

countries, 11 regions, 21 cities and 87 companies)

Governance

- regular reporting of progress is widespread for national targets, which was anticipated as this is part of nations' commitments to the UN climate convention
- 86 nations, 42 states and regions, 68 cities and 277 companies have a reporting mechanism
- 25 nations, 41 states & regions, 65 cities and 210 companies have a published plan
- 115 nations, 35 states & regions, 71 cities and 244 companies have set interim targets⁵¹
- across all entities, 10% by number explicitly took equity into account when setting their net zero targets.

As outlined earlier, participating in the Race To Zero Campaign requires entities to commit to meeting a set of 'starting line' criteria before COP26 – Pledge, Plan, Proceed and Publish. Looking across our whole sample, we find that the number of entities with net zero targets currently meeting all these criteria is:

- 15 countries (5% by emissions)⁵²
- 14 states and regions (85 million people)
- 8 cities (24 million people)
- 110 companies (\$2.15 trillion by sales).

The Race to Zero campaign also highlights two 'leadership practices' that all members should move towards:

- states & regions and cities should include all emissions, and businesses Scope 3 emissions
- a commitment that offsetting will meet robust standards and that use of offsets will reduce over time to the minimum feasible.

But as yet only a handful of entities clear this higher bar:

- 5 countries
- 4 states & regions
- 4 cities
- 11 companies.

⁵¹ For nations, we included emission-constraining commitments within NDCs as 'interim targets'. We do not assess in this analysis whether interim targets are compatible with the net zero target.

⁵² As noted earlier, nations are not members of Race to Zero – nevertheless, the starting line criteria can be considered to indicate a reasonable 'floor' for robustness applicable to nations' net zero commitments.

Conclusions

The rapid growth in net zero emission targets since the Paris Agreement, and especially since publication of the IPCC 1.5°C report, shows that a significant proportion of political and business leaders now accept the case for reaching net zero by mid-century. The pace at which net zero targets have proliferated would almost certainly not have been predicted just three years ago – especially not the commitment of the world's three biggest emitters: China, the US and EU.

Credibility test: Japan

In October 2020, Japan's Prime Minister Yoshihide Suga pledged to put his country on the path to net zero by 2050. Japanese lawmakers soon followed up the announcement with a climate emergency declaration.¹ Then, in December 2020, the country's trade ministry released a roadmap detailing how Japan could shepherd its economy away from fossil fuels towards low-carbon industries. The report named 14 industries where significant investment would be required to decarbonise over the next 30 years, including recommendations to invest in offshore wind, ammonia fuel and hydrogen, and even plans to revisit nuclear energy. In late 2020, the world's fifth largest emitter announced an investment of \$19 billion to support hydrogen commercialisation and presented a plan to revise its policy on coal-fired power, which is projected to generate 26% of the nation's electricity in 2030.^{2,3}

What is clear is that the flurry of net zero announcements in late 2020, particularly China's, pushed the Japanese government and some institutions into action. Just six months earlier it had published its NDC which was roundly condemned for lack of ambition. Now, in addition to producing a draft net zero roadmap, Japan's government is considering a ban on the sale of new fossil-fuel vehicles by 2035. The government-backed Development Bank of Japan's \$509 million fund to help drive expansion of wind power offers another example of a change in direction.

However – like its high-emitting, big-promising Asian neighbour South Korea (which has also pledged net zero by 2050) – this year represents a test of Japan's credibility on the world stage. The country's net zero ambition and the consistency of its policies with the Paris Agreement rely on, at the least, an upgrade in 2030 ambition and a clear roadmap for decarbonisation – preferably coupled with a governance framework to deliver it. The net zero pledge has brought the paucity of short-term action into sharp focus, raising the prospects of accelerating decarbonisation in the coming decade including, perhaps, via an NDC upgrade before the Glasgow COP.⁴

1 <https://www.reuters.com/article/us-climate-change-japan-resolution/japan-lawmakers-declare-climate-emergency-after-government-sets-zero-emissions-goal-idUSKBN27Z0GX>
 2 <https://ieefa.org/japanese-government-to-invest-19-billion-to-support-2030-hydrogen-commercialization-goal-report/>
 3 Submission of Japan's NDC, 2020, [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Japan%20First/SUBMISSION%20OF%20JAPAN'S%20NATIONALLY%20DETERMINED%20CONTRIBUTION%20\(NDC\).PDF](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Japan%20First/SUBMISSION%20OF%20JAPAN'S%20NATIONALLY%20DETERMINED%20CONTRIBUTION%20(NDC).PDF)
 4 https://www.env.go.jp/press/200330_Message.pdf Submission of Japan's NDC, 2020

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As such, the global momentum on net zero represents an exciting window through which to view decarbonisation. Setting a long-term science-based target and then working out how to meet it is a logical way to approach decarbonisation, for governments and business leaders alike.

However, net zero pledges will only deliver the 1.5°C global warming target if plans are robust and enacted swiftly, so that emissions fall substantially over this decade and continue towards net zero by mid-century. Our analysis shows that in this area there is, unsurprisingly given these are early days,