November 2024

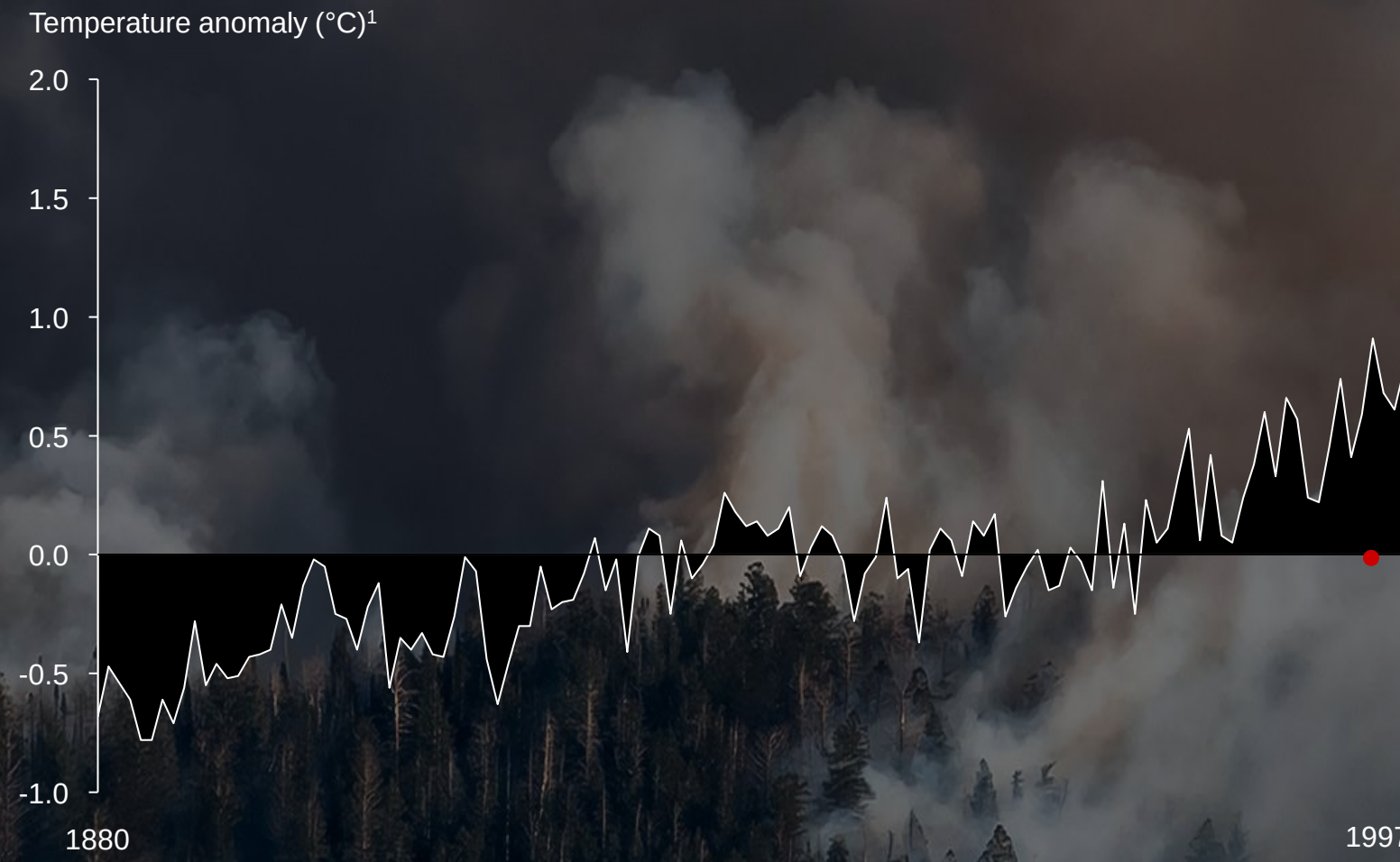
COP29
Key takeaways and implications

BAIN & COMPANY

COP29 Baku Azerbaijan

COP29

Urgency and scale of today's climate challenge are greater than in COP's ~30-year history



Note: 1) Anomaly calculated w.r.t. 1951–1980
Source: NASA/GISS/GISTEMP v4

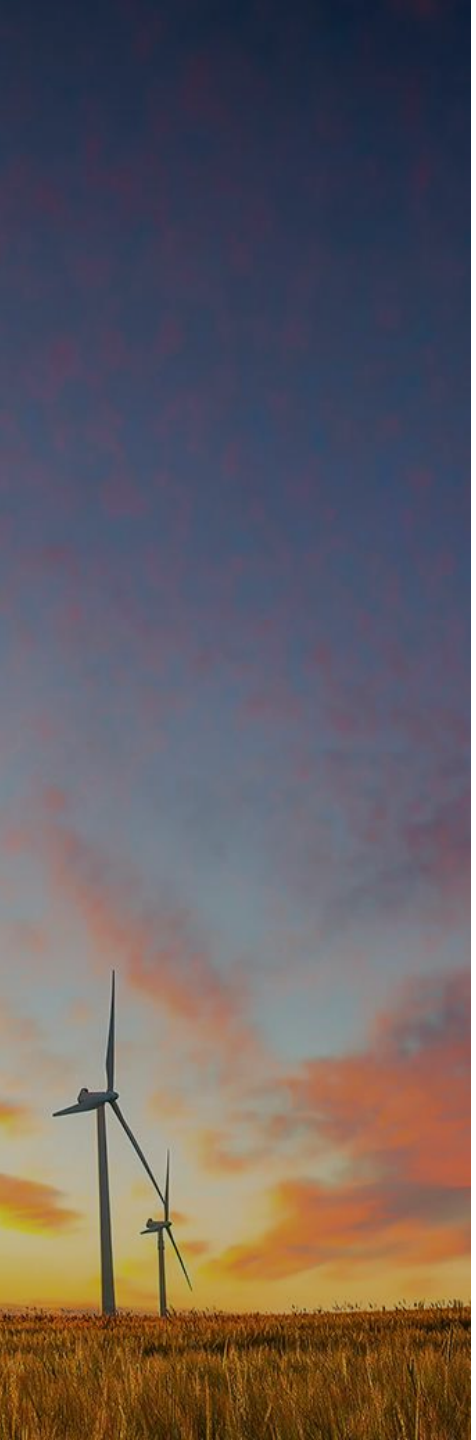
KEY MILESTONES

Kyoto (1997)
Established the Kyoto Protocol, committing to reduce greenhouse gas emissions

Paris (2015)
Adopted the Paris Agreement, aiming for <2°C warming, and established NDCs

Glasgow (2021)
Strengthened commitments; unprecedented engagement from the private sector

Baku (2024)
Focus on mobilizing necessary climate finance



C O P 2 9

Summary | COP29 progress and outstanding challenges

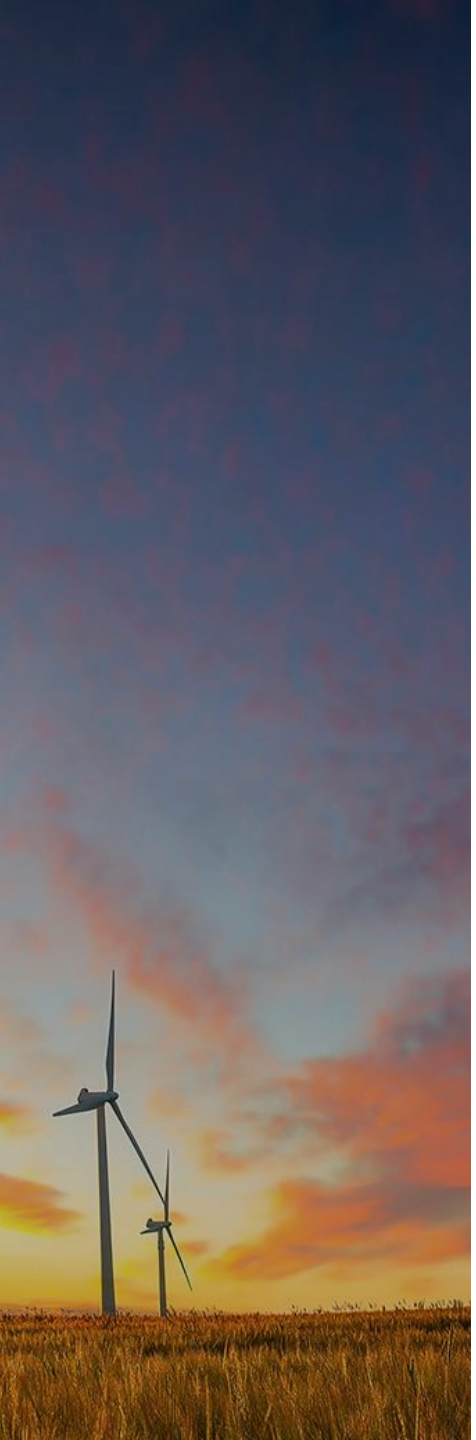
CONTEXT

- 2024 marks both the **hottest year** (Jan–Sept global average temperature was 1.5°C above pre-industrial levels) and the **hottest decade ever recorded**[1]**. Escalating CO_2 emissions** (+0.8% vs. 2023[2]), **and intensifying climate-related disasters** underscore the challenge faced at COP29.
- The optimism from COP26 in Glasgow has dimmed, with growing agreement that the 2100, long-term 1.5°C warming limit is likely unattainable. The **trajectory of current policies and actions remains in-line with COP26**—on track for a 2.7°C increase[3]—raising concerns about the adequacy of global climate efforts.
- Calls for action were amplified by 20 prominent **former leaders and climate experts** through an open letter **urging reforms** such as stronger accountability mechanisms, more inclusive decision-making, and scaling up solutions.[4]
- Adding to these challenges, **global political uncertainty**—shifting priorities in key economies, polarization on climate policies, and geopolitical tensions—created a volatile backdrop for negotiations.

COP29 OUTCOMES

- Central to this “Finance COP,” developed nations agreed to a **new climate finance goal of $300B annually by 2035**—up from the pledge made in 2009 for $100 billion by 2020—with a call to private and public funders to support in scaling up this investment to $1.3T. Progress was also made on **formalizing carbon markets, continuing to scale renewable energy investments, and advancing policies to reduce methane emissions**. These achievements signal a pragmatic shift toward delivering measurable, near-term results.
- However, **numerous deadlocks and key challenges remain**, e.g., enhancing Nationally Determined Contributions, clarifying how the revised climate finance target will be met (contributors, format of the financing, etc.), and securing firmer commitments to transition away from fossil fuels.
- **Corporate coalitions have looked to advance** sector-specific commitments (e.g., “no new coal” commitment[5]), forge ecosystem partnerships (e.g., across the buildings sector[6]), and invest in innovation (e.g., scaling renewables[7]). However, they continue to **call for greater policy and financial support from government to scale solutions.**

Sources: [1] World Meteorological Organisation; [2] Carbon Brief; [3] Climate Action Tracker 2021-2024; [4] Reuters; [5] Times of India; [6] Mirage; [7] IRENA



COP29

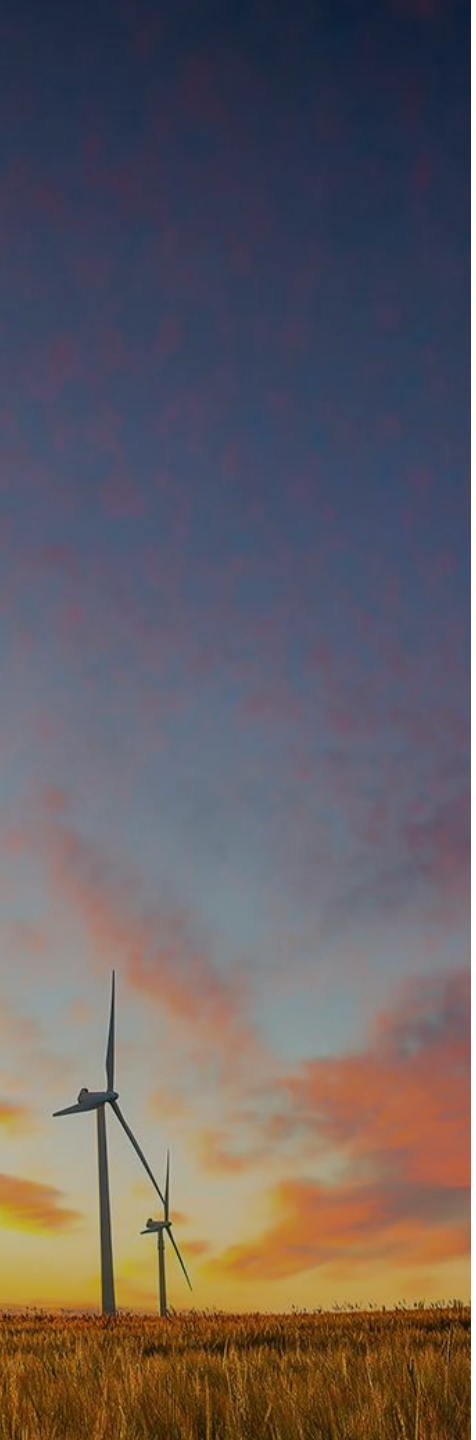
Key takeaways from COP29 (1/2)

COMMITMENTS & DELIVERY

- This year saw no major commitments altering the global temperature trajectory, with **current policies and actions continuing to project a 2.7°C rise**, unchanged from the past three years.
- **New Nationally Determined Contributions are due in February 2025**, with 3 countries making 2035 commitments at COP29: the **UK—which were commended for their pledge** of 81% emission reduction (vs. 1990), alongside job-creating renewable energy initiatives (e.g., via £1B offshore wind deal)—Brazil (59-67% vs. 2005) and the UAE (47% vs. 2019).
- This year marks the first deadline for **Biennial Transparency Reports (BTRs)**, which track NDC progress.
  - 11 countries plus the EU submitted reports at COP29. Despite progress, most countries appear to be facing challenges

CLIMATE FINANCE

- Under the Paris Agreement, nations committed to establishing a **New Collective Quantified Goal (NCQG)** prior to 2025 to guide climate finance flows from developed to developing nations for adaptation and mitigation.
- COP29 agreed an annual target of **$300B by 2035**, up from the previous target of $100B by 2020. Additionally, all public and private actors were called upon to scale up funds to $1.3T annually by 2035.
  - Despite progress, **contention persists over the specifics of financing** (distribution of responsibilities among developed nations, the role of emerging economies, and the format of financing—grants vs. loans, etc.)
  - Included in the NCQG, **new adaptation pledges reached ~$130M for** the Adaptation Fund
- Operationalization **of the Loss and Damage Fund** was announced, with total pledges—including ~$85M in new commitments since last COP—exceeding $730M. Project financing is set to begin in 2025.
- **Multilateral Development Banks committed $120B** annually by 2030 in climate finance for low- and middle-income nations and is aiming to mobilize $65B (estimated) from the private sector.
- **Climate Investment Funds** announced a bond issuance program, aiming to **generate $75B over a decade.**



COP29

Key takeaways from COP29 (2/2)

CARBON MARKETS

- After a decade of negotiations, agreements were reached to support **formalizing carbon markets**:
  - A **centralized global carbon market** (under Article 6.4 of the Paris Agreement) to enable nations to jointly reduce emissions through an UN-supervised framework with **"corresponding adjustments" to prevent double counting**
  - For **bilateral or multilateral trading** (under Article 6.2) nations agreed on a registry system to track carbon credits, incorporating several transparency requirements
- In addition, **Brazil approved rules** for regulated and voluntary domestic carbon market and **the UK** launched several integrity principles for the voluntary carbon market.

ENERGY TRANSITION

- Last year's commitment to **transition away from fossil fuels faced resistance and was not explicitly mentioned** in the final statements of COP29, or the concurrent G20 summit. **However, 16 nations took concrete steps toward implementation** by committing to phase out fossil fuel subsidies, and 25 countries—along with the EU—committed to no new coal plants in updated NDCs.
- **Renewable and low-carbon energy** continued to build on commitments made last year.
  - Several countries are backing COP28 pledge to **triple global renewable energy capacity with specific investments,** e.g., Indonesia secured nearly $1.3B in finance for green power infrastructure and clean energy
  - **Hydrogen's** importance was highlighted again with e.g., COP29 Hydrogen Declaration and World Bank's 10 GW Clean Hydrogen Initiative, whose aim is to increase global hydrogen production tenfold
  - **Nuclear energy built on momentum**, with 6 new countries committing to triple nuclear capacity by 2050, and the US actively executing its pledge by announcing plans to expand nuclear capacity by 200 GW
- COP29 also **emphasized methane cuts**, with the US introducing fines and 54 oil and gas firms, including NOCs, reporting emission reduction progress for the first time.

FOOD & NATURE

- COP29 continued to highlight the **importance of agriculture and food systems** in addressing climate change.
  - The US-UAE AIM for Climate initiative pledged an additional ~**$12B for climate-smart farming**
  - Over 50 nations endorsed the **Reducing Methane from Organic Waste Declaration**
  - The **FAO-backed Baku Harmoniya Climate Initiative for Farmers was launched** to boost farmers' resilience
- Currently **>90% countries identify agrifood systems as a priority in their NDCs;** however, only ~40 countries currently engage in national policy work in line with the COP28 declaration on sustainable agriculture.

The COP29 Presidency launched 13 pledges for its Action Agenda

PLEDGE	DETAILS
TRUCE APPEAL	Underscores the need for peace and climate cooperation to protect vulnerable communities.
GLOBAL ENERGY STORAGE AND GRIDS PLEDGE	Aims to increase global energy storage sixfold to 1,500 GW by 2030 and expand or refurbish 25 million km of grids to support net-zero goals.
GREEN ENERGY ZONES AND CORRIDORS PLEGDES	Commits to establishing zones and corridors that drive green investment, economic growth, and cross-border energy cooperation.
HYRDOGEN DECLARATION	Seeks to develop a global clean hydrogen market by addressing regulatory, financing, and technological barriers.
DECLARATION ON GREEN DIGITAL ACTION	Aims to accelerate climate-positive digitalization, reduce emissions embedded in digital infrastructure, and enhance accessibility of green digital technologies.
DECLARATION ON REDUCING METHANE FROM ORGANIC WASTE	Seeks to set targets for methane reduction in waste and food systems to align with 1.5°C goals.
DECLARATION TO RESILIENT AND HEALTHY CITIES	Seeks to enhance multisectoral cooperation to address climate challenges and secure funding to build resilient cities.
DECLARATION ON ENHANCED ACTION IN TOURISM	Encourages sustainable tourism practices, integrating tourism into national climate policies to reduce emissions and boost sector resilience.
DECLARATION ON WATER FOR CLIMATE ACTION	Focuses on integrated approaches when combating the causes and impacts of climate change on water basins and water-related ecosystems.
BAKU INITIATIVE FOR CLIMATE FINANCE, INVESTMENT, AND TRADE	Focuses on the nexus of climate finance, investment, and trade, providing a platform to promote investment into green diversification, support policy development, and share expertise through dialogue.
BAKU INITIATIVE ON HUMAN DEVELOPMENT FOR CLIMATE RESILIENCE	Focuses on linking human development with climate resilience by promoting education, healthcare, and livelihood opportunities in ways that prepare communities to adapt to climate impact.
BAKU HARMONIYA CLIMATE INITIATIVE FOR FARMERS	Aims to equip farmers with the tools, technologies, and resources needed to adapt to climate changes.
BAKU GLOBAL CLIMATE TRANSPARNCY PLATFORM	Aims to build mutual trust among parties and support developing countries in preparing their Biennial Transparency Reports (BTRs).

Newly formed and existing corporate coalitions took actions or made suggestions to accelerate sector-specific climate solutions at COP29 / EXAMPLES

ENERGY & NATURAL RESOURCES

OIL & GAS

The Oil & Gas Decarbonization Charter published its **first report to baseline, prioritize, and track progress** on methane emissions reductions made by the 54 members, with **3 new signatories** joining the initiative at COP29[3]

*"A survey of oil and gas industry climate performance has never been attempted on this **scale**. The lessons learned will be used to **improve reporting visibility and data quality** and to create more targeted programs."*
Bjørn Otto Sverdrup, Head of the OGDC Secretariat[3]

ENERGY & UTILITIES

Powering Past Coal Alliance (PPCA), a coalition of national and subnational governments, businesses, and organizations welcomed 2 new members to support the **transition from unabated coal power**[1] to clean energy; the alliance also supported the development of a **"no new coal" pledge** at COP29[4,5]

*"Twenty five countries pledged not to build any new unabated coal-power plants, in a push to **accelerate the phaseout of the highly polluting fossil fuel**."*
Press release, The Times of India[5]

Utilities for Net Zero Alliance (UNEZA) nearly **doubled their membership** to **45** utilities and power sector suppliers since launch at COP28, and reinforced their commitment to **invest more than $117B on grids and renewable power** generation capacity[6]

*"The adoption of political pledges on green energy corridors, storage, and grids at COP29 is more than a step, it's a **leap forward for the energy transition**."*
Francesco La Camera, Director-General of IRENA[6]

INDUSTRIAL & TRANSPORTATION

BUILDINGS & CONSTRUCTION

The **Zero Emissions and Resilient Buildings** (ZERB) **Accelerator was launched** to reduce operational and embodied GHGs and strengthen climate resilience in the buildings sector[7,8]

*"[This is] a new initiative to **rapidly reduce operational and embodied greenhouse gas emissions** and **strengthen climate resilience** in the buildings sector through enhanced multilevel collaboration with subnational governments around the world."*
Office of the Spokesperson, US Department of State[8]

HIGH EMISSIONS INDUSTRIALS

Industrial Transition Accelerator (ITA) issued an open letter urging governments to **unlock demand for low-carbon products** through proven policy measures;
ITA launched the **Green Purchase Toolkit,** together with the WBCSD, to provide practical guidance to help businesses procure low-carbon products[9,10]

*"Businesses need the solutions to **activate their contracts for near and net zero products and services**. This toolkit empowers them with mechanisms which convert their demand signal into action."*
Nancy Gilis, Senior Director, Industrial Decarbonization at WBCSD[2,10]

The **Breakthrough Agenda**, backed by 59 countries covering 80% global GDP, introduced the "**Baku Priority International Actions,**" a series of priority actions to cut carbon in the coming year and aiming to facilitate and accelerate the actions of both public and private parties through sector-specific initiatives[11,12]

Notes: (1) Coal power without measures taken to reduce emissions resulting from burning the coal; (2) World Business Council for Sustainable Development
Sources: (3) Total Energies; (4) Powering Past Coal Alliance; (5) Times of India; (6) IRENA; (7) Mirage; (8) US Department of State; (9) Mission Possible Partnership; (10) WBCSD; (11) Breakthrough Agenda; (12) Climate Champions

Three implications for corporates: Shape the race, regardless of COPs outcomes

1 Embed Economic Value at the Core of the Transition

- Anticipate **shifts in profit pools** and establish signposts to proactively anticipate industry tipping points
- **Address cost and carbon in tandem** based on a robust understanding of decarbonization cost, flexible pathways, and proven carbon delivery capabilities
- Understand **deaveraged demand for low-carbon offerings**, and target customer (sub)segments prioritizing sustainability

2 Catalyze collaboration and shape the policy landscape

- Deepen **partnerships across the value chain**, working closely with customers and suppliers to drive shared outcomes
- Forge **coalitions with industry peers** to share insights, pool resources, and co-develop solutions that accelerate progress
- Proactively engage in **shaping local and industry regulations,** especially amid increasing deglobalization pressures

3 Assess and de-risk your business model

- Understand **climate physical risks** and translate them into portfolio strategy and infrastructure resilience planning
- Put in place signposts to **monitor and adapt to the evolving pace** of climate transition risks

Agenda

COP29: KEY TOPICS, ACHIEVEMENTS, AND CHALLENGES

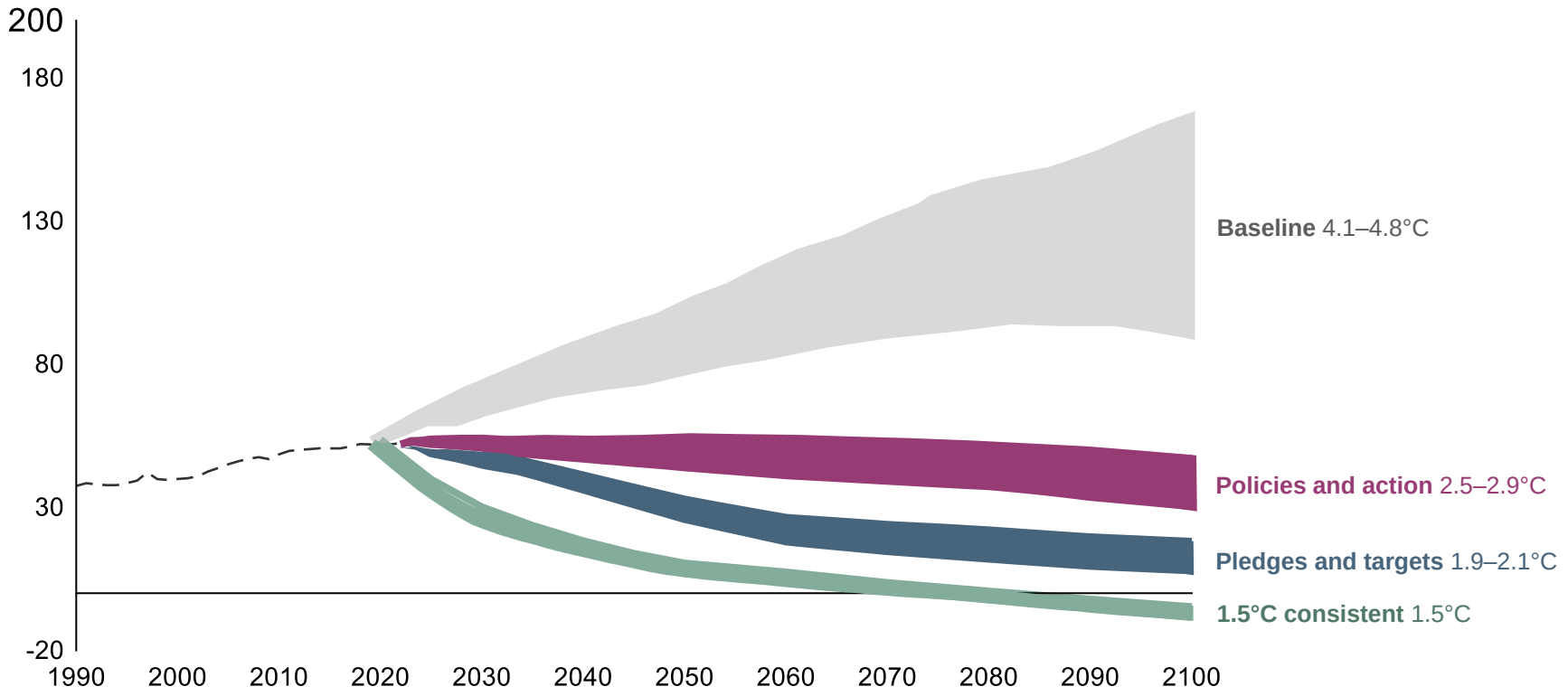
IMPLICATIONS FOR KEY SECTORS

BEYOND COP29: AN ACTION PLAN FOR CEOS

Current policies are expected to result in a 2.7°C temperature rise by the end of the century, or 2.1°C if pledges are met—little to no change vs. last three COPs

2100 Warming Projections

Emissions and expected warming based on pledges and current policies[1]



"2024 has been a year marked by minimal progress with almost no new NDCs or net-zero pledges."
- Climate Action Tracker[1]

POLICIES AND ACTION
show little change since COP26

FROM ~3.0°C AT COP25[5]

FROM ~2.7°C AT COP26[4]

TO ~2.7°C AT COP27[3]

TO ~2.7°C AT COP28[2]

TO ~2.7°C AT COP29

PLEDGES AND TARGETS
show stable results since COP26

FROM ~2.8°C AT COP25[5]

TO ~2.1°C AT COP26[4]

TO ~2.0°C AT COP27[3]

TO ~2.1°C AT COP28[2]

TO ~2.1°C AT COP29

Note: Baseline estimate from Climate Action Tracker December 2018 Update

Sources: Time series data from (1) Climate Action Tracker, November 2024; (2) Climate Action Tracker, December 2023; (3) Climate Action Tracker, November 2022; (4) Climate Action Tracker, November 2021; (5) Climate Action Tracker, December 2019

Progress made across key areas covered by COP29, but challenges remain (1/2)

		Key topic	Outcome	Agreements/Announcements	Challenges
COMMITMENTS & DELIVERY	1	**Nationally Determined Contributions (NDCs)**		○ The UK (81% reduction on 1990 base by 2035), Brazil (59%-67% reduction on 2005 base by 2035), and the UAE (47% emission reduction on 2019 base by 2035), have announced their **NDCs**[1]	○ Deadline of new NDCs is February 2025; limited movement over the last 3 years with **uncertainty remaining** on whether updates will have significant impact on climate forecasts
	2	**Delivery**		○ Ahead of the December 31, 2024 deadline, 11 parties (plus the EU) submitted Biennial Transparency Reports (BTRs) and 13 countries their National Inventory Reports (NIRs).[2] Among BTR submitters were Germany, Singapore, and the Netherlands, which, despite progress, face challenges in meeting projected climate target[3,4,5] ○ Baku **Declaration on Global Climate Transparency** was unveiled[6,7]	○ **Accurate reporting** necessitates reliable data, which may be scarce or inconsistent in some regions
CLIMATE FINANCE	3	**New Collective Quantified Goals (NCQG)**		○ The parties adopted a **$300B a year by 2035** global finance target for developing nations, with a broader goal of raising **$1.3T a year,** driven by the mobilization of capital from a wide variety of both public and private sources[8]	○ Lack of clarity around how the existing $300B annually will be **scaled up** toward the broader goal of raising **$1.3T annually by 2035**
	4	**Mitigation & adaptation finance**		○ Canada announced the launch of a **$1.48B climate platform** for adaptation projects in developing countries[9] ○ Public and private entities announced investments into **sustainable infrastructure and energy** in Southeast Asia[10] ○ The **Climate Investment Funds (CIF)** launched a bond issuance program on the London Stock Exchange, designed to raise up to $75B over the next decade;[11] together with Germany, the UK, and Canada, it will provide around $1.3B of climate finance for developing and emerging countries[12,13] ○ The **Asian Development Bank (ADB)** increased climate-related lending by **up to $7.2B,** supported by the US and Japan[14] ○ The Green Climate Fund, the Adaptation Fund, The Climate Investment Funds, and the Global Environment Facility launched the **Climate Project Explorer**, an AI-powered search platform designed to explore the climate projects and programs financed by the funds[15] ○ **Climate-Smart Governance (CSG) Dashboard**—a tool intended to assist nations in planning and implementing climate-resilient policies—was launched[16] ○ MDBs announced a new goal to raise **$120B in annual climate finance for developing nations** by 2030, with an additional estimated **$65B to come from the private** sector;[17] further **$50B** in annual collective climate financing is projected for high-income countries by 2030[18] ○ Asset owners worth a collective $10T announced **private capital deployments**; $3.5B of funding from the ADB to counteract melting glaciers and $1.2B from Azerbaijani banks to fund green projects through to 2030[19]	○ The Adaptation Fund is **severely underfunded**, with only **$133M pledged towards a 2024 target of $300M**, marking a continuation of last year's shortfall[20] ○ Azerbaijan **suspended** one of its flagship initiatives: a new climate fund with money voluntarily put in by **fossil-fuel producing countries**[21]
	5	**Loss & damage compensation**		○ The **Loss and Damage Fund was operationalized**, receiving **$85M** in new commitments since the last COP and expected to start financing projects in 2025[22,23] ○ The **Climate Resilient Debt Clause** was expanded to **encompass all natural disasters**[24]	○ The **complex application procedures** with existing funds resulted in calls for implementing simplified and more direct funding mechanisms[25]

Sources: (1) Guardian; (2) COP29 Official Website (3) UNFCCC; (4) UNFCCC; (5) UNFCCC; (6) News.AZ; (7) Apa; (8) Reuters; (9) The Globe and Mail; (10) Reuters; (11) ESG News; (12) Argus Media; (13) Reuters; (14) Reuters; (15) Green Climate Fund; (16) CGIAR; (17) Bloomberg; (18) World Bank; (19) COP 29 official website; (20) Adaptation Fund (21) Climate Home News; (22) COP29 official website; (23) NRDC; (24) World Bank; (25) Financial Times

Degree of success vs. post-COP28 expectations: Low High

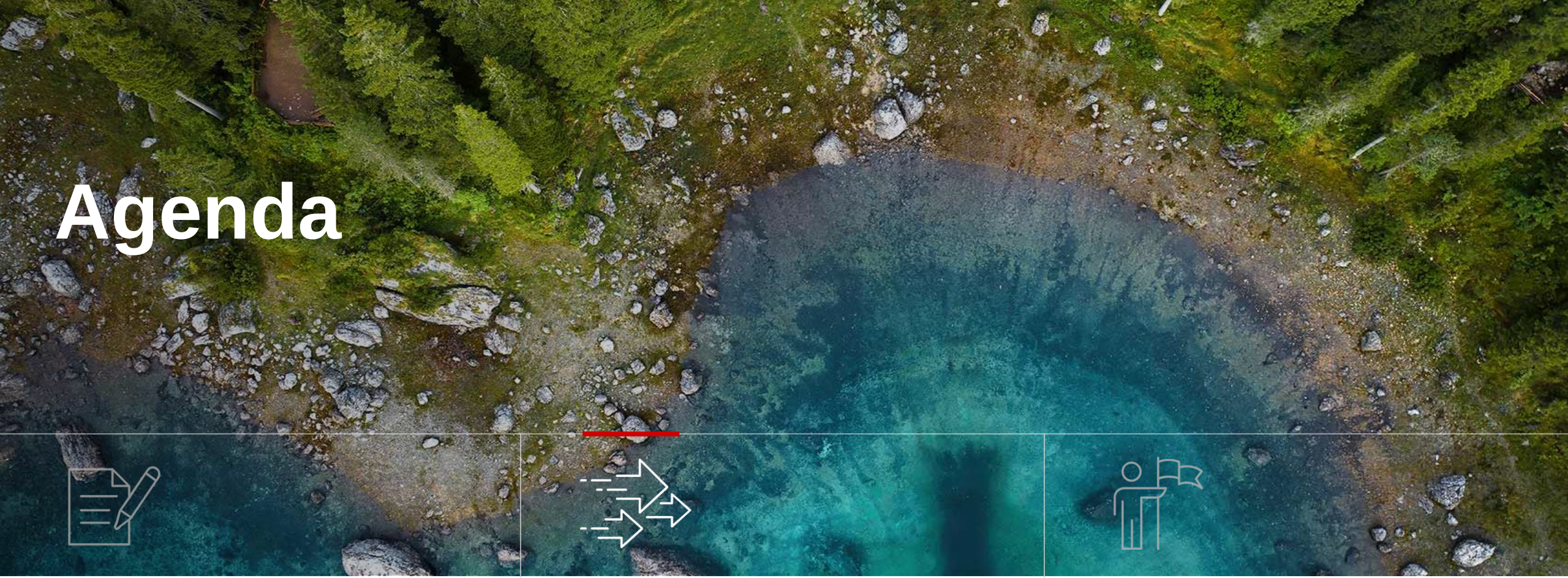
Progress made across key areas covered by COP29, but challenges remain (2/2)

		Key topic	Outcome	Agreements/Announcements	Challenges
CARBON MARKETS	6	Compliance markets		○ **Consensus reached** on standards for creating and trading carbon credits under **Article 6.4** of the Paris Agreement, establishing a centralized global carbon market governed[1] ○ **Consensus reached** on **Article 6.2** which facilitates bilateral carbon trading between countries, establishing guidelines for trading, enhancing transparency, and aiming to mitigate against double counting of credits[2]	○ Process around Article 6.4 approval **criticized** due to lack of detailed negotiations on standards set ○ **Greenwashing** concerns linger as Article 6.2 allows nations to retain implementation discretion[3]
	7	Voluntary markets		○ The UK and Brazil approved **principles** for a regulated and voluntary domestic carbon market[4,5] ○ The ICVCM approved **3 methodologies** for generating high-integrity carbon credits[6]	○ Doubts around **carbon credits' benefit**, citing risks of their use in replacing direct emission cuts[7]
ENERGY TRANSITION	8	Energy supply		○ Several development finance institutions pledged support for the World Bank's 10 GW **Clean Hydrogen Initiative**, whose aim is to increase global hydrogen production tenfold[8] ○ 6 new countries joined a **pledge** from last year to **triple global nuclear capacity by 2050**, and the US announced its new target of **200 GW new nuclear capacity by 2050**[9,10] ○ 25 countries and the EU committed to **no new unabated coal power** in their next round of climate plans[11] ○ Several nations endorsed the **Global Energy Storage and Grids pledge**, committing to a **sixfold growth** in global energy storage compared with 2022 levels by 2030[12] ○ The **COP29 Hydrogen Declaration,** whose aim is to expand green hydrogen production, was unveiled at the conference. It is endorsed by several UN bodies, the Hydrogen Council, and Hydrogen Europe[13,14] ○ The UK, New Zealand, and Colombia joined the **Coalition on Phasing Out Fossil Fuel Incentives Including Subsidies** (COFFIS), which now has **16 member countries**[15] ○ 12 countries signed up to join the first mission of the UK-led **Global Clean Power Alliance**, committed to speeding up clean energy transition[16] ○ Several countries announced **investment in renewable** energy, including Indonesia, which secured nearly $1.3B green funding from Germany, and is aiming to add 75 GW of renewable energy[17,18] ○ 54 oil and gas companies, including NOCs, reported emission reductions for the first time[19]	○ Last year's commitment to move away from fossil fuels was **not explicitly mentioned** at the concurrent **G20 summit** ○ The topic of **fossil fuels is more contentious compared with** previous COPs, increasing the risk of possible backtracking on fossil fuel commitments
	9	Energy demand		○ G20 reaffirmed commitment to **doubling the average annual rate of energy efficiency**[20]	○ The increased energy demand from **digitalization** may outpace efforts to increase energy efficiency
	10	Methane emissions		○ US announced a **federal fee for methane emissions** for oil & gas companies[21] ○ 3 new countries joined the **Global Methane Pledge**, with total funding amounting to over **$2B**[22]	○ US political uncertainty fuels concerns over enforcement of the methane rule
FOOD TRANSFORMATOIN	11	Food systems transformation		○ Countries representing **~50% of global methane emissions from organic waste** pledged to reduce emissions from the sector[23] ○ Agriculture Innovation Mission (AIM) for Climate: Investments in climate-smart agriculture and food systems innovation have almost **doubled—from $17B at COP28 to $29.2B at COP29**[24] ○ The **Baku Harmoniya Climate Initiative for Farmers** was launched and will serve as an "aggregator" of disparate initiatives, coalitions, networks, and partnerships[25] ○ Most countries identify agrifood systems as a priority for climate change adaptation (94%) and mitigation (91%) in their NDCs[26]	○ 162 countries pledged to integrate agriculture and food systems into their NDCs by 2025; only around 40 have incorporated this into their national policy[27]
	12	Nature and nature-based solutions		○ The UK pledged **$299M** to tackle deforestation[28] ○ The **Forest Carbon Market toolkit** was launched, a digital tool offering a roadmap to VCM funding[29]	○ Forests continue to receive very little climate mitigation finance (**3% despite sequestering 20% of carbon emissions**)[30]

Sources: (1) COP29 Official Website; (2) Carbon Brief; (3) Carbon Market Watch; (4) Sustainable views; (5) Reuters; (6) ICVCM; (7) Reuters; (8) COP29 Official Website; (9) Guardian; (10) White House; (11) BNN Bloomberg; (12) WRI; (13) Green Climate Fund; (14) Hydrogen Europe; (15) IISD; (16) UK Government; (17) Argus Media; (18) Reuters; (19) Total Energies; (20) G20; (21) AP news; (22) U.S. Department of State; (23) COP29 Official Website; (24) AIM for Climate; (25) FAO; (26) FAO; (27) WRI; (28) COP29 Official Website; (29) The Commonwealth; (30) FCLP

Degree of success vs. post-COP28 expectations: ○ Low ◔ High

Agenda



COP29: KEY TOPICS, ACHIEVEMENTS, AND CHALLENGES

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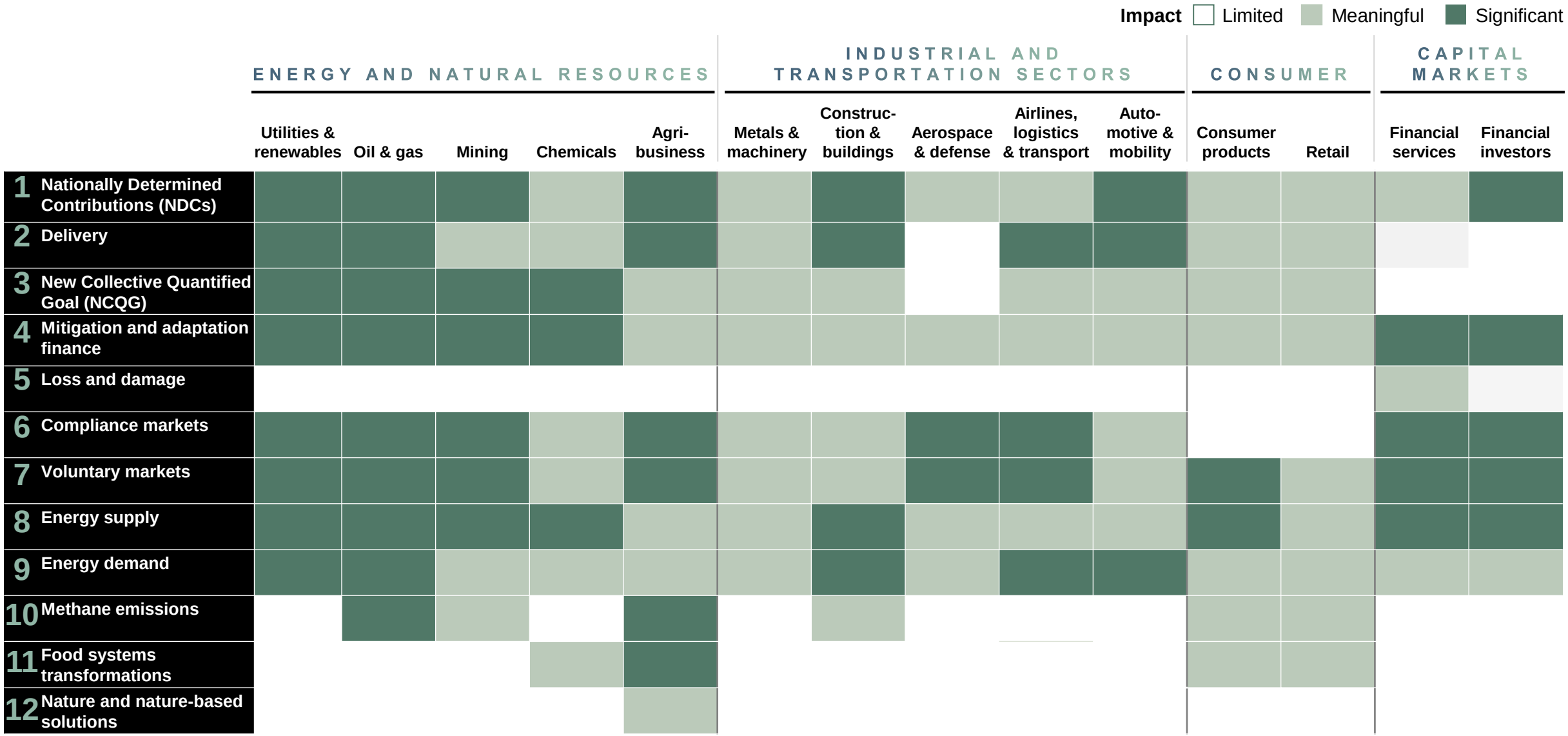
BEYOND COP29: AN ACTION PLAN FOR CEOS

Early View on COP29 Implications: Sector Overview



Early View on COP29 Implications: Energy and Natural Resources (1/2)

UTILITIES & RENEWABLES

1 2 **NDC/Delivery**
Countries are being urged to deliver more ambitious NDCs, driving investments in renewables to cut greenhouse gas emissions. Further investment in infrastructure and technology is expected, as the global pledge to sextuple energy storage by 2030 and upgrade grids will shape NDCs and require significant infrastructure and technological advancements

3 4 **NCQG, mitigation and adaptation finance**
Announced climate financing (e.g., $120B by MDBs by 2030) is likely to result in renewable investment. Capital deployment of financial investors and services expected to stimulate clean energy sector (e.g., hydrogen)

6 7 **Compliance and voluntary markets**
Companies may be able to generate additional revenue from selling carbon credits or be able to access an expanded market to purchase credits; a credible centralized compliance carbon market will help alleviate purchase risks and could accelerate investment in renewables

8 9 **Energy supply and demand**
Announced renewables projects across countries will stimulate renewable sector, as will the Hydrogen Declaration; nuclear sector will be boosted due to several commitments (e.g., 6 new countries joining pledge to triple nuclear energy by 2050, US announcing to add 200 GW by 2050)

OIL & GAS

1 2 **NDC/Delivery**
Expected updated policies on decarbonization, reduced exploration, and phasing out subsidies will heavily impact this sector, although expectations on timing of fossil fuel transition remain unclear

6 7 **Compliance and voluntary markets**
Consensus reached on standards and carbon trading mechanism under Article 6.4 of the Paris Agreement can provide clear path to monetize investments into carbon capture and storage, and accelerate toward climate commitments. However, new compliance requirements may apply to participate in carbon markets

8 9 **Energy supply and demand**
Emphasis on renewable energy indicates potential diversification of energy portfolio of oil and gas companies

10 **Methane emissions**
Increasing regulation (e.g., US introducing fines for large oil and gas producers) and public-private partnership aim to reduce methane emissions, and companies are under pressure to accelerate progress and invest in infrastructure (e.g., leak detection)

Early View on COP29 Implications: Energy and Natural Resources (2/2)

MINING

1 NDC
Expected focus in NDCs on EV, nuclear, and energy storage capacity will further boost mining of metals such as lithium, cobalt, and nickel, necessitating investments in exploration, extraction, recycling, and technology innovation to ensure this is sourced as sustainably as possible. Coal sector is expected to be impacted as several nations (e.g., the UK, Canada) have pledged to not expand coal-power plants

3 4 NCQG, mitigation and adaptation finance
Increased funding availability could lead to more investment opportunities in non-coal energy projects

6 7 Compliance and voluntary markets
Companies may be able to access an expanded market to purchase credits; it could prompt faster transition away from coal as companies seek to offer or purchase more carbon credits. However, Article 6 of the Paris Agreement also may introduce new compliance requirements and opportunities in carbon offset projects

8 Energy supply
Deeper focus on renewables, energy storage, and hydrogen expands demand on mining for metals used in renewables

10 Methane emissions
Focus on reducing methane emissions is expected to result in more advanced monitoring and mitigation within coal mining

CHEMICALS

3 4 NCQG, mitigation and adaptation finance
Increased funding availability could lead to more investment opportunities in chemical production projects involving renewables, green raw materials, and green production processes

6 Compliance markets
Companies may be able to access an expanded market to purchase high-integrity credits

8 Energy supply
Increase in commitments toward renewables, hydrogen, and green ammonia will lead to a heightened focus on chemicals players to decarbonize their energy sources

10 Food systems transformation, nature and nature-based solutions
Emphasis on sustainable agriculture will increase opportunities to address emissions and nature impacts from chemicals and fertilizers on the agrifood system

AGRIBUSINESS

1 2 NDC/Delivery
Over 50 countries have pledged to integrate methane reduction targets from organic waste into their NDCs, potentially impacting part of the methane emissions from the agribusiness sector. This commitment, combined with global initiatives like the COP28 Declaration on Sustainable Agriculture, could contribute to on-farm methane reductions and support regenerative agriculture practices

6 7 Compliance and voluntary markets
Agreement reached on carbon markets under Articles 6.2 and 6.4 of the Paris Agreement creates opportunity for some agrifood actors to monetize carbon sequestration in soils and/or plants

10 Food systems transformation
Emphasis on the critical role of agribusiness in transforming agrifood systems and adopting digital technologies to enhance sustainability and efficiency

Early View on COP29 Implications: Industrials and Transportation

METALS & MACHINERY

1 NDC
Expected focus on EVs and energy storage in NDCs will drive demand for battery metals, requiring investments in sustainable sourcing, recycling, and innovation. Energy efficiency emphasis will elevate operational and supply chain standards

6 7 Compliance and voluntary markets
Articles 6.2 and 6.4 of the Paris Agreement further incentivize investment in innovation and deployment of cleaner energy consumption, raw material use, production processes, and CCUS

9 Energy Demand
Shift toward renewable energy will increase demand for green energy, potentially heightening competition among various sectors; hydrogen and energy efficiency priorities may drive investments in efficient technology and hydrogen-compatible machinery

CONSTRUCTION & BUILDINGS

1 2 NDC/Delivery
Expected decarbonization and energy-efficient efforts create further focus on building design, resilient infrastructure, and sustainable materials such as zero emission cement; recently launched Zero Emissions and Resilient Buildings (ZERB) Accelerator to support on implementation of decarbonization plans

3 4 NCQG, mitigation and adaptation finance
Adaptation finance funds such as the Green Climate Fund will invest in new and retrofitted construction and buildings

8 9 Energy supply and demand
Focus on renewable energy and energy efficiency will encourage integration of clean energy solutions into building and impact building design

AEROSPACE & DEFENSE

1 NDC
Updated national commitments will increase focus on emissions in aerospace and defense, especially due to ties to public procurement that will place additional focus on aerospace and defense companies' footprint

9 Energy demand
Shift toward renewable energy will increase demand for green energy, potentially heightening competition among various sectors for green energy resources

6 7 Compliance and voluntary markets
Articles 6.2 and 6.4 of the Paris Agreement further incentivize investment in innovation and deployment of cleaner energy consumption, raw material use, and production processes

AIRLINES, LOGISTICS & TRANSPORT

1 2 NDC/Delivery
Expected focus in updated NDCs on electric vehicles, improved fuel efficiency and logistics will likely drive investment

6 7 Compliance and voluntary markets
Agreement reached on carbon markets under Articles 6.2 and 6.4 of the Paris Agreement creates additional opportunity for investment in energy-efficient aircrafts and creates access to purchase additional credits

9 Energy demand
Increase in demand for green hydrogen, green ammonia, and other zero emission fuels, as outlined by the Hydrogen Declaration and, e.g., Call to Action by shipping industry leaders; potential heightened competition among various sectors for green resources

AUTOMOTIVE & MOBILITY

1 2 NDC/Delivery
Countries are expected to prioritize a shift to EV, especially for passenger vehicles, and impose stricter fuel standards

4 Mitigation and adaptation finance
Financial institutions and investors may shift investments toward sustainable industries, creating a boost for automotive and mobility sector to demonstrate its own sustainability ambitions

9 Energy demand
Continued emphasis on energy efficiency and EV is expected to reduce dependency on fossil fuels and boost the use of renewable energy. Attention for hydrogen is likely to support increasing investment in hydrogen mobility technology and stimulate demand hydrogen demand

Early View on COP29 Implications: Consumer and Capital Markets

CONSUMER PRODUCTS

7 Voluntary markets
Standards set by Article 6.4 of the Paris Agreement have the potential to indirectly impact voluntary markets by increasing confidence, therefore creating the opportunity to incorporate carbon credits into long-term transition planning

8 9 Energy supply and demand
Net-zero focus will continue to boost sustainable sourcing; continued attention for energy efficiency will increase focus on own energy demand

10 Methane emission
Focus on methane emissions from food systems (e.g., via the Declaration on Reducing Methane from Organic Waste) could push the adoption of technologies to mitigate methane emissions and boost the use of sustainable packaging to decrease waste

11 Food systems transformation
Continued pressure to collaborate with upstream supply chain to find scalable solutions and sources of climate-smart agricultural commodities

RETAIL

8 9 Energy supply and demand
Continued focus on energy efficiency and renewables requires the sector to integrate sustainable practices across operations, aligning with its energy commitments and climate pledges

10 Methane emissions
Push to reduce methane and food-related emissions could boost collaboration with upstream supplier on emission

11 Food systems transformation
Continued pressure to collaborate with upstream supply chain to find scalable solutions and sources of climate-smart agricultural commodities

FINANCIAL SERVICES

3 4 NCQG, mitigation and adaptation finance
Opportunity to play pivotal role as intermediaries for the flow of funds. Expected to stimulate decarbonization investments and recovery efforts; role in ensuring accountability and transparency for financial strategies as part of NDCs/Net Zero Target

5 Loss and damage compensation
Opportunity to help optimize the administration of funds to ensure delivery

6 7 Compliance and voluntary markets
Agreement reached on carbon markets offers opportunities for financial services to develop carbon credit trading platforms, provide advisory and financing solutions for emission reduction projects, and support clients in navigating carbon markets, aligning with climate goals, and tapping into emerging revenue stream

FINANCIAL INVESTORS

1 NDCs
Opportunity to invest in companies that benefit from governmental incentives—directly or indirectly through customers

4 Mitigation and adaptation finance
Opportunity to co-invest in projects and technology supported by just transition funds; increased importance on climate and physical risk assessments

6 7 Compliance and voluntary markets
Agreement reached on carbon markets creates opportunities for investors to fund emission reduction projects and access emerging carbon markets, diversifying portfolios and aligning with climate goals

Agenda

COP29: KEY TOPICS, ACHIEVEMENTS, AND CHALLENGES

IMPLICATIONS FOR KEY SECTORS

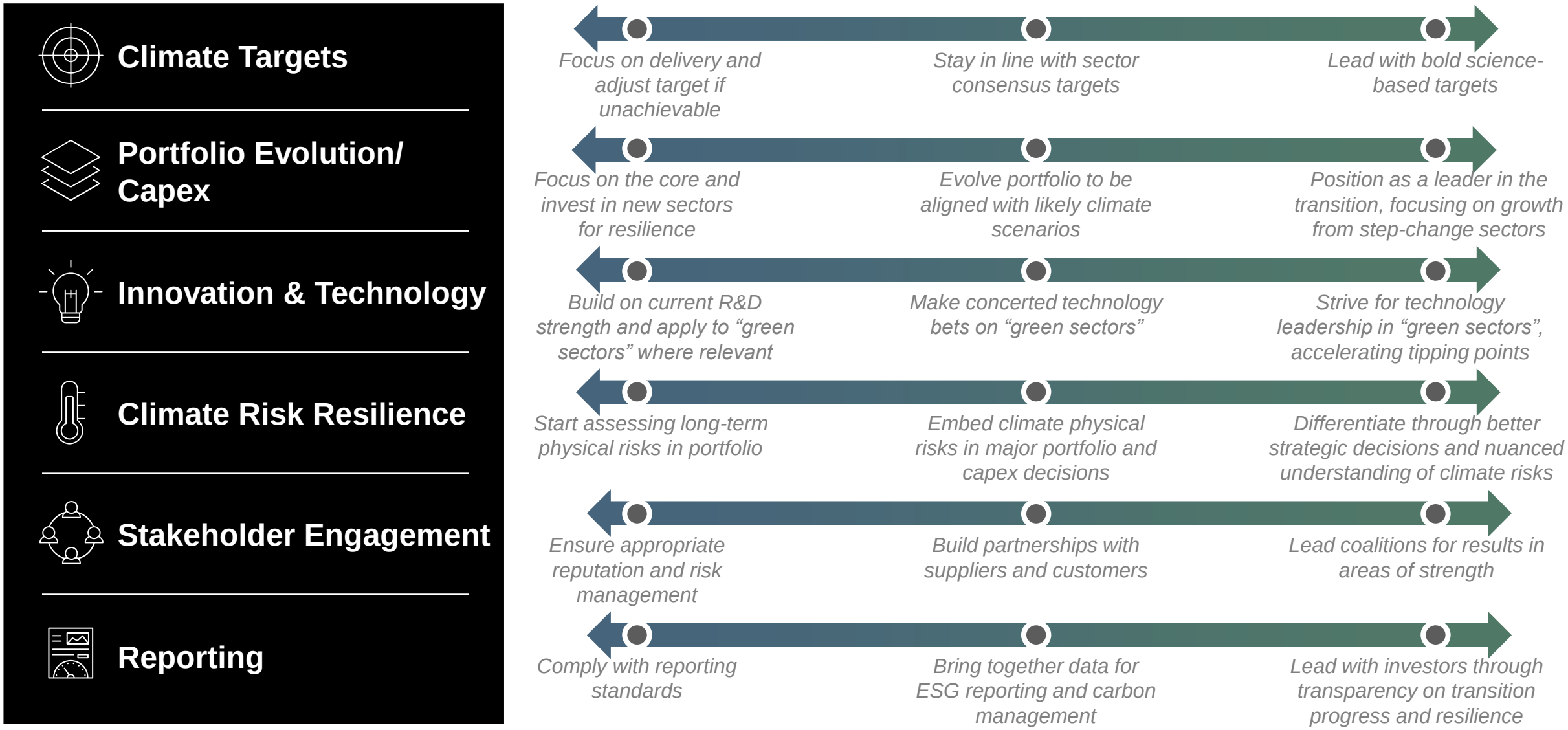
BEYOND COP29: AN ACTION PLAN FOR CEOS

Five themes define the evolving global context beyond the developments coming from COP29

~60%	~10%	~8%	~5x	~60%
of the world population experienced **extreme heat** in June 2024[1]	drop in **global foreign direct investment** in 2023[2]	year-on-year increase (CAGR 2014—2024) in global **economic policy uncertainty** since 2014[3]	**increase in annual climate finance** is required to reach the target each year through to 2030 under the 1.5ºC scenario[4]	projected 2024–2030 growth in **renewable energy consumption** in the power, heat, and transport sectors[5]
INCREASING CLIMATE PHYSICAL RISK EVENTS	**DEGLOBALIZATION AND RISING PROTECTIONISM**	**POLICY UNCERTAINTY**	**CAPITAL DEPLOYMENT CHALLENGES**	**RACE FOR GREEN ELECTRICITY**
Climate events driving the need for adaptability, requiring integration into risk reporting and business strategies	Nations prioritizing domestic economic gains, e.g., through trade barriers and reshoring industries during the transition	Shifting political dynamics are heightening uncertainty and complicating decision-making processes	Global scale of required climate investment is outpacing deployed capital, as markets struggle to find projects at relevant IRRs	Accelerated investment in renewable energy is essential to meet surging demand from electrification and AI-driven growth, and help corporates meet their SBTi commitments

Sources: (1) Climate Central; (2) UNCTAD; (3) Comparing Global EPU Index from January 2014 to January 2024, Economic Policy Uncertainty; (4) Climate Policy Initiative; (5) IEA

Navigating this disruption while transitioning requires clear choices



CEO agenda for carbon and energy transition

STRATEGIC ADAPTATION

- Understand your climate transition and physical risks and opportunities
- Define your net-zero business strategy, focusing on actions required by 203X
- Embrace a living strategy as you deliver

INVESTOR AND LENDER RESONANCE

- Strengthen shareholder and lender dialogue
- Leverage green finance for value and credibility

CUSTOMER-BACKED DECARBONIZATION

- Decarbonize with relevant customer segments/deaverage the market
- Monetize your low-carbon offering
- Unleash green innovation inside and outside
- Address cost and carbon in tandem in operations
- Make supply chain low carbon and climate resilient
- Offset with intent

PARTNERSHIPS FOR RESULTS

- Partner for results along the value chain
- Become a policy shaper

EMPOWERED GREEN ORGANIZATION FROM TOP TO BOTTOM

- Manage your footprint like you manage cost
- Implement internal carbon pricing in the decisions that move the needle
- Embed sustainability in your performance management system
- Upskill your organization where it matters and in a practical way
- Inspire and create clarity for your organization, including green middle management


Thank you!