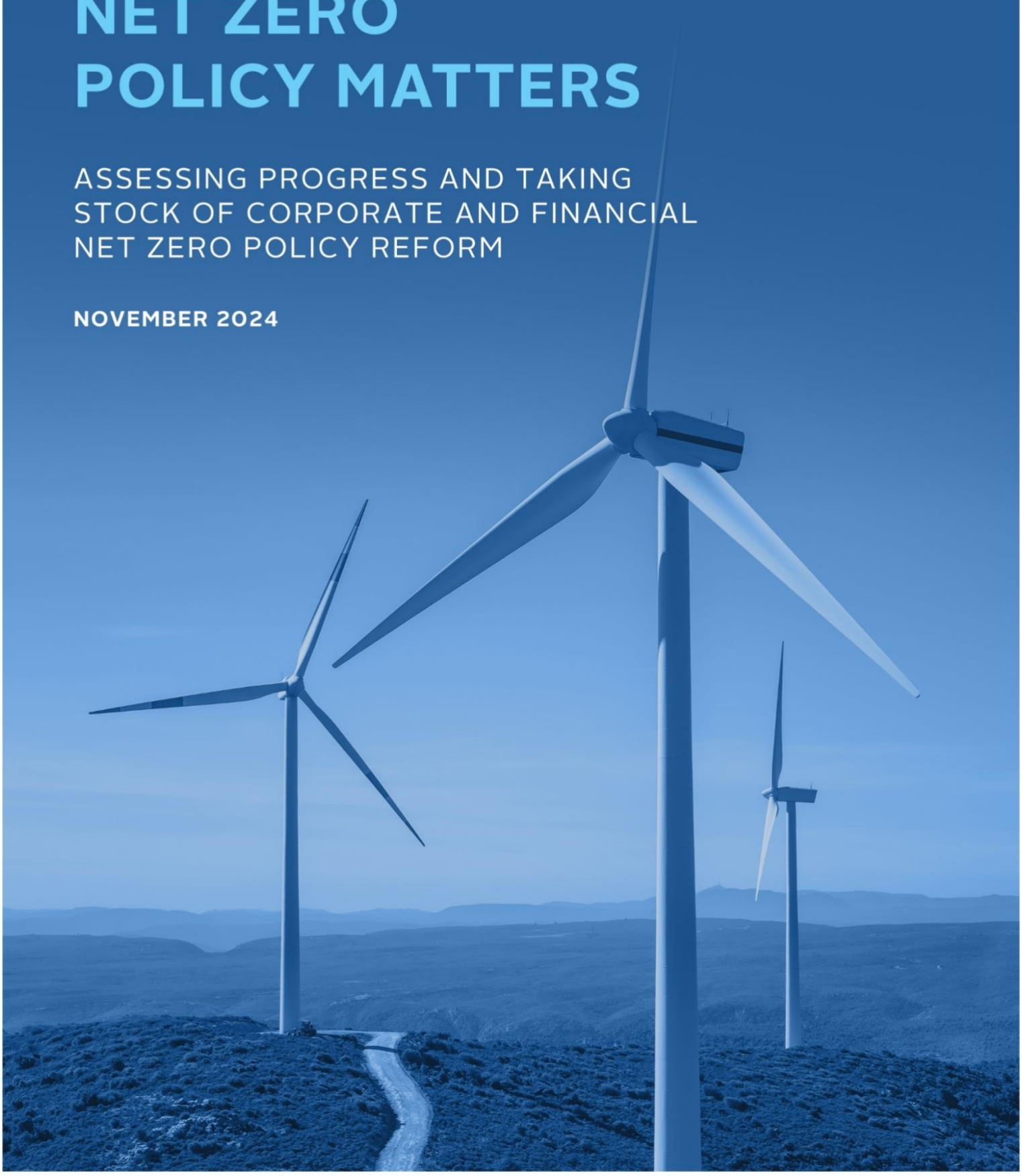
TASKFORCE ON NET ZERO POLICY

NET ZERO POLICY MATTERS

ASSESSING PROGRESS AND TAKING STOCK OF CORPORATE AND FINANCIAL NET ZERO POLICY REFORM

NOVEMBER 2024



Contents

ABOUT THE TASKFORCE ON NET ZERO POLICY

The Taskforce on Net Zero Policy[1] was launched at the UN Secretary-General's High-Level meeting for Non-State Actors at COP28 in December 2023. It came one year after the Integrity Matters report of the UN Secretary-General's High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities[2] (HLEG) was released at COP27.

The *Integrity Matters* report made 10 recommendations on how to ensure robust, high-integrity net zero commitments by businesses, financial institutions, cities and regions. It tackled key issues such as target setting and pledges, the use of voluntary credits, transition plans, lobbying and advocacy, and governance, as well as interactions with fossil fuels, nature and just transitions.

Recommendation 10 is to "accelerate the road to regulation". The report called on regulators to develop regulation and standards in key areas, including net zero pledges, transition plans and disclosure, starting with high-impact corporate emitters, and including private and state-owned enterprises and financial institutions. It also recommended that the challenge of fragmented regulatory regimes should be tackled by the launch of a new taskforce.

Box 1: The 10 recommendations of the Integrity Matters report

1. Announcing a net zero pledge
2. Setting net zero targets
3. Using voluntary credits
4. Creating a transition plan
5. Phasing out of fossil fuels and scaling up renewable energy
6. Aligning lobbying and advocacy
7. People and nature in the just transition
8. Increasing transparency and accountability
9. Investing in just transitions
10. Accelerating the road to regulation

Source: Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions

The formation of the taskforce responds to the 10th recommendation of the HLEG report and aims to support the integrity and accountability of 1.5°C-aligned net zero emissions commitments by companies and financial institutions, through assessment and advancement of state-based policies and regulations that target or enable their net zero commitments.

[1] See page 55 for the members of the Taskforce Technical Expert Group, Board of Trustees and Secretariat.
[2] The HLEG report covered businesses, financial institutions, and cities and regions under the realm of non-state entities. As this report primarily focuses on companies and financial institutions, the latter term is used throughout rather than non-state entities.

ABOUT THIS REPORT

This first progress report – *Net Zero Policy Matters* – summarises the research, discussions and findings of the work of the Taskforce on Net Zero Policy, its technical expert group and contributing partner organisations, from its inception at COP28 (2023) to COP29 (2024).

The *Net Zero Policy Matters* report:

- assesses policy progress against the UN HLEG recommendations across the G20 that steer the action of companies and financial institutions on net zero; and
- takes stock of net zero policy adoption in G20 countries, with a focus on corporate and financial policies. It does this across key policy domains (disclosure, transition plans, prudential regulation, taxonomies and stewardship) and addresses net zero policy integration with other sustainability issues and articulated links to the Paris Agreement's 1.5°C limit.

The report aims to provide a common understanding of trends in net zero policymaking in G20 countries. It highlights good practice across both developed and emerging economies, provides a comparative analysis on key policy instruments, and connects knowledge and databases developed by research and governmental organisations on the topic of net zero policies. Its findings and the examples it showcases provide fertile ground to inform the development of new policies globally and enable future analysis.

The *Net Zero Policy Matters* report is accompanied by a second report, which takes a deep dive into the concept of the just transition and interconnected justice. *Interconnected Justice – Understanding Cross-Border Implications of Climate Transition Policies* provides a framework and principles to improve the understanding of cross-border consequences of net zero policies focused on companies and financial institutions.

It finds that corporate and financial policies should streamline the integration of social and environmental "do-no-significant-harm" principles and expand their focus from limiting negative impacts to include seizing the opportunities of the just transition. Effective multi-actor policy dialogues, support and capacity building for decarbonisation efforts by small and medium-sized enterprises (SMEs) will be key to achieving this goal.

Together, these reports offer an insight into the policy progress made to gear markets towards high integrity action on net zero, just, environmentally sustainable and resilient economic development. This is vital against the backdrop of a worsening climate crisis and with imminent opportunities to enhance national climate action and to accelerate climate finance flows globally.

These Taskforce reports on the policy environment – *Net Zero Policy Matters* and *Interconnected Justice* – are released at the same time as a new report from the HLEG Chair, Hon. Catherine McKenna, which primarily examines progress by non-state actors (companies, financial institutions and subnational governments) against the HLEG recommendations.[3]

For more information on the work of the Taskforce, please contact netzerotaskforce@unpri.org.

[3] The Taskforce also notes the 2024 Net Zero Stocktake report, which assesses the status and trends of net zero target setting across countries, subnational governments and companies.

RESEARCH APPROACH

The HLEG recommendations were the starting point of the research. Corporate and financial policy was identified as the principal focus.[4] National economic policy was included but was limited to areas that pertained directly to a subset of HLEG recommendations.[5] The Taskforce mapped implementation criteria checklists that were prepared by HLEG based on their recommendations against relevant types of policy instruments. This led to an aggregated list/typology of policy instruments to be assessed.

Box 2: Policy instrument categories

Corporate and financial policy instrument categories	Real economy policy frames
Entity-level sustainability disclosure Prudential regulation Investment products: disclosure Claims: investment product labelling/corporate financial instruments Service providers sustainability regulation Accounting standards Taxonomy Stewardship policy Due diligence Duties/responsibilities: (elements of) transition plan requirements Corporate sustainability responsibilities: accountability mechanisms Public finance instruments	Net zero laws and policy frameworks Energy transition instruments (supply side focus): - fossil fuels and renewable electricity roadmaps (supply side) - fossil fuels and renewable electricity subsidies, incentives, pricing and market-based mechanisms - fossil fuels (licensing and planning) Land-use strategy, deforestation and peatland policy

Relevant policy instruments that are enacted or on the statute books were then identified across the G20, which consists of 19 sovereign countries, the EU and the African Union. Findings in this report are presented at the level of the 19 sovereign countries of the G20. A tailored approach for the EU and the African Union was adopted. Where policies are presented numerically, they are attributed to the EU member states of the G20 (France, Germany and Italy) to avoid double counting. To reflect action across the African Union, beyond South Africa as a G20 country, the Taskforce considered data from Kenya, Nigeria, Rwanda and Tanzania available. This data was not used in the numerical findings, but was considered for inclusion in policy snapshots.

Identified policy instruments were assessed against quality attributes that correspond to the HLEG recommendations, covering the instruments' objectives, ambition, connections to other sustainability areas, coverage and accountability, and relationship to the wider regulatory framework. This was done through a combination of approaches – including survey data from in-country law firms (collected by the Net Zero Policy and Regulation Hub, University of Oxford)[6] and large language models drawing on four key climate policy databases (collected by Canbury Insights)[7], alongside expert input.

Due to the scale of the datasets and time constraints, line-by-line validation of each policy identified was not feasible. The findings in this report should not be read, therefore, as an exhaustive, complete or fully accurate overview of the progress of individual policy instruments or country frameworks towards enabling the HLEG recommendations. It does allow us to draw insights on trends and find good practice examples. A detailed methodology is presented on page 46.

[4] Because of the large variation in regional and local governments' competences between G20 countries, action by subnational governments was excluded from the scope of the systematic stocktake: instead, subnational action is explored through policy snapshots contained in the report.
[5] The Taskforce did not undertake detailed analysis of wider sectoral policies, nor did it undertake a full assessment of countries' Nationally Determined Contributions and national net zero strategies.
[6] The dataset is called Oxford Climate Policy Monitor: it does not include data for Russia.
[7] The source databases: Climate Change Laws of the World database (2024) Net Zero Regulation Stocktake (2023), collected by Oxford Net Zero Policy and Regulation Hub ; PRI Regulation database (2024); IEA Policies Database.

FOREWORDS

Helena Viñes Fiestas

Co-Chair, Taskforce on Net Zero Policy and Chair, the EU Platform on Sustainable Finance

The scientific consensus on the vast harm caused by climate change is well established, and we see ever-growing instances of such harm manifest. We are dangerously close to the Paris Agreement's critical threshold of 1.5°C. Temperature records continue to shatter and extreme weather events are leading to enormous costs to our economies, societies, regions, businesses and, most importantly, to human lives and livelihoods. These costs are disproportionately borne by already marginalised demographics, particularly women and the most vulnerable in at-risk regions. Yet, according to the UN Emissions Gap report, there is a wide gap between current national policies and the pathways needed to limit global warming to 1.5ºC, alongside achieving resilience and delivering the biodiversity goals. Bridging this policy gap demands swift, effective and cohesive action that unifies efforts across states, companies and financial institutions.

G20 governments are uniquely positioned to steer and finance such action, according to their common but differentiated responsibilities and respective capabilities. By taking proactive steps now, including through the forthcoming revision of NDCs due in 2025, the world's leading economies have a chance to establish a clear and enabling agenda which drives companies and financial institutions to play their part in *and* realise the benefits of a cohesive road through the transition. Policy frameworks that encourage and facilitate transformation across key sectors – such as energy, transport and heavy manufacturing – create the necessary environment for businesses to navigate climate-related risks, overcome systemic barriers to their growth and seize the economic opportunities at play.

The HLEG's *Integrity Matters* report emphasised the critical need for policy support to allow non-state actors to effectively contribute to the net zero agenda. Among its 10 recommendations, the report urged policy makers to establish supportive policy frameworks which drive the activities of non-state actors towards net zero by 2050. The creation of the Taskforce on Net Zero Policy was a direct response to these recommendations, aiming to clarify how policy makers can advance this agenda and enable such action.

Our findings indicate that policy makers recognise the urgency of action to align the efforts of companies and financial institutions with net zero goals and have begun to take steps in the right direction. This action is happening on a global scale, including among emerging economies. However, existing policies lack the scope, depth and ambition required to drive action for explicit alignment with the 1.5°C limit. While national policies should reflect each country's unique economic, financial and environmental context, global compatibility remains crucial – particularly for large economic actors operating across borders. The current global policy landscape is uneven and fragmented, creating challenges for companies and financial institutions with an international reach as they navigate a complex regulatory patchwork. Enhanced policy action and coordination is therefore essential – to provide clear market signals that drive companies to decarbonise their operations and financial institutions to decarbonise their portfolios, whilst addressing wider sustainability goals.

While significant challenges remain, we can draw hope from the progress achieved thus far. The rise in climate-related disclosure requirements, the development of green taxonomies, and transition planning efforts are fostering a clearer path toward stronger and more compatible regulation. But these developments must now spur further, more ambitious action. The findings from the Taskforce on Net Zero Policy's first year offer a comprehensive view of the current policy landscape and aim to inform future progress, ultimately guiding us closer to a net zero future that promises security and prosperity for all.

Since the publication of the *Integrity Matters* report in 2022, the understanding of the need to include land (land degradation neutrality targets) and nature (including the Global Biodiversity Framework), adaptation and social issues into climate policies has steadily increased. The data in this report show that governments are taking action to address sustainability issues, but that systematic integration in corporate and financial net zero policy is still lacking.

Andrea Meza

Co-Chair, Taskforce on Net Zero Policy and Deputy Executive Secretary to the United Nations Convention to Combat Desertification

To realise justice and equity, the introduction of disclosure and due diligence regulations requiring companies and financial institutions to do no significant harm to affected stakeholders through their activities is a fundamental step in the right direction. This helps to ensure that companies and financial institutions operate within stable and healthy communities, and enshrines the management, protection and restoration of land and nature and the rights of Indigenous communities, among other things, at the heart of public policy.

However, more should be done to account for the unintended consequences of net zero policies on vulnerable and emerging economies. This is relevant not only to the impacts of actors from developed economies, but also for developing nations themselves, which should take steps to safeguard land, nature and vulnerable communities.

Climate policies are one component of a wider policy ecosystem, and that ecosystem influences their effectiveness. Early implementation of nature, adaptation or social issues into policy frameworks can help avoid having to retrofit them later. It can also avoid the unintended consequences of misalignment between jurisdictions, such as delays to the transition in emerging economies.

In addition, the failure to combat climate change, biodiversity loss, desertification, land degradation and drought will not only lead to economic losses but will also cause political instability and conflict in many areas of the globe, with devastating international effects. An integrated approach is therefore paramount. Policy makers should view the progress made so far as impetus for further action.

To create a truly sustainable system that integrates people, nature and the economy – and to achieve net zero emissions in time to avoid the worst impacts of climate change – urgent action from corporations and financial institutions is critical. The Paris Agreement, particularly Article 2.1c, is clear: all financial flows must ultimately be aligned with climate goals, not just some. Achieving this requires a robust, fair and ambitious policy framework that accounts for the challenges of limiting global warming to 1.5°C.

While non-state actors have made significant strides through voluntary initiatives and policy steps, stronger and better integrated corporate and financial policies and regulations are now essential. These policies will help ensure market integrity, foster trust and accelerate progress toward net zero emissions.

For many companies and financial institutions, aligning with 1.5°C policies is challenging. It is vital that net zero policies are integrated into broader economic strategies and national transition plans. This alignment is key to ensuring that corporate and financial policies reinforce, rather than undermine, the necessary actions.

Nathan Fabian

Secretary of the Taskforce on Net Zero Policy and Chief Sustainable Systems Officer, Principles for Responsible Investment

Although the majority of G20 countries have set net zero targets, there is still much more to be done to create a positive feedback loop between corporate, financial and economic policies. Doing so would enable effective regulation of large multinational companies, while considering the diverse starting points and unique economic and environmental circumstances of each country. It would also help nations meet their climate goals.

The Taskforce's reports on net zero policy provide valuable insights into how corporate and financial policies can support the transition to a net zero economy. This is a nascent but critical area of policy development. The Taskforce's analysis examines how and how well implemented policies align with the HLEG *Integrity Matters* report, providing a valuable benchmark for progress.

By sharing these insights among policy makers, we hope to promote collaboration and peer learning, and ultimately drive the policy reforms needed to enable rapid and effective action by companies and financial institutions.

FIRST PART: ASSESSING PROGRESS

ASSESSING PROGRESS OF NET ZERO POLICY REFORM

THE STATE OF NET ZERO POLICY REFORM FOR COMPANIES AND FINANCIAL INSTITUTIONS IN 2024

The UN HLEG recommended that regulators should develop regulation and standards in areas including net zero pledges, transition plans and disclosure, starting with high-impact corporate emitters, including private and state-owned enterprises and financial institutions.

To assess net zero policy progress, the Taskforce analysed more than 1,000 policy instruments across G20 countries that require or support companies and financial institutions to act on climate mitigation and climate goals. This stocktake shows widespread growth of all types of policies, with a rapid increase over the past five years. It found examples of policies relevant to all aspects of the UN HLEG recommendations, and across all G20 countries, regardless of their level of development and climate vulnerability.

While progress has been made on policies such as transition plans, taxonomies, prudential regulation and disclosures, the current overall progress of policy reforms remains substantially insufficient to put economies on a pathway to hold global warming to below 1.5°C. Policy adoption has been uneven, with high divergence across markets on scope, depth and ambition of policy instruments and their overall comparability. None of the nine UN HLEG recommendations are fully or effectively reflected in policy frameworks across the G20, which indicates a policy gap in ensuring the integrity of net zero action by companies and financial institutions.

While climate-related disclosures (recommendation 8, Increasing transparency and accountability) have the largest share of net zero policies assessed by the stocktake, most other recommendations see little evidence of widespread uptake. Nature, adaptation and social issues are not adequately addressed in net zero policies, and justice in terms of the right to develop is largely absent. The large variety of policy instruments and their provisions hinder compatibility and interoperability of regulations across jurisdictions, which can lead to inefficiencies in global financial flows. Action is being taken to support compatibility and adoption across the global landscape, but much more needs to be done.

However, policy developments across policy areas and jurisdictions point to the many opportunities for collaboration and peer learning between policy makers on all aspects of net zero policy reform. The stocktake offers insights into where policy makers can draw from different experiences to accelerate the introduction and implementation of strong net zero corporate and financial policies. This has never been more needed. While almost all G20 countries have net zero targets, urgent action is needed to deliver on these and to support enhanced ambition on the road to COP30. The next round of Nationally Determined Contributions (NDCs), due in 2025, are make or break. Concerted action is needed to align corporate, financial and wider economic policy in support of national goals and Paris delivery.

> In the two years since the 'Integrity Matters' report, it is heartening to see the progress that has been made globally on government policy with respect to net zero pledges of businesses, investors, cities and regions. Leaders have shown that regulating Net Zero commitments can be done; and in fact many large companies are already preparing for mandatory disclosures. It's now time for all G20 countries to implement policies that ensure non-state actors have clear direction to move ahead with high-integrity Net Zero commitments.
>
> ***Catherine McKenna, Chair, UN Secretary-General's High-Level Expert Group on Net Zero Pledges of NSAs***

KEY FINDINGS OF THE NET ZERO POLICY STOCKTAKE

Key findings of our analysis of over 1,000 policy instruments across the G20 of most relevance to the HLEG recommendations include that:

1. All G20 countries have some form of corporate and financial policies that support the transition to net zero – and their number has tripled since 2020. Net zero policy reforms have been developed across corporate, financial and real economy policy and exist in both developed and emerging economies.
2. Corporate disclosure is one of the most commonly used policy tools, found in all G20 countries in some form, and is becoming increasingly forward looking. However, the requirements differ in their coverage of economic sectors, emission scopes, and carbon dioxide (CO_2) and non-CO_2 greenhouse gases (GHGs). Baseline interoperability is still in the making, with progressive adoption of the standards by the International Sustainability Standards Board (ISSB) and European Sustainability Reporting Standards (ESRS) serving as a best practice in this area.
3. Net zero transition plans as a foundational tool to enable strategic reorientation of companies and portfolios for net zero are at an early stage**.** They are embedded in policy frameworks in some form in eight of the G20 countries, but only the EU (with France, Germany and Italy as sovereign G20 countries) has implemented mandatory requirements for companies to adopt, implement and disclose climate transition plans.
4. Sustainable or climate taxonomies are emerging as a key tool to mobilise private capital, and can help drive alignment with Paris pathways., Overall, they display a wide range of characteristics and ambition levels, in part reflecting national economic and environmental realities, and are not all 1.5°C aligned.
5. Stewardship policies enable institutional investors to create real world outcomes such as those tackling the climate crisis. Only the UK, across the G20, has a stewardship code in place that articulates a direct link to climate change.
6. Corporate and financial policy is not yet adequately integrating climate mitigation with related sustainability issues around nature, adaptation, just transition and fossil fuel phase-out. These issues may be addressed in policies not examined in this stocktake. However, given the interdependencies between various sustainability objectives, this raises questions about how holistically corporate and financial policymaking for climate mitigation is being approached and trade-offs managed.
7. Evidence of how policies align with or contribute to achieving Paris-aligned pathways is insufficient. Overall, this raises questions about how policy effectiveness can be assessed and how policy regimes – both nationally and collectively – stack up to delivery of the Paris Agreement.
8. To enable the delivery of G20 climate commitments, governments need to urgently align their policies and engage with best practice in different jurisdictions. The variety and sophistication of policies across the G20 offers a promising opportunity for collaboration and peer learning between policy makers to develop ambitious, 1.5°C-aligned policies that support the economic transition to net zero.

PROGRESS AGAINST THE HLEG RECOMMENDATIONS

UN HLEG RECOMMENDATIONS 1 AND 2:
ANNOUNCING A NET ZERO PLEDGE AND SETTING NET ZERO TARGETS

"A net zero pledge should be made publicly by the leadership of the non-state actor and represent a fair share of the needed global climate mitigation effort. The pledge should contain interim targets (including targets for 2025, 2030 and 2035) and plans to reach net zero in line with IPCC [Intergovernmental Panel on Climate Change] or IEA [International Energy Agency] net zero greenhouse gas emissions modelled pathways that limit warming to 1.5°C with no or limited overshoot, and with global emissions declining by 50% by 2030, reaching net zero CO2 emissions by 2050 and net zero greenhouse gas emissions soon after. Net zero must be sustained thereafter.

Non-state actors must have short-, medium- and long-term absolute emissions reduction targets and, where appropriate, relative emissions reduction targets across their value chain that are at least consistent with the latest IPCC net zero greenhouse gas emissions modelled pathways that limit warming to 1.5°C with no or limited overshoot, and where global emissions decline at least 50% below 2020 levels by 2030, reaching net zero CO_2 emissions by 2050, followed by net zero greenhouse gas emissions soon after."

How this translates into policy	Progress made
Corporate and financial policy to support net zero target setting is predominantly found in disclosure regimes, but also emerging in duty-based instruments such as transition plan policies. The Taskforce stocktake report has analysed policy across the G20 that target companies and financial institutions on aspects including disclosure of net zero targets, disclosure of interim targets, and requirements to adopt net zero targets. In addition, governments can remove perceived barriers to setting net zero targets by the private sector, for example by clarifying anti-trust and competition laws to protect pre-competitive climate action, as the UK and Netherlands have done.	Among the G20 countries, only the EU (with France, Germany and Italy as sovereign G20 countries) has a mandatory requirement of Paris Agreement compatibility in corporate and financial policy. The obligations are most notably set within the Corporate Sustainability Due Diligence Directive (CSDDD) and the Corporate Sustainability Reporting Directive (CSRD), requiring undertakings to ensure that their business model and strategy are compatible with the EU Climate Law (which mandates all policies to align with climate neutrality by 2050). Target setting is mandated and includes science-based and time bound GHG emission reduction targets for 2030 and in five-year steps to 2050, key levers and actions to reach these targets, investments, funding and governance supporting the plan. In other G20 countries, the dataset shows that climate target setting provisions diverge. ▪ Some recommend (but not mandate) developing a target, for instance within voluntary transition plan instruments such as the UK's Transition Plan Taskforce (TPT). ▪ Some recommend or require disclosing a target if and as set by the company. ISSB-based disclosure policies (Australia, Brazil, Turkey) for instance cover absolute and intensity-based emission reduction targets, net zero and interim targets, targets covering non-carbon GHG emissions, Scope 3 targets, as well as targets set using a sectoral decarbonisation approach. **Section 2 (climate disclosures) and 3 (transition plans) of the stocktake chapter provide further analysis**

UN HLEG RECOMMENDATION 3:
USING VOLUNTARY CREDITS

"Non-state actors must prioritise urgent and deep reduction of emissions across their value chain. High-integrity carbon credits in voluntary markets should be used for beyond-value-chain mitigation but cannot be counted toward a non-state actor's interim emissions reductions required by its net zero pathway. High-integrity carbon credits are one mechanism to facilitate much needed financial support towards decarbonising developing country economies.

As best-practice guidelines develop, non-state actors meeting their interim targets on their net zero pathway are strongly encouraged to balance out the rest of their annual unabated emissions by purchasing high-integrity carbon credits. A high-quality carbon credit should, at a minimum, fit the criteria of additionality (i.e., the mitigation activity would not have happened without the incentive created by the carbon credit revenues) and permanence."

How this translates into policy	Progress made
This recommendation was not explored in detail through the policy research of the stocktake as it relates primarily to voluntary, market-based mechanisms. On the policy side, corporate and financial policies can facilitate "beyond value chain mitigation" and foster high-integrity voluntary markets by providing clear guidance on the use, accounting, and disclosure of voluntary credits or offsets. By requiring that credits be disclosed separately and not counted toward interim targets, regulators incentivise companies to stay on track with reducing their own absolute emissions, invest in low-carbon technologies, and support the decarbonisation of their value chains. Policies can also include measures to guard against unintended negative social and environmental impacts of voluntary carbon market projects. Such policies are typically found in disclosure regimes or transition planning requirements which are assessed under recommendations 4 and 8 hereafter.	HLEG Recommendation 3 specifies that offsets cannot be counted toward a non-state actor's interim emissions reductions required by its net zero pathway. The appropriate use of offsets is to balance residual emissions. Thirteen G20 countries (Argentina, Australia, Brazil, Canada, China, France, Germany, Italy, Indonesia, Japan, South Africa, Turkey, UK) recommend or require entities to disclose their offsetting purchases. However, fewer policy instruments recommend or require these carbon offsets to be certified. The EU has enacted policies that establish clear rules on both offset accounting and certification in emission reduction pathways and transition plans. The work of the Integrity Council for the Voluntary Carbon Market (ICVCM), Voluntary Carbon Markets Initiative (VCMI) and the International Organization of Securities Commissions (IOSCO) can inform policy efforts to support high-integrity voluntary credits. **Section 2 (climate disclosures) of the stocktake chapter provides further analysis**

UN HLEG RECOMMENDATION 4:
CREATING A TRANSITION PLAN

"Non-state actors must publicly disclose comprehensive and actionable net zero transition plans which indicate actions that will be undertaken to meet all targets, as well as align governance and incentive structures, capital expenditures, research and development, skills and human resource development, and public advocacy, while also supporting a just transition. Transition plans should be updated every five years and progress should be reported annually."

How this translates into policy	Progress made
Transition plans have emerged as an instrumental tool for companies and financial institutions to describe their strategies to transition their processes, operations and business models to meet climate commitments within a specified timeframe. The Taskforce makes a distinction between policy instruments that formulate expectations for companies and financial institutions to develop and/or disclose a *transition plan as a tangible output* from those that *encourage a transition planning process* without provisions to adopt or disclose a transition plan.	**Transition plans as an output** Among the G20 countries, only the EU (with France, Germany and Italy as sovereign G20 countries) has implemented mandatory requirements for companies to both adopt and disclose climate transition plans. Another five G20 countries (Canada, India, Japan, South Africa, UK) have introduced policies for voluntary adoption of transition plans. In particular, the UK's TPT, while not explicitly requiring alignment with the 1.5°C limit, may provide a basis for a global baseline of transition plan standards under the ISSB. In total, fourteen G20 countries require or recommend the disclosure of transition plan. While this promotes accountability and supports entities in their transition planning, such disclosure requirements are not always underpinned by the duties to contribute to climate goals: which means they do not ensure the preparation of credible contribution-based transition plans in line with the HLEG criteria. **Transition planning as a process** Transition planning elements exist in corporate and financial and real economy policies. ▪ Some policies, such as TCFD reporting requirements, focus on specific components of transition plans without mandating comprehensive transition plans. This includes climate target-setting, financial planning and capital expenditure, governance and incentive structures, and public advocacy. ▪ The South African Climate Act and The Nigerian Climate Act are examples of economy-wide real economy instruments that set some form of obligations on companies and financial institutions. **Section 3 (transition plans) of the stocktake chapter provides further analysis**

UN HLEG RECOMMENDATION 5:
PHASING OUT FOSSIL FUELS AND SCALING UP RENEWABLE ENERGY

"All net zero pledges should include specific targets aimed at ending the use of and/or support for fossil fuels in line with IPCC and IEA net zero greenhouse gas emissions modelled pathways that limit warming to 1.5°C with no or limited overshoot, with global emissions declining by at least 50% by 2030, reaching net zero CO_2 emissions by 2050, followed by net zero greenhouse gas emissions soon after.

The transition away from fossil fuels must be just for affected communities, workers and all consumers to ensure access to energy, and avoid transference of fossil fuel assets to new owners. The transition away from fossil fuels must be matched by a fully funded transition toward renewable energy."

How this translates into policy	Progress made
Policy to support the phasing out of fossil fuels and the scaling up of renewable energy is typically found in real-economy policy making – whether incentives, market-based instruments, sectoral policies, emissions trading schemes or licensing regimes. In corporate and financial policy, energy transition requirements or guidance are primarily found in disclosure regimes, transition plan policies and taxonomy-related instruments. In the stocktake, we look at progress made on energy-related disclosures and instruments that impose requirements to transition out of fossil fuels.	**Real economy policy** Progress in the energy transition is accelerating globally, if unevenly, and several G20 countries have adopted end dates for existing coal power (UK, Germany), new coal power (South Korea) or oil and gas exploration and production (France). While the issue of fossil fuel subsidies remains contentious, and the implementation of the G20 commitment to phase out subsidies is outstanding, our research did not look at harmful subsidies. The analysis shows a mix of market-based, and incentive-based policies across the dataset, with comparatively few licensing and planning policies to support fossil fuel phase out. **Corporate and financial policy** The requirements related to energy transition are seen in national and subnational real economy policy, but less integrated in corporate and financial policy. A limited number of policy instruments place explicit requirements for fossil fuel phase-down, with slightly more progress on renewable energy procurement targets. Disclosure requirements on carbon intensive asset divestment and locked-in emissions are integrated to support more robust transition risk assessments. The need to accelerate and address non-CO_2 emissions globally, in particular methane emissions by 2030, is vital for meeting Paris pathways. On disclosure of methane emissions, we find some form of instrument that recommends or requires this in the majority of G20 countries, with variation in the sectoral coverage and targeted entities. Fourteen G20 countries have adopted or are developing sustainable taxonomies. Sustainable economic activities within the energy sector are mostly included in these frameworks, while fossil fuels are generally excluded. **Section 5 (sustainable taxonomies) and section 7 (integrating multi-dimensional sustainability in corporate and financial net zero policies) of the stocktake chapter provide further analysis.**

UN HLEG RECOMMENDATION 6: **ALIGNING LOBBYING AND ADVOCACY**	
"Non-state actors must align their external policy and efforts, including membership in trade associations, to the goal of reducing global emissions by at least 50% by 2030 and reaching net zero CO_2 emissions by 2050, followed by net zero greenhouse gas emissions soon after. This means lobbying for positive climate action and not lobbying against it."	
How this translates into policy	**Progress made**
While the regulation of lobbying and advocacy is for the most part dealt with through national lobbying regulation, data collected here looks at the extent to which relevant policies recommend or require targeted entities to align their engagement and governance practices with their emissions targets and transition plans. For this reason, the stocktake has not examined other more common policy measures aimed at fostering responsible lobbying.	While we have not examined the policies specifically aimed at lobbying, the database analysis shows eleven policy instruments that recommend or require companies and financial institutions to align lobbying/policy engagement with targets/transition plans, and three policy instruments that recommend or require them to disclose lobbying. Overall, ensuring consistency between corporate transition plans and lobbying practices remains under-addressed in policy frameworks, with existing measures primarily focusing on transparency rather than alignment. In this area, South Africa and the EU (with France, Germany and Italy as sovereign G20 countries) are clear examples, with relevant guidance also embedded in the UK's TPT Disclosure Framework.

UN HLEG RECOMMENDATION 7:
PEOPLE AND NATURE IN THE JUST TRANSITION

"As part of their net zero plans, businesses, cities and regions with material land-use emissions must achieve and maintain operations and supply chains that avoid the conversion of remaining natural ecosystems – eliminating deforestation and peatland loss by 2025 at the latest, and the conversion of other remaining natural ecosystems by 2030.

Financial institutions should have a policy of not investing or financing businesses linked to deforestation and should eliminate agricultural commodity-driven deforestation from their investment and credit portfolios by 2025, as part of their net zero plans."

How this translates into policy	Progress made
Sustainable taxonomies that include or emphasise protecting biodiversity and ecosystems as critical environmental objectives play an important role. Combined with the broadly accepted "do no significant harm" principle, this makes sustainable taxonomies a key lever to tackle interconnected sustainability issues and drive an integrated approach. Disclosure regimes that require reporting linked to nature and inequality are equally important. In that respect, particularly noteworthy initiatives are: ▪ The Taskforce on Nature-related Financial Disclosures: its adoption will influence how policy makers incorporate nature risks and dependencies in net zero transition plans and how this is translated in policy frameworks guiding the strategies of companies and financial institutions. ▪ The Taskforce on Inequality and Social-Related Financial Disclosure, which provides an opportunity accelerate the integration of just transition in corporate and financial policy	**Sustainable taxonomies** Fourteen G20 countries have adopted or are developing sustainable taxonomies. All taxonomies address climate change mitigation, but some also go beyond this objective to explicitly address nature (e.g., Brazil, EU) and social (e.g., Brazil, Mexico) objectives. **Adaptation** Requirements on climate adaptation are more prevalent than nature or just transition. Aside from national strategies and action plans, adaptation targets are integrated in corporate and financial policies in ten G20 countries, as well as in represented African countries. **Nature** The data collected shows that disclosure of nature-related impacts is integrated in corporate and financial policies in the majority of G20 countries. However, few policies place requirements to also set and disclose targets related to nature or biodiversity. A notable example is EU's ESRS (with France, Germany and Italy as sovereign G20 countries), which requires disclosure of a biodiversity transition plan when biodiversity-related risks are material to either the company or the environment (following a double materiality approach). **Just transition** Provisions to respect the rights of Indigenous communities are being integrated into soft law instruments like the OECD Guidelines for Multinational Enterprises, as well as policies in the EU (with France, Germany and Italy as sovereign G20 countries) such as the CSDDD and the Regulation on Deforestation-free Products. Ten policy instruments recommend or require disclosure of just transition *indicators*. A notable example is South Africa's JSE Climate Disclosure Guidance, which recommends entities to assess their climate impacts against just transition. **Section 5 (sustainable taxonomies) and section 7 (integrating multi-dimensional sustainability in corporate and financial net zero policies) of the stocktake chapter provide further analysis.**

UN HLEG RECOMMENDATION 8:
INCREASING TRANSPARENCY AND ACCOUNTABILITY

"Non-state actors must annually disclose their greenhouse gas data, net zero targets and the plans for, and progress towards, meeting those targets, and other relevant information against their baseline along with comparable data to enable effective tracking of progress toward their net zero targets.

Non-state actors must report in a standardised, open format and via public platforms that feed into the UNFCCC Global Climate Action Portal to address data gaps, inconsistencies and inaccessibility that slow climate action."

How this translates into policy	Progress made
Disclosures are one of the core policy levers to drive the corporate and financial sector transition to net zero. Disclosure requirements are focused on providing transparency regarding backward- and forward-looking data and analysis, relevant to companies' and financial institutions' strategies, operations and performance on sustainability issues. Disclosure obligations or recommendations set no demands for action beyond reporting of existing practice. However, they set a baseline for all sustainable investment practice and pursuit of climate mitigation goals. By mandating third-party verification and assurance, regulations can significantly enhance the credibility of net zero disclosures, instilling confidence in stakeholders regarding reported figures.[8] This independent validation ensures that companies' claims are not only accurate but also reflect genuine progress toward their sustainability goals.	All G20 countries have policies in place that recommend or require some companies and financial institutions to report their greenhouse gas emissions at an entity level. These provisions differ in: ▪ Their coverage of the economy ▪ Their coverage of emission scopes: 14 G20 countries (Australia, Brazil, France, Italy, Germany, Turkey, India, Indonesia, Japan Canada, China, Mexico, South Africa, UK) have provisions in place for public disclosure of Scope 3 emissions, with the majority currently being voluntary ▪ How they address accounting methodologies, third-party verification and assurance. 13 G20 countries require or recommend third-party verification of GHG inventories; but provisions for the reasonable assurance of sustainability reports are only recently emerging (e.g., EU and India). Policy instruments are also increasingly adopting other metrics that support transition planning. ▪ Emission reduction targets (see recommendation 1 and 2) ▪ Transition plans (see recommendation 4) ▪ Climate risk (transition risk, physical risk), as well as climate-related opportunities ▪ Capital allocation and/or expenditure plans (in the context of climate change) ▪ Remuneration based on achieving climate-related goals ▪ Stewardship ▪ Anticipated financial effects from climate-related risks assumptions, dependencies, and data limitations **Section 2 (climate disclosures) of the stocktake chapter provides further analysis**

[8] PRI and World Bank (2020), How policy makers can implement reforms for a sustainable financial system.

UN HLEG RECOMMENDATION 9: **INVESTING IN JUST TRANSITIONS**	
"To achieve net zero globally, while also ensuring a just transition and sustainable development, there needs to be a new deal for development that includes financial institutions and multinational corporations working with governments, Multilateral Development Banks and Development Finance Institutions to consistently take more risk and set targets to greatly scale investments in the clean energy transition in developing countries."	
How this translates into policy	**Progress made**
The Taskforce has considered this recommendation from a different perspective. While there are some policies that enable investing in a just transition, this is a novel policy area and existing policies do not reflect the progress made from a global perspective. The Taskforce therefore commissioned dedicated research looking into the cross-border impacts of G20 corporate and financial policies on emerging and developing economies. In an increasingly interconnected world, the speed, scale and universal character of the just transition has implications for interconnected justice, that is, how one place's just transition affects another place's just transition. To date, just transition interventions have been place-based, and focused on the concept of Do No Significant Harm. While this is a correct approach, and the effective implementation of these policies will be pivotal in advancing justice, it is not sufficient. To ensure interconnected justice, net zero policies should also require companies and financial institutions to consider the consequences and impacts on all affected locations.	The understanding of the concept of just transition varies across markets and constituencies. A transformative vision of the just transition requires widening the lens on justice definitions to ensure policy frameworks deliver concrete justice outcomes while upholding the principle of Common but Differentiated Responsibilities and Respective Capabilities. This includes the concepts of interconnected justice (between countries), as well as restorative (focused on nature and habitats), intergenerational, procedural, and redistributive justice. Recently adopted policies and regulations, such as the CSDDD in the EU, and an ESG disclosure guide in Malaysia, show a positive trend towards integrating justice elements in disclosure regimes and transition plans, due diligence directives and efforts to enshrine international standards in law. Many are inspired by, or represent the incorporation into law of, the UN Guiding Principles on Business and Human Rights and/or of the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct, which function as soft law. This illustrates an increasing uptake of the foundational 'do no significant harm' principle across net zero policies. Effective implementation of these policies, both at the adopting and recipient country level, is a fundamental step towards pursuing interconnected justice. To further capture the transformative potential of the global just transition, net zero policies should go beyond avoiding significant harm and actively promote the generation of positive impact. This can be achieved by capturing cross-border impacts in policy design, including through a wider use of human rights and environmental due diligence and, more importantly, ensuring these elements are considered when implementing net zero policies. To engage in effective multi-actor policy dialogues, policy makers need a clear understanding of the stakeholders affected by climate policies. As research from the PRI suggests, this can "help target the root causes of social discontent and economic disparities to foster inclusive development and social cohesion".[9] Valuing and protecting nature and acting on climate adaptation and resilience are key elements to ensure positive outcomes for communities in vulnerable, developing economies and achieve interconnected justice. ***The Taskforce report Interconnected Justice – Understanding Cross-Border Implications of Climate Transition Policies* provides further analysis**

[9] PRI (2024), The socioeconomic implications of the transition: Analytical framework for a whole-of-government approach.

ON THE ROAD TO COP30

This report provides a comprehensive overview of the current state of net zero policies targeting corporate and financial institutions worldwide. As policy reforms gain momentum, we see encouraging signs of progress across the G20. While the EU (with France, Germany and Italy as sovereign G20 countries) demonstrates the most comprehensive and cohesive development so far, other G20 nations, including emerging economies, are advancing rapidly, adding fresh perspectives and valuable elements to the global net zero policy landscape. This includes COP30 host Brazil, which has made strong progress on themes including land use, deforestation and social equity goals, as well as with its own climate-related taxonomy.

Clear advances have been made across the regulatory landscape. However, significant gaps remain in the ambition, specificity, and compatibility across jurisdictions and policies. This continues to hinder high-integrity action by large companies and financial institutions and can make the delivery of national net zero targets challenging. These gaps need to be addressed to support the delivery of NDCs and to align financial flows with the Paris Agreement. All actors and policy domains have important roles to play.

Given the urgent need to address these gaps, the Taskforce has identified four areas for future focus, as set out below.

1. TRANSITION PLANS AND PLANNING: DESIGNING POLICY FOR HIGH INTEGRITY

While there has been progress in transition planning policies, only the EU (with France, Germany and Italy as sovereign G20 countries) currently mandates transition plans, and existing disclosures lack specificity and consistent minimum standards. To facilitate the move towards an effective transition, policy instruments should establish clear benchmarks for target setting, pathway selection and performance metrics. Given these requirements, the Taskforce will work to refine recommendations on how to implement such policies on key elements, such as target setting and the use of 1.5°C pathways, the use and accounting of carbon offsets and carbon removals or financial planning, with a particular focus on capital expenditures and their plans, and the avoidance of carbon lock-in. We will also work to support more jurisdictions to introduce mandatory transition plans in standards and regulation. By establishing clearer criteria for effective policy, the Taskforce aims to foster credible pathways to net zero by 2050 that support companies and financial institutions.

2. INTEGRATION OF NATURE AND ADAPTATION

The Taskforce's research highlighted that, although nature and adaptation are increasingly considered by policy makers as integral to the fight against climate change, these issues are not yet holistically and systematically addressed in the existing policy ecosystem. The Taskforce did not conduct research on policies exclusively focused on nature or adaptation challenges; instead, it assessed whether corporate and financial climate policies included nature or adaptation elements.

Moving forward, the Taskforce will examine policies specifically focused on nature and adaptation, including the social, environmental and justice aspects embedded in resilience and preparedness-building. It will also aim to foster a more systematic inclusion of adaptation, nature, land-use and deforestation considerations, as well as inclusive and sustainable development elements, in corporate and financial mitigation policies such as taxonomies and transition plans.

This approach seeks to create a holistic, positive-impact framework that promotes inclusive, climate resilient and sustainable development, moving beyond 'doing no harm' to actively enhancing community resilience and environmental health.

3. POLICY COMPATIBILITY, IMPLEMENTATION AND IMPACT

Policies targeting corporate and financial institutions vary widely across jurisdictions. While it is essential for these policies to reflect the specific economic, social and environmental realities of individual countries, there is a pressing need for greater cross-border compatibility; this is particularly relevant for large firms operating across multiple geographies. This compatibility is crucial to ensure high-integrity standards and to prevent contradictory messages or unnecessary burdens. In this respect, the COP29 Presidency's focus on supporting global taxonomy compatibility and development is welcome, and we stand ready to support these efforts with the extensive experience that Taskforce members can offer. There is also a need to understand better the effectiveness and impacts of corporate and financial policy, which the Taskforce will address in its future work programme.

4. ADDRESSING INTERCONNECTED JUSTICE

The Taskforce recognises progress in integrating international standards, such as the UN Guiding Principles on Business and Human Rights and the OECD Multinational Guidelines, into corporate law. As policies aiming to uphold the do no significant harm principle are implemented, it is vital that the standards attached to these policies consider local contexts and community needs. Engagement with local communities must be central to implementation, with disengagement only considered as a last resort.

Additionally, the Taskforce emphasises the importance of moving beyond the do no significant harm approach to actively deliver positive impacts on inclusive and sustainable development. To foster a shared understanding of these impacts and to promote a 'do more good' approach, the Taskforce plans to facilitate in-depth dialogue and exchanges between policy makers and across jurisdictions.

5. NEXT STEPS

The Taskforce will pursue these objectives through in-depth analysis, workshops and dialogue aimed at strengthening policy instruments and aligning them with the 1.5°C limit. Acknowledging the value of peer learning, the Taskforce will facilitate stakeholder dialogues and convene workshops, focusing on practical implementation and capacity building for both regional and international policy alignment. This will include detailed examinations of cornerstone policies such as taxonomies, due diligence frameworks and just transition elements, with the goal of promoting the replication of effective, innovative policies and supporting ambitious reforms. The Taskforce will also engage further with the important net zero policy work of subnational governments and authorities. The Taskforce plans to report on the outcomes of these efforts at COP30.

The work undertaken by the Taskforce so far informs the ever-growing global picture of policy action on net zero and presents a comprehensive overview of some of the most important issues at play. These findings will guide our efforts as they shift towards supporting and engaging with policy makers to develop and implement ambitious and effective policies for a resilient, net zero future.

> *I am very pleased to see the first reports of the Taskforce on Net Zero Policy. These assessments provide a helpful overview of the state of global net zero policies and their impacts on the global just transition, responding to the recommendations set out in the 'Integrity Matters' report by the UN High-Level Expert group on the Net-Zero Emissions Commitments of Non-State Entities. The findings show very clearly - that net zero policies matter. Nearly all the G20, and many other countries have set net zero targets. But countries can only reach their long-term net zero and short-term NDC plans if companies, financial institutions, and cities and regions – many of whom have their own net zero targets - work together. It is positive to see some signs of progress, particularly around disclosure and net zero transition plans, as the number of net zero policies has tripled since 2020. However, much more is needed to align net zero policies with not only climate mitigation and alignment with the Paris Agreement, but also net zero pathways that support adaptation, a just transition, and nature considerations linked to commitments in the Global Biodiversity Framework. COP29, and COP30, which will be 10 years since the Paris Agreement, present a critical opportunity for policymakers to learn from the best practice examples of net zero policy in this report, and to embed robust net zero policies to deliver a safer and more prosperous future for us all.*
>
> ***Laurence Tubiana, CEO of the European Climate Foundation***

SECOND PART: TAKING STOCK

STOCKTAKE OF NET ZERO POLICY

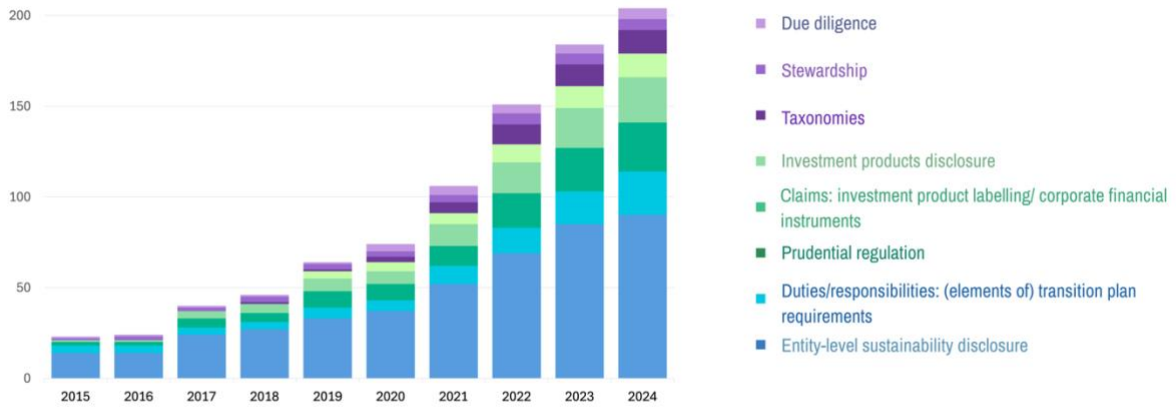
1. STATE OF POLICY ADOPTION ACROSS G20 COUNTRIES[10]

CORPORATE AND FINANCIAL POLICY[11]

Over 200 policy instruments have been adopted across G20 countries that require companies and financial institutions to address climate change (see Figure 1). The pace of adoption has accelerated quickly since 2020, has been universal across the G20, and has followed a similar trajectory in both developed and emerging economies, indicating that companies and financial institutions are increasingly subject to net zero regulation in some form.

The Taskforce expects that the adoption of policy instruments will continue at pace. The data shows continued policy-making activity for 2024 and beyond. The ISSB standards,[12] for instance, have already been adopted in six jurisdictions, of which three are G20 countries (Australia, Brazil and Turkey), and 20 more countries worldwide are consulting on or have communicated their intent to adopt the standards. The EU regime (applicable in three G20 jurisdictions: France, Germany and Italy) can also be a blueprint for further policy adoption; it is compatible with and goes beyond the ISSB standards.

Figure 1. **Adoption of corporate/financial policy relevant to HLEG in G20 economies** (cumulative)



Data: NZPT Consolidated dataset (2024)

Notes:
The NZPT consolidated data (2024) was constructed by consolidating and harmonising data collected by Canbury Insights and Oxford Climate Policy Monitor. The data collected is subject to constraints inherent to these two source datasets, and line-by-line validation of each policy in the consolidated was not feasible due to the scale of the dataset and time constraints. The findings in this figure should therefore be read as providing insights on trends in policy development rather than an exhaustive overview of progress.

The year 2020 also marked the starting point of an increased diversity in policy instruments to support climate action by companies and financial institutions. Early policy instruments focused on entity-level disclosures. These are increasingly complemented by duties to act on climate mitigation, taxonomies, engagement policies, and labelling and disclosure schemes for financial products and service providers. Even within different instrument types, diversity is notable. Each jurisdiction places different emphasis in terms of governance requirements, ambition, regulation of offsets or other factors. These are discussed in more detail in the following sections.

[10] The research presented in this section is drawn from the data compiled by Canbury Insights and the Oxford Climate Policy Monitor.
[11] Corporate and financial policy is policy that regulates the behaviour and actions or businesses and financial institutions.
[12] The ISSB published two standards in June 2023 on sustainability-related disclosures: the *General Requirements for Disclosure of Sustainability-related Financial Information* and the *Climate-Related Disclosures*. See ISSB (2023), IFRS - IFRS Sustainability Standards Navigator. These standards build on the TCFD recommendations and are designed to result in high-quality globally comparable sustainability-related financial disclosures to meet the needs of the capital markets.

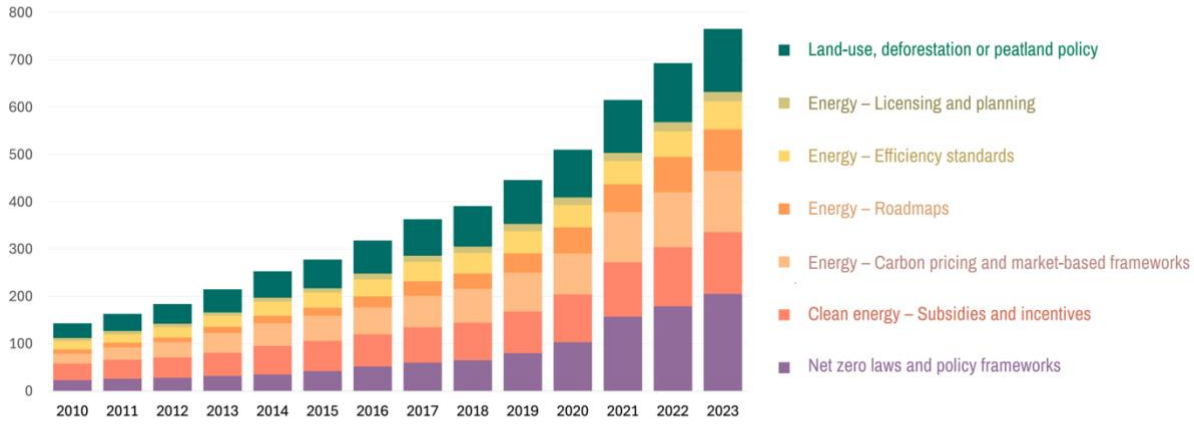
REAL ECONOMY

The overall transition of economies to net zero requires a whole-of-government approach, including economy-wide and sectoral policies and measures. This section focuses only on certain aspects of real economy net zero policy, directly connected to the HLEG recommendations. Policies assessed are relevant to climate mitigation (integration with adaptation is tackled in Section 5) and include subsidies and incentives that support clean energy transition, carbon pricing, fossil fuel phase-out licensing or land-use policies. While the issue of fossil fuel subsidies remains contentious, and the implementation of the G20 commitment to phase out subsidies remains outstanding, subsidies in support of fossil fuels exploration, expansion, production – whether in energy or elsewhere – are not included in the policies assessed.

Overall, the number of climate policy instruments has increased, reinforcing the upswing in financial and corporate policy. This is necessary to create an enabling environment for a whole-of-economy transition to net zero (see Figure 2). It also creates market trust that national climate commitments are being implemented, provides a credible signal that the economy as a whole is transitioning, and as such is a fundamental condition for bringing investments in line with the net zero transition. Progress in emerging economies has continued, with some evidence of a slowdown in the rate of progress in developed economies.

This echoes findings of a more comprehensive analysis by the Organisation for Economic Co-operation and Development's (OECD) Climate Action Monitor, according to which progress of governments' climate action slowed down in 2022 and 2023.[13]

Figure 2. **Adoption of real economy policy relevant to HLEG in G20 economies** (cumulative)



Data: NZPT Consolidated dataset (2024)

Notes:
The NZPT consolidated data (2024) was constructed by consolidating and harmonising data collected by Canbury Insights and Oxford Climate Policy Monitor. The data collected is subject to constraints inherent to these two source datasets, and line-by-line validation of each policy in the consolidated was not feasible due to the scale of the dataset and time constraints. The findings in this figure should therefore be read as providing insights on trends in policy development rather than an exhaustive overview of progress.

We find evidence of policy reforms across all real economy domains and policy instruments examined across the G20. Not one instrument type dominates overall, with a mix of policies across jurisdictions. We find few examples of licensing and planning policy to support fossil fuel phase-out in the dataset. We see some examples of real economy policies – either economy wide or sectoral – that place requirements or obligations on companies and financial institutions to act on net zero.

To address the urgent imperative to close the emissions gap, a mix of policy levers remains important, across all domains and tailored to national contexts. Also important are policy instruments that tackle deforestation, adaptation, land use and nature loss in harmony with wider mitigation policies, alongside assessments of the overall policy effectiveness.

[13] OECD (2023), The Climate Action Monitor 2023

2. CLIMATE-RELATED DISCLOSURES[14]

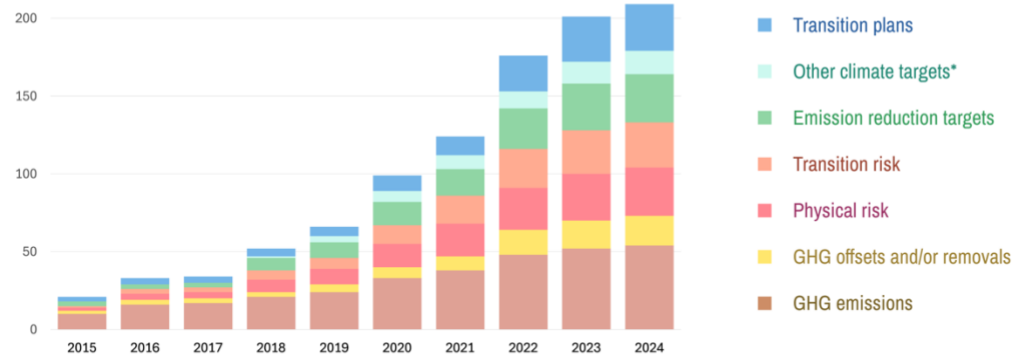
OVERVIEW

All G20 countries have adopted some form of climate-related disclosure provisions:[15] they are a key policy instrument to support companies and financial institutions to act on climate mitigation and climate goals. Disclosure provisions are focused on providing transparency regarding backward- and forward-looking data and analysis, relevant to companies' and/or financial institutions' strategies, operations and performance on climate mitigation and other sustainability issues. Disclosure obligations or recommendations set no demands for action beyond reporting of existing practice and performance.

Climate-related disclosure provisions have increased and are evolving (see Figure 3). A key driver of initial progress on such disclosures has been the recommendations of the TCFD, which were followed by the two inaugural ISSB standards on sustainability disclosures.[16] Since the publication of the latter in 2023, global efforts have focused on supporting jurisdictions in adopting, applying or otherwise being informed by the ISSB Standards.

Initial disclosure provisions focused on backward-looking disclosure of GHG emissions. While these have continued to expand, there has been a notable increase in the last three years in the inclusion of a broader range of forward-looking metrics, including exposure to physical and transition risks, and information related to corporate and financial emission reduction targets and transition plans. These forward-looking metrics can help drive action on net zero and climate risk but given their novel nature can also present challenges around data quality and granularity, methodologies and standards.

Figure 3. **Evolution of climate-related disclosure requirements in G20 economies** (cumulative)



* Other climate targets include: Targets for renewable energy procurement; Targets for fossil fuel phase-down/phase-out; Targets or goals related to climate adaptation; Targets or goals related to nature and/or biodiversity; Targets or goals related to just transition

Data: Oxford Climate Policy Monitor (2024)

Notes:
The figure shows disclosure provisions within policy instruments. One policy instrument can have multiple relevant provisions, for instance to to disclose information about a climate target and a transition plan
The figure builds on consolidated and harmonised data collected by the Oxford Climate Policy Monitor, which collaborated with law firms to comparatively evaluate the state of net zero-aligned policy and regulation using a comprehensive survey. The data are subject to constraints inherent to this data collection approach, and line-by-line validation of each policy in the dataset was not feasible due to the scale of the dataset and time constraints. The findings in this figure should therefore be read as providing insights on trends in policy development rather than an exhaustive overview of progress.

In addition to forward-looking disclosures, other important considerations for disclosure instruments are:

- Coverage: from publicly listed entities to private entities, sector coverage, including voluntary simplified standards for SMEs.

[14]The research presented in this section is drawn from the data compiled by the Oxford Climate Policy Monitor.
[15] The Oxford Climate Policy Monitor does not include information about Russia: the referenced policy to conclude adoption across all G20 countries was identified through the Canbury Insights dataset.
[16] The TCFD was created by the Financial Standards Board (FSB) in 2015 to improve and increase reporting of climate-related financial information. The TCFD fulfilled its mandate and disbanded in 2023, concurrent with the release of its status report, and the FSB asked the IFRS Foundation to take over from 2024 the monitoring of the progress of companies' climate-related disclosures.

- Enforcement: introduction of sanctions for non-compliance, and provisions for third-party verification, including reasonable assurance.
- Interoperability: compatibility with international standards, GHG accounting methodologies and emission certification schemes.
- Depth: covering issues from the perspective of double materiality.

PROGRESS MADE

Backward-looking disclosures: GHG emissions

Disclosure of GHG emissions is the baseline requirement for companies and financial institutions. The Taskforce has noted that all G20 countries have policies in place that recommend or require some companies and financial institutions to report their emissions at an entity level.[17]

These provisions differ in their coverage of targeted entities and emission scopes. Fourteen G20 countries (Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Turkey, South Africa and the UK) have provisions in place for public disclosure of Scope 3 emissions, with the majority currently being voluntary.

GHG disclosure provisions also differ in how they address accounting methodologies, third-party verification and assurance:

- **Transparency of GHG accounting**. According to the data, 11 G20 countries (Australia, Brazil, Canada, France, Germany, Italy, South Korea, South Africa, Turkey, the UK and the USA) require or reference the GHG Protocol Corporate Accounting and Reporting Standard. More G20 countries have general provisions on standardising GHG emissions accounting methodologies.
- **Third-party verification**: According to the data, 13 G20 countries (Argentina, Australia, France, Germany, Italy, India, Japan, Mexico, South Korea, Saudi Arabia, South Africa, Turkey and the UK) require or recommend third-party verification of GHG inventories.
- **Assurance**. Further research shows that a movement towards limited and reasonable assurance has started. For instance, under the Securities and Exchange Board of India (SEBI) 2021 regulations, publicly listed companies will have to undergo a reasonable assurance of their core sustainability disclosures, including GHG emissions.

Policy snapshot: California disclosure rules

In 2023, California passed two landmark climate risk disclosure laws, Senate Bill 253 (SB 253) and Senate Bill 261 (SB 261), that set new national standards for reporting greenhouse gas emissions and climate-related financial risks. SB 253 mandates companies and financial institutions operating in California to disclose their Scope 1, Scope 2 and Scope 3 GHG emissions, aligning with the Greenhouse Gas Protocol. SB 261 requires disclosure of climate-related financial risks using the Task Force on Climate-related Financial Disclosures (TCFD) framework or its successor.

The two laws have enshrined the principle of extra-territoriality.[18] To create a level-playing field, their provisions apply to any company or financial institution, no matter where it is incorporated in the world, that is doing business in California. California is the world's fifth-largest economy. Most, if not all, major companies do business in the state. SB 253 applies to around 5,000 companies (with over US$1bn in revenues) and SB 261 to around 10,000 companies (with over US$500m in revenues).

By virtue of the extra-territoriality principle, the two California laws have established a de facto national standard for climate risk and greenhouse gas emissions disclosure in the USA. Both California laws are stronger and broader than the new USA Securities and Exchange Commission (SEC) Rule on climate risk disclosure that was promulgated earlier in 2024 but is currently on hold. For example, the SEC Rule only requires Scope 1 and Scope 2 disclosure, not Scope 3. And disclosure is only required under the SEC Rule if the emissions are financially material. SB 253, on the other hand, requires Scope 3 reporting and there is no materiality condition for the reporting requirement. The SEC Rule applies only to publicly traded companies, while SB 261 and SB 253 apply to both private and public companies.

[17] The policy enacted by the US Securities and Exchange Commission (SEC), "The Enhancement and Standardization of Climate-Related Disclosures for Investors" is on hold due to litigation as of October 2024. However, the climate risk disclosure laws enacted in California (SB 261) will apply to the 10,000 biggest companies in the US.
[18] The principle of extra-territoriality is also applied in other jurisdictions, as for instance by the EU's CSRD.

Disclosures of GHG offsets

HLEG Recommendation 3 specifies that offsets cannot be counted toward a non-state actor's interim emissions reductions required by its net zero pathway. According to the HLEG, the appropriate use of offsets is to balance residual emissions or annual unabated emissions beyond net zero pathways.

According to the data, 13 G20 countries (Argentina, Australia, Brazil, Canada, China, France, Germany, Indonesia, Italy, Japan, South Africa, Turkey and the UK) recommend or require entities to disclose their offsetting purchases. However, fewer policy instruments recommend or require offsets purchased on the voluntary carbon market to be certified.

The provisions for offset certification are most clearly outlined in voluntary policies, such as the Net Zero Challenge (Canada), the GX League (Japan), and the TPT Disclosure Framework (the UK). Significant advancement in offset integrity is seen in EU's framework, which requires entities to disclose targets for offsets/removals as separate from emissions reductions, to certify offsets and removals, as well as specifies that offsets can only be applied to entity's residual emissions (see snapshot below).

Work to support high-integrity voluntary credits has primarily been supported through best-practice voluntary standard initiatives, such as the work of the Integrity Council for the Voluntary Carbon Market (ICVCM)[19] and the Voluntary Carbon Markets Initiative (VCMI).[20] In addition, the International Organization of Securities Commissions (IOSCO) has been involved in enhancing financial integrity in carbon markets through establishing regulatory guidance to ensure transparency.[21]

Policy snapshot: the EU Offsets Regulatory framework

The EU Sustainable Carbon Cycles briefing by the European Parliamentary Research Service emphasises that while carbon removals will increasingly contribute to achieving EU climate neutrality by 2050 – particularly to offset emissions from hard-to-abate sectors – the primary focus must remain on rapid and predictable emission reductions. This is reflected in the ESRS, which require the disclosure of gross emission targets without including GHG removals, carbon credits or avoided emissions, which should be reported separately.

The proposed Green Claims Directive reinforces this by stating that claims related to climate change compensation and emissions reductions through carbon credits can only be applied to a company's residual emissions, utilising carbon credits certified under the EU Carbon Removals Certification Framework, established in April 2024. The goal is to ensure high-quality EU-certified carbon removals that support investment in removal activities while mitigating greenwashing through rigorous quantification, monitoring and verification.

A transparent governance framework and a public EU registry are envisaged to enhance transparency. It is crucial to note that certified removals can only contribute to the EU's climate objectives and NDCs and must not be counted towards other countries' NDCs or international compliance schemes. Capture and storage technologies will also play a role in achieving long-term climate neutrality targets. However, the uncertainty surrounding these removals underscores that they should not substitute for deep emission reductions in planning efforts.

Policy Snapshot: African Union: AU Action Plan on Carbon Markets

The African Union, along with its 55 member countries, key African institutions and partners have recently finalised an Africa Action Plan on Carbon Markets. It provides common perspectives, approaches and recommended actions towards the effective participation of Africa in global carbon markets. Developed after extensive consultation with a variety of stakeholders and the engagement of technical experts, it seeks to seize the opportunities that both compliance and voluntary carbon markets, as well as carbon finance, present for NDC implementation in Africa.

The Action Plan provides strategic approaches and key recommendations for consideration by member states, while establishing national carbon market frameworks based on their respective national contexts and circumstances. While not mandatory, the Action Plan aims to provide a clear direction for countries to design and implement carbon markets frameworks. It provides guiding principles to member states on policy and regulatory frameworks, institutional arrangements, capacity development, partnerships management, and monitoring and reporting systems, with a focus on Africa supplying high-quality and high-integrity carbon credits.

[19] ICVCM (2024), Carbon credits from current renewable energy methodologies will not receive high-integrity CCP® label
[20] VCMI (2023), Claims Code of Practice
[21] IOSCO (2023), Voluntary Carbon Markets Consultation Report

The Action Plan adopts a consensus-building, demand-driven and gap-filling approach to increasing the continent's contribution to global climate mitigation through carbon markets. It is strategically aligned with the goals of several international and regional policy instruments, including the Paris Agreement (through NDC implementation); the African Union Climate Change and Resilient Development Strategy and Action Plan (2022-2032); the African Union Green Recovery Action Plan (2017-2027); and the African Leaders Nairobi Declaration on Climate Change and Call to Action (2023).

Disclosures that support transition planning

Central to HLEG recommendations is net zero target setting. On the disclosure of emissions reduction targets, we find the following evidence:

- ISSB-based disclosure policies (in Australia, Brazil and Turkey) require entities to disclose emissions reduction targets if and as set by the company. This covers absolute and intensity-based emission reduction targets, net zero and interim targets, targets covering non-carbon GHG emissions, Scope 3 targets, as well as targets set using a sectoral decarbonisation approach.
- The policy instruments in G20 countries have diverse recommendations and requirements regarding disclosure of emission reduction targets. Provisions differ in the emissions scopes covered and ambition levels, as well as the timeframes of short- and long-term targets.
- While 11 G20 countries recommend or require disclosure of an absolute emissions reduction target, there is little evidence of policy that meets all credibility criteria outlined by the UN HLEG, such as disclosing progress against both short- and long-term targets (specified as net zero by 2050), and using a robust third-party verified methodology consistent with limiting warming to 1.5°C, with no or limited overshoot.

Policy instruments are also increasingly adopting other metrics that interact with and may support transition planning. These include:

- climate risk (transition risk, physical risk), as well as climate-related opportunities
- capital allocation and/or expenditure plans (in the context of climate change)
- remuneration based on achieving climate-related goals
- anticipated financial effects from climate-related risks
- assumptions, dependencies and data limitations
- stewardship
- transition plans (see section 3)

Policy snapshot: EU Corporate Sustainability Reporting Directive

Under the EU's CSRD, and accompanying ESRS – E1, each in-scope undertaking must disclose a broad range of metrics (unless it deems climate change not material). This includes disclosures of (among other things):

- climate risks (transition risk, physical risk) and climate-related opportunities
- emission reduction targets and transition plans
- capital allocation and/or expenditure plans (in the context of climate change)
- anticipated financial effects from climate-related risks
- assumptions, dependencies and data limitations
- taxonomy alignment
- climate-related lobbying and/or policy engagement
- due diligence process with regard to sustainability matters
- locked-in GHG emissions
- social impacts

The CSRD requires a broad range of companies that are preparing their reports to conduct limited assurance, with requirements progressing on to reasonable assurance. This is a milestone in sustainability reporting, placing auditing and verification of sustainability information on a par with financial reporting.

The ESRS standard, which supplements the CSRD, is comparable to ISSB but, in addition, covers:

- detailed information about a broad range of social and environmental issues
- specific mandatory criteria for disclosing
- links to specific financial regulation that impacts financial instruments and products
- taxonomy reporting
- all companies above 250 employees and extra-territoriality

Policy snapshot: the Johannesburg Stock Exchange Sustainability and Climate Disclosure Guidance, South Africa

The Johannesburg Stock Exchange (JSE) Climate Disclosure Guidance,[22] published in June 2022, encourages issuers on the stock exchange to consider and disclose how lobbying activities and those of associations and membership group align with the objectives of the Paris Agreement through, among other things: disclosure by issuers of climate-related lobbying activities and membership of industry associations undertaking lobbying; information on the nature of positions, their alignment the goals of the Paris Agreement; and the process and criteria for determining alignment.

The JSE Sustainability Disclosure Guidance has a voluntary 1.5°C alignment requirement for science-based targets to 'Define and report progress against time-bound short-, medium-, and long-term science-based GHG emissions targets that are in line with the goals of the Paris Agreement and Glasgow Climate Pact."

The JSE is sometimes referred to as a secondary regulator because its listing requirements affect most of the largest companies in South Africa. The companies listed on the JSE are required to abide by the King Code on Corporate Governance, which is a widely used corporate governance code for public and private organisations.

The 2016 King IV Report on Corporate Governance included a recommendation to "oversee and monitor the consequences of the organisation's activities and output on its status as a responsible corporate citizen". This has led to integrated sustainability reporting with a double materiality perspective. The 2021 King IV Guidance Paper on Responsibilities of Governing Bodies in Responding to Climate Change specifically highlights how organisations should apply this in the context of responding to climate change.

[22] JSE (2022), Sustainability and climate disclosure guidance

3. TRANSITION PLANS[23]

OVERVIEW

Transition plans have emerged as an instrumental tool for companies and financial institutions to describe their strategies to transition their processes, operations and business models to meet climate commitments within a specified timeframe. Research shows an emerging convergence among principal frameworks, standards, and initiatives about the key elements of transition plans:

- climate-related governance
- scenario analysis and setting climate targets
- identification of impacts, risks and opportunities
- decarbonisation strategies, actions and levers to implement the plan
- financial planning, including capex (capital expenditure) plans
- accounting and verification
- policy engagement
- value chain engagement

This section distinguishes between policy instruments that formulate expectations for companies and financial institutions to develop and/or disclose a *transition plan as a tangible output* from those that e*ncourage a transition planning process* without provisions to adopt or disclose a transition plan.

TRANSITION PLANS AS AN OUTPUT

Among the G20 countries, only the EU (with France, Germany and Italy as sovereign G20 countries) has implemented mandatory requirements for companies to both adopt and disclose climate transition plans (see policy snapshot).

Five G20 countries (Canada, India, Japan, South Africa and the UK) have introduced policies for the voluntary adoption of transition plans:

- The UK's TPT, launched at COP26, has developed a framework, guidance and sectoral materials for transition plans through engagement with global stakeholders. The recent announcement that the International Financial Reporting Standards (IFRS) will assume responsibility for the TPT's disclosure framework and related guidance provides an opportunity for a global baseline of transition plan standards under the ISSB.
- Other voluntary initiatives that encourage entity-level transition plans exist in Canada (the Net Zero Challenge) and Japan (the GX League). While both recommend third-party verification or auditing, have annual reporting provisions and provisions on offsets, and require interim targets, they differ in terms of Scope coverage.
- Guidelines for financial products exist in Japan and India. Japan's Basic Guidelines on Climate Transition Finance aim to bolster transition finance, especially in hard-to-abate sectors, encouraging companies to voluntarily publish transition plans aligned with the long-term goals of the Paris Agreement. These guidelines recommend that disclosed transition plans include the underlying methodology for scenario analysis and be third-party verified, as well as incorporate just transition considerations. Moreover, they advise that entities align their corporate governance structures for both transition and verification with the transition plan, ensuring accountability and integrity in the transition process.

Provisions for the disclosure of climate transition plans are, according to the data, present in 31 policy instruments across 14 G20 countries, with varying levels of enforcement for companies and financial institutions and requirements about the content of a transition plan. For instance, only 19 of these instruments include provisions for the disclosure of financial plans; and 11 instruments reference audited accuracy or third-party verification.

[23] The research presented in this section is drawn from the data compiled by the Oxford Climate Policy Monitor and Canbury Insights, as well as expert input.

Requiring the disclosure of a transition plan promotes accountability and supports entities in their transition planning. However, such disclosure requirements are not always underpinned by a duty to contribute to climate goals, which means they do not ensure the preparation of credible contribution-based transition plans in line with the HLEG criteria.

Policy snapshot: Transition plan requirements in the EU

Under the EU's CSRD, large listed and non-listed EU companies, listed EU SMEs and large non-EU companies with significant operations in the EU must disclose a climate mitigation transition plan if material to their activity.[24] This plan should demonstrate its efforts to "ensure that its business model and strategy are compatible with the transition to a sustainable economy and with the limiting of global warming to 1.5°C in line with the Paris Agreement […] and with the objective of achieving climate neutrality by 2050 […] and, where relevant, the undertaking's exposure to coal, oil and gas-related activities." The accompanying ESRS E1 should define the information to be disclosed to meet this requirement, including GHG emission reduction targets at least for 2030 and 2050, decarbonisation levers, funding to support implementation (capex), etc.[25]

The CSDDD requires companies to adopt and put into effect transition plans to ensure that their business models and strategies are compatible with the transition to a sustainable economy and limiting of global warming to 1.5°C.[26] It specifies that the plan should contain:

- science-based and time-bound GHG emissions reduction targets for 2030, and in five-year steps to 2050
- key levers and actions to reach targets
- investments and funding supporting the plan, including capex alignment with the EU taxonomy and exposure to fossil fuels
- governance of the plan.[27]

The EU also encourages the use of taxonomies within transition plans to provide a performance benchmark at activity level that complements GHG target setting. The importance of this approach is outlined in the OECD guidance on credible transition plans.[28]

TRANSITION PLANNING AS A PROCESS

Beyond provisions related to adopting or disclosing transition plans (as an output) various corporate and financial policy instruments encourage other dimensions of transition planning (as a process):

- **Component-specific provisions**. Some policies, such as TCFD reporting requirements, introduce specific components of transition plans without mandating comprehensive transition plans. This includes climate target-setting, financial planning and capital expenditure, governance and incentive structures, and public advocacy.

There are also real economy climate and energy policies that drive the process of transition planning towards net zero by companies and financial institutions or place obligations on them to reduce emissions. These occur in nuanced and varied ways throughout the dataset which makes it challenges to discern commonalities and to provide a level playing field across jurisdictions. Some examples include:

- On an **economy-wide basis**, the South African Climate Act allows Ministers to allocate carbon budgets to corporate high emitters and requires them to develop mitigation plans (see snapshot below). The Nigerian Climate Act requires entities with more than 50 employees to put in place measures to achieve national climate targets. This contrasts with the majority of economy-wide net zero policy frameworks and laws, which do not place direct duties on companies and financial institutions to comply with them but aim to shape the wider market in which those entities operate.

[24] EUR-Lex (2022), Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting
[25] EUR-Lex (2024), Directive (EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859
[26] Transition plans are to be disclosed according to the ESRS, which set out the detailed reporting standards under the CSRD.
[27] Article 22 of Directive (EU) 2024/1760
[28] OECD (2022), OECD Guidance on Transition Finance

- **Sector-specific instruments** also place obligations on companies and financial institutions in different ways. These include, for instance a Japanese energy law[29] that requires high energy consuming entities to take measures to reduce their exposure to fossil fuels, and requirements for high emitters in in the Republic of Korea to disclose emissions and comply with emission reduction targets (similar provisions are found in Australia and Canada).
- **Procurement policies**: Public procurement policies integrating climate considerations incentivise companies to enhance performance in addressing climate change. Public procurement accounts for approximately 12% of GDP on average among OECD countries, providing substantial leverage for driving climate action. Governments can also shape market incentives by providing clear sustainability criteria for participation in market-based schemes such as contracts for difference.
- **National transition planning**: Even where real economy policies do not place clear requirements or obligations on companies and financial institutions, they can give clear signals about national transition strategies and shape market signals and incentives for companies and financial institutions. Aligning corporate and financial policy with these wider economic policy levers in a whole-of-government approach to national transition planning can support a positive feedback loop to drive action on net zero. NDCs and comprehensive national transition strategies and policy instruments to underpin them are vital tools for driving corporate and financial action on net zero.

Policy snapshot – Towards an international ISO Net Zero Standard

Work underway to deliver an international net zero quality standard through ISO (the International Organization for Standardization) is an important global policy development, helping to address divergence and gaps in the infrastructure for net zero at whole-of-economy and sectoral levels.

Building on the 2022 ISO Net Zero Guidelines, the standard will address the implementation of net zero systemically and provide clear and robust baseline standards and requirements to support action on net zero by companies and financial institutions, including verification of claims. This consensus-based development process is part of a broader system of assurance, accreditation and measurement alignment known as 'Quality Infrastructure'.

The development of this new standard and its underpinnings can support policy makers in driving high integrity on net zero among all actors. The new process can also support learning, sharing and collaboration across policy and practice, thereby accelerating progress towards and implementation of Paris-aligned pathways. The standard is due for launch at COP30 in Brazil in 2025.

Policy snapshot: China's Carbon Emission Reduction Facility

The People's Bank of China (PBC) launched the Carbon Emission Reduction Facility (CERF) in 2021, aiming to provide low-cost funds for eligible financial institutions to guide them to finance key areas with significant carbon reduction effects at preferential rates.[30] The government opened the CERF to foreign financial institutions in 2024 and later extended the tool to 2027. The CERF plays a signaling role in directing credit resources toward industries that are key to carbon emission reductions. As of mid 2024, the balance of CERF reached RMB 547.8bn (€71bn), and it has guided financial institutions to issue more than RMB 1.1trn (€142bn) of CERF loans, which have supported over 6,000 entities with estimated annual carbon emission reductions of nearly 200 million tonnes.

The CERF is a structural monetary policy tool that directly supports the real economy. By clearly identifying key areas of carbon reduction and strengthening information disclosure requirements for financial institutions, the tool sets a policy demonstration effect. Currently, nationwide operating financial institutions, as well as some foreign-funded and local financial institutions, have been using this tool to support three key areas – clean energy, energy conservation, and carbon reduction technologies. In the next step, PBC will continue to expand CERF's scope, duration and coverage to provide more low-cost and targeted financial resources for key areas of green development and low-carbon transition.

[29] Act on Rationalization of Energy Use and Shift to Non-fossil Energy
[30] PBC (2021), The People's Bank of China Launches the Carbon Emission Reduction Facility

Policy snapshot: South African Climate Change Act – National Climate Framework Law

The 2024 South Africa Climate Change Act intersects real economy and corporate policy, linking overarching national objectives for emissions reduction with duties for private actors. The act aims to enable an effective climate change response and a long-term, just transition to a low-carbon and climate-resilient economy and society for South Africa. It is rooted in the principles of intergenerational justice and common but differentiated responsibilities and respective capabilities.

The Act enables Ministers to determine an overarching climate mitigation objective – in effect a national quantified carbon budget – on a five-yearly cycle and provides for ministers to list sectors that will be subject to sectoral emissions targets, followed by mandatory sectoral mitigation plans and policies. Thus far, it has similarities with many overarching framework laws, such as the 2008 UK Climate Act. But by contrast, it creates powers to impose duties on private actors to reduce emissions.

Ministers can identify greenhouse gas emitting activities and assign carbon budgets (a minimum of three five-yearly cycles) to companies that undertake such activities (with inclusion thresholds to be determined). The act also requires any targeted entity to produce a 'climate mitigation plan' – in effect a form of transition plan – to meet its carbon budget, with annual review and reporting requirements.

Besides its mitigation focus, the act has several other features of relevance to the HLEG recommendations. It holistically integrates other sustainability issues, emphasising the just transition, vulnerable people and localities, and resilience building. It also adopts a whole-of-government approach to the transition, requiring every state entity to align its policies with the act's purposes and the consideration of climate impacts. While the act was signed by President Ramaphosa in July 2024, several administrative steps must be undertaken before its provisions take effect and it becomes operational.

4. PRUDENTIAL REGULATION OF FINANCIAL INSTITUTIONS' CLIMATE RISK[31]

OVERVIEW

As climate change increasingly contributes to financial risk, presenting unique challenges ranging from direct physical effects to transition-related impacts, the prudential framework must incorporate climate-related risks to ensure financial institutions are equipped to withstand climate-related shocks and continue to provide the financing needed for the shift to a low-carbon, sustainable economy. Effective risk management is therefore essential to fulfilling the prudential mandate.

The findings in this section cover similar domains to the sections above on climate disclosures and transition plans, but with the risk-based lens of prudential regulation.

Systemic risk management with macroprudential tools

Climate-related financial exposures are highly concentrated but not isolated. High-emission sectors account for over 70% of corporate lending by euro area banks, driving a substantial portion of anticipated losses as the economy transitions to a low-carbon model. These risks extend beyond individual institutions, affecting broader financial stability.[32] The interconnected nature of financial systems means that distress in one bank can trigger cascading effects across others. Addressing these systemic challenges requires an evolution beyond traditional risk assessment toward forward-looking, long-term approaches. Climate alignment measures, such as assessing portfolio exposure to emissions targets, are crucial for enhancing current risk-based approaches and accelerating progress toward a net zero economy.[33] Macroprudential tools, which address systemic risks, work alongside microprudential measures to reinforce overall stability. Scenario analysis and climate stress testing provide a system-wide view of climate impacts, helping to safeguard the financial system against climate-related shocks.

Prudential transition plans

Prudential transition plans are developed by financial institutions to build resilience against climate-related systemic risks and to align with regulatory expectations set by supervisory bodies like central banks. These plans emphasise risk management, regulatory compliance and financial resilience, focusing on ensuring the institution's capacity to withstand climate-related financial challenges. According to the Network for Greening the Financial System (NGFS),[34] such plans should involve stringent prudential disclosures and require financial institutions to assess and report on the climate viability of their business models transparently. In its reports on transition plans, NGFS outlines key elements of credible transition planning and plans that are relevant to micro-prudential authorities: governance, engagement, risk analysis, viable actions, monitoring and reviewing.[35]

PROGRESS MADE

Action to address prudential risk has been seen in three primary areas:

Supervisory guidance on climate and sustainability risk management

The Basel Committee on Banking Supervision (BCBS) and the Financial Stability Board (FSB) have played crucial roles in integrating climate-related risks into global financial supervision frameworks, setting foundational standards for addressing climate as a prudential risk. BCBS has progressively

[31] The data used for this section was primarily drawn from inputs from the Board of Trustees, the Technical Expert Group, and progress tracking in the G20 Sustainable Finance Working Group, supplemented by policy instruments included in the Oxford Climate Policy Monitor and Canbury Insights databases.
[32] ECB (2023), Climate risks, the macroprudential view
[33] Financial Stability Board (2022), Supervisory and Regulatory Approaches to Climate-related Risks
[34] NGFS (2024), Credible Transition Plans: The micro-prudential perspective. Since its establishment in 2017, the NGFS has significantly advanced climate risk management across the financial sector, with its 2021 report highlighting 12 key areas for incorporating climate and environmental risks into supervisory frameworks.
[35] NGFS (2024), Credible Transition Plans: The micro-prudential perspective

incorporated climate risk into the Basel framework, issuing principles for effective climate risk management in 2022 and revising its Basel Core Principles in 2024 to explicitly address climate-related financial risks. Additionally, BCBS's proposed Pillar 3 disclosure framework aims to standardise global climate-related disclosures by 2026, covering both qualitative and quantitative metrics to enhance transparency and data comparability.[36] Complementing these efforts, the FSB released a report, which offering guidance in developing supervisory approaches that encompass climate-related risks.[37] The FSB also emphasises a system-wide perspective, recommending consistent cross-sectoral frameworks, scenario analysis, and stress testing to capture the systemic impacts of climate risks across borders and sectors. Finally, the International Association of Insurance Supervisors (IAIS) has consulted on climate risk supervisory guidance.[38]

Across G20 countries, prudential authorities are issuing guidance to help financial institutions assess, manage and disclose climate and sustainability risks. For instance, guidelines broadly aligned with the TCFD framework's four pillars have been issued for the banking sector in India and Indonesia, and for the insurance sector in the USA and Brazil.[39]

Prudential guidance that outlines expectations for financial institutions' transition planning has been issued or is being developed in the EU (with France, Germany and Italy as sovereign G20 countries), Canada and South Africa, as well as countries outside of G20.[40] In the EU, the guidelines from the European Banking Authority (EBA), will specify the content of the mandatory prudential plans to be prepared in accordance with the EU Capital Requirements Directive VI. These guidelines will detail the minimum standards and methodologies for identifying, measuring, managing and monitoring ESG risks. They will also outline the necessary components of prudential transition plans, including specific timelines, quantifiable targets and milestones to address financial risks stemming from ESG factors.[41]

Climate risk stress testing

Regulatory bodies are beginning to conduct climate stress tests for financial institutions to assess vulnerabilities and resilience against climate-related risks. The EBA is developing the final mandatory requirements for EU-wide stress testing by the end of 2024, with the results of the subsequent stress test to be published in July 2025.[42]

Beyond that, most G20 member jurisdictions have begun developing tools while simultaneously updating regulatory mandates. Examples include Australia, Brazil, Canada, the EU, Indonesia, Japan, Mexico, South Africa, the UK and the USA, which are refining climate scenario and stress-testing methodologies.[43] These improvements include expanding the scope of stress tests to cover a broader range of financial institutions and incorporating second-round effects. The Bank of England's Climate Biennial Exploratory Scenario, for instance, assesses bank resilience to climate risks,[44] while the European Central Bank (ECB) has integrated climate risks into capital adequacy and disclosure frameworks. In 2023, the ECB conducted its second economy-wide climate stress test, finding that while an accelerated transition entails greater investment and higher energy costs, it also yields significantly reduced financial risks in the medium term.[45]

The UNEP Finance Initiative (UNEP FI) complements these efforts by publishing reports that provide guidance and best practices for developing and implementing climate stress tests for financial institutions and supervisory bodies. These reports also highlight the importance of reliable, comparable

---

[36] Basel Committee on Banking Supervision (2024), Consultative document Disclosure of climate-related financial risks
[37] FSB (2022), Supervisory and Regulatory Approaches to Climate-related Risks
[38] IAIS (2024), Public consultation on climate risk supervisory guidance
[39] Referenced policies from the Oxford Climate Policy Monitor and Canbury Insights datasets.
[40] Canada: Guideline B-15 Climate Risk Management. South Africa: Guidance Notice 2 of 2024 on climate-related disclosures for insurers and Guidance Note, issued in terms of section 6(5) of the Banks Act 94 of 1990, on climate-related disclosures for banks.
[41] EBA (2024), Guidelines on the management of ESG risks: consultation paper
[42] EBA (2024), The EBA starts dialogue with the banking industry on 2025 EU-wide stress test methodology
[43] G20 Sustainable Finance Working Group (2024) Progress Tracking. Climate stress testing and other relevant action by prudential regulators is not limited to these countries and is increasingly taken up by countries worldwide – including by central banks in emerging economies. See World Bank (2024), Finance and Prosperity 2024
[44] Bank of England (2022), Results of the 2021 Climate Biennial Exploratory Scenario
[45] ECB (2023), Faster green transition would benefit firms, households and banks, ECB economy-wide climate stress test finds

data in climate stress testing, outlining essential data types and underscoring their critical role in effective climate risk assessment.[46]

Capacity building

Climate risk stress-testing exercises, like the ECB's 2022 climate stress test, revealed key gaps in governance, methodology and data. For example, banks often rely on proxy data to compile information on Scope 1, 2 and 3 emissions and energy performance certificates, and climate risk factors are not yet fully embedded in internal credit risk models.[47] Efforts to standardise climate risk assessment methodologies, develop consistent risk definitions, and strengthen capacities among regulators and financial institutions are ongoing. The NGFS scenarios serve as a foundational tool in this capacity-building effort, equipping central banks, prudential supervisors and financial institutions with standardised frameworks to better assess and respond to climate risks. Additionally, G20 members such as Brazil, Germany, India, and the UK have used surveys to gather qualitative insights on financial institutions' responses to supervisory expectations and their climate risk management practices.[48]

Certain G20 members, including the EU, France, Germany and South Africa, have published or are planning to publish survey results to highlight effective practices among financial institutions[49]. The ECB's thematic review shows that some financial institutions are leading in integrating climate-related risks. These institutions apply comprehensive practices in areas like strategic planning, governance and risk management, including conducting detailed scenario analyses, embedding climate considerations into credit policies, and implementing climate-focused due diligence.[50] In some jurisdictions, such as Canada, the EU and the UK, regulators have deepened their information-gathering efforts through additional supervisory dialogues.[51]

[46] UNEP-FI (2024), A Comprehensive Review of Global Supervisory Climate Stress Tests
[47] ECB (2022), 2022 climate risk stress test
[48] FSB (2022) Supervisory and Regulatory Approaches to Climate-related Risks
[49] FSB (2022) Supervisory and Regulatory Approaches to Climate-related Risks
[50] ECB (2022), Good practices for climate related and environmental risk management
[51] FSB (2022) Supervisory and Regulatory Approaches to Climate-related Risks

5. SUSTAINABLE TAXONOMIES[52]

OVERVIEW

Sustainable taxonomies are foundational policy instruments that classify economic activities based on defined sustainability criteria. They are useful to achieving climate and other sustainability goals as they clarify requirements for sustainable investment and help the process of mobilising private capital toward sustainable development. Taxonomies can help integrate climate mitigation with adaptation and various environmental objectives, such as pollution control and nature conservation through the application of the 'do no significant harm' principle.

Taxonomies that include reporting requirements or are linked to related financial regulations can serve as valuable tools for companies and other economic actors seeking access to capital needed to transition to a net zero, resilient and environmentally and socially sustainable economy. In practice, sustainable taxonomies typically provide a list of activities deemed to align with specific social or environmental goals, along with technical criteria (e.g., performance metrics or thresholds) that determine when these activities meet sustainability objectives.

Sustainable taxonomies exhibit diverse characteristics, reflecting their unique contexts and purposes. Key features include:

- **Objectives**. All taxonomies address climate change mitigation. Many go beyond this objective to address other environmental and social goals. Combined with the broadly accepted do no significant harm principle, this makes taxonomies a key lever to tackle interconnected sustainability issues and drive an integrated approach.
- **Integration into financial frameworks**. Most taxonomies are voluntary, with only two G20 jurisdictions enforcing mandatory requirements through regulation (the EU, with France, Germany and Italy as sovereign G20 countries) or the need for approval by regulators at the point of green bond issuance (China).
- **Use-case applications**. Taxonomies may apply at the product or entity level, dictating their scope and function.
- **Definition of climate goal alignment**. Most taxonomies define some form of criteria to categorise economic activities, but there are differences in the way these are articulated (quantitative versus qualitative/whitelists, technology neutral versus technology specific). Most taxonomies use a mix of approaches.
- **Transition considerations**. All taxonomies address transition elements to some extent, for instance by putting forward pathways for how criteria change over time or measures to facilitate capital investment. Some taxonomies have introduced specific transition categories.

PROGRESS MADE

The EU kicked off a comprehensive climate taxonomy in 2017, based on technical criteria that require a substantial contribution to one environmental objective while doing no significant harm to others. The EU Taxonomy also incorporates minimum social and governance standards. Today, around 50 taxonomies are either published or in progress globally, with many drawing inspiration from the EU's framework. In the G20, taxonomies are adopted or under development in 14 countries.

Taxonomies in the G20 adopted under mandatory regimes:

- **EU** (with France, Germany and Italy as sovereign G20 countries). Taxonomy regulation (2020) and delegated acts (2021-2023)[53]
- **China**. Green bond endorsed projects catalogue (2021)[54] (for green bond issuance)

[52] The research presented in this section is drawn from expert input, building on the data compiled by Canbury Insights and the Oxford Climate Policy Monitor
[53] European Commission (2024), EU taxonomy for sustainable activities
[54] PBC (2021), Green Bond Endorsed Projects Catalogue (2021 Edition)

Voluntary taxonomies adopted in the G20:

- **South Africa**. Green finance taxonomy (2022)[55]
- **South Korea**. K-taxonomy guideline (2022)[56]
- **Mexico**. Sustainable taxonomy (2023)[57]
- **Indonesia**. Taxonomy for sustainable activities (2024)[58]

Taxonomies under development in the G20:

- **Australia**. Australian Sustainable Finance Institute (ASFI) with the Commonwealth Treasury[59]
- **Brazil**. Brazilian Sustainable Taxonomy Interinstitutional Committee[60]
- **Canada.** Sustainable Finance Advisory Council with government commitment[61]
- **India**. Task Force on Sustainable Finance, established by the Ministry of Finance
- **Turkey**. Draft Regulation for public consultation
- **UK**. Under development as a component of the Sustainability Disclosure Requirements [62]

The variety of approaches in taxonomy design and application have led to calls for increased compatibility between frameworks. While taxonomies ought to reflect countries' economic and environmental realities, compatibility is highly desired. This can be achieved though sharing a set of principles, a structure and a baseline, in particular for climate mitigation, given its global nature. Initial steps have been taken in that direction, for instance through the Common Ground Taxonomy under the realm of the International Platform on Sustainable Finance.[63]

Policy snapshot: Indonesia taxonomy

The Indonesia Taxonomy for Sustainable Finance is a guidance document to promote capital allocation and sustainable finance. It is a revised version of the Indonesian Green Taxonomy 1.0 (published in 2023) and was designed to incorporate the principles of interoperability and credibility, balancing economic, environmental and social considerations.

The taxonomy provides criteria for both 'green' and 'transition' activities. The former Green Taxonomy used a traffic light approach with three categories (green-yellow-red), which discouraged investments especially in brown sectors or those which are categorised as red. The new taxonomy encourages financial institutions and their debtors to support the transition and responsible mitigation and adaptation strategies.

[55] National Treasury (2021), South African Green Finance Taxonomy
[56] Korean Culture and Information Service (2022), The Ministry of Environment successfully conducted a pilot project for K-Taxonomy
[57] Gobierno de México (2023), Taxonomia Sostenible de México
[58] Indonesia Financial Services Authority (OJK) (2024), Indonesia Taxonomy for sustainable finance
[59] ASFI (2024), Taxonomy development
[60] Presidência da República (2024), DECRETO Nº 11.961, DE 22 DE MARÇO DE 2024
[61] Government of Canada (2022), Taxonomy Roadmap Report
[62] HM Government (2024), Sustainability Disclosure Requirements: Implementation Update 2024
[63] European Commission (2024), International Platform on Sustainable Finance

6. STEWARDSHIP AND ENGAGEMENT[64]

OVERVIEW

Stewardship policy instruments aim to formalise stewardship activities in regulations or guidance and define expectations for investors' stewardship practices and reporting. They include measures to enhance accountability and transparency for stewardship activities, and to build an enabling environment for effective stewardship.

Stewardship, also referred to as active ownership, is the use of influence by institutional investors to maximise overall long-term value, including the value of common economic, social and environmental assets, on which returns, and clients' and beneficiaries' interests, depend. By pursuing sustainability outcomes and impacts through stewardship, investors can mitigate system-level risks (such as climate change, biodiversity loss and inequitable social structures) to improve the long-term performance of economies and their investment portfolios, as well as improve social and environmental outcomes in line with their beneficiaries' objectives and with public policy goals.

The reasons for regulators to establish regulatory frameworks for effective stewardship largely fall into two categories: (a) the need to align investor stewardship with investors' duties to their clients or beneficiaries; and (b) the desire to facilitate stewardship as a tool to support public policy objectives.

PROGRESS MADE

The two most common approaches to integrating stewardship into policy instruments is through the adoption of stewardship codes and provisions in disclosure and transition plan instruments.

- Only the UK, amongst G20 countries, has a stewardship code in place that articulates a link to climate change. This is a voluntary instrument for institutional investors that provides broad guidelines on how they can engage in dialogue with portfolio companies and are often part of a broader ESG approach.
- An additional eight countries (Australia, Brazil, China, India, Italy, Japan, Korea and South Africa) have such codes in place that do not mention climate specifically.

Policy snapshot: The EU Shareholder Rights Directive II

Under the Shareholder Rights Directive II (SRD), institutional investors and asset managers are required on a comply or explain basis to develop and publicly disclose an engagement policy. This policy must outline how they integrate shareholder engagement in their investment strategies, covering areas like monitoring portfolio companies, engaging with them on strategy and ESG issues, and exercising voting rights. Investors are asked on a comply or explain basis to report annually on the implementation of their engagement policy, detailing how they engage with companies, the outcomes of this engagement, and how it aligns with their strategy and long-term interests.

The voting disclosure requirement under SRD II is also on a comply or explain basis. Institutional investors and asset managers are expected to disclose how they have voted on significant shareholder resolutions, particularly those with substantial impact on the company's long-term strategy or ESG-related issues. If they opt not to disclose their voting behaviour, they must provide an explanation, ensuring some level of accountability, even if full reporting is not provided.

[64] The research presented in this section is drawn from the data compiled by Canbury Insights, supplemented by expert input.

Policy snapshot: Japan's Sector Roadmaps connected to client engagement by banks

Japan's Financial Services Agency (JFSA) has published several guidelines relating to engagement and stewardship since the Stewardship Code was established in 2014. The Supervisory Guidance on Climate-related Risk Management and Client Engagement, published in July 2022, provides a comprehensive overview of how financial institutions should engage with clients and industries on climate change. It is a supervisory guidance on climate-related risk management and encourages financial institutions to actively support the transition of their clients, with a view to help maintain financial stability under transition to a low-carbon society.

The strength of this policy is that financial institutions can use the document to serve different purposes, and guidance published by Japanese policy makers is well-regarded and utilised. There are links to other policies, including the sector-specific roadmaps developed by the Ministry for Economy, Trade and Industry (METI), which provide sector-specific transition pathways as a reference point for decarbonisation efforts by corporations and financial institutions in those sectors.

The use of the sector-specific transition pathways prepared by the Japanese government provide a helpful source for financial institutions when they embark on a discussion with their clients and industries – but there is still need for improvement with regards to the pathways' alignment with the 1.5°C limit, the granularity of emission reductions and cost assumptions.

7. INTEGRATING MULTI-DIMENSIONAL SUSTAINABILITY IN CORPORATE AND FINANCIAL NET ZERO POLICIES[65]

OVERVIEW

One of the key features of the HLEG recommendations is their holistic nature, considering how climate mitigation can be achieved in a way that simultaneously tackles nature and biodiversity conservation and recovery, just transition and climate adaptation, or that accelerates action on fossil fuel phase-out and renewable energy scale-up. This can support the goals of the Paris Agreement to be realised alongside the Sustainable Development Goals and the goals of the Global Biodiversity Framework.

Climate action has been the entry point for much corporate and financial policymaking on sustainability, but there is an opportunity to stack these agendas more holistically to maximise synergies and avoid trade-offs. Policies that simultaneously address nature recovery, just transition and climate adaptation can strengthen the alignment of sustainability goals and reduce unintended impacts like maladaptation or slowed progress in low- and middle-income regions. By integrating interconnected targets – such as renewable energy, adaptation, nature-based solutions and social equity – corporate and financial policies can more effectively drive a balanced, resilient transition to a low-carbon economy and minimise trade-offs between different goals.

The data insights below reflect a degree of uncertainty but are useful for discerning trends. The distinction between requirements and recommendations is not always visible and will require more research, alongside the degree to which state actors are also targeted. It should be noted that this data captures climate mitigation-focused instruments, rather than standalone economic or corporate and financial instruments that take nature, adaptation or just transition as their starting point.

The data collected shows 30 policy instruments across all examined G20 countries (which does not include taxonomies) that have provisions related to climate adaptation, nature and biodiversity, or just transition. However, fewer than half of these policies contain specific and identifiable recommendations or requirements for companies and financial institutions to disclose or set targets in relation to national environmental or social goals in the context of their mitigation targets.

ADAPTATION

Integration of adaptation into corporate and financial net zero policy data shows that 12 policies in 10 countries place recommendations or requirements on companies and financial institutions to either disclose or adopt adaptation targets. Examples include policy instruments in South Africa and the EU (with France, Germany and Italy as sovereign G20 countries) which have both disclosure and duty components and policies in Canada and India with disclosure components. There are also policies in Nigeria and Kenya (among the African countries assessed) which place duties around climate adaptation targets.

JUST TRANSITION

Ten policies in eight countries recommend or require disclosure of just transition indicators, which can relate to a broad range of socio-economic considerations, including energy poverty, labour rights and community impacts.[66] Only three policies recommend or require disclosure of targets related to just transition. A prominent example is South Africa, which seeks the disclosure of just transition-related targets and indicators; just transition is also embedded in the EU disclosure regime. (with France, Germany and Italy as sovereign G20 countries). The low number of policies with just transition requirements or recommendations raises questions about how well just transition dimensions are integrated into corporate and financial policy. This is important because of the socio-economic challenges posed to the net zero transition. The Taskforce on Inequality and Social-Related Financial Disclosure provides an opportunity accelerate the integration of just transition in corporate and financial policy.

[65] The research presented in this section is drawn from the data compiled by the Oxford Climate Policy Monitor
[66] As per the interpretation of the law firms, which may differ from country to country.

NATURE

The data shows that, while 22 policies in 12 countries recommend or require disclosure of nature-related or environmental impacts, only four policies in five countries have requirements to set or disclose a goal or target related to nature or biodiversity conservation and recovery. An example is the EU's CSRD, which requires the disclosure of both nature-related targets and impacts, along with a biodiversity and ecosystem transition plan when material to both the company and the environment (following a double materiality approach). The work underway to integrate the Taskforce on Nature-Related Financial Disclosure recommendations into ISSB standards will likely accelerate the integration of nature into disclosure policy frameworks.

Policy snapshot: Freetown the Treetown

An example of a subnational policy which addresses deforestation, climate mitigation and adaptation, nature loss and the just transition can be found in Freetown, Sierra Leone. Freetown has suffered rapid deforestation, with more than 500,000 trees lost annually between 2011 and 2020, due to population growth, clearance for housing and demand for cooking fuel. As a result, heavy rains increasingly result in flooding and landslides, claiming lives and destroying buildings and infrastructure.

The Freetown the Treetown initiative was launched in January 2020 by Mayor Yvonne Aki-Sawyerr to replant the trees needed to stabilise the slopes in and around Freetown as part of the Transform Freetown agenda. [67] Working in partnership with a neighbouring local authority, the initial goal to plant a million trees was met in 2024; Treetown is now aiming for five million trees by 2030.

The scale and pace of reforesting makes Freetown a leader in city-led urban greening, but it is the innovative financing model and community ownership approach that have facilitated it that offer the most useful lessons for other cities. Freetown has developed a scalable and replicable community growing model, where projects are co-designed and co-managed by the community and the city government.[68] Freetown the Treetown has created over 1,200 jobs along the value chain, from workers in tree nurseries to trained community tree growers. The mix of native tree species enhances biodiversity, and 60% of the trees are fruit or medicinal trees that can also be economically productive.

ENERGY TRANSITION

Energy transition policymaking is predominantly seen in national and subnational real economy policy. Data assessed shows that energy transition is less integrated in corporate and financial policy. There are 5 instruments across six G20 countries that require or recommend the disclosure of renewable energy procurement targets, and four instruments across five G20 countries which require or recommend disclosure of fossil fuel capex exposure or phase-down targets. Disclosure provisions focused on divestment from carbon polluting assets or locked-in emissions are seen in 10 policies across nine countries, with a notable example in Brazil's prudential policy, where these indicators form part of transition risk assessment for financial institutions.

The need to accelerate and address non-CO_2 emissions globally, in particular methane emissions by 2030, is vital for meeting Paris pathways.[69] On disclosure of methane emissions, we find 47 policy instruments recommend or require this, across the majority of G20 countries, with variation in sectoral coverage and targeted entities, For example, in India the policy targets listed entities, while Brazil requires this for listed entities and financial institutions. Australia and Canada have expanded requirements from high-emitting entities to cover financial institutions. Disclosure of methane reduction targets is recommended or required in Australia, Turkey, Brazil, the EU (with France, Germany and Italy as sovereign G20 countries), and Indonesia. Methane emissions reduction targets are explicitly required in the EU's CSRD and recommended in the UK's TPT Disclosure Framework.

[67] Freetown City Council (2019), Transform Freetown
[68] C40 Cities and Freetown City Council (2022) Freetown's highly replicable way of self-financing urban reforestation. C40 Knowledge Hub.
[69] UNFCCC (2023), Outcome of the Global Stocktake. See article 28. Methane targets should also be compatible with 35% methane mitigation by 2030, and 50% mitigation by 2050, according to the IPCC AR6 report.

Policy snapshot: Los Angeles fossil fuel phase-out

Los Angeles has a long history of producing as well as consuming fossil fuels. The Los Angeles Green New Deal, published in 2019 under the leadership of Mayor Eric Garcetti, set a course for carbon neutrality by 2050. There were over 1,000 active or idle wells within city limits at that time, and more in LA County. Meeting emissions targets and public health goals requires the closure of those wells. That's why, in 2022, Los Angeles City Council voted to ban new oil and gas wells and to close all existing ones within 20 years – a move which was spearheaded by environmental justice groups and widely viewed as a community-led victory. Los Angeles County signed a similar law in 2023.[70]

These ordinances are among the most ambitious measures to phase out oil production in the country, operating in the absence of national or state legislation banning new oil wells or closing existing ones. They have tested and helped to clarify and confirm local governments' legal powers over the termination of fossil fuel production in California.

The legal clarity clears a path for other local jurisdictions across California to phase out oil production. The experience of Los Angeles, and its neighbours and peers, offers a clear example of how state and national governments can help or hinder net zero action by local communities, companies and financial institutions. It underscores the opportunity to accelerate action by placing decision making power in the hands of the authorities closest to the people who experience negative impacts of fossil fuel production.

The approach taken by the City and County of Los Angeles also offers a model for implementing a just transition for the 664 oil extraction workers impacted by the plans. The City and County of Los Angeles set up a Just Transition Taskforce in 2022, facilitated by the Just Transition Fund, which brings together workers, unions and other civil society stakeholders to develop recommendations on supporting affected workers and communities, site remediation and reuse, among other things. The Taskforce released a Just Transition Strategy, which current Mayor Karen Bass has reconfirmed the city's commitment to implementing.[71]

[70] Los Angeles City Planning (2022), Oil and Gas Drilling Ordinance
[71] County of Los Angeles Chief Sustainability Office (2021), Just Transition Strategy

8. EVIDENCE OF CONTRIBUTION TO 1.5°C-ALIGNED PATHWAYS IS INSUFFICIENT, DESPITE PROGRESS[72]

A cornerstone of the HLEG recommendations is a science-based approach which establishes that the targets, plans and ambition trajectories of large multinational companies and financial institutions on climate mitigation should be in line with 1.5°C pathways with limited or no overshoot, for which remaining carbon budgets and credible pathways are narrowing.[73]

With this 2024 stocktake, we find modest evidence in the dataset about how policies are supporting these pathways for companies and financial institutions. From a subset of 181 corporate/financial policy instruments examined using a large language model, almost two-thirds (118) of instruments articulate a link to a national climate goal, whether that is mitigation or adaptation related. Seventy-three instruments more specifically articulate a link to Paris climate goals. Only 21 instruments explicitly articulate a link to the 1.5°C temperature threshold.

Policies that draw clear connections to 1.5°C predominantly relate to risk-based scenario analysis frameworks and prudential regulation (e.g., Australia, Indonesia and the UK). Cornerstone policy instruments in the EU (with France, Germany and Italy as sovereign G20 countries), such as the CSRD and CSDDD, refer to limiting global warming to 1.5°C in line with the Paris Agreement and the objective of achieving climate neutrality as established in EU Climate Law, including its intermediate and 2050 climate neutrality targets. South Africa's JSE Sustainability Disclosure Guidance also introduces voluntary disclosure of science-based targets .

In real economy policy, we find that 468 of 784 policies articulate a link to a national or general climate goal, but only 103 policies articulate a link to Paris goals (while a further 137 have an implicit link). However, only 57 policies of 784 in the dataset articulate a link to the 1.5°C limit. Good practice particularly exists where policies not only articulate a link to a goal but also make explicit the scenarios on which the policy is based. This is evident in very few policies in the database, although good practice exists in some jurisdictions, such as the UK, where the Sixth Carbon Budget makes explicit links to 1.5°C scenarios.

While a nominal link to a 1.5°C limit cannot serve as clear evidence of a policy's actual contribution towards it, it can anchor expectations for private entities and provide a clear signalling effect. The modest number of policies with articulated links to this temperature limit suggests that more effort may be needed to explain how policies contribute to and align with the 1.5°C limit or other Paris goals. This could also support efforts to measure policy effectiveness. These findings echo recent analysis by the OECD that shows that data and methods to support alignment of the finance sector with climate goals are improving but continued efforts are needed. It also finds that there is scarce evidence on the effectiveness of financial policy's integration of climate considerations.[74]

In addition to themselves articulating links to a climate goal or climate scenarios, policies can drive private sector alignment with 1.5°C by requiring or recommending companies to set and/or disclose science-based targets and pathways. HLEG recommendations on target setting and 1.5°C pathways – which include long-term net zero and interim target setting, full GHG emissions coverage including methane, and full value chain (Scopes 1-3) emissions coverage – are addressed in previous sections.

More broadly, policies can give a signalling effect to support private entities' alignment with 1.5°C by having robust provisions to drive implementation. This is most comprehensively covered through provisions to develop transition plans, but these vary in terms of bindingness, economic coverage accountability and enforcement mechanisms. Policies also exist that provide clear signalling effects in

[72] The research presented in this section is drawn from the data compiled by Canbury Insights and expert input.
[73] IEA (2023), The path to limiting global warming to 1.5 °C has narrowed, but clean energy growth is keeping it open
[74] OECD (2024), Review on Aligning Finance with Climate Goals

real economy policy, including in overarching economic and legal frameworks and sectoral policies, but these also vary in format, coverage, ambition and enforcement.

The number of policies with provisions for alignment of corporate and financial policy with Paris pathways and the nuanced and varied ways in which instruments require or support climate action, indicates a gap and divergence in policymaking for net zero. This could prove a barrier to driving high-integrity action by companies and financial institutions. But it also presents a clear opportunity to address collaboration and peer learning between policy makers to develop ambitious 1.5°C aligned policies to support the economic transition to a resilient, net zero future.

METHODOLOGY

DEFINITION OF THE SCOPE

POLICY DOMAINS

The Taskforce defined the policy domains most relevant to enabling the recommendations in the HLEG *Integrity Matters* report.

- Corporate and financial policy was identified as the main enabling policy domain for non-state-actors (i.e., corporates and financial institutions) that could be mapped as part of the research. Because of the large variation in regional and local governments' competences between G20 countries, action by such authorities was excluded from the scope of the systematic stocktake: instead, a case study approach was adopted.
- National real economy policy, as far as it pertained to specific HLEG recommendations, was identified as relevant in providing a broader enabling environment for non-state actors. The research did not undertake a full assessment of countries' NDCs and national net zero strategies.

CORPORATE AND FINANCIAL POLICY

On the back of the *Integrity Matters* report, the HLEG provided two separate spreadsheets with checklist criteria to support companies and financial institutions in the implementation of their net zero commitments. The Taskforce mapped each relevant criterion in these spreadsheets against relevant policy instruments. This resulted in separate lists of financial and corporate policy instrument categories that can support the implementation of the HLEG recommendations. These two lists were subsequently consolidated into one list, mostly by merging identical/overlapping categories for corporates and financial institutions

Box 3: Final list of policy instrument categories for corporate/financial policy

Entity-level sustainability disclosure
Prudential regulation
Investment products: disclosure
Claims: investment product labelling/corporate financial instruments
Service providers' sustainability regulation
Accounting standards
Taxonomies
Stewardship policies
Due diligence
Duties/responsibilities: (elements of) transition plan requirements
Corporate sustainability responsibilities: accountability mechanisms
Public finance instruments

REAL ECONOMY POLICY

The HLEG also provided spreadsheets with checklist criteria to support cities and regions in the implementation of their net zero commitments. This spreadsheet had more real economy relevance and criteria than the business and financial institutions spreadsheets, and was therefore taken as the basis of the scoping exercise.

The Taskforce mapped each relevant criterion against potential policy instruments to ensure that the scope remained close to the key real economy issues highlighted in the HLEG report (e.g., net zero targets and frameworks, fossil fuel phase-out, nature guardrails and just transition).

The mapping resulted in a broad set of policy instruments of relevance to the HLEG criteria. Whilst streamlined, this still represented a large set of instruments to analyse. Hence, the Taskforce further streamlined and prioritised the instruments to ensure a manageable scope and project. This resulted in six frames for analysis, which were each (if relevant) mapped against policy instrument categories.

Box 4: Real economy frames and policy instrument categories identified by the Taskforce

Net zero laws and policy frameworks
Fossil fuels and renewable electricity roadmaps (supply side)
Fossil fuels and renewable electricity subsidies, incentives, pricing and market-based mechanisms
Fossil fuels (licensing and planning)
Land-use strategies
Deforestation and peatland policies

QUALITY ATTRIBUTES

The Taskforce developed a framework to assess individual policy instruments within the policy instrument categories for corporate/financial and real economy policy against the HLEG recommendations.

For corporate and financial policy, the Taskforce began with streamlining of the HLEG checklist criteria for each of the policy instrument categories – for instance by removing double mentions and harmonising terminology. Based on these streamlined criteria lists, the Taskforce formulated questions that were tailored to the policy instrument categories and encompassed all relevant dimensions of the HLEG recommendations. For real economy policy, a similar approach was applied.

The Taskforce then identified common strands amongst the questions: these were formulated as quality attributes along five themes (objective, ambition, focus areas, coverage and accountability, and context) that could be applied across policy instrument categories.

Box 5: Quality attributes for corporate/financial policy instruments

OBJECTIVE

1/ Does the policy instrument require the entity to articulate:

- 1a/ Actions taken to address its risk exposure in relation to climate goal(s) or climate change?
- 1b/ Its contribution to mitigating climate change or achieving a climate goal?

AMBITION

2/ Does the policy instrument articulate a link to:

- 2a/ Climate change?
- 2b/ A climate goal?
- 2c/ The Paris climate goals?
- 2d/ The 1.5°C goal?
- 2e/ 1.5°C scenario(s)?
- 2f/ Other scenarios not captured by the above?

FOCUS AREAS

3/ Does the policy instrument require the entity to articulate actions take to address:

- 3a/ Just transition?
- 3b/ Fossil fuels?
- 3c/ Nature?
- 3d/ Land use?
- 3e/ Climate adaptation?

COVERAGE AND ACCOUNTABILITY

4/ Does the policy instrument include provisions about:

- 4a/ Government initiatives to enhance capacity of targeted entities or subnational governments?
- 4b/ Specific reporting requirements?
- 4c/ Review mechanisms or schedules for updating?
- 4d/ Targeted sectors?
- 4e/ Targeted entities?
- 4f/ Thresholds for inclusion of entities?
- 4g/ Mandatory or voluntary nature of requirements?

CONTEXT

5/ Is the policy instrument part of a broader set of regulation/legislation?

Box 6: Quality attributes for real economy policy instruments

OBJECTIVE

1/ Does the policy instrument articulate an emissions goal/outcome?

For net zero laws and frameworks only:

- What types of GHGs are covered?
- What emissions scopes are covered?
- Does it specifically address production-based or consumption-based emissions, or both?
- Does it make explicit reference to carbon budget or carbon footprint?

AMBITION

2/ Does the policy instrument articulate a link to

- 2a/ A climate goal?
- 2b/ The Paris climate goals?
- 2c/ The 1.5°C goal?
- 2d/ IEA/IPCC 1.5°C scenario (noting where no overshoot is referenced)?
- 2e/ 1.5°C scenario(s)?
- 2f/ Other scenarios not captured by the above?
- 2g/ Does the policy have alignment with HLEG fossil fuel phase-out criteria?

FOCUS AREAS

3/ Does the policy instrument require/articulate specific goals related to:

- 3a/ Just transition?
- 3b/ Fossil fuels?
- 3c/ Nature?
- 3d/ Land use?
- 3e/ Resilience building/adaptation?

COVERAGE AND ACCOUNTABILITY

4/ Does the policy instrument include provisions about:

- 4a/ Government initiatives to enhance capacity to comply with the policy tool?
- 4b/ Reporting requirements?
- 4c/ Review Mechanisms?
- 4d/ Targeted sectors?
- 4e/ Targeted entities?
- 4f/ Thresholds for inclusion of entities?
- 4g/ Mandatory or voluntary nature of requirements?
- 4h/ Overall coverage of the economy?

5/ Does the policy instrument consider funding for policy implementation?

CONTEXT

6/ Is the policy instrument part of a broader set of regulation/legislation? Is it the overarching piece of legislation?

DATA COLLECTION, CONSOLIDATION, REVIEW AND AGGREGATION

DATA COLLECTION

The data collection followed a two-pronged approach:

- First, a quantitative stocktake was performed to identify relevant policy instruments in the G20 countries against the policy instrument categories. This step identified implemented policies and regulations – i.e., policies that have been enacted and have been entered in the statute books of national governments or have been established in regulation.
- Second, a qualitative stocktake was performed in which each of the identified policy instruments was assessed against the quality attributes.

The data collection was undertaken in collaboration with the two knowledge partners. Their approach to and the scope of the data collection was different:

- Canbury Insights worked with large language models drawing on four key climate policy databases[75], to identify and assess policy instruments across all policy instrument categories and frames for corporate, financial and real economy policy. The data collection output provided concise information for each policy instrument against the five quality attributes across the G20 countries.
- The Net Zero Regulation and Policy Hub collaborated with law firms that responded to a net zero policy and regulation survey. The Taskforce worked closely with the Hub team to ensure the survey reflected key dimensions of the HLEG recommendations and to organise the granular data against the aggregated quality characteristics. The data covers the G20 countries, apart from Russia, and four additional African countries (Kenya, Nigeria, Rwanda and Tanzania) that serve as a partial proxy to the African Union's membership of the G20.

DATA CONSOLIDATION

The full universe of identified policy instruments reached well over 1000 policies, with the vast majority of these classified as real economy policy. This data was brought together in three datasets:

- The dataset provided by Canbury Insights
- The dataset provided by the Net Zero Regulation and Policy Hub
- A consolidated dataset by the Taskforce that combined relevant data from the two datasets above to capture a final universe of policy instruments that impose requirements on corporates and/or financial institutions to act on climate mitigation or contribute to climate goals. This dataset also included verified and completed labelling of policy instruments against the policy instrument categories.

The datasets do not include pre-existing policy instruments that advanced or were superseded by current policy instruments.

DATA REVIEW

Due to the scale of the datasets and time constraints, line-by-line validation of each policy identified was not feasible. The findings in this report should not be read, therefore, as an exhaustive, complete or fully accurate overview of the progress of individual policy instruments or country frameworks towards enabling the HLEG recommendations. It does allow us to draw insights on trends and find good practice examples.

[75] The source databases: Climate Change Laws of the World database (2024) Net Zero Regulation Stocktake (2023), collected by Oxford Net Zero; PRI Regulation database (2024); IEA Policies Database.

DATA AGGREGATION

A two-step approach was taken to aggregate the data into findings:

- The Taskforce used the most relevant datasets, alongside expert input, for drawing findings for the Stocktake of net zero policy chapter. Detailed references can be found in footnotes for each sub-section and in notes below the figures.
- The findings from the above formed the basis for the sections on key findings and progress against the HLEG recommendations in the Assessing progress of net zero policy reform chapter.

To supplement the data gathered, the Taskforce also considered expert inputs from the Taskforce Expert Group, the Board of Trustees and other relevant organisations. It also considered case study input from the C40 on subnational action of relevance to HLEG recommendations.

Findings are presented at the level of the 19 sovereign countries of the G20. A tailored approach for the EU and the African Union was adopted. Where policies are presented numerically, they are attributed to the EU member states of the G20 (France, Germany and Italy) to avoid double counting. To reflect action across the African Union, beyond South Africa as a G20 country, the Taskforce considered data from Kenya, Nigeria, Rwanda and Tanzania available in the Oxford Climate Policy Monitor.[76] This data was not used in the numerical findings, but was considered for inclusion in policy snapshots.

[76] The database can be consulted here.

KEY TERMS AND ABBREVIATIONS[77]

1.5°C goal: The goal expressed in the Paris Agreement to "pursue efforts" … "to limit the temperature increase to 1.5°C above pre-industrial levels."

2°C goal: The Paris Agreement's overarching goal to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels".

Adaptation: In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects.

African Union: The African Union is a continental body consisting of the 55 member states that make up the countries of the African Continent. It was officially launched in 2002 as a successor to the Organisation of African Unity (OAU, 1963-1999).

Beyond value chain mitigation: Mitigation action or investments that fall outside a company's value chain, including activities that avoid or reduce GHG emissions, or remove and store GHGs from the atmosphere.

Biodiversity: Biodiversity or biological diversity means the variability among living organisms from all sources including, among other things, terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

Biodiversity pact: officially the Kunming-Montreal Global Biodiversity Framework, a landmark agreement adopted in December 2022 during the 15th Conference of the Parties (COP15) to the United Nations Convention on Biological Diversity. This framework outlines global goals and targets to halt and reverse biodiversity loss by 2030.

Bioenergy: Energy derived from any form of biomass or its metabolic by-products.

Carbon budget: This refers to two concepts in the literature: (1) an assessment of carbon cycle sources and sinks on a global level, through the synthesis of evidence for fossil fuel and cement emissions, emissions and removals associated with land use and land-use change, ocean and natural land sources and sinks of carbon dioxide (CO_2), and the resulting change in atmospheric CO_2 concentration. This is referred to as the Global Carbon Budget; (2) the maximum amount of cumulative net global anthropogenic CO_2 emissions that would result in limiting global warming to a given level with a given probability, taking into account the effect of other anthropogenic climate forcers. This is referred to as the total carbon budget when expressed starting from the pre-industrial period, and as the remaining carbon budget when expressed from a recent specified date.

Climate: In a narrow sense, climate is usually defined as the average weather, or more rigorously as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. The classical period for averaging these variables is 30 years, as defined by the World Meteorological Organization (WMO). The relevant quantities are most often surface variables such as temperature, precipitation and wind. Climate in a wider sense is the state, including a statistical description, of the climate system.

Climate change: the UN Framework Convention on Climate Change (UNFCCC), in its Article 1, defines climate change as: "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods". The UNFCCC thus makes a distinction between climate change attributable to human activities altering the atmospheric composition and climate variability attributable to natural causes.

[77] Sources for this section include: IPCC Climate Change 2023 Synthesis Report; UNFCCC; ISSB; HLEG; G20; OECD; African Union; EFRAG; GHG Protocol; PRI and SBTI.

Climate resilient development: refers to the process of implementing GHG mitigation and adaptation measures to support sustainable development for all.

Deforestation: Conversion of forest to non-forest land.

Developed/developing countries (Industrialised/developed/developing countries): There is a diversity of approaches for categorizing countries on the basis of their level of development, and for defining terms such as industrialised, developed or developing. Several categorisations are used in this report. (1) In the UN system, there is no established convention for the designation of developed and developing countries or areas. (2) The UN Statistics Division specifies developed and developing regions based on common practice. In addition, specific countries are designated as least developed countries, landlocked developing countries, small island developing states (SIDS), and transition economies. Many countries appear in more than one of these categories. (3) The World Bank uses income as the main criterion for classifying countries as low, lower middle, upper middle, and high income. (4) The UN Development Programme aggregates indicators for life expectancy, educational attainment, and income into a single composite Human Development Index (HDI) to classify countries as low, medium, high or very high human development.

Emission scenario: A plausible representation of the future development of emissions of substances that are radiatively active (e.g., GHGs or aerosols), based on a coherent and internally consistent set of assumptions about driving forces (such as demographic and socio-economic development, technological change, energy and land use) and their key relationships. Concentration scenarios, derived from emission scenarios, are often used as input to a climate model to compute climate projections.

ESG: Environmental, social and governance issues.

ESRS: The European Sustainability Reporting Standards cover the range of environmental, social, and governance issues, including climate change, biodiversity and human rights. They aim to provide information for investors to understand the sustainability impact of the companies in which they invest.

EU: The European Union is an international organisation comprising 27 European countries and governing common economic, social and security policies. France, Germany and Italy are EU member states as well as sovereign G20 country members.

Fossil Fuels: Carbon-based fuels from fossil hydrocarbon deposits, including coal, oil and natural gas.

G20: The G20 (Group of 20) is a forum for global economic co-operation. It brings together leaders and policy makers from the world's major economies to discuss key economic, development and social issues. G20 members represent around 80% of global GDP, 75% of global exports and 60% of the global population.

Offsetting: The reduction, avoidance or removal of a unit of GHG emissions by one entity, purchased by another entity to counterbalance a unit of GHG emissions by that other entity. Offsets are commonly subject to rules and environmental integrity criteria intended to ensure that offsets achieve their stated mitigation outcome. Relevant criteria include, but are not limited to, the avoidance of double counting and leakage, use of appropriate baselines, additionality and permanence or measures to address impermanence.

Greenhouse Gas Protocol: A global standard for companies and organisations to measure and manage their GHG emissions.

HLEG: The High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities, convened by the UN Secretary General in 2022 to help ensure credibility and accountability of net zero pledges.

IFRS: The International Financial Reporting Standards Foundation is a not-for-profit responsible for developing global accounting and sustainability disclosure standards, known as IFRS Standards.

Impacts: The consequences of realised risks on natural and human systems, where risks result from the interactions of climate-related hazards (including extreme weather/climate events), exposure and vulnerability. Impacts generally refer to effects on lives, livelihoods, health and well-being, ecosystems

and species, economic, social and cultural assets, services (including ecosystem services), and infrastructure. Impacts may be referred to as consequences or outcomes, and can be adverse or beneficial.

ISSB: The ISSB was established as part of the IFRS Foundation to provide investors, companies and international policy makers with decision-useful, comparable information on sustainability issues. As of the publication of this paper, the ISSB has published two standards (S1 and S2), related respectively to "General Requirements for Disclosure of Sustainability-related Financial Information" and "Climate-related Disclosures".

IPCC: The Intergovernmental Panel on Climate Change

Just Transitions: A set of principles, processes and practices that aim to ensure that no people, workers, places, sectors, countries or regions are left behind in the transition from a high-carbon to a low-carbon economy. It stresses the need for targeted and proactive measures from governments, agencies, and authorities to ensure that any negative social, environmental or economic impacts of economy-wide transitions are minimised, whilst benefits are maximised for those disproportionately affected. Key principles of just transitions include: respect and dignity for vulnerable groups; fairness in energy access and use, social dialogue and democratic consultation with relevant stakeholders; the creation of decent jobs; social protection; and rights at work. Just transitions could include fairness in energy, land use and climate planning and decision-making processes.

Land use: The total of arrangements, activities and inputs applied to a parcel of land. The term land use is also used in the sense of the social and economic purposes for which land is managed (e.g., grazing, timber extraction, conservation and city dwelling). In national GHG inventories, land use is classified according to the IPCC land-use categories of forest land, cropland, grassland, wetlands, settlements and other lands.

Maladaptation: Actions that may lead to increased risk of adverse climate-related outcomes, including via increased greenhouse gas (GHG) emissions, increased or shifted vulnerability to climate change, more inequitable outcomes, or diminished welfare, now or in the future. Most often, maladaptation is an unintended consequence.

Methane (CH4): The greenhouse gas methane is the major component of natural gas and is associated with all hydrocarbon fuels. Significant anthropogenic emissions also occur as a result of animal husbandry and paddy rice production. Methane is also produced naturally where organic matter decays under anaerobic conditions, such as in wetlands. Under future global warming, there is potential for increased methane emissions from thawing permafrost, wetlands and sub-sea gas hydrates.

Mitigation (of climate change): A human intervention to reduce emissions or enhance the sinks of greenhouse gases.

Net zero GHG emissions: Condition in which metric-weighted anthropogenic GHG emissions are balanced by metric-weighted anthropogenic GHG removals over a specified period. The quantification of net zero GHG emissions depends on the GHG emission metric chosen to compare emissions and removals of different gases, as well as the time horizon chosen for that metric.

Net zero: Referring to the world as a whole, the IPCC defines net zero as when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period.

Non-state actors/entities: The HLEG recommendations focus on private and financial sectors, as well as local government and regions.

OECD: The Organization for Economic Co-operation and Development is a unique forum where the governments of 37 democracies with market-based economies collaborate to develop policy standards to promote sustainable economic growth.

Paris Agreement: The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at the UN Climate Change Conference in Paris, France, on 12 December 2015 (COP21). It entered into force on 4 November 2016.

Renewable energy: Any form of energy that is replenished by natural processes at a rate that equals or exceeds its rate of use.

Resilience: The capacity of interconnected social, economic and ecological systems to cope with a hazardous event, trend or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure. Resilience is a positive attribute when it maintains capacity for adaptation, learning and/or transformation.

Scenario: A plausible description of how the future may develop based on a coherent and internally consistent set of assumptions about key driving forces (e.g., rate of technological change or prices) and relationships. Note that scenarios are neither predictions nor forecasts, but are used to provide a view of the implications of developments and actions.

Scope 1: According to the Greenhouse Gas Protocol, Scope 1 emissions are direct emissions from owned or controlled sources.

Scope 2: According to the Greenhouse Gas Protocol, Scope 2 emissions are indirect emissions from the generation of purchased energy.

Scope 3: According to the Greenhouse Gas Protocol, Scope 3 emissions are all indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

SMEs: Small and medium-sized enterprises.

Sustainable Development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs and which balances social, economic and environmental concerns.

Sustainable Development Goals (SDGs): The SDGs are a set of 17 global goals established by the UN in 2015 as part of the 2030 Agenda for Sustainable Development. They aim to address a broad range of global challenges, including poverty, inequality, climate change, environmental degradation, peace, and justice, with a target completion date of 2030. The SDGs provide a shared blueprint for prosperity while protecting the planet and are intended to be universal, applying to all countries regardless of their economic status.

UNFCCC: The UN Framework Convention on Climate Change was adopted in May 1992 and opened for signature at the 1992 Earth Summit in Rio de Janeiro. It entered into force in March 1994 and, as of September 2020, had 197 Parties (196 States and the European Union). The Convention's ultimate objective is the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system" (UNFCCC, 1992). The provisions of the Convention are pursued and implemented by two further treaties: the Kyoto Protocol and the Paris Agreement.

ACKNOWLEDGEMENTS

The Chairs are expressing their gratitude to the Technical Expert Group and the Board of Trustees for their involvement and contribution to this report:

The Technical Expert Group of the Taskforce on Net Zero Policy:

Dr Olumide Abimbola, Carolina Aguirre Echeverri, Camille Ammoun, Uli Agustina, Louise Helen Brown, Alice Cavanagh, Dr Vaibhav Chaturvedi, Felipe De León Denegri, Noelia Garcia Nebra, Prof Thomas Hale, Bill Hare, Dave Jones, Douglas Kativu, Dr Svitlana Krakovska, Catherine Leining, Dr Serafin Martinez Jaramillo, Dr Marcelo Mena, Jane McDonald, Malango Mughogho, Prof Nick Robins, Alan Smith, Dr Olufunso Somorin, Fiona Stewart, Yukari Takamura, Carolina Maria Urmeneta, Mark Watts, Prof Thom Wetzer, Wang Xin.

The Board of Trustees of the Taskforce on Net Zero Policy:

Catherine McKenna, Chair, UN Secretary-General's High-Level Expert Group on Net Zero Pledges of NSAs; Eric Usher, Head, United Nations Environment Programme – Finance Initiative, with support from Elodie Feller, Global Policy Lead, Jesica Andrews, and Beata Bienkowska; Klaas Knot, Chair, Financial Stability Board, with support from Costas Stephanou, Head of Financial Stability Analysis, Simonetta Iannotti, Member of the Secretariat, and Rupert Thorne, former Deputy Secretary General; Jingdong Hua, Vice Chair, International Sustainability Standards Board, with support from Mardi McBrien, Chief of Strategic Affairs and Capacity Building, International Financial Reporting Standards Foundation; Jo Tyndall, Director of the Environment Directorate, the OECD, with support from Mathilde Mesnard, Deputy Director and OECD Co-ordinator for Climate and Green Finance for the Environment Directorate, Elia Trippel, and Stephanie Venuti; Sara Jane Ahmed, Managing Director, Climate Vulnerable Forum - The Vulnerable 20 (V20) Group and Mohamed Nasheed, Secretary General, The Vulnerable 20 (V20) Group; Rebeca Grynspan, Secretary-General, United Nations Conference on Trade and Development, with support from Igor Paunovic, Senior Economist; Sabine Mauderer, Chair, Network for Greening the Financial System (NGFS), with support from Irene Heemskerk, Head of the Climate Change Centre – European Central Bank, and Yann Marin, Head of the Secretariat, NGFS.

This report was drafted by the Secretariat of the Taskforce on Net Zero Policy, provided by the UN-supported Principles for Responsible Investment (PRI):

The Secretariat staff:

Andrii Bilovusiak, Davide Cerrato, Chloe Chilton, Joe Cockerline, Nathan Fabian, Gina Hanrahan, Margarita Pirovska, Aina Urano Menneken and Jan Vandermosten.

The knowledge partners:

Net Zero Regulation and Policy Hub at Oxford University (Emma Lecavalier, Lucilla Borges Ramos Dias), Grantham Research Institute on Climate Change and the Environment at London School of Economics (Jodi-Ann Jue Xuan Wang), Canbury Insights (Ben Wilmot, Amiya Taggart, Vishal Kumar, Will Martindale), C40 Cities Climate Leadership group (Amy Kirbyshire).

This report has been supported by the European Climate Foundation. Responsibility for the information and views set out in this report lies with the authors. The European Climate Foundation cannot be held responsible for any use which may be made of the information contained or expressed therein.