INTEGRITY MATTERS: NET ZERO COMMITMENTS BY BUSINESSES, FINANCIAL INSTITUTIONS, CITIES AND REGIONS

REPORT FROM THE UNITED NATIONS' HIGH-LEVEL EXPERT GROUP ON THE NET ZERO EMISSIONS COMMITMENTS OF NON-STATE ENTITIES

The High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities (“Expert Group”) was tasked by the United Nations Secretary General with addressing net zero pledges and commitments from non-state actors including corporations, financial institutions, and local and regional governments. In undertaking its work, the Expert Group built on existing credibility and standard setting frameworks for net zero pledges to formulate its findings and recommendations.

The Expert Group recognises that capacities and needs differ widely within and between non-state actors. While the focus of the recommendations has been on criteria and standards that apply to large corporations, financial institutions, and cities and regions, the Expert Group recognises that smaller non-state actors also play an important role and will need support and capacity building assistance.

Expert Group members were chosen by the Secretary General based on their personal expertise and experience relevant to the task while ensuring gender, geographic and thematic balance. Members were asked to provide their best advice serving in their individual capacity, not as part of the institutions or organisations they represent.

In seven months, members of the group held over 40 regional and thematic consultations, with the participation of more than 500 organisations across the world. The group convened a wide range of stakeholders, including through a Business and Finance Roundtable and two Global Public Sessions, co-convened with the UN Foundation. The Expert Group also received close to 300 written submissions from interested organisations, initiatives and individuals. For more details about the mandate, process and consultations, see the Annexes.

This report constitutes a collective view of Expert Group members. While members endorse the general thrust of the arguments made in this report, this should not be taken as unanimity on every finding or recommendation

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United Nations' High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities

Promoting the bicycle as a means of travel in
Bogota, Columbia
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CHAIR'S NOTE

It's Time to Draw a Red Line Around Greenwashing

The Honourable Catherine McKenna

Chair, High-level Expert Group on the Net Zero Emissions Commitments of Non-State Entities

"We urgently need every business, investor, city, state and region to walk the talk on their net zero promises. We cannot afford slow movers, fake movers or any form of greenwashing."

António Guterres,
UN Secretary General

We are at a critical moment for humanity. The window to limit dangerous global warming and ensure a sustainable future is quickly closing. This is the stark but unequivocal finding of recent climate change reports.

And we can all see it.

In 2022 alone, China experienced severe drought while half of Pakistan flooded. Deadly heatwaves killed tens of thousands in India and massive wildfires spread across Spain and California. East Africa's worst drought in decades threatens millions with starvation. In my country, Canada, one year earlier a heat dome over Lytton, British Columbia reduced the town to ash.

Climate change and extreme weather are undermining health, food and water security, nature, safety, and socio-economic development. A recent UN report shows that while the curve of global emissions is bending, it is not happening quickly enough to limit temperature rise to 1.5°C. Instead of being on track to reduce emissions by 45% by 2030, emissions are set to increase by close to 11%.

We are making progress but we are still too far from where we need to be.

Nor can we use the current confluence of global crises to stall action and entrench a status quo that fundamentally undermines security. Russia's illegal war in Ukraine reminds us that energy, climate, food and national security are inextricably linked and that moments of acute crisis must be seized. The International Energy Agency now believes we are at an inflection point that will accelerate the shift from fossil fuels towards a cleaner and more secure future. We need to make sure that happens.

We know what we need to do: peak global emissions in just three years, by 2025, and cut emissions in half in less than eight years, by 2030. Money needs to move from funding fossil fuel infrastructure and instead be invested at scale in clean energy. The decisions made by governments and non-state actors today, tomorrow, and each and every day after will determine whether we meet this goal, and whether we meet it in a way that enhances equity, justice, empowers women, and respects Indigenous rights.

Though countries need to take the lead, solving the climate crisis is not up to them alone. Non-state actors—industry, financial institutions, cities and regions —play a critical role in getting the world to net zero no later than 2050. They will either help scale the ambition and action we need to ensure a sustainable planet or else they strongly increase the likelihood of failure. The planet cannot afford delays, excuses, or more greenwashing.

This report is the result of intense work and consultations over seven months and reflects the best advice of 17 experts appointed by the UN Secretary-General. We set out ten practical recommendations to bring integrity, transparency and accountability to net zero by establishing clear standards and criteria.

Our recommendations build on credible existing initiatives like Race to Zero and the Science Based Targets initiative. We have set tight definitions for what it means to be net zero and net zero-aligned. We make it clear that non-state actors require not only long-term pledges but also short-term science-based targets as well as detailed transition plans showing immediate emissions reductions and capital expenditures aligned with these targets and their net zero pathway.

To prevent dishonest climate accounting and other actions designed to circumvent the need for deep decarbonization, we emphasize that non-state actors must report publicly on their progress with verified information that can be compared with peers.

Our report also specifically addresses the core concerns raised by citizens, consumers, environmentalists and investors around the use of net zero pledges that make greenwashing possible. Our recommendations are clear that:

- Non-state actors cannot claim to be net zero while continuing to build or invest in new fossil fuel supply. Coal, oil and gas account for over 75% of global greenhouse gas emissions. net zero is entirely incompatible with continued investment in fossil fuels. Similarly, deforestation and other environmentally destructive activities are disqualifying.

- Non-state actors cannot buy cheap credits that often lack integrity instead of immediately cutting their own emissions across their value chain. As guidelines emerge for a high-integrity voluntary credit market, credits can be used above and beyond efforts to achieve 1.5°C aligned interim targets to increase financial flows into underinvested areas, including to help decarbonize developing countries.

- Non-state actors cannot focus on reducing the intensity of their emissions rather than their absolute emissions or tackling only a part of their emissions rather than their full value chain (scopes 1, 2 and 3).

- Non-state actors cannot lobby to undermine ambitious government climate policies either directly or through trade associations or other bodies. Instead they must align their advocacy, as well as their governance and business strategies with their climate commitments. This includes aligning capital expenditures with net zero targets and meaningfully linking executive compensation to climate action and demonstrated results.

- To effectively tackle greenwashing and ensure a level playing field, non-state actors need to move from voluntary initiatives to regulated requirements for net zero. Verification and enforcement in the voluntary space is challenging. Many large non-state actors— especially privately held companies and state-owned enterprises —have not yet made net zero commitments which raises competitiveness concerns. This picture is changing fast, but it still requires the resolve of governments and regulators to level up the global playing field. This is why we call for regulation starting with large corporate emitters including assurance on their net zero pledges and mandatory annual progress reporting.

The report also emphasizes that the global transition to net zero requires a new deal for developing countries that ensures a just transition and brings the scale of resources required to achieve it. In part, this requires financial institutions and multinational corporations to work with governments and Multinational Development Finance Institutions to innovate, consistently take on more risk, and set more ambitious targets that help to maximize their investments in clean energy and climate resilience.

We also recognize that the capabilities of non-state actors vary widely. Though the focus of our recommendations has been large corporations, financial institutions and cities and regions, smaller non-state actors play an important role as well. They will need support and assistance to align with the objectives of our recommendations.

As Canada's Minister of Environment and Climate Change and later as Minister of Infrastructure and Communities, I saw the power of businesses, financial institutions, cities and regions to help enable and accelerate positive change by supporting government action on climate. Canada succeeded in putting a revenue neutral price on carbon pollution by building on the initiatives of several provinces. Major Canadian companies across a wide range of sectors publicly supported the need for a national carbon price. Precedent, advocacy and leadership created an 'ambition loop' that became even more powerful when governments and non-state actors worked together.

Today, we need an ambition loop for net zero— one that accelerates the pace of global change.

I want to extend my thanks to the Secretary-General for entrusting us with this critical mandate and for his tireless work to build a more sustainable future. I also want to express my gratitude to the other 16 members of our High-Level Expert Group for taking up this commission with the sense of urgency it demands. Their expertise, collegiality and varied global perspectives have been invaluable. My thanks as well to the UN Secretariat and my team at Climate and Nature Solutions which has provided valuable support to the Group throughout this process. And I would be remiss if I didn't pay tribute to the many women and girls leading the way on climate in communities around the world who inspire us and motivate us.

Lastly, I want to express my sincere appreciation to the hundreds of groups and thousands of individuals who participated in our consultations and made submissions. Your ideas and concerns factored greatly in our deliberations. I hope our work can be a springboard for your continued efforts to achieve net zero.

What happens in the next decade will be decisive, and those with the power to do so must act now. Ensuring that net zero pledges by corporations, banks and investors, cities and regions deliver ambitious, immediate, and verifiable emissions reductions is critical.

Leaders everywhere must join the drive to net zero. Many non-state actors provide examples we can learn from. They want a cleaner future. They understand the need to mitigate climate risk and they are seized with the multi-trillion dollar economic opportunity that accompanies this transition. We need these leaders to inspire their colleagues to do the same.

Growing up as a competitive swimmer, I learned that the key to winning is having an ambitious goal, putting your head down, doing the work, and driving to the finish. It's going to be hard but if we're ambitious, practical and focused, I know we can meet the challenge of ensuring a net zero world by 2050. And equally important, we can ensure a sustainable and liveable future for our kids, our grandkids and for future generations.

The Honourable Catherine McKenna

Chair, High-level Expert Group on the Net Zero Emissions Commitments of Non-State Entities

Ms. McKenna is Canada's former Minister of Environment and Climate Change from 2015 to 2019 and Minister of Infrastructure and Communities from 2019 to 2021. Ms. McKenna is a founder and principal of Climate and Nature Solutions and of Women Leading on Climate launched at COP26 in Glasgow. She is also a Distinguished Visiting Scholar at Columbia University's Centre on Global Energy Policy and Climate School.

HIGH-LEVEL EXPERT GROUP

Meet our Members

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Ms. Starbuck is the Program Director of "The Sunrise Project", a prominent civil society organization. Prior to that, Ms. Starbuck served as the programme director for Greenpeace in South America, responsible for setting the strategic direction and priority campaigns across the region. Previously, she led the global finance team at the Rainforest Action Network.

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Dr. Ghosh is the CEO of the Council on Energy, Environment and Water (CEEW), a climate and energy think tank in India and the world. Dr. Ghosh also serves on the Government of India's G20 Advisory Group. He previously acted as the Co-Chair of the energy, environment and climate change track for India's Science, Technology and Innovation Policy (STIP2020).

Mr. Bill Hare
Australia

Mr. Hare is the co-founder and CEO of Climate Analytics, an international non-profit climate science and policy institute based in Germany. Mr. Hare was also a lead author of the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report and has supported international and regional scientific assessment processes in different capacities.

Ms. Camila Escobar
Columbia

Ms. Escobar is the CEO at Juan Valdez Café. Ms. Escobar was a former manager at Belcorp - a multinational cosmetics company present in 14 LAC countries - and McKinsey.

Mr. Carlos Lopes
Guinea Bissau

Mr. Lopes is the Commissioner at the Global Commission for Economy and Climate. Mr. Lopes is currently serving as a professor at the University of Cape Town, a visiting professor at Sciences Po, and an associate fellow in the Africa Programme and Chatham House. Mr. Lopes is the former Executive Secretary of the Economic Commission for Africa.

Dr. Zhou Xiaochuan
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Dr. Zhou Xiaochuan is Vice Chairman of the Boao Forum for Asia. From December 2002 and March 2018, he was Governor of the People's Bank of China. He also served as Chairman of the Monetary Policy Committee of the People's Bank of China and vice chairman of the 12th National Committee of the Chinese People's Political Consultative Conference. He is a member of the Group of Thirty (G30) and Chinese Economists 50 Forum. .

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Janine Felson is an Ambassador of Belize and a senior advisor to the Alliance of Small Island States (AOSIS) and the Caribbean Community (CARICOM) on climate and ocean matters. She has been a leading voice for small island developing states (SIDS) in key negotiations including the 2030 Agenda for Sustainable Development and the Paris Agreement, among others.

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Mr. Levy is the Director for Economic Strategy and Market Relations at Banco Safra S.A. Mr. Levy served as Minister for Finance of Brazil (2014-2015), Managing Director and CFO of the World Bank Group (2016-2018), and President of the Brazilian Development Bank (2018-2019).

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Ms. Mughogho is Managing Director of ZeniZeni Sustainable Finance. Ms. Mughogho led the team that developed the early stages of South Africa's National Climate Finance Strategy and she currently serves as a climate finance expert on the Regional Technical Committee of the Global Water Partnership's Southern Africa Coordination Unit.

Ms. Mary Nichols
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Ms. Nichols is the Distinguished Visiting Fellow at the Center on Global Energy Policy. Ms. Nichols is former Chair of the California Air Resources Board, and she served as California's Secretary for Natural Resources between 1999 and 2003. Prior to that, Ms. Nichols served as Assistant Administrator for the U.S. EPA's Office of Air and Radiation, in the administration of President William Jefferson Clinton, and headed the Institute of Environment and Sustainability at UCLA.

Ms. Kahori Miyake
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Ms. Miyake is the Co-Chair of Japan Climate Leaders' Partnership (JCLP), a coalition of more than 200 businesses advancing decarbonization in the country. She also serves as the General Manager of ESG Strategy and Solutions Department of the Sumitomo Mitsui Trust Bank. Ms. Miyake previously served as the Chief Sustainability Officer of AEON.

Mr. Oumar Tatam Ly
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Mr. Ly is former Prime Minister of Mali (2013-2014). Mr. Tatam Ly previously served as the Special Adviser to the Governor of the Central Bank of West African States, and Chairman of the board of directors of the West Africa Monetary Union Pension Fund (CRRAE-UMOA).

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Mr. Carr is Chairperson of the New Zealand Climate Change Commission. Mr. Carr priorly served as Chair and non-executive director of the Reserve Bank of New Zealand and Deputy Governor and Acting Governor of the Bank.

INTRODUCTION

A Confluence of Crises

Since it was launched last spring, the UN High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities has been pursuing its work amidst a confluence of crises: global economic impacts of a persistent pandemic and the Russian invasion of Ukraine, ensuing inflation and energy security concerns, and climate change-fuelled extreme weather around the world. The impacts of these crises have been felt everywhere, but they have been most acute in the world's least developed countries, exacerbating the debt crisis they already face.

China had its driest summer in 60 years, shrinking the Yangtze River to half its width. Meanwhile, Pakistan suffered floods that submerged one-third of the country and displaced more than 30 million people. The southwest Gulf coast of Florida was ravaged by a turbocharged hurricane, while Western Europe suffered the highest temperature peaks during the summer. Furthermore, tens of millions of Africans face acute food insecurity in the drought-ravaged Horn of Africa. All told, these and other climate-fuelled disasters are resulting in trillions of dollars of damages and displacing tens of millions of people. There have been 29 disasters which cost over $1 billion each so far this year. The toll isn't only on humans, but on nature itself. Over the past five decades, global wildlife populations have plummeted nearly 70 per cent due to climate change and other human activities.

In many instances, these impacts are unfolding even faster than scientists had predicted, which only increases the urgency of heeding their advice: to limit warming to 1.5°C, global emissions must peak by 2025 and be cut in half by 2030, on the way to net zero emissions by mid-century. Yet the most recent UNEP Emissions Gap Report finds that the international community is falling far short of that goal under present policies and Nationally Determined Contributions (NDCs). The International Energy Agency's recent update of its net zero Scenario finds that the emission pathway "remains narrow but still achievable" with the need for a comprehensive government response.

While some with vested interest in the status quo have suggested that efforts to achieve net zero should be slowed on account of these crises, most recognise the interrelationship between these crises and the reality that accelerated climate action offers critical benefits, ranging from community health to energy and food security. The flip side of this is the heightened awareness— globally but most especially in the European Union —that reliance on fossil fuels not only drives climate change but presents clear and present threats to both economic and national security.

It's clear that now is not the time to slow down, but to double down, on investments in equitable access to renewable energy and nature protection— especially in developing countries —and on efforts by non-state actors to reach net zero. While climate change is a threat multiplier, well-designed efforts to mitigate it can be a solution multiplier, enhancing food and energy security, equity, and affordability. It's also clear that vast differences between developed and developing countries remain in terms of access to public and private finance, technology and data, among other issues. Least developed countries, small island developing states, African countries, landlocked countries, middle-income economies and even emerging economies all face specific challenges. They must be recognised and fully addressed.

The Expert Group was convened at this crucial moment in time. In the years after the call for a balance between sinks and sources of emissions in the Paris Agreement became the concept of “ net zero”, thousands of cities, regions, companies and financiers formed a voluntary groundswell and swung behind the concept. But net zero is now at an inflection point. Some of those non-state actors did not follow their net zero pledges with action, in spite of the urgency set out in the science. Some may have underestimated the task or interpreted net zero differently. Some may never have intended to achieve their stated goals, aiming only to benefit from the positive press abounding at the time. Many others are making good faith efforts to work toward global climate goals but do not yet know exactly what is required, or lack capacity or resources to deliver on their targets.

What the Expert Group offers here is a roadmap to prevent net zero from being undermined by false claims, ambiguity and “greenwash”. We have built on the existing science and best-in-class voluntary efforts to create a universal definition of net zero, based on five principles and ten recommendations to guide the future of net zero, and focused on the actions that need to be taken by cities, states, corporations and those who regulate them.

The risk is clear. If greenwash premised upon low-quality net zero pledges is not addressed, it will undermine the efforts of genuine leaders, creating both confusion, cynicism and a failure to deliver urgent climate action. Which is why, ultimately, regulations will be required to establish a level playing field and ensure that ambition is always matched by action.

This report sets out five principles— the bright stars that should guide the setting and attaining of net zero targets. Plans must be ambitious, have integrity and transparency, be credible and fair.

The ten recommendations go into more detail about what non-state actors need to consider through each stage of their progress towards being net zero aligned and what the successful attainment of that status can and must contribute to the global effort to address the climate crisis.

We have maintained our focus on equity and the urgency of the science throughout our recommendations, and we have addressed the main areas of a net zero plan that would allow the current landscape to build integrity and trust.

The key highlights of our recommendations include:

- A net zero pledge must be a commitment by the entire entity, made in public by the leadership, and be reflective of the city, region or corporation’s fair share of the needed global climate mitigation.

- A net zero pledge must contain stepping stone targets for every five years, and set out concrete ways to reach net zero in line with the Intergovernmental Panel on Climate Change (IPCC) or International Energy Agency (IEA) net zero greenhouse gas (GHG) emissions modelled pathways that limit warming to 1.5°C with no or limited overshoot. The plan must cover the entire value chain of a city, state or business, including end-use emissions. It needs to start fast and not delay action to the last minute, reflecting the fact that global emissions must decline by at least 50% by 2030.

- 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.

- Non-state actors must publicly share their comprehensive net zero transition plans detailing what they will do to meet all targets, align governance and incentivise structures, capital expenditures, research and development, skills and human resource development, and public advocacy, while also supporting a just transition.

- City, region, finance and business net zero plans must not support new supply of fossil fuels: there is no room for new investment in fossil fuel supply and there is a need to decommission and cancel existing assets.

- Non-state actors must lobby for positive climate action and not against it. By working with governments to create strong standards, non-state actors can help create an ambition loop and ensure a level playing field for ambitious net zero pledges and to further de-risk a speedy transition and maximise the economic benefits of rigorous net zero alignment.

- By 2025, businesses, cities and regions with significant land-use emissions must make sure that their operations and supply chains don’t contribute to deforestation, peatland loss and the destruction of remaining natural ecosystems. 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.

- Non-state actors must report publicly every year, and in detail, on their progress, including greenhouse gas data, in a way that can be compared with the baseline they set. Reports should be independently verified and added to the UNFCCC Global Climate Action Portal. Special attention will be needed to build sufficient capacity in developing countries to verify emission reductions. The recommendations of this report are therefore relevant to both the UNFCCC global stocktake (GST) process and the anticipated mitigation work programme.

- To achieve net zero globally, while also ensuring a just transition and sustainable development, there needs to be a new deal for development which 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 their investments in the clean energy transition in developing countries.

- To make net zero work and to create a level playing field, regulators should develop regulation and standards starting with high-impact corporate emitters, including private and state-owned enterprises and financial institutions. Countries should launch a new Task Force on net zero Regulation to convene regulators across borders and across regulatory domains, alongside leading voluntary and standard-setting initiatives and independent experts, to drive reconfiguration of the ground rules of the global economy to align to the goals of the Paris Agreement.

While the work the Expert Group has done over the last seven months to deliver this report has been significant, what happens next matters more. We are calling on cities, regions, financial institutions and businesses— as well as their regulators and policymakers —to own this report and adopt this work into existing initiatives, as well as new and developing strategies. A list of calls to action for regulators, initiatives and standard setters is set out at the end of this report.

Five Principles

1. Ambition which delivers significant near— and medium —term emissions reductions on a path to global net zero by 2050
2. Demonstrated integrity by aligning commitments with actions and investments
3. Radical transparency in sharing relevant, non-competitive, comparable data on plans and progress
4. Established credibility through plans based in science and third-party accountability
5. Demonstrable commitment to both equity and justice in all actions

Ten Recommendations

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

RECOMMENDATION 1

Announcing a Net Zero Pledge

The Challenge and the Opportunity

The Paris Agreement calls for a balance between sinks and sources of emissions in order to achieve what has become known as global net zero. Put more simply, net zero refers to a state by which the greenhouse gases going into the atmosphere are reduced as close to zero as possible and any residual emissions are balanced by permanent removals from the atmosphere by 2050. While governments must take the lead in reducing emissions, action by non-state actors is critical to achieving global net zero.

In the years since this call, many corporations, cities, states and regions have made voluntary commitments to reach net zero. This is commendable, but in the absence of regulation, too many of these pledges are not aligned with the science, do not contain enough detail to be credible, and use the terms " net zero" or " net zero aligned" (as well as many other similar terms) inconsistently. Deceptive or misleading net zero claims by non-state actors not only erode confidence in net zero pledges overall, they undermine sovereign state commitments and understate the work required to achieve global net zero. Ultimately, to ensure consistency, rigour and enforceability, regulation will be needed— this is covered in our final recommendation.

Main Recommendation

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 or IEA 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 at least 50% by 2030, reaching net zero by 2050 or sooner. net zero must be sustained thereafter.

Detailed Recommendations

- All non-state actors must reduce emissions as fast as possible, aligning or exceeding national targets, roadmaps and timelines. Those that have the capacity to move faster than a 50% reduction by 2030 and net zero by 2050 should do so, while some developing country non-state actors may require more support on their path to net zero.

- Multinationals should set global targets that account for variability across jurisdictions and include all operations along their value chain in all jurisdictions.

- Non-state actors must publicly disclose and report on progress against those targets and plans, ensuring that any claims of being net zero or net zero aligned are based on actions, not just announcements.

- A non-state actor should be considered and recognised as net zero aligned (or have independent validators following and adhering to a set of commonly accepted assurance standards confirm that its " net zero pledge is on/off track") when:

    - its pledge, targets and pathway to net zero are generated using a robust methodology consistent with limiting warming to 1.5°C with no or limited overshoot verified by a third party (for example by the Science Based Targets Initiative (SBTi), the Partnership for Carbon Accounting Financials (PCAF), The Paris Agreement Capital Transition Assessment (PACTA), The Transition Pathway Initiative (TPI), the International Organization for Standardization (ISO), among others);

    - its pledge and progress reporting should cover all scope emissions and all operations along its value chain in all jurisdictions (any omission needs to be properly reported);

    - it is demonstrating progress by achieving or exceeding its interim targets with reports that are verified by a credible, independent third party based on publicly available data.

- A non-state actor should be considered and recognised as net zero or to "have achieved its net zero pledge" when:

    - its pledge, targets and pathway to net zero are generated using a robust methodology consistent with limiting warming to 1.5°C with no or limited overshoot verified by a third party (for example, SBTi, PCAF, PACTA, TPI, ISO, among others);

    - it has achieved its long-term net zero target with any residual emissions neutralised by permanent greenhouse gas removals according to reports verified by a credible, independent third party based on publicly available data.

RECOMMENDATION 2

Setting Net Zero Targets

The Challenge and the Opportunity

The ambition of net zero targets will determine climate ambition this decade. It is crucial that non-state actors have short-term targets that prioritise immediate reductions aligned with pathways that keep 1.5°C in sight across their value chain to avoid crossing dangerous climate tipping points. Immediate reductions are not only a scientific requirement, but also minimise transition risks for non-state actors. Early action accelerates innovation and helps position non-state actors as leaders in the renewable energy and climate resilient economy.

Main Recommendation

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 by 2050 or sooner.

Detailed Recommendations

- All non-state actors should set their initial targets within a year of making their pledge. Non-state actors should have short-term targets of five years or less, with the first target set for 2025. By aligning with the Paris Agreement's requirement that countries increase the ambition of their national commitments by 2025, and at least every five years after that, non-state actors can help governments implement their national pledges and create opportunities for the progressive ratcheting up of pledges.

- Targets must account for all greenhouse gas emissions (based on internationally approved measures of warming effects) and include separate targets for material non-CO2 greenhouse gas emissions (e.g. fossil methane and biogenic methane).

- Targets must include emissions reductions from a non-state actor's full value chain and activities, including:

    - scope 1, 2 and 3 emissions for businesses. Where data is missing for scope 3 emissions, businesses should explain how they are working to get the data or what estimates they are using;

    - all emissions facilitated by financial entities;

    - all territorial emissions for cities (as defined in the Global Protocol for Community-Scale Greenhouse Gas Inventories) and regions.

- Embedded emissions within fossil fuel reserves as well as any land-use related emissions and risk adjusted sequestration in biomass, such as forests, peatlands and wetlands, should be accounted for separately.

- A concerted effort to speed the creation of the datasets needed for non-state actors to produce plans to reduce emissions generated by the use of their products and services (scope 3) and scaling support for non-state actors to comply with reporting requirements are required in order that this collective work moves at the necessary pace.

A man walking on top of a giant sea wall protecting Jakarta, Indonesia

Credit: Irene Barlian / Climate Visuals Countdown

RECOMMENDATION 3

Using Voluntary Credits

The Challenge and the Opportunity

While voluntary purchases of carbon credits by non-state actors can play a role in supporting faster emission reductions and delivery of the wider Sustainable Development Goals (SDGs), a system to define and ensure standards for both the integrity of the credits themselves and how non-state actors claim them is not yet in place.

As a result, too many non-state actors are currently engaging in a voluntary market where low prices and a lack of clear guidelines risk delaying the urgent near-term emission reductions needed to avoid the worst impacts of climate change. All global modelled pathways that limit warming to 1.5°C with no or limited overshoot require rapid and deep greenhouse gas emission reductions in all sectors, as highlighted in the IPCC Sixth Assessment Report.

Work to create both supply-side and demand-side guidelines is underway:

- The Integrity Council for the Voluntary Carbon Market (ICVCM) is working to define a transparent, high-integrity standard for measuring and assigning the greenhouse gas equivalent credits that can be claimed, and will especially address additionality and permanence.
- The important work of incentivising, recognising and rewarding high-integrity companies who purchase and retire carbon credits to go further and faster in their climate action is being shaped by the Voluntary Carbon Markets Integrity Initiative (VCMI) and the SBTi guidelines. A transparent, high-integrity framework is needed to ensure credits are only used once a non-state actor's own mitigation efforts are in line with science.

Main Recommendations

- 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 decarbonizing 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.

Detailed Recommendations

- Non-state actors who choose to purchase voluntary carbon credits for permanent removals to counterbalance residual emissions or annual unabated emissions beyond their net zero pathways must use credits associated with a credibly governed standard-setting body that has the highest environmental integrity with attention to positive social and economic outcomes where the projects or jurisdictional programmes are located.

- Voluntary carbon markets need to be built on a rights-based approach, which fully respects, protects and takes into account the rights of Indigenous Peoples and local communities. This includes consultation with the Indigenous Peoples and local communities that are responsible for the stewardship of the forests and many other ecosystems used for offsetting projects.

- Any credit transactions must be transparently reported, and associated claims must be easily understandable, consistent and verified (where land-based activities are concerned, they should be geo-referenced). Whether or not the credits used can also be counted towards Nationally Determined Contributions under the Paris Agreement must be transparently reported.

- Non-state actors should invest in projects or jurisdictional programmes that prioritise the people and sectors most in need of support— for instance, those that protect biodiversity or restore degraded land, build resilience to climate impacts, accelerate distributed energy projects for energy access and livelihoods, or projects that advance technologies for hard-to-abate sectors.

- These recommendations recognise the need for active monitoring of the market and recalibration as needed to establish the credible credits market that will be needed over the longer term to account for high-integrity removals.

RECOMMENDATION 4

Creating a Transition Plan

The Challenge and the Opportunity

net zero transition plans are an essential tool to show how non-state actors will successfully deliver on their commitments in an equitable and just way, and therefore build public trust. While no entity can predict the path to 2050, frequently updated transition plans make pledges concrete while highlighting uncertainties, assumptions and barriers. This is particularly important for non-state actor commitments related to the just transition.

While one-third of the world's largest publicly-traded businesses have made net zero commitments, only half of those show how their targets are embedded in their corporate strategy, while most other businesses have only announced net zero targets or, in some cases, only their intention to set such targets.

Beyond demonstrating credibility, transition plans give non-state actors a vital tool to implement their net zero pledges. Clear transition plans serve to align internal and external stakeholders, identify priorities and areas of challenge, and facilitate access to resources.

Main Recommendation

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.

Detailed Recommendations

Company transition plans must:

- Disclose short-, medium- and long-term absolute emission reduction targets, and, if relevant, relative emission reduction targets. Targets must account for all greenhouse gas emissions and include separate targets for material non-CO_2 greenhouse gas emissions.
- Detail the third-party verification approach and audited accuracy.
- Reference credible sector pathways consistent with limiting warming to 1.5°C with no or limited overshoot (e.g. IPCC, IEA, Network for Greening the Financial System (NGFS), One Earth Climate Model (OECM)) and explain any material difference between the non-state actor's transition plan and sector pathways.
- Explain emission reductions and, if needed, removal actions with time-bound key performance indicators. If removals are needed, explain why.
- Demonstrate how specific actions across all parts of the non-state actors' value chain will meet near-, medium- and long-term targets.
- Disclose how capital expenditure plans, research and development plans and investments are aligned with all targets (e.g. capex-alignment with a regional or national taxonomy) and split between new and legacy or stranded assets.
- Outline actions to address any data limitations.

- Detail value chain (e.g. suppliers) engagement approach.
- Explain governance structure for transition and verification. Describe linking of near- and long-term targets with executive compensation.
- Outline the specific policies and regulations, including carbon pricing, needed to facilitate transition plans.
- Report on progress annually— especially in regards to targets, and explain plan changes on an annual basis.
- Transition plans should explain how the non-state actor is contributing to a Just Transition. The delivery of a net zero and climate-resilient economy in a way that delivers fairness and tackles inequality and injustice. These transition plans must consider and address the broader social consequences and impacts of mitigation actions, including on race, gender and intergenerational equity. Examples could include:
    - a company, in partnership with its workers, unions, communities and suppliers has developed a Just Transition Plan;
    - a company discloses how its plan integrates the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and specifically the principle of free, prior and informed consent.
- Specify how to achieve and maintain operations and supply chains that avoid the conversion of remaining natural ecosystems— eliminating deforestation, wetland and peatland loss by 2025 at the latest, and the conversion of other remaining natural ecosystems by 2030.
- Disclose how lobbying and policy engagement policies and activities are consistent with the non-state actor's net zero targets

Financial institution transition plans must, in addition:

- Demonstrate how all parts of the business (investment advisory, investment, facilitation, etc.) align with interim targets and long-term net zero targets, including a strategy to identify and progressively phase out stranded assets.
- For those asset classes or services for which emissions cannot (at least to date) be calculated, explain how net zero commitments are addressed or considered.
- Include engagement targets that include voting (especially proxy) strategies in line with decarbonisation and escalation policies, policies on carbon credits and offsets, and the institution's transition risk management strategy, including physical risk.
- Demonstrate alignment to funding and enabling real-world decarbonisation (e.g. green taxonomies), and contribute to help financing net zero goals in developing markets via blended finance and other financial vehicles.

City or regional plans must:

- Constitute a document (or series of documents) which lays out a strategic roadmap for reducing greenhouse gas emissions and strengthening climate resilience across the community.
- Be based on community engagement and consultation, and build in ongoing engagement, in particular with marginalised groups, workers and frontline communities.
- Include an assessment of existing conditions including baseline emissions, regular greenhouse gas inventories, a long-term emissions trajectory, accountability measures, climate risks and socioeconomic priorities.
- Cover all greenhouse gases for scope 1 and 2 for transport and stationary energy (buildings and facilities), and scope 1 and 3 for waste, per the Global Protocol for Community-Scale Greenhouse Gas Inventories. Emissions apply to the geographic area of the city, and are not limited to a city government's operations. Large cities should make every effort to report on scope 3 emissions, in particular those associated with sources of revenue and expenditure under the control of the revenue generating authority.
- Develop a detailed overview of the strategies and actions that cities will pursue for achieving reductions in greenhouse gas emissions and improvements in climate resilience over time, and the processes of monitoring, evaluation, reporting and revision.

RECOMMENDATION 5

Phasing Out of Fossil Fuels and Scaling Up Renewable Energy

The Challenge and the Opportunity

As the IPCC has highlighted, existing planned and approved fossil fuel infrastructure will exhaust the remaining carbon budget. Therefore, there is no room for new investment in fossil fuel supply and a need to decommission existing assets. Additionally, the IEA states that new fossil fuel supply is incompatible with the required emissions trajectory to achieve net zero, and that includes new supplies of natural gas and LNG exports, which must peak and decline by the end of this decade. In its WEO 2020 update on the net zero Roadmap, the IEA also emphasises the need to synchronise scaling up clean energy technologies with scaling back of fossil fuels and that investment in clean energy rather than fossil fuel supply provides "a more lasting solution to today's energy crisis while cutting emissions." There is an urgent need for the IPCC and the IEA to clearly define phase out dates for all fossil fuels in line with a global just transition.

The continued global reliance on fossil fuels makes the global economy and energy security vulnerable to geopolitical shocks and crises. Instead of slowing down the decarbonisation of the global economy, now is the time to accelerate the energy transition to a renewable energy future.

To do this, it is imperative to dramatically scale up the mobilisation and provision of finance for renewable energy especially in developing countries. Phasing out fossil fuels must be done in parallel with scaling up access to renewable energy finance (some concrete proposals can be found in the "Investing in just transitions" section).

Main Recommendations

- 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 by 2050.

- 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.

Detailed Recommendations

For businesses:

- On coal for power generation, end: (i) expansion of coal reserves, (ii) development and exploration of new coal mines, (iii) extension of existing coal mines, and (iv) coal plants by 2030 in OECD countries and 2040 in the rest of the world.
- On oil and gas, end (i) exploration for new oil and gas fields, (ii) expansion of oil and gas reserves, and (iii) oil and gas production.
- Renewable energy procurement targets should be included as part of net zero transition plans.

For financial institutions:

- On coal for power generation, net zero targets and transition plans of all financial institutions must include an immediate end of: (i) lending, (ii) underwriting, and (iii) investments in any company planning new coal infrastructure, power plants, and mines. Coal phase out policies from financial institutions must include a commitment to end all financial and advisory services and phase out exposure, including passive funds, to the entire coal value chain no later than 2030 in OECD countries and by 2040 in non-OECD countries. Coal investments that remain in the portfolios of financial institutions must adopt phase out plans with facility-by-facility closure dates that include just transition plans for workers.
- On oil and gas, oil and gas phase-out policies from financial institutions must include a commitment to end financing and investing in support of: (i) exploration for new oil and gas fields, (ii) expansion of oil and gas reserves, and (iii) oil and gas production.
- Financial institutions should create investment products aligned with net zero emissions by 2050 and facilitate increased investment in renewable energy.

For cities and regions:

- On coal for power generation: (i) not allow permits for expansion of coal reserves, (ii) not allow development and exploration of new coal mines, (iii) not allow extension of existing coal mines, and (iv) no coal plants by 2030 in OECD countries and in the rest of the world by 2040.
- On oil and gas: (i) not allow permits for exploration for new oil and gas fields, (ii) not allow expansion of oil and gas reserves, and (iii) end oil and gas production.
- New fossil fuel-based electricity generation should not be permitted.

Methane:

- Methane emissions from the energy sector— coal, oil and gas production —should be reduced by at least 64% by 2030 from 2020 levels to be consistent with global modelled pathways that limit warming to 1.5°C with no or limited overshoot as assessed by the IPCC's 6th Assessment Report.

RECOMMENDATION 6

Aligning Lobbying and Advocacy

The Challenge and the Opportunity

Voluntary leadership is important to drive progress towards net zero. It informs and gives confidence to policymakers developing standards, policies and regulations that can level the playing field and drive an economy-wide net zero transition. To make sure this standard-setting and regulatory phase happens within this critical decade when global emissions must be reduced by at least 50%, non-state actor leaders need to ensure that their full influence is working as part of the solution, not undermining it.

Actively pushing for ambitious and forward-thinking net zero policies in all the countries and industry groups in which they operate shows a serious commitment to tackling this challenge and helps enable positive government action on climate. Moreover, by working with governments to create strong standards, non-state actors leading on climate action can ensure a level playing field for ambitious net zero pledges to further de-risk a speedy transition and maximise the economic benefits of rigorous net zero alignment.

Main Recommendation

Non-state actors must align their external policy and engagement efforts, including membership in trade associations, to the goal of reducing global emissions by at least 50% by 2030 and reaching net zero by 2050. This means lobbying for positive climate action and not lobbying against it.

Detailed Recommendations

- Non-state actors should publicly disclose their trade association affiliations. They should encourage their associations to advocate for positive climate action and have an escalation strategy if they do not, including the option of leaving the association if the necessary changes are not made.

- Non-state actors should also contribute to investor, supplier, consumer and employee engagement and work with peers to transform the economic sectors in which they operate. This includes those in the business services industry— such as accounting, legal, PR and consultancies —who should publicly disclose how customer engagements contribute to net zero and how greenwashing is being tackled.

- As part of their transition plan and annual disclosures, non-state actors should outline the specific policies and regulations, including carbon pricing, that they would need to cut emissions in line with a 1.5°C scenario. This disclosure should specify the emissions reductions possible if the listed policies and regulation by authorities and jurisdictions were in place.

RECOMMENDATION 7

People and Nature in the Just Transition

The Challenge and the Opportunity

Deforestation driven by land-use change and agriculture contributes around 11% of annual global greenhouse gas emissions, according to the IPCC, reducing the effectiveness of existing carbon sinks. This means the world cannot reach net zero by 2050 without ending deforestation by 2025.

Non-state actors involved in the forest, land and agriculture sectors are critical to both the global efforts to reach net zero and protecting and restoring nature. Scientific data points to the need to protect at least 30% of the natural world by 2030.

But reversing nature loss is no longer just an environmental issue, it's a social and justice issue as well. Healthy ecosystems are critical to achieving broader sustainable development goals and can unlock enormous economic benefits for food, medicine, tourism and quality of life, particularly for the workers, producers and communities dependent on those ecosystems, including women who are often disproportionally impacted and leading on solutions.

Particular attention should be given to marginalised groups who often live in highly biodiverse places and can be unrecognised guardians of nature. The rights to the lands and waters traditionally and collectively governed by Indigenous Peoples, for example, need to be recognised and upheld.

Main Recommendations

- 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.

Detailed Recommendations

- Businesses should invest in the protection and restoration of ecosystems beyond the emission reductions in their own operations and supply chains in order to achieve global net zero. This is important in light of the systemic financial risks associated with the loss of biodiversity and the exacerbated climate impacts associated with the loss of natural carbon sinks. Contributions may involve payments for ecosystem services, including the purchase and retirement of high-integrity carbon credits, but these credits cannot be used to meet non-state actors' interim decarbonisation targets (see recommendation 3).

- Cities and regions should look to promote compact, dense development that is better able to protect existing nature and build up new and additional natural systems. Examples include: adding transit-oriented (not car-oriented) development, avoiding greenfield development, retrofitting old buildings/infrastructure (instead of building new), and establishing protection areas around water resources like wetlands, streams, reservoirs and coastal ecosystems. These actions can serve not only to preserve nature and ecosystems but also to provide climate adaptation and resilience, as well as equity benefits, in urban settings. Prioritisation should be given to those parts of the territory where people are most vulnerable to the effects of climate change.

- Businesses, especially financial institutions, should anticipate the final guidance of the Taskforce on Nature-related Financial Disclosures by factoring in nature risks and dependency to all elements of their net zero transition plans.

High-rise dwellings accommodate a growing population in Singapore
Credit: Ashden

RECOMMENDATION 8

Increasing Transparency and Accountability

The Challenge and the Opportunity

Currently, much of the information about the transition plans of non-state actors and their progress toward net zero is limited in its availability and depth. For example, it is behind paywalls or not made public. This makes it difficult to know if non-state actors are on track to meet their net zero commitments. Moreover, the data that is available is not always standardised, making it hard to compare progress between non-state actors. Many voluntary leadership initiatives have imperfect systems for tracking the progress of their own members and few have clear mechanisms for removing members who fail to meet their commitments, while many non-state actors outside of such initiatives do not make much, if any, information available.

While there are some data alignment solutions being developed, there is currently no international verification system for net zero pledges. Generating clear, accessible, comparable data can bring enormous benefits. Leading entities will be able to credibly demonstrate their progress to net zero. Citizens, consumers and investors will be able to reward them accordingly. Barriers to faster progress will also be identified more quickly, creating a shared understanding of what solutions are needed, creating an "ambition loop" with regulators. In many cases, particularly for cities and regions in developing countries, entities may not be making progress due to capacity constraints or lack of access to finance. Increased transparency can help pinpoint and overcome such hurdles.

Publicly tracking progress helps to build trust, showcases successful strategies and encourages other players to make ambitious commitments. Indeed, regulators are increasingly requiring such disclosures of businesses and investors in order to ensure sound functioning of the market and to reduce risks.

Given the focus on transparency, the recommendations of this report are relevant to both the UNFCCC global stocktake (GST) process and the anticipated mitigation work programme. The GST is at the heart of the Paris Agreement's five-year ambition cycle, and will take into consideration the role of non-Party stakeholders in achieving the long-term goals of the Paris Agreement.

Main Recommendations

- 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.

- Non-state actors must have their reported emissions reductions verified by independent third parties. Special attention will be needed to build sufficient capacity in developing countries to verify emission reductions.

- Disclosures ought to be accurate and reliable. Large financial and non-financial businesses should seek independent evaluation of their annual progress reporting and disclosures, including opinion on climate governance, as well as independent evaluation of metrics and targets, internal controls evaluation and verification on their greenhouse gas emissions reporting and reductions.

Detailed Recommendations

While non-state actors follow the recommendations above, net zero initiatives and alliances must adopt best practice governance and processes for developing criteria and establishing accountability by:

- Designing a template for their members to report their pledges and annual reports in line with the recommendations.

- Verifying that all relevant information is provided and in the right format.

- Encouraging members to get independent evaluation of their disclosures (including greenhouse gas reporting verification) and set a timeline for mandatory independent evaluations.

- Reporting annually to the UNFCCC Global Climate Action Portal on the progress and any changes made, and provide an overall assessment of members' performance.

- Ensuring there is a transparent process for removing signatories or members who do not live up to their commitments and, prior to that, ensuring there is effective engagement with those members to try to secure their compliance.

- Working with policymakers and standard setters to align and implement schemes for standardised reporting to ensure comparability of disaggregated greenhouse gas emissions data from the pledges they cover, and to enable public access to disclosure of target delivery.

- Establishing a process to receive and review public complaints and research members' noncompliance.

- Ensuring their governance avoids conflicts of interests that may jeopardise their ability, or perceptions of their ability, to hold members accountable for meeting commitments.

- Ensuring their own governance features geographic and institutional diversity (including independent experts).

For other stakeholders:

- An assessment should be undertaken on the extent to which the ISAE 3000 (Revised) in Sustainability Assurance and ISAE 3410 for greenhouse gas statements are fit for providing assurance on net zero pledges and annual progress reporting. This could be done by the International Auditing and Assurance Standards Board (IAASB).

- The net zero Financial Service Providers Alliance, as part of their effort to "align all relevant services and products to achieve net zero" should add a ninth commitment to support SMEs, and other non-state actors in developing countries with limited resources, to develop high-quality data and have their net zero pledges and transition plans verified.

- A global central digital repository of climate disclosures that encompasses all reporting data points is needed (such as efforts to create the net zero Data Public Utility (NZDPU)). It is important that the open-source repository is:

    - able to accommodate varied levels of reporting capacity;

    - accessible to all users while enabling non-state actors across the world to upload information at no extra cost (e.g. an agreed electronic format that allows easy bulk extraction);

    - able to include data quality information and data validation checks to ensure it contains high-quality reliable and usable information;

    - consistent with the recommendations of this expert group to the template and record level;

    - overseen by the UNFCCC and feeds into its Global Climate Action Portal.

RECOMMENDATION 9

Investing in Just Transitions

The Challenge and the Opportunity

Just transitions incorporate the need for transformative development pathways that allow developing countries to both provide for minimum needs and industrialise with the latest clean technologies, while creating opportunities for green jobs and decent livelihoods, more energy security and financial resilience. There must also be a recognition that for non-state actors in the most vulnerable countries with less adaptive capacity, climate resilience remains a priority alongside mitigation, and any net zero actions must integrate climate justice, including supporting and empowering women.

By the end of the decade, $1 trillion of annual investment into the energy transition will be needed in developing economies to achieve net zero, with $3—$5 trillion needed annually to meet the Sustainable Development Goals by 2030, the IEA estimates. As the latest IEA World Energy Outlook points out, "shortfalls in clean energy investment are largest in emerging and developing economies, a worrying signal given their rapid projected growth in demand for energy services. If China is excluded, then the amount being invested in clean energy each year in emerging and developing economies has remained flat since the Paris Agreement was concluded in 2015."

The scale of the challenge clearly requires doing things differently— a new financial architecture is needed to address this challenge. Alongside the finance commitments of developed country governments, which must be met and expanded, financial institutions and multinational corporations have an important role in closing the financing gap in developing countries. These should help to create effective incentives and stronger partnerships with governments, Multilateral Development Banks (MDBs) and Development Finance Institutions (DFIs) that will need to better use the resources and tools at their disposal. The investors at the forefront of unlocking this enormous clean investment opportunity will be positioned to help build new economies of prosperity and growth.

The very high cost of capital represents one of the biggest challenges to deploying renewable energy in the developing world at scale. In fact, the cost can be as much as seven times higher in the developing world than in the developed world. Investments in renewables require large amounts of upfront capital, sometimes as much as 80% of the total investment. Keeping the cost of debt and equity for renewables low, especially for emerging and developing countries, will be essential for accelerating the energy transition.

Finally, we need to urgently address risk perception around finance for renewables in the developing world. High-risk perceptions mean higher premiums, and this increases the cost of capital for renewable energy investments in developing countries. This, in turn, delays the transition of energy systems. Breaking this cycle is an absolute priority.

The time for action is now. The collateral damage from an unjust transition poses significant risk to the ability of society to transition and adapt, and therefore to prosper, in a low emissions society in the latter part of this century.

Idaho's firefighters assist with Australian bushfires. Tambo Complex, Victoria, Australia

Credit: BLM Idaho

Main Recommendation

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.

Detailed Recommendations

- Financial institutions and multinational corporations should participate in developing country-led initiatives to decarbonise and provide renewable energy access, such as Just Energy Transition Partnerships (JETPs) or other country-level just transition frameworks. Sustained investment in the capacity of developing country governments and local developers to prepare projects is key to unlocking this pipeline.
- All businesses, including state-owned enterprises, with operations in developing countries should demonstrate how their net zero transition plans contribute to the economic development of regions where they are operating, including integrating just transition elements (e.g. skills development for vulnerable communities dependent on high-emitting industries), resilience and other developmental concerns, such as inequality, gender and energy access issues.

Governments:

- Developed country governments must meet and increase their finance commitments of $100 billion per year to developing countries' climate actions. Further to this, they should direct Multilateral Development Banks and other Development Finance Institutions to overhaul their business models, take more risk and expand lending and de-risking in order to scale investments to support renewable energy-based, climate resilient economies. They should do this by:

    - engaging in, and substantially scaling up, activities that help de-risk private investment (e.g. via first-loss, guarantees, concessionary capital, insurance schemes to protect against foreign exchange risk and cash flow constraints on real value realisation, and the use of blended finance as long-term subordinated debt to crowd-in commercial senior debt). Reforms to align mandates with net zero and pooling of resources, as well as to address risk-taking and risk appetite should also be actively considered;

    - forging knowledge sharing partnerships with the private sector such as opening up access to GEMs statistics (Global Emerging Markets Risk Database Consortium), for example, would allow private investors to express interest early on in specific projects being screened;

    - playing a much greater role in an advisory capacity to developing countries to engage with the private sector through their extensive network of field offices as they seek to enter unfamiliar markets;

    - setting ambitious volume targets for investment in renewable energy infrastructure. Plus, increasing tolerance for risk by adjusting their capital guidelines, capital adequacy policies and rules to enable an increase in lending and reasonable risk. Also by publishing their plans to phase out direct and indirect support for fossil fuels while retrofitting their investment portfolios towards renewables;

    - substantially increasing the quality and quantity of adaptation finance. Adaptation, resilience, and vulnerability must be at the heart of their operations and all their investments should be climate-proof;

    - substantially increasing their lending and public finance.

- All governments have a dual role in articulating a clear vision of the transition to net zero emissions, as well as outlining policies for near-term deployment of clean technologies and infrastructure in line with NDCs. Furthermore:

    - considering their norm-setting role in the establishment of environmental and social safeguards, Multilateral Development Banks should also start to expect that their counterparties, including investors, banks and businesses, have their own net zero transition plans in place as a precondition to securing Multilateral Development Bank support.

Cities and regions:

- Funding the transition is a key issue for cities and regions. Greater technical assistance is needed to enable cities to: (i) compete for domestic and international funds, (ii) structure infrastructure decarbonisation projects to be attractive to private finance either through green bonds or direct third-party investment, and (iii) utilise funding equitably for residents by facilitating just transition mechanisms at a local level (e.g. engaging with stakeholders, skills development, employment pathways, guaranteeing access to green jobs, etc.).

- Development banks must establish dedicated urban climate funds that city governments can access to develop projects and leverage private investment, particularly for Global South cities.

RECOMMENDATION 10

Accelerating the Road to Regulation

The Challenge and the Opportunity

Voluntary efforts by non-state actors and standardisation bodies are playing an important role by fostering best practices and forging leadership coalitions that build support for an accelerated transition to net zero. But voluntary commitments can only take us so far. Two-thirds of the largest listed businesses still lack a net zero pledge, and of the one-third that do, only a portion have committed to an independent voluntary initiative. The majority of privately-listed businesses and state-owned enterprises have no net zero target at all.

Regulation is therefore needed to level the playing field and transform the groundswell of voluntary commitments into ground rules for the economy overall. Promisingly, regulation around net zero is growing quickly in areas like claims, transition plans, procurement, product standards and disclosure. Jurisdictions that are phasing in at least some degree of mandatory sustainability reporting account for nearly half of world GDP.

net zero regulations can bring enormous benefits by establishing clear, enforceable standards that apply to all, limiting potential for greenwashing and removing the risk that laggards will take market share from leaders. net zero regulations also create new markets by driving innovation, and represent a significant opportunity for governments to accelerate implementation of their commitments under the Paris Agreement.

To avoid fragmentation that can slow the transition and ensure a level playing field, regulators need to work together across borders. A number of regulatory changes are already creating firm rules around net zero in large markets. For example, disclosure requirements exist or are phasing in across the EU, the UK, Japan, China, South Africa, Kenya and India, and are proposed in the US. However, there is emerging fragmentation and dissonance between often competing regulations.

To harness the power of markets to reward low-emission investments, business practices and consumer choices, consistent and comparable information is required to ensure the assumption of “complete information” and “informed decision-makers” is upheld.

Main Recommendations

- In order to ensure rigour, consistency and competitiveness, 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.
- The challenge of fragmented regulatory regimes should be tackled by launching a new Task Force on net zero Regulation that convenes a community of international regulators and experts to work together towards net zero.

Detailed Recommendations

- To help governments enact appropriate regulation, multiple actors need to play complementary roles: voluntary standards and initiatives must continue to mobilise leaders and experiment with best practices to advance ambition (Climate Action 100+ and SBTi, 2022). Leadership campaigns like Race to Zero and sector alliances like the Glasgow Financial Alliance for net zero (GFANZ) must reinforce high-quality voluntary efforts and consolidate best practices into general norms. International standards must continue to draw on these norms to lay out broadly agreed ground rules for mass adoption, particularly across borders (e.g. International Sustainability Standards Board (ISSB), ISO), while also drawing on third-party verification to ensure integrity. Efforts to publicly track corporate climate action in the interim should continue (net zero Tracker, Transition Pathway Initiative). All of these tools make it easier for governments to adopt rigorous regulations around net zero.

- While ambitious actions from this ecosystem of players is important, it is critical that governments make good on their own net zero commitments. To maximise this opportunity, governments should also create the requisite enabling environment to support such regulations, including the development of relevant sector emission reduction pathways, assurance standards for net zero verifiers and reporting systems. The policy mix of governments to support net zero should include a full range of fiscal, market and regulatory mechanisms including, as appropriate, the use of carbon pricing and non-pricing mechanisms and incentives, while providing targeted support to the poorest and most vulnerable, and in line with national circumstances.

- Cities have regulatory and procurement powers themselves (e.g. building codes, land use and land-use planning) and should incorporate new regulations that reduce emissions into climate action plans.

- Cities and regions should disclose and proactively engage with higher levels of governments for the policies, regulations and support for data and resources that will enable them to increase ambition and meet net zero. Governments can better deliver on national net zero commitments by empowering cities and regions with the resources and capacity to implement down to the local level, setting regulation and incentives to support and require businesses and others to deliver their net zero commitments.

Conclusion and Pathways to Action

The recommendations provided in this report are the result of many months of consultations with experts across a wide range of sectors and geographies. As we discussed and explored the different priority areas for high-quality net zero pledges and plans, it became clear that there are many efforts already underway to create or update standards, initiatives, regulatory frameworks and policies that can incorporate these recommendations.

We have therefore identified a range of potential pathways to action for regulators, initiatives and standard setters as a series of critical next steps to deliver on this work. We believe that these bodies, as well as many others, can steer non-state actors to deliver with rigour, transparency and fairness on their net zero pledges.

Pathways to Action

- Non-state actors should review their net zero commitments against these recommendations to see how they stack up with a focus on their interim targets, how they set targets and how they report progress.

- Existing alliances of non-state actors should support their members in these reviews by updating their guidance and membership requirements in line with these recommendations as soon as possible.

- Non-state actors should build support to small- and medium-sized enterprises (SMEs) and micro enterprises in their efforts to decarbonise and green their businesses. Small businesses are a key part of the economic fabric in most countries and are especially present in industries vital for the transition. They provide key services, livelihoods and employment opportunities: globally, they represent about 90% of businesses and more than 50% of employment (and even higher in developing countries). As they are part of bigger entities' value chains— and contribute to scope 3 emissions —they are crucial to meeting net zero objectives. Under pressure to transition themselves, in order to retain customers and access finance, small and micro businesses will need help from bigger entities with data collection, capacity building, and creating and sharing needed technology.

  While support is needed across the board, SMEs and micro enterprises in developing countries find it particularly difficult to access the necessary finance and technology to transition. Initiatives such as the SME Climate Hub— founded by the We Mean Business coalition, Exponential Roadmap Initiative, the International Chamber of Commerce and the Race to Zero Campaign —have started doing this. But we need to ramp up efforts to reach the necessary scale to make a difference where it matters most.

- The net zero Financial Service Providers Alliance, as part of their effort to "align all relevant services and products to achieve net zero" should add a ninth commitment to support SMEs, and other non-state actors in developing countries with limited resources, to develop high-quality data and have their net zero pledges and transition plans verified.

- It is widely recognised that there is a need to provide assurance on emission reductions reporting for net zero pledges. It is also needed on non-state actors net zero claims and reporting with regards to their pledges and annual progress reporting. The accuracy of such information is currently difficult to assess for most stakeholders including investors and financial institutions. We call for an assessment of the extent to which the ISAE 3000 (Revised) in Sustainability Assurance, and ISAE 3410 for Greenhouse gas statements are fit for providing assurance on net zero pledges and annual progress reporting.

- Policymakers and regulators should integrate these recommendations in key existing policies that guide non-state actors working on net zero. This will make the minimum requirements clearer and more transparent.

- There is a need for a Task Force on net zero Regulation to convene a community of international regulators covering all industries to work together towards net zero. Using the TCFD process as a useful precedent, this community would be broader, and could include members from all regions and bodies such as the FSB, IOSCO, ISSB and other experts.

Building on existing comprehensive frameworks for net zero transition plans, the aim of the Task Force would be to:

- connect policymakers and regulators both across borders and across regulatory domains to identify and address major challenges holding back climate-positive regulation, and

- help policymakers and regulators complement voluntary climate action with clear rules that are both nationally appropriate and internationally consistent.

We recognise that there are different approaches to regulation across jurisdictions. In this context, we believe that an international Task Force on net zero Regulation could explore how our recommendations could be turned into regulatory requirements and the steps required in the different jurisdictions to have them adopted.

ANNEX I

Terms of Reference for the High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities

Background

Since the adoption of the Paris Agreement in 2015, the world has seen an increasing number of net zero commitments and pledges by non-state actors, in particular from the private and financial sectors, as well as from local government and regions.

The growth in pledges has been accompanied by a proliferation of criteria and benchmarks to set net-zero commitments with varying levels of robustness. There is now a perceived lack of clear, transparent, and generally accepted sets of standards and criteria for the development, measurement, assessment, and accountability of non-State net zero pledges and their associated implementation. This perception risks undermining the commitments and actions of stakeholders who are serious in delivering on their pledges upon joining the global coalition for net zero called for by the Secretary-General; and it enables greenwashing, announcements that lack concrete decarbonization plans, undue reliance on the use of offsets and potential unrealistic dependence on removals (in lieu of concrete mitigation action) to reduce absolute emissions which is the priority this decade.

To ensure that net zero emissions commitments and implementation are aligned with the goal of keeping global temperature rise to 1.5°C goal and credibly contribute their fair share to urgently cutting emissions in this decade to achieve a decline of 45% from 2010 levels by 2030, the UN Secretary-General is proposing to convene a High-Level Expert Group on the net zero Emissions Commitments of Non- State Entities (HLEG) to help ensure credibility and accountability of net zero pledges.

Objectives

Building on existing initiatives and work around transparency and credibility of standards and criteria for net zero commitments, best available science, emerging digital monitoring evaluation and verification capabilities and scenarios for achieving net zero aligned with the 1.5°C goal, the HLEG will develop recommendations on:

- Current standards and definitions for setting net zero targets by non-State actors and, if necessary, on additional elements to enhance these to achieve the highest possible integrity of standards for net zero targets.

- Credibility criteria used to assess the stated objectives, measurement and reporting of net zero pledges by non-State actors.

- Processes for the international community to verify and account in a transparent manner non- State actors' progress towards meeting their net zero commitments and the fulfilment of their reported decarbonization plans, including any reliance on carbon dioxide removal and offsets. These processes for reporting will also consider to the extent possible methodologies to assess the aggregate impact and comparability of non-State actor efforts including to potentially serve as an input into the United Nations Framework Convention on Climate Change's stocktake of international climate efforts in 2023 and beyond; and

- A roadmap to translate these standards and criteria into international and national level regulations, in the context of a just transition.

ANNEX II

High-Level Expert Group process

The High-Level Expert Group on the net zero emissions commitments of non-state entities was established by United Nations Secretary-General António Guterres on 31st March 2022. Based on the vision set forth for the Group, as captured in the Terms of Reference, experts recognised the importance of ensuring credibility and environmental integrity in the forthcoming recommendations to address current gaps in the net zero space and to provide guidance on robust accountability of implementation, with a view to accelerate decarbonisation by businesses, investors, cities, and regions. Supported by the dedicated Technical Secretariat, the Expert Group agreed on a work plan, code of conduct, timeline and modalities of work, in order to submit their recommendations to the Secretary-General ahead of the UN Climate Conference (COP27) in Sharm el-Sheikh, Egypt.

The work plan entailed a two-phase approach. Phase one focused on mapping and analysing the net zero landscape and phase two was devoted to drafting the recommendations to develop stronger and clearer standards for net zero commitments. The group held monthly meetings starting in April 2022. Two of these, in June and September, were held in person, in New York. During the second in-person meeting, the Expert Group met with the Secretary-General to brief him on the state of play in implementing the work plan and key priorities identified by the group for the recommendations. He provided further guidance to the Expert Group and encouraged the experts to aim for the highest ambition, to ensure credible climate action by non-state entities and accountability for those committed to reach net zero by 2050.

The Expert Group recognised transparency and inclusiveness as critical elements in ensuring the success of its work. In line with this, the Expert Group agreed on a robust outreach and engagement plan. Regular updates on the work of the Expert Group were provided through the dedicated website. The experts consulted and proactively engaged a broad variety of actors.

Convenings were done in various formats. These included fourteen closed door meetings with key net zero initiatives and stakeholders; two global public sessions and a business and finance stakeholder roundtable, convened in partnership with the UN Foundation; two briefings to member states to the United Nations; forty-three regional and thematic consultations, engaging over five hundred organisations; as well as bilateral meetings and discussions held in smaller groups by the Chair and members of the Expert Group.

Recognising the opportunity to gather inputs from a broader range of actors in the net zero space, including the public, the Expert Group called for submissions through a website portal. Over a two-month period, 296 submissions from 167 organisations, initiatives and individuals were received; they will be published on the website on the day of the public launch of the report, alongside a list of stakeholders that were engaged in the process.

ANNEX III

Timeline of Meetings and Consultations

31 March	Launch of the Expert Group
27 April	First meeting of the Expert Group
11 May	Consultation: Science Based Targets initiative (SBTi)
18 May	Consultation: Just Transition Centre, Energy for IndustryAll Global Union, International Trade Union Confederation
25 May	Expert Group Monthly meeting
25 May	Consultation: Foundations, represented by Climate Works (Climate Works, European Climate Foundation, Bloomberg Philanthropies, Children's Investment Fund Foundation)
1 June	Consultation: Under2 Coalition
8-9 June	Monthly Expert Group meeting (in-person, in New York)
8 June	Consultation: High-level Champions, Race to Zero
8 June	Consultation: Glasgow Financial Alliance for net zero (GFANZ)
8 June	Consultation: Civil Society Group 350.org, Action Aid, Greenpeace, Oxfam; represented by 350.org, Greenpeace and Oxfam
9 June	Briefing: United Nations Member States (in-person, New York)
15 June	Consultation: C40
22 June	Consultation: Representatives of The Platform for Indigenous Peoples
29 June	Briefing to the public: Global Public session, Call for Written Submissions (virtual, co-hosted with UN Foundation)

29 June — 31 Aug	Portal for written submissions
1 July — 30 Sept	Regional consultations by Expert Group members
6 July	Consultation: Organisation for Economic Co-operation and Development (OECD)
13 July	Expert Group Monthly meeting
20 July	Consultation: Voluntary Carbon Markets Integrity Initiative (VCMI)
20 July	Consultation: Secretary-General's Youth Advisory Group
17 Aug	Expert Group Monthly meeting
17 Aug	Consultation: UNFCCC, Global Action Portal
24 Aug	Consultation: UNEP-FI
29 Aug	Consultation: Business and Finance Stakeholder Roundtable (webinar)
12-13 Sept	Expert Group Monthly meeting (in-person, in New York)
13 Sept	Briefing: the United Nations Secretary-General
11 Oct	Briefing to the public: Global Public session, Stocktaking (virtual, co-hosted with UN Foundation)
12 Oct	Expert Group Monthly meeting
19 Oct	Consultation: United Nations Member States (virtual)
8 Nov	Hybrid launch event of the recommendations at COP27

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

United Nations' High-Level Expert Group
on the Net Zero Emissions Commitments
of Non-State Entities