

# Doubling Down on Climate Action:

Cities and Regions Must Put in 2x the Work to Stay on Track with Climate Goals



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## Key Messages

- Following a brief slump post the COVID-19 pandemic, subnational climate action is beginning to rebound. As of March 2023, more than 3,000 cities and 175 subnational states and regions, accounting for 26.5% of the global total population, have pledged to reduce their greenhouse gas emissions as of March 2023. This number represents an increase in the number of cities and regions pledging quantifiable emission reduction targets, compared to 2022.
- While more cities and regions are reporting needed data to evaluate progress towards their own declared mitigation targets, the overall picture of implementation remains weak, with less than 40% of total subnational governments on track.
- To correct course toward achieving their emission reduction targets with an average remaining time of 17 years, cities and regions need an average annual reduction of nearly 3%. The median reduction is, however, only 1.6% per year. They will need to double efforts to stay on track.
- To align their targets with 1.5°C-climate scenarios, cities and regions would need to increase the overall ambition of current efforts by 2.5 times. On-track targets are achieving a median annual emission reduction of 3.6% per year, falling short of the required 4% per year needed for 1.5°C goals. Less than one-fifth of cities and regions meet this threshold.

## Acknowledgement

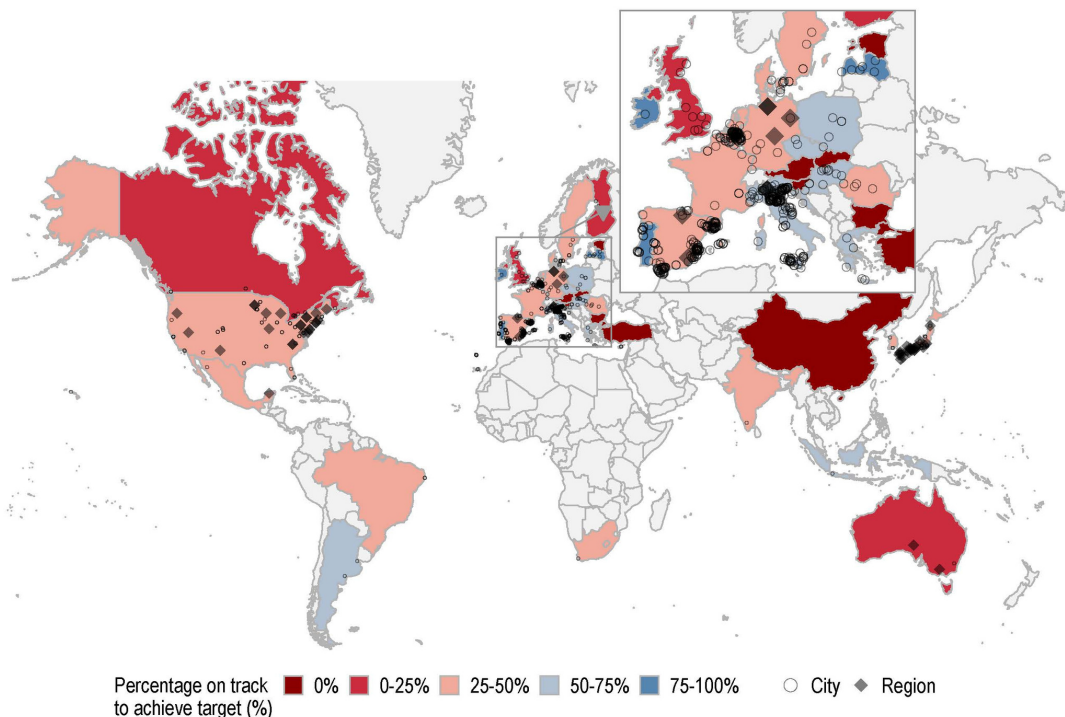
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# Introduction

Subnational governments and private sector entities play pivotal roles in driving essential climate action. The recent synthesis report<sup>1</sup> from the Paris Agreement's first Global Stocktake underscores the necessity for "accountable and transparent actions by non-Party stakeholders" to fortify initiatives for systemic transformations. These "whole of society" approaches are facing intensified scrutiny, prompting policymakers at national and international levels to bolster more stringent standards. These efforts aim to diminish window dressing to ensure accountability among the growing number of private enterprises and subnational governments pledging to pursue more ambitious climate actions.

With the aim of assessing city and regional government progress towards their emission reduction targets aiming for completion by 2023 to 2060, we provide this snapshot of 1,203 cities and 108 regions in G20 countries that disclose sufficient emissions data to assess their progress towards their more than 1,500 climate targets.<sup>2</sup> Progress of subnational governments towards their proposed climate targets was evaluated based on "pro-rated" emissions reduction targets, where we assume a linear emissions reduction between the base and target year and compare it with actual emissions reductions achieved in the most recent inventory year for each city or region.<sup>3</sup>

# Findings



**Figure 1.** Overview of evaluated cities and regions’ progress towards meeting emission reduction targets.

**Finding 1:** Although more cities and regions are reporting needed data to evaluate progress towards their own declared mitigation targets, the overall picture of implementation remains weak. Less than 40% of subnational governments are on track to achieve their goals. Cities and regions from the Global South, in particular, lag in terms of sufficient emissions inventory data to evaluate progress.

Overall, our findings indicate that less than 40% of cities and regions within G20 countries are progressing as planned toward their emission reduction objectives. Figure 1 illustrates this trend, with most countries highlighted in red, signifying that fewer than 50% of city and regional governments are sufficiently advancing to meet their emission reduction targets. These targets are primarily set for mid-term actions, scheduled seven to 16 years from year 2022,

with 2030 being the most frequently targeted year.<sup>4</sup> Targets from the EU and the UK account for over 72% of all targets, followed by the US and Japan with 11% and 6%, respectively. Consequently, most of this report’s analysis is skewed by Global North cities and regions’ performance.

Among the evaluated cities and regions, 125 have attained their targeted emissions

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reductions by 2022, primarily originating from Europe (94), followed by the US (14), Canada (5) and Japan (5), despite their target years ranging from 2023 to 2050. Portugal, Ireland, and Latvia have over 75% of their targets on track, while France, Italy, Greece, Czechia, and Poland all demonstrate 50-75% progress. Italy notably stands out with the highest number of targets evaluated (288), of which more than half are on track. Despite positive signs from subnational governments in Argentina and Indonesia seen in Figure 1, this data represents fewer than 2 cities and regions providing adequate information for assessment.

Seven countries, including China, Türkiye, and five central and southeastern European countries, have no subnational actors on track. Furthermore, while Canada, the United

Kingdom, and Australia encompass more than 80% of their population committed to climate action by cities and regions, less than a quarter of their targets show progress, indicating a significant gap between target declaration and actual implementation.

These geographic patterns only reflect the progress of cities and regions that provide their emission inventory data. We find that the level of reporting also varies by country. Only a handful of countries have more than 50% of actors reporting emission inventories, including the US, Canada, and 11 European countries. Only one country, Latvia, has 100% of cities and regions reporting emissions inventories (7), followed by Finland with 92% (11 of 12). India and China have the lowest percentage reporting inventories, with 11% and 15% respectively.

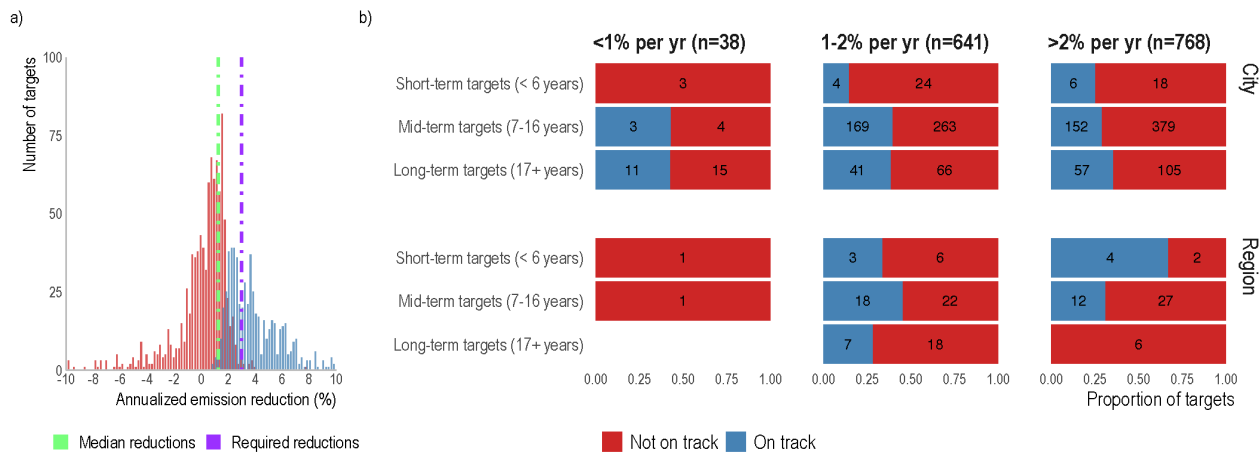
**Finding 2: Cities need to ramp up the pace of emissions reductions to make up lost ground and stay on track to achieve their targeted emission reduction goals. For cities and regions to correct course to achieve their emission reduction targets, they will need to double the pace of emissions reduction to an average of around 3% per year. The median reduction is, however, only 1.6% per year.**

There is an observable gap between the required pace of emissions reductions and the actual progress made by cities and regions. Figure 2a shows a histogram detailing the distribution of annualized emissions reductions. The purple dashed line indicates the average annualized reduction needed to meet specified targets is 3%. Cities and regions, however, are currently only reducing emissions a median 1.6% per year, as shown in the green dashed line.

The majority (60%) of actors are below the required annual reduction rate, implying an urgent need for increased efforts to meet self-declared goals.

We also see differences in progress in terms of target time frames (Figure 2b). While more cities and regions (n=768) are aiming for greater than 2% reduction per year, only 30% are on track. Cities and regions' targets aiming for the

# Findings



**Figure 2.** a) Distribution of annualized emissions reductions between a subnational actor’s base year and their most recent inventory year. Achieved median annualized 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 from 2022) and by targeted emissions reductions (i.e., <1%, 1-2%, and >2% per year).

medium term (7 and 16 years from 2022) have the greatest share of on-track targets (25% of the total). Short-term targets aimed for less than 6 years from 2022 are performing the poorest, with less than 1% of the total or 14 targets on track. Slightly more targets aiming for moderate reduction of 1-2% per year are on

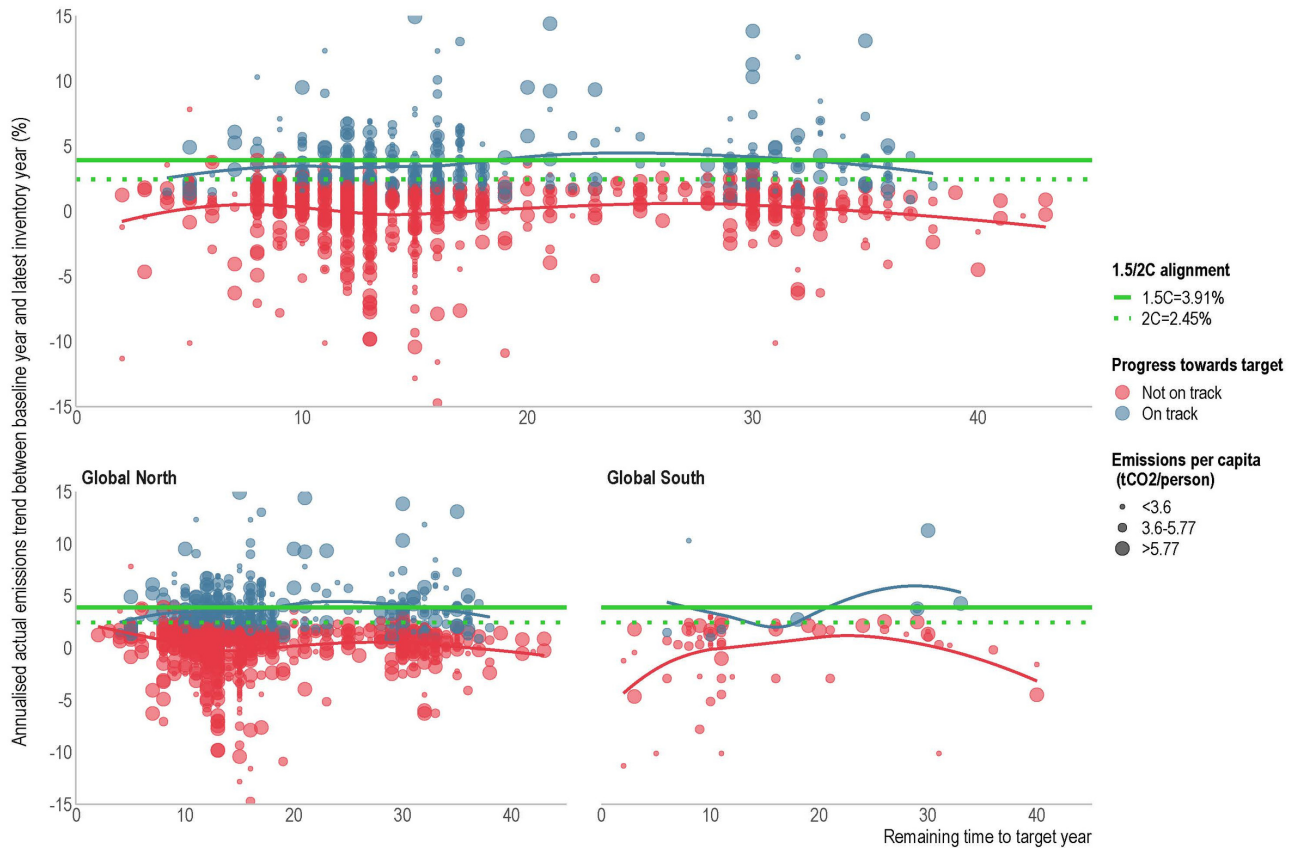
track (17% of the total) compared to cities and regions aiming for greater than 2% annual reductions (16% of the total are on track). Regions’ longer-term targets (17+ years from 2022) are also predominantly off-track, with only 37% making sufficient progress.

**Finding 3: To align their targets with 1.5°C-climate scenarios, cities and regions would not only need to double current efforts, but they would need to reduce emissions at a rate of nearly 4% per year by 2030. Currently, fewer than one-fifth of targets meet this threshold.**

We assess the alignment of cities and regions’ emission reduction targets with 1.5°C and 2°-degree Celsius scientific scenarios, as defined in the Intergovernmental Panel on Climate Change Sixth Assessment Report.<sup>5</sup> On-track cities and regions are reducing emissions at a median annual rate of 3.6%. This trend is slightly below the necessary annual emission reduction of

3.91% per year by 2030 (assuming linear emission reduction between 2019 and 2030) to reach the 1.5°C goal but meets the requirement for 2°C, which stands at 2.45%. Conversely, those not on track are only reducing emissions at a median rate of only 0.6%, which includes 293 actors that have increased emissions since their baseline emissions inventory. Only 16.6% (264)

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**Figure 3.** Progress of city and regional governments towards emission reduction targets (top), and split by Global North and Global South regions (positive values denote emission reduction and negative values denote emission increase).

targets are aligned with the 1.5°C goal, while around 30% (485) are aligned emissions reductions required to meet the 2°C goal (Figure 3). Figure 3 also reveals a discernible pattern where a majority of actors, particularly in the Global South, are not on track, with

emissions reductions largely falling below the thresholds necessary for 1.5°C and 2°C alignment. Fewer than 17% of Global South cities, out of 76 total evaluated, are on track, and only 7% have made targets aligned with the pace of reductions needed for 1.5°C.

# Conclusion

We observe evident progress in commitments made by over 3,000 cities and 175 subnational states and regions, constituting a significant portion of the global population. However, despite an increase in the number of regions pledging emission reduction targets compared to the previous year, there remains a persistent challenge in implementation. Less than 40% of subnational governments are on track to meet their mitigation targets, revealing a prevailing weakness in overall execution. Notably, the current pace of emissions reduction is only a median of 1.6% per year, falling far short of the

requisite 4% per year necessary for target alignment with 1.5°C-climate scenarios. To bridge this gap and correct the trajectory, cities and regions must put in 2x current efforts to stay on track to meet their currently proposed targets. They must put in 2.5x current efforts to align their progress at a rate required to keep temperature within 1.5°C. The window for action is rapidly closing, demanding an urgent response from cities and regions to drive the essential transformations needed to combat the climate crisis.

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<sup>1</sup>UNFCCC. (2023). Technical dialogue of the first global stocktake. Synthesis report by the co-facilitators on the technical dialogue. <https://unfccc.int/documents/631600>.

<sup>2</sup> See Utrecht University and Data-Driven EnviroLab. (2023, September 20). Global Climate Action 2023: Ambition of Cities, Regions, and Companies. Prepared by: Song, K., Hsu, A., Burley, K., Roelfsema, M., Jones, C., Clapper, A., & Du, L. [https://datadrivenlab.org/wp-content/uploads/2023/09/20230926\\_Report\\_GCC\\_2023.pdf](https://datadrivenlab.org/wp-content/uploads/2023/09/20230926_Report_GCC_2023.pdf) for full details of city and regional governments from G20 countries pledging climate actions recorded by international climate initiatives and disclosure platforms (e.g., CDP). In this memo, we only evaluate cities and regions that have sufficient data (e.g., quantifiable emission reduction targets and baseline and inventory emissions). Since city and regional governments self-report emissions inconsistently in various emission scopes (e.g., Scopes 1 and 2 alone, Scopes 1 and 2 together, etc.) and include varying greenhouse gases (e.g., CO<sub>2</sub> or CO<sub>2</sub>-equivalent), we make certain assumptions, including that their reported emission scopes are in the same scope as their reported inventory emissions.

<sup>3</sup>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).

<sup>4</sup> For more details regarding city and region target setting, see our Sept. 2023 Global Climate Action 2023: Ambition of Cities, Regions, and Companies report.

<sup>5</sup>The latest IPCC Sixth Assessment Report (Working Group III) reports that to limit warming to 1.5°C with limited or no overshoot, global greenhouse gas emissions will need to decrease by 43 percent by 2030 from 2019, 69 percent by 2040, and 84 percent by 2050, while pathways that limit warming to 2°C requires emissions reductions of 27 percent by 2030, 47 percent by 2040, and 63 percent by 2050 compared to 2019 levels. IPCC (2022). Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press. doi: 10.1017/9781009157926





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