

NET ZERO STOCKTAKE 2025

Assessing the status and trends of net zero target setting across countries, sub-national governments and companies.

September 2025

A report by:

NewClimate Institute, Oxford Net Zero, Energy & Climate Intelligence Unit and Data-Driven EnviroLab

Authors

Net Zero Tracker (Oxford Net Zero, Energy and Climate Intelligence Unit, Data-Driven EnviroLab and NewClimate Institute).

This report was prepared by: Saskia Straub, Sybrig Smit, Louise Bammel, John Lang, Takeshi Kuramochi, Helen Tatlow, Diego Cristobal Manya-Gutierrez, Frances Green, Thomas Hale, Angel Hsu, Denise Siu and Steve Smith.

The database update was led by Helen Tatlow and Diego Cristobal Manya-Gutierrez.

Suggested citation

Net Zero Tracker (2025) Net Zero Stocktake 2025: NewClimate Institute, Oxford Net Zero, Energy and Climate Intelligence Unit, and Data-Driven EnviroLab.

Disclaimer

The views and assumptions expressed in this report represent the views of the authors and not necessarily those of our funders.

Download

Download the report at <https://zerotracker.net/analysis/net-zero-stocktake-2025>

Executive summary

To have a realistic chance of limiting global average temperature increase to 1.5°C with no or limited overshoot, the world must reach net zero carbon dioxide (CO₂) emissions in the early 2050s, alongside rapid, deep, and sustained reductions in other greenhouse gas (GHG) emissions. All GHG emissions should reach net zero about two decades later. Yet net zero — the only solution to halting human-caused climate change — has entered a more contested phase. Ten years after 195 nations signed the Paris Agreement, it has become a political battleground, most visibly in the US.

Still, the global signal endures in the lead up to the COP30 in Belém: **net zero targets continue to spread, and standards are tightening**. Progress on national targets is especially critical in 2025, as countries submit new or updated NDCs for 2035 (NDC 3.0) in line with the 2015 Paris Agreement's 'ratchet mechanism'.

This report assesses whole-economy net zero target-setting and evaluates more than 4,000 entities on key elements of integrity — essentially, whether targets and strategies contain key components, such as plans and interim goals, needed for deep decarbonisation over the next few decades. This year, we also examine how net zero targets address the climate-nature nexus.

Key findings this year

Target-setting is still rising despite political headwinds. As of September 2025, at least **1,935 entities** tracked in the Net Zero Tracker database have such targets. While the pace of target-setting has slowed, commitments increased across all groups except for countries compared with last year.

- **Countries:** The US has stepped back, others have not. 137 of 198 national governments (incl. EU and Taiwan) have net zero targets. Coverage dipped compared with 2024 largely because the US formally abandoned its target; nonetheless, 67% of remaining targets are in law or formal policy.
- **Companies:** Of the publicly listed companies we track, 63% have targets, covering \$36.6 trillion of annual revenue — 70% of total Global Forbes 2000 revenue. The absolute number of **US-headquartered companies with net zero targets grew from 279 to 304**. In Japan and the UK, coverage is near-universal. Target-setting continues apace in Asia, notably in China, India, Japan, South Korea, Taiwan and Thailand.
- **Subnationals:** Ambition among the states and regions we track is expanding, but unevenly. Regional targets now cover 2.55 billion people — a five-fold increase since 2020 — reaching 62% of the G7 and 55% of the G20.
- **Target-setting gaps:** More than 50 countries, most of them lower-income, still have not expressed a public intention to achieve net zero, alongside nearly half of the 3,885 subnational governments and companies. Among companies, more than 400 of the world's largest publicly listed companies remain without any mitigation targets — concentrated in the US (30%) and China (42%). More than half of the 100 private companies we track still do not have a net zero target.
- **Target integrity:** The number of entities with net zero targets that meet **minimum procedural and substantive requirements** remain stubbornly low, though edging up among companies. Shares meeting our 'starting line' requirements are just 7% of companies (90/1,245), 6.5% of regions (14/216) and 4% of cities (13/337). Companies improved slightly on last year (+2%), but progress is slow.
- **Nature and companies:** Many companies are turning to nature-based solutions, but transparency and integrity remain limited. For example, more than a quarter plan to use removals, yet only 4% have set dedicated removal targets, raising concerns about over-reliance on land-based approaches. Among companies planning to buy carbon removals, almost one-third of companies rely exclusively on nature-based approaches.

At its core, the Net Zero Tracker evaluates the global scale of net zero target-setting, focusing on large emitters to assess the credibility of their commitments. This is our fifth annual 'Stocktake' analysis. Earlier reports provide valuable benchmarks to gauge progress over time, both in terms of setting net zero targets (intent) and implementing credible measures to help achieve them (integrity). Key procedural and substantive integrity measures include, for example, the establishment of near-term interim targets to spur immediate emission cuts, transparency on the use of carbon credits, coverage of all emissions, and regular progress reporting.

Of the 198 countries, 712 regions, 1,186 cities and 1,987 publicly listed companies we track, at least **1,935 have set net zero targets (or similar)**, up from 769 in December 2020:

- **137 countries** including the EU and Taiwan, up from 124 in December 2020
- **216 states and regions**, up from 73
- **337 cities**, up from 115
- **1,245 publicly listed companies** from the Forbes Global 2000, up from 417.

Nature and carbon removals: the next test of integrity

Net zero cannot be delivered without protecting and restoring nature, but company climate commitments remain weak in this respect. Working with insights from the *Nature/Climate - Cooperative Initiatives Database (N/C-CID)* developed by the Radboud University Nijmegen, we find that many of the world's largest companies participate in nature-focused initiatives, yet their net zero plans often depend on poorly defined removals or offsets. This lack of clarity blurs the line between decarbonisation and *attempted* compensation, while over-reliance on land-based removals exposes companies to risks of reversal and could undermine long-term global net zero. That said, corporate finance is a critical lever for scaling up conservation and restoration. The challenge ahead is to ensure that nature-based action and removals complement, not substitute for, rapid and direct decarbonisation.

Buoyancy amidst backlash

The growth of net zero targets in 2025, despite political pushback and economic headwinds, underscores the appetite for tackling climate change across society. Rollbacks remain the exception, and most countries, companies and regions continue to pursue net zero because it offers a safer, more secure and more prosperous future. The task ahead is to ensure that targets, plans and standards are robust enough to withstand political cycles and deliver deep decarbonisation through both progress and setbacks.

Meanwhile, new and converging standards are strengthening comparability and enforceability. The forthcoming ISO Net Zero Standard, the Science Based Target initiative's (SBTi) corporate standard V2 and recent EU climate-related directives should help shrink the 'grey zone' of vague commitments, steering net zero strategies towards greater credibility and accountability.

By COP30 in Belém later this year, longer-term country-level net zero targets should be paired with nearer-term emission goals to 2035 (NDC 3.0). Net zero is both a marathon and a sprint — it is cumulative emissions that will ultimately determine global peak temperature.

The resilience of net zero targets in the face of political challenges offers a timely signal that nearer-term climate action by governments should not be sacrificed at the altar of competing priorities. Net zero is no longer in its infancy and nor is it secure in its maturity. The next phase demands more than regulatory alignment and voluntary ambition: it requires deeper coordination across all levels of governance, standards embedded in law, and delivery mechanisms resilient enough to endure increasingly turbulent politics and growing competition for public funds.

Table of Contents

Executive summary	3
Acknowledgements	6
1. Setting the scene in a time of backlash and buoyancy	9
2. Summary of data and methods	13
2.1 — Net Zero Tracker data	13
2.2 — Cooperative Initiatives Database on nature and climate (N/C-CID)	14
3. NZT database analysis: Key updates and findings	15
3.1 — Net zero target-setting increased despite political challenges	15
3.2 — National governments: US retreats, others push ahead	17
3.3 — Subnational governments: stable providers of bottom-up ambition and on-the-ground implementation	19
3.4 — Companies: Despite backtracking in some geographies and sectors, commitment remains strong elsewhere	23
3.5 — Corporate net zero planning is maturing	25
3.6 — Net zero robustness and implementation remain a challenge	28
4. Net zero targets and nature-based solutions across companies	32
4.1 — The urgent need for nature protection in light of climate change	32
4.2 — Leveraging international bodies, governments and companies for nature and biodiversity	32
4.3 — Companies are increasingly focusing on nature, but their climate targets need improvement	34
4.4 — Common climate challenges for private sector engagement in nature	35
5. The path forward	38
References	39
Appendix I	46
A1. All entities without mitigation targets	46
A2. Race to Zero members' performance	69

Acknowledgements

The Net Zero Tracker project is supported by the European Climate Foundation and the IKEA Foundation. NewClimate Institute received funding from the European Union's HORIZON EUROPE Research and Innovation Programme under Grant Agreement No. 101137625 (ACHIEVE).

We thank Silke Mooldijk (NewClimate Institute) for providing constructive feedback on an earlier draft and Sarah Richman (NewClimate Institute) for great support of the project early 2025. Thank you to John Bervin Galang and Camilla Hyslop (University of Oxford), who provided invaluable help managing data collection and validation.

Section 4 of this report was supported by the Nature/Climate -Cooperative Initiatives Database (N/C-CID) developed by the Radboud University Nijmegen (<https://globaldatalab.org/c-cid/>); we thank Sander Chan, Paul Hagenström and Sebastian Reyes de la Lanza for kindly sharing the dataset.

This analysis would not have been possible without the efforts of hundreds of volunteers. For this report, we thank:

Barbara Achimike, Lillian Adamo, Marvellous Oluwarotimi Adewoyin, Iman Safiya Mohd Adrian, Adrian Ahloy, Shah Maruf Uddin Ahmad, Farhan Ahmed IA, DaEun Ahn, Mariya Aibassova, Andrews Aibi Junior, Afraa Aijaz, Zainab Opeyemi Ajiboye, Akshay Ajjee, Chiagoziem Anthony Alaribe, Maria Alexander Chundamannil, Marchel Alexandrovich, Hasmi Al Kabir Zarif, Anoushka Amar, Excel Amaefule, Freda Amakiri, Vivian Amadi-Emina, Amna K A, Harshavardhan Vijay Anand, Sonia Anand, Aadya Anjali, Sarah Anwar, Alexander Appadurai, Azashta Aqeel, Muntaha Aqeel, Jonathan Benya Arkorful, Mishika Kaur Arora, Bem Asen, David Astop-Ford, Astitwa R, Luis Xavier Avalos Bozo, Dairo Stephen Ayomide, Lakshmi Babu, Imane El Bachar, Mayara Baffa, Teresa Marie Bajaj, Evelin Balboa, Joseph Ban, Israel Bankole, Katyuska Lucia Barja Paredes, Dr Alishba Batool, Daniel Benavides, Luca Bernasconi, Sonia Beslika, Beatrice Bevilacqua, Harsh Bhageria, Lokesh Kamlakar Bhalerao, Balhaar Bhamra, Vanshika Bhatnagar, Sai Arun Dharmik Bhoga, Saipran Dharmik Bhoga, Mani Bhushan Kumar Jha, Mahak Bisen, Grace Bishopp, Mirren Black, Mark Luke Bomani Vagner, Ruby Borg, Martina Bortolan, Kina Bramlette, Scott Brice, Noah Britten, Jenny Brooks, Lili Dora Brown, Sophie Brown, Zili Duniya Bungwon, Sam Burslem, Lucy Burton, Gabriel Cairns, Ylinda Viktoria Callosa Serrano, Zoe Campbell, Flávia Canastra, William Capps, Stuart Cassidy, Malou Celander, Atish Chachapra, Brundha Nallan Chakravarti, Mitaly Chakraborty, Poorna Chakravarty, Anson Chan, Wallace Chan, Eileen Chang, Ellen Chappell, Léa Charbonnier, Derik Charles, Kathryn E Chao, Shashank Chauhan, Wei Hannah Chen, Renuka Chhetri, Tino Chikwanha, Margaret Chilinda, Moses Chitonya, Ancel Chong, Sierra Christodoulou, Melina Clapham, Alex Collin, Lucie Colonna, Maeve Collins-Tobin, Camilo Cornejo, John Cort, Safiya Cummings, Kristin D'Agostino, Luna Dantas, Ricardo Dantas, Joy Dasgupta, Haroon Datay, Chris Todd-Davies, Bassel Deghady, Müjdat Deniz, Varshith Devana, Ainesh Dey, Jui Dicholkar, Marco Zaccaria Di Fraia, Lizzie Dobbin, Iuliia Dugina, Alexander Dunn, Ishan Dwivedi, Johann Eickenbrock, Arvid Ehlert, Eloise Elkington, Omnia Elmoazen, Eman Mohamed Mounier ElSayed, Christophe Etienne, Rim Ettahiri, Zara Elizabeth Ann Evans, Edward Fairhurst, Namra Fatima, Hasina Fetiarison, Riya Florenson Fernandez, Elena Fillola Mayoral, Cormac Forlot, Luiza Fresina Rocha, Francesca M F, Marios F, John Bervin Galang, Jeremy Galsim, Apoorva Garg, Rishika Garg, Adwait Gawande, Olivia Geddes, Edward Giles, Julie Gloannec, Alana Goh, Priya R. Gokoel, Snigdha Goel, Jhalak Ashok Golani, Julian Gonzales, Hope Gondwe, Ceren Görgüner, Eva Gösweiner, Válder Gouveia, Moch Risqi Graha, Robyn Graber, Elliot Grey Taylor, Rishiparna Guha, Reagan Sierra Gullede, Hariaksha Gunda, Prasanna Gundawade, Joshua Gunton, Salma Hamed, Saman Hameed, Lucy Harlow, Esraa Hassan, Hajar Hassina, Robert Hattaway, Julia Hayford, Rivaldo Hermawan, Lilian Hickey, Matthew Hinton, Isha Hiremath, Thin Pa Pa Hlaing, Sally Hobson, Frances Housdon, Cheng-Ju Hsu, Andy Hu, Alyssa Hua, Franka Huhn, Feng Huang, Camilla Hyslop, Kawu Musa Idris-Idah, Emmanuel Inyang, Natalie Ip, Riaz Islam, Muhammad Muddassir Ismail, Oluwaseyi Moses Isola, Aditya Karmakar, Hannah Janknecht, Peijin Jiang, Jubeena Judi Joe, Cheena Joshi, Sawyer Junger, Japnit K, Kiran K, Joe B. Kamara, Nadya Kamenkovich, Kruti Kamdar, Sharada Kannan, Shreya Kapoor, Kristine Karklina-Kolpakova, Hannah Talinda Kasule, Ayush Katiyar, Manmeet Kaur, Jasmine Keung, Paul Kerr, Azma Khan, Nehal Khan, Shoaib Khan, Ibrahim Khansa, Smruti

Kharat, Aditya Khasnis, Jenny Kim, Yesle Kim, Eli King, Frauke König, Gerselle Koh, Noora Koetje, Era Kraja, Kripa Shah, Kartik Krishna Moorthy, Roshni R Krishnan, Neelam Kumari, Kumari Prachi, Hayley Kunde, Arun Kurakuri, May Thu Kyaw, Tom Kyle, Alvin Lam Chun Yu, Agustin Dominic Laplana Escaño, Yuin Law, Noelle Law, Cara Lee, Megan Lee, Minyoung Lee, Julia Leino, Michelle LeMeur, Hantao Liu, Lennox Lon, Maisie Lown, Yoko Lu, Migena Luli, Natasha Lutz, Pakting Ma, Namitha Madhukumar, Arpit Maheshwari, Falguni Maheshwari, Jayashree Mahato, Shalini Mahindra, Lucy Main, Mansi Malhotra, Kalyani Mallepally, Juan Pablo Mamani, Anbumathi Manikandan, Parshad Maniar, Adam Marlow, Mario Marset, Evelyn Martin, Kakuhu Matondo, Mutoro Sifuma, Bright Mbuya, Sarah McAuley, Toby McConnell, Kate McKeough, Meli, Melanie Richards, Meghan Fitzpatrick, Izzy Miller, Stewart Mior, Htet Win Mo, Hugo Mocquard, Sanjay Mohandas, Connie Monson, Emanuele Moretti, Muhammad Abdul Basit, Garima Muwal, Mariam Mutunga, Myat Kaung Thant, Sauparnika Nair, Elizabeth Nam, Victoria Nanziri, Hans Näsman, Sumayya Nazar, Bertha Ndhlovu, Prakriti Negi, Anand Nelson, Courtney Ngai, Purity Njiru, Lawrence Niu, Pippa Noble, Lucy Nolan, Ewan A Norris, Danya Novak, Deborah Nyiransabimana, Leandro Obama Mbasogo, Obi Uchenna, Marvellous Oluwarotimi Ore-Adewole, Oghenechovwe Israel Okolosi, Daniel Olmos, Montaser Omar, Viola Omina, Ifeoma Onwurah, Izuchukwu Chukwudinma Onwurah, Wei Sern Ong, Pedro Paolo Ong, Emma Amma Opoku-Pare, Kolade Otokiti, Honey Owen, Alisson Pacheco Ramos, Prasadha Padmanabhan, Ana Palomares, Aida Pandeh, Sze Ann Pang, Evangelina Papanikolaki, Darshan Parashuramappa, Elisa Parodi, Rosa Parker, Sarah Parkinson, Delicia Pascall, Isha Dhaval Patel, Gaëlle Perrier, Sheriah Peries, Peter Nies, Mabel Piki, Pooza Verma, Ang Ya Hui Annabelle Pop, Ana Irina Pop, Mohit Porwal, Ellie Powell, Edward Price, Anja Pries, Adam Pritchard, Maria Puchalska, Qi Jin (Jane), Nusreek Rahman, Rainer R, Narindra Ralefomanana, Erandi Ranasinghe, Sefora Rangoanana, Deepthi Rao, Aileen Rashid, Yasmine Raslan, Oreena Raveendran, Hannah Redfern, James Roberts, Jennifer Rocard, Ronaldo Juniansyah, Rupert Scott, Ryan Thornburg, Alankrit Kaul Sahib, Abhishek K S, Akshata S, Charles Musabi, Zahida Sultanova, Caitlin Sarro, Soumili Santra, Sujay Sarkar, Anjana Sasi, Meg Savage, Simon Schölzel, Sophia Schubert, Sam Schulenburg, Silvia Scarafoni, Amita Singh, Mehak Singh, Catherine S, Hira Nissar, Insyirah Muzafar Shah, Sky Shah, Kawsar Mohammed Shirazul, Prabisha Shrestha, Gillian Eiko Shigeta, Kai Simpson, Anika Singh, Denise Siu, Brandon Smith, Sybrig Smit, Varsha Srivastava, Giovanni Stabile, Hope Stoney, Alexis V. Strang, Celine Su, Dharshini Sudarsankumar, Dawn Sullivan, Shawnn Tan, Elisa Telesca, Thanga Pathma, Nayah Thu, Kavya Tripathi, Charles Tungwarara, Nami Turner, Farhan ullah, Ibrahim Usman, Usha Zihindula Victor, Hannah Valentien-Barnes, Anna van Wingerden, Irene van Schalkwyk, Leena van Surell, Rohini Varma, Quyet Trinh Vu, Nadine Walsh, Cynthia Wang, Grace Wang, Ben Walton, Chelsy Wee, Joanna Whiting, Kaitlin Willoughby, Katy Wilson, Anna Wera Wilms, Charlie Winborne, Janice Wong, Lai Men Wong, Fergal Wraith, Wenhao Wu, Yuning Zhou, Zibusiso D, Francesco Zambonin, Margaret Zou.

Abbreviations and acronyms

Acronym	Full Form / Description
CDR	Carbon dioxide removal(s)
CO ₂	Carbon dioxide
FLAG	Forest, land and agriculture sector
GHGs	Greenhouse gases
IEA	International Energy Agency
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
LULUCF	Land-use, land-use change and forestry
OECD	Organisation for Economic Co-operation and Development
RoW	Rest of the World
RtZ	Race to Zero led by the Climate High-Level Champions
SBTi	Science Based Targets initiative
UN	United Nations
UN Expert Group (HLEG)	United Nations' High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities
UNFCCC	United Nations Framework Convention on Climate Change

1. Setting the scene in a time of backlash and buoyancy

Net zero's evolution can be divided into four phases. Phase One (2009–2018) saw the solution to climate change — achieving a balance between human-caused greenhouse gas (GHG) emissions and human-enhanced removals — move from climate science into global climate policy. Phase Two (2018–2022) was defined by the Intergovernmental Panel on Climate Change's (IPCC) landmark *Special Report on Global Warming of 1.5°C* (de Coninck, Revi, Babiker, *et al.*, 2018) and the surge in net zero pledges by countries, companies, regions and financial institutions. Phase Three (2022–2024) marked the shift from pledges to plans, with global standards of best practice beginning to take shape.

We now enter Phase Four: the age of contested implementation. Ten years after 195 nations signed the Paris Agreement, net zero has become a political battleground, entangled in culture wars. As the scientific imperative grows ever louder (Forster *et al.*, 2025) the political debate gets hotter. Nowhere is this clearer than in the United States (US), where Republican lawmakers are dismantling climate science institutions, rolling back Biden-era clean industry investments, obstructing renewables deployment, and seeking to revoke the Environmental Protection Agency's authority to regulate GHGs. In Congress and in courtrooms, attacks on federal agencies, climate disclosure rules and ESG-aligned efforts are escalating.

Elsewhere, growing insecurity — from wars to the cost-of-living crisis — has led many governments to prioritise defence and fiscal stability over decarbonisation (Gayle, 2025). In the European Union (EU), the European Commission reaffirmed its proposed 2040 target of a 90% net emissions cut (European Commission, 2025a). Yet enforcement language has been softened and 'flexibilities' introduced, risking dilution of ambition. Key climate accountability laws — the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD) — have been weakened or delayed in the name of political compromise.

Amidst this climate of political contestation, several fossil fuel majors and financial entities are openly backtracking. BP, Shell and Equinor have weakened near-term emissions or clean energy targets (Bousso, 2024; Aljazeera, 2025; Reuters, 2025). A dozen North American banks — now joined by HSBC and Barclays — have exited the Net Zero Banking Alliance, set up in 2021 to help financial institutions align portfolios with net zero goals (Makortoff, 2025). Some oil majors, including Shell, have withdrawn from the expert advisory group of the Science-Based Targets initiative (SBTi), rejecting standards that rule out new fossil fuel exploration (Bryan, 2025). These developments signal a weakening of momentum in two key sectors. Crucially, however, they remain outliers.

Despite talk of a 'net zero recession', the data tell a different story. Momentum persists overall: most companies with climate targets are either staying the course or accelerating action.

This report shows that across all entity types, except countries, target-setting is still rising, consistent with other analyses. A 2025 review of CDP disclosures found that nearly 85% of firms had either maintained or strengthened targets, and two-thirds remained on track (PwC, 2025). An SBTi analysis likewise reported a 227% jump in the number of companies setting comprehensive climate targets (SBTi, 2025b). Some analysts suggest greenwashing is giving way to 'greenhushing', where companies quietly implement climate goals without fanfare (The Economist, 2025)¹. On the international stage, every G20 member except the US still has a net zero by mid-century target (Net Zero Tracker, 2025).

This contradictory landscape, where backlash and buoyancy coexist, makes our global stocktake more essential than ever. This year's Net Zero Stocktake surveys the global picture as usual, while also examining how companies' nature pledges intersect with climate ones.

¹ In 2024, NewClimate Institute research into a subsection of firms found no evidence of widespread 'greenhushing'; instead, companies were moving away from vague or unsubstantiated carbon neutrality claims toward clearer, more transparent emissions reduction targets. See <https://newclimate.org/news/greenhushing-an-emerging-trend-or-sign-of-less-greenwashing>

Net zero and nature are inseparable. Land provides the principal basis for human livelihoods and well-being including the supply of food, freshwater and multiple other ecosystem services, as well as biodiversity (IPCC, 2023). Forests, oceans and ecosystems both shield societies from climate impacts and act as massive carbon sinks, yet they are under threat from rising temperatures and over exploitation. Companies sit at the heart of this tension: their supply chains often drive deforestation, pollution and extraction, but their capital and innovation also make them pivotal to conservation and restoration efforts. Building on insights from the new *Nature/Climate – Cooperative Initiatives Database (N/C-CID)*, **Section 4** examines how corporate nature pledges intersect with climate targets.

We find growing momentum — with firms increasingly linking biodiversity and climate goals — but also risks. Four climate-nature pressure points help to illustrate how corporate engagement with nature can determine whether it undermines or enhances climate integrity: carbon offsets, biodiversity credits, nature-based carbon removals (CDR) and bioenergy. We explore all four.

From standards to substance

Recent governance developments strengthen the foundation for deeper progress. The Net Zero Standard for Financial Institutions, launched by the Science-Based Targets Initiative (SBTi)² in July 2025, brings long-awaited guidance to investors (SBTi, 2025a).³ The International Organization for Standardisation (ISO) is finalising a universal 'Net Zero Standard' to harmonise practice across countries and sectors (ISO, 2024). Meanwhile, climate disclosure regulation is globalising. The International Sustainability Standards Board (ISSB)'s baseline climate standards have now been adopted or are in the process of being introduced into the regulatory frameworks of 36 jurisdictions (IFRS, 2025). These frameworks are converging around core principles, reinforcing the recommendations outlined in the UN Secretary-General's 2022 report, *Integrity Matters: Net Zero commitments by Businesses, Financial Institutions, Cities and Regions* (UN HLEG, 2022). Together, they are pushing the once murky 'grey zone' of vague commitments toward a much clearer distinction between credible and non-credible commitments. These standards help raise the floor for non-state entity targets, enhance interoperability, reduce fragmentation in net zero governance, and provide regulators with the tools to hold companies to account.

Climate-related lawmaking continues its upward beat: Oxford's *Climate Policy Monitor* shows a steady rise in national climate regulation (Lecavalier *et al.*, 2025), further evidence of a net zero 'conveyor belt' in motion (Hale, 2021), even where political leadership wavers. And in a historic decision, the International Court of Justice (ICJ) has affirmed that climate inaction breaches fundamental human rights and countries have binding duties under international law to help limit heating to 1.5°C and protect all forms of life from climate harm (ICJ, 2025). It was the largest case ever seen by the 'World Court', evident by the 97 States that participated in oral proceedings. This ruling adds weight to a broader surge in climate litigation worldwide, as citizens, shareholders and civil society increasingly turn to the courts to hold governments and firms accountable (Setzer and Higham, 2025).

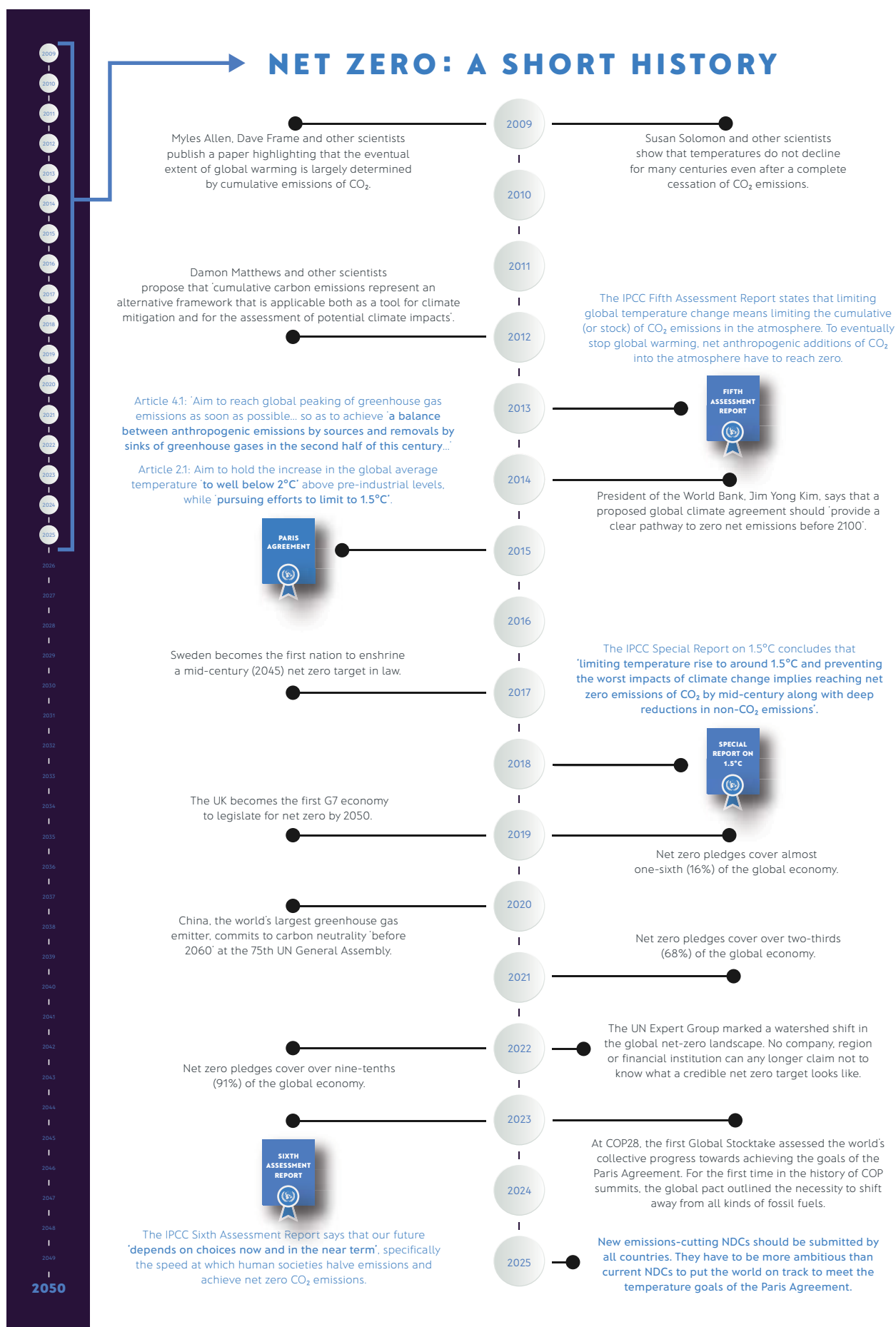
Looking ahead, COP30 in Belém, Brazil, will foreground two pillars central to credible net zero pathways: **nature** and **energy security**. These priorities matter as the next global 'ratchet' moment approaches. By COP30, all countries are expected to submit updated emissions-cutting Nationally Determined Contributions (NDCs) under the Paris Agreement. The potential for faster, deeper emissions cuts has never been greater. Clean energy deployment is accelerating: in 2025, global investment in clean energy is set to be double that in fossil fuels (IEA, 2025b), marking a decisive shift in market momentum. One-in-five cars sold worldwide is now electric, rising to one-in-two in China. Solar output has doubled in just three years, helping clean electricity

² SBTi has more than 11,000 member companies with targets or commitments (SBTi, 2025c)

³ In March 2025, the SBTi released a draft of its Corporate Net zero Standard Version 2.0 for public consultation. From 2027, companies will be expected to use V2.0, which aims to raise ambition and enhance usability, when setting new near- and long-term targets. For more, see <https://sciencebasedtargets.org/developing-the-net-zero-standard>

exceed 40% of global generation for the first time (Graham *et al.*, 2025). We are at, or very near, peak energy emissions (Alvik, 2024; Broadbent and Jones, 2024).

This progress should shape the next generation ('NDC 3.0') of climate pledges — more ambitious and more grounded in the growth of clean energy. Despite the global agreement at COP28 to triple renewable energy capacity by 2030, national targets have barely budged, increasing by just 2% over the two years since (Altieri and Jones, 2025). NDC 3.0 submissions should better reflect not just policy commitments and market trends, but also credible pathways for delivery, especially through sectoral strategies and subnational implementation plans. Without this clarity, neither short-term climate goals nor net zero by mid-century will remain within reach.



2 Summary of data and methods

2.1 Net Zero Tracker data

The Net Zero Tracker is the most comprehensive and up-to-date database of net zero commitments made by nations, states & regions, cities and major companies. It includes:

- all UNFCCC member states and a selected number of territories
- subnational states & regions in the 25 largest emitting countries
- all cities around the world with populations over 500,000
- publicly listed companies listed in the Forbes Global 2000 in 2020⁴
- 100 of the world's largest private companies.

It only uses information in the public domain, a decision taken in part to encourage entities to be open. Supplemented by automated web-scraping, manual data searching by volunteer analysts working in a range of languages allows the Tracker to gather and collate data on the status of net zero targets and robustness parameters across more than 4,000 entities. Parameters include the existence of **interim targets**, intentions regarding **offsetting**, the existence of **published plans**, and what the target covers in terms of **greenhouse gases** and **emission scopes**. There is a small degree of natural change and turnover in the entities in the database. For example, mergers and acquisitions sometimes change the mix at the company level. But these changes result in minor considerations.

Overall, our approach enables the Tracker not only to make snapshots in time, but to evaluate how the landscape is changing over time – in particular, whether entities are adding important robustness elements to their pledges, which in turn will increase confidence in delivery.

This report updates and expands the data and analysis presented in the *Net Zero Stocktake 2024* report (Net Zero Tracker, 2024). The data used for this report's analysis is drawn from the core Net Zero Tracker database, which is a 'living' data resource that is updated regularly (adapted from Hale *et al.*, 2022).

The data collection cut-off date for this report was 10 September 2025, but the underlying dataset on the Net Zero Tracker is continuously updated. The dataset used for this analysis is available on Zenodo (<https://zenodo.org/records/17143240>).

As with the previous reports, this analysis assesses the prevalence of targets and their robustness, but not implementation and progress. The information presented here, therefore, captures the first stages of the causal chain from targets to implementation to outcomes (Hale, 2021). More details about the data collection process and the assessment of the entities recorded in the Net Zero Tracker database can be found in **Appendix I**.

In previous Stocktakes, the Climate Ambition Alliance (CAA) was the main reference point for coding countries as having 'Net Zero (Proposed / In discussion)' targets (Climate Ambition Alliance, 2019). In 2025, we have begun moving away from using the CAA as the main basis for determining this category.

As 2025 is a ratchet year under the Paris Agreement, further Nationally Determined Contributions (NDCs) or long-term strategies (LTSs) may still be submitted or updated before COP30. These 2025 submissions provide an appropriate reference point for assessing whether CAA signatories genuinely remain committed to net zero-consistent pathways.

⁴ As well as those that entered the top 500 of the Forbes Global 2000 by 2025.

After COP30, the Net Zero Tracker team will review all CAA countries to clarify their status. For some existing CAA signatories, where we found UN climate policy submissions since 2019 — such as NDCs or LTSs — these have already been incorporated into our coding. Where no changes have been found, coding remains as in previous Stocktakes: an end target of 'Net zero', with end status 'Proposed / In discussion'.

2.2 Cooperative Initiatives Database on nature and climate (N/C-CID)

The Net Zero Stocktake 2025 includes a special focus on nature, with insights gathered in **Section 4**. Nature-related insights, particularly on carbon removals and offsetting were gathered from the Net Zero Tracker database (Net Zero Tracker, 2025). The analysis also includes insights from nature- and climate-related initiatives recorded in the Nature/Climate - Cooperative Initiatives Databases (N/C-CID) (Chan et al., 2025).

3 NZT database analysis: Key updates and findings

3.1 Net zero target-setting increased despite political challenges

Over the past five years, the number of net zero targets — or their equivalents — has continued to rise across different entity groups worldwide. As of September 2025, **1,935** of 4,083 entities tracked in the Net Zero Tracker database have such targets.^{5,6} While the pace of target-setting has slowed, commitments still increased across all groups except for countries in the past year (see [Figure 1](#)). Additions or removals of targets typically reflect either changes by the entity to its target status or enhanced data collection.⁷

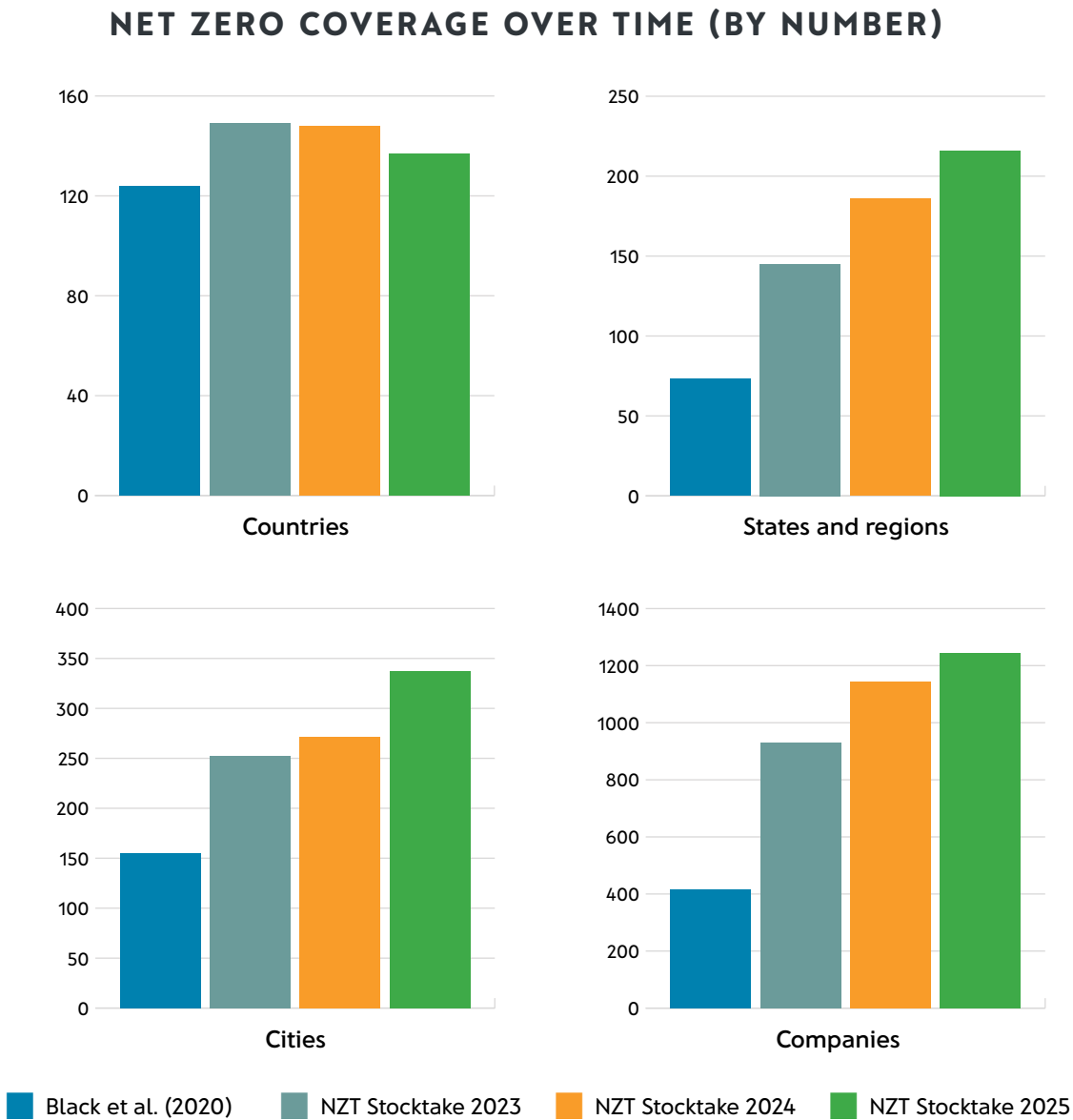


Figure 1: Number of net zero pledges by entity group in the Net Zero Tracker database, and growth since December 2020. Data for December 2020 from Black et al. (2021), June 2023 from Net Zero Tracker (2023) and June 2024 from Net Zero Tracker (2024) and July 2025 from Net Zero Tracker (2025).

5 Excludes 100 privately owned companies, for which ongoing, regular data updates were not conducted until 2025.

6 The following target names are considered in scope: net zero, zero emissions, zero carbon, climate neutral, climate positive, carbon neutral(ity), GHG neutral(ity), carbon negative, net negative.

7 Enhanced data collection included recruiting additional coding capacity and broader coverage of major non-English languages.

Entities without emissions targets – a persistent gap

While most large-emitting nations now have a net zero target — including 19 G20 members — around 50 countries do not. This shortfall is concentrated in lower-income economies, underscoring the responsibility of developed countries to both deliver on their own targets and support others in developing actionable plans.

Despite steady progress, nearly half of the 3,885 subnational governments and companies assessed still lack a public net zero target. Specifically, **1,548** have yet to signal support for either global net zero goals or outline how they will cut emissions at all. **All these entities are named in a table in Appendix I (A.1).** This gap underscores the need for these governments and companies to not only set clear climate ambitions but also take immediate steps toward delivery.

The number of regions and cities with climate mitigation targets has increased from 457 last year, to 553, however, 1,120 remain without any target. The **number of companies with a public net zero (or similar) target also increased from 1,144 in 2024 to 1,245 in 2025; however, 424 companies remain without any mitigation target.** Notably, a large share of these companies without targets is headquartered in two countries: 30% in the US and 42% in China.

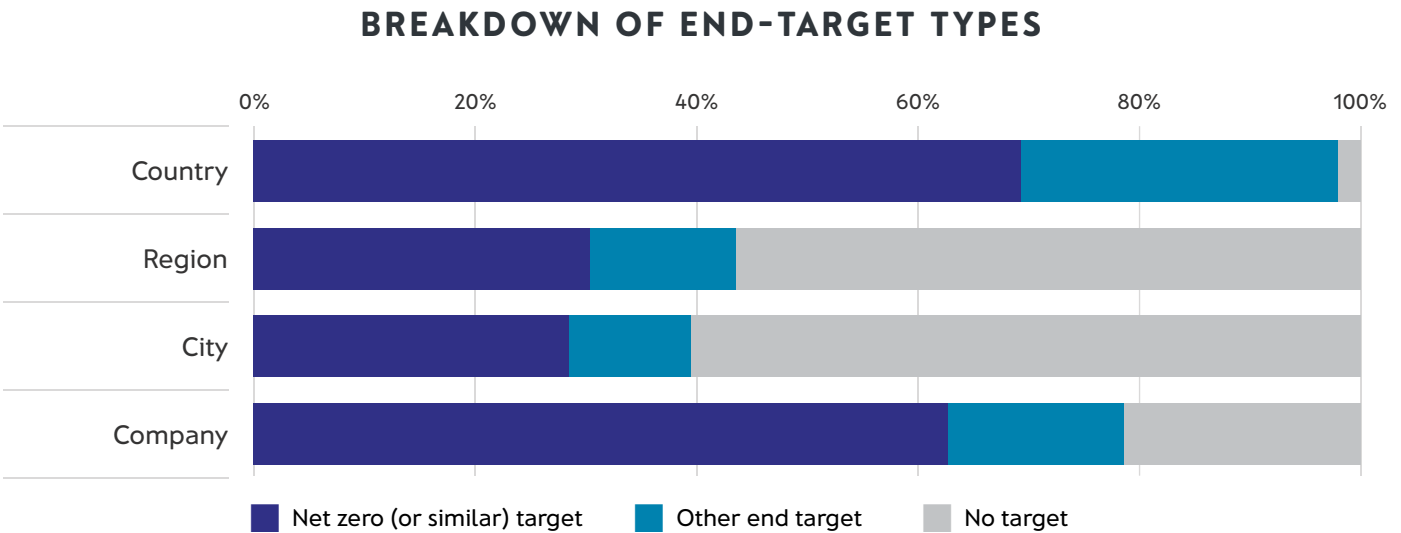


Figure 2: Breakdown of end-target types for countries, subnational states and regions, cities, and companies registered in the Net Zero Tracker database.

3.2 National governments: US retreats, others push ahead

As of 2025, **137** of the 198 national governments and self-governing territories (including the EU and Taiwan) have set net zero targets. Together, these commitments cover at least 74% of global GHG emissions, 77% of global GDP (PPP), and 79% of the world's population.

Net zero targets still cover the vast majority of global economic activity. But coverage has declined slightly since 2024, primarily due to the US' formal abandonment of its net zero target (The White House, 2025).⁸ Compared with 2024, emissions coverage is down by 13 percentage points, GDP by 16 percentage points and population by 9 percentage points.

Despite the US retreat from multilateral climate policy, 137 governments continue to pursue net zero commitments, with 67% now enshrined in law or formal policy, up from 52% in 2024. Crucially, nineteen of the G20 still have net zero targets, including China (2060) and India (2070).

Progress on national net zero targets is especially critical in 2025 as countries are required to submit new or updated Nationally Determined Contributions (NDCs) for 2035 ahead of this year's UN climate summit (COP30).

As of 19 September, the United Nations has recorded 33 NDC submissions since the beginning of 2025, in a public registry maintained by the secretariat, bringing the total to 41 since January 2024 (Climate Action Tracker, 2025a; UNFCCC, 2025b). Recent submissions include Australia, Nicaragua, Angola and Serbia, while earlier updates in 2025 came from the UK, New Zealand and Singapore. Further submissions are expected from India and China before COP30 (Center, 2025; Sinha, 2025; Srouji, 2025).

Beyond mobilising action on country-level climate planning, COP30 will elevate the importance of nature-related goals, including biodiversity and land-use targets, in countries' strategies (see [Box 1](#)).

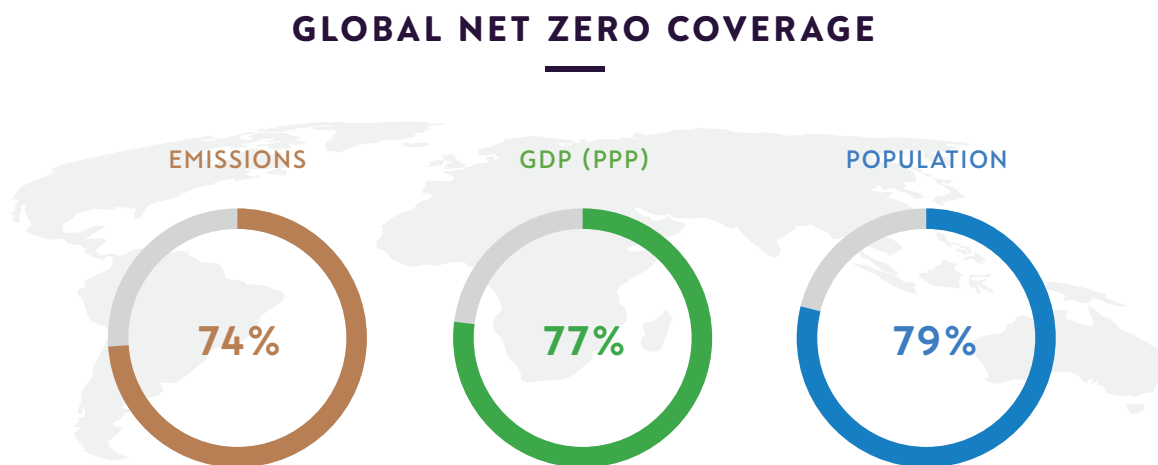


Figure 3: Percentage of GHG emissions (including land-use change and forestry), GDP (based on purchasing power parity, in 2021 constant international dollars), and population in 2021 covered by country-level net zero pledges. Coverage includes targets that are proposed, in discussion, in policy documents, in law, and self-proclaimed as achieved.

⁸ Counting the 19 US states with net zero targets — including California and New York — would push the GDP percentage to 83%.

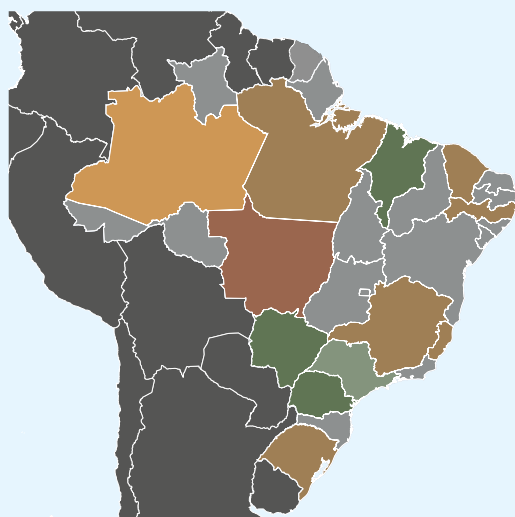
COP30 in Brazil – nature at the forefront of dialogues

The upcoming UN climate summit (COP30) will take place in Belém, Brazil, in November 2025. The role of nature restoration and preservation will take a central role in these global climate dialogues, as the conference takes place in the heart of the Amazon rainforest (UNFCCC).

As one of the largest economies in the world, Brazil is and has historically been one of the 10 highest-emitting countries (Dwyer *et al.*, 2024). Land use, land use change and forestry (LULUCF) emissions have historically been Brazil's largest source of emissions (UNFCCC, 2025a)

Brazil has a target to reach net zero greenhouse gas (GHG) emissions by 2050. Its NDC submission in October 2023 had an unconditional, absolute GHG emission target, translating to reductions of 7% by 2030 compared with 2005 levels (CAT, 2025). Its 2035 NDC target, submitted towards the end of 2024, includes a target to reduce net GHG emissions economy-wide by 59–67% below 2005 levels

Brazil's path to setting a net zero goal has been a non-linear journey. In 2021, former Brazilian president Jair Bolsonaro announced a net zero target for 2050, conditional on the receipt of financial transfers. This gesture was not supported by a binding policy or any demonstrable implementation measures (World Resources Institute, 2021; Climate Action Tracker, 2025b). Bolsonaro's administration significantly reduced the ambition of Brazil's NDC until current President Lula da Silva reverted to the NDC targets Brazil had in place, when it signed the Paris Agreement in 2016.



Belém, host city of this year's COP, committed in January 2025 to becoming climate neutral by 2050 through its Local Climate Action Plan (ICLEI, 2025). The state of Pará, where Belém is located, has also set a target to reach net zero GHG emissions by 2050.

At the regional level, the Net Zero Tracker database finds that 12 of 27 Brazilian subnational entities have net zero targets or equivalents.⁹ Five of those 12 have interim targets, and five have implementation plans. Minas Gerais and São Paulo have published both an interim target and an implementation plan.

⁹ Some Brazilian states — Acre, Amapá, Rondônia and Tocantins — are signatories to the Under2Coalition. By signing its Memorandum of Understanding, they committed to "pursuing an emissions reductions trajectory consistent with achieving net zero emissions by 2050 as a Coalition, and individual net zero emissions as soon as possible, in line with the most recent science." However, we did not find supporting evidence that these states are intending to adopt net zero targets.

3.3 Subnational governments: stable providers of bottom-up ambition and on-the-ground implementation

Subnational governments, including both regions and cities, play a vital role in global climate action, often serving as consistent sources of ambition, implementation and innovation. **Collectively, the 216 subnational net zero targets cover approximately 2.55 billion people worldwide, up from 497 million in December 2020, an almost five-fold increase.** This highlights the growing scale and importance of regional climate leadership. The expansion in subnational commitments is visible across major economic blocs: the G7 has 62% coverage, encompassing 484 million people, while the G20 has 55% coverage, encompassing almost 2.5 billion people.

Japan is a forerunner in regional coverage, with near-universal subnational commitments covering 121 million people, supported by explicit government mandates requiring regional authorities to adopt targets (Net Zero Tracker, 2024). Germany also demonstrates strong regional engagement, with 86% coverage accounting for over 71 million people. China presents an interesting contrast: although coverage is lower at 61% of the population, this still amounts to the largest absolute number globally, with nearly 776 million people under regional net zero commitments.

Significant gaps remain in major economies. Subnational net zero targets in the US, Canada and France cover only around 45% of their populations — 152 million people in the US and nearly 19 million in Canada. Italy shows the weakest regional engagement among G7 nations, with just 37% of its population covered. Outside these major economies, all other countries (Rest of World in [Figure 4](#)) show limited regional participation with only 16% of subnational governments having adopted targets, representing 47 million people.

These patterns show that while subnational climate action has expanded considerably, it remains concentrated in major economies, highlighting both the need and the opportunity for broader global adoption of net zero commitments. For further details on subnational target-setting and the institutional settings in different countries, see Net Zero Stocktake 2024,¹⁰ which analysed, in depth, regional climate targets across 14 major emitting nations.

10 <https://zerotracker.net/analysis/net-zero-stocktake-2024>

SUBNATIONAL NET ZERO COVERAGE BY POPULATION (MILLION)

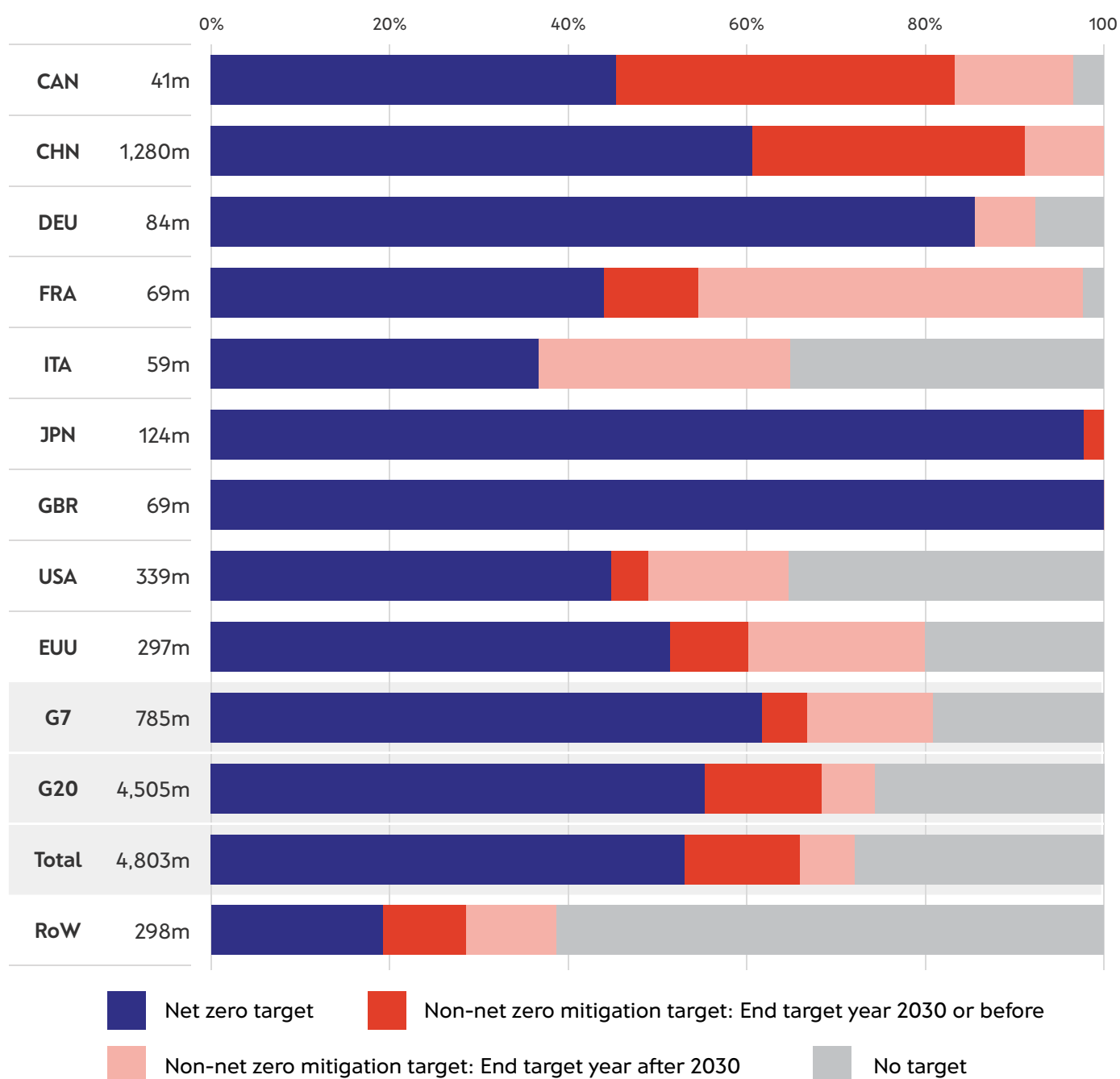


Figure 4: Subnational net zero coverage by population (million).

City-level net zero action is growing but remains uneven across geographies

Climate action by cities is expanding, but progress remains deeply uneven. Just over a quarter of all tracked cities have now set net zero targets, collectively covering around 789 million people — up from 640 million in December 2020. These commitments are disproportionately concentrated in high-income¹¹ countries: of the 337 city-level targets recorded, 196 (58%) are in high-income nations. In comparison, lower-middle-income countries present just 65 targets (19%). These trends align with broader assessments, such as the IPCC's ongoing evaluation of urban climate responses (IPCC, 2025).

In the EU, 77% of cities now have net zero targets, up from 71% in 2024, nearly triple the global average. This contrasts with EU regional coverage, which covers only 50% of regions.

G7 countries collectively show city-level adoption of 66%, up from 62% in 2024, though individual country coverage varies considerably. The UK maintains universal coverage at 100%, while Germany (93%) and Japan (96%) also demonstrate strong adoption. France has made notable progress, rising from 73% to 82%, and Canada has increased substantially from 55% to 73%. The US lags considerably within the G7, with only 47% of its cities committed to net zero, though this marks a modest improvement from 44% this time last year.

Across the G20, 30% of cities have net zero targets, slightly above the global average of 28%, showing that economic weight does not automatically translate into city-level climate leadership. China exemplifies this disconnect: despite its economic significance, only 5% of Chinese cities have net zero targets, a marginal increase from 4% in 2024.

¹¹ As defined by the World Bank.

CITIES' NET ZERO COVERAGE BY NUMBER OF TARGETS

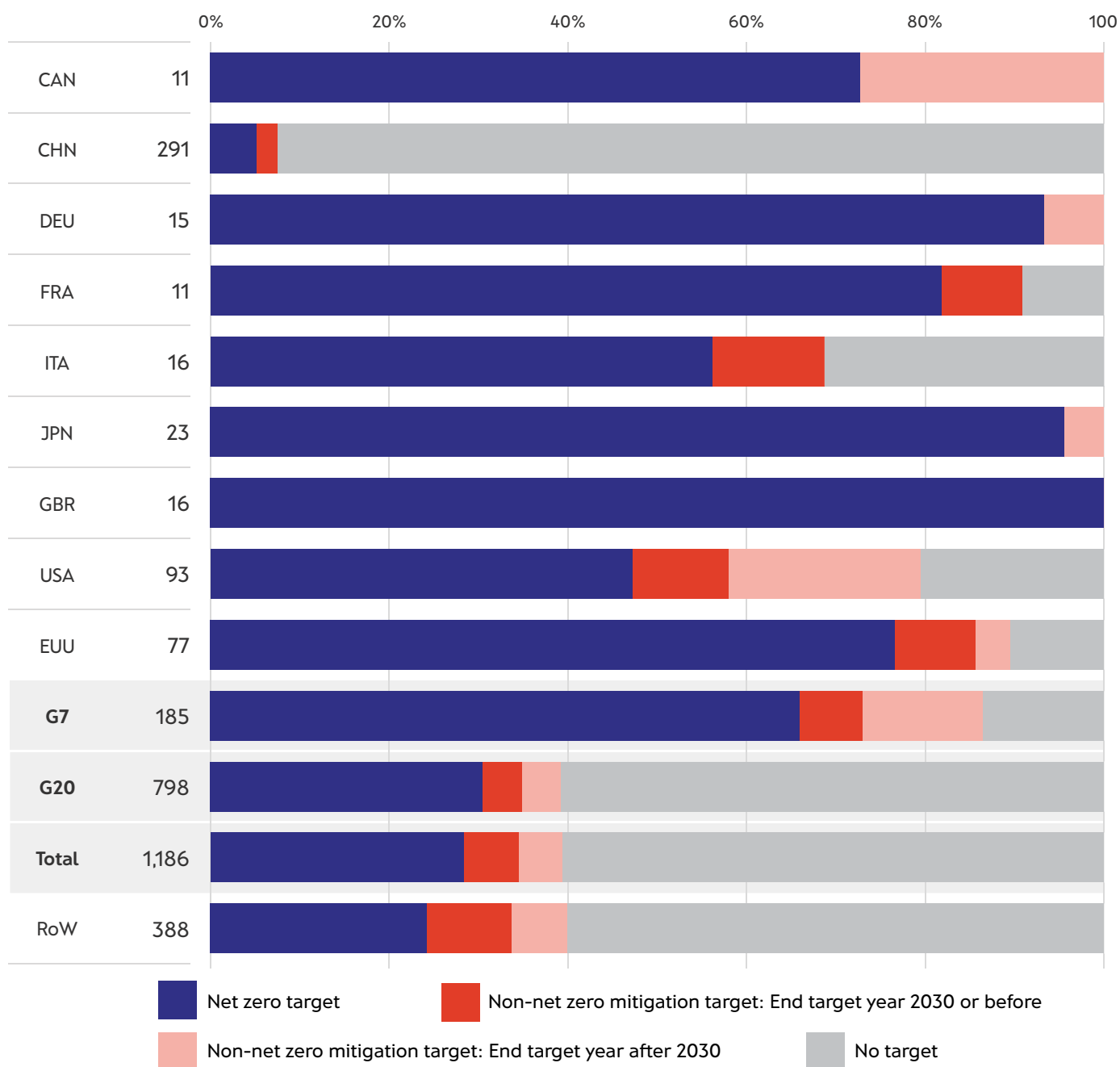


Figure 5: Cities' net zero coverage by number of targets,

3.4 Companies: Despite backtracking in some geographies and sectors, commitment remains strong elsewhere

Our analysis of 1,987 publicly listed companies reveals that 63% have established net zero targets, reflecting substantial corporate engagement in climate action (**Figure 6**). The scale of this commitment is substantial: total annual revenue covered by net zero targets among the Forbes2000 (2025)¹² companies is **\$36.6 trillion**, compared with a global economy of \$111 trillion (World Bank Group). While overall company-level coverage by number increased modestly to around 63% from 60% in 2024, these **net zero targets account for 70% of total Forbes2000 revenue**.

Across major economic groups, companies with net zero targets in G7 countries achieve 61% revenue coverage, representing more than \$24 trillion, while the broader G20 reaches 69% revenue coverage, encompassing nearly \$31 trillion. When measured by company count, the G7 has 53% coverage (up from 51% in 2024), while the G20 reached 59% (up from 56%).

The US presents a mixed picture: revenue coverage is high at 64%, representing the largest absolute commitment of \$12 trillion in corporate revenue under net zero targets, but only 52% of US companies by number have net zero targets, a modest increase from 48%. Nevertheless, **the absolute number of US-headquartered companies with net zero targets grew from 279 to 304**.¹³

Japan and the UK demonstrate the highest coverage of company commitments, with near-universal coverage representing \$4.4 trillion and \$2.2 trillion, respectively. Canada demonstrates strong leadership as well, with 75% revenue coverage (close to \$1 trillion).

The EU collectively shows 92% revenue coverage among Forbes2000 companies, encompassing \$71 trillion under net zero commitments, and increased slightly from 82% to 84% coverage by company count. Germany and France demonstrate robust engagement, with 93% and 95% Forbes2000 revenue coverage, respectively, both representing roughly \$2.1 trillion. Italy achieves 94% revenue coverage (\$483 billion).

In Asia, corporate net zero target coverage continues to rise, although more slowly than last year. Target-setting increased in Japan (from 184 to 199), in China (48 to 60), in South Korea (41 to 48), in Taiwan (26 to 35), in Thailand (11 to 15) and in India (29 to 34). This continued growth reflects both the region's accelerating momentum toward decarbonisation, but also improved Net Zero Tracker data collection, particularly from non-English sources. Our findings align with a recent Science Based Target initiative (SBTi) report, which identified Asia as the region with the fastest growth in science-based targets (SBTi, 2025b). China remains the lowest-performing country by share, with only 23% of companies having announced net zero targets, up from 18% in 2024. Nevertheless, given the size of its corporate sector, these targets still cover \$2.4 trillion in revenue, representing 31% of Global Forbes 2000 companies.

Across the Rest of World (RoW), **Figure 6** illustrates that coverage is strong at almost 80% by revenue, showing that net zero target adoption is not limited to companies based in the G20.

Private firms

Beyond public markets, our 2024 report *A Distinctly Private Pursuit* examined a selection of the world's 100 largest private companies by revenue (Lang and Hyslop, 2024). It found that private firms, which often operate with less transparency and regulatory scrutiny, perform significantly worse on net zero target-setting and measures of integrity compared with their publicly listed counterparts. Since that analysis, private firms have been part of ongoing Net Zero Tracker database updates.

This year, we found that 44 private firms now have net zero targets, up from 40 in April 2024. Of those with targets, 59% (26) have a published plan, up significantly from only 20% in April 2024.

¹² <https://web.archive.org/web/20250722050256/https://www.forbes.com/lists/global2000/>

¹³ The total number of tracked US companies increased from 577 (2024) to 581 (2025), but this only added 4 of the 25 new US company targets.

COMPANIES' NET ZERO COVERAGE BY REGION USD (CONSTANT 2025 DOLLARS)

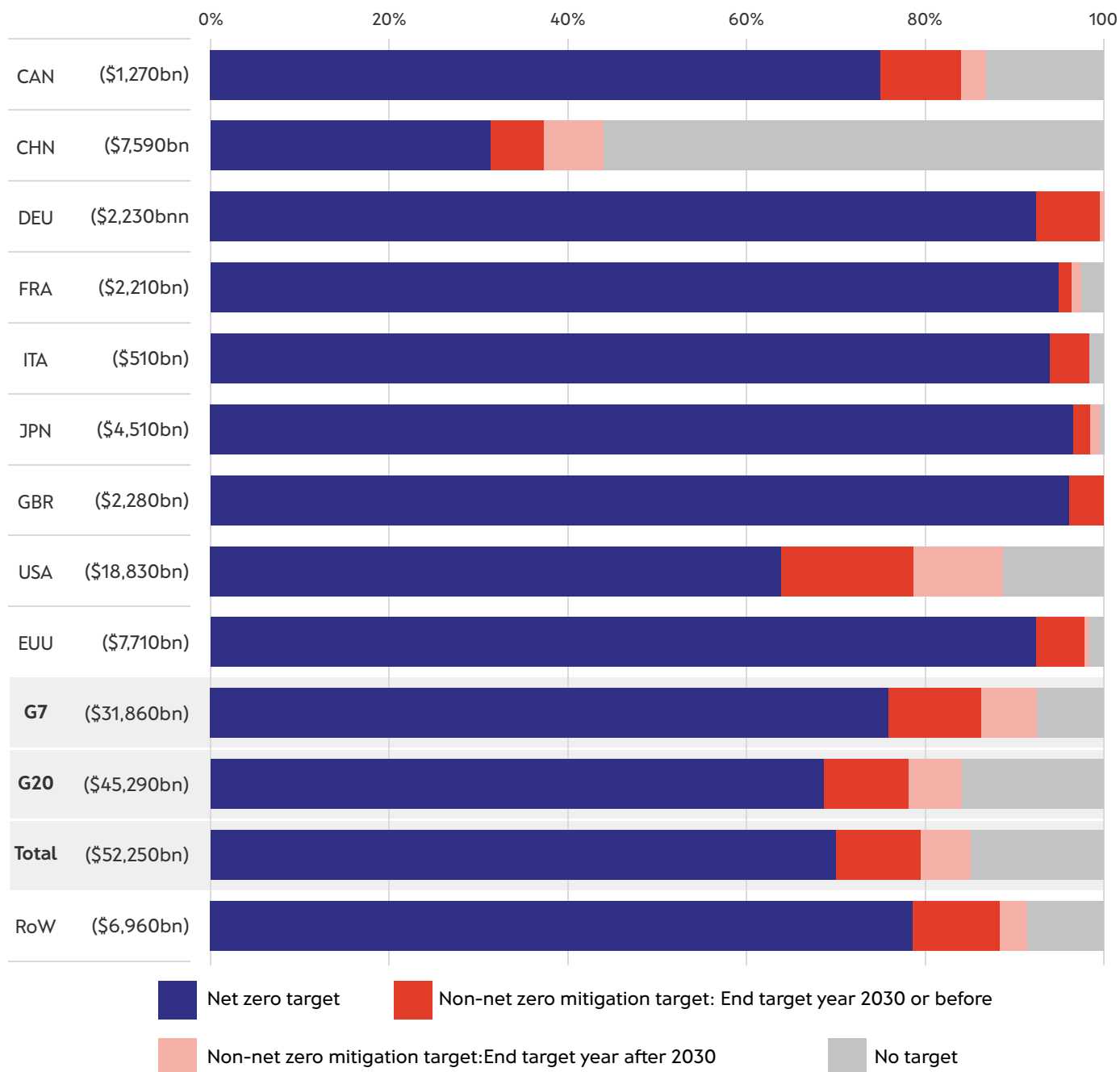


Figure 6: Companies' net zero coverage by region USD (constant 2025 dollars).

Values in parentheses show the total company value (100%) for each region, based on Forbes Global 2000 companies.

3.5 Corporate net zero planning is maturing

While net zero targets signal corporate support, they are not, on their own, a reliable proxy for climate ambition. A growing number of studies highlight that companies' headline targets may be undermined by omissions, caveats and distortions, making them less ambitious in practice than on paper (Odawara and Hirata, 2023; e.g. NewClimate Institute, 2025b). Therefore, a deeper dive into the target structure and planning for implementation is essential.

Within our sample, a deeper dive into the planning for implementation shows that worldwide, **860 companies (69%) have established net zero targets with accompanying plans, and 385 companies (31%) have set targets without concrete implementation roadmaps**. Across economic blocs, both G7 and G20 countries show identical planning gaps of 33%, while the Rest of the World performs better with only 25% of companies lacking plans.

NET ZERO TARGET COMPANIES: WITH PLANNING VS. WITHOUT PLANNING

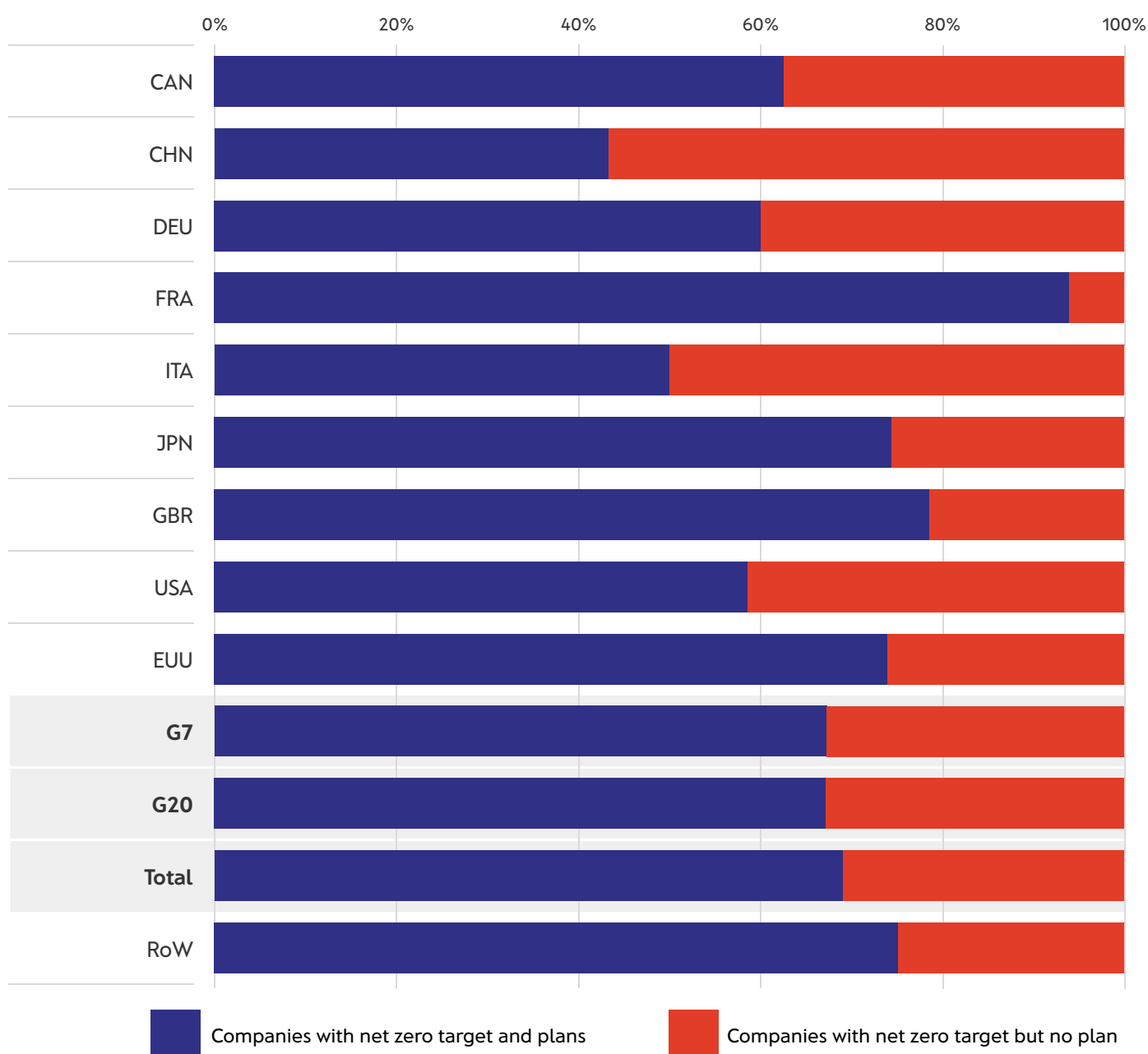


Figure 7: Net zero target companies: With planning vs. without planning

The level of detail in companies' net zero plans varies by region. As shown in [Figure 8](#), plans include: (a) the extent to which measures will be applied; (b) measures for all emission scopes covered by the target; (c) schedules for regular reviews of measures; and (d) information on the emission reductions expected from these measures within a certain time period.

LEVEL OF DETAIL PROVIDED IN COMPANIES' NET ZERO PLANS

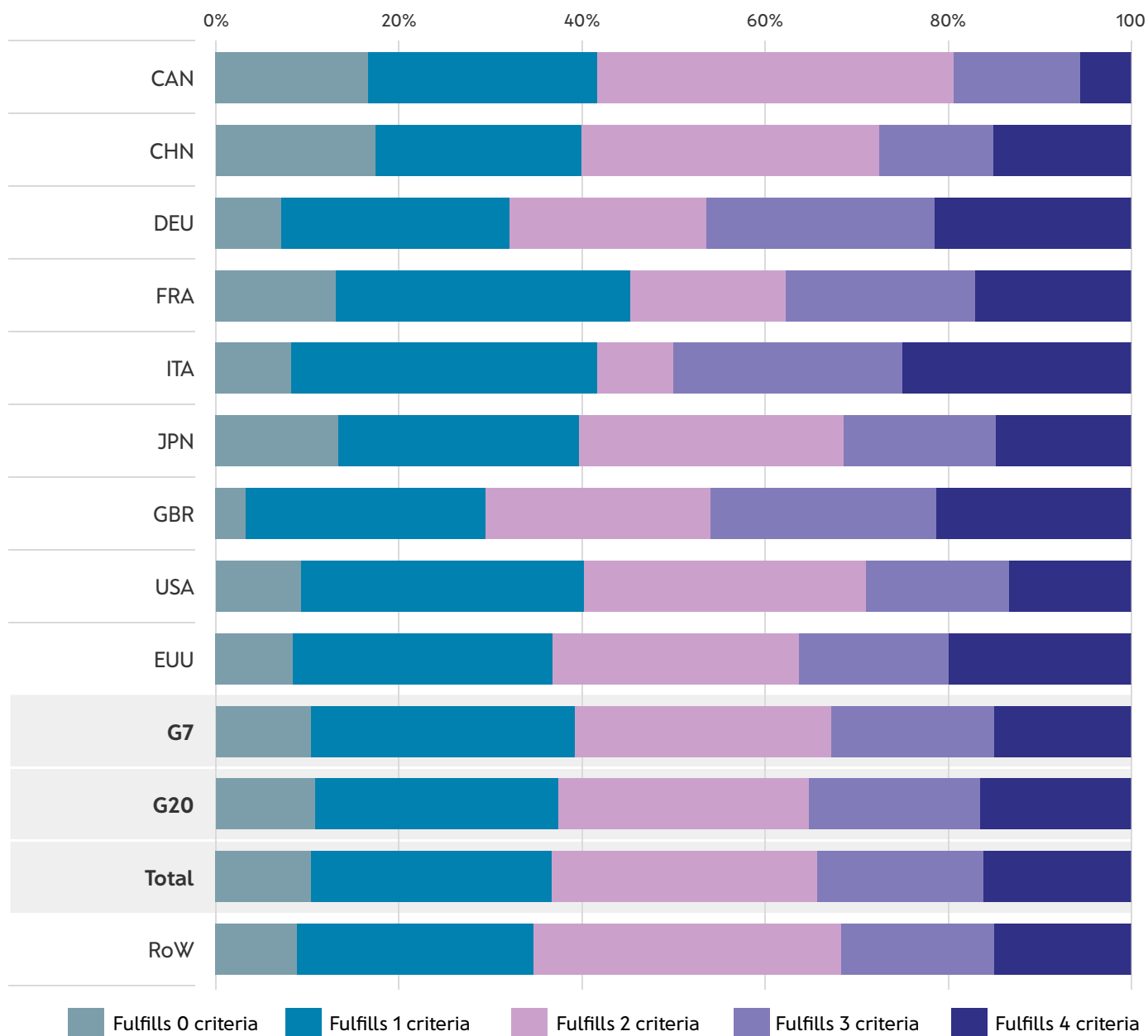


Figure 8: Level of detail provided in companies' net zero planning across geographies. Criteria tracked include: (a) information on the extent to which measures will be applied, (b) measures for all emission scopes covered by the target, (c) schedules for regular reviews of measures, (d) information on the emission reductions expected from these measures within a certain time period.

To understand how companies' target setting has changed over recent years, [Box 2](#) examines a subset of companies in greater detail. Additionally, [Section 3.5](#) examines the overall performance of companies' targets on key integrity criteria.

Shifting target-setting in the food and agriculture sector: preliminary, sector-specific assessment of backtracking

Across the 30 largest companies in the food and agriculture sector, the total number of climate-related targets remained largely unchanged in the first half of 2025 (104 in January compared to 106 in July). While the number of targets appears stable, their nature is shifting. Companies are adjusting timelines, refining the scope of commitments, and in some cases removing previously announced pledges entirely.

Fewer short-term targets, greater focus on the long term

Short-term ambition has weakened. Several 2025 targets have been quietly dropped, while others have been postponed. Among near-term targets with end dates between 2020 and 2029, companies dropped 10 targets and did not add any new targets. For the medium-term targets with end dates between 2030 and 2034, we found six newly added targets; however, another 10 targets were removed. The removal of targets does not necessarily signal a rollback in ambition: the adjustment may indicate a maturing approach to target-setting where companies are moving away from headline pledges that lacked credibility, toward timelines that are more achievable in practice. Such recalibration could reduce the risk of companies greenwashing, by setting unsubstantiated short-term goals that they were unlikely to deliver.

In parallel, companies are expanding their long-term target-setting frameworks. A growing number of net zero targets are being paired with (interim) emission reduction commitments and FLAG-specific targets. We identified eight new targets with end dates between 2040 and 2044, while two targets were removed. For 2050, 15 new targets were added, while three were removed.¹⁴ Alignment with the Science Based Targets initiative's FLAG (Forest, Land and Agriculture) guidance is becoming more evident, suggesting an emerging norm across the sector. Companies such as Heineken, Kraft Heinz and

PepsiCo stand for strengthening the detail and credibility of their long-term reduction strategies.

The decline of the 'grey zone'

A notable trend is the disappearance of vague or unsubstantiated commitments. Targets that previously lacked detail are now either being abandoned or replaced with clearer, more specific plans. This shrinking "grey zone" reflects a broader move toward transparency and accountability in the sector.

At the same time, two high-profile net zero commitments previously reported—Starbucks and Olam International—could no longer be identified in the mid-2025 review. The removal of these targets raises questions about whether some actors are retreating from earlier headline ambitions, or whether targets are perhaps being reframed in ways not yet fully visible.

Trade-offs between credibility and immediacy, and the increasing relevance of land-based removals

The trend toward more substantiated long-term targets appears to come with a cost: declining emphasis on short-term emission cuts. Companies seem more willing to articulate detailed pathways to 2040 or 2050, but fewer are prioritising near-term milestones. This shift in prioritisation risks delaying tangible climate action at a time when steep cuts are urgently needed. Moreover, a rapidly increasing number of companies have now stated they plan to use land-based carbon dioxide removals (CDR) to claim target achievement, without specifying to what extent. This practice is currently permitted under the SBTi's FLAG guidance. Although it is commendable that companies thereby put more emphasis on the importance of biodiversity and protection of nature (see **Section 4**), it is contentious due to the low likelihood of durability, and it could distract from deep and structural emission reductions in the sector.

¹⁴ We noted all different targets for the same target year. For instance, if a company has a net zero target, accompanied by a commitment to reduce FLAG emissions by 72%, we would note both the net zero target and the emission reduction target.

3.6 Net zero robustness and implementation remain a challenge

Several analyses over recent years, including from the Net Zero Tracker, have shown that the vast majority of company emission targets lack key robustness features that ensure high quality (Bjørn *et al.*, 2022; Net Zero Tracker, 2024; NewClimate Institute, 2025b). Since 2022, the Net Zero Tracker has assessed subnational and corporate net zero targets against selected procedural and substantive integrity criteria recommended by the UN Expert Group, International Organization for Standardisation (ISO), and the Race to Zero (ISO, 2022; Race to Zero, 2022; UN HLEG, 2022). They are:

- 1. The target is formally adopted (not merely proposed)
- 2. The net zero target year is 2050 or earlier
- 3. An interim emissions reduction target is set
- 4. A published plan outlines how both interim and long-term targets will be achieved
- 5. Annual progress reports are published, detailing actions and outcomes
- 6. The use of carbon credits is clearly defined, including any conditions
- 7. The target covers all greenhouse gases (GHGs)
- 8. The target includes all value chain emission scopes (scopes 1, 2, and 3).

Our most recent assessment shows no substantial changes in integrity across city target integrity (Table 2). However, the number of companies meeting the procedural and substantive integrity criteria increased by 2 percentage points from 5% to 7%, although in absolute terms it remains low, with only 90 of 1245 companies with targets meeting the criteria. Regional net zero targets also saw an improvement in meeting integrity criteria, from 3% in 2024 to 6.5% in 2025.

Table 1: The percentage of net zero pledges by non-state entities that meet the procedural and substantive integrity criteria informed by the Race to Zero campaign’s ‘Starting Line’ criteria (version 3.0) (Race to Zero, 2022)2022 and the UN Expert Group (UN HLEG, 2022) as of July 2025. The results are compared with the findings in last year’s *Net Zero Stocktake 2024* report (2024)

2025	
Entity group	Percentage of entities meeting all integrity criteria ¹⁵
Regions (by number)	6.5% (14 of 216) Up from 3.5% (Sept 2024). Total targets increased from 186 (Sept, 2024).
Cities (by number)	4% (13 of 337) Same as in (Sept 2024). Total targets increased from 271 (Sept, 2024).
Companies (by number)	7% (90 of 1,245) Up from 5% (Sept 2024). Total targets increased from 1,145 (Sept, 2024).

15 Condition to commit to ‘(net) zero GHGs as soon as possible, and by mid-century at the latest’ not applied to non-OECD countries to account for fairness and equity considerations.

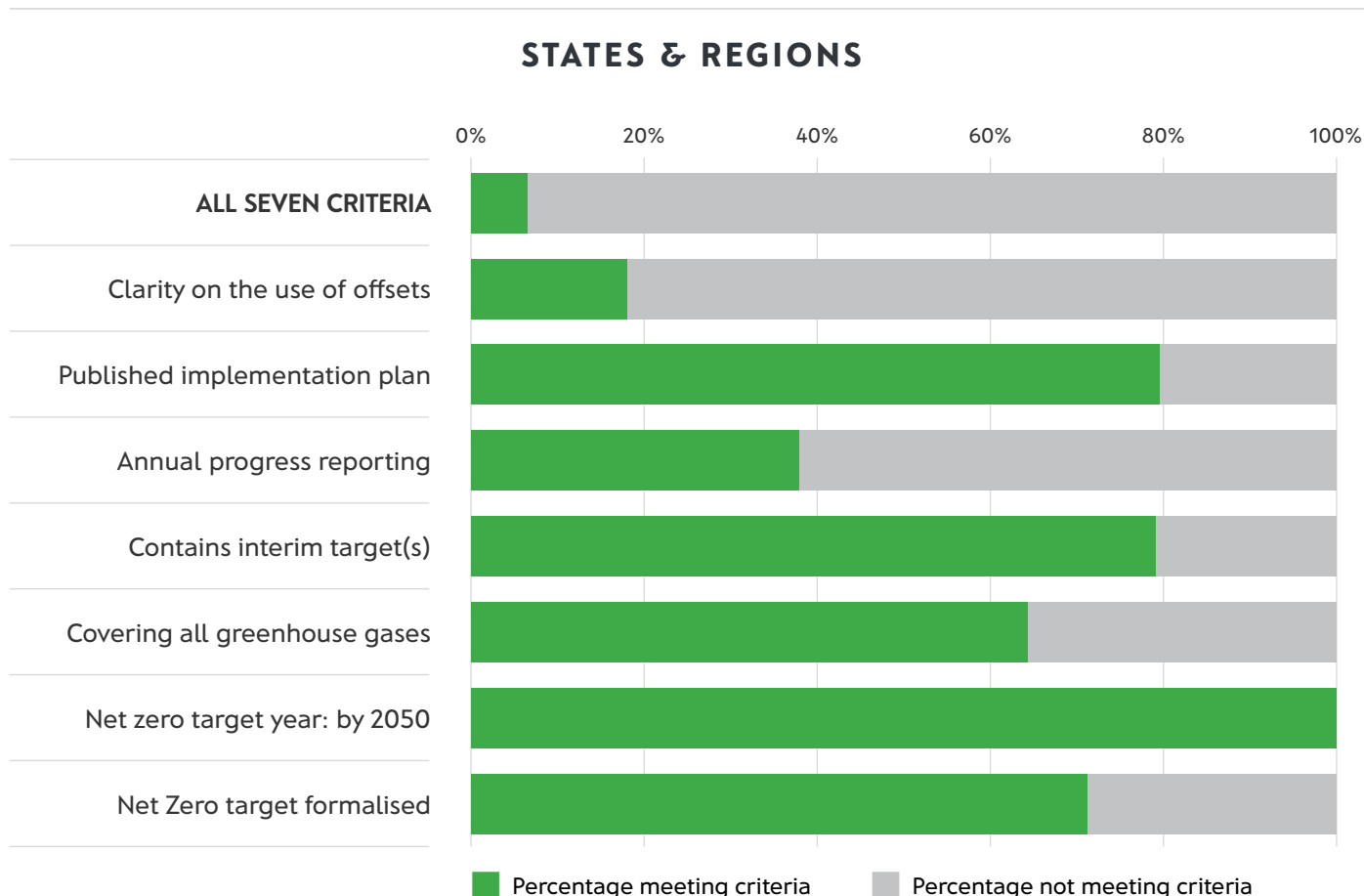


Figure 9: Share of regions with net zero targets that meet procedural and substantive integrity criteria.

Data from the Net Zero Tracker shows that **the state and regional governments setting net zero targets** (see [Figure 9](#)) perform well on several integrity criteria, including: formalising their net zero targets (1); setting interim targets (3); and publishing implementation plans (4).

However, performance on other criteria remains inadequate. Nearly one-third of subnational net zero targets focus exclusively on CO₂ emissions, omitting other significant GHGs such as methane and nitrous oxide. Nearly 60% of targets are not supported by annual progress reporting. This gap may be attributed to various factors, including limited capacity or resources or deliberate non-reporting. Subnational governments rarely provide clear, transparent conditions regarding their intended use of carbon credits (offsets).

Cities with net zero targets (see [Figure 10](#)) perform slightly worse across most criteria, except implementation plans (4): more than 70% of targets are published with one. This suggests that, in most cases, target-setting is at least matched by some degree of action planning.

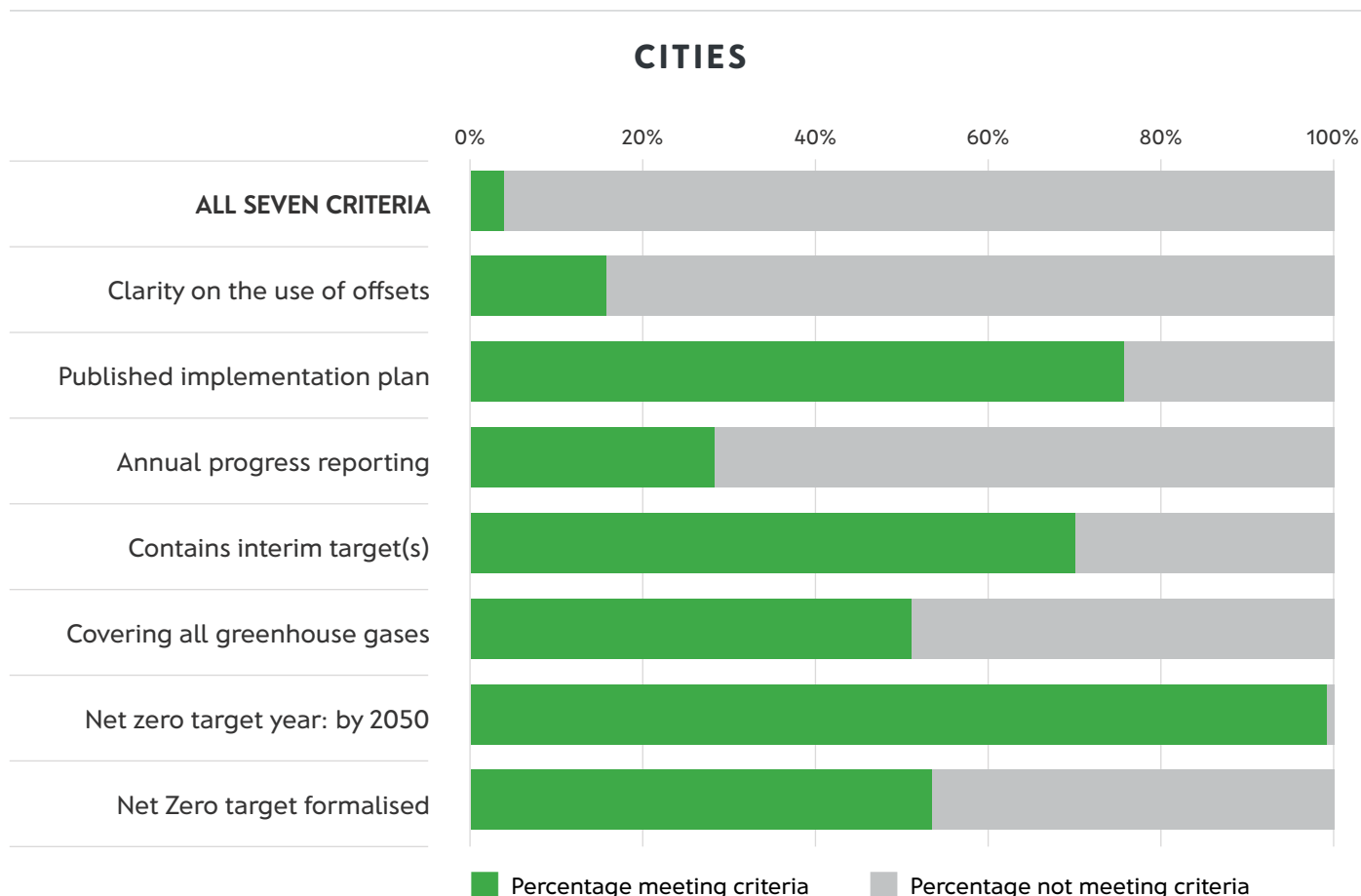


Figure 10: Share of cities with net zero targets that meet procedural and substantive integrity criteria.

Like subnational governments, publicly listed companies setting net zero targets perform relatively well on procedural criteria (see [Figure 11](#)). These include: formalising net zero targets (1); setting interim targets (3); developing implementation plans (4); and publishing annual progress reports (5). Of the companies with an OECD headquarters, nearly all have a 2050 or earlier target year.

Notably, companies perform well on publishing annual progress reports. This is likely due to a combination of factors: Forbes 2000 companies typically have pre-existing reporting frameworks, such as annual corporate sustainability reports, in place and respond to reputational and market pressure to provide this data. Standardised reporting frameworks and the resources to carry out comprehensive reporting may not be accessible to other entity groups, such as subnational governments and cities, which perform lower on these criteria.

However, publicly listed companies continue to underperform on most substantive criteria. Many, for instance, limit their net zero commitments to CO₂ emissions or focus only on selected segments of their value chain (e.g. scopes 1 and 2, while neglecting scope 3), which may overlook a large share of their emissions. Transparency also remains a weakness. Companies frequently fail to clarify how, and to what extent and under what circumstances, they plan to use voluntary carbon credits. This lack of clarity makes it difficult for analysts to evaluate the credibility and integrity of their net zero strategies, as offsetting is a common loophole that lowers the ambition of a company's strategy (NewClimate Institute, 2022).

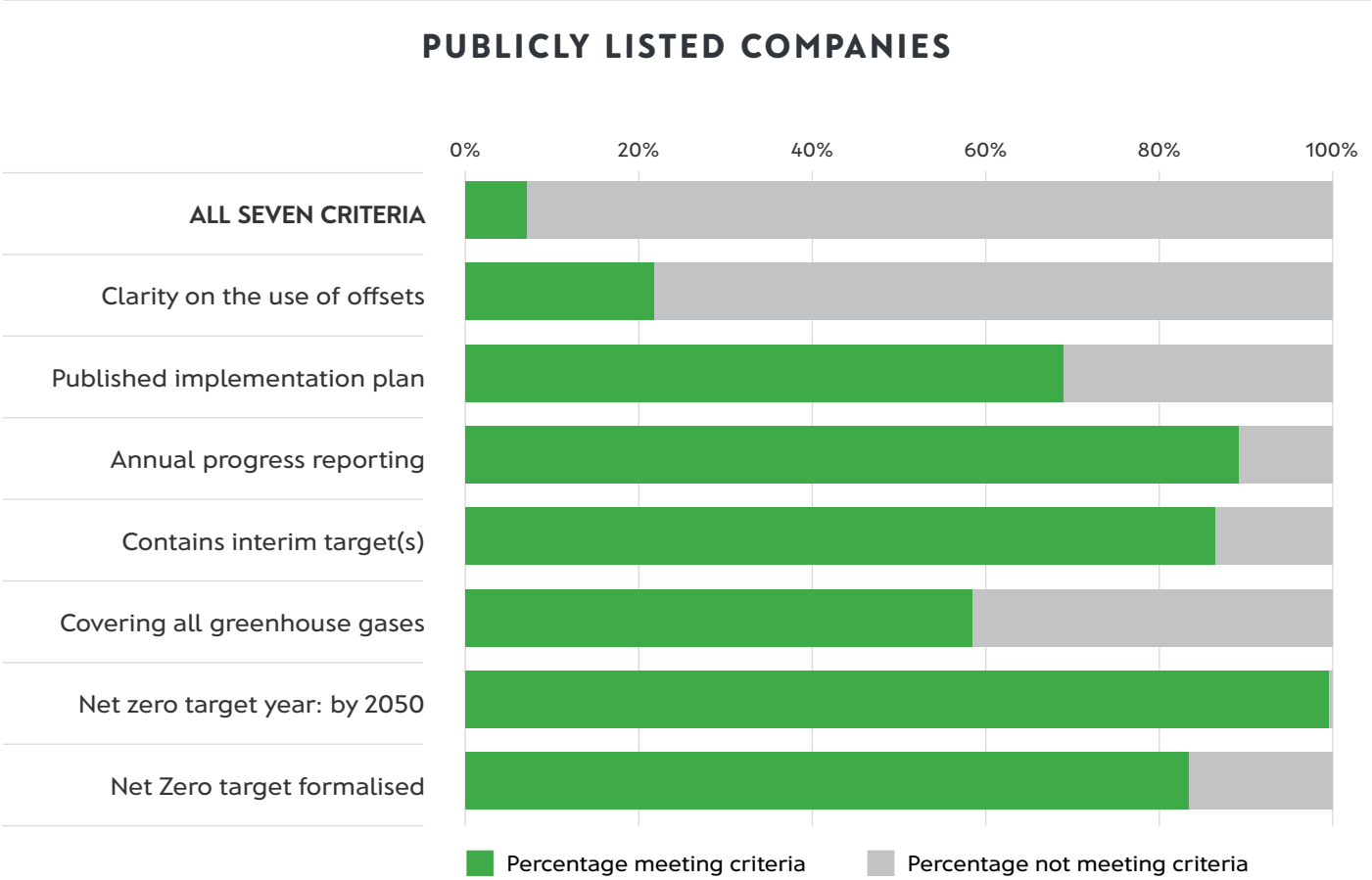


Figure 11: Share of companies with net zero targets that meet procedural and substantive integrity criteria.

4. Net zero targets and nature-based solutions across companies

4.1 The urgent need for nature protection in light of climate change

The rapid pace with which countries, regions, cities and companies have set net zero targets has slowed (see **Section 3.1**). Recent annual UN climate summits (COPs) have struggled to compel committed countries into updating and upgrading their NDCs, which are not yet compatible with 1.5°C-aligned scenarios (Climate Action Tracker, 2025a). As covered in **Section 3.2**, around 160 countries are yet to submit a 2035 NDC target (NDC 3.0). Amidst increasing geopolitical challenges, all eyes are on this year's COP in Brazil to upgrade global climate action and 'ratchet' up ambition (see [Box 1](#)).

Through the choice of branding and location in the heart of the Amazon, the Brazilian COP30 presidency is putting a particular focus on nature and forests (COP30 Presidency 2025b). A thriving nature can help shield communities from climate change and plays a vital mitigating role (Anderegg *et al.*, 2020). Simultaneously, nature is also adversely affected by the effects of increasing temperatures and climate change, which threaten its protective and mitigating capacity. This is particularly acute in the Amazon rainforest: it is rapidly approaching its tipping point, at which it will lose its ability to absorb carbon and become a net *emitter* (Watts, 2024). The close link between climate, nature protection and the energy transition was on full display in August 2025, when indigenous leaders demanded a blanket ban on new oil, gas and mining projects in the rainforest, at the Amazon summit in Bogotá (Grattan, 2025).

The exploration of synergy between nature-based climate mitigation by companies is not new. Out of 95 initiatives on the Climate-Cooperative Initiatives Database (C-CID), 16 explicitly refer to the nature-related SDGs 14 and 15 (Life Below Water and Life on Land); several of them are long-standing initiatives including the We Mean Business Coalition, the Gold Standard Foundation and the UN-supported Principles for Responsible Investment (PRI) initiative (Chan *et al.*, 2025).

Companies are pivotal for the environment: their activities can harm ecosystems through deforestation, pollution and extraction, but they also have the power, financial means and R&D capacity to support conservation. Due to these opportunities and challenges, this section will focus on the role of companies in the nature space, specifically zooming in on nature-based solutions.

4.2 Leveraging international bodies, governments and companies for nature and biodiversity

Recent efforts by international bodies to reach agreements on nature protection have often either failed or stalled, as exemplified at the Biodiversity COP16 in Cali and Rome, and the Desertification COP16 in Riyadh (ClimateAction, 2025). Current finance flows with direct negative impacts on nature remain more than 33 times higher than finance flows to nature (UNEP, 2023).¹⁶ Despite setbacks, progress has been made in 2025: for example, at COP16 in Rome, parties agreed on a concrete financing roadmap to support the Global Biodiversity Framework (GBF); 16 countries signed the High Seas Treaty during the UN Ocean Conference in Nice, which aims to protect biodiversity in international waters (High Seas Alliance, 2025); and the EU adopted the European Ocean Pact, a strategy to protect and restore marine habitats, among others (European Commission, 2025b).

¹⁶ In this report, finance flows in nature-based solutions include public and private finance. On the public side, investments include the protection of biodiversity and landscapes; sustainable agriculture, forestry and fishing; water resources, and wastewater management; pollution abatement; environmental policy and other and ODA. Private investments include biodiversity offsets and credits; sustainable supply chains; finance from philanthropy, NGO and other; PES; carbon markets and farmer's investments (UNEP, 2023).

Besides international bodies, national governments and international NGOs play a major role in advancing action on nature. An analysis of 120 nature initiatives between 2000 and 2024 showed they are the main funders of nature-related initiatives (Chan *et al.*, 2025). Most of the nature-oriented initiatives analysed are related to the theme of land use (more than two-fifths), followed by oceans and coastal zones. One-fourth of the initiatives are forest-related. The largest increase in nature-related initiatives occurred between 2015 and 2019. (See [Figure 12](#)).

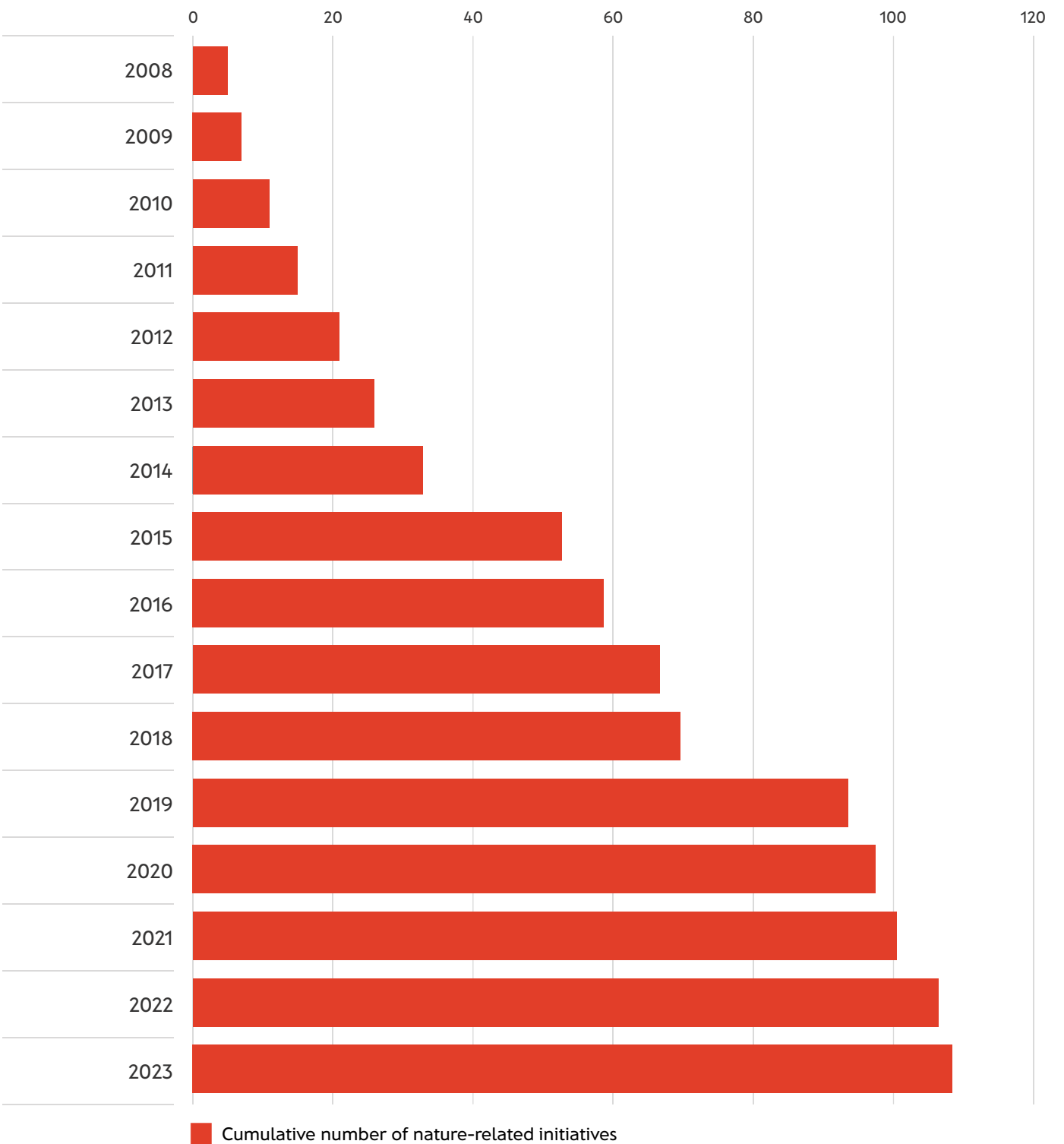


Figure 12: Development of nature-related initiatives between 2008 and 2023.
Data from the Climate Cooperative Initiatives Database (Chan *et al.*, 2025).

National governments are not the only entities investing in nature protection and restoration. The COP30 Presidency, for instance, has endorsed the *Tropical Forests Forever Facility (TFFF)*, designed to channel large-scale finance into forest protection (COP30 Brazil Presidency 2025a). The model is ambitious: after an initial one-time \$25 billion contribution from donor nations, the mechanism aims to leverage \$100 billion of private investment (Rodriguez, 2025).

Another mechanism is the Cali Fund, launched in February 2025 under the Convention on Biological Diversity (CBD) (Convention on Biological Diversity, 2025). It requires large companies profiting from the use of digital genetic information derived from nature to dedicate part of their revenues to biodiversity-related measures. This applies especially to sectors where such information is indispensable, including pharmaceuticals, cosmetics, crop and livestock breeding, and agricultural and industrial biotechnology, among others. The Cali Fund will then disburse this finance to the needs of indigenous peoples and local communities, as well as research and measures to halt biodiversity loss (Convention on Biological Diversity, 2025).

Such initiatives illustrate the importance of private sector capital in the nature space. Company contributions can be decisive in the struggle to conserve, protect and restore nature, strengthening resilience in the face of climate change.

4.3 Companies are increasingly focusing on nature, but their climate targets need improvement

Companies – especially in the food and agriculture sector – are among the top three participants in nature-based initiatives. Between 2000 and 2024, more than 120 nature-related initiatives were identified by the Nature-Cooperative Initiatives Databases (N-CID) (Chan *et al.*, 2025). The Rainforest Alliance, one of the largest initiatives led by businesses, provides a sustainability certification for crops. It hosts over 7,200 participating businesses, including more than 800 agricultural cooperatives as well as multinational companies in food and beverage, retail, agribusinesses and commodity trading (Chan *et al.*, 2025). Many of these firms specialise in coffee and cocoa, two crops strongly linked to deforestation (Goldman and Weisse, 2024). Despite the Rainforest Alliance branding itself as ambitious and active ‘for a better future’, several of its partners – including Puratos Group, Chiquita, Asia Pulp and Paper (APP), and Cargill – still lack long-term absolute emission reduction targets that cover the bulk of their emissions (Net Zero Tracker, 2025).¹⁷

Other nature-focused initiatives feature multinational companies such as Suzano, Danone, Unilever, Nestlé and Tesco. While these companies are active in nature, that does not necessarily make them climate leaders. For instance, Suzano has no long-term emissions reduction target (Suzano, 2025); Nestlé, Danone and Unilever rely on unspecified amounts of land-based carbon dioxide removal (CDR) to meet their climate targets (Unilever, 2024; NewClimate Institute, 2025b); meanwhile, Tesco does not clarify the role of removals in its net-zero target (NewClimate Institute, 2024). Given the deforestation risks embedded in all their value chains, these firms should ensure ambitious nature protection commitments are matched by robust, high-integrity climate pledges.

¹⁷ Including value chain AFOLU emissions.

4.4 Common climate challenges for private sector engagement in nature

Companies in the Fortune 500 are increasingly making nature-related commitments — particularly on biodiversity — alongside their climate pledges (McKinsey, 2024). If well-designed and implemented, these commitments are positive for both climate and biodiversity. Yet private sector engagement with nature can also undermine climate goals. We identified four nature-related areas where companies and their climate targets can face challenges: carbon offsets, biodiversity credits, nature-based carbon removals, and bioenergy.

4.4.1 Issues with offsets and a credible alternative

Offsetting is a practice where companies or countries finance emission reductions or removals elsewhere — outside their value chain or borders — and claim these towards their own GHG footprint. For companies, this typically involves purchasing carbon credits from the voluntary carbon market. Each credit is supposed to correspond to one tonne of carbon dioxide reduced or removed, or an equivalent amount of other greenhouse gases (Carbon Market Watch, 2024).

Two issues with offsets are additionality and quality. The former is the matter of proving that a project receiving funding through carbon offsets would not have taken place anyway. For instance, a recent report showed that millions of carbon credits retired in 2024 were unlikely to result in additional emissions reductions (Sirur, 2025). The latter is about the fact that claimed emission reductions are often exaggerated. For example, an investigation found that 90% of rainforest credits traded on the platform Verra did not constitute actual emission reductions (Greenfield, 2023; Probst *et al.*, 2023). A major global nature-related initiative financed by countries and companies is the *Reducing Emissions from Deforestation and Forest Degradation (REDD+)* programme (Holtedahl *et al.*, 2021). Carbon credits issued through REDD+ projects have been criticised due to low additionality and quality (Haya *et al.*, 2023; West *et al.*, 2024).

Of 120 nature-related initiatives analysed, the two largest by budget (where figures are available) are the *Forest Carbon Partnership Facility (FCPF)* and the *Central African Forest Initiative* (Chan *et al.*, 2025). Both aim to help countries implement REDD+, supporting countries to sell surplus carbon credits to companies on the voluntary carbon market (Central African Forest Initiative (CAFI), 2021; World Bank, 2024).

Despite criticism surrounding many carbon credit projects, almost one-third of companies in the Net Zero Tracker database allow the use of carbon credits to meet their net zero targets, with 60% not specifying any conditions, such as maximum offset percentage allowed (Net Zero Tracker, 2025). This represents a **major transparency issue** because it blurs the distinction between direct emission reductions and external compensation outside of a company's value chain.

Climate contributions are a credible alternative to offsetting, through which companies can positively contribute to nature conservation. This model was introduced in 2016 by the standard-setting body Gold Standard. It has since been promoted by, for example: NewClimate Institute; WWF & BCG in *A Blueprint for Corporate Action on Climate and Nature*; and SBTi under 'Beyond Value Chain Mitigation (BVCM)' (Verles *et al.*, 2017; WWF and BCG, 2020; NewClimate Institute, 2023; Benson *et al.*, 2024; Gold Standard and Milkywire, 2024). Under the climate contribution approach, companies can, for instance, dedicate \$100-250 per tonne of CO₂e emitted to innovative projects supporting climate action *beyond* their value chains (NewClimate Institute, 2023). Climate contributions can provide a valuable source of finance for protecting and restoring natural ecosystems and biodiversity — but they should not replace direct emission reductions (Benson *et al.*, 2024).

4.4.2 Relying on scarce removals

Carbon removal refers to the capture and durable storage of CO₂ from the atmosphere as a result of human activities. There is a range of removal methods – including land-based methods such as forest creation, and geological methods such as direct air carbon capture and storage (DACCS). Carbon removals can be traded as a credit or performed within a company or country's own value chain. Highly durable carbon removals, such as those that are geologically stored, are extremely scarce (Smith *et al.*, 2024), and future geological storage opportunities are finite (Gidden *et al.*, 2025).

More than 80% of companies in the Net Zero Tracker database that are planning to use removals have a net zero target. **In total, 27% of the companies plan to use some type of removal, yet only 4% of companies have set dedicated carbon removal targets as part of their net zero targets** (Net Zero Tracker, 2025).¹⁸

Separating targets for emission reductions and removals helps to transparently distinguish between decarbonisation efforts and removal purchases (NewClimate Institute, 2025a). Having separate targets also helps others assess the current state of removal availability, which is needed for net zero globally (IPCC, 2023).

Among those companies planning to purchase carbon removals, almost one-third of companies rely exclusively on nature-based approaches such as afforestation, reforestation and peatland restoration. (Net Zero Tracker, 2025). Companies play a great role in providing funding for the protection and restoration of biodiversity, ecosystems and soil quality. Using nature-based removals to meet emission reduction targets, however, can be problematic: nature-based removals are not durable and are susceptible to reversal, so cannot truly neutralise fossil fuel emissions, which remain in the atmosphere for thousands of years (Fankhauser *et al.*, 2022; Allen *et al.*, 2024; Axelsson *et al.*, 2024; Brunner *et al.*, 2024).¹⁹

Sectoral patterns show that companies in the **services sector** represent the largest share of planned or current investments in nature-based removals (35%), followed by the materials sector (14%) and food, beverage and agriculture (11%). By geography, the **US** leads with 29% of companies planning or purchasing nature-based removals, ahead of Japan (11%) and France and India (9% each) (Net Zero Tracker, 2025).

As of September 2025, \$1.2 billion of forest carbon removals have been contracted, equivalent to almost 58 million tonnes of CO₂, with buyers committed to more than 66 million tonnes (nbs.CDR.fyi, 2025). Some of the world's largest companies by revenue, including Amazon, Apple, Volkswagen, and China's Ping An, are prominent investors in nature-based removals (Net Zero Tracker, 2025). **Microsoft** is by far the largest buyer with 28.7 million tonnes, followed by **TotalEnergies** with 10 million and **Meta** with 8.1 million. (CDR.fyi, 2025b).

Among the more durable removal techniques, biochar and Bioenergy with carbon capture and storage (BECCS) dominate (CDR.fyi, 2025a, p. 12). Biochar, a carbon-rich material produced by heating biomass, is commonly applied as a fertiliser (Smith *et al.*, 2024). BECCS captures and stores the carbon released during biomass combustion which would otherwise have returned to the atmosphere. It can thereby generate negative emissions. Microsoft is by far the biggest purchaser of BECCS, followed by JP Morgan and Equinor (Nbs.CDR.fyi, 2025). Such investment is crucial to drive innovation, decrease prices and scale the availability of carbon removals. However, as removals are scarce, companies should prioritise decarbonising using existing technology, such as electrification or renewable electricity, instead of over-relying on removals for emission reduction targets.

¹⁸ Around 2 GtCO₂ is removed each year, almost entirely through conventional methods such as afforestation and reforestation reported under land use, land-use change, and forestry (LULUCF). These approaches have delivered a steady, though flat, rate of removals for the past two decades. By contrast, novel removal methods contribute just 1.3 million tonnes annually, less than 0.1% of total removals. Yet they are expanding far faster than conventional approaches. Of this, under 0.6 million tonnes per year involve geological storage, the most durable form of removal (Smith *et al.*, 2024).

¹⁹ Maintaining net zero CO₂ emissions – and hence halting global temperature rise – requires any unavoidable residual emissions of fossil carbon to be balanced by capturing carbon from the atmosphere and storing it on the same millennial timescale. The IPCC Task Force on National Greenhouse Gas Inventories has been tasked to provide a methodology report on removals during its current assessment cycle. This is expected to lead to guidance on how to account for removal methods beyond land use, land-use change and forestry in national greenhouse gas inventories under the UNFCCC, taking differences in durability of storage into account.

4.4.3 What biodiversity offsets could mean for nature conservation

Of all private finance going to nature-based solutions, biodiversity offsets and credits were the largest channel in 2022, accounting for around 30% (UNEP, 2023, p. 16).²⁰ The Biodiversity Credit Alliance defines biodiversity credits as “a measured and evidence-based unit of positive biodiversity outcome that is durable and additional to what would have otherwise occurred” (Biodiversity Credit Alliance, 2024).

When used as offsets, companies assume that the ecological losses caused by their activities – such as extractive industries or infrastructure projects – can be counterbalanced by conserving or restoring natural areas elsewhere. However, ecosystems are highly complex and location specific. Critics argue that it is impossible to accurately measure environmental damage in one location and equate it with restoration elsewhere (Goodman, 2023). For instance, TotalEnergies describes that it aims to ‘offset’ the environmental impact of the Tilenga project in Uganda (which includes six oil fields and drilling 400 wells in 31 locations), by setting up a biodiversity programme (TotalEnergies, 2023). While private finance – for example, through climate contributions – can play a constructive role in biodiversity conservation, it cannot offset a company’s direct impacts.

4.4.4 Negative impacts of bioenergy

Bioenergy has become popular with companies because it is often classified as a renewable energy source and can be counted towards climate targets, for example, in the EU and the US (EIA, 2025; European Commission, 2025c). Bioenergy is derived from plants, which absorb carbon during the process of photosynthesis. When harvested and burned, the carbon is released into the atmosphere, and if new biomass is planted, the carbon is absorbed again and the cycle repeats. This has led to bioenergy often being labelled as a near-zero emissions fuel (IEA, 2025a).

The IPCC estimates the sustainable potential of bioenergy is at 100 EJ yr⁻¹ by 2050 (de Coninck et al. 2018), which is much lower than global energy use of 630 EJ yr⁻¹ (Energy Institute, 2025). Exceeding that level poses significant challenges and trade-offs: unsustainable sourcing can lead to deforestation and biodiversity loss (Hanssen et al., 2020; Clarke et al., 2023), while large-scale deployment competes with food, water and land resources (Calvin et al., 2020; Brack and King, 2021).

Hard-to-electrify sectors such as aviation, maritime shipping and heavy industry may depend to some degree on bioenergy (Calvin et al., 2020; Clarke et al., 2023). For most others, however, abundant and low-cost alternatives – such as wind and solar power – make bioenergy for heat and steam generation largely unnecessary. Despite this, several consumer and industrial giants assessed by the Net Zero Tracker – including H&M Group, Inditex, Adidas, Nike and Fast Retailing, Stellantis, Toyota, Volvo, and Duke Energy – rely on bioenergy (NewClimate Institute, 2024, 2025b).

²⁰ See footnote 17.

5. The path forward

The heady growth of net zero targets in the early 2020s led some to hope that the vital goal of halting climate change was not just widely accepted but perhaps inevitable. The Net Zero Tracker, however, has consistently shown that the fast-growing quantity of net zero targets has never been matched by a similar depth of quality. As attention shifted to the accountability and integrity of net zero targets in 2022-23, contestation over net zero also grew. In 2025, that longstanding tension has come fully to the fore.

The tenth anniversary of the Paris Agreement finds its breakthrough goal — halting human-caused climate change by achieving net zero within a few decades — more contested than ever. The Trump Administration and its ideological allies around the world have rolled back climate policy and pressured the private sector to abandon climate efforts. Competing economic and security priorities have fuelled calls to slow climate action. And even where political will and commitment remain strong, the hard work of implementation continues to pose challenges.

Against this backdrop, the Stocktake's findings are striking. Net zero targets have not declined, they have grown — including among American companies. The US has withdrawn its federal net zero target and gutted key tools to achieve it, but no other major emitting or G20 country has followed. Several oil, gas and financial firms have weakened or abandoned targets, but many were never meaningfully aligned with decarbonisation to begin with. The evidence points not to the death of net zero, but to its resilience in the face of headwinds.

What comes next? The fight around climate policy in 2025 clarifies that a net zero future cannot be assumed. But the resilience of net zero goals offers an important lesson. Most countries — and growing numbers of companies, cities, and regions — are still working to net zero because it offers the future they want: safer, more secure and more prosperous. Low-carbon sectors are booming, fossil fuel demand is nearing historic decline, and corporate boards are turning to cheaper, less volatile clean energy — now attracting investment at twice the rate of fossil fuels.

Rollbacks remain the exceptions. The fundamental case for decarbonisation is as strong as ever, even in the face of ideological attacks and competing priorities. We should expect more political fluctuations in the decades ahead as the world pushes toward net zero. Some cycles will be harder, some easier. That makes it even more vital that targets, plans, policies and standards are built to endure through setbacks as well as progress. In that sense, the continued growth of net zero targets in 2025 — the most challenging year yet — is itself a powerful signal.

Net zero is no longer in its infancy and nor is it secure in its maturity. The next phase demands more than regulatory alignment and voluntary ambition: it requires deeper coordination across all levels of governance, standards embedded in law, and delivery mechanisms resilient enough to endure increasingly turbulent politics and growing competition for public funds.

References

- Aljazeera (2025) 'BP drops climate targets in pivot back to oil and gas', Al Jazeera, 26 February. Available at: <https://www.aljazeera.com/news/2025/2/26/bp-drops-climate-targets-in-switch-back-to-oil-and-gas> (Accessed: 19 August 2025)
- Allen, M.R., Frame, D.J., Friedlingstein, P., et al. (2024) 'Geological Net Zero and the need for disaggregated accounting for carbon sinks', Nature [Preprint]. doi:10.1038/s41586-024-08326-8
- Altieri, K. and Jones, D. (2025) What's new with national renewable targets? Not much! Ember. Available at: <https://ember-energy.org/latest-insights/whats-new-with-national-renewable-targets-not-much> (Accessed: 19 August 2025)
- Alvik, S. (2024) Peak energy emissions is here — but the work is not yet over, World Economic Forum. Available at: <https://www.weforum.org/stories/2024/11/peak-energy-emissions-a-historic-moment-overshadowed-by-the-endurance-of-fossil-fuels/> (Accessed: 16 September 2025)
- Anderegg, W.R.L., Trugman, A.T., Badgley, G., et al. (2020) 'Climate-driven risks to the climate mitigation potential of forests', Science, 368(6497). Available at: <https://www.science.org/doi/full/10.1126/science.aaz7005> (Accessed: 25 August 2025)
- Axelsson, K., Wagner, A., Johnstone, I. and Allen, M. (2024) Oxford Principles for Net Zero Aligned Carbon Offsetting (revised 2024). Oxford: Smith School of Enterprise and the Environment. Available at: <https://www.smithschool.ox.ac.uk/research/oxford-offsetting-principles> (Accessed: 9 September 2025)
- Benson, S., Farrelly, A., Watson, E., et al. (2024) 'Above and beyond: an SBTi report on the design and implementation of beyond value chain mitigation (BVCM)'. Science Based Targets initiative (SBTi). Available at: <https://sciencebasedtargets.org/resources/files/Above-and-Beyond-Report-on-BVCM.pdf>
- Biodiversity Credit Alliance (2024) 'What is a biodiversity credit?' Available at: <https://www.biodiversitycreditalliance.org/faq/what-is-a-biodiversity-credit/> (Accessed: 25 August 2025)
- Bjørn, A., Lloyd, S.M., Brander, M. and Matthews, H.D. (2022) 'Renewable energy certificates threaten the integrity of corporate science-based targets', Nature Climate Change, 12, pp. 539–546. doi:<https://doi.org/10.1038/s41558-022-01379-5>
- Black, R., Cullen, K., Fay, B., et al. (2021) Taking Stock: a global assessment of net zero targets. Energy & Climate Intelligence Unit and Oxford Net Zero. Available at: https://ca1-eci.edcdn.com/reports/ECIU-Oxford_Taking_Stock.pdf?v=1616461369
- Bousso, R. (2024) 'Shell weakens 2030 carbon emissions reduction target', Reuters, 14 March. Available at: <https://www.reuters.com/sustainability/climate-energy/shell-loosens-2030-carbon-emissions-target-2024-03-14/> (Accessed: 19 August 2025)
- Brack, D. and King, R. (2021) 'Managing Land-based CDR: BECCS, Forests and Carbon Sequestration', Global Policy, 12(S1), pp. 45–56. doi:10.1111/1758-5899.12827
- Brazilian Government (2025) Brazil's NDC - National determination to contribute and transform. Available at: https://unfccc.int/sites/default/files/2024-11/Brazil_Second%20Nationally%20Determined%20Contribution%20%28NDC%29_November2024.pdf (Accessed: 18 August 2025)
- Broadbent, H. and Jones, D. (2024) 'World close to peak emissions in the power sector', Ember. Available at: <https://ember-energy.org/latest-insights/world-close-to-peak-emissions-in-the-power-sector> (Accessed: 16 September 2025)
- Brunner, C., Hausfather, Z. and Knutti, R. (2024) 'Durability of carbon dioxide removal is critical for Paris climate goals', Communications Earth & Environment, 5(645), pp. 1–6. doi:10.1038/s43247-024-01808-7

- Bryan, K. (2025) "'Net zero' emissions standard paused as Shell quits', Financial Times, 22 July. Available at: <https://www.ft.com/content/21c8dab8-567b-4926-925e-6f56ba36acb2> (Accessed: 19 August 2025)
- Calvin, K., Cowie, A., Berndes, G., et al. (2020) 'Bioenergy for climate change mitigation: Scale and sustainability', *GCB Bioenergy*, 13, pp. 1346–1371. doi:10.1111/gcbb.12863
- Carbon Market Watch (2024) Carbon offsetting, Carbon Market Watch. Available at: <https://carbonmarketwatch.org/carbon-offsetting/> (Accessed: 27 August 2025)
- CAT (2025) Brazil, Climate Action Tracker. Available at: <https://climateactiontracker.org/countries/brazil/2035-ndc/> (Accessed: 18 August 2025)
- CDR.fyi (2025a) CDR Market Survey 2025. CDR.fyi, Sylvera. Available at: <https://cdrfyi.retool.com/apps/bcf619be-4611-11ee-81d9-73f4c37ebd80/CDR.fyi/Partner%20Portal> (Accessed: 25 August 2025)
- CDR.fyi (2025b) 'Leaderboards'. Available at: <https://www.cdr.fyi/leaderboards> (Accessed: 9 July 2025)
- Center, E. (2025) 'Australia's climate moment: private sector NDC engagement and global dialogue', UN Global Compact Network Australia, 19 August. Available at: <https://unglobalcompact.org.au/australias-climate-moment-private-sector-ndc-engagement-and-global-dialogue/> (Accessed: 16 September 2025)
- Central African Forest Initiative (CAFI) (2021) Gabon receives first payment for reducing CO2 emissions under historic CAFI agreement. Available at: <https://www.cafi.org/countries/gabon/gabon-receives-first-payment-reducing-co2-emissions-under-historic-cafi-agreement> (Accessed: 27 August 2025)
- Chan, S., Reyes de la Lanza, S., Van den Wall Bake, K., et al. (2025) 'Nature/Climate - Cooperative Initiatives Databases (N/C-CID)'. Radboud University, German Institute of Development and Sustainability (IDOS), Tropical Agricultural Research and Higher Education Center (CATIE). Available at: <https://globaldatalab.org/c-cid/> (Accessed: 25 August 2025)
- Clarke, L., Wei, Y.-M. and De la Vega Navarro, A. (2023) 'Energy Systems', in *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Intergovernmental Panel On Climate Change (IPCC), pp. 613–746. doi:10.1017/9781009157926.008
- Climate Action Tracker (2025a) CAT 2035 Climate Target Update Tracker. Available at: <https://climateactiontracker.org/climate-target-update-tracker-2035/> (Accessed: 19 August 2025)
- Climate Action Tracker (2025b) Climate Action Tracker - Brazil - Assessment. Available at: <https://climateactiontracker.org/countries/brazil/2022-02-14/> (Accessed: 16 September 2025)
- Climate Ambition Alliance (2019) Annex Alliance. Available at: <https://cop25.mma.gob.cl/wp-content/uploads/2020/12/1312-Annex-Alliance-ENGLISH-VF-2012.pdf>
- ClimateAction (2025) Roadmap to COP30 - Climate Action in 2025 - Climate Action. Available at: <https://www.climateaction.org/news/roadmap-to-cop30-climate-action-in-2025> (Accessed: 25 August 2025)
- de Coninck, H., Revi, A., Babiker, M., et al. (2018) 'Strengthening and Implementing the Global Response', in Masson-Delmotte, V. et al. (eds) *Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change.*, Cambridge University Press, pp. 313–444. Available at: https://www.ipcc.ch/site/assets/uploads/sites/2/2019/02/SR15_Chapter4_Low_Res.pdf
- de Coninck, H., Revi, A. and Babiker, M. (2018) 'Strengthening and Implementing the Global Response', in *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*. Cambridge University

Press. Cambridge, New York: Intergovernmental Panel On Climate Change (IPCC). Available at: <https://www.ipcc.ch/sr15/chapter/chapter-4/> (Accessed: 5 September 2025)

Convention on Biological Diversity (2025) The Cali Fund launches in the margins of the resumed session of COP16, The Cali Fund launches in the margins of the resumed session of COP16. Available at: <https://www.cbd.int/article/cali-fund-launch-2025> (Accessed: 26 August 2025)

COP30 Brasil Presidency (2025a) Civil society submits letter to COP30 presidency with proposals to finance the Amazônia protection. Available at: <https://cop30.br/en/news-about-cop30/civil-society-submits-letter-to-cop30-presidency-with-proposals-to-finance-the-amazonia-protection> (Accessed: 25 August 2025)

COP30 Brasil Presidency (2025b) COP30 Brasil Bulletin #11 - At COP30, Curupira fortifies Brasil's connection to nature. Available at: <https://cop30.br/en/news-about-cop30/cop30-brasil-radio-bulletin/at-cop30-curupira-fortifies-brasils-connection-to-nature> (Accessed: 25 August 2025)

Dwyer, O., Quiroz, Y. and Viglione, G. (2024) 'COP29: Five key takeaways from Brazil's 2035 climate pledge', Carbon Brief, 20 November. Available at: <https://www.carbonbrief.org/cop29-five-key-takeaways-from-brazils-2035-climate-pledge/> (Accessed: 18 August 2025)

EIA (2025) Biomass explained - U.S. Energy Information Administration (EIA). Available at: <https://www.eia.gov/energyexplained/biomass/> (Accessed: 9 September 2025)

Energy Institute (2025) Statistical Review of World Energy. Available at: <https://www.energyinst.org/statistical-review> (Accessed: 9 September 2025)

European Commission (2025a) EU Climate Law: new way to reach 2040 targets - European Commission. Available at: https://commission.europa.eu/news-and-media/news/eu-climate-law-new-way-reach-2040-targets-2025-07-02_en (Accessed: 16 September 2025)

European Commission (2025b) European Ocean Pact, Commission adopts European Ocean Pact for a healthy ocean, a competitive blue economy and thriving coastal communities. Available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_25_1424 (Accessed: 3 September 2025)

European Commission (2025c) 'Biomass'. Available at: https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/biomass_en (Accessed: 9 September 2025)

Fankhauser, S., Smith, S.M., Allen, M., et al. (2022) 'The meaning of net zero and how to get it right', Nature Climate Change, 12(1), pp. 15–21. doi:10.1038/s41558-021-01245-w

Forbes (2025) The Global 2000. Available at: <https://web.archive.org/web/20250722050256/https://www.forbes.com/lists/global2000/> (Accessed: 22 July 2025)

Forster, P.M., Smith, C., Walsh, T., et al. (2025) 'Indicators of Global Climate Change 2024: annual update of key indicators of the state of the climate system and human influence', Earth System Science Data, 17(6), pp. 2641–2680. doi:10.5194/essd-17-2641-2025

Gayle, D. (2025) 'Europe's pledge to spend more on military will hurt climate and social programmes', The Guardian, 24 June. Available at: <https://www.theguardian.com/world/2025/jun/24/europes-pledge-to-spend-more-on-military-will-hurt-climate-and-social-programmes> (Accessed: 16 September 2025)

Gidden, M.J., Joshi, S., Armitage, J.J., et al. (2025) 'A prudent planetary limit for geologic carbon storage', Nature, 645(8079), pp. 124–132. doi:10.1038/s41586-025-09423-y

Gold Standard and Milkywire (2024) Funding Beyond Value Chain Mitigation - Step by step guidance for organisations taking responsibility for their emissions. Gold Standard. Available at: <https://www.goldstandard.org/events/launch-of-funding-beyond-value-chain-mitigation-step-by-step-guidance>

- Goldman, E. and Weisse, M. (2024) Deforestation Linked to Agriculture. World Resource Institute. Available at: <https://gfr.wri.org/forest-extent-indicators/deforestation-agriculture> (Accessed: 27 August 2025)
- Goodman, A.C., Joe (2023) In-depth Q&A: What are 'biodiversity offsets'?, Carbon Brief. Available at: <https://interactive.carbonbrief.org/carbon-offsets-2023/biodiversity.html> (Accessed: 27 August 2025)
- Graham, E., Fulghum, N. and Altieri, K. (2025) Global Electricity Review 2025. Ember. Available at: <https://ember-energy.org/latest-insights/global-electricity-review-2025> (Accessed: 19 August 2025)
- Grattan, S. (2025) 'Indigenous groups demand action from South American leaders at Amazon summit', AP News, 19 August. Available at: <https://apnews.com/article/colombia-summit-amazon-presidents-indigenous-leaders-b2c0284200a6263b4c88f9618a6ec4ed> (Accessed: 25 August 2025)
- Greenfield, P. (2023) 'Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows', The Guardian, 18 January. Available at: <https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe> (Accessed: 27 August 2025)
- Hale, T. (2021) Governing net zero: the conveyor belt. Blavatnik School of Government, University of Oxford, pp. 1–3. Available at: <https://www.bsg.ox.ac.uk/sites/default/files/2021-11/2021-11 Hale Net Zero Policy Memo.pdf>
- Hale, T., Smith, S.M., Black, R., et al. (2022) 'Assessing the rapidly-emerging landscape of net zero targets', Climate Policy, 22(1), pp. 18–29. doi:10.1080/14693062.2021.2013155
- Hanssen, S.V., Daioglou, V., Steinmann, Z.J.N., et al. (2020) 'The climate change mitigation potential of bioenergy with carbon capture and storage', Nature Climate Change, 10, pp. 1023–1029. doi:10.1038/s41558-020-0885-y
- Haya, B.K., Anderegg, W.R.L., Beymer-Farris, B., et al. (2023) Quality Assessment of REDD+ Carbon Credit Projects. Berkeley Public Policy. Available at: <https://gspp.berkeley.edu/assets/uploads/page/Quality-Assessment-of-REDD+-Carbon-Crediting-EXECUTIVE-SUMMARY.pdf> (Accessed: 25 August 2025)
- High Seas Alliance (2025) 'Huge Wave of Ratifications for High Seas Treaty Marks Historic Progress Towards Entry into Force', 9 June. Available at: <https://highseasalliance.org/2025/06/09/huge-wave-of-ratifications-for-high-seas-treaty-marks-historic-progress-towards-entry-into-force/> (Accessed: 27 August 2025)
- Holtedahl, P., Magerkurth, C. and Pearson, T. (2021) Options for private sector involvement in REDD+ under ART, p. 20. Available at: <https://www.artredd.org/wp-content/uploads/2021/12/Private-Sector-Involvement-in-REDD-Under-ART-Dec-2021.pdf> (Accessed: 28 August 2025)
- ICJ (2025) 'Obligations of States in respect of Climate Change'. International Court of Justice. Available at: <https://www.icj-cij.org/case/187> (Accessed: 19 August 2025)
- ICLEI (2025) 'Climate Action Plan - City of Belém', January. Available at: <https://iclei.org/e-library/climate-action-plan-city-of-belem/> (Accessed: 18 August 2025)
- IEA (2025a) Bioenergy, IEA. Available at: <https://www.iea.org/energy-system/renewables/bioenergy> (Accessed: 26 August 2025)
- IEA (2025b) World Energy Investment 2025. Paris. Available at: <https://www.iea.org/reports/world-energy-investment-2025/executive-summary> (Accessed: 19 August 2025)
- IFRS (2025) IFRS Foundation publishes jurisdictional profiles providing transparency and evidencing progress towards adoption of ISSB Standards. Available at: <https://www.ifrs.org/news-and-events/news/2025/06/ifrs-foundation-publishes-jurisdictional-profiles-issb-standards/> (Accessed: 19 August 2025)
- IPCC (2023) Synthesis Report of the IPCC Sixth Assessment Report (AR6) - Summary for policymakers. Intergovernmental Panel on Climate Change (IPCC). doi:10.4324/9781315071961-11
- IPCC (2025) Authors for the IPCC Special Report on Climate Change and Cities selected. Available at: <https://www.ipcc.ch/2025/02/03/pr11srcities/> (Accessed: 19 August 2025)

ISO (2022) Net Zero Guidelines – Accelerating the transition to net zero. Geneva: International Organization for Standardization (ISO). Available at: <https://www.iso.org/obp/ui/en/#iso:std:iso:iwa:42:ed-1:v1:en>

ISO (2024) Creation of international standard on net zero gets underway, ISO. Available at: <https://www.iso.org/contents/news/2024/06/netzero-standard-underway.html> (Accessed: 20 August 2025)

Lang, J. and Hyslop, C. (2024) A Distinctly Private Pursuit: Not Going Net Zero. Net Zero Tracker (Energy & Climate Intelligence Unit, Data-Driven EnviroLab, NewClimate Institute, Oxford Net Zero). Available at: www.zerotracker.net/analysis/

Lecavalier, E., Gupta, B., Dias, L., et al. (2025) Oxford Climate Policy Monitor Annual Review. Oxford Climate Policy Hub, University of Oxford

Makortoff, K. (2025) 'Barclays follows HSBC in exit from banking industry's net zero alliance', The Guardian, 1 August. Available at: <https://www.theguardian.com/business/2025/aug/01/barclays-hsbc-exit-net-zero-banking-alliance> (Accessed: 19 August 2025)

McKinsey (2024) Why corporate commitments to nature have evolved. Available at: <https://www.mckinsey.com/industries/agriculture/our-insights/corporate-commitments-to-nature-have-evolved-since-2022> (Accessed: 25 August 2025)

nbs.CDR.fyi (2025) Bringing transparency to nature-based carbon credit purchases. Available at: <https://nbs.cdr.fyi/> (Accessed: 25 August 2025)

Nbs.CDR.fyi (2025) 'Key metrics'. Available at: <https://nbs.cdr.fyi/> (Accessed: 21 August 2025)

Net Zero Tracker (2023) Net Zero Stocktake 2023. NewClimate Institute, Oxford Net Zero, Energy & Climate Intelligence Unit; Data-Driven EnviroLab. Available at: https://ca1-nzt.edcdn.com/Reports/Net_Zero_Stocktake_2023.pdf?v=1689326892

Net Zero Tracker (2024) Net Zero Stocktake 2024. NewClimate Institute, Oxford Net Zero, Energy & Climate Intelligence Unit, Data-Driven EnviroLab. Available at: <https://zerotracker.net/analysis/net-zero-stocktake-2024>

Net Zero Tracker (2025) 'Net Zero Tracker Data Explorer [Status: 20.06.2025]'. Available at: <https://zerotracker.net/>

NewClimate Institute (2022) Corporate Climate Responsibility Monitor 2022: Assessing the transparency and integrity of companies' emission reduction and net zero targets. Berlin, Köln: NewClimate Institute. Available at: <https://newclimate.org/sites/default/files/2022-06/CorporateClimateResponsibilityMonitor2022.pdf> (Accessed: 25 August 2025)

NewClimate Institute (2023) A guide to climate contributions. Berlin, Köln: NewClimate Institute, p. 54. Available at: https://newclimate.org/sites/default/files/2023-07/NewClimate_GuideClimateContributions_Jul23.pdf (Accessed: 27 August 2025)

NewClimate Institute (2024) Corporate Climate Responsibility Monitor 2024. NewClimate Institute. Available at: https://newclimate.org/sites/default/files/2024-04/NewClimate_CCRM2024.pdf (Accessed: 25 August 2025)

NewClimate Institute (2025a) Companies' role in scaling up durable carbon dioxide removals – An assessment of the status quo and recommendations to voluntary initiatives. Berlin, Cologne: NewClimate Institute, p. 52

NewClimate Institute (2025b) Corporate Climate Responsibility Monitor 2025: Assessing the transparency, integrity and progress of corporate climate strategies. NewClimate Institute, p. 1. Available at: <http://newclimate.org/publications/> (Accessed: 29 July 2025)

Odawara, H. and Hirata, K. (2023) Assessing Net Zero: Integrity Review of 10 Japanese Companies. Climate Integrate. Available at: <https://climateintegrate.org/wp-content/uploads/2023/05/Assessing-Net-Zero-EN.pdf>

Probst, B., Toetzke, M., Anadon, L.D., et al. (2023) 'Systematic review of the actual emissions reductions of carbon offset projects across all major sectors'. Research Square. doi:10.21203/rs.3.rs-3149652/v1

PwC (2025) PwC's Second Annual State of Decarbonization Report. PricewaterhouseCoopers. Available at: <https://www.pwc.com/us/en/services/esg/library/assets/pwc-sustainability-decarbonization-2025.pdf>

Race to Zero (2022) Starting Line and Leadership Practices 3.0 - Minimum criteria required for participation in the Race to Zero campaign. UNFCCC. Available at: <https://climatechampions.unfccc.int/wp-content/uploads/2022/06/Race-to-Zero-Criteria-3.0-4.pdf>

Reuters (2025) 'Norway's Equinor scales back climate ambitions as wind changes', Reuters, 20 March. Available at: <https://www.reuters.com/business/energy/norways-equinor-scales-back-climate-ambitions-wind-changes-2025-03-20/> (Accessed: 19 August 2025)

Rodriguez, S. (2025) 'Amazon nations pledge support for Brazil's COP30 rainforest fund', Climate Home News, 23 August. Available at: <https://www.climatechangenews.com/2025/08/23/amazon-nations-pledge-support-for-brazils-cop30-rainforest-fund/> (Accessed: 25 August 2025)

SBTi (2025a) Financial Institutions, Science Based Targets Initiative. Available at: <https://sciencebasedtargets.org/financial-institutions> (Accessed: 19 August 2025)

SBTi (2025b) SBTi Trend Tracker. Science Based Targets initiative. Available at: https://files.sciencebasedtargets.org/production/files/STi-Trend-Tracker-2025.pdf?dm=1755179675&_gl=1*nsuu7h*_gcl_au*MTYzOTA1NDUyOS4xNzU1MjQ4Mzcw*_ga*MjI3NzU3ODQ0LjE3NTUyNDgzNzA.*_ga_22VNHNTFT3*czE3NTUyNDgzNzAkzEkZzAkDE3NTUyNDgzNzAkajYwJGwwJGgxNjE1NDZzNjkz (Accessed: 18 August 2025)

SBTi (2025c) Target dashboard - Science Based Targets, Science Based Targets Initiative. Available at: <https://sciencebasedtargets.org/target-dashboard> (Accessed: 16 September 2025)

Setzer, J. and Higham, C. (2025) Global trends in climate change litigation: 2025 snapshot. London: Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science. Available at: <https://www.lse.ac.uk/granthaminstitute/publication/global-trends-in-climate-change-litigation-2025-snapshot/> (Accessed: 19 August 2025)

Sinha, A. (2025) 'India's 2035 targets will "reflect the disappointment of COP29 outcome on climate finance in Baku"', The Indian Express, 6 February. Available at: <https://indianexpress.com/article/india/the-2035-targets-disappointment-cop29-outcome-climate-finance-baku-9818200/> (Accessed: 16 September 2025)

Sirur, S. (2025) 'Nine projects in India produced "problematic" carbon credits in 2024, says report', Mongabay-India, 2 July. Available at: <https://india.mongabay.com/2025/07/nine-projects-in-india-produced-problematic-carbon-credits-in-2024-says-report/> (Accessed: 9 September 2025)

Smith, S.M., Geden, O., Gidden, M.J., et al. (2024) The State of Carbon Dioxide Removal - 2nd Edition. University of Oxford, German Institute for International and Security Affairs, Mercator Research Institute on Global Commons and Climate Change, University of Wisconsin-Madison and International Institute for Applied Systems Analysis. doi:DOI%2010.17605/OSF.IO/F85QJ

Srouji, J. (2025) 'Are Countries' New Climate Plans Ambitious Enough? What We Know So Far'. Available at: <https://www.wri.org/insights/assessing-2025-ndcs> (Accessed: 16 September 2025)

Suzano (2025) Central de Sustentabilidade. Available at: <https://centraldesustentabilidade.suzano.com.br/en/sustainability-at-suzano/commitments-to-renewing-life/tackling-the-climate-crisis/> (Accessed: 25 August 2025)

The Economist (2025) The remarkable rise of "greenhushing". Available at: <https://www.economist.com/business/2025/07/29/the-remarkable-rise-of-greenhushing> (Accessed: 16 September 2025)

TotalEnergies (2023) Uganda: TotalEnergies' Biodiversity Program for the Tilenga Project, TotalEnergies.com.

Available at: <https://totalenergies.com/news/uganda-totalenergies-biodiversity-program-tilenga-project> (Accessed: 9 September 2025)

UN HLEG (2022) 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. Available at: https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf

UNEP (2023) State of Finance for Nature 2023 | UNEP - UN Environment Programme. Available at: <https://www.unep.org/resources/state-finance-nature-2023> (Accessed: 25 August 2025)

UNFCCC (2025a) 'Brazil Greenhouse Gas Inventory Data - Detailed data by Party'. Available at: https://di.unfccc.int/detailed_data_by_party (Accessed: 5 September 2025)

UNFCCC (2025b) NDC 3.0 | UNFCCC. Available at: <https://unfccc.int/ndc-3.0> (Accessed: 19 September 2025)

UNFCCC (2025) First Letter from the President of COP30, Ambassador André Corrêa do Lago. Available at: <https://cop30.br/en/brazilian-presidency/letters-from-the-presidency/letter-from-the-brazilian-presidency> (Accessed: 18 August 2025)

Unilever (2024) Unilever Climate Transition Action Plan updated 2024. Sustainability report. Unilever, p. 53. Available at: <https://www.unilever.com/files/ctap.pdf> (Accessed: 26 August 2025)

Verles, M., Leugers, S., Hewlett, O., et al. (2017) A New Paradigm for Voluntary Climate Action: 'Reduce Within, Finance Beyond'. Gold Standard. Available at: https://goldstandard.org/sites/default/files/documents/a_new_paradigm_for_voluntary_climate_action.pdf (Accessed: 9 March 2025)

Watts, J. (2024) 'Amazon rainforest could reach "tipping point" by 2050, scientists warn', The Guardian, 14 February. Available at: <https://www.theguardian.com/environment/2024/feb/14/amazon-rainforest-could-reach-tipping-point-by-2050-scientists-warn> (Accessed: 25 August 2025)

West, T.A.P., Bomfim, B. and Haya, B.K. (2024) 'Methodological issues with deforestation baselines compromise the integrity of carbon offsets from REDD+', Global Environmental Change, 87, p. 102863. doi:10.1016/j.gloenvcha.2024.102863

World Bank (2024) Viet Nam Receives \$51.5m World Bank Payment for Reducing Emissions Through Forest Preservation, World Bank. Available at: <https://www.worldbank.org/en/news/press-release/2024/03/21/viet-nam-receives-51-5m-world-bank-payment-for-reducing-emissions-through-forest-preservation> (Accessed: 27 August 2025)

World Bank Group (no date) GDP Current US (\$) World Bank Open Data, World Bank Open Data. Available at: <https://data.worldbank.org> (Accessed: 22 August 2025)

World Resources Institute (2021) 'STATEMENT: Brazil's 2050 Climate Neutrality Goal is an Important Gesture, but it Contradicts Climate Actions from the Administration'. Available at: <https://www.wri.org/news/statement-brazils-2050-climate-neutrality-goal-important-gesture-it-contradicts-climate> (Accessed: 16 September 2025)

WWF and BCG (2020) Beyond Science-Based Targets: A Blueprint for Corporate Action on Climate and Nature. World Wide Fund For Nature, Gland, Switzerland and Boston Consulting Group, Boston MA, USA, p. 19. Available at: https://wwfint.awsassets.panda.org/downloads/beyond_science_based_targets___a_blueprint_for_corporate_action_on_climate_and_nature.pdf

Appendix I

A1. All entities without mitigation targets

Name	Entity_type	End_target
United States of America	Country	No target
Bolivia	Country	No target
Libya	Country	No target
Syrian Arab Republic	Country	No target
Uttarakhand	Region	No target
Delhi (union territory)	Region	No target
Northern Cape	Region	No target
Alabama	Region	No target
Alaska	Region	No target
Arizona	Region	No target
Arkansas	Region	No target
Florida	Region	No target
Idaho	Region	No target
Indiana	Region	No target
Iowa	Region	No target
Kansas	Region	No target
Kentucky	Region	No target
Mississippi	Region	No target
Missouri	Region	No target
South Dakota	Region	No target
Tennessee	Region	No target
Texas	Region	No target
West Virginia	Region	No target
Wyoming	Region	No target
Saskatchewan	Region	No target
Nunavut	Region	No target
Haryana	Region	No target
Manipur	Region	No target
Mizoram	Region	No target
Nagaland	Region	No target
Odisha	Region	No target
Rajasthan	Region	No target

Name	Entity_type	End_target
Uttar Pradesh	Region	No target
Dadra and Nagar Haveli and Daman and Diu	Region	No target
Adygea	Region	No target
Altai	Region	No target
Bashkortostan	Region	No target
Buryatia	Region	No target
Chechnya	Region	No target
Chuvashia	Region	No target
Dagestan	Region	No target
Ingushetia	Region	No target
Kabardino-Balkaria	Region	No target
Kalmykia	Region	No target
Karachay-Cherkessia	Region	No target
Karelia	Region	No target
Khakassia	Region	No target
Komi	Region	No target
Mari El	Region	No target
Mordovia	Region	No target
North Ossetia-Alania	Region	No target
Yakutia	Region	No target
Tatarstan	Region	No target
Tuva	Region	No target
Udmurtia	Region	No target
Altai Krai	Region	No target
Krasnodar Krai	Region	No target
Krasnoyarsk Krai	Region	No target
Primorsky Krai	Region	No target
Stavropol Krai	Region	No target
Khabarovsk Krai	Region	No target
Amur Oblast	Region	No target
Arkhangelsk Oblast	Region	No target

Name	Entity_type	End_target
Astrakhan Oblast	Region	No target
Belgorod Oblast	Region	No target
Bryansk Oblast	Region	No target
Vladimir Oblast	Region	No target
Volgograd Oblast	Region	No target
Vologoda Oblast	Region	No target
Ivanovo Oblast	Region	No target
Irkutsk Oblast	Region	No target
Kaliningrad Oblast	Region	No target
Kaluga Oblast	Region	No target
Kamchatka Krai	Region	No target
Kemerovo Oblast	Region	No target
Kirov Oblast	Region	No target
Kostroma Oblast	Region	No target
Kurgan oblast	Region	No target
Kursk Oblast	Region	No target
Leningrad Oblast	Region	No target
Lipetsk Oblast	Region	No target
Magadan Oblast	Region	No target
Moscow Oblast	Region	No target
Murmansk Oblast	Region	No target
Nizhny Novgorod Oblast	Region	No target
Saxony	Region	No target
Saxony-Anhalt	Region	No target
Markazi	Region	No target
Qazvin	Region	No target
Gilan	Region	No target
East Azarbaijan	Region	No target
West Azarbaijan	Region	No target
Kurdistan	Region	No target
Ilam	Region	No target
Khuzestan	Region	No target
Chahar Mahaal and Bakhtiari	Region	No target
Kohkiluyeh and Buyer Ahmad	Region	No target

Name	Entity_type	End_target
Fars	Region	No target
Hormozgan	Region	No target
Sistan and Baluchistan	Region	No target
Semnan	Region	No target
Mazandaran	Region	No target
Golestan	Region	No target
North Khorasan	Region	No target
Razavi Khorasan	Region	No target
South Khorasan	Region	No target
Alborz	Region	No target
Riyadh region	Region	No target
Makkah region	Region	No target
Eastern region	Region	No target
Asir region	Region	No target
Tabuk region	Region	No target
Hail region	Region	No target
The Northern Border region	Region	No target
Jazan region	Region	No target
Najran region	Region	No target
Al Baha region	Region	No target
Al Jouf region	Region	No target
Coahuila	Region	No target
Hidalgo	Region	No target
Michoacán	Region	No target
Morelos	Region	No target
Nayarit	Region	No target
Tamaulipas	Region	No target
Zacatecas	Region	No target
Maluku	Region	No target
Acre	Region	No target
Alagoas	Region	No target
Amapá	Region	No target
Bahia	Region	No target
Piauí	Region	No target
Rio Grande do Norte	Region	No target

Name	Entity_type	End_target
Rondônia	Region	No target
Roraima	Region	No target
Santa Catarina	Region	No target
Sergipe	Region	No target
Tocantins	Region	No target
Eastern Cape	Region	No target
North West	Region	No target
Free State	Region	No target
Reunion	Region	No target
Mayotte	Region	No target
Adıyaman	Region	No target
Afyonkarahisar	Region	No target
Ağrı	Region	No target
Amasya	Region	No target
Artvin	Region	No target
Aydın	Region	No target
Bilecik	Region	No target
Bingöl	Region	No target
Bitlis	Region	No target
Bolu	Region	No target
Burdur	Region	No target
Çanakkale	Region	No target
Çankırı	Region	No target
Çorum	Region	No target
Diyarbakır	Region	No target
Edirne	Region	No target
Elazığ	Region	No target
Erzincan	Region	No target
Erzurum	Region	No target
Eskişehir	Region	No target
Giresun	Region	No target
Gümüşhane	Region	No target
Hakkâri	Region	No target
Hatay	Region	No target
Isparta	Region	No target

Name	Entity_type	End_target
Kars	Region	No target
Kastamonu	Region	No target
Kırklareli	Region	No target
Kırşehir	Region	No target
Kocaeli	Region	No target
Kütahya	Region	No target
Malatya	Region	No target
Manisa	Region	No target
Mardin	Region	No target
Muğla	Region	No target
Muş	Region	No target
Niğde	Region	No target
Ordu	Region	No target
Rize	Region	No target
Siirt	Region	No target
Sinop	Region	No target
Sivas	Region	No target
Tekirdağ	Region	No target
Tokat	Region	No target
Trabzon	Region	No target
Tunceli	Region	No target
Şanlıurfa	Region	No target
Uşak	Region	No target
Van	Region	No target
Yozgat	Region	No target
Zonguldak	Region	No target
Aksaray	Region	No target
Bayburt	Region	No target
Karaman	Region	No target
Kırıkkale	Region	No target
Batman	Region	No target
Şırnak	Region	No target
Bartın	Region	No target
Ardahan	Region	No target
Iğdır	Region	No target

Name	Entity_type	End_target
Yalova	Region	No target
Karabük	Region	No target
Kilis	Region	No target
Osmaniye	Region	No target
Düzce	Region	No target
Amnat Charoen	Region	No target
Ang Thong	Region	No target
Bangkok Metropolis	Region	No target
Bueng Kan	Region	No target
Buri Ram	Region	No target
Chachoengsao	Region	No target
Chai Nat	Region	No target
Chaiyaphum	Region	No target
Chanthaburi	Region	No target
Kamphaeng Phet	Region	No target
Kanchanaburi	Region	No target
Lampang	Region	No target
Lamphun	Region	No target
Loei	Region	No target
Maha Sarakham	Region	No target
Mukdahan	Region	No target
Nakhon Nayok	Region	No target
Nakhon Si Thammarat	Region	No target
Nan	Region	No target
Narathiwat	Region	No target
Nong Bua Lam Phu	Region	No target
Pattani	Region	No target
Phangnga	Region	No target
Phayao	Region	No target
Phetchabun	Region	No target
Phetchaburi	Region	No target
Phichit	Region	No target
Phrae	Region	No target
Phra Nakhon Si Ayutthaya	Region	No target
Prachuap Khiri Khan	Region	No target

Name	Entity_type	End_target
Ratchaburi	Region	No target
Roi Et	Region	No target
Saraburi	Region	No target
Sing Buri	Region	No target
Tak	Region	No target
Trang	Region	No target
Trat	Region	No target
Uthai Thani	Region	No target
Uttaradit	Region	No target
Yala	Region	No target
Kuyavia-Pomerania	Region	No target
Lesser Poland	Region	No target
Lublin	Region	No target
Lubusz	Region	No target
Opole	Region	No target
Podlaskie	Region	No target
Pomerania	Region	No target
Silesia	Region	No target
Subcarpathia	Region	No target
Holy Cross Province	Region	No target
West Pomerania	Region	No target
Aqmola	Region	No target
Aqtöbe	Region	No target
Pavlodar	Region	No target
Qaraghandy	Region	No target
Qostanay	Region	No target
Zhambyl	Region	No target
Galicia	Region	No target
Ceuta	Region	No target
Islas Chafarinas	Region	No target
Penon de Alhucemas	Region	No target
Penon de Velez de la Gomera	Region	No target
Changhua	Region	No target
Hualien	Region	No target
Lienchiang	Region	No target

Name	Entity_type	End_target
Miaoli	Region	No target
Yunlin	Region	No target
Kedah	Region	No target
Kelantan	Region	No target
Negeri Sembilan	Region	No target
Perak	Region	No target
Perlis	Region	No target
Labuan	Region	No target
Aceh	Region	No target
Bangka Belitung Islands	Region	No target
Banten	Region	No target
Bengkulu	Region	No target
Central Java	Region	No target
Central Kalimantan	Region	No target
Central Sulawesi	Region	No target
East Java	Region	No target
Gorontalo	Region	No target
Jambi	Region	No target
Lampung	Region	No target
North Kalimantan	Region	No target
North Maluku	Region	No target
North Sulawesi	Region	No target
North Sumatra	Region	No target
Papua	Region	No target
Riau Islands	Region	No target
South Kalimantan	Region	No target
South Sulawesi	Region	No target
South Sumatra	Region	No target
Southeast Sulawesi	Region	No target
Special Region of Yogyakarta	Region	No target
West Kalimantan	Region	No target
West Papua	Region	No target
West Sulawesi	Region	No target
West Sumatra	Region	No target
Chelyabinsk Oblast	Region	No target

Name	Entity_type	End_target
Chukotka Autonomous Okrug	Region	No target
Jewish Autonomous Oblast	Region	No target
Khanty–Mansi Autonomous Okrug – Yugra	Region	No target
Nenets Autonomous Okrug	Region	No target
Novgorod Oblast	Region	No target
Novosibirsk Oblast	Region	No target
Omsk Oblast	Region	No target
Orenburg Oblast	Region	No target
Oryol Oblast	Region	No target
Penza Oblast	Region	No target
Perm Krai	Region	No target
Pskov Oblast	Region	No target
Rostov Oblast	Region	No target
Ryazan Oblast	Region	No target
Samara Oblast	Region	No target
Saratov Oblast	Region	No target
Smolensk Oblast	Region	No target
Sverdlovsk Oblast	Region	No target
Tambov Oblast	Region	No target
Tomsk Oblast	Region	No target
Tula Oblast	Region	No target
Tver Oblast	Region	No target
Tyumen Oblast	Region	No target
Ulyanovsk Oblast	Region	No target
Voronezh Oblast	Region	No target
Yamalo-Nenets Autonomous Okrug	Region	No target
Yaroslavl Oblast	Region	No target
Zabaykalsky Krai	Region	No target
Baja California Sur	Region	No target
Durango	Region	No target
Guerrero	Region	No target
Puebla	Region	No target
Querétaro	Region	No target

Name	Entity_type	End_target
San Luis Potosí	Region	No target
Sinaloa	Region	No target
Tabasco	Region	No target
Tlaxcala	Region	No target
Veracruz	Region	No target
Adana	Region	No target
Ankara	Region	No target
Antalya	Region	No target
Bursa	Region	No target
Denizli	Region	No target
Gaziantep	Region	No target
Istanbul	Region	No target
Izmir	Region	No target
Kahramanmaras	Region	No target
Kayseri	Region	No target
Konya	Region	No target
Mersin	Region	No target
Sakarya	Region	No target
Samsun	Region	No target
Chiang Mai	Region	No target
Chiang Rai	Region	No target
Chon Buri	Region	No target
Kalasin	Region	No target
Nakhon Ratchasima	Region	No target
Pathum Thani	Region	No target
Rayong	Region	No target
Samut Prakan	Region	No target
Samut Sakhon	Region	No target
Songkhla	Region	No target
Udon Thani	Region	No target
Balearic Islands	Region	No target
Cantabria	Region	No target
Extremadura	Region	No target
La Rioja	Region	No target
Principality of Asturias	Region	No target

Name	Entity_type	End_target
Almaty	Region	No target
Astana	Region	No target
Atyrau	Region	No target
East Kazakhstan	Region	No target
Qyzylorda	Region	No target
South Kazakhstan	Region	No target
West Kazakhstan	Region	No target
Kermanshah	Region	No target
Tehran	Region	No target
Yazd	Region	No target
Nantou	Region	No target
Puducherry	Region	No target
French Guiana	Region	No target
Georgia	Region	No target
Lódz	Region	No target
Terengganu	Region	No target
Apulia	Region	No target
Basilicata	Region	No target
Calabria	Region	No target
Campania	Region	No target
Liguria	Region	No target
Marche	Region	No target
Molise	Region	No target
Sicily	Region	No target
Umbria	Region	No target
AL-Qassim	Region	No target
Central Papua	Region	No target
Highland Papua	Region	No target
South Papua	Region	No target
Southwest Papua	Region	No target
Rio de Janeiro	Region	No target
Birmingham, AL	City	No target
Busto Arsizio	City	No target
Freetown	City	No target
Tweed Heads	City	No target

Name	Entity_type	End_target
Grand Rapids, MI	City	No target
Karachi	City	No target
Kolkata	City	No target
Tamale	City	No target
Aba	City	No target
Abakaliki	City	No target
Abeokuta	City	No target
Abomey-Calavi	City	No target
Abuja	City	No target
Acapulco de Juárez	City	No target
Ad-Dammam	City	No target
Doha	City	No target
Adan	City	No target
Agadir	City	No target
Agartala	City	No target
Agra	City	No target
Aguascalientes	City	No target
Ahvaz	City	No target
Akure	City	No target
Al Kuwayt (Kuwait City)	City	No target
Al-Ain	City	No target
Al-Basrah (Basra)	City	No target
Al-Hudaydah	City	No target
Al-Khartum (Khartoum)	City	No target
Al-Madinah (Medina)	City	No target
Al-Mahallah al-Kubra	City	No target
Al-Manamah (Manama)	City	No target
Al-Mawsil (Mosul)	City	No target
Al-Raqqa	City	No target
Aligarh	City	No target
Allahabad	City	No target
Almaty	City	No target
Amara	City	No target
Amravati	City	No target
Ankang	City	No target

Name	Entity_type	End_target
Ankara	City	No target
Anqing	City	No target
Anqiu	City	No target
Anshan	City	No target
Anshun	City	No target
Antananarivo	City	No target
Antipolo	City	No target
Ar-Rayyan	City	No target
Ar-Riyadh (Riyadh)	City	No target
Aracaju	City	No target
Ardabil	City	No target
Arequipa	City	No target
As-Suways	City	No target
Asansol	City	No target
Ash-Shariqah (Sharjah)	City	No target
Asmara	City	No target
Astana	City	No target
Astrakhan	City	No target
Asunción	City	No target
Bacoor	City	No target
Bahawalpur	City	No target
Baishan	City	No target
Baku	City	No target
Bamako	City	No target
Bamenda	City	No target
Bandar Abbas	City	No target
Bandar Lampung	City	No target
Bandung	City	No target
Banghazi	City	No target
Bangui	City	No target
Baoding	City	No target
Baoji	City	No target
Baotou	City	No target
Barcelona-Puerto La Cruz	City	No target
Bareilly	City	No target

Name	Entity_type	End_target
Bari	City	No target
Barnaul	City	No target
Barquisimeto	City	No target
Basilan City (including City of Isabela)	City	No target
Batam	City	No target
Bauchi	City	No target
Bayrut (Beirut)	City	No target
Bazhong	City	No target
Be'er Sheva	City	No target
Bekasi	City	No target
Belgaum	City	No target
Bellary	City	No target
Bengbu	City	No target
Benxi	City	No target
Bhavnagar	City	No target
Bhubaneswar	City	No target
Bien Hoa	City	No target
Bijie	City	No target
Bikaner	City	No target
Binzhou	City	No target
Bishkek	City	No target
Bissau	City	No target
Bogra	City	No target
Bokaro Steel City	City	No target
Bozhou	City	No target
Bridgeport-Stamford	City	No target
Bucaramanga	City	No target
Bucuresti (Bucharest)	City	No target
Buffalo, NY	City	No target
Bulawayo	City	No target
Buraydah	City	No target
Cabimas	City	No target
Cabinda	City	No target
Cagayan de Oro City	City	No target
Calabar	City	No target

Name	Entity_type	End_target
Calamba	City	No target
Campo Grande	City	No target
Can Tho City	City	No target
Cangzhou	City	No target
Cape Coral	City	No target
Caracas	City	No target
Cartagena	City	No target
Catania	City	No target
Cenxi	City	No target
Changchun	City	No target
Changde	City	No target
Changsha	City	No target
Changshu	City	No target
Changzhi	City	No target
Changzhou, Jiangsu	City	No target
Chaozhou	City	No target
Cheboksary	City	No target
Chelyabinsk	City	No target
Chengde	City	No target
Chenzhou	City	No target
Cherthala	City	No target
Chiang Mai	City	No target
Chiclayo	City	No target
Chifeng	City	No target
Chittagong	City	No target
Chon Buri	City	No target
Chongjin	City	No target
Chongqing	City	No target
Chuzhou	City	No target
Ciudad de Guatemala (Guatemala City)	City	No target
Ciudad Guayana	City	No target
Cixi	City	No target
Colombo	City	No target
Columbia, South Carolina	City	No target
Comilla	City	No target

Name	Entity_type	End_target
Conakry	City	No target
Cuautla Morelos	City	No target
Cúcuta	City	No target
Cuernavaca	City	No target
Cuiabá	City	No target
Cuito	City	No target
Culiacán	City	No target
Cuttack	City	No target
Dandong	City	No target
Danyang	City	No target
Daqing	City	No target
Dar-el-Beida (Casablanca)	City	No target
Dasmariñas	City	No target
Datong	City	No target
Davanagere	City	No target
Daye	City	No target
Dayton	City	No target
Dazhou	City	No target
Dengfeng	City	No target
Dengzhou	City	No target
Denpasar	City	No target
Deyang	City	No target
Dezhou	City	No target
Dimashq (Damascus)	City	No target
Dnipro	City	No target
Donetsk	City	No target
Dongguan	City	No target
Dongtai	City	No target
Dongyang	City	No target
Dongying	City	No target
Douai-Lens	City	No target
Douala	City	No target
Durg-Bhilainagar	City	No target
Durgapur	City	No target

Name	Entity_type	End_target
East London (Buffalo City)	City	No target
El Djazaïr (Algiers)	City	No target
El Paso	City	No target
Enshi	City	No target
Erduosi (Ordos)	City	No target
Erode	City	No target
Esfahan	City	No target
Nevsehir	City	No target
Ezhou	City	No target
Faisalabad	City	No target
Feicheng	City	No target
Feira De Santana	City	No target
Fès	City	No target
Florianópolis	City	No target
Fuqing	City	No target
Fushun, Liaoning	City	No target
Fuxin	City	No target
Fuyang	City	No target
Fuzhou, Jiangxi	City	No target
Ganzhou	City	No target
Gaomi	City	No target
Gaozhou	City	No target
Gaya	City	No target
Gaza (incl. Ash Shati Camp)	City	No target
Gebze	City	No target
Goiânia	City	No target
Goma	City	No target
Gomel	City	No target
Gorakhpur	City	No target
Grande São Luís	City	No target
Grande Vitória	City	No target
Greenville	City	No target
Guangyuan	City	No target
Guigang	City	No target

Name	Entity_type	End_target
Guilin	City	No target
Guiping	City	No target
Guiyang	City	No target
Gujranwala	City	No target
Gulbarga	City	No target
Guntur	City	No target
Guwahati (Gauhati)	City	No target
Haerbin	City	No target
Haicheng	City	No target
Haikou	City	No target
Haimen	City	No target
Haining	City	No target
Halab (Aleppo)	City	No target
Hamadan	City	No target
Hamah	City	No target
Hamhung	City	No target
Hanchuan	City	No target
Handan	City	No target
Hanzhong	City	No target
Harare	City	No target
Hargeysa	City	No target
Harrisburg	City	No target
Hebi	City	No target
Hefei	City	No target
Hegang	City	No target
Hengshui	City	No target
Hengyang	City	No target
Herat	City	No target
Hermosillo	City	No target
Heyuan	City	No target
Heze	City	No target
Hezhou	City	No target
Hillah	City	No target
Hims (Homs)	City	No target
Huhehaote	City	No target

Name	Entity_type	End_target
Huai'an	City	No target
Huaibei	City	No target
Huaihua	City	No target
Huainan	City	No target
Huambo	City	No target
Huangshi	City	No target
Hubli-Dharwad	City	No target
Hufuf-Mubarraz	City	No target
Huizhou	City	No target
Huludao	City	No target
Huzhou	City	No target
Hyderabad, Pakistan	City	No target
Ibadan	City	No target
Ibb	City	No target
Ikorodu	City	No target
Ilorin	City	No target
Imphal	City	No target
Imus	City	No target
Irkutsk	City	No target
Islamabad	City	No target
Izhevsk	City	No target
Jabalpur	City	No target
Jacksonville, Florida	City	No target
Jaipur	City	No target
Jalandhar	City	No target
Jalgaon	City	No target
Jamshedpur	City	No target
Jerusalem	City	No target
Jhansi	City	No target
Ji'nan, Shandong	City	No target
Jiamusi	City	No target
Jiangmen	City	No target
Jiangyin	City	No target
Jiaozhou	City	No target
Jiaozuo	City	No target

Name	Entity_type	End_target
Jiaxing	City	No target
Jiddah	City	No target
Jieyang	City	No target
Jilin	City	No target
Jingjiang	City	No target
Jingzhou, Hubei	City	No target
Jinhua	City	No target
Jining, Shandong	City	No target
Jinzhong	City	No target
Jinzhou	City	No target
Jiujiang	City	No target
Jixi, Heilongjiang	City	No target
João Pessoa	City	No target
Jodhpur	City	No target
Joinville	City	No target
Jos	City	No target
Jubayl	City	No target
Juiz De Fora	City	No target
Jundiaí	City	No target
Kabul	City	No target
Kaduna	City	No target
Kahramanmaras	City	No target
Kaifeng	City	No target
Kakinada	City	No target
Kananga	City	No target
Kano	City	No target
Kanpur	City	No target
Karaganda	City	No target
Karaj	City	No target
Kayamkulam	City	No target
Kemerovo	City	No target
Kerman	City	No target
Kermanshah	City	No target
Khabarovsk	City	No target
Khamis Mushayt	City	No target

Name	Entity_type	End_target
Khulna	City	No target
Kingston	City	No target
Kirkuk	City	No target
Kirov	City	No target
Kisangani	City	No target
Kitwe	City	No target
Kolhapur	City	No target
Kollam	City	No target
Konya	City	No target
Kota	City	No target
Kottayam	City	No target
Krasnodar	City	No target
Krasnoyarsk	City	No target
Kryvyi Rih	City	No target
Kuching	City	No target
Kuerle	City	No target
Kumasi	City	No target
Kunming	City	No target
Kunshan	City	No target
Kurnool	City	No target
Kyiv (Kiev)	City	No target
La Habana (Havana)	City	No target
La Laguna	City	No target
La Paz	City	No target
La Plata	City	No target
Laiwu	City	No target
Langfang	City	No target
Lanzhou	City	No target
Larkana	City	No target
Lattakia	City	No target
Leiyang	City	No target
Leshan	City	No target
Lianyungang	City	No target
Liaocheng	City	No target
Liaoyang	City	No target

Name	Entity_type	End_target
Libreville	City	No target
Liling	City	No target
Lilongwe	City	No target
Linfen	City	No target
Linhai	City	No target
Linyi, Shandong	City	No target
Lipetsk	City	No target
Liuan	City	No target
Liupanshui	City	No target
Liuyang	City	No target
Liuzhou	City	No target
Lokoja	City	No target
Lomé	City	No target
Londrina	City	No target
Longhai	City	No target
Longkou	City	No target
Longyan	City	No target
Loudi	City	No target
Luanda	City	No target
Lubango	City	No target
Lubumbashi	City	No target
Ludhiana	City	No target
Luohe	City	No target
Luoyang	City	No target
Luzhou	City	No target
Lviv	City	No target
Ma'anshan	City	No target
Maceió	City	No target
Madurai	City	No target
Maiduguri	City	No target
Makassar (Ujung Pandang)	City	No target
Makhachkala	City	No target
Makkah (Mecca)	City	No target
Malang	City	No target
Malanje	City	No target

Name	Entity_type	End_target
Managua	City	No target
Manaus	City	No target
Mangalore	City	No target
Maoming	City	No target
Mar Del Plata	City	No target
Maracaibo	City	No target
Maracay	City	No target
Marrakech	City	No target
Masqat (Muscat)	City	No target
Matamoros	City	No target
Mathura	City	No target
Matola	City	No target
Maturin	City	No target
Mazar-e Sharif	City	No target
Mbeya	City	No target
Mbuji-Mayi	City	No target
McAllen	City	No target
Medan	City	No target
Meerut	City	No target
Mekele	City	No target
Merca	City	No target
Mérida	City	No target
Mexicali	City	No target
Mianyang, Sichuan	City	No target
Miluo	City	No target
Minsk	City	No target
Misratah	City	No target
Monrovia	City	No target
Monterrey	City	No target
Montevideo	City	No target
Moradabad	City	No target
Morelia	City	No target
Moskva (Moscow)	City	No target
Mudanjiang	City	No target
Multan	City	No target

Name	Entity_type	End_target
Muqdisho (Mogadishu)	City	No target
Muzaffarnagar	City	No target
Mwanza	City	No target
Mysore	City	No target
N'Djaména	City	No target
Naberezhnye Tchelny	City	No target
Najaf	City	No target
Namangan	City	No target
Nampula	City	No target
Nanchang	City	No target
Nanchong	City	No target
Nanning	City	No target
Nantong	City	No target
Nanyang, Henan	City	No target
Napoli (Naples)	City	No target
Natal	City	No target
Nay Pyi Taw	City	No target
Ndola	City	No target
Neijiang	City	No target
Nellore	City	No target
Niamey	City	No target
Ningbo	City	No target
Nizhniy Novgorod	City	No target
Nnewi	City	No target
Nouakchott	City	No target
Novokuznetsk	City	No target
Novosibirsk	City	No target
Nyala	City	No target
Oaxaca	City	No target
Odesa	City	No target
Ogbomosho	City	No target
Oklahoma City, OK	City	No target
Omsk	City	No target
Onitsha	City	No target
Orenburg	City	No target

Name	Entity_type	End_target
Orumiyeh	City	No target
Oshogbo	City	No target
Ouagadougou	City	No target
Owerri	City	No target
Pachuca de Soto	City	No target
Padang	City	No target
Panipat	City	No target
Panjin	City	No target
Panzhihua	City	No target
Pathum Thani	City	No target
Patiala	City	No target
Patna	City	No target
Pekan Baru	City	No target
Penza	City	No target
Pereira	City	No target
Perm	City	No target
Peshawar	City	No target
Phnum Pénh (Phnom Penh)	City	No target
Pingdingshan, Henan	City	No target
Pingdu	City	No target
Pingxiang, Jiangxi	City	No target
Pizhou	City	No target
Pointe-Noire	City	No target
Pontianak	City	No target
Port Elizabeth (Nelson Mandela Bay)	City	No target
Port Harcourt	City	No target
Port of Spain	City	No target
Port St. Lucie	City	No target
Port-au-Prince	City	No target
Poza Rica de Hidalgo	City	No target
Provo-Orem	City	No target
Puducherry	City	No target
Puebla	City	No target
Puning	City	No target

Name	Entity_type	End_target
Putian	City	No target
Puyang	City	No target
Qianjiang	City	No target
Qingyuan	City	No target
Qingzhou	City	No target
Qinhuangdao	City	No target
Qinzhou	City	No target
Qiqihaer	City	No target
Qitaihe	City	No target
Qom	City	No target
Quanzhou	City	No target
Querétaro	City	No target
Qujing	City	No target
Quzhou	City	No target
Raipur	City	No target
Rajahmundry	City	No target
Ranchi	City	No target
Rasht	City	No target
Rawalpindi	City	No target
Rayong	City	No target
Renqiu	City	No target
Reynosa	City	No target
Ribeirão Preto	City	No target
Rizhao	City	No target
Rostov-na-Donu (Rostov-on-Don)	City	No target
Ruian	City	No target
Ryazan	City	No target
Safaqis	City	No target
Saharanpur	City	No target
Salem	City	No target
Samara	City	No target
Samarinda	City	No target
Samarkand	City	No target
Samsun	City	No target
Samut Prakan	City	No target

Name	Entity_type	End_target
Samut Sakhon	City	No target
San Jose del Monte	City	No target
San Juan, Argentina	City	No target
San Luis Potosí	City	No target
San Miguel de Tucumán	City	No target
San Pedro Sula	City	No target
Sana'a	City	No target
Sanhe	City	No target
Sankt Peterburg (Saint Petersburg)	City	No target
Sanmenxia	City	No target
Santa Cruz	City	No target
Santiago, Cuba	City	No target
Sanya	City	No target
São José dos Campos	City	No target
Saratov	City	No target
Sargodha	City	No target
Sekondi Takoradi	City	No target
Seongnam	City	No target
Seregno	City	No target
Seville	City	No target
Shangqiu	City	No target
Shangrao	City	No target
Shantou	City	No target
Shaoguan	City	No target
Shaoxing	City	No target
Shaoyang	City	No target
Sheikhupura	City	No target
Shenyang	City	No target
Shijiazhuang	City	No target
Shimkent	City	No target
Shiraz	City	No target
Shishi	City	No target
Shiyan	City	No target
Shizuishan	City	No target
Shouguang	City	No target

Name	Entity_type	End_target
Shuozhou	City	No target
Sialkot	City	No target
Sihui	City	No target
Siping	City	No target
Skopje	City	No target
Sokoto	City	No target
Songkhla	City	No target
Songyuan	City	No target
Soshanguve	City	No target
Suining, Sichuan	City	No target
Sukkur	City	No target
Suqian	City	No target
Surakarta	City	No target
Suzhou, Anhui	City	No target
Suzhou, Jiangsu	City	No target
Sylhet	City	No target
Ta'izz	City	No target
Tabuk	City	No target
Taian, Shandong	City	No target
Taichang	City	No target
Taif	City	No target
Taishan	City	No target
Taixing	City	No target
Taiyuan, Shanxi	City	No target
Taizhou, Jiangsu	City	No target
Taizhou, Zhejiang	City	No target
Tanger	City	No target
Tangerang	City	No target
Tarabulus (Tripoli)	City	No target
Tashkent	City	No target
Tasikmalaya	City	No target
Tegucigalpa	City	No target
Temecula-Murrieta	City	No target
Tengzhou	City	No target
Teresina	City	No target

Name	Entity_type	End_target
The Woodlands	City	No target
Thoothukkudi (Tuticorin)	City	No target
Thrissur	City	No target
Tianmen	City	No target
Tianshui	City	No target
Tijuana	City	No target
Tirupati	City	No target
Tiruppur	City	No target
Tlaxcala	City	No target
Tolyatti	City	No target
Tomsk	City	No target
Tongchuan	City	No target
Tonghua	City	No target
Tongliao	City	No target
Tongling	City	No target
Tongxiang	City	No target
Tshikapa	City	No target
Tulsa	City	No target
Tunis	City	No target
Tuxtla Gutierrez	City	No target
Tyumen	City	No target
Udon Thani	City	No target
Ufa	City	No target
Ujjain	City	No target
Ulan Bator	City	No target
Ulyanovsk	City	No target
Umuahia	City	No target
Ürümqi (Wulumqi)	City	No target
Uvira	City	No target
Uyo	City	No target
Vale do Aço	City	No target
Vellore	City	No target
Veracruz	City	No target
Vereeniging	City	No target
Villahermosa	City	No target

Name	Entity_type	End_target
Villavicencio	City	No target
Virginia Beach, VA	City	No target
Visakhapatnam	City	No target
Vladivostok	City	No target
Volgograd	City	No target
Wahran (Oran)	City	No target
Warangal	City	No target
Warri	City	No target
Weifang	City	No target
Weihai	City	No target
Weinan	City	No target
Wenling	City	No target
Wenzhou	City	No target
West Rand	City	No target
Wuhai	City	No target
Wuhu, Anhui	City	No target
Wuzhou	City	No target
Xi'an, Shaanxi	City	No target
Xiantao	City	No target
Xianyang, Shaanxi	City	No target
Xiaogan	City	No target
Xinghua	City	No target
Xingtai	City	No target
Xining	City	No target
Xinmi	City	No target
Xintai	City	No target
Xinxiang	City	No target
Xinyang	City	No target
Xinyi	City	No target
Xinyu	City	No target
Xuchang	City	No target
Xuzhou	City	No target
Yancheng, Jiangsu	City	No target
Yangjiang	City	No target
Yangon	City	No target

Name	Entity_type	End_target
Yangquan	City	No target
Yangzhou	City	No target
Yanji	City	No target
Yantai	City	No target
Yaoundé	City	No target
Yaroslavl	City	No target
Yazd	City	No target
Yekaterinburg	City	No target
Yerevan	City	No target
Yibin	City	No target
Yichang	City	No target
Yichun, Heilongjiang	City	No target
Yinchuan	City	No target
Yingkou	City	No target
Yiwu	City	No target
Yiyang, Hunan	City	No target
Yongkang	City	No target
Yongzhou	City	No target
Yueqing	City	No target
Yueyang	City	No target
Yulin, Guangxi	City	No target
Yulin, Shaanxi	City	No target
Yuncheng	City	No target
Yuxi	City	No target
Yuyao	City	No target
Zahedan	City	No target
Zanzibar	City	No target
Zaoyang	City	No target
Zaozhuang	City	No target
Zaporizhzhya	City	No target
Zaria	City	No target
Zhangjiagang	City	No target
Zhangjiakou	City	No target
Zhangzhou	City	No target
Zhanjiang	City	No target

Name	Entity_type	End_target
Zhaodong	City	No target
Zhaoqing	City	No target
Zhengzhou	City	No target
Zhongshan	City	No target
Zhoukou	City	No target
Zhoushan	City	No target
Zhucheng	City	No target
Zhuhai	City	No target
Zhuji	City	No target
Zhumadian	City	No target
Zhuzhou	City	No target
Zibo	City	No target
Zigong	City	No target
Zunyi	City	No target
Anyang	City	No target
Valencia	City	No target
Beira	City	No target
Twitter	Company	No target
Beira	Company	No target
Bank of Montreal	Company	No target
Porsche Automobil Holding SE	Company	No target
Pinnacle West Capital	Company	No target
Harel Insurance Investments & Financial Services	Company	No target
Liberty Broadband	Company	No target
Delivery Hero	Company	No target
ICBC	Company	No target
China Construction Bank	Company	No target
Berkshire Hathaway	Company	No target
Agricultural Bank of China	Company	No target
Bank of China	Company	No target
China Life Insurance Co	Company	No target
Shanghai Pudong Development Bank	Company	No target
CITIC	Company	No target

Name	Entity_type	End_target
China Minsheng Bank	Company	No target
Vanke	Company	No target
Country Garden Holdings	Company	No target
China Citic Bank	Company	No target
China Pacific Insurance Co	Company	No target
China Everbright Bank Co	Company	No target
Evergrande Real Estate	Company	No target
Poly Developments & Holdings Group	Company	No target
China Telecom	Company	No target
China Railway	Company	No target
China Resources Land	Company	No target
China Railway Construction	Company	No target
PICC	Company	No target
Charles Schwab	Company	No target
HCA Healthcare	Company	No target
Midea	Company	No target
JDcom	Company	No target
Gree Electric Appliances	Company	No target
Surgutneftgas	Company	No target
Bank of Beijing	Company	No target
Centene	Company	No target
China Unicom	Company	No target
Jardine Matheson	Company	No target
Greenland Holdings Group	Company	No target
Anhui Conch Cement	Company	No target
Fannie Mae	Company	No target
New China Life Insurance Co	Company	No target
Freddie Mac	Company	No target
Kweichow Moutai	Company	No target
CRRC	Company	No target
Kinder Morgan	Company	No target
Ameriprise Financial	Company	No target
Synchrony Financial	Company	No target

Name	Entity_type	End_target
Bank of Ningbo Co	Company	No target
Saudi National Bank	Company	No target
China National Building Material Co	Company	No target
Transneft	Company	No target
Fiserv	Company	No target
Bank Of Jiangsu	Company	No target
China Zheshang Bank	Company	No target
China Yangtze Power Co	Company	No target
CME	Company	No target
VTB Bank	Company	No target
Lennar	Company	No target
Power Construction Corporation of China	Company	No target
ViacomCBS	Company	No target
Al Rajhi Bank	Company	No target
China Fortune Land Development	Company	No target
Bank Central Asia	Company	No target
Suning.com	Company	No target
NTPC	Company	No target
Weichai Power Co	Company	No target
Fairfax Financial Holdings	Company	No target
China Tower Corp.	Company	No target
CITIC Securities Co	Company	No target
Bank of Nanjing	Company	No target
Kotak Mahindra Bank	Company	No target
Nintendo Co	Company	No target
China Cinda Asset Management Co	Company	No target
Hengli Petrochemical	Company	No target
Grupo Mexico	Company	No target
NetEase	Company	No target
D.R. Horton	Company	No target
DISH Network	Company	No target
Apollo Global Management	Company	No target
Tesla Motors	Company	No target

Name	Entity_type	End_target
CGN Power	Company	No target
Fox	Company	No target
Metallurgical of China	Company	No target
Wheelock & Co	Company	No target
Daqin Railway	Company	No target
Haitong Securities Co	Company	No target
Xiamen C&D	Company	No target
Beijing-Shanghai High-Speed Railway	Company	No target
Dongfeng Motor	Company	No target
Gemdale	Company	No target
Seazen Group	Company	No target
Wens Foodstuff Group	Company	No target
China Energy Engineering	Company	No target
Sany Heavy Industry	Company	No target
SM Investments	Company	No target
Telkom Indonesia	Company	No target
Riyad Bank	Company	No target
Legend Holding	Company	No target
Guangzhou R&F	Company	No target
China Reinsurance Group	Company	No target
Raymond James Financial	Company	No target
Hikvision	Company	No target
Guotai Junan Securities	Company	No target
Shengjing Bank	Company	No target
Roper Technologies	Company	No target
ROSSETI	Company	No target
Formosa Chemicals & Fibre	Company	No target
Unum	Company	No target
Wuliangye Yibin	Company	No target
Cheniere Energy	Company	No target
Huishang Bank	Company	No target
China Coal Energy	Company	No target
George Weston	Company	No target
Bank Of Hangzhou	Company	No target

Name	Entity_type	End_target
Meituan Dianping	Company	No target
Saudi British Bank	Company	No target
Power Finance	Company	No target
Equitable Holdings	Company	No target
Uni-President	Company	No target
Bank Leumi	Company	No target
American Financial	Company	No target
Genuine Parts Co	Company	No target
China Jinmao	Company	No target
China Eastern Airlines	Company	No target
Jinke Property Group	Company	No target
China Gezhouba	Company	No target
RiseSun Real Estate Development	Company	No target
New Hope Liuhe	Company	No target
Gen Digital	Company	No target
China National Nuclear Power	Company	No target
Everest Re	Company	No target
Guangzhou Rural Commercial Bank	Company	No target
China Southern Airlines Co	Company	No target
E-Trade Financial	Company	No target
Vertex Pharmaceuticals	Company	No target
BAIC Motor	Company	No target
Shanghai International Port	Company	No target
Dubai Islamic Bank	Company	No target
Banque Saudi Fransi	Company	No target
Itaúsa	Company	No target
BDO Unibank	Company	No target
Joint Stock Commercial Bank for Foreign Trade of Vietnam	Company	No target
Agile Group Holdings	Company	No target
Contemporary Amperex Technology	Company	No target
Intuitive Surgical	Company	No target
Altice USA	Company	No target

Name	Entity_type	End_target
Muyuan Foodstuff	Company	No target
Molina Healthcare	Company	No target
Qatar Islamic Bank SAQ	Company	No target
Public Storage	Company	No target
Financiere de l'Odéon	Company	No target
China Merchants Securities	Company	No target
Macy's	Company	No target
Shanghai Pharmaceuticals	Company	No target
China Life Insurance Co Ltd	Company	No target
Arab National Bank	Company	No target
Zhongsheng Group Holdings	Company	No target
Guosen Securities	Company	No target
China Huarong Asset Management	Company	No target
Grupo Elektra	Company	No target
Finatis	Company	No target
Jiangsu Zhongnan Construction Group	Company	No target
W R Berkley	Company	No target
Shanghai Construction	Company	No target
BBMG	Company	No target
Monster Beverage	Company	No target
HAL Trust	Company	No target
Genworth Financial	Company	No target
Bank of Greece	Company	No target
Jefferies Financial	Company	No target
Bank of Baroda	Company	No target
Jiangsu Hengrui Medicine	Company	No target
Align Technology	Company	No target
Foshan Haitian Flavouring and Food	Company	No target
Yango Group	Company	No target
GD Power Development	Company	No target
Markel	Company	No target
Inter Rao	Company	No target

Name	Entity_type	End_target
Universal Health Services	Company	No target
PulteGroup	Company	No target
Bank Of Guiyang	Company	No target
Vienna Insurance	Company	No target
Jiangsu Yanghe Brewery	Company	No target
Csc Financial	Company	No target
NVR	Company	No target
Corpay	Company	No target
Kaisa Holdings	Company	No target
AerCap Holdings	Company	No target
Shenwan Hongyuan Group	Company	No target
Bank of Changsha	Company	No target
Huadian Power International	Company	No target
Top Frontier Investment Holdings	Company	No target
Bank Of Chengdu	Company	No target
Verisign	Company	No target
Globe Life	Company	No target
Brighthouse Financial	Company	No target
Gs Holdings	Company	No target
China International Capital	Company	No target
Punjab National Bank	Company	No target
Tractor Supply Co	Company	No target
Samsung SDI Co	Company	No target
Zhongliang Holdings	Company	No target
KWG Group Holdings	Company	No target
Darden Restaurants	Company	No target
Garmin	Company	No target
Datang International Power	Company	No target
AntarChile	Company	No target
NEXON	Company	No target
360 Security Technology	Company	No target
Ahli United Bank	Company	No target
Zions Bancorp	Company	No target

Name	Entity_type	End_target
Annaly Capital Management	Company	No target
Hna Technology	Company	No target
Masraf Al Rayan QSC	Company	No target
Realty Income	Company	No target
Wuchan Zhongda Group	Company	No target
Citrix Systems	Company	No target
Banca Mediolanum	Company	No target
Popular	Company	No target
Yonghui Superstores	Company	No target
China Galaxy Securities	Company	No target
Fidelity National Financial	Company	No target
Hyundai Marine & Fire	Company	No target
Bank of Chongqing	Company	No target
Penske Automotive	Company	No target
Jiangsu Zhangjiagang Rural Commercial Bank	Company	No target
Harbin Bank	Company	No target
Hopson Development Holdings	Company	No target
Luzhou Lao Jiao	Company	No target
Tenet Healthcare	Company	No target
China Shipbuilding Industry	Company	No target
Tingyi Holding	Company	No target
Quinenco	Company	No target
Times Property Holdings	Company	No target
East West Bancorp	Company	No target
Ooredoo Q.P.S.C	Company	No target
Banco Btg Pactual	Company	No target
Yunnan Baiyao	Company	No target
Zhongyuan Bank	Company	No target
Hunan Valin Steel	Company	No target
Bausch Health Companies	Company	No target
Cincinnati Financial	Company	No target
Geberit	Company	No target
Bank Pekao	Company	No target

Name	Entity_type	End_target
Old Dominion Freight Line	Company	No target
Ronshine China Holdings	Company	No target
Migdal Insurance	Company	No target
Bank of Zhengzhou	Company	No target
SLM	Company	No target
China Feihe	Company	No target
Meritz Financial	Company	No target
ResMed	Company	No target
China Grand Automotive Services	Company	No target
Great Wall Motor Co	Company	No target
XPO Logistics	Company	No target
Cencosud	Company	No target
Huntington Ingalls Industries	Company	No target
China Resources Cement Holdings	Company	No target
SS&C Technologies	Company	No target
Beijing Capital Development	Company	No target
AGNC Investment	Company	No target
Rithm Capital	Company	No target
Guangdong Investment	Company	No target
AutoNation	Company	No target
Metropolitan Bank & Trust	Company	No target
Western Union	Company	No target
China Molybdenum	Company	No target
Arab Bank	Company	No target
Zhejiang Zheneng Electric Power	Company	No target
iHeartMedia	Company	No target
Navient	Company	No target
China International Marine	Company	No target
Synovus Financial	Company	No target
Hainan Airlines	Company	No target
Bank Audi	Company	No target
Reliance Steel	Company	No target

Name	Entity_type	End_target
Gudang Garam	Company	No target
China International Travel Service	Company	No target
OneMain Holdings	Company	No target
Enstar Group	Company	No target
American National Insurance	Company	No target
Grupo Inbursa	Company	No target
Blom Bank	Company	No target
Fgl Holdings	Company	No target
BOK Financial	Company	No target
Sichuan Language Development	Company	No target
AVIC Capita	Company	No target
Xiamen Xiangyu	Company	No target
IAC/InterActiveCorp	Company	No target
Industries Qatar QSC	Company	No target
Hertz Global Holdings	Company	No target
Vietin Bank	Company	No target
Zoom Video Communications	Company	No target
Cooper Companies	Company	No target
Almarai	Company	No target
Qingdao Rural Commercial Bank	Company	No target
Continental Resources	Company	No target
Zoomlion Heavy Industry	Company	No target
SBA Communications	Company	No target
Hengan International	Company	No target
Japan Securities	Company	No target
China Longyuan Power	Company	No target
Pinduoduo	Company	No target
Rajesh Exports	Company	No target
MercadoLibre	Company	No target
Unisplendour	Company	No target
Veeva Systems	Company	No target
Tahoe Group	Company	No target
Beijing Shougang	Company	No target

Name	Entity_type	End_target
PBF Energy	Company	No target
Shandong Gold Mining	Company	No target
Powerlong Real Estate	Company	No target
Invitation Homes	Company	No target
China Development Bank Financial Leasing	Company	No target
Interactive Brokers	Company	No target
Hubei Biocause Pharmaceutical	Company	No target
First Citizens Bank	Company	No target
Pgnig	Company	No target
Vodafone Idea	Company	No target
Community Health Sys	Company	No target
Rite Aid	Company	No target
M3	Company	No target
Bank Muscat	Company	No target
American Equity Investment	Company	No target
Lens Technology	Company	No target
Air Lease	Company	No target
Commerce Bank	Company	No target
Grupo Bolivar	Company	No target
Bank of Suzhou	Company	No target
Sinotruk Hong Kong	Company	No target
Avary Holding (Shenzhen)	Company	No target
Jiangxi Bank	Company	No target
Daelim Industrial	Company	No target
Moscow Exchange	Company	No target
SDIC Capital	Company	No target
Western Alliance Bancorp.	Company	No target
Unicaja Banco	Company	No target
Bank of Xi'an	Company	No target
Will Semiconductor	Company	No target
Mercantil Servicios	Company	No target
Offcn Education Technology	Company	No target
Huafa Industrial	Company	No target

Name	Entity_type	End_target
Huaibei Mining Holdings	Company	No target
VICI Properties	Company	No target
Constellation Software	Company	No target
Ares Capital	Company	No target
Bank of Qingdao	Company	No target
Bohai Leasing	Company	No target
Quanta Services	Company	No target
Hikari Tsushin	Company	No target
Targa Resources	Company	No target
Chongqing Zhifei Biological Products	Company	No target
Red Star Macalline Group	Company	No target
Ogaki Kyoritsu Bank	Company	No target
Avenue Supermarts	Company	No target
First Horizon National	Company	No target
Want Want China Holdings	Company	No target
Banque Centrale Populaire	Company	No target
RingCentral	Company	No target
Prosperity Bancshares	Company	No target
Zenith Bank	Company	No target
Dali Foods Group	Company	No target
East Money Information	Company	No target
China SCE Group Holdings	Company	No target
Canadian Apartment Properties Real Estate Investment Trust	Company	No target
Cronos Group	Company	No target
First American Financial	Company	No target
Cullen/Frost Bankers	Company	No target
Snap-On	Company	No target
Bank Of Gansu	Company	No target
Guangdong Haid Group	Company	No target
Shanghai Ganglian E-Commerce Holdings	Company	No target
LT Group	Company	No target
Chewy	Company	No target

Name	Entity_type	End_target
Stifel Financial	Company	No target
Frontier Communications	Company	No target
Clal Insurance Enterprises	Company	No target
E-L Financial	Company	No target
Banca Popolare di Sondrio	Company	No target
Beijing Kingsoft Office Software.	Company	No target
Foot Locker	Company	No target
Changchun High & New Technology	Company	No target
Jointown Pharmaceutical Group	Company	No target
Marketaxess Holdings	Company	No target
Medical Properties Trust	Company	No target
Yuzhou Properties	Company	No target
General Insurance Corporation Of India	Company	No target
Chimera Investment	Company	No target
Biomarin Pharmaceutical	Company	No target
Magazine Luiza	Company	No target
Yonyou Network Technology	Company	No target
China Nuclear Engineering Corporation	Company	No target
Xinyu Iron & Steel	Company	No target
Murphy USA	Company	No target
Semiconductor Manufacturing International	Company	No target
Toll Brothers	Company	No target
Indian Bank	Company	No target
Montage Technology	Company	No target
IDBI Bank	Company	No target
Brown & Brown	Company	No target
Roku	Company	No target
Wintrust Financial	Company	No target
FIBI Holdings	Company	No target
Financial Street Holdings	Company	No target
F.N.B.	Company	No target

Name	Entity_type	End_target
Nuernberger Beteiligungs	Company	No target
BJ's Wholesale Club	Company	No target
Shenzhen Goodix Technology	Company	No target
Paycom	Company	No target
Take-Two Interactive Software	Company	No target
Valley Natl Bancorp	Company	No target
Alnylam Pharmaceuticals	Company	No target
Credit Bank of Moscow	Company	No target
Founder Securities	Company	No target
Heico	Company	No target
Zhejiang Century Huatong Group	Company	No target
KKR	Company	No target
Postal Savings Bank Of China (PSBC)	Company	No target
Life Insurance Corp of India	Company	No target
International Holding Company	Company	No target
Corebridge Financial	Company	No target
PDD Holdings	Company	No target

A2. Race to Zero members' relative performance

Members of the Race to Zero have work to do, but the bigger challenge lies with non-members.

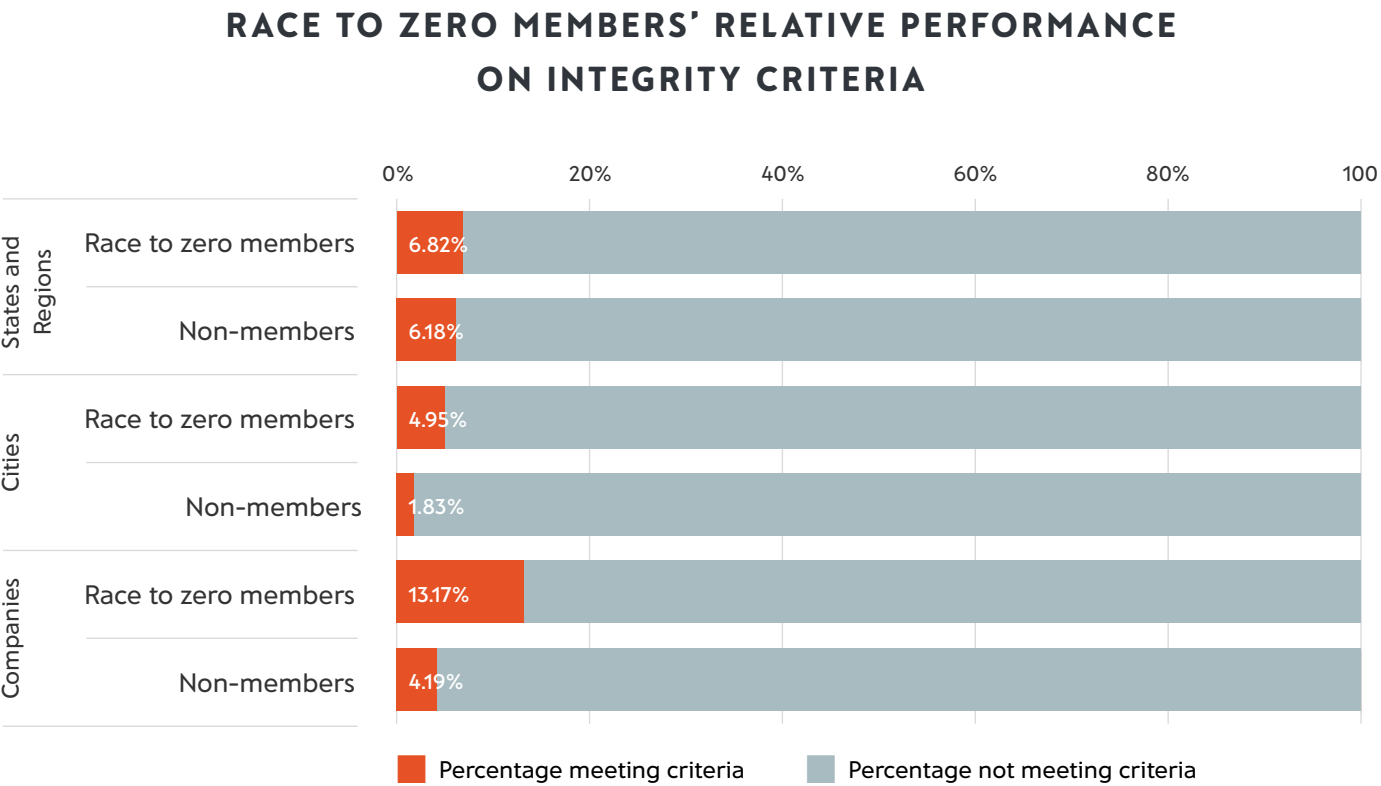


Figure 13: The share of net zero targets meeting all integrity criteria informed by the Race to Zero and UN Expert Group, by entity group and by their membership to Race to Zero partner initiatives.