

CAD2.0 Technical Dialogue inputs for the GST

We provide inputs following the [revised non-paper for informal consultations](#), specifically in response to paragraphs 29 and 33:

29. What climate actions have been undertaken by non-Party stakeholders and UNFCCC observer organization and what has been their impact? (para 37(i)) Which ones have worked and what obstacles or barriers have been encountered? (para 36(g))?

33. What climate actions have been undertaken by non-Party stakeholders, including indigenous peoples and local communities and what has been their impact, including obstacles and barriers (paras 37(i) and 36(g))?

The [Climate Action Data 2.0 \(CAD2.0\) community](#), a Camda community working group, is co-convened by the [Camda Secretariat](#), the [OpenEarth Foundation](#), and the [Data-Driven EnviroLab](#). CAD2.0 consists of more than 60 organizations representing the data and analytic community that assesses non-state and subnational actor contributions to global climate governance. The community is committed to the principles and activities detailed in a [declaration launched at COP-26 in Glasgow November 2021](#). CAD2.0 aims to support the Technical Dialogue by providing analytical support and expertise based on our community's half-decade of collaboration developing accounting standards and integrating next-generation open digital technology to enhance the credibility of climate actions by non-state and subnational actors.

1. PROBLEM STATEMENTS

There is still ambiguity surrounding what credible climate action precisely entails, specifically in regards to how the progress of non-state actors targets that go beyond national commitments can be assessed transparently. The inconsistent monitoring and reporting practices of Non-State Actors (NSA) currently lead to heterogeneous climate data, which is difficult to interpret and synthesize into a comprehensive picture of climate action. Such fragmented reporting practices hamper and delay effective policy-making towards global climate action coordination and broad assessment of Paris Agreement's progress.

Aside from the reporting quality of climate data, severe gaps in data further undermine the global community's efforts to assess the credibility of non-state actors' commitments and progress. Only a minority of actors reported progress towards their climate pledges¹, and very few entities measured and set targets for Scope 3 or supply chain emissions. Scope 3 emissions are key for assessing financial institutions' climate impacts of investments. Finally, the use of offsets in the voluntary and compliance markets to achieve emissions reduction targets requires a clear accounting framework that integrates with national inventories, avoids double-counting mitigation outcomes, and questions the actual contribution of non-state actors in enabling the climate transition that should be accounted for beyond an entity emissions trajectory.

Finally, the use of offsets in the voluntary and compliance markets, specifically under the evolving Article 6 of the Paris Agreement, increases the urgency for nested accounting to evaluate the contribution of non-state actors to the climate transition from a global perspective and to the specific state and NDC in which voluntary projects reside.

¹ The 2021 edition of "Global Climate Action of Cities, Regions, and Companies" assessed progress for 681 cities, 83 regions, and 441 companies with sufficient data, although the Global Climate Action Portal lists over 26,000 subnational and non-state actors pledging climate action.

Primary problems with non-state and subnational climate data for the GST

1. Existing data is self-reported.
 - It is difficult to confirm the accuracy of self-reported data.
 - The application of different verification methodologies leads to heterogeneous reporting formats that complicate data comparison between actors.
 - Data is subject to the cycles of voluntary reporting, making it difficult to generate a comparable time series across actors.
 - The methodology and key assumptions used in the data are often poorly documented.
2. Existing data is fragmented, heterogeneous, and often incompatible.
 - There is a lack of clarity on key terms (e.g., what is meant by a “climate action”)
 - Existing protocols (e.g., GHG Protocol or Global Community Protocol) are too high-level and leave open to an actor’s discretion what emissions sources to include, what reporting boundaries to adopt, and which emission factors to use.
 - As a result, reports quantifying the contributions of NSAs are also often incomparable and it is difficult to synthesize their insights or determine what impact and contributions are truly additional.
3. Non-state actors can be subject to different reporting obligations at the international and national levels, which leads to reporting fatigue and resource constraints.
 - This is a significant challenge, particularly for actors from the Global South that may lack the capacity and resources to develop emissions inventories and report them through relevant channels.
4. Non-expert users and policymakers lack accessible, easy-to-use data.
 - The complexity of the existing self-reported data makes it difficult for non-expert users to understand.
 - There is a disconnect between the available data and the stakeholders who could translate the insights into data-driven climate policy and actions.
5. Even though there are common data and accounting challenges across the spectrum of actors, each actor group also has its unique challenges that be addressed, including:
 - Financial Institutions (specific issues)
 - Financial institutions lack direction on the appropriate indicators to signify their progress. For example, financial institutions tend to focus on ESG rather than more relevant climate indicators.
 - We need finance pledge data to compare public sector data and private sector flows.
 - Financial institutions do not systematically report climate finance flows, particularly internationally.
 - Financial institutions follow different monitoring, reporting and verification protocols for climate finance making data difficult to compare across various jurisdictions.
 - Should provide better information to their partners to identify efficient climate finance.
 - [Companies](#) (specific issues)
 - Many companies have articulated plans to rely on offsets to achieve their net-zero targets.
 - Most private companies lack obligations to report their emissions data and other progress indicators.
 - Subnational Governments (specific issues)

- Most subnational governments have yet to account for Scope 3 or out-of-boundary downstream/upstream emissions. This is a critical gap to track an economy-wide transition and must be addressed for net-zero targets to be accountable.
- Furthermore, many cities and regions outside of the Global North do not have the resources or capacity to provide regular, self-reported greenhouse gas emission inventories.
- Subnational and national governments need to coordinate their efforts and account for jurisdictional and financial constraints on either side in order to pursue complementary, equitable emissions targets.
- Citizens
 - The assessment of citizen-led emissions reduction is an emerging field requiring new accounting methods to define how these initiatives go beyond other actors’.

2. SYNTHESIZED INFORMATION

Members of the CAD2.0 working group have published methodologies, datasets, models, and estimates that can inform the GST’s understanding of non-state and subnational actors’ contributions to global climate mitigation:

- A consortium, including NewClimate Institute, Data-Driven EnviroLab, CDP, Oxford University, Utrecht University, German Development Institute, have developed harmonized datasets, methodologies, and peer-reviewed publications estimating the additional mitigation contributions of cities, regional governments, and companies in 10 high-emitting countries. With the first released at the 2018 Global Climate Action Summit, the [flagship publications](#) have found NSAs in these countries can contribute 1-2 GtCO₂e/y on top of current national policies in 2030.
- The Data-Driven EnviroLab has developed an [R-based software package and open-source database](#) of subnational climate actors participating in transnational climate initiatives. The lab has published several [peer-reviewed publications](#) on subnational and non-state climate action, including a [2020 analysis of 1,066 cities](#) participating in the EU Covenant of Mayors for Climate and Energy, which found that 60 percent of cities are on track to meeting their stated voluntary emissions reduction targets. The group has developed a machine-learning based model to estimate annual historical emissions for cities and regions beyond reported data.
- Members of the CAD2.0/Camda community led a special chapter on the mitigation contributions of non-state and subnational actors in the [2018 UN Emissions Gap Report](#) and several of our members are contributing authors to the IPCC Sixth Assessment Working Group III on Mitigation, specifically contributing analyses of non-state and subnational contributions to global mitigation.

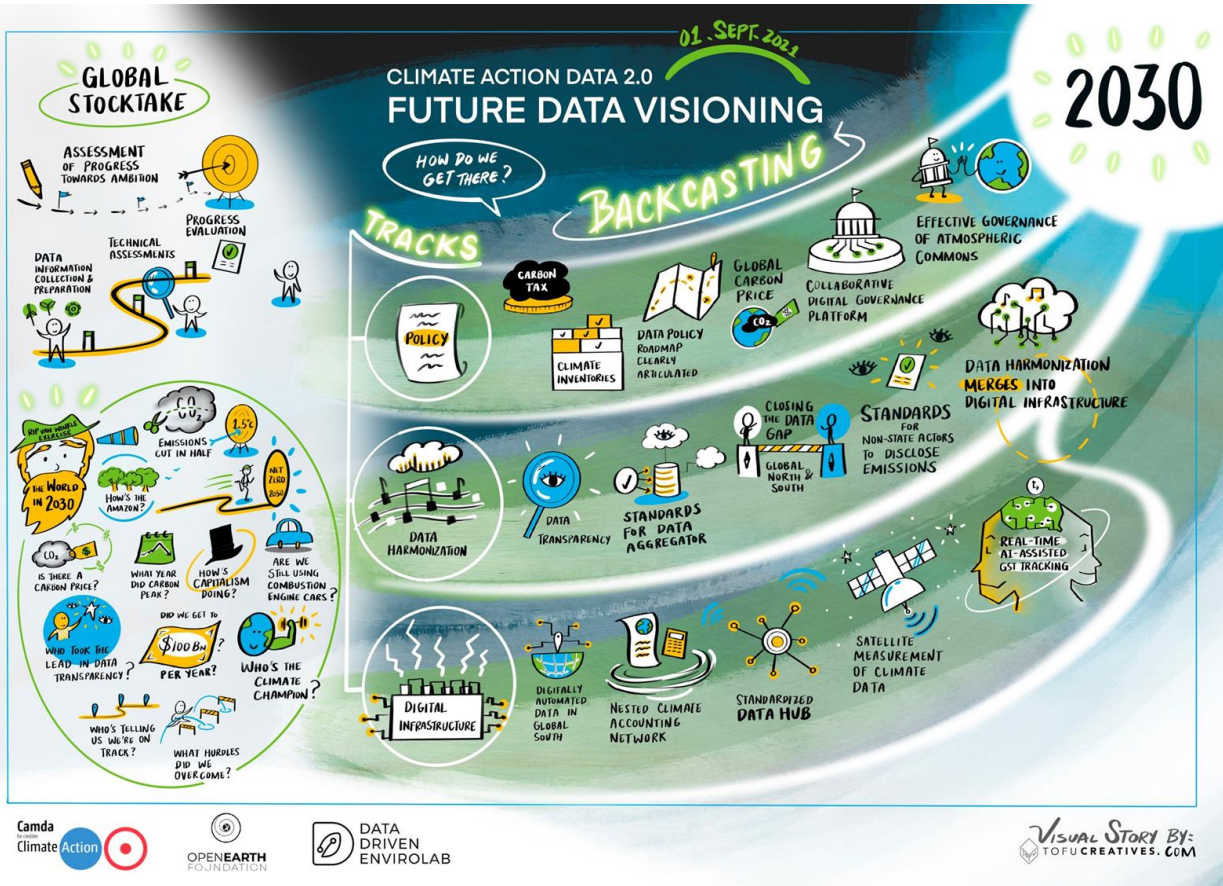
3. ROADMAP

1. CAD2.0 is developing a [Digitally-Enabled Independent Global Stocktake \(DIGS\)](#) that will leverage the experience and products from Section 2 to create a global picture of subnational and non-state contributions to emissions reductions. At a minimum, a report will be produced by COP-27 to assist Parties and other stakeholders in understanding what NSAs have promised and delivered. We plan to convene a conversation on the DIGS and seek input on the final product and outputs at the Bonn Intersessional Meetings in June 2022. We welcome the GST Co-Chairs’ participation.
2. CAD2.0 is developing a new and streamlined methodology for inventory creation to automate data collection and verification transparently.

- To address the issues posed by self-reported, heterogeneous data, methodologies are needed to automate data collection and transparently verify the data.
 - Expand remote inventory work and integrate results with other sources for automation of collection and verification as an alternative to relying on self-reported data.
 - Apply “[nested climate accounting](#)”, that integrates the various non-state and subnational actors into national and international accounting, to automate emission data collection from at the project levels (eg. power plants, buildings, industry etc) and attribute it to the entity and jurisdictions that cover it (i.e. company, subnational government, country).
 - Use [nested climate accounting to attribute emissions](#), for example to a specific owner across different jurisdictions.
3. CAD2.0 aims to define protocols to compare, harmonize, and aggregate data. Such protocols can help resolve differences across datasets, measure the impact of actions across scopes, actors and jurisdictions, and track scope 3 emissions to assess the full influence (even when shared) of entities over emissions.
 - These frameworks should be co-created to reflect equity considerations and best practices used by the leading individual organizations
 4. CAD 2.0 wants to assist non-state actors, subnational governments, and indirectly national governments in reporting at a faster pace, from broader sources, and with higher accuracy, particularly in developing countries. The use of digital technology solutions (as listed above) and automation can reduce the time and resource costs of data collection and verification for many actors.
 5. CAD 2.0 can ensure the production of reliable data accessible for non-expert stakeholders and civil society
 - The use of Verifiable Credentials and new digital technologies will ensure transparency and accountability for datasets through its harmonization, analysis and gathering under the global stocktake.
 - Map and emphasize connections to organizations that engage with stakeholders and policymakers. The breadth of the community’s network will inform CAD2.0 outreach and the accessibility of its results.
 6. CAD2.0 and members will be publishing in May a first iteration of an open source digital integrated climate accounting system (OpenClimate) that can integrate data from NSA into spatially bounded registries for use in national inventories, and incorporate existing inventory data from different methodologies to create a balance assessment of NDC progress and in support of a DIGS. See the [Annex document for further details](#).

ANNEX

CAD2.0 Wiki: <https://wiki.climatedata.network/>



CLIMATE ACTION DATA 2.0

WORKING GROUP

Future of Climate Action Data from Cities, Regions, Businesses, and Investors

convenors:

