44.17
Egypt	54.03	61.56	46.50
Morocco	53.01	55.25	50.77
United Arab Emirates	51.51	45.08	57.93
Saudi Arabia	45.67	47.19	44.15
Oman	43.17	45.15	41.19
Kuwait	39.31	39.04	39.59
Bahrain	33.83	35.04	32.62
Qatar	29.54	30.36	28.73

Note: Score range from 0 to 100. Best=100.

Source: Authors' calculation

²⁴ World Bank (2023). Factsheet: Eskom Just Energy Transition Project in South Africa. <https://www.worldbank.org/en/news/factsheet/2023/06/05/factsheet-eskom-just-energy-transition-project-in-afe-south-africa>

²⁵ Neslen, Arthur (2016). Morocco to switch on first phase of world's largest solar plant. The Guardian. <https://www.theguardian.com/environment/2016/feb/04/morocco-to-switch-on-first-phase-of-worlds-largest-solar-plant>

²⁶ African Development Bank Group (2021). Morocco - NOOR Ouarzazate Solar Complex Project - Project Completion Report. <https://www.afdb.org/en/documents/morocco-noor-ouarzazate-solar-complex-project-phase-iii-noor-ouarzazate-iii-power-plant-project-completion-report>

Figure 11.

Energy Transition main and sub-pillar scores for the selected 17 countries by region, 2023



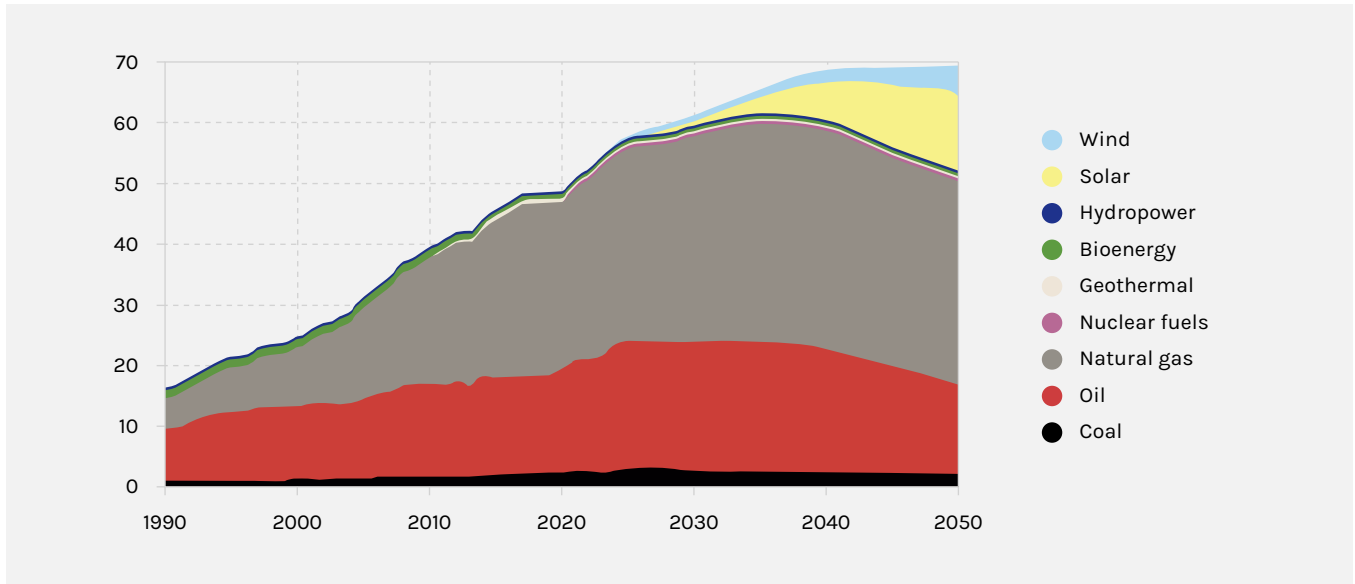
Note: The main pillar score, 'Energy transition', indicated with orange columns, is composed of the average of the two sub-pillar scores: 'Energy consumption' (yellow) and 'Energy transition and adaptation' (green). Score range from 0 to 100. Best=100.
 Source: Authors' Calculations

Middle East and the energy transition

Given its high economic dependence on hydrocarbons, the Middle East faces an especially difficult challenge in diversifying economies away from fossil fuel exports and developing more sustainable economic models and energy sources. The region has strong potential to develop solar energy, with innovative projects to mix solar energy with agriculture and desalination supported by a growing academic and technical capacity to develop innovative local solutions.

Figure 12.

Middle East and North Africa primary energy consumption by source, 2022



Source: DNV. (2022). Energy Transition Outlook. <https://www.dnv.com/energy-transition-outlook/download.html>

Most countries in the region have ambitious targets in place for renewable energy. For example, the UAE Energy Strategy 2050 aims to triple the share of renewable energy by 2030, and obtain half of its primary energy from clean sources by 2050. Saudi Arabia plans to generate 50% of electricity from renewables by 2030 and the other 50% from gas. In the shorter term, investing in renewable energy can free up hydrocarbons for export, while in the longer term diversification can help prepare economies for the energy transition and reduce global demand for fossil fuels.

QatarEnergy and General Electric (GE) have joined forces to develop a carbon capture strategy for Qatar's energy sector,²⁷ showing how businesses can align with government objectives to drive sustainability efforts. Highlighting the growing importance of green hydrogen to the transition, Hydrogen Oman (Hydrom), a subsidiary of Energy Development

Oman, is developing two green hydrogen projects collectively valued at USD 10 billion.²⁸ Overall, a balanced approach to energy transition and sustainability in the MEA region is essential, taking into account regional nuances and underlining the pivotal role of collaborative efforts between governments and businesses in fostering meaningful change.

²⁷ General Electric (2022). QatarEnergy and GE to Develop Carbon Capture Roadmap and Low Carbon Solutions for Qatar's Energy Sector. <https://www.ge.com/news/press-releases/qatarenergy-and-ge-to-develop-carbon-capture-roadmap-and-low-carbon-solutions-for>

²⁸ Al Monitor (2023). Oman sets sights on being Middle East leader in green hydrogen. <https://www.al-monitor.com/originals/2023/06/oman-sets-sights-being-middle-east-leader-green-hydrogen>

Pillar 5: Environmental Ecosystems

Pillar 5, an Action area, captures the health of air, soil and water systems, and environmental protection and conservation efforts. It highlights the importance of the health of our natural habitats and point out the need for more attention and protection, which can contribute to increased prosperity in the long run.²⁹

The results are mixed, with high to upper-middle countries often but not always scoring better. GCC countries generally perform more strongly on ecosystem health than conservation, while the reverse is true for many African countries. As conservation action should in theory improve ecosystem health, these results may call into question the effectiveness of conservation measures in some countries – or indicate that recent conservation action has not yet had time to make an impact.

Recent examples of conservation action in Africa include the Government of Kenya's National

Tree Planting Initiative in 2022, aiming to plant 15 billion trees by 2032,³⁰ and work in Tanzania to improve ecosystem health while reducing climate vulnerability of coastal communities through restoring mangrove and coral habitats.³¹

Almost all countries scored at 100 for national strategies and policies, with the exceptions of Mozambique and Oman, at 50. This reflects, for example, national plans to implement international commitments such as the Convention on Biological Diversity. However, far fewer countries scored well on monitoring and reporting of these plans, and even less on budget allocation for their implementation. On the business side, practices for reducing pollution and habitat protection generally ranged from 38% to 68% with the leaders coming from the Africa region (Egypt, Nigeria and South Africa). These relatively low scores are quite surprising given the growing global corporate interest in biodiversity and nature-based solutions.



²⁹ The UK Government (2021). *The Economics of Biodiversity: The Dasgupta Review*. <https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review>

³⁰ The National Treasury of Kenya (2022). *National Tree Planting Initiative Launch*. <https://www.treasury.go.ke/national-tree-planting-initiative-launch/>

³¹ United Nations Environment Programme (2022). *Climate Adaptation in Tanzania with Ecosystem Restoration & Flood Defence Infrastructure - UNEP Lessons in Climate Change Adaptation*. <https://wedocs.unep.org/handle/20.500.11822/40369>

Table 6.

Environmental Ecosystems main and sub-pillar scores for the selected 17 countries, 2023

Country	Pillar 5. Environmental Ecosystems	A Ecosystem Health	B Conservation
United Arab Emirates	68.47	74.53	62.41
South Africa	61.40	66.41	56.38
Egypt	60.41	58.59	62.22
Saudi Arabia	60.00	62.66	57.35
Kuwait	58.27	61.03	55.52
Qatar	55.26	61.49	49.03
Ghana	55.12	49.52	60.73
Rwanda	54.09	47.93	60.26
Tanzania	52.85	47.93	57.78
Bahrain	52.44	53.47	51.41
Uganda	52.32	52.33	52.32
Cote d'Ivoire	52.17	49.94	54.40
Oman	51.46	61.15	41.77
Kenya	51.17	44.32	58.02
Morocco	51.00	49.61	52.38
Mozambique	48.13	49.29	46.97
Nigeria	42.48	29.71	55.25

Note: Score range from 0 to 100. Best=100.

Source: Authors' calculation

There are, nonetheless, noteworthy initiatives in the region such as Qatar General Electricity and Water Corporation's ambitious Mega Reservoirs Project to address rising water demand, including through investments in recycled water.³² Emirates flight catering has launched Dubai's first vertical

farm, with an investment of USD 40 million and the objective of saving 250 million liters of water annually.³³ These examples showcase the significance of both government and corporate actions in shaping the environmental health and conservation landscape within the MEA region.

³² Euro Gulf Information Centre (n.d.) Confronting Environmental Challenges in the GCC: The Initiatives at Play. <https://www.egic.info/confront-environment-challenges-gcc>

³³ Emirates (2022). Emirates Flight Catering Opens World's Largest Vertical Farm in Dubai. <https://www.emirates.com/media-centre/emirates-flight-catering-opens-worlds-largest-vertical-farm-in-dubai/>

Figure 13.

Environmental Ecosystems main and sub-pillar scores for the selected 17 countries by region, 2023



Note: The main pillar score, 'Environmental Ecosystems', indicated with orange columns, is composed of the average of the two sub-pillar scores: 'Ecosystem health' (yellow) and 'Conservation' (green). Score range from 0 to 100. Best=100.
 Source: Authors' calculations

"When we respect nature and our planet, we are respecting ourselves. And when we fail to, we are in fact disrespecting ourselves or certainly the next generation and their life."

Inger Andersen, UNEP Executive Director

Pillar 6: Circularity

The final pillar, the last Action area, captures materials footprint and waste management practices. The transition to circular economies for reduced waste production and for increased sustainable production and consumption are among the key patterns to be adjusted for a more sustainable future, especially in the large consumer Middle East and in the fastest growing continent, Africa.

While Egypt and South Africa lead the way, Middle East countries occupy five of the next six places, reflecting higher overall scores for higher-income countries. Higher-income countries also tend to score better on waste management than resource use, which may reflect a greater capacity to put in place waste management infrastructure and access capital for private sector investment in new businesses based on recycling and the circular economy.

As early as 2010, for example, UAE included a transition plan towards a circular economy in its Vision 2021.³⁴ Its integrated waste management system, national waste database, and ambitious goals for waste reduction³⁵ help explain why it

achieves the top score in waste management. Other strong performers in the region include Qatar, with its large-scale waste-to-energy recovery plant in Mesaieed.³⁶ Saudi Arabia is also making substantial strides, aiming to divert all municipal waste from landfills by 2036 with the goal of recycling 81% and generating energy with the rest.³⁷

The majority of countries have set or are setting waste management and recycling targets and reporting frameworks, but budget allocation is far weaker across both regions. Many businesses across both regions also have plans in place for reducing paper and plastic use as well as reducing the use of raw materials in production. For example, Aramco's Haradh Gas Plant recycled 3,500 kg of deteriorated polyethylene into valuable products, reducing emissions by 3.5 tons of CO2 equivalent and reducing disposal costs by 40%.³⁸ Across the Middle East, high-tech companies are developing solutions for energy, waste management and agriculture. In the UAE, for example, startup Hydo Wind Energy is developing a hand-held device that turns seawater into freshwater.³⁹

"The circular economy is a system where materials never become waste and nature is regenerated. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting. The circular economy tackles climate change and other global challenges, like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources."

Ellen MacArthur Foundation

³⁴ O'Keeffe, N., Nassar, R., Thurley, A., & Willing, E. (2021). The rise of circularity: How the GCC is transforming from the inside for the outside. PWC. <https://www.pwc.com/ml/en/publications/the-rise-of-circularity.html>

³⁵ UAE Ministry of Climate Change & Environment (n.d.). Integrated Waste Management in the UAE. <https://integrated-waste-management-fcsa.hub.arcgis.com/>

³⁶ El Mir, Jamila et al. (2021). Circular Economy in Cities of the MENA Region: Prospects and Challenges for Material Circularity. Friedrich Ebert Stiftung. <https://library.fes.de/pdf-files/bueros/amman/18984.pdf>

³⁷ El Mir, Jamila et al. (2021). Circular Economy in Cities of the MENA Region: Prospects and Challenges for Material Circularity. Friedrich Ebert Stiftung. <https://library.fes.de/pdf-files/bueros/amman/18984.pdf>

³⁸ Aramco (2020). Innovative industrial recycling: Turning a circular economy. <https://www.aramco.com/en/magazine/elements/2020/innovative-industrial-recycling>

³⁹ Cuthbert, O. (2022). 30 of the most sustainable companies in the Middle East. Arabian Gulf Business Insights. <https://www.agbi.com/analysis/top-30-sustainable-companies-in-the-middle-east/#recycling>

Table 7.

Circularity main and sub-pillar scores for the selected 17 countries, 2023

Country	Pillar 6. Circularity	A Resource Use	B Waste Management
Egypt	58.61	56.00	61.22
South Africa	57.10	57.68	56.52
Bahrain	54.14	46.58	61.70
United Arab Emirates	53.78	38.16	69.40
Saudi Arabia	51.54	37.94	65.13
Oman	49.92	54.18	45.65
Nigeria	49.76	54.68	44.85
Qatar	48.97	44.31	53.62
Uganda	47.22	58.25	36.19
Kenya	46.80	55.63	37.97
Morocco	46.41	51.59	41.23
Kuwait	44.30	28.54	60.06
Ghana	42.99	52.45	33.54
Tanzania	41.03	51.18	30.88
Rwanda	39.55	52.46	26.64
Cote d'Ivoire	38.14	48.19	28.10
Mozambique	38.08	52.26	23.90

Note: Score range from 0 to 100. Best=100.
Source: Authors' calculation



Figure 14.

Circularity main and sub-pillar scores for the selected 17 countries by region, 2023



Note: The main pillar score, 'Circularity', indicated with orange columns, is composed of the average of the two sub-pillar scores: 'Resource use' (yellow) and 'Waste management' (green). Score range from 0 to 100. Best=100.
Source: Authors' calculations

Pathways to a Sustainable Future

The scorecard captures the current sustainability efforts from both government and business across countries in both regions – positive actions that can be lost in global indices. Across all pillars in the majority of countries, strategies and commitment from the public and private sector are clear and businesses indicate support from the general public.

The challenge is in the implementation of these strategies. Government budgets are generally limited, as is access to green finance and technology, while monitoring and reporting frameworks are weak. Pathways to sustainability therefore need to focus on the practical aspects of implementation – especially on finance,

increasing capacity and access to technology. Interest in sustainable investments is growing in the key markets which creates opportunities for investment and development for the Middle East and Africa.

Sustainability is at the heart of national development and wellbeing of societies, with the private sector needing to play a key role and governments being responsible for providing an enabling environment through effective policies and incentives. The scorecard results allow each country to identify areas for improvement and better-performing peers, enabling collaboration to find solutions adapted to the geophysical, economic, political or cultural realities of each region.

Action points for business

Corporate vision and strategy. Sustainability action starts with a clear objective and roadmap. The MEA ESS survey found that while many businesses have sustainability plans, others are still in progress or have not been started. Businesses must go beyond corporate social responsibility approaches and identify how to bring their operations and supply chains onto a sustainable footing, while reducing costs and mitigating risks. As consumers are increasingly savvy about ‘greenwashing’, transparency is needed.

International targets and reporting. A variety of international standards and metrics have been developed, such as the Science Based Targets initiative. Businesses need to integrate them into their strategy and reporting, so impacts can be clearly demonstrated. Regionally focused initiatives that link business to international targets can be important sources of know-how and experience. For example, the Sustainability Reporting for Responsible Business program, a partnership of the Global Reporting Initiative and the Swiss Confederation’s State Secretariat for Economic Affairs, supports sustainability reporting in Africa and other regions.

Analysis of materiality and priority areas. Businesses must identify where they have the most impact – for example, emissions for a transport company or water pollution for a mining company – to identify actions in high impact areas that can bring quick and meaningful results. Companies can build on this scorecard to identify priority areas based on national needs. The results suggest that focusing learning and exchange of experiences on key themes such as investment, green infrastructure, biodiversity and technology, can help to stimulate progress.

New business opportunities. Many areas of sustainability, such as the circular economy, have opened up new business opportunities. Businesses should look to identify potential areas for diversification. For example, LONO in Cote d’Ivoire works with agro-industrial companies and farmer cooperatives to transform agricultural waste and by-products into valuable compost, biogas, animal feed and biofuels. In Kenya, the Waste Electrical and Electronic Equipment Centre recycles electrical and electronic waste from more than 8,000 clients.⁴⁰

Business-to-business knowledge exchange. Facilitating the transfer of knowledge and exchange is central to promoting progress. Sustainability is a growing theme in training and sharing of lessons via business networks, online fora and conferences. Developing business-to-business exchanges across both regions will help to drive sustainability. For example, South Africa's National Business Initiative is a voluntary group that promotes sustainable growth and development through partnerships and policy engagement. Awards such as the Sustainability Middle-East Award can also help to stimulate action and learning.⁴¹

Engage with government. Businesses need to work with government help to shape the regulatory framework in a way that maximizes incentives for businesses to develop on a sustainable pathway, create an enabling environment for private sector investment that delivers on sustainability, and collaborate on public-private ventures like Mason Morocco, which is developing the Noor Complex, the largest concentrated solar farm in the world.⁴² Businesses can identify opportunities that provide returns for investors while also delivering on sustainability. Government regulations can be adapted to facilitate green business, and public finance can help to de-risk private sector investments through loan guarantees and other instruments. Financiers such as First Abu Dhabi Bank (FAB), which aims to lend, invest, and facilitate USD 75 billion for environmental and socially responsible solutions by 2030, can be important partners to identify ways to facilitate sustainable financing.⁴³

Action points for all stakeholders

Leadership. Both the public and corporate sectors must show leadership to make sustainability a priority for national development. Governments can create an enabling environment for investment in green technology. Clear policies and regulations that underscore a government's long-term commitment to sustainability can help to reduce risks for investors and enable the growth of sustainable business practices. For example, Saudi Arabia's Vision 2030 demonstrates national commitment across a broad range of sustainability topics from energy to sustainable cities.⁴⁴

Clarify a national vision on sustainability. While many governments have policies on specific topics such as climate change and biodiversity, all stakeholders should work together to define a unified national vision of what sustainability means and how it can help leverage competitive advantages. Such visions can provide investors with clarity and certainty on the orientation of future policies, and ensure a holistic approach across sectors. For example, the government of Kenya and the UN launched the SDG Partnership Platform Kenya to develop multi-stakeholder and cross-sectoral partnerships to implement the SDGs.⁴⁵

⁴¹ Sustainability Middle East Excellence Awards (2023). <https://sustainabilitymeawards.com/>

⁴² Cuthbert, O. (2022). 30 of the most sustainable companies in the Middle East. *Arabian Gulf Business Insights*. <https://www.agbi.com/analysis/top-30-sustainable-companies-in-the-middle-east/#recycling>

⁴³ Murad, A. (2023). Sustainable Finance Awards 2023: Middle East. <https://www.gfmag.com/magazine/july-august-2023/sustainable-finance-awards-2023-middle-east>

⁴⁴ Kingdom of Saudi Arabia (2023) Environment and Nature. <https://www.vision2030.gov.sa/en/progress/environment-nature/>

⁴⁵ SDG Partnership Platform (n.d.). Finding new ways to close the gap. <https://sdgpp-kenya.org/>

Use global knowledge to identify solutions. A wealth of information exists at the global level on transitioning to sustainability, including ways to attract investment and reach national development goals, that can be tailored to national contexts. Governments can play a key role in providing education and opportunities for exchange through national programs and international initiatives to share experience. Many international organizations are working in capacity building and exchange, and their programs can be leveraged at national level to ensure that business, government officials and civil society have the tools necessary to promote sustainable development.

Facilitating investment. As outlined in the box about climate finance, sustainability-related projects are a relatively new investment category. At the same time, many investors are interested in sustainability but cannot find projects that meet their requirements. Governments can often play a key role in structuring projects so that they meet the needs of investors, such as by promoting the use of international standards for monitoring impact. They can also de-risk projects, for example through loan guarantees. They need to engage with investors early in the project development process to shape supporting financial measures.

Creating positive incentives. In many countries, sustainability strategies are often undermined by incentives that promote unsustainable practices. Developing positive incentives and eliminating perverse incentives is a key part of any national sustainability strategy. Incentives can be created, for example through reducing taxes or providing grants and interest-free loans for sustainable activities, such as sustainable buildings or reducing carbon emissions. While government plays a key role in addressing incentives, other stakeholders such as business and NGOs can help to identify how incentives can be shaped to deliver results for sustainability.

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Mo Segad, Chief Scientist and Advisor, Ag-tech industry and nanotechnology, USA

Patrick Allman Ward, CEO, Dana Gas, UAE

Jeff Worden, Director, Conservation Impact, WWF, Kenya

[Agility](#) is a global leader in supply chain services, infrastructure, and innovation. Agility group companies include the world's largest aviation services provider by number of countries, a logistics parks business that is one of the largest private owners of warehousing and industrial real estate in the Middle East, Asia, and Africa, a market-leading liquid fuel logistics business for emerging markets, and companies that offer customs digitization, remote infrastructure services, ecommerce enablement and digital logistics, and commercial real estate and facilities management. Agility is also an investor in innovation, sustainability and resilience, with a growing portfolio of listed and non-listed investment partners looking to reshape their respective industries across a range of sectors.

[Horizon Group](#) partners with leading organisations to inform decisions and shape agendas on fast-moving topics that affect our future. Based in Geneva, Switzerland, many in our team hold PhDs and we collaborate with the most recognized universities to produce knowledge products that are deeply rooted in our research DNA. We have developed a centre of excellence for index development, and our flagship indices have received global attention and become international reference points. With a global network from our work with the United Nations and World Economic Forum, including former heads of state and Fortune 500 CEOs, we advise businesses and governments worldwide on how to improve competitiveness and innovation, strengthen resilience to global risks, and on growth strategies that are sustainable and inclusive. Our leadership has also authored some of the world's most impactful research reports, including The Global Competitiveness Report, Inclusive Growth Report, The Global Risks Report, the Future Possibilities Report, as well as numerous scenario reports.

Appendix

The Methodology Note contains the details about the data collection, calculation of scores and detailed list of indicators.

The full indicators list with the scores can be found in the below table.

Indicator	Type of score (Score: 0-100)	Bahrain	Cote d'Ivoire	Egypt	Ghana	Kenya	Kuwait	Morocco	Mozambique	Nigeria	Oman	Qatar	Rwanda	Saudi Arabia	South Africa	Tanzania	Uganda	United Arab Emirates
Middle East and Africa Environmental Sustainability Scorecard	Overall score	45.88	43.59	52.00	48.66	48.95	45.15	47.94	40.12	45.94	41.17	47.64	49.49	51.90	57.83	46.27	48.88	57.58
Green Investment, Innovation and Technology	Pillar 1 score	32.92	33.52	38.09	33.94	32.19	33.83	42.49	19.40	24.22	23.85	42.89	35.03	41.66	37.07	31.23	31.78	42.59
Investments	Pillar 1/A score	40.46	43.40	42.05	37.95	34.19	41.93	45.41	22.39	28.00	22.34	49.20	35.43	48.50	34.46	42.89	40.19	46.94
Green investments	quantitative	49.67	74.72	34.16	37.28	22.35	64.22	85.20	10.37	36.30	0.00	99.57	13.29	72.16	21.06	81.77	41.26	57.31
Sustainable business environment	quantitative	32.95	41.86	40.25	40.42	43.11	28.26	39.78	35.43	35.69	36.68	32.16	39.83	35.59	33.00	40.01	38.70	39.87
Capital expenditure on environmental sustainability	survey	33.13	35.83	25.83	23.39	26.22	16.25	33.33	30.65	20.50	20.63	19.87	21.55	24.50	15.50	30.17	29.03	20.67
Barriers to corporate investments	average survey score	24.06	39.58	47.50	26.17	29.27	38.44	18.75	22.98	22.50	16.88	44.38	27.50	35.25	27.75	37.50	16.94	29.33
Access to finance	survey	28.75	40.00	48.33	26.56	29.27	41.25	16.67	20.16	21.50	14.38	43.13	29.17	38.50	27.50	36.67	13.71	29.81
Awareness among investors	survey	19.38	39.17	46.67	25.78	29.27	35.63	20.83	25.81	23.50	19.38	45.63	25.83	32.00	28.00	38.33	20.16	28.85
National investment strategy and policies	average policy score	62.50	25.00	62.50	62.50	50.00	62.50	50.00	12.50	25.00	37.50	50.00	75.00	75.00	75.00	25.00	75.00	87.50
Existence of investment strategy	policy assessment	50.00	50.00	100.00	100.00	100.00	100.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00
Progress monitoring and reporting	policy assessment	50.00	0.00	50.00	50.00	50.00	100.00	50.00	0.00	50.00	50.00	0.00	100.00	100.00	50.00	0.00	100.00	100.00
Budget allocation	policy assessment	50.00	0.00	50.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	50.00	0.00	50.00	50.00
Incentives for business action	policy assessment	100.00	50.00	50.00	50.00	50.00	50.00	100.00	0.00	0.00	50.00	100.00	100.00	0.00	100.00	50.00	50.00	100.00
Innovation and Technology Development	Pillar 1/B score	25.39	23.64	34.12	29.93	30.18	25.72	39.57	16.42	20.44	25.36	36.59	34.62	34.82	39.68	19.57	23.38	38.25
Innovation environment	quantitative	19.40	11.00	18.20	11.30	19.20	20.10	22.00	7.30	6.80	12.70	19.70	9.80	21.00	24.70	9.40	11.00	23.30
Green technology patents	quantitative	1.31	0.22	1.06	0.35	2.04	4.65	5.15	0.33	0.24	1.22	7.09	2.02	16.79	6.53	0.00	0.25	4.70
Corporate innovations	average survey score	30.83	45.83	54.72	33.07	36.99	40.63	31.11	33.06	37.21	25.00	44.58	39.17	39.00	40.00	43.89	32.26	37.50
Corporate innovations	survey	50.00	50.83	59.17	46.88	46.34	47.50	48.33	50.81	57.14	48.13	48.75	49.17	50.50	53.50	53.33	45.97	51.92

Access to technology	survey	17.50	39.17	53.33	24.22	34.15	35.63	17.50	24.19	29.00	8.13	43.13	30.83	33.50	32.00	38.33	26.61	29.33
Local innovation capacity	survey	25.00	47.50	51.67	28.13	30.49	38.75	27.50	24.19	25.50	18.75	41.88	37.50	33.00	34.50	40.00	24.19	31.25
National innovation policies	average policy score	50.00	37.50	62.50	75.00	62.50	37.50	100.00	25.00	37.50	62.50	75.00	87.50	62.50	87.50	25.00	50.00	87.50
Grants for R&D	policy assessment	50.00	0.00	50.00	50.00	50.00	50.00	100.00	0.00	50.00	100.00	100.00	100.00	100.00	100.00	0.00	100.00	100.00
Incentives and subsidies	policy assessment	50.00	50.00	50.00	100.00	100.00	0.00	100.00	50.00	50.00	50.00	100.00	100.00	50.00	100.00	50.00	50.00	100.00
Collaborations	policy assessment	100.00	50.00	50.00	100.00	50.00	100.00	100.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	50.00	0.00	100.00
Green public procurement	policy assessment	0.00	50.00	100.00	50.00	50.00	0.00	100.00	0.00	0.00	0.00	0.00	50.00	0.00	50.00	0.00	50.00	50.00
Sustainable Infrastructure and Transport	Pillar 2 score	43.77	41.28	49.85	47.10	50.14	35.97	46.15	42.86	44.08	28.11	52.33	51.63	52.66	57.63	43.47	47.78	62.99
Infrastructure	Pillar 2/A score	52.04	30.22	48.38	49.74	46.41	40.54	45.01	35.56	41.63	24.04	65.91	45.78	65.70	50.33	40.17	42.13	77.75
LEED certified projects	quantitative	13.30	0.00	2.67	1.37	5.24	9.62	6.17	6.16	0.70	17.16	69.32	0.00	80.27	3.28	2.14	0.00	100.00
GHG emissions from buildings	quantitative	88.61	93.40	89.67	96.61	92.49	88.57	84.79	95.92	86.36	0.00	90.24	94.78	92.33	78.40	94.08	96.01	96.09
Infrastructure use by business sector	average survey score	31.25	15.00	51.16	25.96	37.91	38.98	14.09	15.16	29.45	29.02	41.59	13.33	27.68	44.65	39.44	22.51	39.92
Plans for using green certified buildings	survey	33.33	0.00	44.44	12.00	25.00	34.62	21.43	17.24	15.63	25.81	31.03	8.33	20.00	35.29	4.17	17.39	36.84
Targets for using green certified buildings	survey	41.67	0.00	60.71	41.67	62.50	45.45	0.00	0.00	48.21	50.00	56.25	0.00	29.55	66.67	75.00	29.17	54.55
Availability of sustainable infrastructure	survey	18.75	45.00	48.33	24.22	26.22	36.88	20.83	28.23	24.50	11.25	37.50	31.67	33.50	32.00	39.17	20.97	28.37
National infrastructure policies	average policy score	75.00	12.50	50.00	75.00	50.00	25.00	75.00	25.00	50.00	50.00	62.50	75.00	62.50	75.00	25.00	50.00	75.00
Existence of infrastructure policies	policy assessment	100.00	50.00	50.00	100.00	100.00	50.00	100.00	50.00	50.00	50.00	100.00	50.00	100.00	100.00	50.00	50.00	100.00
Progress monitoring and reporting	policy assessment	100.00	0.00	100.00	50.00	50.00	0.00	50.00	0.00	50.00	50.00	100.00	100.00	100.00	50.00	0.00	50.00	100.00
Budget allocation	policy assessment	50.00	0.00	0.00	50.00	0.00	0.00	50.00	0.00	50.00	50.00	0.00	50.00	50.00	50.00	0.00	50.00	50.00
Incentives for business action	policy assessment	50.00	0.00	50.00	100.00	50.00	50.00	100.00	50.00	50.00	50.00	50.00	100.00	0.00	100.00	50.00	50.00	50.00
Transport and Mobility	Pillar 2/B score	35.50	52.34	51.32	44.46	53.87	31.39	47.29	50.15	46.54	32.18	38.74	57.49	39.62	64.92	46.78	53.42	48.23
GHG emissions from transportation	quantitative	21.50	96.09	84.48	91.43	94.49	0.00	85.50	97.90	92.84	22.07	0.00	100.00	0.00	74.23	97.81	98.91	0.00
Logistics performance	quantitative	62.50	52.00	52.50	37.50	45.25	55.00	38.50	42.00	40.00	57.50	62.50	45.00	60.00	67.50	49.75	39.50	75.00
Corporate decarbonization commitments	average survey score	45.50	11.28	43.29	23.91	38.25	45.55	40.17	35.72	53.31	49.17	54.95	22.47	48.49	55.44	14.55	37.79	55.43
Plans for fleet electrification	survey	23.33	25.93	33.33	16.67	37.14	34.38	20.00	25.93	30.30	43.75	35.71	18.18	39.39	51.61	28.57	26.09	46.34
Targets for fleet electrification	survey	66.67	0.00	46.88	30.00	25.00	59.38	75.00	75.00	57.14	75.00	78.13	0.00	65.00	69.12	0.00	25.00	68.18

Plans for using biofuels	survey	23.08	7.14	17.65	16.00	37.50	24.00	15.00	21.74	30.00	37.50	50.00	10.00	23.08	20.83	12.50	31.82	40.74
Targets for using biofuels	survey	69.44	0.00	78.57	35.00	56.25	70.00	62.50	33.33	84.09	38.33	65.91	62.50	65.00	67.65	0.00	62.50	71.88
Transport-related carbon offset practices	survey	45.00	23.33	40.00	21.88	35.37	40.00	28.33	22.58	65.00	51.25	45.00	21.67	50.00	68.00	31.67	43.55	50.00
National transport infrastructure policies	average policy score	12.50	50.00	25.00	25.00	37.50	25.00	25.00	25.00	0.00	0.00	37.50	62.50	50.00	62.50	25.00	37.50	62.50
Existence of infrastructure policies	policy assessment	50.00	100.0	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00	100.00	100.00	50.00	100.00	50.00	50.00	100.00
Progress monitoring and reporting	policy assessment	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00	50.00	100.00	50.00	100.00	50.00	50.00	100.00
Budget allocation	policy assessment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	0.00	0.00	0.00	0.00
Public transport systems	policy assessment	0.00	50.00	0.00	0.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	50.00	0.00	50.00	50.00
Governance and Reporting	Pillar 3 score	58.16	41.13	51.00	47.45	46.62	59.23	48.56	30.74	46.36	50.52	56.85	49.17	59.84	67.39	46.82	42.17	66.12
Government Regulations and Policies	Pillar 3/A score	65.60	53.05	60.88	57.59	54.62	67.21	60.29	40.81	52.35	61.29	70.85	69.54	70.85	66.35	53.70	53.59	78.31
Regulatory environment	average quantitative score	70.35	39.42	32.37	47.76	33.97	54.33	45.03	23.24	15.06	57.21	79.65	62.50	65.71	52.56	33.33	28.37	85.42
Government efficiency	quantitative	74.04	33.17	35.58	46.15	38.94	51.44	50.96	22.60	14.42	48.08	82.69	61.54	68.75	51.92	28.37	32.21	89.90
Regulatory efficiency	quantitative	76.44	43.75	34.62	45.67	36.54	58.17	47.60	24.52	15.87	63.46	77.40	54.33	63.94	50.00	28.85	35.58	82.21
Control of corruption	quantitative	60.58	41.35	26.92	51.44	26.44	53.37	36.54	22.60	14.90	60.10	78.85	71.63	64.42	55.77	42.79	17.31	84.13
Corporate perceptions	average survey score	51.46	57.22	62.78	50.00	54.88	59.79	48.33	49.19	54.50	51.67	57.92	58.61	59.33	59.00	52.78	44.89	62.02
Enforcement of environmental laws	survey	69.38	60.00	69.17	61.72	70.73	72.50	58.33	50.81	69.00	75.63	69.38	80.83	77.50	76.50	60.00	56.45	83.65
Citizen support in achieving environmental sustainability	survey	69.38	67.50	74.17	63.28	63.41	73.13	62.50	67.74	65.00	67.50	66.25	63.33	65.00	77.00	58.33	58.87	70.19
Predictability and appropriateness	survey	15.63	44.17	45.00	25.00	30.49	33.75	24.17	29.03	29.50	11.88	38.13	31.67	35.50	23.50	40.00	19.35	32.21
National commitments to environmental sustainability	average policy score	75.00	62.50	87.50	75.00	75.00	87.50	87.50	50.00	87.50	75.00	75.00	87.50	87.50	87.50	75.00	87.50	87.50
Existence of national strategy or framework	policy assessment	100.00	100.00	100.00	50.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Progress monitoring and reporting	policy assessment	50.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Budget allocation	policy assessment	50.00	0.00	50.00	50.00	0.00	50.00	50.00	0.00	50.00	0.00	0.00	50.00	50.00	50.00	0.00	50.00	50.00
Environmental impact assessment	policy assessment	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Corporate Governance	Pillar 3/B score	50.72	29.21	41.11	37.30	38.63	51.26	36.83	20.67	40.37	39.74	42.85	28.81	48.84	68.43	39.94	30.76	53.93
Sustainability report publications	quantitative	20.30	0.00	0.64	0.00	1.42	17.55	10.59	0.00	0.26	6.86	7.88	0.00	5.42	100.00	0.00	5.75	26.12

Integration of sustainability into the business model	survey	76.00	63.50	69.83	72.66	72.68	72.00	66.33	63.71	72.86	80.38	70.38	63.17	71.70	77.10	56.83	72.26	76.15
Sustainability reporting practices	average survey score	31.56	28.33	43.96	26.56	30.43	40.47	20.42	18.98	38.38	21.72	43.13	27.08	43.25	46.63	27.92	20.03	38.45
Auditing	survey	11.25	0.00	26.67	4.69	15.00	30.00	5.00	1.72	25.00	7.50	30.00	6.67	30.00	39.00	3.33	8.33	22.55
Use of international sustainability reporting standards	survey	58.75	15.00	51.67	43.75	47.56	63.75	28.33	17.74	75.00	51.25	63.75	33.33	77.00	86.00	25.00	33.87	64.42
Reporting framework in the country	survey	28.75	50.83	46.67	31.25	31.71	35.63	24.17	29.03	29.00	15.00	38.75	37.50	35.00	31.00	41.67	16.94	33.17
Collaboration among stakeholders	survey	27.50	47.50	50.83	26.56	27.44	32.50	24.17	27.42	24.50	13.13	40.00	30.83	31.00	30.50	41.67	20.97	33.65
Mandatory reporting guidelines	average policy score	75.00	25.00	50.00	50.00	50.00	75.00	50.00	0.00	50.00	50.00	50.00	25.00	75.00	50.00	75.00	25.00	75.00
Environmental risk reporting	policy assessment	50.00	0.00	0.00	0.00	0.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	0.00	50.00	0.00	50.00
Sustainable stock exchange	policy assessment	100.00	50.00	100.00	100.00	100.00	100.00	100.00	0.00	100.00	100.00	100.00	50.00	100.00	100.00	100.00	50.00	100.00
Energy Transition	Pillar 4 score	33.83	55.32	54.03	65.39	66.77	39.31	53.01	61.51	68.75	43.17	29.54	67.43	45.67	66.39	62.24	72.01	51.51
Energy Consumption	Pillar 4/A score	35.04	66.47	61.56	65.51	73.91	39.04	55.25	74.37	73.96	45.15	30.36	73.76	47.19	59.53	69.90	78.63	45.08
Total energy supply per capita	quantitative	0.00	98.11	93.11	98.76	97.46	19.92	96.06	98.77	94.58	51.34	0.00	100.00	37.49	78.49	98.41	96.84	47.62
Renewable energy share	quantitative	0.00	63.00	7.00	45.00	77.00	0.00	10.00	77.00	75.00	0.00	0.00	78.00	0.00	7.00	84.00	92.00	1.00
Corporate commitments	average survey score	56.84	38.12	62.79	51.59	54.50	52.90	31.58	38.37	59.59	62.59	54.79	33.70	67.95	69.29	30.53	59.01	65.06
Plans for fossil fuel reduction	survey	30.43	16.67	41.18	30.43	54.55	48.00	14.29	26.09	36.36	66.67	40.74	33.33	56.00	63.89	25.00	40.00	57.14
Fossil fuel reduction targets	survey	62.50	41.67	75.00	60.00	55.88	51.79	40.63	41.67	72.00	54.69	70.83	0.00	73.68	69.23	42.86	61.54	70.45
Plans for renewable energy consumption	survey	56.67	39.13	60.00	63.16	71.88	55.56	38.10	60.71	62.96	64.00	40.91	34.78	75.00	70.59	10.53	78.26	67.86
Renewable energy consumption targets	survey	77.78	55.00	75.00	52.78	35.71	56.25	33.33	25.00	67.05	65.00	66.67	66.67	67.11	73.44	43.75	56.25	64.77
National energy efficiency commitments	average policy score	83.33	66.67	83.33	66.67	66.67	83.33	83.33	83.33	66.67	66.67	66.67	83.33	83.33	83.33	66.67	66.67	66.67
Energy efficiency targets	policy assessment	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Progress monitoring and reporting	policy assessment	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Budget allocation	policy assessment	50.00	0.00	50.00	0.00	0.00	50.00	50.00	50.00	0.00	0.00	0.00	50.00	50.00	50.00	0.00	50.00	0.00
Energy Transition and Adaptation	Pillar 4/B score	32.62	44.17	46.50	65.27	59.63	39.59	50.77	48.64	63.54	41.19	28.73	61.11	44.15	73.24	54.58	65.38	57.93
Total GHG emissions per capita	quantitative	55.66	98.79	95.79	98.78	98.43	50.88	96.73	98.52	97.67	70.28	0.00	99.69	74.39	88.38	98.26	98.90	70.18
Fossil-fuel subsidies	quantitative	24.36	97.29	0.00	95.73	94.45	41.52	77.49	95.51	85.96	31.61	68.52	97.78	12.58	29.79	95.54	100.00	71.23

Environmental tax on energy	quantitative	0.00	0.00	17.41	44.81	25.93	0.00	5.19	0.00	0.00	0.00	0.00	25.19	0.00	92.59	25.93	57.78	0.00
Corporate commitments	average survey score	32.36	10.60	49.14	27.29	30.66	36.78	33.58	22.83	47.60	28.56	45.50	19.00	44.57	45.38	16.11	27.29	39.51
Plans for CO2 emission reduction	survey	33.33	28.00	69.23	48.15	37.50	54.17	21.05	38.46	55.56	41.18	62.96	8.70	53.85	69.44	18.18	26.09	45.45
CO2 emission reduction targets	survey	11.25	0.00	32.14	16.67	13.33	23.33	25.00	0.00	45.19	20.00	34.09	0.00	27.50	43.18	33.33	10.00	26.79
Plans for other GHG emission reduction	survey	48.15	25.00	42.11	23.81	45.16	25.93	27.27	20.83	52.94	10.53	46.43	21.74	62.50	26.67	17.39	24.00	42.86
Other GHG emissions reduction targets	survey	59.09	0.00	80.56	40.00	50.00	69.23	81.25	50.00	57.29	61.11	77.78	56.25	70.00	76.61	0.00	66.67	71.88
Corporate carbon offset practices	survey	10.00	0.00	21.67	7.81	7.32	11.25	13.33	4.84	27.00	10.00	6.25	8.33	9.00	11.00	11.67	9.68	10.58
National energy transition commitments	average policy score	83.33	33.33	41.67	75.00	33.33	83.33	41.67	50.00	75.00	66.67	33.33	75.00	83.33	83.33	41.67	58.33	66.67
Net zero target	policy assessment	100.00	0.00	0.00	50.00	0.00	100.00	0.00	50.00	100.00	100.00	0.00	50.00	100.00	100.00	50.00	50.00	100.00
Progress monitoring and reporting	policy assessment	100.00	0.00	0.00	100.00	0.00	100.00	0.00	0.00	100.00	100.00	0.00	100.00	100.00	100.00	0.00	0.00	100.00
Budget allocation	policy assessment	50.00	0.00	0.00	50.00	0.00	50.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	50.00	0.00	0.00	0.00
GHG reduction target	policy assessment	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Progress monitoring and reporting	policy assessment	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Budget allocation	policy assessment	50.00	0.00	50.00	50.00	0.00	50.00	50.00	50.00	50.00	0.00	0.00	50.00	50.00	50.00	0.00	100.00	0.00
Carbon market mechanisms	average policy score	0.00	25.00	75.00	50.00	75.00	25.00	50.00	25.00	75.00	50.00	25.00	50.00	50.00	100.00	50.00	50.00	100.00
Clean Development Mechanism Projects	policy assessment	0.00	50.00	100.00	50.00	100.00	50.00	100.00	50.00	100.00	50.00	50.00	50.00	50.00	100.00	50.00	100.00	100.00
Carbon trading practices	policy assessment	0.00	0.00	50.00	50.00	50.00	0.00	0.00	0.00	50.00	50.00	0.00	50.00	50.00	100.00	50.00	0.00	100.00
Environmental Ecosystems	Pillar 5 score	52.44	52.17	60.41	55.12	51.17	58.27	51.00	48.13	42.48	51.46	55.26	54.09	60.00	61.40	52.85	52.32	68.47
Ecosystem health	Pillar 5/A score	53.47	49.94	58.59	49.52	44.32	61.03	49.61	49.29	29.71	61.15	61.49	47.93	62.66	66.41	47.93	52.33	74.53
Air quality	quantitative	38.13	12.80	9.93	38.52	43.40	41.95	34.35	35.79	8.56	54.41	57.78	20.55	36.36	74.08	16.31	29.19	47.23
Soil health	quantitative	27.46	79.49	73.47	60.40	55.48	56.78	33.10	58.38	52.76	47.65	48.61	82.22	66.55	59.14	66.66	87.34	100.00
Water quality	quantitative	94.53	54.12	83.47	61.64	30.25	96.00	86.81	61.03	0.00	91.92	96.45	42.27	95.71	76.92	61.24	54.07	96.57
Corporate practices of pollution reduction and natural habitat protection	survey	53.75	53.33	67.50	37.50	48.17	49.38	44.17	41.94	57.50	50.63	43.13	46.67	52.00	55.50	47.50	38.71	54.33
Conservation	Pillar 5/B score	51.41	54.40	62.22	60.73	58.02	55.52	52.38	46.97	55.25	41.77	49.03	60.26	57.35	56.38	57.78	52.32	62.41
Red List Index	quantitative	74.60	90.23	90.19	84.01	78.53	82.79	88.29	78.09	85.15	88.09	81.32	88.32	89.80	76.53	68.29	74.22	84.55

Terrestrial and inland waters protected area coverage	quantitative	12.96	22.96	13.14	14.84	12.19	17.10	2.20	29.48	13.93	3.90	15.78	9.11	15.58	9.29	38.38	16.06	19.35
National environmental protection policies	average policy score	66.67	50.00	83.33	83.33	83.33	66.67	66.67	33.33	66.67	33.33	50.00	83.33	66.67	83.33	66.67	66.67	83.33
Existence of national strategy and policies	policy assessment	100.00	100.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Progress monitoring and reporting	policy assessment	50.00	50.00	100.00	100.00	100.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	50.00	100.00	100.00	50.00	100.00
Budget allocation	policy assessment	50.00	0.00	50.00	50.00	50.00	50.00	50.00	0.00	50.00	0.00	0.00	50.00	50.00	50.00	0.00	50.00	50.00
Circularity	Pillar 6 score	54.14	38.14	58.61	42.99	46.80	44.30	46.41	38.08	49.76	49.92	48.97	39.55	51.54	57.10	41.03	47.22	53.78
Resource Use	Pillar 6/A score	46.58	48.19	56.00	52.45	55.63	28.54	51.59	52.26	54.68	54.18	44.31	52.46	37.94	57.68	51.18	58.25	38.16
Materials use efficiency	quantitative	50.64	95.19	84.46	93.77	92.26	0.00	87.21	97.51	94.47	82.97	29.20	97.93	37.21	85.90	98.85	98.11	0.00
ISO 14001 environmental certificates	quantitative	26.52	3.57	9.18	5.16	4.53	20.23	10.75	7.47	0.99	22.93	33.55	3.39	5.28	16.32	3.63	5.87	40.34
Corporate resource efficiency practices	average survey score	62.57	45.81	74.36	58.42	70.10	65.38	56.80	51.78	68.57	56.64	70.18	56.06	71.32	70.84	51.04	70.76	74.15
Plans for reducing materials in production	survey	50.00	22.22	50.00	83.33	40.91	67.86	52.94	22.22	55.00	56.25	52.00	43.48	54.55	60.87	31.58	77.78	69.44
Targets for reducing materials in production	survey	60.00	50.00	69.23	57.14	64.71	75.00	72.22	52.27	65.22	66.67	71.88	65.00	84.09	63.75	65.63	42.86	68.75
Plans for paper usage reduction	survey	50.00	47.06	100.00	52.94	74.07	58.82	72.73	65.00	72.22	72.22	72.00	72.22	91.30	80.00	64.29	89.47	69.57
Targets for paper usage reduction	survey	60.58	32.14	73.44	52.08	69.23	60.87	43.06	55.00	67.50	51.25	67.86	30.56	67.00	72.32	51.92	67.50	70.69
Plans for plastic usage reduction	survey	86.67	68.42	88.89	65.00	86.67	74.19	52.63	76.19	84.21	43.48	84.00	73.33	67.74	75.00	57.14	83.33	86.11
Targets for plastic usage reduction	survey	68.18	55.00	64.58	40.00	85.00	55.56	47.22	40.00	67.24	50.00	73.33	51.79	63.24	73.08	35.71	63.64	80.36
Waste Management	Pillar 6/B score	61.70	28.10	61.22	33.54	37.97	60.06	41.23	23.90	44.85	45.65	53.62	26.64	65.13	56.52	30.88	36.19	69.40
Wastewater treatment	quantitative	93.27	16.81	73.84	11.82	11.36	100.00	44.63	8.01	41.30	81.69	99.95	8.01	85.19	41.29	7.67	3.68	94.96
Recycling	quantitative	14.10	13.30	26.60	13.30	19.90	15.40	25.40	5.20	4.70	13.90	6.00	11.50	18.80	28.20	12.30	24.10	24.50
Corporate waste management practices	average survey score	72.75	48.96	77.77	59.03	70.63	58.16	44.90	65.73	66.74	70.36	58.55	37.04	73.21	73.26	53.54	66.99	74.79
Plans for waste management and recycling	survey	78.57	29.17	68.42	52.38	65.52	61.90	60.87	80.77	57.14	76.00	52.63	42.86	65.38	70.97	35.00	64.71	78.13
Targets for waste management and recycling	survey	60.00	50.00	86.36	56.25	63.89	64.47	31.25	75.00	76.85	68.18	76.39	57.14	65.28	81.67	62.50	62.50	69.74
Plans for using recycled materials	survey	77.42	50.00	72.22	65.00	84.38	56.25	50.00	57.14	63.33	70.59	45.16	48.15	76.47	63.33	41.67	78.26	76.32
Targets for using recycled materials	survey	75.00	66.67	84.09	62.50	68.75	50.00	37.50	50.00	69.64	66.67	60.00	0.00	85.71	77.08	75.00	62.50	75.00

National waste management policies	average policy score	66.67	33.33	66.67	50.00	50.00	66.67	50.00	16.67	66.67	16.67	50.00	50.00	83.33	83.33	50.00	50.00	83.33
Waste management and recycling targets	policy assessment	100.00	50.00	100.00	50.00	100.00	100.00	100.00	50.00	100.00	50.00	100.00	100.00	100.00	100.00	100.00	50.00	100.00
Progress monitoring and reporting	policy assessment	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	50.00	0.00	50.00	50.00	100.00	100.00	50.00	50.00	100.00
Budget allocation	policy assessment	50.00	0.00	50.00	50.00	0.00	50.00	0.00	0.00	50.00	0.00	0.00	0.00	50.00	50.00	0.00	50.00	50.00

