

Taking Stock of City and Regional Climate Pledges

Aligning Ambition with Action



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Key Messages

- Nearly 11,000 subnational governments have developed some kind of climate action plan tackling mitigation, adaptation, energy or an integrated approach, or established a climate related target. Within the G-20, which is responsible for more than 77% of global greenhouse emissions, 4,271 cities and 245 regions have pledged a total of 6,111 quantifiable emission reduction targets aiming for completion between 2025 and 2060.
- Collectively, the cities and regions pledging these targets represent 33% (2.6 billion) of the total global population. Europe holds ~65% of all registered targets, compared to East Asia and the Pacific (23%) and North America (7%), which had the second and third highest percentage of targets, highlighting a wealth-skewed concentration of commitments. However, population coverage is led by East Asia and the Pacific (~52%), followed by Europe (~14%) and North America (~13%), indicating that while North America and Europe account for nearly 72% of targets, they mostly come from smaller-population jurisdictions.
- Quantifiable emission reduction targets from G20 subnational governments with available emissions data (2,859 cities and 177 regions) aim to reduce emissions by around 4.7 GtCO₂e in 2030 and 8.2 GtCO₂e in 2050. If fully implemented, these contributions could narrow the 2030 1.5°C emissions gap by 30 percent. This reduction is more than the entire emissions of the U.S. energy sector. The largest 2030 mitigation contributions come from cities and regions in China (~1.63 GtCO₂e), the United States (~0.93 GtCO₂e) and the European Union (~0.89 GtCO₂e).
- With 60% of G20 emission reductions in 2035 lost due to retreat in U.S. national climate policy efforts alone, according to the 2025 UNEP Emissions Gap Report, city, state and regional climate efforts are even more critical to filling leadership and action voids. For the United States, city and regional efforts have increased since our previous 2023 stocktake, but even if fully implemented by 2030, they would still only represent 35% of the required reductions for the U.S. to stay on a 1.5°C pathway in 2030.
- Yet, progress is lagging and, in some places, stalling. We find that around 37% are on track to meet their targets. The current median annual reduction rate (1.36% per year) is around half of the reductions needed (2.65% per year) for cities and regions to be on track to meet their targets. To align their targets with reductions consistent with a 1.5°C pathway, subnational governments would need to triple their current efforts.

Suggested Citation

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Introduction

With 2025 marking 10 years since the Paris Agreement was adopted, evaluating what progress has been delivered, particularly by local and non-state actors like cities, states and regions, is critical. This need is compounded by the fact that major greenhouse gas-emitting countries have failed to deliver needed emission reductions or have retreated from national action altogether, like the United States. Recent reports, including the UNFCCC's 2025 NDC synthesis¹ and the 2025 UNEP Emissions Gap Report,² show a persistent and widening gap between national climate policy efforts and global climate goals. To close gaps in ambition, emissions and implementation, the role of subnational actors, including city and regional governments, are increasingly central to charting Paris-aligned pathways that account for multilevel government actions.

With the aim of assessing how city and regional government mitigation efforts can contribute to

global emission reductions, we first describe the landscape of climate planning and mitigation by analyzing the distribution and type of climate pledge of close to 10,000 subnational entities with climate-related plans and mitigations targets. We then examine the climate commitments of subnational entities in the G20, focusing on the 4,516 entities with quantifiable mitigation pledges which collectively cover 33% of the global population. Next, we estimate the collective contribution of subnational climate entities to G20 mitigation efforts, using the collective pledges of 3,036 entities to quantify their potential mitigation contribution, if fully achieved, on the G20's 1.5°C-pathway as well as to their individual countries. Finally, we analyze the performance of 1,566 subnational governments with available baseline and inventory emissions data to identify whether subnational entities are on-track to achieve their respective climate commitments.³

1 UNFCCC. (2025). <https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs/2025-ndc-synthesis-report>.

2 United Nations Environment Programme (2025). Emissions Gap Report 2025: Off target – Continued collective inaction puts global temperature goal at risk [Olhoff, A., chief editor; Lamb, W.; Kuramochi, T.; Rogelj, J.; den Elzen, M.; Christensen, J.; Fransen, T.; Pathak, M.; Tong, D. (eds)]. Nairobi. <https://doi.org/10.59117/20.500.11822/48854>.

3 This approach is adapted from Hsu, Tan, et al. (2020) and NewClimate Institute et al. (2021) and details are documented in Data-Driven EnviroLab, Utrecht University, and CDP. (2022). Global Climate Action 2022: Progress and Ambition of Cities, Regions and Companies. Research report prepared by the team of: Zhi Yi Yeo, Katherine Burley, Ian French, and Angel Hsu (Data-Driven EnviroLab), Mark Roelfsema, Chelsea Jones (Utrecht University) and Andrew Clapper and Lucy Du (CDP).

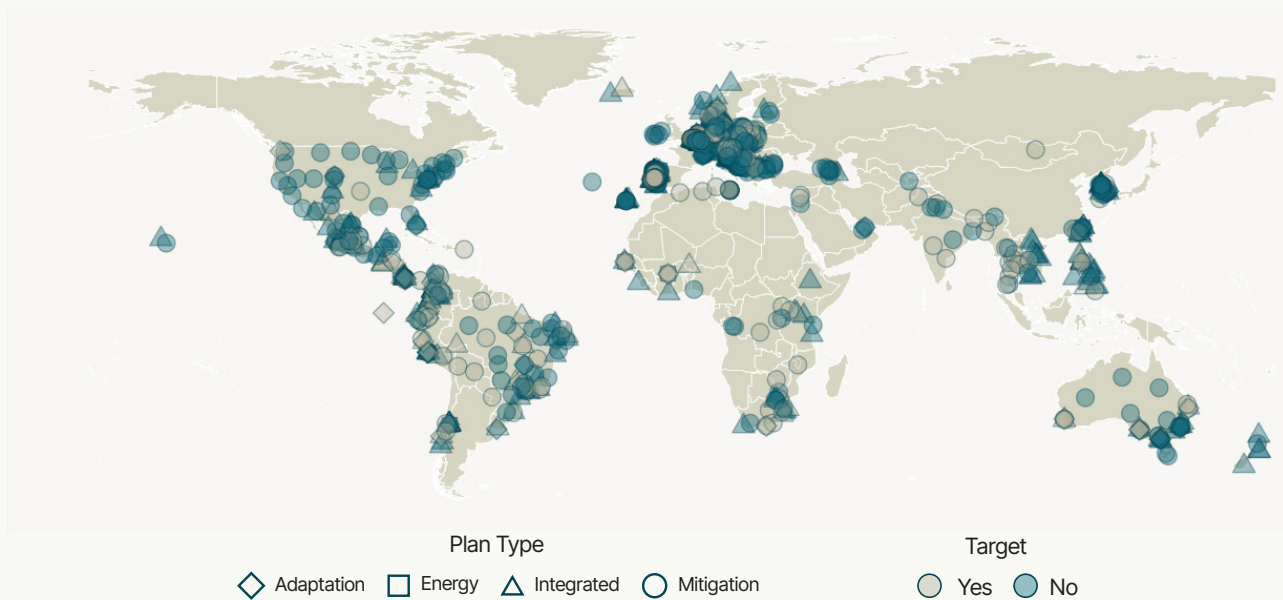


Figure 1. Global distribution of cities and regions with climate action plans and quantifiable emission reduction targets.

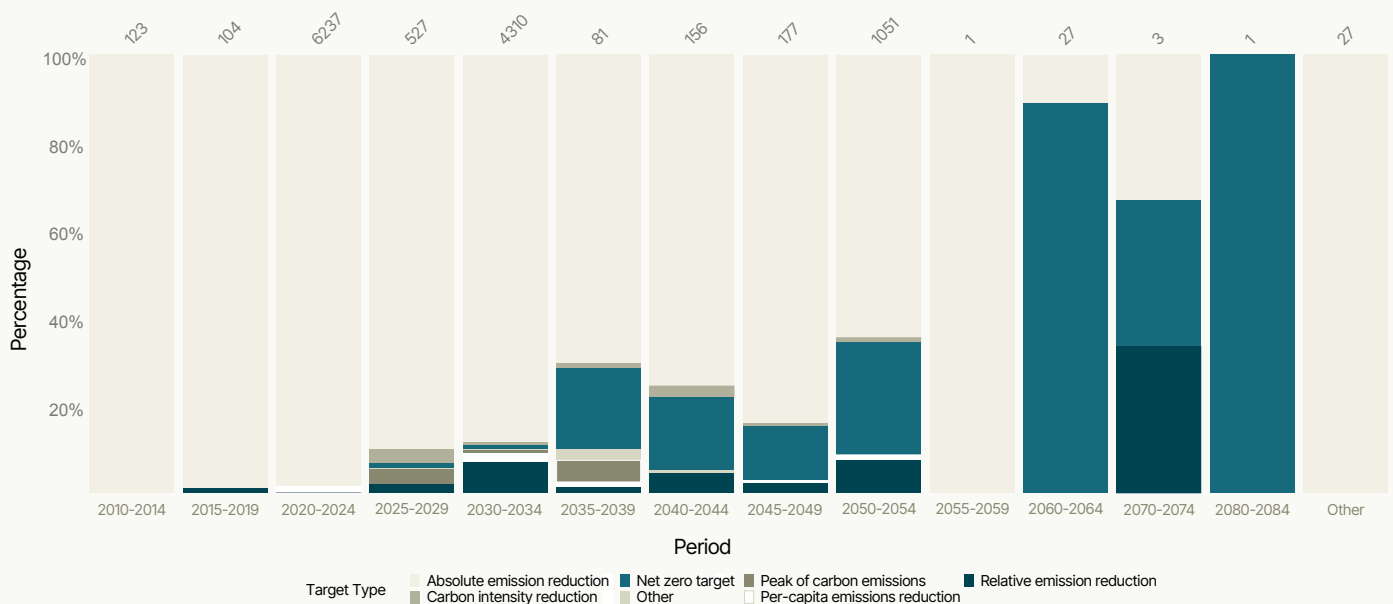


Figure 2. Types of mitigation targets pledged by subnational governments as of May 2025.

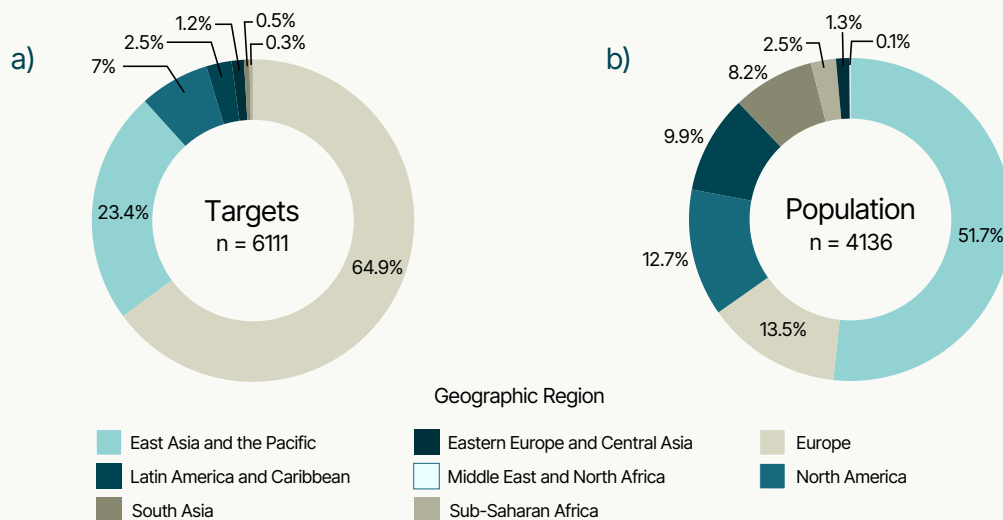


Figure 3. a) Regional Target Distribution and b) Population coverage of Quantifiable Mitigation Targets for G20 countries.

Findings

1. Cities and regions all over the globe are stepping up and pledging climate actions.

As of May 2025,⁴ we find that nearly 11,000 ($n=10,903$) city and regional governments have developed some kind of climate action plan or target with 8,712 pledging mitigation, 400 pledging adaptation, 374 pledging energy, and 2,146 pledging some type of integrated plan (Figure 1). Of these, 9,519 city and regional entities have pledged at least one quantifiable target,⁵ meaning they have pledged a numeric target value, including those that specify net-zero or similar targets and have established a target year for achieving it.

Figure 2 shows the types of mitigation targets proposed by 9,524 subnational actors for 5-year intervals. We observe cities and regions predominantly pledging absolute emissions reduction targets (i.e., achieving a specific GHG emissions value from a baseline emissions level) all the way to 2035. For target years beyond 2035, we observe an increase in other types of targets, particularly net-zero pledges and relative emission reductions (i.e., percentage reduction from a baseline). Considering the total number of targets set by subnational actors, most are short term, with a disproportionately large share aiming for completion between 2025 and 2035.

Focusing on entities with quantifiable targets in G20 countries ($n = 4,516$), Figure 3a shows how Europe dominates the share of registered targets, accounting for about 65% of all targets, followed by

East Asia and the Pacific (23%) and North America (7%). Other regions, including Eastern Europe and Central Asia (1%), Latin America and the Caribbean (3%), Sub-Saharan Africa (0.3%), South Asia (0.5%), and the Middle East and North Africa (0%, with only one entity), collectively represent less than 10% of all recorded targets. This underscores the regional imbalance in climate goal-setting, with wealthier regions leading formal commitments.

In contrast, the population coverage chart (Figure 3b) on the right reveals a different distribution.⁶ Large cities and regions in East Asia and the Pacific are pledging climate action, as recorded in this analysis, with 52% of the population covered by subnational quantifiable emission reduction targets located here. Cities and regions in Latin America and the Caribbean pledging targets cover around 10% of the global population, with North America (13%) and Europe (14%) slightly ahead. This pattern suggests that major cities and urban areas in emerging contexts, particularly in East Asia and the Pacific and in Latin America and the Caribbean are pledging climate action.

Most targets in North America and Europe, which together account for nearly 72% of all commitments, are dominated by places with comparatively smaller populations.

4 Many, D., Farr, K. B., Brown, E., Martin, A., & Hsu, A. (2025). ClimActor 2.0: A spatialized database of subnational climate pledges and emissions data. EarthArXiv eprints, X5BJ2S.

5 Entities that have established a numeric target to be achieved by a specific year.

6 For population coverage, 380 entities lack spatial information, making consistent population estimates not available. Therefore, Figure 3b reports population totals only for the 4,136 entities with spatial data, without double counting. In total, these entities account for 2.6 billion people out of the global population of 7.8 billion.

2. Cities and regions in the G20 are committing to net zero or decarbonization commitments post-2025, with a larger share in Sub-Saharan Africa, North America, and South Asia.

Out of 6,111 quantifiable emission reduction targets pledged by 4,516 G20 cities and regions, 11% of all targets are considered net-zero. Net-zero targets dominate in South Asia (~68%), Sub-Saharan Africa (i.e., South Africa) (~36%), and North America (~32%), where more than 30% of recorded subnational targets explicitly aim for net-zero emissions. Latin America and the Caribbean sits in the middle, with around 28% of targets framed as net zero. By contrast, the share of net-zero targets is relatively low in East Asia and

the Pacific (~10%), Europe (~7%), and Eastern Europe and Central Asia (~13%), and there is only one net-zero target recorded for the Middle East and North Africa in our dataset. This pattern suggests that while Europe, East Asia and the Pacific regions host many subnational targets overall, they remain focused on nearer-term or non-net-zero goals, whereas net-zero framing has taken hold most strongly in North America and other regions.

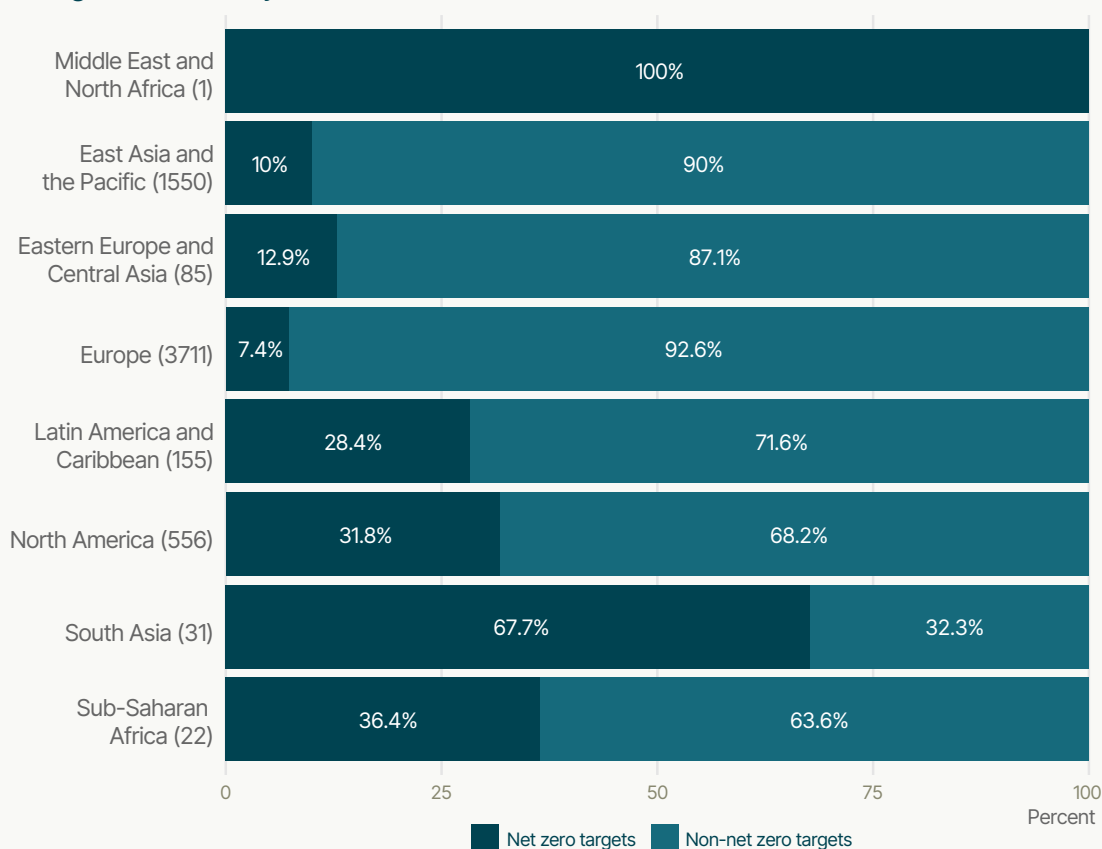


Figure 4. Share of net-zero targets compared to other quantifiable emission reduction targets by geographic region.

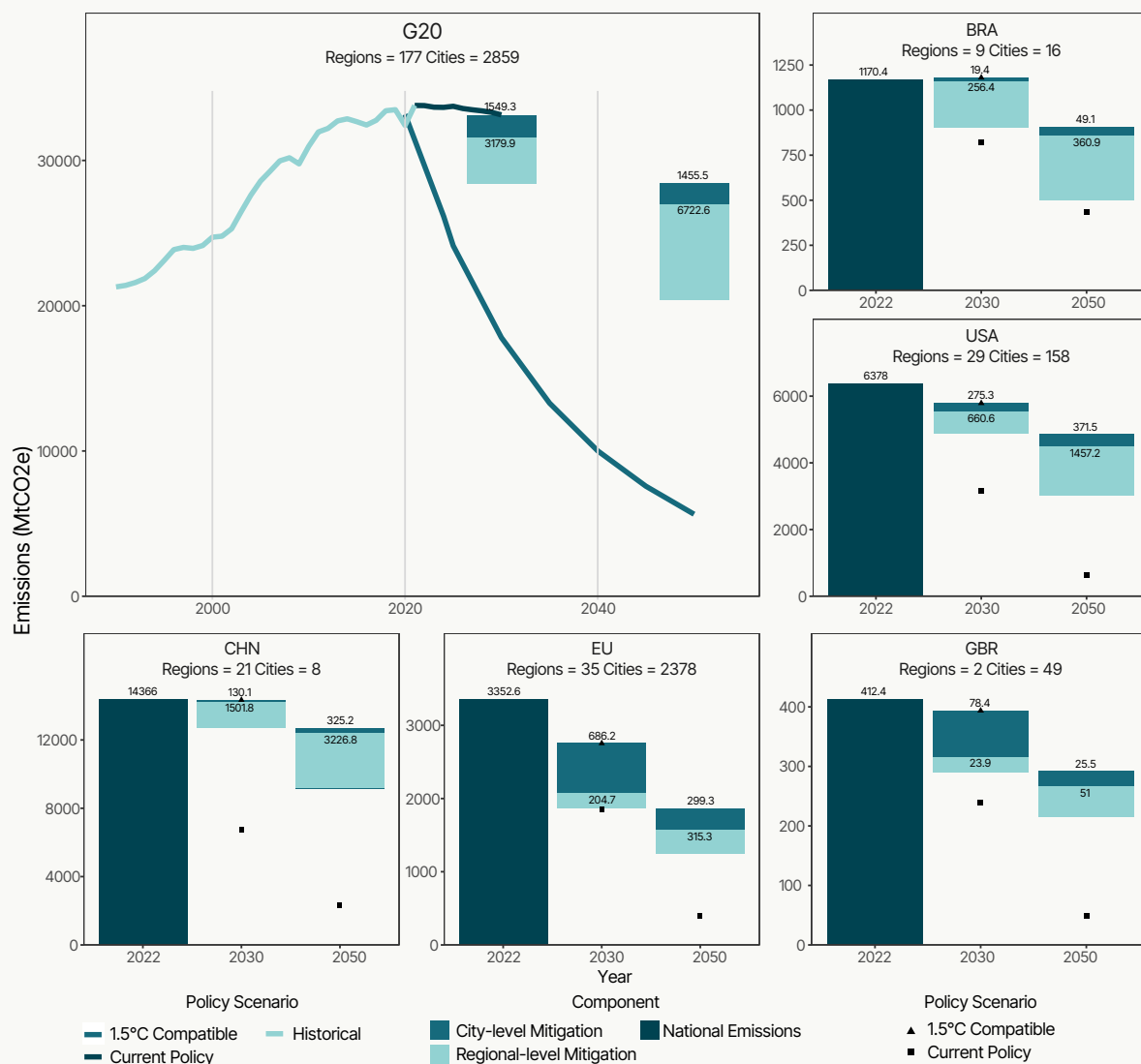


Figure 5. Mitigation potential of cities (in medium blue) and regions (in light blue) in 2030 and 2050 for the G-20 and selected countries. Potentials are calculated compared to current national policy scenarios and national emissions determined by the Climate Action Tracker (2025), which also provides the emissions reductions required for 1.5°C-compatible pathways.

3. City and region mitigation targets have the potential to make up 30% of the emissions gap in 2030 in the G20.

According to the most recent 2025 UNEP Emissions Gap Report, the gap between current national policy efforts and emissions consistent with 2°C and 1.5°C-aligned pathways is 12 GtCO₂e and 20 GtCO₂e, respectively.⁷ Collectively, the report estimates the G20 countries' updated nationally NDCs will provide additional reductions of 3.6 GtCO₂e/yr by 2035 relative to current national policies. However, with the United States' retreat from the Paris Agreement, this estimate falls by about 60% to ~1.5 GtCO₂e/yr.

In this context, the role of subnational entities

becomes even more salient in helping to close gaps in national climate policy.

Our analysis finds that, if fully realized, quantifiable emission reduction targets from G20 subnational governments have mitigation potential of around 4.7 GtCO₂e in 2030 and 8.2 GtCO₂e in 2050. This reduction potential totals more than the emissions of the entire U.S. energy sector⁸ and can close 30% of the 2030 1.5°C emissions gap (i.e., the difference between the projected 2030 emissions under current policies and a 1.5°C-consistent pathway) for the G20

⁷ UN Environment Programme (UNEP). 2025. 2025 Emissions Gap Report. <https://www.unep.org/resources/emissions-gap-report-2025>.

⁸ U.S. Energy Information Agency (EIA). (2025). U.S. Energy-Related Carbon Dioxide Emissions, 2024 <https://www.eia.gov/environment/emissions/carbon/>.

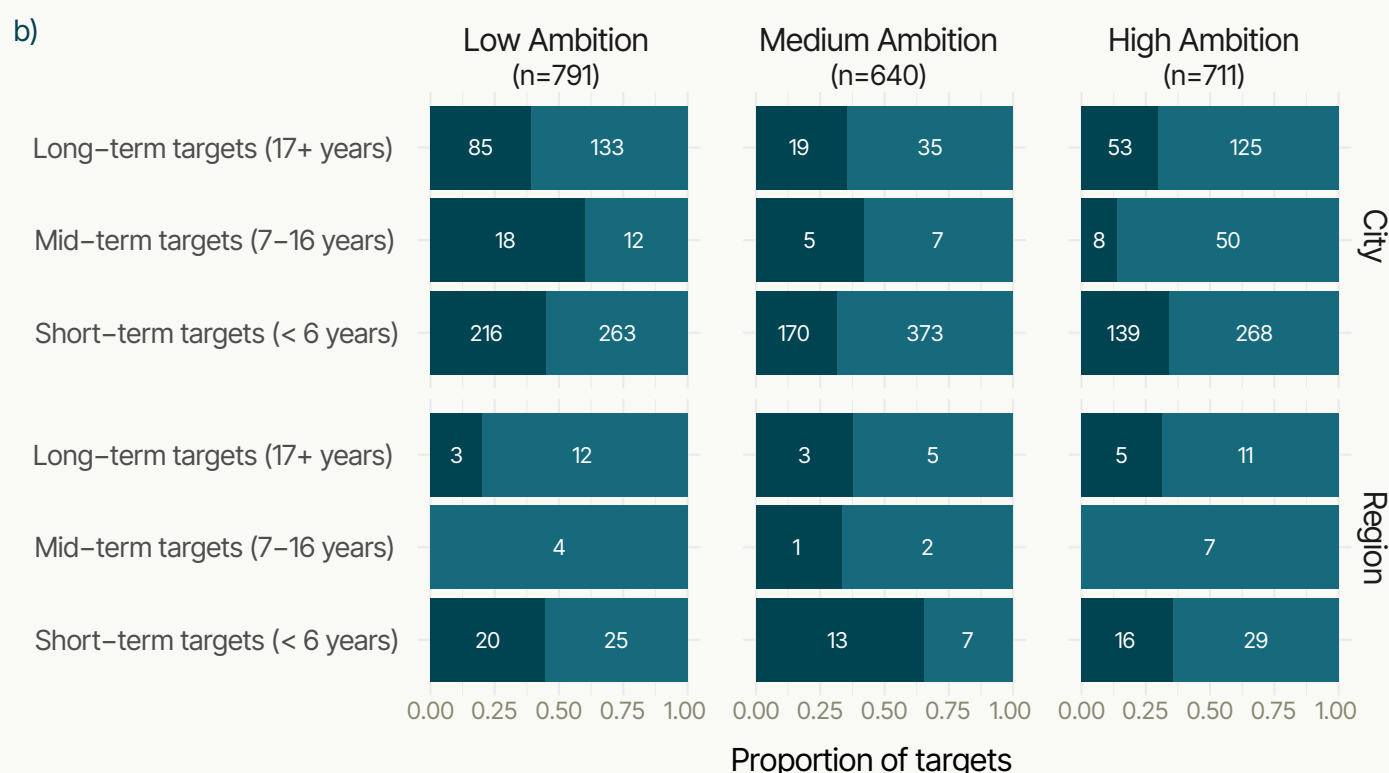
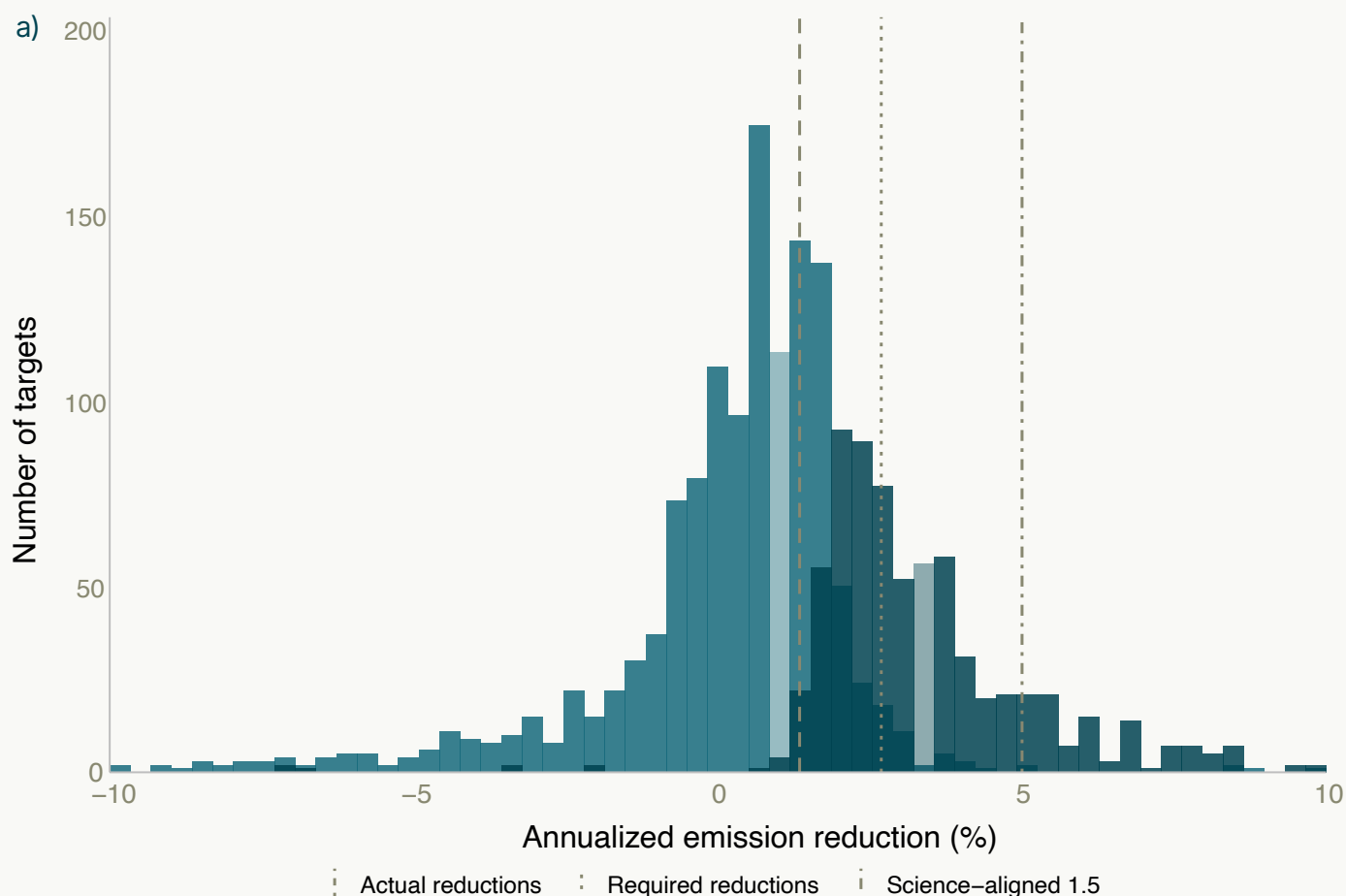


Figure 6. a) Distribution of annualized emissions reductions between a subnational actor's base year and their most recent inventory year. Actual average reductions are indicated in the green dashed line, required reductions for all cities and regions to stay on track are in the purple dashed line. b) On and off-track city and region targets segmented according to time frame (i.e., short, mid, and long-term) and by ambitions of reduction.⁹

⁹ The ambition is computed as the slope required for each entity to reach its targeted reduction value. The resulting values are then divided into three equal quantiles.

as a whole. The largest 2030 mitigation contributions come from cities and regions in China (~1.63 GtCO₂e), the United States (~0.93 GtCO₂e) and the European Union (~0.89 GtCO₂e). For the United States, city and regional efforts have increased since our previous 2023 analysis.¹⁰ However, if fully implemented and realized in 2030, they still only represent 35% of the required reductions for the U.S. to stay on its 1.5°C pathway.

The estimated 2050 mitigation potential from subnational entities is substantially higher than the 2030 potential, reflecting the widespread adoption

of ambitious long-term goals such as net-zero targets. For example, the U.S. mitigation potential for 2050 is 1.82 GtCO₂e, while China's potential reaches 3.44 GtCO₂e. An exception to this pattern is the EU, where subnational mitigation potential in 2050 is lower than in 2030, consistent with the relatively low prevalence of net-zero or other long-term targets. Overall, although G20 subnational mitigation potential increases over time, it still represents only about 30% of the emissions reductions required to move from the 2050 current-policy scenario to a 1.5°C-consistent pathway.

4. Despite building momentum in climate action plans and target setting, implementation progress lags.

For 2,142 targets, pledged by 1,565 entities, we had sufficient baseline and inventory emissions data to evaluate how cities and regions are progressing toward their climate commitments. Reporting levels vary substantially across countries. North America and Europe show the highest proportions of entities with adequate data (73% and 51%, respectively), relative to the entities for which we could assess mitigation potential. Other regions, including Latin America, South Asia, and Sub-Saharan Africa, fall in the 15–40% range. The lowest level of inventory availability is in Eastern Europe and Central Asia, at around 11%.

Among the evaluated targets, short-term commitments dominate, accounting for approximately 72% of all targets. Of these short-term targets, about 37% are on track, compared with roughly 34% of long-term targets. Mid-term targets (7–16 years) show the weakest performance, with fewer than 28% (32 out of 114) currently on track.

Looking at specific countries we find that some of the highest rates of on-track targets are in Argentina (one target), Italy, and Japan, each with more than half of their evaluated targets on track. Australia, the United States, Belgium, Canada, and Spain show moderate progress, with between 20% and 50% of their targets on track. Across all evaluated cities and regions, 97 have already achieved their targeted emissions reductions by 2025, despite having official target years ranging from 2025 to 2050. These successful cases are concentrated in Europe (43), followed by the United States (22), Japan (10), and the United Kingdom (9).

Shown in Figure 6a, the current pace of emissions

reduction among all entities is a median 1.36% per year, falling short of the requisite 2.65% per year necessary to be collectively on track and the 5% reduction from 2020 levels needed for 1.5°C-climate scenarios.¹¹ Among G20 subnational governments that are on track, the top 10% (80 entities) with the steepest annualized reductions are located primarily in Europe and tend to focus on short-term targets (approximately 49%) and long-term targets (about 9%). Cities in Italy and Spain make up a substantial share of these high-performing entities. In contrast, Belgium, Austria, and Slovenia have no subnational actors currently on track. Moreover, although Canada, Belgium, and the United States together account for more than 27% of all evaluated targets, fewer than one-third of their targets show measurable progress, underscoring a sizable gap between target pledges and actual implementation.

We also observe differences in ambition levels across target time frames (Figure 6b). A slightly higher share of on-track targets falls within the low-ambition category (approximately 44%), and most entities across all time-frame groups exhibit low ambitions overall, defined as achieving annual emissions reductions below 1.74 tons. For cities, short-term targets constitute the largest share within every ambition category, accounting for about 67% of all level targets. Regions' short-term targets dominate all region-level targets, although their total count is much smaller. Notably, regional mid-term targets are performing particularly poorly, with only one such target currently on track.

Taken together, these patterns underscore that

10 Song, K., Farr, K. B., & Hsu, A. (2024). Assessing subnational climate action in G20 cities and regions: Progress and ambition. *One Earth*, 7(12), 2189–2203.

11 UN Environment Programme (UNEP). 2025. 2025 Emissions Gap Report. <https://www.unep.org/resources/emissions-gap-report-2025>.

implementation gaps are compounded by ambition gaps. As in previous years' reports, we find that subnational entities need to ramp up the pace of emissions reductions to make up lost ground and stay on track to achieve their stated goals. Around 36% of subnational governments are on track to achieve

their goals. For cities and regions to correct course to achieve their emission reduction targets, they will need to double the pace of emissions reduction to an average of around 2.7% per year, and more than triple it to align with a 1.5°C-consistent pathway.

Conclusion

Subnational climate action is now a critical complement to national and global mitigation efforts. Since our previous 2023 stocktake, we observe a modest increase in the number of regions pledging quantifiable emission reduction targets, resulting in a substantial increase in a substantial 1.5 GtCO₂e increase in the overall 2030 mitigation potential, to a total of 4.7 GtCO₂e by 2030 and 8.2 GtCO₂e by 2050.

This subnational mitigation potential is equivalent to close to 30% of the 2030 1.5°C emissions gap. Cities and regions in China, the United States and the European Union contribute the most to this potential, signalling a global context where emerging economies play an increasingly important role, and crucially for the U.S., showing that despite federal retreat from

the Paris Agreement and national-level policies, cities and states are staying the course and contributing substantially to mitigation.

Yet, despite this progress on ambition, limited implementation provides a sobering counterpoint. Only around 36% of cities and regions are on track to achieve their emission reduction targets. To correct course, they would need to double their annual rate of emission reductions and then to align with a 1.5°C pathway, their efforts would need to increase three times. The emerging mitigation potential of cities and regions is substantial, but without a step change in implementation, it will remain an untapped asset in the race to stabilize the climate.

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